



THE ASSAM GAZETTE

অসাধাৰণ

EXTRAORDINARY

প্ৰাপ্ত কৰ্তৃত্ব দ্বাৰা প্ৰকাশিত

PUBLISHED BY THE AUTHORITY

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No. 305 Dispur, Saturday, 17th May, 2025, 27th Vaisakha, 1947 (S. E.)

GOVERNMENT OF ASSAM

ORDERS BY THE GOVERNOR

DEPARTMENT OF HOUSING AND URBAN AFFAIRS

NOTIFICATION

The 18th November, 2024

DoHUA EcF No. 393727 / 186.— In exercise of the powers conferred by the Sub- Section (2) and (3) of Section 10 of the Assam Town and Country Planning Act, 1959 (as amended) read with Rule 6 of the Assam Town & Country Planning (Publication of Master Plan and Zoning Regulation) Rules, 1962, the Governor of Assam is pleased to publish the following notice regarding the publication of the Final Master Plan for Bilasipara.

Notice for publication of the Final Master Plan for Bilasipara

1. It is notified that the Final Master Plan for Bilasipara is prepared by the Directorate of Town & Country Planning, Government of Assam and adopted by the State Government under sub section (2) and (3) of Section 10 of the Assam Town & Country Planning Act, 1959 (as amended) read with Section 6 of the Assam Town and Country Planning (Amendment) Rule, 1962 for the area described in the schedule below, is hereby published.
2. The Final Master Plan with all relevant papers and maps may be inspected free of cost during the office hours at the office of Director, Town & Country Planning, Dispur, Guwahati-6, Deputy Director, Town & Country Planning, Dist Office – Dhubri, office of the Chairman, Bilasipara Municipal Board & Bilasipara Circle Office. Copies of the Final Master Plan is also available in the office of the Director, Town & Country Planning, Dispur, Guwahati-6 and Deputy Director, Town & Country Planning, Dist Office – Dhubri for sale on payment.

SCHEDULE OF BILASIPARA FINAL MASTER PLAN**A. SITUATION AND AREA :**District : **Dhubri**Subdivision : **Bilasipara**Approximate Master Plan Area : **45.49 Sq. Km.****B. Revenue area included in the Final Master Plan for Bilasipara -**

- ❖ Bilasipara Municipal Board. (Area-11.11 sq.km)
- ❖ Villages :-21 (Twenty One) Nos. (Area - 34.38 sq.km)

AndhurjharPt.I, Bandhabpara, BangaliparaPt.I, BangaliparaPt.II, ChirakutaPt.I, Gobardhonpara, GopigaonPt.I, GopigaonPt.II, GopigaonPt.III, HakamaPt.V, HatipotaPt.II, JamduarPt.I, JamduarPt.II, KathaldiPt.III, Kurshakati, Mirarkuti, Mazpara, SiberDabri, SuryakhataPt.I, SuryakhataPt.II, UdmariPt.V

Boundary Description :

North	:	Kachugaon, Hawdartari, Udmari Part I, II and IV and Andorjhar Part I
South	:	Sagunmari Part I, Kadamtola Part III, Kathaldi Part I, Kazikata Part II and III, Hatipota Part I and Tokrabandha
East	:	Bamun Gaon River Block, Bamungaon Part I, Malgaon and Chirakuti Part II
West	:	Purana Lowepara, Natun Lowepara, Bhabanipur, Palashkandi, and Pachuar Khal Part II

KAVITHA PADMANABHAN,

Commissioner & Secretary to the Government of Assam,
Department of Housing and Urban Affairs,
Dispur, Guwahati-6

1.

INTRODUCTION TO MASTER PLAN AREA

1.1 INTRODUCTION AND SALIENT FEATURE OF THE TOWN

The Dhubri district is bounded by Kokrajhar district in the north, West Bengal and Bangladesh in the west, Meghalaya in the south and Meghalaya and Bongaigaon district in the east. The district has three civil Sub-divisions viz. Dhubri, Bilasipara and South Salmara-Mankachar. There are 15 Dev. Blocks, 168 Gaon Panchayats and 1136 revenue villages in the district. The total geographical area of the district is 2361 sq km

The Bilasipara is a Town in Bilasipara Tehsil in Dhubri District of Assam State, India and it belongs to Class I category of Towns as per classification of 2001 census. Bilasipara Town Committee was constituted in 1959 with four wards. These wards were further revised to fourteen wards in 1997 with an area of 11.11 Sq kms approximately. It is located 42 KM towards East from District head quarters Dhubri. It is a Tehsil head quarter.

