

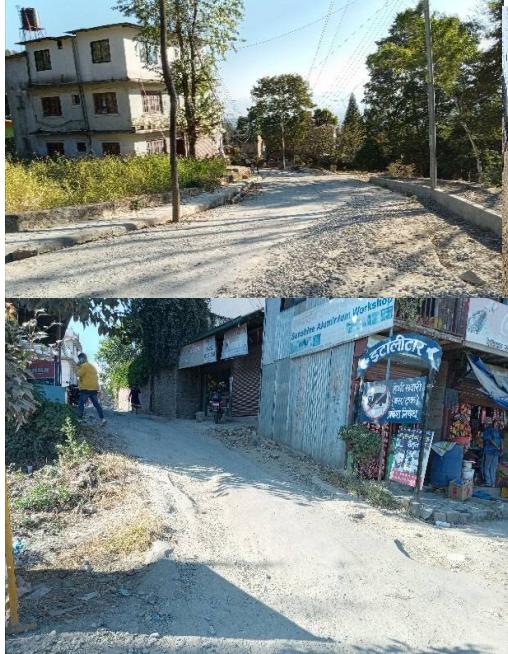


Government of Nepal

Budhanilkantha Municipality Office

Bagmati Province

Golphutar, Kathmandu



Municipality Transport Master Plan (MTMP)

Of

Budhanilkantha Municipality

Volume I: Main Report

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ABBREVIATIONS

ARMP	Annual Road Maintenance Plan
CBS	Central Bureau of Statistics
DDC	District Development Committee
DOLIDAR	Department of Local Infrastructure Development and Agriculture Road
DOR	Department of Road
MIM	Municipality Inventory Map
MTICC	Municipality Transport Infrastructure Coordination Committee
MTMP	Municipality Transport Master Plan
MTPP	Municipality Transport Perspective Plan
MRCN	Municipality Road Core Network
GIS	Geographical Information system
GPS	Global Positioning System
GON	Government of Nepal
LGCDP	Local Governance and Community Development Programme
MoFALD	Ministry of Federal Affairs and Local Development
VDC	Village Development Committee
VPD	Vehicle Per Day

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Chapter 1

Introduction

Municipal Transport Master Plan (MTMP) is a comprehensive planning document for the development of roads in the municipality based on the potentialities of the municipalities and improve the accessibility of road network. It is defined as the process of identification, classification and prioritization of roads within municipality; construction, upgrading, maintenance and rehabilitation of prioritized roads on the basis of approved criteria with calculation of financial budget. This chapter has stated on the preparation of transport master plan along with the objectives, scope of planning and methodology.

1. 1 Background.

Road transport is a backbone of the overall development of municipality, which has been provided accessibility on transportation and improve the mobility of the people. Urbanization is rapidly growing especially in the Kathmandu valley which required the urban infrastructure i.e. roads, water supply and sanitation. The perspective on urban transportation is proposed in National Urban Strategy 2015. The strategies include the integration of land use and transportation in urban as well as regional planning and development of related institutional mechanisms and capacity. The provision of hierarchically balanced urban road infrastructure; promotion of sustainable urban public transport, and preparation and implementation of comprehensive transport management standards and plans.

The Local Government Operation Act 2075, has stated on the planning and implementation of road development Plan. The provision on Act has stated on Clause 11 Ta (1) and (2) for the preparation of Master Plan of road development which ultimately a transport plan. Ministry of Federal Affairs and Local Development has approved the Guidelines for Municipality Transport Master Plan (MTMP) on 2071/8/18 and circulated all municipalities in order to prepare the MTMP of the municipalities.

MTMP is highly significant document to plan the roads development in the municipalities with the priority investment on the infrastructure development as well as improve the transport access of the people. Transport is one of the major components to improve the access through the increase on the mobility to the settlement/community of services and facilities and also to provide linkage with market centers, agricultural production pocket areas and other potentialities of the district. Considering the transport sector interventions and planning based on the accessibility planning, Municipality Transport Master Plan (MTMP) is long term perspective plan prepared for the planned development of the roads within the municipality.

MTMP has carried out inventory study of existing roads, improvement plan (rehabilitation, upgrading, periodic maintenance) and new construction of the Municipality Road Core Network (MRCN). The MTMP is to be prepared five years and provides a prioritized list of

interventions for the MRCN that can be carried out with the estimated budget for the 5-year period. Each year the planned interventions are further detailed in the Annual Work Programme of the Municipality.

1.2 Objective of MTMP

The main objective of MTMP is to prepare a sustainable urban transport development and management plan for the Municipality. The preparation of a scientific and environmentally compatible development plan requires consideration of all components of the environment that exists today and to be created tomorrow. Thus a comprehensive land use plan should inter-relate all elements that form a community. The specific objectives of the study is as follows;

- To identify the present transportation system (eg. prepare/update an inventory of present road infrastructure within Municipality including the roads/street length, width, present condition,, road category and vehicular traffic on those roads
- to identify the major road and analyse the majority of people and vehicles, conditions of road and transport infrastructure
- to identify the different aspects of municipal transport and traffic management. Traffic Volume, Bus parks, Bus stops, parking route and Taxation system etc.
- To develop the present and future scenario considering development pattern and trend of population settlement and road traffic and required network.

1.3 Scope of Work

The scope of the services of MTMP provides sequence of steps to be followed in the preparation of a MTMP as per the MoFALD Guidelines. The consultants will carry out these steps in accordance with the guidelines and practices. The scope of work for the preparation of MTMP is as follows;

- Assist in the Formulation of the Municipality Roads Coordination Committee.
- Secondary Sources of Information and Review of the existing MTMP
- Accessibility Data Collection and Analysis
- Prepare the Indicative Municipality Development potential Map (IDPM)
- Prepare the Municipality Inventory Map (MIM)
- Identification of the District Road Core Network (DRCN)
- Collection of Demands for New/upgrading/Rehabilitation Transport Linkage
- Developing Scoring Criteria and its Approval from Municipality
- Road classification and nomenclature
- Preparation of Perspective Plan of Interventions of Services and Facilities
- Analyse Fund Availability for Roads
- Preparation of the Municipality Transport Master Plan (MTMP)
- MTMP implementation plan

1.4 Methodology

The methodology is based on the MTMP Guidelines for the preparation of Municipality Transport Master Plan of MOFALD dated 2071/8/18. The process of MTMP preparation and activities is carried out as follows;

1.4.1 Orientation of MTMP

The consultant carried out orientation of MTMP preparation to the Municipality. The participants were Mayor, Deputy Mayor, and Chief Administrative Officer of Municipality, Ward Chairperson, representative of political parties, women, Engineers and municipality staffs. The consultant had clarified the process, methodology, work plan of the MTMP activities.

1.4.2 Collect and Review Secondary Sources of Information

The consultant collected the secondary information for the existing reports, guidelines, plan related to the MTMP. The consultant collected information as follows;

S.N	Particulars	Source	Attribute
1.	Maps		
1.1	District Map	SBD	
1.2	Topographical Map	Dept. of Survey	1:25,000
1.3	GIS Map		
2	Information on socioeconomic population, settlement, industries.	District based Reports, CBS-Publication, Govt. Line agencies, Project Offices.	
4	Financial resource of the district	Budhanilkantha Municipality	
5.	Accessibility data	Settlements/ward of municipality	
6.	MTMPs of other municipalities(Reference)	Godawari Municipality, Anantalingeshor Municipality, Madhyapur Thimi Municipality	

1.4.3 Prepare the Indicative Municipality Development potential Map (IDPM)

The consultant has prepared a comprehensive city Development plan/visionary city Development plan based on the development potentialities of the municipality as per the Annex 1-5 of the guidelines.

The major steps and process adopted for preparation of IDPM are as follows:

- a. Preparation of District topographical map 1:25,000 scale indicating;
 - DDC boundary
 - Municipality boundary
 - Major settlements
 - Existing roads and Trails
 - Existing Trail Bridges
- b. Based on the secondary data collected from various line agencies and municipality, the following development potential areas are identified and plotted on a map:
 - Existing/Potential areas for Agriculture
The existing and potential agriculture production, productivity and areas are analyzed. Based on the information provided by District Agricultural Office, the agricultural areas were determined.
 - Existing/Potential areas for Horticulture
Horticulture production, productivity and areas were identified based on the secondary source of information.
 - Existing/Potential areas for Livestock
Existing livestock population, production and pocket areas were included in IDPM.
 - Existing/Potential Key Growth Center
Based on the available services and facilities in the growth centers, the total number was obtained. The existing key growth centers which scored more than 55 points were classified into the growth centers, and those that scored less than 55 were identified as potential key growth.
 - Service centers
The existing services of education, health, postal services, telecom services, etc were included in IDPM.
 - Existing/Potential areas for High Valued Cash Crops
Existing/potential high valued crops, like apple, ginger, potato, walnuts were included in the areas and production in the district.
 - Forest area
Forest areas of the district were classified with the community forestry.
 - Potential site for hydropower development
 - Potential site for tourism
 - Historical/Religious places

- c. The above information is plotted in the base map (1:25,000) and presented for discussion. The IDPM was discussed and approved by MRCC

1.4.5 Prepare the Municipality Inventory Map (MIM)

First of all, the inventory of the existing road network needs to be identified in order to assess the transport accessibility of the district with different category and standard of roads with their linkage in municipality and strategic road network. The consultant carried out the steps and activities as follows;

Listing of the Existing Roads

The consultant collected the secondary information from Municipality. The list of the existing roads is prepared with table format including; road code, name of roads, length and connected municipality areas.

Field Survey

The consultant team (Engineer and Sub-engineer) are mobilized in the field for the survey of existing roads. List of the roads and working map is used for the field survey. The inventory of the existing road network is surveyed using a GPS device in order to track the coordinates of each road and to allow the preparation of a map of all existing roads. At the same time, basic information for each road shall be recorded, including road code, road name, surface type (earthen, gravel, blacktop, other), condition (good/fair, poor, bad/impassable) and fair/all weather. Although the surface categories are quite straightforward, the condition categories are more subjective and therefore the following definitions should be applied:

- Good/Fair - Road is passable by normal car
- Poor - Road is only passable by 4x4, bus, truck or tractor
- Temporarily Impassable - Road is temporarily not passable to 4-wheeled motorized vehicles
- Permanently Impassable – Road is permanently impassable to 4- wheeled motorized vehicles.

Preparation of Map

A topo map (1:25000 or 1:50000) is prepared as working map to draw the road alignment. It is clearly marked and references of different layers which is easy to discuss with municipality personnel and public. The existing roads is plotted in the topo map.

Using the GPS data collected, GIS map of A3 size is prepared and included in the report indicating all roads in the district as well as their surface type. Both maps should indicate the following

- District boundaries (thin black line)
- Municipality boundaries (thin dashed black line)

- Names of surrounding districts/states/countries
- Municipality headquarters (yellow circle, including name)
- Major waterways and water bodies (light blue lines or shapes)
- SRN roads (thick black line, including road code)
- Blacktopped local roads (thick red line)
- Gravel local roads (slightly thinner green line)
- Earthen roads (thin orange line)
- Scale
- Compass pointer

Based on the Topo map and GPS data, a Road Inventory Map is prepared indicating above layers.

Municipality Road Inventory

After Field Survey of the existing roads, the Municipality Road Inventory is prepared with the list of roads, total length, surface conditions, required interventions, on Excel Template and discussed on MRCC meeting.

1.4.6 Identification of the Municipality Road Core Network

Once all the existing roads in the municipality have been inventoried, the Municipality Road Core Network (MRCN) is identified. The identification of the MRCN roads involves the selection of one road linking each wards to the SRN, to another municipality roads.

Synchronize Road Core Network

The final list of existing roads is prepared and plotted in the topo map showing the alignment. It shows the road network of municipality which indicates the road access and linkage with strategic roads, district roads and other municipal roads. The existing roads will synchronize and develop with the core network of the municipality.

In case of SRN roads, priority is given to the blacktop road given the higher standard of this road.

Identification of New Construction Roads

Where certain areas are not yet linked by road and needs to be connected the development potential areas, settlement and future land development area new road construction is required to provided the access with a complete the network. The consultant filled up the demand FORMAT for new construction road for the alignment to link the area to the municipality and plotted in the MRCN map. This exercise serves only to determine a tentative length for new construction and not to determine the exact alignment and control points for the new construction. The final alignment and control points will be determined at a later stage based on a thorough walk over and feasibility studies.

MRCN Map

Once the MRCN roads have been selected, an A3 size DRCN map is prepared as per the Guidelines. The MRCN map indicates the different roads network, road standard according to the legends provided in the Guidelines. The consultant shall facilitate for the approval of MRCN map by the municipality.

Road Code

MRCN roads needs to be assigned a code in line with the national road code standards. The consultant has given the road code to each roads referring the Guidelines.

1.4.7 Developing Scoring Criteria and its Approval from Municipality

The scoring criteria has fixed and approved by MRCC and Municipality for the prioritization of municipality roads. The consultant is prepared the criteria based on the Guidelines (Criteria B-Annex 4) and presented for approval.

1.4.8 Road classification and nomenclature

The municipality roads are classified as per the Guidelines (Criteria A) as follows;

Main Collector Road class A; -----RoW-14m

Collector Road class B: -----RoW 10m

Main Ward Road class C: -----RoW 8m

Tole and ward roads Road class D -----RoW6m

The existing roads of 4m is also considered E 0-4 m

1.4.9 Municipality Transport Perspective Plan (MTPP)

The Municipality Transport Perspective Plan (MTPP) is simply the list of all the identified interventions that are necessary to bring the roads to a maintainable all-weather standard and keep them there, as well as the construction of any new roads considered necessary to complete the MRCN. The consultant is prepared MTPP considering the existing inventory and future perspective development transport network for 20 years.

The approach for the MTPP is to improve the access transport condition of municipality by providing the required interventions of repair and maintenance of existing roads, upgrading with gravel and blacktopping of the existing roads and new construction of roads.

MTPP Map preparation

A map of A3 size is prepared, based on the map of the existing MRCN. In addition, this map indicates the sections of road requiring gravelling, blacktopping or new construction. The map further indicates bridges, causeways and slab culverts that need to be constructed.

COST ESTIMATION OF INTERVENTIONS

With the MTPP providing the full list of required interventions to bring the MRCN to a maintainable all-weather standard and keep it there, the costs of these interventions can be calculated using the standard costs as per the MTMP Guidelines and District Rate. The cost estimation was discussed with Engineer and finalized. Based on the finalized cost estimation, the total cost of the different interventions of all roads is presented on Excel Template.

Prioritization for MTMP

The approved prioritization criteria is developed based on the Guidelines which is used for prioritization of the municipality roads for. The prioritization criteria was passed from MRCC and Municipality which is applied for prioritization for the preparation of MTMP.

Prioritization for Conservation

For [conservation](#), the periodic maintenance, routine maintenance and rehabilitation of the existing roads will be carried out as per the guidelines.

Prioritization for Improvement

For [improvement](#), it is recommended to divide the works into two parts: the first to bring the road to gravel standard and all other improvement works, and the second to bring the road to blacktop standard. This will avoid the road being given very low priority due to the excessive costs involved in gravelling and subsequently blacktopping the road.

1.4.10 Municipality Transport Master Plan (MTMP)

The final part of the MTMP process is the balancing of the available budget and the estimated costs of the required interventions, to determine which interventions can be carried out in the 5-year period. The financial resource is estimated based on available budget of municipality which will be investment in the road sector to carry out the MTMP.

Budget Allocation for MTMP

The consultant prepares the budget allocation for MTMP planning process. This step is to determine the percentage of the available budget that will be allocated to the MRCN and be used in the MTMP. This percentage is discussed and finalized with MRCC. In the allocation of the MTMP budget, priority is given to conservation works, followed by improvement works and finally new construction.

MTMP for five Year

The five year MTMP is prepared based on the allocation budget and the priority ranking of the conservation, improvement and new construction interventions of the road. The roads

isplanned for five year matching with the budget available for the MTMP. The consultant is facilitated to prepare the MTMP and discussed with the municipality personnel and MRCC

MTMP Map

MTMP map of A3 size is prepared indicating the existing DRCN and the interventions included in the MTMP. This is similar to the DTPP map, except that it does not necessarily include all interventions. This map effectively shows the situation in the district after the 5-year MTMP period. An example MTMP map is provided on the next page.

MTMP Approval

The draft MTMP is presented to the MRCC and Municipality for approval. The consultant team is facilitated and presented the draft MTMP report on power point presentation. The draft report was presented on Technical Division of MoFALD and incorporated the comments and prepared Final Report. The presentation shall be organized with MTMP maps (working map -topo map 1:25000), MTPP roads, MTMP interventions (conservation, improvement and new construction), MTMP budget etc.

1.5 Limitation of the Master Plan

The MTMP is prepared for the integrated development of municipality road development plan which has been targeted for the implementation within 5 year period has following limitations;

- The GPS survey is carried out of each road and the length is based on the GPS data on GIS operation which could be varied on DPR study.
- The cost calculation of Black topped, Gravel and Widening is based on the District Rate and DoLI standard could be vary on DPR study.
- Budget projected is based on the current fiscal year which could be varied in next couple of years.

Chapter 2

Review of existing infrastructure situation

2.1 Road Linkage

The municipality is connected by Ring road and the Tripureshor-Budhanilkantha Road as north south connectivity. Municipality wards and settlement are connected from these roads bifurcating in many chowks and places. The municipality road is further connected to wards and various settlements by the existing municipality roads.

Main Road Network

There are some main road network connected in the municipality and provides the transportation services to people. The main access road of the municipality is as follows;

Table 2.1: Feeder and Main Access road Linkage of Municipality

S.N.	Name of Road	Length (km)
1	Tripurshor-Maharajgunj-Budhanilkantha Road (Golphutar-Budhanilkantha Section)	5.7
2	Dhobikhola Corridor Road (Left)	6.1
3	Dhobikhola Corridor Road (Right)	6.2
4	Ludikhola Corridor Road (Left)	3.5
5	Ludikhola Corridor Road (Right)	3.5
6	Bishnumati Corridor Road	3.0
7	Chihanekhola Corridor (Left)	3.7
8	Chihanekhola Corridor (Right)	3.7
9	Sodidha (Right)	0.5
10	Sodidha (Left)	0.5
	Total	36.4

These strategic and main road of the municipality has been connected with the road transport access to Main Markets and Centers of Kathmandu where existing market center, services and facilities are located. These urban centers will gradually shifting the settlement pattern and business centers in the Budhanilkantha, Kapan, Chapali, area. The traffic is increasing in the main road and pressure on the road alignment needs to be widening and solve the traffic problem.

District Road Core Network (DRCN)

Reviewing the DTMP of Kathmandu district, there are DRCN roads linkage in the municipality which is mentioned in the District Transport Master Plan of Kathmandu district. The DRCN roads are located in the municipality boundary and considered as the municipality roads

Table 2.2: District Roads as mentioned in DTMP of Kathmandu

Road Code	Name of Road	Length (km)
27DR029	Budhanilkantha_Chapali_Chunik el_Kapan VDC_Road	5.35
27DR030	Gokarna_Baluwa_Piple-Tare Bhir_Narayanthan_Road	10.96
	Total	16.31

Based on NRRS-2012,[7] the minimum RoW of DRCN is 20m, i.e. 10.0m one either side. These roads serve as feeders for SRN however as a collector from municipality roads.

2.2 Review of Municipality Strategy and Other Reports

The strategy of road development in municipality has been considered the existing road density, potential development priority and access condition of the settlement. The road density will be increased with the minimum of at least 7.5km/sq.km area. The overall strategy of municipality roads will focus on the following aspects;

- Integration of land use and transportation
- Provision of hierarchical and balanced urban road infrastructure development
- Sustainable urban public transport system
- Standards for urban road management
- Intercity high speed transport system

The strategy has been based on the urbanization and transport services of the municipality to make sustainable and integrated transport system. Nepal Urban Development Strategy, 2015 has stated as below;

४०. सडक/परिवहन: शहरी यातायात संबन्धमा एकटा फराकिलो वृष्टिकोण राखिएको छ । यस अन्तर्गत प्रमुख रूपमा भूउपयोग र यातायात/परिवहनलाई शहरी तथा क्षेत्रीय योजना तर्जुमा प्रकृयामा एकीकृत गर्दै तत्सम्बन्धी संस्थागत संयन्त्र र क्षमताको विकास गर्ने, तहगत र सन्तुलित शहरी सडक पूर्वाधारको प्रावधान गर्ने, दिगो शहरी सार्वजनिक परिवहनको प्रबन्ध गर्ने, शहरी यातायात व्यवस्थापनका लागि मानकहरूका साथै विस्तृत योजना तयार/कार्यान्वयन गर्ने, र प्राथमिकता प्राप्त प्रदेशहरूमा उच्च-गति अन्तर-शहरी यातायात पूर्वाधारको प्रावधान गर्ने जस्ता रणनीतिहरू रहेका छन् ।

2.3 Trend of urbanization

Road transport is basic infrastructure that shapes urban form, impact economic well-being and is a primary determinant of municipality's environmental, financial and social sustainability.

Municipal transport master plan is a strategic planning document designed to define policies, programs and interventions required for the municipality's transportation needs for next 20 years and beyond. Developed through study of indicative development potential and probable land use changes the plan reflects the growth and development of the municipality.

Budhanilkantha Municipality is one of a rapidly urbanizing area in the south of Kathmandu district which is connected with Dhulikhel Municipality. The municipality has the number of potentialities for development in economic activity and prosperity serving municipal area and surrounding municipalities. The trend of urbanization of the area has found on following ways:

1. Urbanization based on unplanned residential settlement
2. Historic settlement based urbanization
3. Agriculture based urbanization
4. Industrial urbanization

The old type of settlement in the area was found based on agriculture based while the newer are planned settlement. Most of the houses constructed within the area were found to be used for residential purpose and these are reconstructed without development of land-use plan. Settlements based urban development planning will be considered with new perspective of the municipality.

Chapter 3

Indicative Development Potential Map

3.1 Summary Municipality Profile

3.1.1 Historical Background

Budhanilkantha is a largest stone statue of Lord Vishnu in Nepal, it shows him reclining on a bed of *Nagas* or serpents in the middle of a small pond. The 5m long granite image carved out of a single rock dates back to the Lichhavi period. The Lichhavis ruled the valley before being ousted by the Malla dynasty, who in turn were conquered by King Prithvi Narayan Shah.

According to folklore, a farmer was working on his field one day when his plough struck a boulder, and to his surprise and alarm, blood started oozing out of the cut in the stone. Upon digging around the huge boulder, he unearthed the magnificent image of the reclining Vishnu that had remained buried in the ground.

Budhanilkantha is one of the famous and religious temple of the Kathmandu which is located at foothill of the Shivapuri Hill which is also popular forest. Budhanilkantha Municipality is named of Budhanilkantha as a symbol of Lord Vishnu.

Budhanilkantha Municipality is located in Kathmandu District in the Bagmati Province of Nepal. The municipality was established in December 2, 2014 by margining of former Village Development Committee (VDC) of Chapali Bhadrakali, Mahankal, Bishnu, Chunikhel and Kapan. The Municipality is named with the Lord Budhanilkantha which is situated at the foot hill of the Shivapuri.

The municipality is boarder with Shivapuri National Park in the north, Kathmandu Metro politician city ward no 3,4,6,7 and Tokha Municipality ward no 4 in the south, Gorakneshor Municipality in east and Tokha Municipality in the west. The total area is 34.8 sq. km. and population is 107918. The municipality was divided into 13 wards.

Budhanilkantha municipality is rapidly urbanizing city where the house construction and other development activities are highly increasing trend. In order to provide the transport access in the municipality, road development is high concern to construct the roads in the ward and settlement to make better connectivity and improve the mobility. Roads are the prime indicators of the development which needs to be constructed on planned way in the urban settlements...

Geo-physical location

The municipality is located in Kathmandu district, Bagmati Province of Nepal. The geographic position of the municipality is located at $85^{\circ} 20' 9''$ to $85^{\circ} 23' 28''$ east longitude and $27^{\circ} 43' 19''$ to $27^{\circ} 48' 50''$ north latitude.

Geographically, the municipality is mainly divided into two geographic areas as follows;

1. Hill areas
2. Valley area

River and Rivulets

The main rivers and rivulets located in the municipalities are Bishnumati River, Dhobikhola River, Rudramati, Yagyamati, Jyamle khola etc. Besides this, Lungrikhola, and other small kholas are located in the municipality. These kholas flows from north to south part of the municipality has abundant potentiality for agriculture, water supply and irrigation.

3.1.2 Climate

The climate of the municipality is sub-tropical which has different in valley and the Shivapuri Hill area. The average temperature of the municipality is 24 to 32 degree Celsius with the maximum of 32 degree Celsius to minimum of -2 degree Celsius. The average rainfall of the municipality is 1200 mm. The climate of the municipality is sub-tropical and cold in the hill areas.

3.1.3 Land Use

The land use pattern of the municipality comprises with the agriculture land, forest, bush, settlement, rivers etc. The total land area of the municipality is 34.80 sq. Km. the distribution of land use of the municipality is given below;

Table 3.1: Land Use of the Municipality

S.N.	Land Use	Area in sq. Km.
1	Residence and Settlement Area	12.67
2	Agriculture	6.8
3	Forest	9.87
4	Grass and barren land	0.22
5	Bushes	5.00
6	Water body	0.17
7	Other (Sand, Land Slide area)	0.02
	Total	38.80

Source: Department of Survey, Topographic map

The above table indicates that there is highest land use is on residence and settlement or built up area. The highly increasing trend of built up area and house construction loose the agricultural land in the. Forest area is also found in the northern par as Shivapuri Conservation area is the protected forest in the municipality. The forest area has flora

and fauna with watershed area with the water resources of the river and rivulets of the municipality. It also maintain the environment of the municipal areas.

3.1.4 Population

The population of the municipality is 29,519 and total household of 6584 (census 2011). The distribution of male population is 13604 and female are 15915. The population characteristics of the municipality is given below;

Table 3.2: Population of Municipality

Ward No.	Household No.	Male	Female	Total Population	Percentage %
1	1696	2979	2998	5977	3.82
2	2524	4316	4379	8695	5.56
3	1878	3972	4014	7986	5.11
4	2005	3469	3532	7001	4.48
5	1670	2708	2852	5560	3.46
6	2454	5923	5940	11863	7.59
7	1972	3853	3869	7722	4.94
8	2794	8433	8452	16885	10.80
9	2383	5631	5688	11319	7.28
10	4666	15915	16224	32139	20.56
11	2682	6873	6854	13727	8.78
12	2930	9882	10023	19905	12.73
13	2465	3808	3746	7550	4.83
Total	32119	77758	78571	156329	100.0

Source: Periodic Plan, Budhanilkantha Municipality, 2020

3.2 Development Potential Areas

Agriculture Development Potentially

The potentialities of the municipality consists on the agriculture, livestock, industries, forest products in the area. There is existing and potential agriculture area located in various pocket area of the municipality.

Table 3.3: Agriculture Development Area

S.N.	Agriculture Products	Pocket Area
1	Green vegetable	Chunikhel, Kapan, Jagdole, Chasindole
2	Livestock Farming	Chunikhel, Kapan, Wasik

Source: Municipality Profile, 2019

3.3 Historical, Religious and Tourism area

Budhanilkantha Municipality is one of the touristic, historical and religious area of the Kathmandu district where is a historical, religious place of Lord Budha. There is historical and religious places located in various places. The forest hill and beautiful land scapping will also attract tourist for the short trek and stay. The historical, religious and touristic places are as follows:

Table 3.4: Historical Religious and Touristic Places

S.N.	Historical, Religious and Touristic Places	Location
1	Bipasyana Dhyan Kendra	Ward 1
2	Khadap Swami Samadhi Sthal	Ward 1
3	Nasal Devi	Ward 1
4	Lasmi Devi Dada	Ward 1
5	Dhobi dhunga	Ward 2
6	Panchakumari mandir	Ward 2
7	Rudreshor Mahadev Mandir	Ward 2
8	Panchkanya Mandir	Ward 2
9	Nilparahi Mandir	Ward 2
10	Ganesh Mandir	Ward 2
11	Radhakrishna Setidevi Mandir	Ward 2
12	Tarebhirk Torusim Spot	Ward 2
13	Bagdwar	Ward 3
14	Budhanilkantha Mandir	Ward 3
15	Krishna Mandir	Ward 3
16	Kumari Mandir	Ward 3
17	Bhadrakali Mandir	Ward 3
18	Satidevi Pith Patan Sthal	Ward 3
19	Shivapuri Mahadev mandir	Ward 3
20	Panchkanya Mandir	Ward 4
21	Thapagaun ShivaMandir	Ward 4
22	Baleshor Shiva Mandir	Ward 4
23	Bhutdaha Shiva Mandir	Ward 4
24	Panchkanya Mandir	Ward 4
25	Kali Mandir	Ward 5
26	Basaha Mahadev	Ward 5
27	Nagani Gan	Ward 5
28	Baleshaor Mahadev	Ward 5
29	Bishnudwar	Ward 5
30	Maya Devi Mandir	Ward 5
31	Kahdka Bhadrakali Mandir	Ward 6

S.N.	Historical, Religious and Touristic Places	Location
32	Dharampur Basti	Ward 6
33	Ramsita Mandir	Ward 6
34	Shiva Mandir	Ward 6
35	Ganesh Mandir	Ward 6
36	Ganesh Mandir	Ward 6
37	Mahadev Mandir	Ward 6
38	Swarswati Mandir	Ward 6
39	Dathugaun Gaensh mandir	Ward 7
40	Shiva Mandir	Ward 7
41	Nag Mandir	Ward 7
42	Tusal devi Mandir	Ward 7
43	Mahankal Mandir	Ward 8
44	Ganesh Mandir	Ward 8
45	Swarswati Mandir	Ward 8
46	Lokeshor Mahadev Mandir	Ward 8
47	Karyabinayak Ganesh Mandir	Ward 8
48	Kumari Mandir	Ward 8
49	Panchkanya Madir	Ward 8
50	Jagnath Mandir	Ward 8
51	Krishna Mandir	Ward 8
52	Panchakumari Mandir	Ward 8
53	Shiva and Ganesh Mandir	Ward 8
54	Redreshor Mandir	Ward 8
55	Manakamana Mandir	Ward 8
56	Kumari Mandir	Ward 9
57	Radhakrishna Mandir	Ward 9
58	Dhaneshor Mahadev Mandir	Ward 9
59	Manakamand Mandir	Ward 9
60	Sidheshor Mahadev Mandir	Ward 10
61	Panchkanya Mandir	Ward 10
62	Ganesh Mandir	Ward 10
63	Manakamana/Bhairab Mandir	Ward 10
64	Nikheleshor Mahadev Mandir	Ward 10
65	Astabhuja Mandir	Ward 10
66	Radhakrishna Mandir	Ward 12
67	Dhunge Ganesh Mandir	Ward 12
68	Navadurga Mandir	Ward 12
69	Balkumari Mandir	Ward 12
70	Somnath Shiva Mandir	Ward 12
71	Naulini Bhadrakali Mandir	Ward 13
72	Chundevi Mandir	Ward 13
73	Ganesh Mandir	Ward 13
74	Shiva Mandir	Ward 13

S.N.	Historical, Religious and Touristic Places	Location
75	Manakamana Mandir	Ward 13
76	Karunamai Mandir	Ward 13
77	Swaswati Mandir	Ward 13
78	Natheshori Mandir	Ward 13
79	Bhadrakali Guthi Ghar	Ward 13
80	Nabpur Pokhari	Ward 13
81	Karunamaichowk Park Gate	Ward 13
82	Rikheshor Mahadev Mandir	Ward 13

Source: Municipality Profile, 2019.

Development Potential Area

Budhanilkantha Historical and Religious Tourist Place

Budhanilkantha is ancient place related to Lord Budha which has historical and religious value located in the Municipality. Budhanilkantha Municipality has given priority for the development of the area which is potential for the tourism development.

Organic Farming

There are various places which can be developed an organic farming for the production of organic vegetables and other products. The Kapan tar, Chunikhel, Chasindole are the potential for the organic farming.

Tourism Development

Budhanilkanha is one of the historical and touristic place of Kathmandu which is potential of the tourism business. There are number of hotel, restaurant, and cottage spot for the tourist. The Shivapuri hill and its surroundings is attractive for the tourist.

Table 3.5: Touristic Places

S.N.	Touristic Place	Location
1	Dhobidhunga	Ward 2
2	Panchakumari Mandir	Ward 2
3	Budhanilkantha Mandir	Ward 3
4	Bagdwar	Ward 3
5	Shivapuri Hill	Ward 3
6	Kamdhenu Shila	Ward 3
7	Nagi Gumba	Ward 3
8	Sat Rudheshor	Ward 3
9	Appasaraghat	Ward 3
10	Bipaseena	Ward 3
11	Tarebhir	Ward 3
12	Khaptad Samadhishthal	Ward 3
13	Bishnumati Jharana	Ward 5

14	Bishnudwar Dham	Ward 5
15	Khadka Bhadrakali	Ward 6
16	Kapan Bangalamukhi Mandir	Ward 11
17	Kapangadhi/Gumba	Ward 11
18	Naulini Bhadrakali	Ward 13
19	Rudreshor Mahadev	Ward 13
20	Chudevi Mandir	Ward 13
21	Putali Dada Gadhi	Ward 13
22	Subarneshor Cricket Ground	Ward 13
23	Dhobikhola Water body	Ward 13

Source: Municipality Profile, 2019

3.4 Existing and Potential Growth Centers

There are number of existing and potential growth centers located in various places which provides the market and trade flow in the municipality comprising the sale of local products in these markets and buy the necessary items. The existing market centers are as follows:

Table 3.6: Existing and Potential Growth Center

S.N.	Existing Growth Centre
1	Hattigauda
2	Faika
3	Chapali
4	Chunikhel
5	Budhanilkantha Mandir
6	Rudreshor Chowk
7	Kapan

Source: Field survey, 2019.

3.5 Economic Activities

Budhanilkantha Municipality one of the potential economic hub where the trade, business is exist and operating. The main occupation of the people constitutes 31.84 percent in government and private service, 29.74 % are engaged in trade/business and 9.61 % are in agriculture

3.6 Education

Educational status of the municipality consists 93.06 literacy rate which is highest than the national literacy rate. The literacy rate in level are Basic level 23.61 %, Secondary level 28.25 %, Higher Education 11.52 % and PhD holder are 0.25 %.

3.7 Health Facilities

There are number of health facilities located in various wards and providing health services to the people. The existing health facilities are given below;

Table 3.7: Health Institutions of Municipality

S.N.	Health Services and Facilities	Number
1	Community Hospital	1
2	Health Post	4
3	City Health Promotion Center	3
4	Primary Health Care Center	1
5	Private Hospital	1
6	Clinic/Pharmacy	143
7	Birthing Center	1
8	Poly Clinic	4
9	Birth at Health Center	80
10	Immunization Center	14
11	FCHV number	113

Source: Municipality Profile, 2019.

3.8 Drinking Water

The drinking water facilities of the municipality is distributed from different sources and providing the water supply. There are 52.74 % household have their private tap whereas 8.56 % have to rely on the public tap. The community tap distribution is 5.09 % and 29.23 % are still using the traditional well and spring water source.

The sanitation comprises with the using of toilet is found 99.37 % which is encouraging achievement of ODF.

Chapter 4

Municipality Road Inventory Map

4.1 Background

There are number of existing roads located in various major settlements, wards of the municipality. The road inventory comprises the existing roads with the road conditions, structures and road length of the municipality. The field survey was carried out to each and every roads of the municipality and collects the technical data of the roads. The existing municipality roads are identified during the Ward level workshop and simultaneously carried out the field conditional survey. GPS tracking and technical information was collected of prescribed format. The road Inventory of the municipality is given below;

4.2 Overview of the Municipality Existing Roads

The number of existing roads are providing the road accessibility and transport services to all parts of the municipality categorically with black topped, graveled and earthen roads as well as bridges. The strategic road connected with municipality as main connectivity and providing access to the settlement. The major roads of the municipality are as follow;

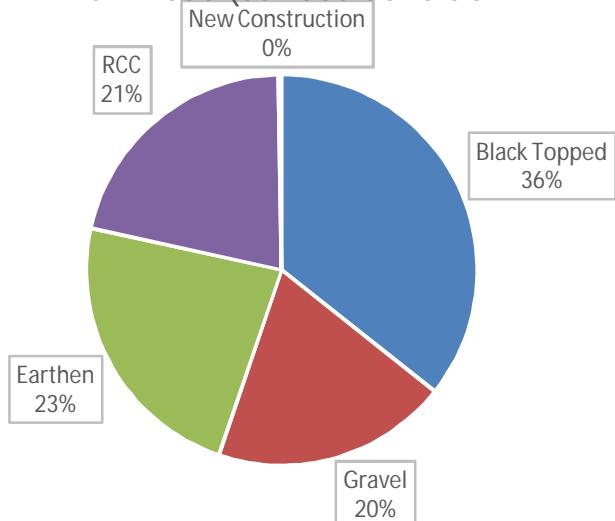
Municipality Roads

The total existingmunicipality road network is 194.70 km which has found black top, gravel, RCC, Tile paved/stone paved and earthen roads in the municipality. The road conditions and their distribution is given below;

Roads/surface condition	BT	GR	ER	RCC	Tile	Tourist Trail	New	Total
Main Road	24.41	13.38	15.88	14.55			0.20	68.42
Ward Roads	42.17	11.76	45.23	22.84	1.60	1.82	0.86	126.29
Total Road Inventory	66.58	25.14	61.11	37.39	1.60	1.82	1.07	194.70

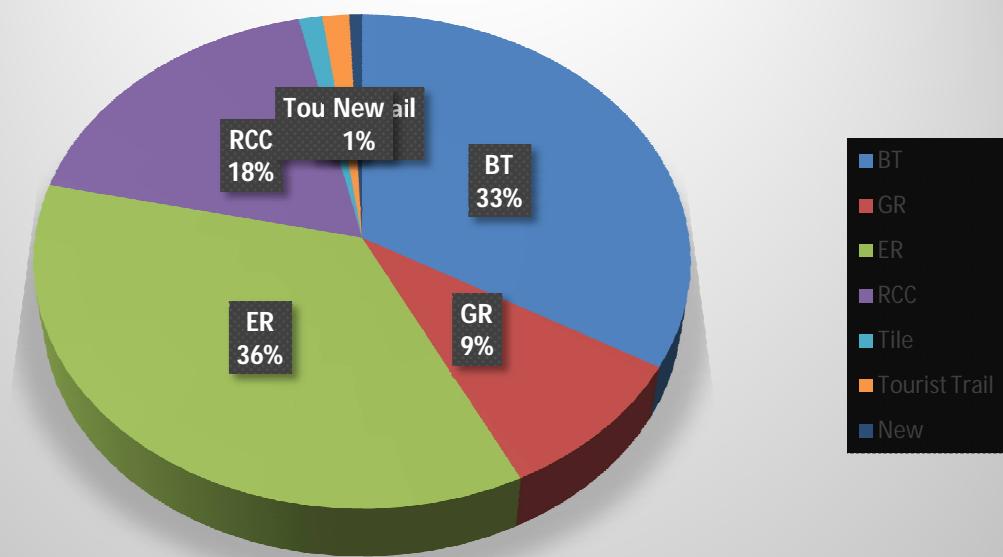
Distribution of Main Road and Ward Roads

Main Road (Surface Condition)



Ward Level Roads

Ward Level Roads (Surface Condition)



The road distribution of ward level shows the highest in ward no 10 where 17.22 km road are existed and lowest in ward no 1 which has 5.43 km roads as shown below.

Table 4.1: Road distribution of ward

Ward No	BT	GR	ER	RCC	Tile	Tourist Trail	New	Total
1	0.35	0.00	1.19	2.10	0.00	0.43	0.43	4.50
2	3.86	0.52	2.41	1.69	0.00	0.00	0.00	8.48
3	1.44	0.51	1.89	0.77	0.28	0.00	0.44	5.32
4	0.38	0.27	6.28	0.39	0.00	0.00	0.00	7.32
5	1.38	0.23	0.58	3.79	0.00	0.00	0.00	5.98
6	1.28	1.75	2.83	0.99	0.00	0.00	0.00	6.85
7	2.62	1.37	2.19	1.78	0.00	0.21	0.00	8.15
8	5.89	0.83	4.25	2.55	0.14	0.00	0.00	13.66
9	6.94	1.32	0.57	1.81	0.87	0.00	0.00	11.50
10	7.87	1.56	1.47	2.79	0.07	0.00	0.00	13.75
11	5.51	1.52	7.80	3.35	0.00	1.19	0.00	19.37
12	4.65	1.88	0.00	0.55	0.00	0.00	0.00	7.08
13	0.00	0.00	13.79	0.31	0.24	0.00	0.00	14.34
Total	42.17	11.76	45.23	22.84	1.60	1.82	0.86	126.29

Source: Field Survey, 2020.

4.3 Road Density of Municipal Roads

Road density of the municipality comprises with the status of the road network in the municipality. According to national urban strategy the target of urban road density is 7.5 km per square km land area. The most of the roads are earthen and are very narrow (<4.0 m) to address the trip generated from various areas. The ward wise distribution of road and land-use pattern has presented.

Table 4.2: Road density of municipality

Ward	Population	Area sq.km	Length km	Road Density km/sq.km	Density population/1000
Municipal	156329	34.800	68.4	1.966	0.438
1	5977	4.670	4.5	0.963	0.753
2	8695	1.600	8.5	5.303	0.976
3	7986	4.240	5.3	1.254	0.666
4	7001	1.970	7.3	3.718	1.046

5	5560	7.770	6.0	0.769	1.075
6	11863	1.310	6.9	5.229	0.577
7	7722	0.880	8.2	9.265	1.056
8	16885	3.430	13.7	3.981	0.809
9	11319	0.680	11.5	16.907	1.016
10	32139	0.890	13.8	15.452	0.428
11	13727	3.420	19.4	5.663	1.411
12	19905	0.340	7.1	20.809	0.355
13	7550	3.600	14.3	3.983	1.899
Total	156329	69.60	194.69	2.797	1.245
	Average		13.9	6.804	0.917
	Median		8.319	4.606	0.892

The road density of the municipality is 6.8 km per square km of land area in average. The existing road situation of the municipality needs to increase the road length in the future plan.

4.4 Public Transport Operation

The transportation facilities and travel pattern of people in the municipality area are from the Kathmandu valley public vehicle service from various places to the Budhanilkantha. The public transport is operated in the municipality is connected to cities of Kathmandu, Lalitpur, Bhaktapur and out of Kathmandu Valley. Typically, the nature of transport operation is higher at morning peak and reverse at evening peak time. The major settlements of generating public transport trips are dense settlement areas stated earlier.