1.1.1 Location

Bilasipara is the district sub-Divisional Head Quarter Town of Bilasipara Sub-Division under Bilasipara District. Bilasipara was declared a sub-division in 1989. Bilasipara is situated on the western bank of the river Gauranga that meets river Brahmaputra at 9 kms downstream and at a distance of about 46 kms towards east from the District Head-Quarter Office. Bilasipara Town is located at 26.10 latitude and 90. 40 longitude and is situated at a distance of 246 Km North West of Guwahati.

1.1.2 Regional settings

Bilasipara is well connected by roads as well as by railways (on 25 March 2019). The N.H. 31 passing through Bilasipara connects it with Guwahati and other important urban and rural centre of the District as well as of the state. Bilasipara also serves as an important railway station of N.F. Railway. The Broad Gauge routes of N.F. Railway passes through Bilasipara connecting the town with Guwahati and other parts of the State as well as the rest of the country.

1.2 PHYSICAL ENVIRONMENTAL CONDITION

Bilasipara town is situated at the north bank of River Gaurang which is also the primary water source for the town. The river has deeply influenced the physical growth and development of the southern stretch of the town. The northern boundary of the town is limited upto the by-pass road (NH) which connects the town to the state capital and other parts of the region.

1.2.1 Climate & Rainfall

The climate of Bilasipara is almost similar to that of the other towns of Assam. It experiences fairly a moderate climate throughout the year. The maximum relative humidity is 75%. The annual minimum and maximum temperature varies between 8°C to 32°C. The mean monthly temperature is lowest in December –January and highest in July-August. The maximum rainfall is 1726.9 mm with 53 rainy days.

1.2.2 *Physiography*

Bilasipara town occupies its position on flat alluvial plain land. It has an average elevation of 26 metres (85 feet). A river known as Gaurang, which is a tributary of the Brahmaputra, enters the town from the east. During the monsoon, the outer parts of the town suffer from flooding almost yearly; it poses a major problem and it causes havoc to population and crops of the area. The general gradient is towards the river Brahmaputra in the south. The area on the bank of the river has very low elevation and is inundated during flood.

1.2.3 *Soil Condition*

The Area is situated on a flat land and the soil is mostly of alluvial origin consisting of sand and clay. The presence of good soil with a heavy rainfall has been conducive to a rich growth of vegetation in this region.

1.3 HISTORICAL BACKGROUND

1.3.1 *History and Culture*

As per the popular belief, Bilasipara is named after Bilasa, an influential man for whose efforts the Chapar Zamindari estate office was shifted to the town some year after British Governor General Lord Cornwallis established Chapar Zamindari in 1873. British took note of the trade potential of Bilasipara especially with Bhutan and recognized it as a Bazar and port. Great Britain River Steam Navigation Company and India General Navigation and Railway Company used to ply Steamers from East Bengal to Dibrugarh in upper Assam via Bilasipara port then known as "J Port". Between 1930, the then Zamindar settled people in the char areas of the river which has since contributed immensely towards development in trades related to agricultural products. Bilasipara has contributed immensely towards development of Goalparia culture.

1.4 MASTER PLAN: DEFINITION & FORMULATION

Most of the urban settlements, especially smaller urban settlements, are characterized by haphazard and unplanned growth, non-conforming land uses, mushrooming unauthorized colonies, and land conversion from agriculture to urban resulting in environmental degradation and poor quality of life.

Master Plan/Development Plan is the major tool for urban land management, providing detailed land use allocation for the sustainable development of city/town. Most master/development plans are made for 20-25 year periods, in phases of five years for periodic review and revision. A master plan is prepared either for improvement of an old city or for a new town to be developed on a virgin soil.