Table 4.3: List of Existing Transport Routes linking of Municipality

S.N.	Route Description	No of Vehicle	Vehicle Type
1	Ratnapark-Budhanilkantha and reverse in same route	27	Bus, Minibus
2	Budhanilkantha-Kalanki-Satdobato and reverse in same route	28	Mini Bus
3	Lagankhel-Budhanilkantha	6	Bus (Saiha)
4	Budhanilkantha-NAC and reserves in same route	45	Micro bus,
5	Budhanilkantha-Chabel and reverse in same route	22	Micro bus
6	Budhanilkantha-Koteshor	20	Mini Bus

4.5 RoadTraffic

The road traffic of the municipality has been found that there are vehicle services in almost all the roads at settlements. The traffic volume has been assessed of the vehicle movement and number of vehicles per day. The Passenger Car Unit (PCU) and Vehicle per Day (VPD of the Main roads traffic is given below:

Type	Weight
Motorcycle	0.5
Car-Jeep- Minibus	1
Tractor	2
Truck-Bus	4

Table 4.4: Road Traffic conditions of Municipality main Road

S.N.	Road Name	Total Length (km)	Motor cycle	Car-Jeep-Minibus	Tractor	Truck-Bus	PCU	VPD
1	Aakashedhara-Ram Mandir Road	1.13	200	100	10	50	420	160
2	Akasedhara-Krishnamandir-Sashid Park Road	3.16	500	200	30	80	830	310
3	Amar Yuwa Club-Dhobi Khola Road	0.37	600	200	10	90	880	300
4	Atam Bikas School(Bhandaritole)-Simaligaun-Chaukidada -Karmagumba-Taulng Chautara Road	1.95	200	50	15	25	280	90
5	Bhangal chowk-Kagajkarkhana-Purktitole-Kalika Mandir Road	1.43	500	100	5	40	520	145
6	Chapali Ghumti-Samaudaik Chowk Marga	0.62	700	200	5	100	960	305
7	Chapali Ghumti-Shiva Mandir-Ghattapati-Kuwatole-Chandeshori Road	2.32	750	200	15	120	1,085	335
8	Chautara- Aaitabaregate-Stupa Road	2.03	500	50	10	20	400	80
9	Chuchepati (Mahankal)-Faika-Anigumba-Krishnamandir-Chunikhel-Bhadrakali- Chapali chowk Road	5.16	1000	200	50	200	1,600	450
10	Chunikhel Chowk-Sapataar Road	1.34	500	100	25	150	1,000	275
11	Dhumbarahi-Mandikhatar -Golphutar Road	2.44	1500	500	10	280	2,390	790
12	Ganesh Chowk Marge- Bhadrakali Mandir Marga	1.31	400	100	5	40	470	145
13	Golphutar-Hepali-Shantibatika chowk-Bhadrakali Diary-Chyasindole-Saibaba pul-Bishnumati Pul Road	2.57	500	150	8	100	816	258
14	Hattigauda-Bhadrakali Mandir-Bishnumati Road	1.41	500	200	10	120	950	330
15	Italitar-Kapurchowk-Bishnumati Khola Road	1.70	500	180	10	100	850	290
16	Jagdole School (Bhangyang)- Gamcha Road	3.72	200	50	15	70	460	135

S.N.	Road Name	Total Length (km)	Motor cycle	Car-Jeep-Minibus	Tractor	Truck-Bus	PCU	VPD
17	Khatrigaoun(Shivamandir)- Shahibaba Pool Road	0.99	200	100	10	50	420	160
18	Mahakalchour-Dhungen-Faika Chowk-Balkumari Mandir-Kharibot-Mathillo Paiyatar-Jagdol gate-Sahid Park-Jagdol School(bhangyang)	4.48	600	200	20	160	1,180	380
19	Manbahadur Marga (Special-Valley School-Snayauta Bus Park-Chunikhel Road	2.03	550	220	10	200	1,315	430
20	Milanchowk -Bhasanthali-Chandeshwari Road	3.25	600	250	15	200	1,380	465
21	Naya chowk-Sidhartha Coleni-Petaredhunga-Thapgaun-Shreeram School-Baripal Road	2.54	500	210	5	150	1,070	365
22	Neuro Hospital-Bhetghatchowk-Basundhara Road	0.65	550	180	10	120	955	310
23	Nilopool (Apsaraghata)- Bhadrakali School-Panchakanya Road	1.50	600	160	5	100	870	265
24	Nilopool (apsaraghata)-Taulung Chautara-Khanepani-Jay Bhadrakali School Raod	1.36	400	140	10	100	760	250
25	Nilopool-Gairigaun-Muhanpokhari Road (Bagdwar Marga)	1.31	400	100	5	60	550	165
26	Panchakanya Marga (Panchakanya Chowk-Wasik Badeli-Tarebhira)	4.71	700	250	15	200	1,430	465
27	Police Bit- Akashedhara Road	0.10	400	100	5	100	710	205
28	Rudrshor Marga (Rudreshorchowk- BMC School-Bandepakha-Kaudole Road	1.86	600	200	10	120	1,000	330
29	Saphredhunga-Rammandir-Ganesh Mandir Road	0.73	450	100	10	80	665	190
30	Sattale-Rudramati Chowk-Baluwakhani-Sapredhunga Road-Sundarbasti(Valley Public School) Road	3.98	700	200	10	260	1,610	470
31	Shiva Mandir-Sahid Park Road	1.71	300	80	15	40	420	135
32	Sukedhara Chowk-Nayacoloni-Ekatabasti Road	1.59	600	180	5	200	1,290	385
33	Sukedhara- Nilopool-Rudramati Chowk Road	0.65	750	200	10	250	1,595	460
34	Yagyamati Road (Milanchowk-Kapanchouki-Jordhara-Telecom-Karkhana-Bindabasini-Aanigumba-Gurung Tol-Yagyamati School) Road	2.32	500	170	15	110	890	295
	Total	68.42						

Source: Field Survey, 2020.

4.6 Bus Park and Parking Situation

There are not specified location for parking is observed in all the road alignment in the municipality area. The parking site is been specified and located with the parking signboard. There are some bus park located at Budanilkantha, Smyukta Bus Park, in the municipality. But, there is no properly managed bus park in the municipality. Some of the offices have their own parking area; however the most of the market center in the area do not have sufficient parking spaces. The parking problem is observed in the market area which will be the problem in future as per the increase the traffic volume in the market. So it is the time to plan the parking space in the municipality area especially for public crowding places, like shopping area, playground, market area etc. The bus parking and terminal is planning at Chnikhel Area

4.7 List of Major Municipality Roads

Municipality road inventory has identified the roads in all wards with its surface conditions and length of the roads as well as width of the roads. These existing roads are classified as Class B, Class C and Class D accordingly with its surface conditions of Black top, Gravelled, Earthen, and Stone Laying. The road inventory of municipality road is given below;

Table 4.5: Municipality Main Road with surface condition

S.No	Road Name	Black Topped (km)	Gravel(km)	Earthen(km)	RCC(km)	New Construction(km)	Total
1	Aakashedhara-Ram Mandir	0.18	0.95	0.00	0.00	0.00	1.13
2	Akasedhara-Krishnamandir-Sashid Park Road	0.83	0.30	1.41	0.62	0.00	3.16
3	Amar Yuwa Club-Dhobi Khola Road	0.37	0.00	0.00	0.00	0.00	0.37
4	Atam Bikas School(Bhandaritole)-Simaligaun-Chaukidada - Karmagumba-Taulng Chautara Road	0.00	0.00	1.37	0.58	0.00	1.95
5	Bhangal chowk-Kagajkarkhana-Purkitole-Kalika Mandir Road	0.45	0.58	0.00	0.40	0.00	1.43
6	Chapali Ghumti-Samaudaik Chowk Marga	0.00	0.00	0.00	0.62	0.00	0.62
7	Chapali Ghumti-Shiva Mandir-Ghattapati-Kuwatole-Chandeshori Road	0.00	1.07	1.11	0.14	0.00	2.32
8	Chautara- Aaitabaregate-Stupa Road	0.00	0.00	0.00	2.03	0.00	2.03
9	Chuchepati (Mahankal)-Faika-Anigumba-Krishnamandir- Chunikhel-Bhadrakali- Chapali chowk Road	0.72	2.51	0.00	1.94	0.00	5.16
10	Chunikhel Chowk-Sapataar Road	0.83	0.00	0.51	0.00	0.00	1.34
11	Dhumbarahi-Mandikhatar -Golphutar Road	2.44	0.00	0.00	0.00	0.00	2.44
12	Ganesh Chowk Marge- Bhadrakali Mandir Marga	0.76	0.00	0.00	0.55	0.00	1.31
13	Golphutar-Hepali-Shantibatika chowk-Bhadrakali Diary- Chyasindole-Saibaba pul-Bishnumati Pul Road	0.28	0.00	1.55	0.74	0.00	2.57
14	Hattigauda-Bhadrakali Mandir-Bishnumati Road	0.00	0.00	1.15	0.26	0.00	1.41
15	Italitar-Kapurchowk-Bishnumati Khola Road	1.19	0.46	0.00	0.06	0.00	1.70
16	Jagdole School (Bhangyang)- Gamcha Road	0.01	0.00	3.55	0.16	0.00	3.72
17	Khatrigaoun(Shivamandir)- Shahibaba Pool Road	0.00	0.94	0.00	0.05	0.00	0.99
18	Mahakalchour-Dhungen-Faika Chowk-Balkumari Mandir- Kharibot-Mathillo Paiyatar-Jagdol gate-Sahid Park-Jagdol School(bhangyang)	2.91	1.57	0.00	0.00	0.00	4.48
19	Manbahadur Marga (Special-Valley School-Snayauta Bus Park- Chunikhel Road	2.03	0.00	0.00	0.00	0.00	2.03
20	Milanchowk -Bhasanthali-Chandeshwari Road	2.90	0.35	0.00	0.00	0.00	3.25

S.No	Road Name	Black Topped (km)	Gravel(km)	Earthen(km)	RCC(km)	New Construction(km)	Total
21	Naya chowk-Sidhartha Coleni-Petaredhunga-Thapgaun-Shreeram School-Barpipal Road	1.42	0.48	0.65	0.00	0.00	2.54
22	Neuro Hospital-Bhetghatchowk-Basundhara Road	0.57	0.00	0.00	0.08	0.00	0.65
23	Nilopool (Apsaraghat)- Bhadrakali School-Panchakanya Road	0.73	0.00	0.00	0.77	0.00	1.50
24	Nilopool (apsaraghat)-Taulung Chautara-Khanepani-Jay Bhadrakali School Raod	0.00	0.00	0.56	0.81	0.00	1.36
25	Nilopool-Gairigaun-Muhanpokhari Road (Bagdwar Marga)	0.00	0.00	0.44	0.86	0.00	1.31
26	Panchakanya Marga (Panchakanya Chowk-Wasik Badeli-Tarebhir)	0.81	0.00	0.74	3.15	0.00	4.71
27	Police Bit- Akashedhara Road	0.10	0.00	0.00	0.00	0.00	0.10
28	Rudrshor Marga (Rudreshorchowk- BMC School-Bandepakha-Kaudole Road	0.31	0.74	0.42	0.19	0.20	1.86
29	Saphredhunga-Rammandir-Ganesh Mandir Road	0.00	0.00	0.39	0.34	0.00	0.73
30	Sattale-Rudramati Chowk-Baluwakhani-Sapredhunga Road-Sundarbasti(Valley Public School) Road	2.79	1.18	0.00	0.00	0.00	3.98
31	Shiva Mandir-Sahid Park Road	0.00	0.20	1.52	0.00	0.00	1.71
32	Sukedhara Chowk-Nayacoloni-Ekatabasti Road	1.12	0.47	0.00	0.00	0.00	1.59
33	Sukedhara- Nilopool-Rudramati Chowk Road	0.65	0.00	0.00	0.00	0.00	0.65
34	Yagyamati Road (Milanchowk-Kapanchouki-Jordhara-Telecom-Karkhana-Bindabasini-Aanigumba-Gurung Tol-Yagyamati School) Road	0.00	1.59	0.51	0.22	0.00	2.32
	Total	24.41	13.38	15.88	14.55	0.20	68.42

Table 4.6: Municipality Ward Rod –Ward No 1 road with surface condition

S.N.	Road Name	Black Topped	Gravel	Earthen	RCC	Tile Paved	Trial Path	New Construction	Total	Road Width (m)
1	Nilopool-Phulbari Marga-Panchakanya Marga	0.00	0.00	0.43	0.22	0.00	0.00	0.00	0.65	6
2	Jayabhardakali School-Panchakanya Marga (Samraddh*)	0.19	0.00	0.19	0.00	0.00	0.00	0.00	0.37	6
3	Karmagumba-Nawakiran-Chaukidada Road	0.00	0.00	0.00	0.19	0.00	0.00	0.43	0.62	4
4	Khanipani Tanki-Nakhidole Road	0.00	0.00	0.10	0.10	0.00	0.00	0.00	0.19	4
5	Ward Office 1-Fulbari Coleni Road	0.16	0.00	0.00	0.42	0.00	0.00	0.00	0.58	4
6	Nakhidole-Bramje Road	0.00	0.00	0.26	0.00	0.00	0.00	0.00	0.26	4
7	Dukurni Mandir-Sundarbasti-Poudelchowk Road	0.00	0.00	0.14	0.28	0.00	0.00	0.00	0.42	5
8	Nasal Devi Marga	0.00	0.00	0.09	0.11	0.00	0.00	0.00	0.20	4
9	Ward Office 1-Dukuni Mandir -Taulung Chautara Road	0.00	0.00	0.00	0.21	0.00	0.00	0.00	0.21	4
10	Ward Office 1-Ladhung -Taulung Chautara Road	0.00	0.00	0.00	0.41	0.00	0.00	0.00	0.41	4
11	Ishan Coloni Marga	0.00	0.00	0.00	0.17	0.00	0.00	0.00	0.17	6
12	Dukurni - Simali CHauki dada	0.00	0.00	0.00	0.00	0.00	0.43	0.00	0.43	2
	Total	0.348	0	1.194	2.097	0	0.432	0.427	4.498	

Table 4.7: Municipality Ward Road – Ward No 2 with surface condition

S.N.	Road Name	Black Topped (km)	Gravel(km)	Earthen (km)	RCC (km)	Tile Paved (km)	Trial Path (km)	New Construction (km)	Total	Road Width (m)
	Anmol Marga	0.00	0.00	0.00	0.33	0.00	0.00	0.00	0.33	6
2	B.M.C School Branch Marga	0.00	0.13	0.00	0.00	0.00	0.00	0.00	0.13	8
3	Bal Griha Marga	0.30	0.00	0.16	0.20	0.00	0.00	0.00	0.66	3.5
4	Bhadrabasti Road	0.23	0.00	0.22	0.00	0.00	0.00	0.00	0.45	4
5	Bidyut Substation Marga	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.53	5
6	Chyani Khola Corridor	0.00	0.00	0.39	0.00	0.00	0.00	0.00	0.39	6
7	Ganesh Chowk Marga Nil Barahi Marga	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.20	4
8	Ganesh School Marga	0.00	0.39	0.00	0.00	0.00	0.00	0.00	0.39	4
9	Kalika Marga	0.27	0.00	0.27	0.00	0.00	0.00	0.00	0.53	4
10	Lamichhane Marga	0.36	0.00	0.00	0.00	0.00	0.00	0.00	0.36	4
11	Lamichhane Marga-Dhobikhola Corridor Road	0.00	0.00	0.38	0.00	0.00	0.00	0.00	0.38	6
12	Mahadev Colony Marga	0.39	0.00	0.30	0.00	0.00	0.00	0.00	0.69	6
13	Mahakal Bhairab Marga	0.20	0.00	0.15	0.09	0.00	0.00	0.00	0.43	5
14	Miteri Marga	0.75	0.00	0.15	0.19	0.00	0.00	0.00	1.09	5
15	Panchakanya Nayabasti Marga	0.00	0.00	0.40	0.00	0.00	0.00	0.00	0.40	3
16	Pipal Bot Marga	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.13	4
17	Sundartar (Kamidada)-Sayukta Buspark	0.51	0.00	0.00	0.45	0.00	0.00	0.00	0.96	8
18	Wasik Chowk Jai Bhadrakali School Naigumba	0.00	0.00	0.00	0.43	0.00	0.00	0.00	0.43	6
19	Jayabhadrakali School-Chandraban Road	0.00	0.00	0.12	0.05	0.00	0.00	0.00	0.17	4
	Total	3.861	0.522	2.412	1.689			0	8.484	

Table 4.8: Municipality Ward Road – Ward No 3 with surface condition

S.N.	Road Name	Black Topped (km)	Gravel (km)	Earthen(km)	RCC (km)	Tile Paved (km)	Trial Path (km)	New Constr (km)uction	Total (km)	Road Width (m)
1	Aatmabikas Marga	0.00	0.00	0.14	0.00	0.00	0.00	0.00	0.14	3.5
2	Bishnu Paduka Marga	0.00	0.00	0.17	0.00	0.00	0.00	0.00	0.17	4
3	Budhanilkantha Parisar Marga	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.26	6
4	Gairigaun Miteri Marga	0.00	0.00	0.08	0.00	0.00	0.00	0.00	0.08	4
5	Harihar Marga	0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.16	4.5
6	Kailash Colony Marga	0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.16	4
7	Lomos Marga	0.00	0.18	0.00	0.00	0.00	0.00	0.00	0.18	4
8	Mahadev Marga	0.27	0.00	0.00	0.00	0.00	0.00	0.00	0.27	4
9	Milanchowk-Chorling Gumba Sadak	0.00	0.00	0.00	0.00	0.00	0.00	0.44	0.44	4
10	Mithapani Marga	0.00	0.00	0.00	0.00	0.28	0.00	0.00	0.28	6
11	Muhanpokhari Miteri Marga	0.00	0.00	0.00	0.21	0.00	0.00	0.00	0.21	4
12	Narkonan Marga	0.00	0.33	0.33	0.00	0.00	0.00	0.00	0.65	4
13	Nilkantha Marga	0.12	0.00	0.40	0.17	0.00	0.00	0.00	0.69	5.5
14	Panchakumari Marga	0.25	0.00	0.20	0.15	0.00	0.00	0.00	0.61	5
15	Phedi Gaun Marga	0.00	0.00	0.48	0.00	0.00	0.00	0.00	0.48	3.5
16	Sagun Marga	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.22	4
17	Shivapuri Marga	0.00	0.00	0.00	0.16	0.00	0.00	0.00	0.16	3
18	Swargadwari Marga	0.00	0.00	0.08	0.08	0.00	0.00	0.00	0.17	3.5
	Total	1.441	0.506	1.886	0.766	0.281	0	0.437	5.317	

Table 4.9: Municipality Ward Road – Ward No 4 with surface condition

S.N	Road Name	Black Topped (km)	Gravel (km)	Earthen(km)	RCC (km)	Tile Paved (km)	Trial Path (km)	New Constr (km)uction	Total (km)	Road Width (m)
1	Arthur Marga	0.00	0.00	0.25	0.00	0.00	0.00	0.00	0.25	4.6
2	Buddha Marga	0.00	0.00	0.16	0.00	0.00	0.00	0.00	0.16	4.8
3	Budha Sim Marga	0.00	0.00	0.59	0.00	0.00	0.00	0.00	0.59	4
4	Ghattapati Bhasanthali Road	0.00	0.00	1.01	0.00	0.00	0.00	0.00	1.01	6
5	Gurung Chowk-Shivapuri Marga	0.00	0.00	0.20	0.00	0.00	0.00	0.00	0.20	4.5
6	Harati Mandir Shiva Mandir- Karkitol- Khadkatol	0.38	0.00	0.25	0.00	0.00	0.00	0.00	0.63	5.5
7	Himalaya Colony Road	0.00	0.00	0.09	0.00	0.00	0.00	0.00	0.09	4.8
8	Kantipur Namuna Basti-Bishnumati Corridor	0.00	0.00	0.26	0.00	0.00	0.00	0.00	0.26	4.5
9	Kapoer Chowk-Golden Chowk- Shantimarga Chowk	0.00	0.00	0.49	0.00	0.00	0.00	0.00	0.49	6
10	Krishna Marga	0.00	0.00	0.00	0.13	0.00	0.00	0.00	0.13	4.2
11	Kuwa Marga Kapoor Chowk	0.00	0.00	0.47	0.00	0.00	0.00	0.00	0.47	4.6
12	Kuwatol-Bhasanthali Marga	0.00	0.00	0.14	0.00	0.00	0.00	0.00	0.14	4.8
13	Maitri Marga	0.00	0.00	0.43	0.00	0.00	0.00	0.00	0.43	4
14	North Village Road	0.00	0.00	0.07	0.00	0.00	0.00	0.00	0.07	4
15	Panchakanya Marga	0.00	0.27	0.20	0.00	0.00	0.00	0.00	0.47	5
16	Pragati Marga	0.00	0.00	0.47	0.00	0.00	0.00	0.00	0.47	4
17	Rudhreshwor-ThapaGau Road	0.00	0.00	0.23	0.00	0.00	0.00	0.00	0.23	4.7
18	Samudaik Bhawan Road	0.00	0.00	0.13	0.00	0.00	0.00	0.00	0.13	4.9
19	Shiva Mandir-Thapagau-Budhanilkantha	0.00	0.00	0.00	0.26	0.00	0.00	0.00	0.26	6
20	SriRam School Mijartol- Ghattapati Sadak	0.00	0.00	0.38	0.00	0.00	0.00	0.00	0.38	4.8
21	Ward Office- Golden Chowk Road	0.00	0.00	0.48	0.00	0.00	0.00	0.00	0.48	6
22	Goldenchowk-Krishna Marga	0.00	0.00	0.29	0.00	0.00	0.00	0.00	0.29	4.5
23	Shreeram School-Ghattapati Road	0.00	0.00	0.41	0.00	0.00	0.00	0.00	0.41	5
	Total	0.384	0.274	6.28	0.386	0	0	0	7.324	

Table 4.10: Municipality Ward Road – Ward No 5 with surface condition

S.N.	Road Name	Black Topped (km)	Gravel (km)	Earthen(km)	RCC (km)	Tile Paved (km)	Trial Path (km)	New Constr (km)uction	Total (km)	Road Width (m)
1	Aaitabare Gate-Chisini Sadak	0.00	0.00	0.08	0.30	0.00	0.00	0.00	0.38	4
2	Bishnumati Chowk-Chautara-Gairigaun Road	0.33	0.00	0.00	0.79	0.00	0.00	0.00	1.12	6
3	Budhanilkantha School Comfort Housing Pasikot	0.43	0.00	0.00	0.35	0.00	0.00	0.00	0.78	5
4	Chautara-Chorling Gumba-Vijaya Stupa Sadak	0.15	0.00	0.00	0.78	0.00	0.00	0.00	0.93	6
5	Dakshinewori Club-Tusal Sadak	0.00	0.00	0.00	0.36	0.00	0.00	0.00	0.36	4.8
6	Iskon Mandir Gate-Thaphthok Road	0.00	0.00	0.00	0.28	0.00	0.00	0.00	0.28	5
7	Lakuribot-Deula tol sadak	0.27	0.00	0.00	0.00	0.00	0.00	0.00	0.27	4
8	Numuna Basti Marga	0.00	0.00	0.00	0.23	0.00	0.00	0.00	0.23	4
9	Numuna Basti MargaSwargadwari Colony-Tusal Sadak	0.00	0.00	0.00	0.21	0.00	0.00	0.00	0.21	4
10	Panchkanya Mavi- Bishnumati Ghat Sadak	0.00	0.23	0.00	0.00	0.00	0.00	0.00	0.23	4
11	Sai Marga	0.20	0.00	0.18	0.00	0.00	0.00	0.00	0.38	4
12	Swargadwari Colony-Tusal Sadak	0.00	0.00	0.32	0.00	0.00	0.00	0.00	0.32	5.4
13	Whitehouse Dulal Basti Sadak	0.00	0.00	0.00	0.51	0.00	0.00	0.00	0.51	4
	Total	1.379	0.226	0.578	3.794	0	0	0	5.977	

Table 4.11: Municipality Ward Road – Ward No 6 with surface condition

S.N.	Road Name	Black Topped (km)	Gravel (km)	Earthen(km)	RCC (km)	Tile Paved (km)	Trial Path (km)	New Constr (km)uction	Total (km)	Road Width (m)
1	Bhadrakali School Marga	0.00	0.09	0.00	0.00	0.00	0.00	0.00	0.09	4
2	Chyasindole Purano Basti Marga	0.00	0.00	0.32	0.00	0.00	0.00	0.00	0.32	4
3	Chyasindole-Navadurga Mandir Dhapasi Road	0.00	0.00	0.00	0.18	0.00	0.00	0.00	0.18	4
4	Dharampur-Bhandari Dairy Sadak	0.00	0.83	0.00	0.00	0.00	0.00	0.00	0.83	5
5	Ganesh Chowk-Ludikhola-Bishnumati Sadak	0.00	0.50	0.00	0.10	0.00	0.00	0.00	0.60	5.5
6	Khatri Gau-Shiva Mandir-Pragati Samudaik Ban(Kuwa)	0.43	0.00	0.33	0.00	0.00	0.00	0.00	0.76	4
7	Labanya Marga	0.00	0.00	0.35	0.00	0.00	0.00	0.00	0.35	5.8
8	Machagal-Nakalidada-Seraphat-Ludikhola-KapoorChowk	0.00	0.00	0.43	0.30	0.00	0.00	0.00	0.73	6
9	Nageshwor Marga	0.00	0.00	0.33	0.00	0.00	0.00	0.00	0.33	4
10	Namuna Basti Marga	0.00	0.15	0.00	0.07	0.00	0.00	0.00	0.22	4
11	New Colony 1	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.13	4
12	New Colony 2	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.08	4
13	New Colony 3	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.10	4
14	Pragati Marga	0.00	0.00	0.22	0.00	0.00	0.00	0.00	0.22	4.5
15	Ram Mandir-Ludikhola-Baripal Sadak	0.00	0.00	0.36	0.10	0.00	0.00	0.00	0.46	6
16	Rammandir-Okhlagaa-Hattitangin Road	0.00	0.00	0.49	0.00	0.00	0.00	0.00	0.49	3.5
17	Shirjansil Marga	0.00	0.18	0.00	0.00	0.00	0.00	0.00	0.18	5
18	Swarswati Colony Marga	0.44	0.00	0.00	0.00	0.00	0.00	0.00	0.44	5.8
19	Upakar Road	0.00	0.00	0.00	0.24	0.00	0.00	0.00	0.24	4
20	Ward Office Marga	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.10	4
	Total	1.284	1.75	2.825	0.991	0	0	0	6.85	

Table 4.12: Municipality Ward Road – Ward No 7 with surface condition

S.N.	Road Name	Black Topped (km)	Gravel (km)	Earthen(km)	RCC (km)	Tile Paved (km)	Trial Path (km)	New Construction(km)	Total (km)	Road Width (m)
1	Bashuki Chowk-Bhakti School-Hattigauda Road	0.19	0.00	0.35	0.00	0.00	0.00	0.00	0.54	3
2	Bhadrakali Basti Lane	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.17	4
3	Bhakti School Ekal Mahila Chahari Road	0.00	0.00	0.18	0.00	0.00	0.00	0.00	0.18	3
4	Bhetghat Chowk Bhitri Bato	0.00	0.00	0.00	0.12	0.00	0.00	0.00	0.12	3
5	Bhetghat CHowk lane 1	0.00	0.00	0.00	0.16	0.00	0.00	0.00	0.16	3
6	Bhetghat Chowk-Gairigaun-Church Sadak	0.00	0.00	0.55	0.00	0.00	0.00	0.00	0.55	4
7	Chyasindole Dharampur Road	0.00	0.00	0.37	0.36	0.00	0.00	0.00	0.73	4
8	Datthuchowk Bato	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.06	4
9	Dhanagau Khatri Gau Goreto bato	0.00	0.00	0.00	0.00	0.00	0.21	0.00	0.21	1.5
10	Futsal Melamchi Tanki-Hepali Height Sadak	0.00	0.16	0.00	0.17	0.00	0.00	0.00	0.33	4
11	Ganesh Chowk-Tanagau	0.10	0.22	0.00	0.30	0.00	0.00	0.00	0.62	3.2
12	Golfutar-Dhanagau Sadak	0.27	0.00	0.00	0.20	0.00	0.00	0.00	0.47	4.2
13	Happy Colony Marga	0.32	0.00	0.00	0.00	0.00	0.00	0.00	0.32	6
14	Hattigauda-Datthugau-Dharampur Road	0.00	0.35	0.24	0.20	0.00	0.00	0.00	0.79	6
15	Bhetghat Chowk -Unique Tole- Hepali Chowk	0.64	0.00	0.00	0.00	0.00	0.00	0.00	0.64	6
16	Khadkagaun- Datthu Gaun- Tallo Khatri Gaun	0.28	0.35	0.00	0.12	0.00	0.00	0.00	0.75	5
17	Lane Road	0.48	0.08	0.00	0.08	0.00	0.00	0.00	0.63	4
18	Milan Basti Sibal Sadak	0.00	0.16	0.00	0.00	0.00	0.00	0.00	0.16	4
19	Samakhusi Khola Church Bhetghat Chowk Basundhara	0.00	0.00	0.25	0.00	0.00	0.00	0.00	0.25	4
20	Shanta Colony	0.00	0.00	0.00	0.07	0.00	0.00	0.00	0.07	4
21	Shristi School Lane	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.06	3
22	Tusal Devi Marga	0.10	0.00	0.15	0.00	0.00	0.00	0.00	0.25	6
23	Unique Tole-Samudaik Bhawan	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.10	4.1
	Total	2.618	1.366	2.189	1.775	0	0.205	0	8.153	

Table 4.13: Municipality Ward Road – Ward No 8 with surface condition

S.N.	Road Name	Black Topped (km)	Gravel (km)	Earthen (km)	RCC (km)	Tile Paved (km)	Trial Path (km)	New (km)	Total (km)	Road Width (m)
1	Adarsha Colony marga	0.37	0.00	0.00	0.00	0.00	0.00	0.00	0.37	6
2	Anita Milan-Jutta Karkhana Panchakurmi Pani Karkhana	0.00	0.00	0.24	0.39	0.00	0.00	0.00	0.63	3.6
3	Bhangal Chowk-Jagannath Mandir-Hattigauda Sadak	0.11	0.00	0.38	0.10	0.00	0.00	0.00	0.59	5
4	Bhangal Chowk-Kagaj Karkhana Sadak	0.00	0.00	0.00	0.08	0.00	0.00	0.00	0.08	3.5
5	Bhangal ht Buspark	0.30	0.00	0.00	0.00	0.00	0.00	0.00	0.30	4
6	Bhangal Khahare	0.00	0.00	0.48	0.00	0.00	0.00	0.00	0.48	5
7	BPS marga	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.12	4
8	Ganesh Mandir (Pipal Chautara)-Khahare Khola Sadak	0.00	0.19	0.00	0.10	0.00	0.00	0.00	0.29	3.2
9	Goldev Marga	0.00	0.45	0.00	0.00	0.00	0.00	0.00	0.45	4.8
10	Golfutar Purba-Thulo chaur Sadak	1.15	0.00	0.00	0.00	0.00	0.00	0.00	1.15	5
11	Golfutar Sadak -Baruwal Tol	0.00	0.00	0.00	0.00	0.14	0.00	0.00	0.14	3
12	Golfutar Sadak-Neuro Hospital	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.13	4
13	Golfutar Second Road(Paschim)	0.46	0.00	0.00	0.00	0.00	0.00	0.00	0.46	5
14	Golfutar-West Road	0.24	0.00	0.00	0.00	0.00	0.00	0.00	0.24	5
15	Halesi Baruwal Tol Sadak	0.00	0.00	0.00	0.23	0.00	0.00	0.00	0.23	3.5
16	Highland Samaj-Bahundada-Shanti priye tol sadak	0.00	0.00	0.00	0.20	0.00	0.00	0.00	0.20	4
17	Kagaj Karkhana Om Nagar Sadak	0.00	0.00	0.55	0.00	0.00	0.00	0.00	0.55	6
18	kc tol buspark	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.33	4
19	Khahare-Dhobikhola Corridor	0.00	0.00	0.36	0.00	0.00	0.00	0.00	0.36	8
20	Khahare-Rudramati-Talim Kendra	0.00	0.00	0.17	0.00	0.00	0.00	0.00	0.17	5
21	Lane Road	0.18	0.00	0.00	0.00	0.00	0.00	0.00	0.18	4
22	Mahakal Halesi Marga	0.17	0.00	0.00	0.17	0.00	0.00	0.00	0.35	5
23	Mandikhatar-Micro Buspark-Dhobikhola	0.34	0.00	0.00	0.00	0.00	0.00	0.00	0.34	6
24	Nagarpalika Marga	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.06	4.1
25	Panchasil Marga	0.00	0.00	0.00	0.09	0.00	0.00	0.00	0.09	3
26	Pragati tol marga	0.36	0.00	0.00	0.00	0.00	0.00	0.00	0.36	4

S.N.	Road Name	Black Topped (km)	Gravel (km)	Earthen (km)	RCC (km)	Tile Paved (km)	Trial Path (km)	New (km)	Total (km)	Road Width (m)
27	Purkuti Tol Khahare Khola sadak	0.00	0.00	0.16	0.14	0.00	0.00	0.00	0.30	3
28	Purkuti Tol-Shiva Mandir Sayukta Buspark Sadak	0.00	0.00	0.83	0.00	0.00	0.00	0.00	0.83	5
29	Rudramati Marga (Dhobikhola Manbahadur Marga)	0.30	0.00	0.68	0.20	0.00	0.00	0.00	1.18	6
30	Rudramati- St.John School	0.18	0.00	0.00	0.00	0.00	0.00	0.00	0.18	4.2
31	Rudramati Vitra Road	0.57	0.00	0.00	0.00	0.00	0.00	0.00	0.57	4.2
32	Rudramati-Suncity Marga	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.17	5
33	Sambriddhi Marga	0.19	0.19	0.00	0.00	0.00	0.00	0.00	0.37	4
34	Shirjansil Chowk Ganesh School	0.00	0.00	0.00	0.51	0.00	0.00	0.00	0.51	5
35	Special Height Colony	0.00	0.00	0.15	0.15	0.00	0.00	0.00	0.30	4
36	Srilokeshwor Ram Janaki Mandir Marga	0.00	0.00	0.20	0.12	0.00	0.00	0.00	0.32	5
37	Variety Chowk-Mahakal-Rudramati Marga Sadak	0.25	0.00	0.00	0.06	0.00	0.00	0.00	0.31	5.6
	Total	5.892	0.829	4.248	2.545	0.141	0	0	13.655	

Table 4.14: Municipality Ward Road – Ward No 9 with surface condition

S.N.	Road Name	Black Topped (km)	Gravel (km)	Earthen (km)	RCC (km)	Tile Paved (km)	Trial Path (km)	New Construction (km)	Total (km)	Road Width (m)
1	Adarshanagar-Trichowk Marga	0.40	0.40	0.00	0.00	0.00	0.00	0.00	0.79	4
	Lane 1	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.08	3
	Lane 2	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.06	3
	Lane 3	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.10	3
	Lane 4	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.07	4
	Lane 5	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.06	3.5
	Lane 6	0.00	0.11	0.00	0.00	0.00	0.00	0.00	0.11	4
	Lane 7	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.11	3
	Lane 8	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.06	4
	Lane 9	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.03	4

S.N.	Road Name	Black Topped (km)	Gravel (km)	Earthen (km)	RCC (km)	Tile Paved (km)	Trial Path (km)	New Construction (km)	Total (km)	Road Width (m)
	Lane 10	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.05	3
	Lane 11	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.09	3.5
	Lane 14	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.07	3
	Lane 12	0.00	0.07	0.00	0.00	0.00	0.00	0.00	0.07	4
	Lane 13	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.03	3
	Lane 14	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	3
2	Barphedi-Ekta Basti Marga	0.37	0.00	0.00	0.00	0.00	0.00	0.00	0.37	4
	Lane 1	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4
	Lane 2	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4
3	Ekta Basti Loyalty School Marga	0.30	0.00	0.00	0.00	0.00	0.00	0.00	0.30	4.7
4	Gairigau Marga	0.00	0.17	0.00	0.00	0.00	0.00	0.00	0.17	4
5	Gate College Radha Krishna Marga	0.00	0.00	0.00	0.00	0.26	0.00	0.00	0.26	3.4
6	Hams Hospital-Sridi Colony-Mandikhatar	0.51	0.00	0.00	0.00	0.00	0.00	0.00	0.51	3.7
	Lane 1	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.08	3.5
	Lane 2	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.05	3.8
	Lane 3	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.07	3.5
	Lane 4	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.05	3
	Lane 5	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.08	3.5
	Lane 6	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.10	3.5
7	High tension lane	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.05	4
8	High Tension Marga	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.15	4.5
9	Khahare Marga	0.00	0.00	0.11	0.00	0.00	0.00	0.00	0.11	4
10	Khanepani Boring-Adarshanagar Road	0.28	0.00	0.00	0.00	0.00	0.00	0.00	0.28	4.5
	Lane 1	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.05	3.5
	Lane 2	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.05	2.5
11	Khanepani East-Adarshanagar Road	0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.16	4.5
12	Kumari Mandir-Miteri Pool Road	0.27	0.00	0.22	0.00	0.00	0.00	0.00	0.50	5.8

S.N.	Road Name	Black Topped (km)	Gravel (km)	Earthen (km)	RCC (km)	Tile Paved (km)	Trial Path (km)	New Construction (km)	Total (km)	Road Width (m)
	Lane 1	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.12	3.6
	Lane 2	0.00	0.00	0.00	0.16	0.00	0.00	0.00	0.16	2.5
	Lane 3	0.00	0.00	0.00	0.11	0.00	0.00	0.00	0.11	3.5
13	Manakamana Colony Marga	0.00	0.07	0.00	0.00	0.00	0.00	0.00	0.07	4
14	Mandikhatar-Pipal Bot Marga	0.24	0.00	0.00	0.25	0.00	0.00	0.00	0.49	4
15	Mandikhatar-Radhakrishna Marga	0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.23	6
16	Mandikhatar-Sridi Colony Road	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.13	3.7
17	Naya Colony Dhobi Khola Road	0.39	0.00	0.00	0.00	0.00	0.00	0.00	0.39	3.8
	Lane 1	0.00	0.00	0.00	0.00	0.06	0.00	0.00	0.06	4
	Lane 2	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.03	3.5
	Lane 3	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.04	4
	Lane 4	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.07	4
18	Naya Colony Ekta Basti Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.2
	Lane 1	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.06	3.5
	Lane 2	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.05	3
	Lane 3	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.06	3
	Lane 4	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.06	3.4
	Lane 5	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.07	3
	Lane 6	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.03	3
	Lane 7	0.00	0.00	0.11	0.00	0.00	0.00	0.00	0.11	3.5
	Lane 9	0.00	0.00	0.13	0.00	0.00	0.00	0.00	0.13	3
	Lane 10	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.05	3
	Lane 11	0.00	0.00	0.00	0.00	0.11	0.00	0.00	0.11	3
	Lane 12	0.00	0.00	0.00	0.07	0.00	0.00	0.00	0.07	2
	Lane 13	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.05	2.5
	Lane 14	0.00	0.00	0.00	0.12	0.00	0.00	0.00	0.12	3.5
	Lane 15	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.10	3.5

S.N.	Road Name	Black Topped (km)	Gravel (km)	Earthen (km)	RCC (km)	Tile Paved (km)	Trial Path (km)	New Construction (km)	Total (km)	Road Width (m)
	Lane 16	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.09	5
	Lane 17	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.09	3.5
	Lane 18	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.08	3.5
	Lane 19	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.09	3.5
	Lane 23	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.09	3.50
	Lane 20	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.15	3
	Lane 21	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.10	2.8
	Lane 22	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.04	4.00
19	Naya Colony-Briland Marga	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.21	3.6
	Lane 1	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.06	3
	Lane 2	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.05	3
20	Om Colony Marga	0.00	0.00	0.00	0.15	0.00	0.00	0.00	0.15	3.9
21	Radha Krishna Mandir- Dhalane Pul	0.00	0.00	0.00	0.18	0.00	0.00	0.00	0.18	4.8
	Lane 1	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4
22	Sarbeshwori Marga	0.00	0.00	0.00	0.19	0.00	0.00	0.00	0.19	4.6
23	Shanti Colony Marga	0.00	0.00	0.00	0.00	0.12	0.00	0.00	0.12	3
24	Shirjana Chowk-Dhobi Khola Marga	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.26	3.6
	Lane 1	0.09	0.00	0.00	0.00	0.08	0.00	0.00	0.17	3
	Lane 2	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.06	3.5
25	Shriddhi Colony-Khahare	0.25	0.26	0.00	0.00	0.00	0.00	0.00	0.51	4.6
26	Amar Yuwa Club-Dhobikhola Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4
	Lane 1	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.06	2.7
	Lane 2	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.04	3.5
	Lane 3	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.04	3.8
	Lane 4	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.08	3.8
27	Suryaboya Basti Marga	0.00	0.00	0.00	0.19	0.00	0.00	0.00	0.19	3
	Total	6.935	1.324	0.565	1.806	0.867			11.497	

Table 4.15: Municipality Ward Road – Ward No 10 with surface condition

S.N.	Road Name	Black Topped (km)	Gravel (km)	Earthen (km)	RCC (km)	Tile Paved (km)	Trial Path (km)	New (km)	Total (km)	Road Width (m)
1	Aakashedhara Gairigaun Aashirbad Colony Ram Mandir	0.83	0.40	0.00	0.00	0.00	0.00	0.00	1.23	4.5
	Lane 1	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.05	3.8
	Lane 2	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.04	3
	Lane 3	0.00	0.00	0.00	0.08	0.00	0.00	0.00	0.08	4
2	Aakeshedhara-Ganesh Mandir	0.00	0.00	0.00	0.13	0.00	0.00	0.00	0.13	4
3	Adarshanagar- Matabal Road	0.44	0.00	0.00	0.00	0.00	0.00	0.00	0.44	4.6
4	Baluwakhani-Jyotinagar Road	0.30	0.08	0.00	0.15	0.00	0.00	0.00	0.53	4.4
5	Bekhdada-Siddheshwor	0.00	0.00	0.00	0.63	0.00	0.00	0.00	0.63	5.8
6	Bhukampa Smriti Park Marga	0.00	0.00	0.24	0.00	0.00	0.00	0.00	0.24	4.8
7	Deurali Marga	0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.23	4
8	Dharapakha Height	0.00	0.00	0.13	0.00	0.00	0.00	0.00	0.13	4.5
9	Friendship Marga	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.21	4.5
10	Gaurishankhar Marga	0.00	0.00	0.00	0.14	0.00	0.00	0.00	0.14	4.5
11	Haleshi Marga	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.11	4
12	Hilim Marga	0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.23	4
13	Hilim Marga Lane	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.10	4
14	Jordhara- Kapan Bahumukhi Campus-Handball	0.00	0.39	0.00	0.00	0.00	0.00	0.00	0.39	6
15	Jugal Height Marga	0.00	0.00	0.19	0.00	0.00	0.00	0.00	0.19	4.5
16	Jyotinagar-Pragati Tol Marga	0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.23	4.8
17	Manakamana Marga	0.00	0.00	0.00	0.14	0.00	0.00	0.00	0.14	4.8
18	Milanchowk Marga	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.07	4
19	Milanchowk- Siddheshwor-Panchkanya Chowk	0.48	0.00	0.00	0.00	0.00	0.00	0.00	0.48	5.8
20	Milanchowk-Bal udhar School- Ganesh Mandir Sadak	0.00	0.19	0.00	0.20	0.00	0.00	0.00	0.39	4.8
21	Milanchowk-Narayanchowk Road	0.36	0.00	0.00	0.00	0.00	0.00	0.00	0.36	6
22	Mount Kailash Marga	0.00	0.00	0.00	0.26	0.00	0.00	0.00	0.26	4.8
23	Navajagaran Marga	0.00	0.00	0.00	0.30	0.00	0.00	0.00	0.30	4

S.N.	Road Name	Black Topped (km)	Gravel (km)	Earthen (km)	RCC (km)	Tile Paved (km)	Trial Path (km)	New (km)	Total (km)	Road Width (m)
24	Naya bazar police chauki Marga	0.00	0.00	0.23	0.00	0.00	0.00	0.00	0.23	4.7
25	Nikhileshwor Colony	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.05	5
26	Nikhileshwor Halesi Mandir Bhukampa Smriti Park	0.31	0.09	0.31	0.10	0.00	0.00	0.00	0.81	6
	Lane 1	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.08	3.7
27	Nikhileshwor Marga	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.22	4
	Lane 1	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.14	3.8
	Lane 2	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.07	4
28	Nilopul Lane 1	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.13	4
29	Nilopul Lane 2	0.00	0.00	0.00	0.14	0.00	0.00	0.00	0.14	4
30	Nilopul Lane 3	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.08	4
31	Nilopul Lane 4	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.09	4
32	Nilopul-Shivapuri Chowk	0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.23	4
33	Panchadevi Marga	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.25	4.2
34	Panchakanya Siddheshwor Marga	0.24	0.00	0.00	0.00	0.00	0.00	0.00	0.24	4.6
35	Panchakumari 2	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.12	4
36	Panchakumari Marga	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.19	4.5
37	Panchkanya Chowk-Friendship Colony Marga	0.44	0.00	0.00	0.00	0.00	0.00	0.00	0.44	4
38	Parijat Marga	0.00	0.00	0.00	0.21	0.00	0.00	0.00	0.21	4
39	Pipal Bot Marga	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.11	4
40	Pragati tol lane	0.00	0.12	0.00	0.00	0.00	0.00	0.00	0.12	4.5
41	Rihana Marga	0.00	0.15	0.00	0.00	0.00	0.00	0.00	0.15	4.5
42	Shanta Shirjana Marga	0.00	0.00	0.16	0.00	0.00	0.00	0.00	0.16	4.6
43	Shanti Colony Marga	0.00	0.00	0.00	0.00	0.07	0.00	0.00	0.07	4
44	Shikhar Marga	0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.16	4.3
45	Siddheshwor-Bekh Marga	0.32	0.00	0.00	0.00	0.00	0.00	0.00	0.32	4
46	Sindhu Haleshi Marga	0.27	0.00	0.00	0.00	0.00	0.00	0.00	0.27	4.2
	Lane 1	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.05	3.6
	Lane 2	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.10	3