The purpose of the master plan is to set down as clearly and practically as possible the best and most appropriate future development of the town. For physical planning to be successful, it must develop a consensus on sound principles while balancing the visionary with the realistic. Formulation of master plans start with base map preparation, existing land use surveys and collection of socio-economic data necessary for reviewing the existing situation and proposing the future land use plan. With the advances in remote sensing and geographic information system, the plan making process can be expedited with integration of both spatial and attribute data, which enables detailed assessment of spatial growth of towns/cities, land use status, physical infrastructure facilities, etc. in anticipation of the projected population growth.

1.5 NEED OF THE MASTER PLAN

A master plan is a blueprint for the future. It will help the society as

- To control the development of various industries in a systematic way.
- Define public, semiprivate, and private spaces and public amenities
- To discourage the growth of town in an unplanned and unscientific way.
- To give a perspective picture of a fully developed town.
- To limit to a certain extent the unprecedented flow of rural population to the urban area.
- To offset the evils which have come up due to over-crowding of population such as acute shortage of houses, traffic congestion, inadequate open spaces and insufficiency in public amenities; etc.

1.6 PROJECT OBJECTIVE & ITS VISION

The broad objective of this project is to prepare a Master Plan Report for Bilasipara Town 2041. Report is the final output of the research.

Vision being a cherished dream, to achieve this vision it is necessary to break it into a number of goals and subsequently to objectives.

- The process can be further taken up as sector wise development plans and review of local area plans in subsequent 5 years term.
- Identifying existing gaps in physical and social infrastructure & to bridge those gaps
- By proper policy planning and strict adherence of the land use zoning and building byelaws.
- By submerging the planning with combining funds from the state as well as the centrally sponsored schemes
- Ensuring systematic, balanced & integrated development.

1.7 SCOPE OF WORK

The proposed study will cover areas of Bilasipara MP Area as defined and notified under the Act. The scope of work for revision of Bilasipara Master Plan will cover the following.

- To identify the gaps/ incongruities between the actual land use and existing Master Plan proposals
- To identify the systematic and methodological deficiencies in implementation and preparation of Master Plan
- To prepare the Revised Draft Master Plan for Bilasipara MP Area

2.

PROFILE OF THE MASTER PLAN AREA

2.1 INTRODUCTION

Bilasipara town is the Sub District headquarters of Dhubri. The Bilasipara Master Plan area covers a total area of 45.66 sqkm. Total 21 (*twenty one*) numbers of villages along with the town area consisting 14 (fourteen) numbers of wards have been included in the Bilasipara Master Plan. The names of the villages are adjacent to the main town having homogenous characteristics.

Bilasipara is surrounded by Bilasipara Tehsil towards North, Mahamaya Tehsil towards west, Mahamaya- BTC Tehsil towards west, Nayeralga Tehsil towards South. This Place is in the border of the Dhubri District and Kokrajhar District. Kokrajhar District Bilashipara- BTC is in north towards this place. The entire area of the District is situated at the plains of the Brahmaputra Valley.