S.N.	Road Name	Black Topped (km)	Gravel (km)	Earthen (km)	RCC (km)	Tile Paved (km)	Trial Path (km)	New (km)	Total (km)	Road Width (m)
	Lane 3	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.05	4
47	Suryadoya Marga	0.00	0.00	0.21	0.00	0.00	0.00	0.00	0.21	5
48	Swimming Pool Marga	0.39	0.00	0.00	0.00	0.00	0.00	0.00	0.39	5
49	Ward Office Road	0.00	0.00	0.00	0.08	0.00	0.00	0.00	0.08	4
50	Aakashe Dhara Ram Mandir Lane 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.5
51	Sattale-Rudramati Chowk-Baluwakhani-Saphredhunga-Sundarbasti-Manbahadur Marga	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.5
	Lane 2	0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.16	4
	Lane 3	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.05	4
	Lane 1	0.00	0.15	0.00	0.00	0.00	0.00	0.00	0.15	4
	Total	7.867	1.563	1.467	2.787	0.068			13.752	

Table 4.16: Municipality Ward Road – Ward No 11 with surface condition

S.N.	Road Name	Black Topped (km)	Gravel (km)	Earthen(km)	RCC (km)	Tile Paved (km)	Trial Path (km)	New (km)	Total (km)	Road Width (m)
1	Aanigumba Gurung Tol- Payutar Road	0.00	0.26	0.00	0.00	0.00	0.00	0.00	0.26	4
2	Adhikari Chowk-Aani Gumba Sadak	0.00	0.14	0.00	0.10	0.00	0.00	0.00	0.23	6
3	Agaman Tol	0.00	0.00	0.19	0.00	0.00	0.00	0.00	0.19	4.5
4	Bangalamukhi Temple	0.00	0.00	0.08	0.00	0.00	0.00	0.00	0.08	2.5
5	Bangalmukhi Height Marga	0.00	0.00	0.00	0.26	0.00	0.00	0.00	0.26	3.8
6	Barpipal-Jorganesh Marga	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.25	4
7	Bhadra Basti	0.00	0.00	0.26	0.00	0.00	0.00	0.00	0.26	3
8	Bhadra Basti Ganesh Marga	0.00	0.00	0.31	0.00	0.00	0.00	0.00	0.31	3
9	Bindabasini Mandir- Dhaulagiri Chowk Sadak	0.00	0.25	0.00	0.00	0.00	0.00	0.00	0.25	4
10	Budhathoki Marga	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.10	4.2
11	Budhathoki- Sahid Park Road	0.00	0.00	0.19	0.00	0.00	0.00	0.00	0.19	4.8

S.N.	Road Name	Black Topped (km)	Gravel (km)	Earthen(km)	RCC (km)	Tile Paved (km)	Trial Path (km)	New (km)	Total (km)	Road Width (m)
12	Budhathoki Tol Marga	0.27	0.00	0.13	0.00	0.00	0.00	0.00	0.39	5
13	Chautara Marga	0.00	0.00	0.00	0.09	0.00	0.00	0.00	0.09	5.5
14	Chundevi Mandir 2	0.00	0.00	0.42	0.00	0.00	0.00	0.00	0.42	5
15	Dhungedhara Chowk Marga	0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.16	5
16	Euro Society Housing	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.11	4
17	Euro Society Housing Lane	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.05	4
18	Evergreen Health Post Marga	0.00	0.00	0.00	0.14	0.00	0.00	0.00	0.14	4
19	Fulbari Tol Marga	0.00	0.00	0.00	0.19	0.00	0.00	0.00	0.19	4
20	Fulbari Tola-Kuwa	0.00	0.00	0.00	0.14	0.00	0.00	0.00	0.14	4
21	GramShikhya Tourist Trial Path	0.00	0.00	0.00	0.00	0.00	0.22	0.00	0.22	2
22	Gurung Tol	0.00	0.00	0.00	0.35	0.00	0.00	0.00	0.35	4
23	Gurung Tol Marga	0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.16	4
24	Handball-Greenwich Futsal-Jangaladevi Sadak	0.40	0.00	0.00	0.00	0.00	0.00	0.00	0.40	3.4
25	Jana Jagriti Mavi-Jhanda Park-Sahid Park Sadak	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.75	3.5
26	Jangaladevi-Adhikari Mode Sadak	0.45	0.11	0.00	0.20	0.00	0.00	0.00	0.76	5.1
27	Kanchanjunga Marga	0.00	0.00	0.43	0.00	0.00	0.00	0.00	0.43	4
28	Kanchan-Kuwa Marga	0.00	0.00	0.34	0.00	0.00	0.00	0.00	0.34	4
29	Kapan Tar Height Marga	0.00	0.33	0.00	0.00	0.00	0.00	0.00	0.33	3.5
30	Kapan Santi Bikas	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.13	
31	Khaddaha-Khahare Marga	0.00	0.00	0.24	0.00	0.00	0.00	0.00	0.24	3.5
32	Krishna Mandir-Kapan Gumba Gate-Dorje Gumba	0.86	0.00	0.00	0.00	0.00	0.00	0.00	0.86	6
33	Magar tole Lane I	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.02	3.5
34	Syalmati Marga Lane	0.00	0.03	0.00	0.13	0.00	0.00	0.00	0.16	4
35	Magar Tol- Kumari Marga	0.00	0.00	0.17	0.00	0.00	0.00	0.00	0.17	4
36	Milijuli marga	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.11	4
37	Namaste Marga	0.00	0.14	0.00	0.00	0.00	0.00	0.00	0.14	5
38	Paryatan Namuna Road	0.00	0.00	0.00	0.17	0.00	0.00	0.00	0.17	3.5

S.N.	Road Name	Black Topped (km)	Gravel (km)	Earthen(km)	RCC (km)	Tile Paved (km)	Trial Path (km)	New (km)	Total (km)	Road Width (m)
39	Paryatan Pad Marga	0.00	0.00	0.00	0.00	0.00	0.96	0.00	0.96	2
40	Payutar Height Tamang Tol Marga	0.61	0.00	0.00	0.00	0.00	0.00	0.00	0.61	4.5
41	Payutar Ht-Yagyamati Khahare Road	0.00	0.00	0.19	0.00	0.00	0.00	0.00	0.19	3.5
42	Police Bit-Gairigaun- Payutar	0.00	0.00	0.72	0.00	0.00	0.00	0.00	0.72	4.5
43	Purano School Road	0.00	0.00	0.26	0.00	0.00	0.00	0.00	0.26	4
44	Ram Mandir (Mt. Kailash Sc)-Saphredhunga Sadak	0.30	0.00	0.00	0.00	0.00	0.00	0.00	0.30	4.2
45	Ram Mandir Ganesh Marga	0.00	0.00	0.11	0.00	0.00	0.00	0.00	0.11	4
46	Ram Mandir Kumari Marga	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.07	4
47	Ram Mandir MArga	0.00	0.00	0.16	0.00	0.00	0.00	0.00	0.16	4
48	Samten School-Baripal	0.00	0.00	0.20	0.16	0.00	0.00	0.00	0.36	4
49	Samten School-Gairigau-Jangaladevi Sadak	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.10	4
50	Shaileshwori Nagari Tol	0.00	0.00	0.23	0.00	0.00	0.00	0.00	0.23	4
51	Shanti Marga	0.26	0.00	0.00	0.21	0.00	0.00	0.00	0.46	4
52	Shanti Marga I	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.06	4
53	Shanti Marga-Dhunge Dhara	0.00	0.00	0.30	0.00	0.00	0.00	0.00	0.30	4
54	Sher Marga	0.00	0.18	0.30	0.00	0.00	0.00	0.00	0.48	4
55	Siddheshwor Marga	0.00	0.09	0.00	0.00	0.00	0.00	0.00	0.09	4
56	Sorupa Tol	0.00	0.00	0.12	0.00	0.00	0.00	0.00	0.12	4.5
57	Suryadaya Tol Marga	0.00	0.00	0.00	0.22	0.00	0.00	0.00	0.22	4
58	Suryadoya Tol Lane 3	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.17	3.2
59	Tallo Budhathoki Marga	0.00	0.00	0.00	0.14	0.00	0.00	0.00	0.14	5
60	Thuldhara marga	0.30	0.00	0.00	0.00	0.00	0.00	0.00	0.30	4
61	Samteen	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.02	5
62	Yagyamati Road	0.00	0.00	1.77	0.00	0.00	0.00	0.00	1.77	4
63	Yagyamati School Marga	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.10	4
64	Yagyamati-Chundevi	0.00	0.00	0.00	0.29	0.00	0.00	0.00	0.29	5
65	Yagyanati- Chundevi Marga	0.00	0.00	0.32	0.00	0.00	0.00	0.00	0.32	5

S.N.	Road Name	Black Topped (km)	Gravel (km)	Earthen(km)	RCC (km)	Tile Paved (km)	Trial Path (km)	New (km)	Total (km)	Road Width (m)
	Total	5.512	1.522	7.797	3.35	0	1.185	0	19.366	

Table 4.17: Municipality Ward Road – Ward No 12 with surface condition

S.N.	Road Name	Black Topped (km)	Gravel (km)	Earthen(km)	RCC (km)	Tile Paved (km)	Trial Path (km)	New Construction (km)	Total (km)	Road Width (m)
1	Adarshanagar Marga	0.55	0.00	0.00	0.00	0.00	0.00	0.00	0.55	4
2	Adarshanagar West	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.08	4
3	Ananda Marga	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.25	4
4	Balkumari Sadak	0.00	0.35	0.00	0.35	0.00	0.00	0.00	0.70	5.6
5	Dhungenchowk-Radhakrishna Mandir	0.27	0.00	0.00	0.00	0.00	0.00	0.00	0.27	3.2
6	Dhungen Marga	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.19	4.2
7	Dhungen Chowk-Radhakrishna (Syalmati Marga)	0.00	0.00	0.27	0.00	0.00	0.00	0.00	0.27	4
8	Evershine Party palace-Navadurga sadak	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.14	4
9	Faika Chowk-Krishna Marga	0.00	0.22	0.00	0.00	0.00	0.00	0.00	0.22	4
10	Faika Navadurga Mandir	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.19	4
11	Fulbari Tol-Kuwa	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4
12	Ghatraj Marga	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.29	4.8
13	Ghumti Marga	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.13	4
14	Gosaikunda-Soludada (Paschim)	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.19	4
15	Lakhepokhari Sadak	0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.45	5
16	Milanchowk-Dhungen Chowk	0.00	0.37	0.00	0.00	0.00	0.00	0.00	0.37	4
17	Molung Chowk-Nagsthan	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.10	4
18	Navadurga Marga	0.48	0.62	0.00	0.00	0.00	0.00	0.00	1.10	5.8
19	Navadurga-Shanti Marga	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.09	4
20	Radakrishna Prasant School	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.13	3.2

S.N.	Road Name	Black Topped (km)	Gravel (km)	Earthen(km)	RCC (km)	Tile Paved (km)	Trial Path (km)	New Construction (km)	Total (km)	Road Width (m)
21	Red Cross Road	0.00	0.22	0.00	0.00	0.00	0.00	0.00	0.22	3.8
22	Shanti Aani Marga	0.28	0.00	0.00	0.00	0.00	0.00	0.00	0.28	4
23	Shanti Marga	0.00	0.00	0.00	0.07	0.00	0.00	0.00	0.07	4
24	Soludada East-Lakhepokhari Road	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.17	3.5
25	Soludada Utar-Lakhepokhari Sadak	0.24	0.00	0.00	0.00	0.00	0.00	0.00	0.24	4
26	Sungabha Marga	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.20	4
27	Telecom Handball	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.25	4
28	Telecom Navadurga Road	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.11	4
29	Yagyamati Road	0.00	0.00	0.00	0.13	0.00	0.00	0.00	0.13	4
30	Yatri Marga	0.39	0.00	0.00	0.00	0.00	0.00	0.00	0.39	4
	Total	4.648	1.881	0	0.546	0	0	0	7.075	

Table 4.18: Municipality Ward Road – Ward No 13 with surface condition

S.N.	Road Name	Black Topped (km)	Gravel (km)	Earthen(km)	RCC (km)	Tile Paved (km)	Trial Path (km)	New Construction (km)	Total (km)	Road Width (m)
1	Gamchayakchhe-Kaudol Road	0.00	0.00	0.52	0.00	0.24	0.00	0.00	0.76	4
2	Ganesh Mandir Dhunge Dhara Chauki Dhama	0.00	0.00	0.07	0.00	0.00	0.00	0.00	0.07	4
3	Ganesh Mandir-Kaudole Road	0.00	0.00	1.81	0.00	0.00	0.00	0.00	1.81	6
4	Ganesh Mandir-Pukucha Road	0.00	0.00	0.64	0.00	0.00	0.00	0.00	0.64	6
5	Ghatta Sadak(Ghatta Khola-Dhobikhola pool)	0.00	0.00	1.40	0.00	0.00	0.00	0.00	1.40	6
6	Hakutol Marga	0.00	0.00	0.38	0.00	0.00	0.00	0.00	0.38	5.8
7	Hakutol-Sapatar	0.00	0.00	0.88	0.00	0.00	0.00	0.00	0.88	6
8	Kaudol Naya Sadak	0.00	0.00	0.14	0.00	0.00	0.00	0.00	0.14	4

9	Kaudol- Tarebhir Sadak	0.00	0.00	0.68	0.00	0.00	0.00	0.00	0.68	5
10	Kona Sadak	0.00	0.00	0.31	0.00	0.00	0.00	0.00	0.31	4
11	Kumari Than Road	0.00	0.00	0.00	0.31	0.00	0.00	0.00	0.31	4
12	Natteshwori-Jagdol Road	0.00	0.00	0.59	0.00	0.00	0.00	0.00	0.59	6
13	Natyashwori- Gyalidaha Sadak-ChyaniKhola Sadak	0.00	0.00	0.64	0.00	0.00	0.00	0.00	0.64	6
14	Naulin Mavi Sadak	0.00	0.00	0.32	0.00	0.00	0.00	0.00	0.32	6
15	Nayabu Sadak	0.00	0.00	1.06	0.00	0.00	0.00	0.00	1.06	6
16	Peak Point Tusal-Chihane-Jagdol Road	0.00	0.00	1.35	0.00	0.00	0.00	0.00	1.35	6
17	Pukucha-Ghatta Sadak	0.00	0.00	0.29	0.00	0.00	0.00	0.00	0.29	5
18	Sapatar kaudol Sadak	0.00	0.00	0.46	0.00	0.00	0.00	0.00	0.46	4
19	Sosi dha Corridor	0.00	0.00	0.57	0.00	0.00	0.00	0.00	0.57	5
20	Tushal-Chyanikhola Corridor	0.00	0.00	0.30	0.00	0.00	0.00	0.00	0.30	5
21	Ward Office-Tusal	0.00	0.00	0.30	0.00	0.00	0.00	0.00	0.30	6
22	Watabu Sadak(Krishi Sadak)	0.00	0.00	1.08	0.00	0.00	0.00	0.00	1.08	6
	Total	0	0	13.79	0.307	0.242	0	0	14.339	

Total Inventory of the Municipality Roads

Municipality Road	BT	GR	ER	RCC	Tile	Tourist Trail	New	Total
Main Road	24.41	13.38	15.88	14.55	0.0	0.0	0.20	68.42
Ward Roads	42.17	11.76	45.23	22.84	1.60	1.82	0.86	126.29
Total Road Inventory	66.58	25.14	61.11	37.39	1.60	1.82	1.07	194.70

Chapter 5

Municipality Transport Perspective Plan

5.1 Background

Municipality Transport Perspective Plan (MTMP) is a long term plan to develop the municipality roads which will improve the access condition by interventions of the municipality roads. Municipality has east west main road and north south roads which are connected from highway and feeder roads and providing the transport access to the people. The existing road width is narrow and not in standard which needs to widen and maintain the standard as far as possible. The perspective plan of the MTMP is considering the road widening, upgrading and improving the road conditions with required interventions of repair and maintenance of existing roads, upgrading with gravel and blacktopping of the existing roads and new construction of roads. Municipality has set a vision that each and every household shall be accessed with road within 10 minutes and within 15 minutes for all weather roads.

5.2 Visionary City Development Plan

In order to develop the MTMP, a visionary city development plan has to be considered for the integration of the development perspective of the municipality. The visionary development of the municipality has been set out the mission, vision and strategy of the municipality with policies adopted in the plan. The development visionary plan of the municipality is as follows;

Budhanilkantha municipality is rapidly growing city with prospect and prosperous for tourism sector, industrial sector and settlement development. The visionary plan includes its future development pattern, the possible income sources of municipality and the future land use pattern. The municipality area is found quite developed as compared to other municipality while still there is a lot of work that should be incorporated for sustainable development. The identified sources of income along with the taxes of market are the tourist service. It is going to be late for planning the land-use pattern however still there are various ways for proper land use plan development and implementation. Detail of land use plan is however out of scope of the study, it is the pioneer driver for the tripping pattern and the transportation system must address the future development plan.

The vision of the municipality is to develop agriculture, tourism, religious and historical area as well as mining industries which enable to improve the economics of the people of municipality.

The municipality has stated the aims as “Our program policy leads to prosperity of municipality”. The strategy has been outlined for utilization of resources as integrated manner for the development of the total development of municipality in line with the Sustainable Development Goals (SDGs) - SDG no. 9, All-weather Road within 12 month access of 2 km distance road density km in sq. km will be 0.55 in 2015 and 1.5 in 2030.

The visionary plan of the city is mixed type as the different kind of land use and the development potentials. The visionary city plan stated in the infrastructure sector is as follows;

- The municipality has considered the gender aspect, social mobilization, inclusive, representation of all societies during the planning process.
- Municipality will develop the MTMP for development of roads.
- The overhead bridge and underground sub-way for the increase of transport access and traffic facilities.
- The infrastructure development projects will be implemented as model of public private partnership and establish a public private partnership unit in the municipality.
- The municipality will be developed as business and industrial estate with the tourism center. Municipality will develop the roads, water supply and minimum infrastructure for the tourism center, business center and industrial estates.

5.3 Accessibility and Trip Pattern

Accessibility is planning tool for the identification of transport intervention which assess the transport access people's ability to reach desired goods, services and activities. Transportation decisions often involve tradeoffs between different forms of access. How transport is measured can have a major impact on these tradeoffs. Land use patterns affect mobility and accessibility in various ways:

1. *Density* (number of people or jobs per unit of land area) increases the proximity of common destinations, and the number of people whose each mode, increasing demand for walking, cycling and transit.
2. *Land use mix* (locating different types of activities close together, such as shops and schools within or adjacent to residential neighborhoods) reduces the amount of travel required to reach common activities.
3. *Non-motorized conditions*. The existence and quality of walking and cycling facilities can have a major effect on accessibility, particularly for non-drivers. The cycling land can be developed in the Golphutar to Budhanilkantha would be proposed.

There are many ways to measure transportation system performance, each reflecting particular perspectives concerning who, what, where, how, when and why. Different methods favor different types of transport users and modes, different land use patterns, and different

solutions to transport problems. *Vehicle traffic* is easiest to measure, but this approach only considers a narrow range of transportation problems and solutions. *Mobility* is more difficult to measure, since it requires tracking people's travel behavior. It still considers physical movement and itself, rather than means to an end, but expands the range of problems and solutions considered to include alternative modes such as transit, ridesharing, cycling and walking. *Accessibility* is most difficult to measure, because it requires taking into account land use, mobility and mobility substitutes, but most accurately reflects the ultimate goal of transportation, and allows a wide range of transport problems and solutions to be considered. For example, an accessibility perspective may identify low-cost solutions to transportation problems, such as improving local walkability; encouraging land use mix so common destinations such as stores, schools and parks are located near residential areas; and improving communications services for isolated people and communities.

5.4 Procedure for collecting demands from wards

Ward level meeting in every ward or ward cluster is done where information on MTMP are collected. The meeting was carried out by the study team in the ward at presence of ward chairperson and ward members and local people. The discussion was concluded with the identification of the existing roads in the ward, name of roads which is a survey of demand of the roads at ward level. As road demand from the settlement level is collected bottom up approach of planning is applied to identify the roads...

5.5 Scoring System for Screening

Development of the scoring criteria and prioritization criteria based on the provided guidelines are prepared and its approval from the municipality and MRCC is done.

Transport linkage in an urban area has greater importance for its overall development. The development of road transport linkages to each plot of land or each residential unit is ideal approach for transport planner. Various types of land use pattern require different category of road transport linkage. The development of road linkage requires tremendous amount of public fund. However, the public authorities doesn't have adequate amount of funding. Therefore, a prioritization approach should be adopted for the rational allocation of limited funds for the construction, maintenance and rehabilitation of various categories of road linkage. Conventionally, each construction or maintenance projects are justified on the basis of cost-benefit ratio. This conventional approach disregards the benefit due to non-monetary aspects of the transport projects. Therefore, a multi-criteria approach for the selection of transport linkage is adopted as a justified approach for the project selection.

Transportation services are highly demanded infrastructure for urban as well as rural areas. The objective of the transport linkage is to provide accessibility for the given degree of mobility. Accessibility and mobility requirements are guided by the people's demand for better

living standard and economic opportunities. The objectives and importance of individual roads should guide the development of scoring criteria for the project selection for implementation. A term of Reference (ToR) for the preparation of MTM Phas formulated the criteria and their respective weights for the prioritization. Consultant has worked out the following weights for the criteria for the prioritization of road links. These scores for the particular criteria are needed to be discussed and approved by MRCC.

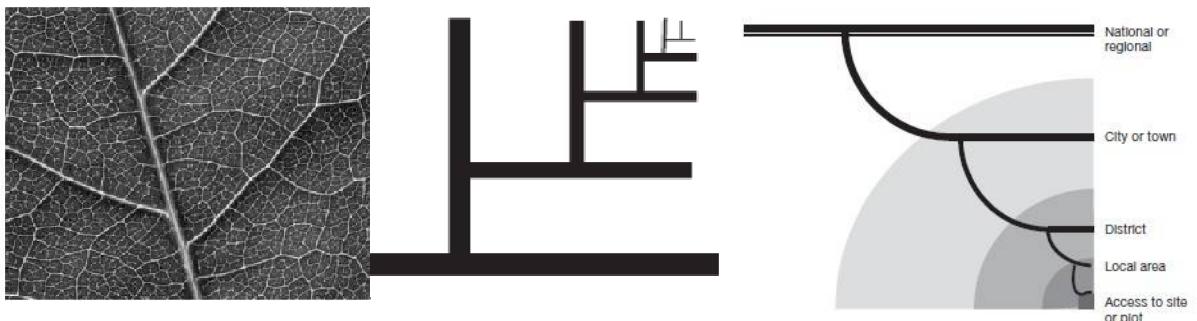
Table 5.1: Weights for the Prioritization Criteria

S. No.	Criteria	Scoring Unit	Method of Measurement	Score
1.	Link providing service to large settlement areas/population.	Population served/km (continuously Scored)	Measurement of served HH from map and multiplying with HH occupancy of respective wards	15
2.	Link providing service to existing market centers: 1. commerce and business centers or marketsites (local haat) 2. tourism attraction centers 3. Areas having agro-based and cottage industries 4. Other obligatory centers as decided by the municipality.	Estimated annual transaction in these centers equivalent to NRs...../km (continuously Scored)	Inventory survey along with consultation with people (MRCC) and land cover map are used to identify their location and transactions.	20
3.	Link providing service to the existing service centers: 1. health centers, 2. education centers (school/campus), 3. Office (municipality/government) 4. Communication center (post office, communication)	Population served by these service centers expressed as persons per km per year. (continuously Scored)	Inventory survey, Map along with consultation with people (MRCC) identifies their location and served population.	20
4.	Link providing service to the potential growth centers identified by municipality (IDPM) such as Wastemanagement site.	Anticipated number of people to be directly benefited expressed as persons per km per. (scored continuously)	Consultation with MRCC and IDPM shall also be used	5

5.	Link providing service to the potential future development sites such as: 1. Potential tourism center 2. Land pooling 3. Potential industrial area	It is technically sound to score these services discretely based on existence. For each service centers, a score of 2.5 is allocated.	Consultation with MRCC and IDPM shall also be used	10
6.	Link providing service to the areas recognized by the municipality as areas for special consideration, such as areas inhabited by backward and poor ethnic groups/communities,	Very important =5 Important =2.5 less important=0 (Scored discretely)	Inventory survey along with consultation with local people identifies their location and importance.	5
7.	Direct link with another linkage	National Highway=10 Feeder Roads=8 District Roads=6 Neighboring Municipality/district=4 Otherwise=0	Road Network Map and attribute table.	10
8.	Ward Demand	Priority-1, =10 Priority-2, =8 Priority-3, =6 Priority-4, =4 Priority-5, =2 Others, =0	Ward Meeting	10

5.6 Grading and Nomenclature of Roads

Road network serve for direct access to the particular land-use by the provision of pedestrian footpaths, bicycle tracks, bus and vehicle routes and cater through traffic that is not related to immediate land uses. Functional provisions of passenger and goods movement mainly define the hierarchy of roads and their classification. On the basis of this concept, roads are classified as per their function. Road class is related to the technical standard and functional requirements. A road hierarchy is a means of defining each roadway in terms of its function such that appropriate objectives for that roadway can be set and appropriated design criteria.



There are restrictions of direct linkage between various kinds of road hierarchy. In other words, direct connections between certain types of road links should be reduced, for example residential streets and arterial roads. Connections between similar order streets should be made (e.g. arterial to arterial) or between street types that are separated by one level in the hierarchy (e.g. arterial to highway and collector to arterial.). These hierarchical distinctions of road types become more clear when considering the recommended design specifications for the number of through lanes, design speed, intersection spacing and driveway access.

A well-formed road hierarchy increases the performance and efficiency of the particular type of road as well as of the entire road network. Furthermore, it reduces overall impact of traffic by concentrating longer distance flow onto routes in less sensitive locations, ensuring land uses and activities that are incompatible with traffic flow are restricted from routes where traffic movements should predominate and preserving areas where through traffic is discouraged.

The concepts of road hierarchy assist in planning of overall road network and its transport services. Different hierarchy of roads has different effect in surrounding areas and other roadways. Hierarchies of roads enable urban design principles such as accessibility, connectivity, efficiency, amenity and safety. Further, it also identifies treatments such as barriers, buffers and landscaping to preserve amenity for adjacent land uses. Thus, a proper plan should accommodate all users of the urban streets in planning, designing and construction of the road infrastructure and furniture. Municipality road network can be conceptualized by considering the functional hierarchy as arterial, subarterial and urban roads of various categories such as Class A, Class B, Class C and Class D.

Right of Way for Roads of different Classes:

The DTMP guideline has expected roads under category of National Highway (NH), Feeder Roads (FR) and District Roads (DRCN) within the municipality area. The RoW of these roads are considered as per respective Guidelines. I.e. the RoW of National Highways, Feeder Roads and District Roads are 50.0 m, 30.0 m and 20.0 m. The guideline has clearly stated about the setback distance for these roads (having RoW \geq 20.0 m) as 6.0 m on either side. All of these standards shall be applied to the municipality accordingly.

Table 5.2: Urban Road Class and Features

Road Class	Descriptions	MinimumRoW(m)	MinimumSet-back(m)
NH	National Highways		
FR	Feeder Roads	As prescribed	As Prescribed
DRCN	District Roads		
A	Main Collector	14	
B	Other Collector	10	2.0m (DTMP Guideline) and 1.5m (Building Guideline)
C	Main Tole Road	8	
D	Other Tole Road	6	

Based on MTMP guideline, the building line or setback shall be maintained 2.0m at minimum. However, Nepal Road Standards-2070 has considered the setback distance at curved section only and that should be sufficient to provide the adequate sight distance.

१४.३। अब निर्माण हुने सडकको कुनै पनि बाटोको न्यूनतम चौडाई ६ मी. हुनु पर्नेछ र नापी तथा मालपोत कार्यालयहरूलाई सोही बमिजिमले स्रेस्ता, नक्सा तथा अभिलेखहरूमा बाटो कायम गरी यस व्यवस्थाको कार्यन्वयन गर्न लेखि पठाउनु पर्नेछ।। यस्ता बाटोमा भवन निर्माण स्वीकृत दिंदा केन्द्रबाट कम्तिमा ३ मीटर सडकको क्षेत्राधिकार (RoW) र सडक क्षेत्राधिकार सिमाबाट १.५ मीटर सेट व्याक छाडेर मात्र निर्माण स्वीकृति दिनु पर्नेछ।। तर हिमाली/पहाडी जिल्लाका उपत्यका (valley) एवं समथल भू-भाग देखि बाहेकका भिरालो क्षेत्रमा प्राविधिकरूपमा उक्त ६ मिटर चौडाई कायम गर्न सम्भव नभएमा प्राविधिकको प्रतिवेदनको आधारमा सम्बन्धित स्थानीय निकायको परिषद्को निर्णयबाट ४ मिटरमा नघट्ने गरी निर्धारण गर्ने सक्नेछ।।

However, according to Fundamental Guidelines for Settlement Development, Urban Planning and Building Construction-2072 (2015 AD), the minimum setback distance for urban roads as 1.5m on either side. *National Highways*

Arterial roads in Municipality are taken as the links of National Highways. The technical standards of these roads are taken from the DoR directives for Right of Way (RoW) and other features.

Class A Roads

Class A roads serve as the major collector roads. These roads start either from the Arterial or Sub-Arterial road. These roads are of relatively long distance which connect big market or settlement areas or two or more wards centers within the Municipality.

Class B Roads

Class B roads are of secondary type of collector roads. These may serve as the collector to the Class A roads with the relatively lower geometric standard. Intersection and other parameters maybe taken as similar as Class A roads.

Class C and Class D Roads

Class C roads are residential street and they provide access to the private property and small industrial or public place. These roads serve mainly for small/light vehicular movement for low volume intensity. If these roads connect one or more residential blocks then they are taken as Class C.

Coding of Municipality Roads

The coding system for particular road link is described below:

- First digit (2) represents the number of Province as BP.
- Second digit is code M represents for the Municipality.
- Third digit is code indicates letter A to D for particular Class of road.
- Fifth three digits (001 to 999) represent the particular transport linkage.

After all the code numbers, road name is written. An example of the code number and road in Budhanilkantha Municipality is shown as

B	M	A	0	0	1
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Table 5.3: Municipality Road –Class B(Road width 11 m) for Black Topped

Road Code	Road Name	Total Length (km)	Perspective Plan BT (km)
BMB01	Jagdole School (Bhangyang)- Gamcha Road	3.7	3.6
BMB02	Milanchowk -Bhasanthali-Chandeshwari Road	3.2	0.3
	Total	7.0	3.9

Table 5.4: Municipality Road –Class C (Width 8 m) for black topped

Road Code	Name of Road	Total Length (km)	Perspective Plan BT (km)
BMC01	Aakashedhara-Ram Mandir	1.1	1.0
BMC02	Akasedhara-Krishnamandir-Sashid Park Road	3.2	1.7
BMC04	Atam Bikas School(Bhandaritole)-Simaligaun-Chaukidada -Karmagumba-Taulng Chautara Road	2.0	1.4
BMC05	Bhangal chowk-Kagajkarkhana-Purktitole-Kalika Mandir Road	1.4	0.6
BMC07	Chapali Ghumti-Shiva Mandir-Ghattapati-Kuwatole-Chandeshori Road	2.3	2.2
BMC09	Chuchepati (Mahankal)-Faika-Anigumba-Krishnamandir-Chunikhel-Bhadrakali- Chapali chowk Road	5.2	2.5
BMC10	Chunikhel Chowk-Sapataar Road	1.3	0.5
BMC13	Golphutar-Hepali-Shantibatika chowk-Bhadrakali Diary-Chyasindole-Saibaba pul-Bishnumati Pul Road	2.6	1.6
BMC14	Hattigauda-Bhadrakali Mandir-Bishnumati Road	1.4	1.1
BMC15	Italitar-Kapurchowk-Bishnumati Khola Road	1.7	0.5
BMC16	Khatrigaoun(Shivamandir)- Shahibaba Pool Road	1.0	0.9
BMC17	Mahakalchour-Dhungen-Faika Chowk-Balkumari Mandir-Kharibot-Mathillo Paiyatar-Jagdol gate-Sahid Park-Jagdol School(bhangyang)	4.5	1.6
BMC19	Naya chowk-Sidhartha Coleni-Petaredhunga-Thappaun-Shreeram School-Baripal Road	2.5	1.1
BMC22	Nilopool (apsaraghata)-Taulung Chautara-Khanepani-Jay Bhadrakali School Raod	1.4	0.6
BMC23	Nilopool-Gairigaun-Muhanpokhari Road (Bagdwar Marga)	1.3	0.4
BMC24	Panchakanya Marga (Panchakanya Chowk-Wasik Badeli-Tarebhir)	4.7	0.7

Road Code	Name of Road	Total Length (km)	Perspective Plan BT (km)
BMC25	Police Bit- Akashedhara Road	0.1	0.0
BMC26	Rudrshor Marga (Rudreshorchowk- BMC School-Bandepakha-Kaudole Road	1.9	1.2
BMC27	Saphredhunga-Rammandir-Ganesh Mandir Road	0.7	0.4
BMC28	Sattale-Rudramati Chowk-Baluwakhani-Sapredhunga Road-Sundarbasti(Valley Public School) Road	4.0	1.2
BMC29	Shiva Mandir-Sahid Park Road	1.7	1.7
BMC30	Sukedhara Chowk-Nayacoloni-Ekatabasti Road	1.6	0.5
BMC32	Yagyamati Road (Milanchowk-Kapanchouki-Jordhara-Telecom-Karkhana-Bindabasini-Aanigumba-Gurung Tol-Yagyamati School) Road	2.3	2.1
BMC33	Sundartar (Kamidada)-Sayukta Buspark	1.0	
	Total	61.5	25.4

Table 5.5: Municipality Road –Class D (Width 6 m) for black topped

Road Code	Ward	Road Name	Total	Perspective Plan (BT)
BMD001	1	Nilopool-Phulbari Marga-Panchakanya Marga	0.65	0.43
BMD002	1	Jayabhardakali School-Panchakanya Marga (Samraddh*)	0.37	0.19
BMD003	1	Karmagumba-Nawakiran-Chaukidada Road	0.62	0.43
BMD004	1	Khanipani Tanki-Nakhidole Road	0.19	0.10
BMD006	1	Nakhidole-Bramje Road	0.26	0.26
BMD007	1	Dukurni Mandir-Sundarbasti-Poudelchowk Road	0.42	0.14
BMD008	1	Nasal Devi Marga	0.20	0.09
BMD014	2	B.M.C School Branch Marga	0.13	0.13
BMD015	2	Bhadrabasti Road	0.45	0.22
BMD017	2	Chyani Khola Corridor	0.39	0.39
BMD019	2	Ganesh School Marga	0.39	0.39
BMD020	2	Kalika Marga	0.53	0.27
BMD022	2	Lamichhane Marga-Dhobikhola Corridor Road	0.38	0.38

BMD023	2	Mahadev Colony Marga	0.69	0.30
BMD024	2	Mahakal Bhairab Marga	0.43	0.15
BMD025	2	Miteri Marga	1.09	0.15
BMD026	2	Panchakanya Nayabasti Marga	0.40	0.40
BMD029	2	Jayabhadrakali School-Chandraban Road	0.17	0.12
BMD030	3	Bishnu Paduka Marga	0.17	0.17
BMD032	3	Gairigaun Miteri Marga	0.08	0.08
BMD035	3	Lomos Marga	0.18	0.18
BMD036	3	Mahadev Marga	0.27	0.00
BMD037	3	Milanchowk-Chorling Gumba Sadak	0.44	0.44
BMD040	3	Narkonan Marga	0.65	0.65
BMD041	3	Nilkantha Marga	0.69	0.40
BMD042	3	Panchakumari Marga	0.61	0.20
BMD044	4	Arthur Marga	0.25	0.25
BMD045	4	Buddha Marga	0.16	0.16
BMD046	4	Budha Sim Marga	0.59	0.59
BMD047	4	Ghattapati Bhasanthali Road	1.01	1.01
BMD048	4	Gurung Chowk-Shivapuri Marga	0.20	0.20
BMD049	4	Harati Mandir Shiva Mandir- Karkitol- Khadkatol	0.63	0.25
BMD050	4	Himalaya Colony Road	0.09	0.09
BMD051	4	Kantipur Namuna Basti-Bishnumati Corridor	0.26	0.26
BMD052	4	Kapoor Chowk-Golden Chowk- Shantimarga Chowk	0.49	0.49
BMD054	4	Kuwa Marga Kapoor Chowk	0.47	0.47
BMD055	4	Kuwatol-Bhasanthali Marga	0.14	0.14
BMD056	4	Maitri Marga	0.43	0.43
BMD057	4	North Village Road	0.07	0.07
BMD058	4	Panchakanya Marga	0.47	0.47
BMD059	4	Pragati Marga	0.47	0.47
BMD060	4	Rudhreshwor-ThapaGau Road	0.23	0.23
BMD061	4	Samudaik Bhawan Road	0.13	0.13

BMD063	4	SriRam School Mijartol- Ghattapati Sadak	0.38	0.38
BMD064	4	Ward Office- Golden Chowk Road	0.48	0.48
BMD065	4	Goldenchowk-Krishna Marga	0.29	0.29
BMD066	4	Shreeram School-Ghattapati Road	0.41	0.41
BMD067	5	Aaitabare Gate-Chisini Sadak	0.38	0.08
BMD076	5	Panchkanya Mavi- Bishnumati Ghat Sadak	0.23	0.23
BMD077	5	Sai Marga	0.38	0.18
BMD078	5	Swargadwari Colony-Tusal Sadak	0.32	0.32
BMD080	6	Bhadrakali School Marga	0.09	0.09
BMD081	6	Chyasindole Purano Basti Marga	0.32	0.32
BMD083	6	Dharampur-Bhandari Dairy Sadak	0.83	0.83
BMD084	6	Ganesh Chowk-Ludikhola-Bishnumati Sadak	0.60	0.50
BMD085	6	Khatri Gau-Shiva Mandir-Pragati Samudaik Ban(Kuwa)	0.76	0.33
BMD086	6	Labanya Marga	0.35	0.35
BMD087	6	Machagal-Nakalidada-Seraphat-Ludikhola-KapoorChowk	0.73	0.43
BMD088	6	Nageshwor Marga	0.33	0.33
BMD089	6	Namuna Basti Marga	0.22	0.15
BMD093	6	Pragati Marga	0.22	0.22
BMD094	6	Ram Mandir-Ludikhola-Baripal Sadak	0.46	0.36
BMD095	6	Shirjansil Marga	0.18	0.18
BMD100	7	Bhetghat Chowk-Gairigaun-Church Sadak	0.55	0.55
BMD101	7	Chyasindole Dharampur Road	0.73	0.37
BMD102	7	Datthuchowk Bato	0.06	0.06
BMD103	7	Futsal Melamchi Tanki-Hepali Height Sadak	0.33	0.16
BMD106	7	Hattigauda-Datthugau-Dharampur Road	0.79	0.59
BMD108	7	Khadkagaun- Datthu Gaun- Tallo Khatri Gaun	0.75	0.35
BMD109	7	Lane Road	0.63	0.08
BMD110	7	Milan Basti Sibal Sadak	0.16	0.16
BMD111	7	Samakhusi Khola Church Bhetghat Chowk Basundhara	0.25	0.25
BMD113	7	Tusal Devi Marga	0.25	0.15
BMD114	7	Unique Tole-Samudaik Bhawan	0.10	0.10

BMD116	8	Anita Milan-Jutta Karkhana Panchakurmi Pani Karkhana	0.63	0.24
BMD117	8	Bhangal Chowk-Jagannath Mandir-Hattigauda Sadak	0.59	0.38
BMD119	8	Bhangal Khahare	0.48	0.48
BMD121	8	Goldev Marga	0.45	0.45
BMD127	8	Kagaj Karkhana Om Nagar Sadak	0.55	0.55
BMD129	8	Khahare-Dhobikhola Corridor	0.36	0.36
BMD130	8	Khahare-Rudramati-Talim Kendra	0.17	0.17
BMD134	8	Nagarpalika Marga	0.06	0.06
BMD136	8	Purkuti Tol-Shiva Mandir Sayukta Buspark Sadak	0.83	0.83
BMD137	8	Rudramati Marga (Dhobikhola Manbahadur Marga)	1.18	0.68
BMD141	8	Sambriddhi Marga	0.37	0.19
BMD143	8	Special Height Colony	0.30	0.15
BMD144	8	Srilokeshwor Ram Janaki Mandir Marga	0.32	0.20
BMD146	9	Adarshanagar-Trichowk Marga	0.79	0.40
BMD151	9	Gairigau Marga	0.17	0.17
BMD154	9	Khahare Marga	0.11	0.11
BMD157	9	Kumari Mandir-Miteri Pool	0.50	0.22
BMD158	9	Manakamana Colony Marga	0.07	0.07
BMD163	9	Shridhdi Colony-Khahare	0.51	0.26
BMD164	10	Aakashdhara Gairigaun Aashirbad Colony Ram Mandir	1.23	0.40
BMD167	10	Baluwakhani-Jyotinagar Road	0.53	0.08
BMD169	10	Bhukampa Smriti Park Marga	0.24	0.24
BMD171	10	Dharapakha Height	0.13	0.13
BMD177	10	Jordhara- Kapan Bahumukhi Campus-Handball	0.39	0.39
BMD178	10	Jugal Height Marga	0.19	0.19
BMD183	10	Milanchowk-Bal udhar School- Ganesh Mandir Sadak	0.39	0.19
BMD187	10	Naya bazar police chauki Marga	0.23	0.23
BMD189	10	Nikhileshwor Halesi Mandir Bhukampa Smriti Park	0.81	0.40
BMD203	10	Pragati tol lane	0.12	0.12
BMD204	10	Rihana Marga	0.15	0.15
BMD205	10	Shanta Shirjana Marga	0.16	0.16

BMD210	10	Suryadoya Marga	0.21	0.21
BMD213	11	Aanigumba Gurung Tol- Payutar Road	0.26	0.26
BMD214	11	Adhikari Chowk-Aani Gumba Sadak	0.23	0.14
BMD215	11	Agaman Tol	0.19	0.19
BMD217	11	Bindabasini Mandir- Dhaulagiri Chowk Sadak	0.25	0.25
BMD218	11	Budhathoki Marga	0.10	0.10
BMD219	11	Budhathoki- Sahid Park Road	0.19	0.19
BMD220	11	Budhathoki Tol Marga	0.39	0.13
BMD222	11	Chundevi Mandir 2	0.42	0.42
BMD224	12	Dhungen Chowk-Radhakrishna (Syalmati Marga)	0.27	0.27
BMD233	11	Jangaladevi-Adhikari Mode Sadak	0.76	0.11
BMD234	11	Kanchanjunga Marga	0.43	0.43
BMD235	11	Kanchan-Kuwa Marga	0.34	0.34
BMD237	11	Magar Tol- Kumari Marga	0.17	0.17
BMD239	11	Namaste Marga	0.14	0.14
BMD241	11	Police Bit-Gairigaun- Payutar	0.72	0.72
BMD242	11	Purano School Road	0.26	0.26
BMD244	11	Ram Mandir Ganesh Marga	0.11	0.11
BMD246	11	Ram Mandir MArga	0.16	0.16
BMD247	11	Samten School-Barpipal	0.36	0.20
BMD249	11	Shaileshwori Nagari Tol	0.23	0.23
BMD252	11	Shanti Marga-Dhunge Dhara	0.30	0.30
BMD253	11	Sher Marga	0.48	0.48
BMD254	11	Siddheshwor Marga	0.09	0.09
BMD256	11	Sorupa Tol	0.12	0.12
BMD260	11	Samteen	0.02	0.02
BMD261	11	Yagyamati Road	1.77	1.77
BMD264	11	Yagyanati- Chundevi Marga	0.32	0.32
BMD268	12	Balkumari Sadak	0.70	0.35
BMD270	12	Faika Chowk-Krishna Marga	0.22	0.22