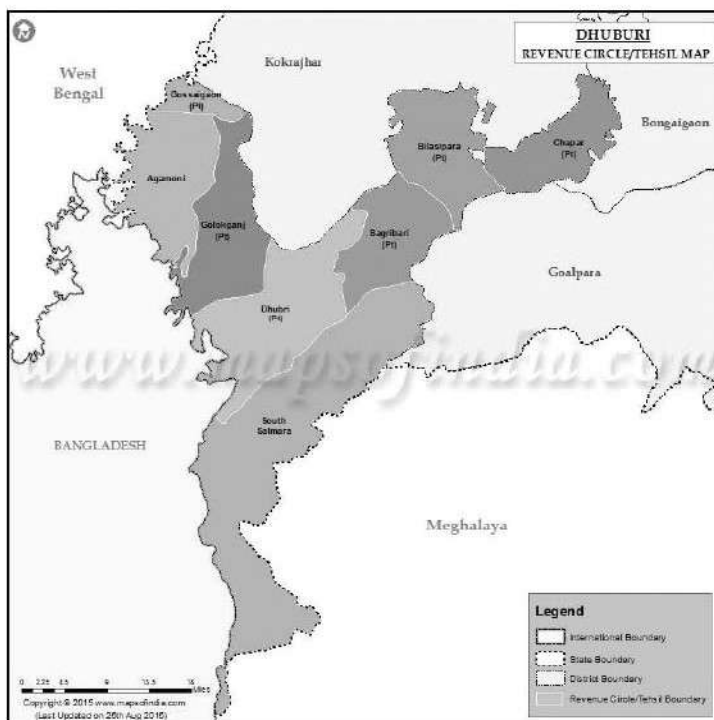


Figure 2-1: Location Map of Dhubri District with Bilasipara Sub-District

2.2 DEMOGRAPHIC PROFILE

2.2.1 Area and Population

Bilasipara Municipal Board has a population of 37,410 of which 19,147 are males and 18,263 are females as per report released by Census India 2011. The total population of Bilasipara Master Plan area constitutes about 3.59% of the total district population & total master plan area population is 69967 (Table 2-1).

Table 2-1: Population Growth of Bilasipara Master Plan (1961 - 2011)

YEAR	BILASIPARA MUNICIPAL AREA		BILASIPARA MASTER PLAN AREA (Excluding the Municipal area)		TOTAL MASTER PLAN AREA	
	Population	% Variation	Population	% Variation	Population	% Variation
1961	10025	---	8785	---	18810	---
1971	12553	25.22	12358	40.67	24911	32.43
1991	18006	43.44	19524	57.99	37530	50.66
2001	31171	73.11	24110	23.49	55281	47.30
2011	37410	20.02	32557	35.04	69967	26.57

Source: Compiled from Census of India. *provisional census

*1981 Census was not held in Assam.

Table 2-2: Population and Area Distribution, Bilasipara Municipality Area- 2011

Category	Master Plan Area	Municipality Area
Area (HA)	4566	1111
Total Population	69967	37410
Number of Wards	-	14
Density (ppha)	52.84	70.47

Source: Compiled from census of India, 2011 and Bilasipara Municipal Board

2.2.2 Population Distribution and Growth Trends

At present, the total numbers of wards in the town are 14. In terms of population distribution amongst the wards, population share is higher in Ward 3 i.e.1018 and lowest in ward 12 i.e. 201. Table 2-3 presents the ward wise total population in 2011.

Table 2-3: Ward Wise Population, Bilasipara Town, 2011

Ward No	Name of Ward	No of HHs	Population
1	Ward 1	405	2026
2	Ward 2	878	3968
3	Ward 3	1018	4616
4	Ward 4	602	2758
5	Ward 5	788	3521
6	Ward 6	218	991
7	Ward 7	615	2851
8	Ward 8	783	3611
9	Ward 9	806	3647
10	Ward 10	440	2088
11	Ward 11	488	2331
12	Ward 12	201	1014
13	Ward 13	414	1930
14	Ward 14	467	2058
Total		8123	37410

Source: District Census Handbook, Census of India, 2011

Table 2-4: Bilasipara Master Plan Area (Excluding Bilasipara Municipality Area), 2011

Sl.No	Villages	No. of Households	No. of Population
1	Andurjhar part -2	59	291
2	Bandhabpara	380	1707
3	Bangalipara Part-1	755	3299
4	Bangalipara Part-2	390	1864
5	Chirakuti part-1	383	1954
6	Gobardhan para	694	3001
7	Gopigaon part-1	99	410
8	Gopigaon part-2	96	362
9	Gopigaon part-3	331	1373
10	Hakama part-5	234	1065
11	Hatipota part-2	766	3665
12	Jamduar part-1	286	1400
13	Jamduar part-2	238	1241
14	Kathaldi part -3	786	3527
15	Kushakati	345	1500
16	Mirarkuti	35	155
17	Maspara	357	1682
18	Siberdabri	122	539
19	Suryakhata part 1	547	2415
20	Suryakhata part 2	162	726
21	Udmari part-5	73	381
Total		7138	32557

Source: District Census Handbook, Census of India, 2011

2.2.3 Sex Ratio

The sex-ratio of Bilasipara Municipality, according to 2011 census was showing a relevant increase compare to 1991 census but it slows down compare to 2001 census. Whereas, in Master Plan area (other than Municipality area) the figure is comparatively low to previous 2001 census.