BMD277	12	Milanchowk-Dhungen Chowk	0.37	0.37
BMD278	12	Molung Chowk-Nagsthan	0.10	0.10
BMD279	12	Navadurga Marga	1.10	0.62
BMD288	13	Gamchayakchhe-Kaudol Road	0.76	0.52
BMD289	13	Ganesh Mandir Dhunge Dhara Chauki Dhama	0.07	0.07
BMD290	13	Ganesh Mandir-Kaudole Road	1.81	1.81
BMD291	13	Ganesh Mandir-Pukucha Road	0.64	0.64
BMD292	13	Ghatta Sadak(Ghatta Khola-Dhobikhola pool)	1.40	1.40
BMD293	13	Hakutol Marga	0.38	0.38
BMD294	13	Hakutol-Sapatar	0.88	0.88
BMD295	13	Kaudol Naya Sadak	0.14	0.14
BMD296	13	Kaudol- Tarebhir Sadak	0.68	0.68
BMD297	13	Kona Sadak	0.31	0.31
BMD299	13	Natteshwori-Jagdol Road	0.59	0.59
BMD300	13	Natyashwori- Gyalidaha Sadak-ChyaniKhola Sadak	0.64	0.64
BMD301	13	Naulin Mavi Sadak	0.32	0.32
BMD302	13	Nayabu Sadak	1.06	1.06
BMD303	13	Peak Point Tusal-Chihane-Jagdol Road	1.35	1.35
BMD304	13	Pukucha-Ghatta Sadak	0.29	0.29
BMD305	13	Sapatar kaudol Sadak	0.46	0.46
BMD306	13	Sosi dha Corridor	0.57	0.57
BMD307	13	Tushal-Chyanikhola Corridor	0.30	0.30
BMD308	13	Ward Office-Tusal	0.30	0.30
BMD309	13	Watabu Sadak(Krishi Sadak)	1.08	1.08
		Total	107.75	53.73

Table 5.6: Municipality Road –Class E (Width less than 6 m) for black topped

Road Code	Ward No	Name of Road	Total Length (km)	Perspective Plan (BT)
BME001	2	Bal Griha Marga	0.66	0.16

BME002	3	Aatmabikas Marga	0.14	0.14
BME003	3	Phedi Gaun Marga	0.48	0.48
BME005	3	Swargadwari Marga	0.17	0.08
BME006	6	Rammandir-Okhlagau-Hattitangin Road	0.49	0.49
BME007	7	Bashuki Chowk-Bhakti School-Hattigauda Road	0.54	0.35
BME008	7	Bhakti School Ekal Mahila Chahari Road	0.18	0.18
BME012	7	Ganesh Chowk-Tanagau	0.62	0.22
BME015	8	Ganesh Mandir (Pipal Chautara)-Khahare Khola Sadak	0.29	0.19
BME019	8	Purkuti Tol Khahare Khola sadak	0.30	0.16
BME029	11	Bangalamukhi Temple	0.08	0.08
BME031	11	Bhadra Basti	0.26	0.26
BME032	11	Bhadra Basti Ganesh Marga	0.31	0.31
BME036	11	Kapan Tar Height Marga	0.33	0.33
BME038	11	Khaddaha-Khahare Marga	0.24	0.24
BME039	11	Lane I	0.02	0.02
BME042	11	Payutar Ht-Yagyamati Khahare Road	0.19	0.19
BME046	12	Red Cross Road	0.22	0.22
		Total	12.59	4.11

Table 5.7: Tourist Trails

S.N.	Name of Route	Ward
1	Gam Sikhya-Dadagaun Tourist Route	11
2	Paryatan Marga 2	11
3	Paryatan Marga 3	11
4	Paryatan Marga 4	11
5	Chisapani Kuwa Paryatan Marga	11
6	Jhandapark-Bhangyanj-Gamcha chowk PadMarga	

Table 5.8: Proposed Bridges

S.N.	Name of Bridge	River	Road
1	Ludikhola Bridge	Ludikhola	Italitar-Kapurchowk-Bishnumati Khola Road
2	Ludikhola Bridge	Ludikhola	Chapalighumti-Rammandir Road (ward 3 and 4)
3	Bishnumari Khola Bridge	Bishnumati River	Chapali Ghumti-Rammandir-Ghattapati-Kuwatole-Chandeshori Road
4	Bishnumati Khola Bridge	Bishnumati River	Ghattapati-Bhasanthali Road
5	Rudramati Khola Bridge	Rudramati Khola	Panchakanya Marga (Panchakanya Chowk-Wasik Badeli-Tarebhir)
6	Dhobikhola Bridge	Dhobikhola	Rudrshor Marga (Rudreshorchowk- BMC School-Bandepakha-Kaudole Road
7	Jhyamla Khola Bridge	Jhyamle Khola	Ward Office Road
8	Jaya Bhadrakali School Near		Jayabhadrakali School Road
9	Jhyamla Khola Bridge	Jhyamle Khola	Panchkanya marga (Near Sherbahadur Duba house) 8
10	Panchakanya Marga Badge	Panchakanya Chowk	Panchkanya Marga
11	Jay Bhadrakali School Culvert	Culvert	Jaya Bhadrakali school (ward 1 and 2 connected)
12	Panchkanya Mandir Bridge	Dhobikhola	To Cross Panchkanya Mandir
13	Krishna Mandir Bridge	Dhobikhola	Badeli –Tarebhir Road
14	Dhobikhoal Bridge	Dhobikhola	Newari Khajaghar
15	Chihanekhola Bridge	Chihanekhola	Kapan and Chunikhel Connection
16	Chihanekhola Bridge	Chihanekhola	Chunikel and Sapatar Connection
17	Chihanekhola Bridge	Chihanekhola	Pukhucha and Kaudole Connection
18	Chihanekhola Bridge	Chihanekhola	Chunikel and Jagdole Connection

19	Dhobikhola Bridge	Dhobikhola	Chapali and Chunikhel Connect
20	Dhobikhola Bridge	Dhobikhola	Chunikhel Nayabasti and Chapali Connect

Road Intersection Development (Overhead Bridges)

S.N.	Name of Intersection	Length (m)	Section Bridge width (m)	Rate/(m)	(000)
1	Golphutar Intersection Overhead Crossing Bridge	22	3	1000	22000
2	Milanchowk Intersection Overhead Crossing Bridge	22	3	1000	22000
3	Road Intersection mode improvement at Hattigauda mode	22	3	1000	22000
4	Road intersection development at Kharibot (Faika) mode	10	2.5	800	8000
5	Road intersection development at Gameshchowk (ward 2)	22	3	800	17600
	Total				91600

Total MTPP Road

Road Class	Total Length (m)	Black Topped (m)
B	7	3.9
C	61.5	25.4
D	107.7	53.73
E	12.59	4.11
Lane	6.35	
Total	195.14	87.14

5.7 Cost of Roads

The cost of roads has been calculated for the black top, gravel, widening of the municipality roads. The cost calculation is based on the district rate, DoLIDAR's standard. The cost construction of roads are given below;

S.N.	Road Class	Cost per km (000)
1	Class B	30000
2	Class C	26100
3	Class D	20880
4	Class E	19000

Table 5.9: Cost of Blacktop of Class-Band CRoads

Road Code	Road Name	BT (km)	Cost (000)
BMB01	Jagdole School (Bhangyang)- Gamcha Road	3.6	106560
BMB02	Milanchowk -Bhasanthali-Chandeshwari Road	0.3	10350
	Total	3.9	116910
BMC01	Aakashedhara-Ram Mandir	1.0	24795
BMC02	Akasedhara-Krishnamandir-Sashid Park Road	1.7	44735
BMC04	Atam Bikas School(Bhandaritole)-Simaligaun-Chaukidada -Karmagumba-Taulng Chautara Road	1.4	35861
BMC05	Bhangal chowk-Kagajkarkhana-Purktitole-Kalika Mandir Road	0.6	15216
BMC07	Chapali Ghumti-Shiva Mandir-Ghattapati-Kuwatole-Chandeshori Road	2.2	56898
BMC09	Chuchepati (Mahankal)-Faika-Anigumba-Krishnamandir-Chunikhel-Bhadrakali- Chapali chowk Road	2.5	65485
BMC10	Chunikhel Chowk-Sapataar Road	0.5	13233
BMC13	Golphutar-Hepali-Shantibatika chowk-Bhadrakali Diary-Chyasindole-Saibaba pul-Bishnumati Pul Road	1.6	40533
BMC14	Hattigauda-Bhadrakali Mandir-Bishnumati Road	1.1	29989
BMC15	Italitar-Kapurchowk-Bishnumati Khola Road	0.5	11902

BMC16	Khatrigaoun(Shivamandir)- Shahibaba Pool Road	0.9	24560
BMC17	Mahakalchour-Dhungen-Faika Chowk-Balkumari Mandir-Kharibot-Mathillo Paiyatar-Jagdol gate-Sahid Park-Jagdol School(bhangyang)	1.6	40951
BMC19	Naya chowk-Sidhartha Coleni-Petaredhunga-Thapgaun-Shreeram School-Barpipal Road	1.1	29336
BMC22	Nilopool (apsaraghata)-Taulung Chautara-Khanepani-Jay Bhadrakali School Raod	0.6	14512
BMC23	Nilopool-Gairigaun-Muhanpokhari Road (Bagdwar Marga)	0.4	11536
BMC24	Panchakanya Marga (Panchakanya Chowk-Wasik Badeli-Tarebhirk)	0.7	19418
BMC26	Rudrshor Marga (Rudreshorchowk- BMC School-Bandepakha-Kaudole Road	1.2	30146
BMC27	Saphredhunga-Rammandir-Ganesh Mandir	0.4	10153
BMC28	Sattale-Rudramati Chowk-Baluwakhani-Sapredhunga Road-Sundarbasti(Valley Public School)	1.2	30876
BMC29	Shiva Mandir-Sahid Park Road	1.7	44735
BMC30	Sukedhara Chowk-Nayacoloni-Ekatabasti Road	0.5	12163
BMC32	Yagyamati Road (Milanchowk-Kapanchouki-Jordhara-Telecom-Karkhana-Bindabasini-Aanigumba-Gurung Tol-Yagyamati School)	2.1	54784
	Total	25.4	661818

Table 5.10: Cost of Blacktop of Class-DRoads

(Rs. 000)

Road Code	Ward No.	Name of Road	BT (km)	Cost (000)
BMD001	1	Nilopool-Phulbari Marga-Panchakanya Marga	0.43	9041
BMD002	1	Jayabhardakali School-Panchakanya Marga (Samraddh*)	0.19	3884
BMD003	1	Karmagumba-Nawakiran-Chaukidada Road	0.43	8916
BMD004	1	Khanipani Tanki-Nakhidole Road	0.10	2004
BMD006	1	Nakhidole-Bramje Road	0.26	5324
BMD007	1	Dukurni Mandir-Sundarbasti-Poudelchowk Road	0.14	2861
BMD008	1	Nasal Devi Marga	0.09	1817
BMD014	2	B.M.C School Branch Marga	0.13	2714
BMD015	2	Bhadrabasti Road	0.22	4594
BMD017	2	Chyani Khola Corridor	0.39	8039
BMD019	2	Ganesh School Marga	0.39	8185

Road Code	Ward No.	Name of Road	BT (km)	Cost (000)
BMD020	2	Kalika Marga	0.27	5554
BMD022	2	Lamichhane Marga-Dhobikhola Corridor Road	0.38	7955
BMD023	2	Mahadev Colony Marga	0.30	6264
BMD024	2	Mahakal Bhairab Marga	0.15	3132
BMD025	2	Miteri Marga	0.15	3132
BMD026	2	Panchakanya Nayabasti Marga	0.40	8415
BMD029	2	Jayabhadrakali School-Chandraban Road	0.12	2568
BMD030	3	Bishnu Paduka Marga	0.17	3612
BMD032	3	Gairigaun Miteri Marga	0.08	1733
BMD035	3	Lomos Marga	0.18	3738
BMD037	3	Milanchowk-Chorling Gumba Sadak	0.44	9125
BMD040	3	Narkonan Marga	0.65	13656
BMD041	3	Nilkantha Marga	0.40	8352
BMD042	3	Panchakumari Marga	0.20	4176
BMD044	4	Arthur Marga	0.25	5157
BMD045	4	Buddha Marga	0.16	3320
BMD046	4	Budha Sim Marga	0.59	12257
BMD047	4	Ghattapati Bhasanthali Road	1.01	21005
BMD048	4	Gurung Chowk-Shivapuri Marga	0.20	4072
BMD049	4	Harati Mandir Shiva Mandir- Karkitol- Khadkatol	0.25	5220
BMD050	4	Himalaya Colony Road	0.09	1858
BMD051	4	Kantipur Namuna Basti-Bishnumati Corridor	0.26	5512
BMD052	4	Kapoor Chowk-Golden Chowk- Shantimarga Chowk	0.49	10210
BMD054	4	Kuwa Marga Kapoor Chowk	0.47	9793
BMD055	4	Kuwatol-Bhasanthali Marga	0.14	3007
BMD056	4	Maitri Marga	0.43	8916
BMD057	4	North Village Road	0.07	1420
BMD058	4	Panchakanya Marga	0.47	9897
BMD059	4	Pragati Marga	0.47	9876

Road Code	Ward No.	Name of Road	BT (km)	Cost (000)
BMD060	4	Rudhreshwor-ThapaGau Road	0.23	4865
BMD061	4	Samudaik Bhawan Road	0.13	2694
BMD063	4	SriRam School Mijartol- Ghattapati Sadak	0.38	7851
BMD064	4	Ward Office- Golden Chowk Road	0.48	9918
BMD065	4	Goldenchowk-Krishna Marga	0.29	6055
BMD066	4	Shreeram School-Ghattapati Road	0.41	8477
BMD067	5	Aaitabare Gate-Chisini Sadak	0.08	1733
BMD076	5	Panchkanya Mavi- Bishnumati Ghat Sadak	0.23	4719
BMD077	5	Sai Marga	0.18	3654
BMD078	5	Swargadwari Colony-Tusal Sadak	0.32	6682
BMD080	6	Bhadrakali School Marga	0.09	1942
BMD081	6	Chyasindole Purano Basti Marga	0.32	6744
BMD083	6	Dharampur-Bhandari Dairy Sadak	0.83	17268
BMD084	6	Ganesh Chowk-Ludikhola-Bishnumati Sadak	0.50	10524
BMD085	6	Khatri Gau-Shiva Mandir-Pragati Samudaik Ban(Kuwa)	0.33	6953
BMD086	6	Labanya Marga	0.35	7308
BMD087	6	Machagal-Nakalidada-Seraphat-Ludikhola-KapoorChowk	0.43	8978
BMD088	6	Nageshwor Marga	0.33	6807
BMD089	6	Namuna Basti Marga	0.15	3111
BMD093	6	Pragati Marga	0.22	4552
BMD094	6	Ram Mandir-Ludikhola-Baripal Sadak	0.36	7475
BMD095	6	Shirjansil Marga	0.18	3696
BMD100	7	Bhetghat Chowk-Gairigaun-Church Sadak	0.55	11484
BMD101	7	Chyasindole Dharampur Road	0.37	7663
BMD102	7	Datthuchowk Bato	0.06	1148
BMD103	7	Futsal Melamchi Tanki-Hepali Height Sadak	0.16	3341
BMD106	7	Hattigauda-Datthugau-Dharampur Road	0.59	12215
BMD108	7	Khadkagaun- Datthu Gaun- Tallo Khatri Gaun	0.35	7308
BMD109	7	Lane Road	0.08	1608

Road Code	Ward No.	Name of Road	BT (km)	Cost (000)
BMD110	7	Milan Basti Sibal Sadak	0.16	3278
BMD111	7	Samakhusi Khola Church Bhetghat Chowk Basundhara	0.25	5241
BMD113	7	Tusal Devi Marga	0.15	3132
BMD114	7	Unique Tole-Samudaik Bhawan	0.10	2088
BMD116	8	Anita Milan-Jutta Karkhana Panchakurmi Pani Karkhana	0.24	5032
BMD117	8	Bhangal Chowk-Jagannath Mandir-Hattigauda Sadak	0.38	7934
BMD119	8	Bhangal Khahare	0.48	9981
BMD121	8	Goldev Marga	0.45	9417
BMD127	8	Kagaj Karkhana Om Nagar Sadak	0.55	11484
BMD129	8	Khahare-Dhobikhola Corridor	0.36	7433
BMD130	8	Khahare-Rudramati-Talim Kendra	0.17	3466
BMD134	8	Nagarpalika Marga	0.06	1274
BMD136	8	Purkuti Tol-Shiva Mandir Sayukta Buspark Sadak	0.83	17247
BMD137	8	Rudramati Marga (Dhobikhola Manbahadur Marga)	0.68	14198
BMD141	8	Sambriddhi Marga	0.19	3884
BMD143	8	Special Height Colony	0.15	3090
BMD144	8	Srilokeshwor Ram Janaki Mandir Marga	0.20	4134
BMD146	9	Adarshanagar-Trichowk Marga	0.40	8289
BMD151	9	Gairigau Marga	0.17	3508
BMD154	9	Khahare Marga	0.11	2213
BMD157	9	Kumari Mandir-Miteri Pool	0.22	4635
BMD158	9	Manakamana Colony Marga	0.07	1545
BMD163	9	Shridhdi Colony-Khahare	0.26	5408
BMD164	10	Aakashdhara Gairigaun Aashirbad Colony Ram Mandir	0.40	8352
BMD167	10	Baluwakhani-Jyotinagar Road	0.08	1608
BMD169	10	Bhukampa Smriti Park Marga	0.24	5011
BMD171	10	Dharapakha Height	0.13	2777
BMD177	10	Jordhara- Kapan Bahumukhi Campus-Handball	0.39	8122
BMD178	10	Jugal Height Marga	0.19	3946

Road Code	Ward No.	Name of Road	BT (km)	Cost (000)
BMD183	10	Milanchowk-Bal udhar School- Ganesh Mandir Sadak	0.19	3925
BMD187	10	Naya bazar police chauki Marga	0.23	4719
BMD189	10	Nikhileshwor Halesi Mandir Bhukampa Smriti Park	0.40	8373
BMD203	10	Pragati tol lane	0.12	2568
BMD204	10	Rihana Marga	0.15	3048
BMD205	10	Shanta Shirjana Marga	0.16	3320
BMD210	10	Suryadoya Marga	0.21	4385
BMD213	11	Aanigumba Gurung Tol- Payutar Road	0.26	5387
BMD214	11	Adhikari Chowk-Aani Gumba Sadak	0.14	2819
BMD215	11	Agaman Tol	0.19	3988
BMD217	11	Bindabasini Mandir- Dhaulagiri Chowk Sadak	0.25	5157
BMD218	11	Budhathoki Marga	0.10	2046
BMD219	11	Budhathoki- Sahid Park Road	0.19	4009
BMD220	11	Budhathoki Tol Marga	0.13	2652
BMD222	11	Chundevi Mandir 2	0.42	8707
BMD224	12	Dhungen Chowk-Radhakrishna (Syalmati Marga)	0.27	5533
BMD233	11	Jangaladevi-Adhikari Mode Sadak	0.11	2276
BMD234	11	Kanchanjunga Marga	0.43	8978
BMD235	11	Kanchan-Kuwa Marga	0.34	7141
BMD237	11	Magar Tol- Kumari Marga	0.17	3466
BMD239	11	Namaste Marga	0.14	2819
BMD241	11	Police Bit-Gairigaun- Payutar	0.72	14950
BMD242	11	Purano School Road	0.26	5345
BMD244	11	Ram Mandir Ganesh Marga	0.11	2297
BMD246	11	Ram Mandir MArga	0.16	3362
BMD247	11	Samten School-Baripal	0.20	4176
BMD249	11	Shaileshwori Nagari Tol	0.23	4698
BMD252	11	Shanti Marga-Dhunge Dhara	0.30	6285
BMD253	11	Sher Marga	0.48	9960

Road Code	Ward No.	Name of Road	BT (km)	Cost (000)
BMD254	11	Siddheshwor Marga	0.09	1879
BMD256	11	Sorupa Tol	0.12	2485
BMD260	11	Samteen	0.02	313
BMD261	11	Yagyamati Road	1.77	36937
BMD264	11	Yagyanati- Chundevi Marga	0.32	6577
BMD268	12	Balkumari Sadak	0.35	7329
BMD270	12	Faika Chowk-Krishna Marga	0.22	4614
BMD277	12	Milanchowk-Dhungen Chowk	0.37	7788
BMD278	12	Molung Chowk-Nagsthan	0.10	1984
BMD279	12	Navadurga Marga	0.62	12925
BMD288	13	Gamchayakchhe-Kaudol Road	0.52	10899
BMD289	13	Ganesh Mandir Dhunge Dhara Chauki Dhama	0.07	1420
BMD290	13	Ganesh Mandir-Kaudole Road	1.81	37835
BMD291	13	Ganesh Mandir-Pukucha Road	0.64	13301
BMD292	13	Ghatta Sadak(Ghatta Khola-Dhobikhola pool)	1.40	29211
BMD293	13	Hakutol Marga	0.38	7914
BMD294	13	Hakutol-Sapatar	0.88	18458
BMD295	13	Kaudol Naya Sadak	0.14	2965
BMD296	13	Kaudol- Tarebhira Sadak	0.68	14157
BMD297	13	Kona Sadak	0.31	6452
BMD299	13	Natteshwori-Jagdol Road	0.59	12340
BMD300	13	Natyashwori- Gyalidaha Sadak-ChyaniKhola Sadak	0.64	13426
BMD301	13	Naulin Mavi Sadak	0.32	6682
BMD302	13	Nayabu Sadak	1.06	22175
BMD303	13	Peak Point Tusal-Chihane-Jagdol Road	1.35	28188
BMD304	13	Pukucha-Ghatta Sadak	0.29	6097
BMD305	13	Sapatar kaudol Sadak	0.46	9542
BMD306	13	Sosi dha Corridor	0.57	11818
BMD307	13	Tushal-Chyanikhola Corridor	0.30	6348

Road Code	Ward No.	Name of Road	BT (km)	Cost (000)
BMD308	13	Ward Office-Tusal	0.30	6222
BMD309	13	Watabu Sadak(Krishi Sadak)	1.08	22488
		Total	53.73	1121966

Table 5.11: Cost of Blacktop of Class-ERoads

Road Code	Ward No.	Name of Road	BT (km)	Cost (000)
BME001	2	Bal Griha Marga	0.16	2983
BME002	3	Aatmabikas Marga	0.14	2603
BME003	3	Phedi Gaun Marga	0.48	9177
BME005	3	Swargadwari Marga	0.08	1577
BME006	6	Rammandir-Okhlagau-Hattitangin Road	0.49	9253
BME007	7	Bashuki Chowk-Bhakti School-Hattigauda Road	0.35	6650
BME008	7	Bhakti School Ekal Mahila Chahari Road	0.18	3477
BME012	7	Ganesh Chowk-Tanagau	0.22	4180
BME015	8	Ganesh Mandir (Pipal Chautara)-Khahare Khola Sadak	0.19	3648
BME019	8	Purkuti Tol Khahare Khola sadak	0.16	3116
BME029	11	Bangalamukhi Temple	0.08	1425
BME031	11	Bhadra Basti	0.26	4978
BME032	11	Bhadra Basti Ganesh Marga	0.31	5966
BME036	11	Kapan Tar Height Marga	0.33	6251
BME038	11	Khaddaha-Khahare Marga	0.24	4598
BME039	11	Lane I	0.02	323
BME042	11	Payutar Ht-Yagyamati Khahare Road	0.19	3591
BME046	12	Red Cross Road	0.22	4218
		Total	4.11	78014

MTPP Cost for Road Upgrading (BT)

Road Class	Km	Cost (000)
B	3.9	116910

C	25.4	661817.7
D	53.73	1121965.92
E	4.11	78014
Total	87.1	1978707.6

Chapter 6

Municipality Transport Master Plan

6.1 Background

Municipality Transport Master Plan has been started from couple of years in order to develop the municipality roads on integrated planning approach and investment priority on road development. Municipalities in Nepal is increasing which needs to develop the infrastructure of roads, sewerage, water supply, solid waste management for the growing urban residence in the municipality area. Road transport is the backbone of the development first hand impact to increase the access of the people which increases the economic activities of the municipality.

Municipality Transport Master Plan (MTMP) is a transport infrastructure plan document which identifies the existing and demanded roads in the municipality and integrated plan of roads with priority basis for the implementation of five year period. Based on the resources of the municipality, the five year investment plan will be prepared. It has mainly three components; a) Municipality Inventory Map (MIM), b) Municipality Transport Perspective Plan (MTPP) and c) Municipality Transport Master Plan (MTMP).

6.2 Budget Trend

Budhanilkantha Municipality has been established recently which has not adequate internal resources. Majority of budget is provided by the Government of Nepal in different headings. The budget of the municipality is given below;

Table 6.1: Existing Budget of Municipality (Rs. in 000)

S.N.	Budget Heading	2076/077	2077/078
	Internal Resources	402931	1316863
1	Land Revenue	643416	562132
2	Province Government Grant		
	Fiscal Federalism	12023	11871
	Vehicle Income	33662	40923
	Conditional Grant	10559	39820
	Matching Fund Grant	19931	29812
	Special Grant	4253	3500
3	Educational Grant	70	
4	Central Government Grant		
	Fiscal Federalism	265100	260300
	Revenue Distribution (VAT)	89281	108910
	Conditional Grant	201976	301000
5	Road Board Nepal	2114	
	Total	1685316	2675131

Source: Budhanilkantha Municipality Office, 2019

Table 6.2: Budget Provisioned for Road and Bridge Development (in 000)

S.N.	Budget heading	2077/078
1	Central Government Fiscal Federalism	170000
2	Province Government Revenue Distribution	31500
3	Federal Government Revenue Distribution	6000
4	Central Government Conditional Grant	29812
5	Province Government Conditional Grant	22000
	Total	259312

6.2.1 Projected Financial Resources

For the implementation of the MTMP for the first five year period, the budget is projected based on the previous year's budget-trend of the municipality and future resources which can be used for the MTMP. The budget allocated for the road and bridge development is distributed at ratio of 80:20 on road and bridge. The projected financial budget for the MTMP is given below:

Table 6.3: Projected Budget for MTMP (000)

Budget Projected For Five Year	2077/078	2078/079	2079/80	2080/81	2081/82	Total
Central Government Fiscal Federalism	136000	149600	164560	181016	199118	830294
Province Government Revenue Distribution	25200	27720	30492	33541	36895	153849
Federal Government Revenue Distribution	4800	5280	5808	6389	7028	29304
Central Government Conditional Grant	23850	26235	28858	31744	34918	145604
Province Government Conditional Grant	17600	19360	21296	23426	25768	107450
Total	207450	228195	251014	276115	303727	1266501

Note: Annual increment is projected as 10 %

Source: Budhanilkantha Municipality Office, 2019

The municipality present budget status is not sufficient for the implementation of MTMP for the five year period. So, the municipality should increase the financial sources from government, road projects and government authorities from the additional funding.

6.3 Prioritization of Roads for MTMP

In order to set the priority investment on integrated municipality road development plan, the roads are prioritized for the upgrading of the existing roads. Based on the priority, the roads is taken for the first five year MTMP. After completion of 3 years the MTMP will be reviewed and the priority will be changed for the next phase of the MTMP implementation.

6.4 Corridor Roads and Bridges Plan

There are number of corridor roads as mentioned in the Perspective Transport Master Plan which are mainly on Bishnumati Corridor Road, Dhobikhola Corridor Road, Ludikhola Corridor Roads. Bishnumati Road Corridor is underconstruction and other road corridor is also planned for the construction. DPR should be carried out for the construction of corridor roads. As per the existing budget, these roads required substantial budget for the implementation. The required budget for the construction as per DPR should be demand from the Central and Province Government.

The bridge construction as mentioned in Perspective Plan should be carried out with the DPR of the respective bridge. As per the cost estimation, the required budget needs to be demanded from the central and province government funding.

6.5 MTMP

MTMP is prepared with the required intervention of upgrading program of the municipality roads into Black topped and Gravel for the first five year. As per the available budget and financial projections for MTMP investment plan is prepared. The investment plan of the MTMP is prepared for the yearly implementation program.

Table 6.4:Five Year Implementation of Municipality Transport Master Plan (MTMP)

(NRs 000)

	Municipality Transport Master Plan of Municipal Road												(Rs 000)	
	Investment Plan			2077/78		2078/79		2079/80		2080/81		2081/82		Total
	Available Budget			207449		228194		251014		276115		303727		1266501
	Maintenance Budget (10 %)			20744		22819		25101		27611		30372		126650
	Available Budget for Upgrading			186704		205375		225912		248503		273354		1139850
	MTMP of main road and ward road (Black topped)													Total
Road Code	Name of Road	Length (km)	Cost	BT	Budget	Total								
BMB02	Milanchowk -Bhasanthali-Chandeshwari Road	0.3	9000	0.3	9000	0	0	0	0	0	0	0	0	9000
BMB01	Jagdole School (Bhangyang)- Gamcha Road	3.59	107700	2	60000	1.59	47700	0	0	0	0	0	0	107700
BMC01	Aakashedhara-Ram Mandir	1.0	24795	1	24795	0	0	0	0	0	0	0	0	24795
BMC02	Akasedhara-Krishnamandir-Sashid Park Road	1.7	44370	1	26100	0.7	18270	0	0	0	0	0	0	44370
BMC04	Atam Bikas School(Bhandaritole)-Simaligaun-Chaukidada -Karmagumba-Taulng Chautara Road	1.4	36540	1	26100	0.4	10440	0	0	0	0	0	0	36540
BMC05	Bhangal chowk-Kagajkarkhana-Purktitole-Kalika Mandir Road	0.6	15660	0	0	0.6	15660	0	0	0	0	0	0	15660
BMC07	Chapali Ghumti-Shiva Mandir-Ghattapati-Kuwatole-Chandeshori Road	2.2	57420	0	0	1	26100	1.2	31320	0	0	0	0	57420

BMC09	Chuchepati (Mahankal)-Faika-Anigumba-Krishnamandir-Chunikhel-Bhadrakali- Chapali chowk Road	2.5	65250	0	0	1	26100	1.5	39150	0	0	0	0	65250
BMC10	Chunikhel Chowk-Sapataar Road	0.5	13050	0	0	0.5	13050	0	0	0	0	0	0	13050
BMC13	Golphutar-Hepali-Shantibatika chowk-Bhadrakali Diary-Chyasindole-Saibaba pul-Bishnumati Pul Road	1.6	41760	0	0	0	0	1	26100	0.6	15660	0	0	41760
BMC14	Hattigauda-Bhadrakali Mandir-Bishnumati Road	1.1	28710	0	0	0	0	1.1	28710	0	0	0	0	28710
BMC15	Italitar-Kapurchowk-Bishnumati Khola Road	0.5	13050	0	0	0	0	0.5	13050	0	0	0	0	13050
BMC16	Khatrigaoun(Shivamandir)- Shahibaba Pool Road	0.9	23490	0	0	0	0	0.9	23490	0	0	0	0	23490
BMC17	Mahakalchour-Dhungen-Faika Chowk-Balkumari Mandir-Kharibot-Mathillo Paiyatar-Jagdol gate-Sahid Park-Jagdol School(bhangyang)	1.6	41760	0	0	0	0	0	0	1.6	41760	0	0	41760
BMC19	Naya chowk-Sidhartha Coleni-Petaredhunga-Thapgaun-Shreeram School-Barpipal Road	1.1	28710	0	0	0	0	0	0	1.1	28710	0	0	28710
BMC22	Nilopool (apsaraghata)-Taulung Chautara-Khanepani-Jay Bhadrakali School Raod	0.6	15660	0	0	0	0	0	0	0.6	15660	0	0	15660
BMC23	Nilopool-Gairigaun-Muhanpokhari Road (Bagdwari Marga)	0.4	10440							0.4	10440	0	0	10440
BMC24	Panchakanya Marga (Panchakanya Chowk-Wasik Badeli-Tarebhir)	0.7	18270							0.7	18270	0	0	18270
BMC26	Rudrshor Marga (Rudreshorchowk- BMC School-Bandepakha-Kaudole Road	1.2	31320							1.2	31320	0	0	31320
BMC27	Saphredhunga-Rammandir-Ganesh Mandir	0.4	10440							0.4	10440	0	0	10440
BMC28	Sattale-Rudramati Chowk-Baluwakhani-Saphredhunga Road-Sundarbasti(Valley Public School)	1.2	31320							0	0	1.2	31320	31320
BMC29	Shiva Mandir-Sahid Park Road	1.7	44370							0	0	1.7	44370	44370
BMC30	Sukedhara Chowk-Nayacoloni-Ekatabasti Road	0.5	13050							0	0	0.5	13050	13050
BMC32	Yagyamati Road (Milanchowk-Kapanchouki-Jordhara-Telecom-Karkhana-Bindabasini-Aanigumba-Gurung Tol-Yagyamati School)	2.1	54810							0	0	2.1	54810	54810
	Total of Main Road	29.3	780945		145995		157320		161820		172260		143550	780945

	Available Budget				40709		48055		64092		76243		129804	358905. 5
Road Code														
BMD001	Nilopool-Phulbari Marga-Panchakanya Marga	0.43	9041	0.43	9041						0	0	0	9041
BMD002	Jayabhardakali School-Panchakanya Marga (Samraddh*)	0.19	3884	0.19	3884						0	0	0	3884
BMD004	Khanipani Tanki-Nakhidole Road	0.10	2004	0.10	2004						0	0	0	2004
BMD007	Dukurni Mandir-Sundarbasti-Poudelchowk Road	0.14	2861	0.14	2861						0	0	0	2861
BMD015	Bhadrabasti Road	0.22	4594	0.22	4594									4594
BMD017	Chyani Khola Corridor	0.39	8039	0.39	8039									8039
BMD019	Ganesh School Marga	0.39	8185	0.39	8185									8185
BMD020	Kalika Marga	0.27	5554	0.27	5554									5554
BMD022	Lamichhane Marga-Dhobikhola Corridor Road	0.38	7955	0.38	7955									7955
BMD026	Panchakanya Nayabasti Marga	0.40	8415	0.40	8415									8415
BMD030	Bishnu Paduka Marga	0.17	3612	0.17	3612									3612
BMD032	Gairigaun Miteri Marga	0.08	1733	0.08	1733									1733
BMD040	Narkonan Marga	0.65	13656	0.65	13656									13656
BMD044	Arthur Marga	0.25	5157			0.25	5157							5157
BMD046	Budha Sim Marga	0.59	12257			0.59	12256							12257
BMD047	Ghattapati Bhasanthali Road	1.01	21005			1.01	21005							21005
BMD049	Harati Mandir Shiva Mandir- Karkitol- Khadkatol	0.25	5220			0.25	5220							5220
BMD051	Kantipur Namuna Basti-Bishnumati Corridor	0.26	5512			0.26	5512							5512
BMD052	Kapoore Chowk-Golden Chowk- Shantimarga Chowk	0.49	10210			0.49	10210							10210
BMD054	Kuwa Marga Kapoor Chowk	0.47	9793			0.47	9792							9793
BMD056	Maitri Marga	0.43	8916			0.43	8915							8916
BMD059	Pragati Marga	0.47	9876			0.47	9876							9876

BMD063	SriRam School Mijartol- Ghattapati Sadak	0.38	7851			0.38	7850							7851
BMD064	Ward Office- Golden Chowk Road	0.48	9918			0.48	9918							9918
BMD065	Goldenchowk-Krishna Marga	0.29	6055			0.29	6055							6055
BMD066	Shreeram School-Ghattapati Road	0.41	8477			0.41	8477							8477
BMD078	Swargadwari Colony-Tusal Sadak	0.32	6682					0.32	6682					6682
BMD081	Chyasindole Purano Basti Marga	0.32	6744					0.32	6744					6744
BMD083	Dharampur-Bhandari Dairy Sadak	0.83	17268					0.83	17268					17268
BMD084	Ganesh Chowk-Ludikhola-Bishnumati Sadak	0.50	10524					0.50	10524					10524
BMD085	Khatri Gau-Shiva Mandir-Pragati Samudaik Ban(Kuwa)	0.33	6953					0.33	6953					6953
BMD086	Labanya Marga	0.35	7308					0.35	7308					7308
BMD087	Machagal-Nakalidada-Seraphat-Ludikhola-KapoорChowk	0.43	8978					0.43	8978					8978
BMD088	Nageshwor Marga	0.33	6807					0.33	6807					6807
BMD094	Ram Mandir-Ludikhola-Baripal Sadak	0.36	7475					0.36	7475					7475
BMD100	Bhetghat Chowk-Gairigaun-Church Sadak	0.55	11484					0.55	11484					11484
BMD101	Chyasindole Dharampur Road	0.37	7663					0.37	7663					7663
BMD106	Hattigauda-Datthugau-Dharampur Road	0.59	12215					0.59	12215					12215
BMD108	Khadkagaun- Datthu Gaun- Tallo Khatri Gaun	0.35	7308					0.35	7308					7308
BMD111	Samakhusi Khola Church Bhetghat Chowk Basundhara	0.25	5241							0.25	5241			5241
BMD113	Tusal Devi Marga	0.15	3132							0.15	3132			3132
BMD116	Anita Milan-Jutta Karkhana Panchakurmi Pani Karkhana	0.24	5032							0.24	5032			5032
BMD117	Bhangal Chowk-Jagannath Mandir-Hattigauda Sadak	0.38	7934							0.38	7934			7934
BMD119	Bhangal Khahare	0.48	9981							0.48	9981			9981
BMD121	Goldev Marga	0.45	9417							0.45	9417			9417
BMD127	Kagaj Karkhana Om Nagar Sadak	0.55	11484							0.55	11484			11484
BMD129	Khahare-Dhobikhola Corridor	0.36	7433							0.36	7433			7433
BMD134	Nagarpalika Marga	0.06	1274							0.06	1274			1274

BMD136	Purkuti Tol-Shiva Mandir Sayukta Buspark Sadak	0.83	17247						0.83	17247			17247
BMD137	Rudramati Marga (Dhobikhola Manbahadur Marga)	0.68	14198						0.68	14198			14198
BMD151	Gairigau Marga	0.17	3508						0.17	3508			3508
BMD154	Khahare Marga	0.11	2213						0.11	2213			2213
BMD157	Kumari Mandir-Miteri Pool	0.22	4635						0.22	4635			4635
BMD158	Manakamana Colony Marga	0.07	1545						0.07	1545			1545
BMD163	Shridhhi Colony-Khahare	0.26	5408						0.26	5408			5408
BMD164	Aakashedhara Gairigaun Aashirbad Colony Ram Mandir	0.40	8352						0.40	8352			8352
BMD169	Bhukampa Smriti Park Marga	0.24	5011						0.24	5011			5011
BMD177	Jordhara- Kapan Bahumukhi Campus-Handball	0.39	8122						0.39	8122			8122
BMD178	Jugal Height Marga	0.19	3946						0.19	3946			3946
BMD183	Milanchowk-Bal udhar School- Ganesh Mandir Sadak	0.19	3925						0.19	3925			3925
BMD187	Naya bazar police chauki Marga	0.23	4719						0.23	4719			4719
BMD189	Nikhileshwor Halesi Mandir Bhukampa Smriti Park	0.40	8373						0.40	8373			8373
BMD210	Suryadoya Marga	0.21	4385						0.21	4385			4385
BMD213	Aanigumba Gurung Tol- Payutar Road	0.26	5387								0.26	5387	5387
BMD215	Agaman Tol	0.19	3988								0.19	3988	3988
BMD217	Bindabasini Mandir- Dhaulagiri Chowk Sadak	0.25	5157								0.25	5157	5157
BMD222	Chundevi Mandir 2	0.42	8707								0.42	8707	8707
BMD224	Dhungen Chowk-Radhakrishna (Syalmati Marga)	0.27	5533								0.27	5533	5533
BMD234	Kanchanjunga Marga	0.43	8978								0.43	8978	8978
BMD235	Kanchan-Kuwa Marga	0.34	7141								0.34	7141	7141
BMD241	Police Bit-Gairigaun- Payutar	0.72	14950								0.72	14950	14950
BMD242	Purano School Road	0.26	5345								0.26	5345	5345
BMD253	Sher Marga	0.48	9960								0.48	9960	9960

BMD261	Yagyamati Road	1.77	36937								1.77	36937	36937
BMD264	Yagyanati- Chundevi Marga	0.32	6577								0.32	6577	6577
BMD268	Balkumari Sadak	0.35	7329								0.35	7329	7329
BMD277	Milanchowk-Dhungen Chowk	0.37	7788								0.37	7788	7788
BMD279	Navadurga Marga	0.62	12925								0.62	12925	12925
BMD288	Gamchayakchhe-Kaudol Road	0.52	10899								0.52	10899	10899
BMD290	Ganesh Mandir-Kaudole Road	1.81	37835								1.81	37835	37835
BMD291	Ganesh Mandir-Pukucha Road	0.64	13301								0.64	13301	13301
BMD292	Ghatta Sadak(Ghatta Khola-Dhobikhola pool)	1.40	29211								1.40	29211	29211
BMD294	Hakutol-Sapatar	0.88	18458								0.88	18458	18458
BMD296	Kaudol- Tarebhir Sadak	0.68	14157								0.68	14157	14157
BMD299	Natteshwori-Jagdol Road	0.59	12340								0.59	12340	12340
BMD300	Natyashwori- Gyalidaha Sadak-ChyaniKhola Sadak	0.64	13426								0.64	13426	13426
	Nayabu Sadak	1.06	22175								1.06	22175	22175
BMD303	Peak Point Tusal-Chihane-Jagdol Road	1.35	28188								1.35	28188	28188
BMD304	Pukucha-Ghatta Sadak	0.29	6097								0.29	6097	6097
BMD305	Sapatar kaudol Sadak	0.46	9542								0.46	9542	9542
BMD308	Ward Office-Tusal	0.30	6222								0.30	6222	6222
BMD309	Watabu Sadak(Krishi Sadak)	1.08	22488								1.08	22488	22488
	Total	41.59	868483		83269	120248	117408	156516	391041	868483			
	Total Budget Required for MTMP	70.93	1649428		229264	277568	279228	328776	534591	1649428			
	Budget Deficit for MTMP				-42560	-72193	-53316	-80273	-261236	-509577			

6.6 MTMP Output and Outcomes

MTMP implementation has been envisaged to improve the road condition and increase the transport facilities in the municipality. After completion of first five year period, the outcomes of the MTMP will be as follows;

Black topping (km)	Gravelling (km)
70.93	0

Chapter 7

MTMP Implementation Plan

7.1 MTMP Implementation Problem and Issues

There are number of issues arises for the implementation of the MTMP with new version of integrated transport plan of the municipality in the context of improving the road conditions. There are pertinent issues has been identified during the workshop and discussion with stakeholders for preparation of MTMP.

- The existing road inventory is prepared and analyse the road conditions. The road width is found different in each roads have minimum of 3 m. to 6 m. is not properly followed the guidelines creating the different road width along the entire road alignment.
- The standard specification as mentioned ROW on MTMP Guidelines is not correspondingly matched with DoR which has different ROW.
- The budget of municipality is not enough to carry out the MTMP. The deficit budget is the problem of the municipality for MTMP plan. The external resources will be provided for MTMP.
- The technical manpower available in the municipality is not enough for the construction supervision and technical audit of the municipality roads.
- There are number of existing main trail and local trails in all wards which is not developed as road should need for widening which cost very high in one hand and problems in the narrow gully in core area where road extension is not possible and not mentioned in ROW.

7.2 Implementation Modalities

The implementation of the MTMP has envisaged for the planning and implementation for the development of the municipal roads which will improve the access condition of transport to provide better services and mobility as well as help to develop on various potentialities of the municipality. The implementation of MTMP comprises with the following aspects;

- The corridor roads and bridges as mentioned in Prospective Plan shall be carried out with DPR of each roads and bridges. Based on the DPR, the financial assistance is sought from the central and province government due to the limited financial resources of the municipality.
- There is shortage of financial resources for the implementation of the upgrading the existing roads in the municipality. The municipality shall discuss with the central

government, province government and other stakeholders for the additional funding for implementation of MTMP.

- The technical section of the municipality shall be equipped with the required manpower for the close supervision and monitoring of activities and provide the instruments like; GPS, Total Station, quality control equipment and test equipment.
- There is strong coordination with the Province Government, Department of Roads and other authority for the integrated funding for MTMP.

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Road List of Municipality

Photographs



Municipality MTMP Orientation Meeting



Ward Level Meeting at Ward No. 10



Ward level meeting at Ward No. 1



Road Section at Patredhunga



Heavy Structure Retained RCC wall at Shivamandir side



Ward Meeting at Ward no . 2

Maps