Table 2-5: Sex Ratio of Bilasipara Town & Master Plan Area

Year	Sex Ratio (per 1000 male)		
	In Bilasipara Municipal Area	In Bilasipara Master Plan area (Excluding Bilasipara Municipal Area)	Total Master Plan Area (Average)
1991	935	965	950
2001	962	975	969
2011	948	942	945

Source: District Census Handbook, Census of India (91,01,11)

2.2.4 Child population:

As per 2011 Census, out of the total population of the Master Plan Area (69967), 10220 are children belongs to the age group 0-6 years and accounts for 8.10% of the total population of the master plan area.

Table 2-6: Child Population of Bilasipara Master Plan Area 2011

Age Group		Male Population	Female Population	Total
0-6	Master Plan Area (Excluding Municipality)	3111	2882	5993
	Municipality	2162	2065	4227
Total Population		5273	4947	10,220

Source: District Census Handbook, Census of India 2011

Population of Children with age of 0-6 is 10220 which is 27.32 % of total population of Bilasipara (MB). Moreover Child Sex Ratio in Bilasipara is around 955 compared to Assam state average of 962.

2.2.5 Age-Sex Composition

Study of Age-Sex composition of population shows that the proportion of population in the age group 7-60+ is increasing. This is indicative of the increase in the participation rate and need of more and better health infrastructure and recreational activities.

Table 2-7: Age-Sex Composition of Bilasipara Master Plan Area 2011

Age Group	Bilasipara Municipal Area			Bilasipara Master Plan area (Excluding Municipal Area)		
	Male Population	Female Population	Total Population	Male Population	Female Population	Total Population
0-6	2162	2065	4227	3111	2882	5993
7-60+	16985	16198	33183	13659	12905	26564
Total	19147	18263	37410	16770	15787	32557

Source: District Census Handbook, Census of India 2011

2.2.6 Literacy

As per 2011 census, out of the total population in municipality area (37410), 26703 persons are declared literate (of which 14567 are Male & 12136 are female)

Table 2-8: Literacy rate of Bilasipara Town, 2011

	Male Literate	Female Literate	Total
Master Plan Area (Excluding Municipality)	9045	7367	16412
Municipality	14567	12136	26703
Total Literacy	23612	19503	43115

Source: District Census Handbook, Census of India 2011

Literacy rate of Bilasipara Town is 71.34 % compare to total population of the town. Whereas, compare to total master plan area the literacy rate is 61.62 % compare to total population of the Master plan area.

The overall Male literacy rate is around 54.77 % while female literacy rate is 45.23 % of total MP Area (Bilasipra)

2.2.7 Population of SCs & STs:

As per 2011 census, the Scheduled Castes and Scheduled Tribe population of the Bilasipara Town was 7890 and 84 respectively constitution of 11.28% and 0.12% of the total population of the Master plan area.

Table 2-9: SC-ST Population, Bilasipara Town, 2011

	SC Population		ST Population		Total
	Male	Female	Male	Female	
Master Plan Area (Excluding Municipality)	345	291	41	33	710
Municipality	3711	3543	6	4	7264
Total	4056	3834	47	37	
Total Population of SC/ST	7890		84		7974

Source: District Census Handbook, Census of India 2011

2.3 MIGRATION POPULATION

Urbanization refers to the movement of population that resides in urban areas, and the resulting increase in population from rural areas. Urbanization means the movement of people from village to town and the effect of this movement upon the migrants and their families and upon their fellowmen in the villages. Urbanization may be defined, as a process of concentration of non-agricultural occupations and land uses around a single nucleus or multiple nuclei.

The migrated population is mainly the working class population. This population comes to Bilasipara town for employment in various sectors such as hotel / restaurant industry, government jobs etc. There is no such data available for migrated population for Bilasipara town and surrounding villages.

There is no such data available for migrated population for Bilasipara town and surrounding villages.

2.4 URBAN HOUSING

Traditionally, the people have been living in individual houses made up of bamboo and wood due to easy availability of the raw materials. However, due to increase in population and space constraint there has been unrestricted growth of RCC buildings and multi-storeyed structures. Many of these buildings are not earthquake resistant.

2.4.1 Household Size

The average household size of the Bilasipara Master Plan area is 4.6 as per 2011 census (Table 2-10).

Table 2-10: Population and Household Size of Bilasipara Master Plan Area – 1991, 2001 & 2011

Town/ State/ Country	1991			2001			2011		
	Total Population	Number of Households	Household Size	Total Population	Number of Households	Household Size	Total Population	Number of Households	Household Size
Bilasipara Master Plan Area	-	-	-	55281	10501	5.3	69967	15261	4.6
Assam Urban	2487795	-	-	3439240	-	-	4398542	-	-

Town/ State/ Country	1991			2001			2011		
	Total Population	Number of Households	Household Size	Total Population	Number of Households	Household Size	Total Population	Number of Households	Household Size
Population									
India									
Urban	213,283,81	39,937	5.3	280,163,8	54,720	5.1	37710576	-	-
Population	7	,922		11	,312		0		

Source: Compiled from Housing and Household Tables, Census of India, 1991 & 2001,* Provisional Population Totals 2011

Bilasipara Municipal Board has total administration over 8,123 houses to which it supplies basic amenities like water and sewerage. It is also authorize to build roads within Municipal Board limits and impose taxes on properties coming under its jurisdiction.

2.5 POPULATION PROJECTION

Population is the most important factor which is directly related to the various needs of the area. The prime objective of any Master Plan is to assess the present situation and project the future population for plan period, and accordingly calculate the requirements of both physical and social infrastructure in order to cater to the needs of such population. Therefore, population projection is the basic requirement for the projection of other needs of the area. From all these projections the developmental plan of an area should be prepared which can fulfill the different needs of the people living therein.

To arrive at a conclusive projection figure, three methods of population projections have been used for the city as well as the whole MP Area. The methods used for projecting population are:

- Arithmetic Progression Method.
- Geometric Progression Method.
- Incremental Increase Method.

Based on the past population growth trends– low, medium and high – population estimate for Bilasipara Master Plan Area for the year 2041 have been worked out assuming different growth rate for Municipal Area and Master Plan Area, keeping in view the past growth trend.

The following table shows the population of last few decades with growth rate and projected population for 2041 –

Table 2-11: Population estimates for Bilasipara Town- 2041

Method	2021	2031	2041
Arithmetic Progression method	47112	56814	66516
Geometric Progression method	51721	71507	98861
Incremental Increase method	40186	36036	24960
Average	46340	54786	63446

Source: Calculations based on AM, GM & Incr. Incr Method

Table 2-12: Population estimates for Bilasipara Master Plan- 2041

Method	2021	2031	2041
Arithmetic Progression method	86186	102404	118623
Geometric Progression method	94769	128362	173863
Incremental Increase method	83121	93209	100233
Average	88025	107992	130906

Source: Calculations based on AM, GM & Incr. Incr Method

3.

ECONOMIC BASE AND EMPLOYMENT

3.1 INTRODUCTION

Bilasipara town has so far developed mainly as an administrative and service center and as such the economy of this urban centre like many of the administrative towns shows a preponderance of service sectors over other sectors of employment. To sustain the service population, activities like trade and commerce, transportation, etc. have been developed. In the past very little efforts have been made for the diversification and intensification of economic activities, as a result, service sector emerged as the major source of employment.

The city economic profile has been worked out based on an analysis of the census 2011 data.

3.2 WORK FORCE PARTICIPATION RATE AND NON-WORKERS

As per Census of India, workers are classified as Main Workers, Marginal Workers and Non Workers depending upon their duration of work months. Another classification has been done on the basis of nature of work performed; cultivators, agricultural labourers, household industry labourers and other workers etc.

3.2.1 Working Population

The work participation rate of 2011 is 34.42, which is seen higher compare to previous 2001 data i.e. 29.74. It can be observed from the table given below.

Table 3-1: Working Population, Bilasipara Town, 2011

Year	Bilasipara Municipal Area (A)			Bilasipara Master Plan Area (Excluding Municipal Area) (B)			Total Master Plan Area (A)+(B)		
	Total Population	Total Workers	Workers Participation Rate	Total Population	Total Workers	Workers Participation Rate	Total Population	Total Workers	Participation Rate
2001	31171	9570	30.70	24110	6868	28.49	55281	16438	29.74
2011	37410	12517	33.46	32557	11565	35.52	69967	24082	34.42

Source: District Census Handbook, Census of India (01, 11)

3.2.2 Non-Working Population

The Non-working participation rate of 2011 is 65.60 which is less than 2001 data i.e. 70.26. It can be observed from the table given below (Table 3-2).

Table 3-2: Non Working population of Bilasipara Master Plan Area

Year	Bilasipara Municipal Area (A)			Bilasipara Master Plan Area (Excluding Municipal Area) (B)			Total Master Plan Area (A)+(B)		
	Total Population	Total Workers	Workers Participation Rate	Total Population	Total Workers	Workers Participation Rate	Total Population	Total Workers	Participation Rate

	Total Population	Total Workers (Non working)	Non-Workers Participation Rate	Total Population	Total Workers (Non working)	Non-Workers Participation Rate	Total Population	Total Workers	Non-Worker's Participation Rate
2001	31171	21601	69.30	24110	17242	71.51	55281	38843	70.26
2011	37410	24893	66.54	32557	20992	64.50	69967	45885	65.60

Source: District Census Handbook, Census of India (01, 11)

3.3 OCCUPATIONAL STRUCTURE:

The working population of Bilasipara Master Plan area is engaged more in other types of work (like business, Job etc). The **table 3-3** shows the distribution of workers in four categories of economic activity i.e. Cultivators, Agriculture Labourers, Household Industry workers, other workers.

Municipality area contributes 51.98% of total workforce, where Master Plan Area (Excluding Municipality) contributes remaining 48.02% of total workforce in Bilasipara Master Plan Area.

Table 3-3: Occupational Structure of Bilasipara Master Plan Area

Sl. No.	Category	Municipality	Percentage (%)	Male	Female	Master Plan Area (Excluding Municipality)	Percentage (%)	Male	Female
1	Main Workers	11381		10053	1328	8044		7265	779
i	Main Cultivators	356	3.13	350	6	2790	34.68	2635	155
ii	Main Agriculture Labourers	171	1.50	136	35	971	12.07	785	186
iii	Main Household Main Industry workers	427	3.75	234	193	144	1.80	130	14
iv	Other workers	10427	91.60	9333	1094	4139	51.45	3715	424
2	Marginal Workers	1136		743	393	3521		1667	1854
i	Marginal Cultivators	15	1.32	10	5	389	11.05	199	190
ii	Marginal Agriculture Labourers	49	4.31	18	31	1056	29.99	357	699
ii	Marginal Household Industry workers	203	1.78	78	125	241	6.84	67	174
iv	Marginal Other workers	869	76.50	637	232	1835	52.12	1044	791
Total Workers (Main + Marginal)		12517		10796	1721	11565		8932	2633

Source: District Census Handbook, Census of India 2011

3.4 INFORMAL SECTOR

Bilasipara informal sector activities are scattered in the town, these activities will be swollen beyond manageable limits with the induced growth in future. Hence, for these, proper provision for space should be considered. These informal sector units are located themselves strategically near work centres, commercial areas, outside the boundaries of schools, colleges and hospitals, transport nodes and near large housing clusters and they created numerous problems in the efficient functioning of the city including traffic and transportation.

The informal sector must be made an integral component of the city planning and development process in order to rationalise the city's growth and development. Options for creating more affordable commercial areas in terms of day markets needs to be explored in order to enable the informal sector contribute to the economic growth of the city.

3.5 TRADE AND COMMERCE

Bilasipara town, over the years has been a fast growing trade & commerce centre. The business activities of the town have not developed for a particular trade, in a particular area but it spread widely along main through fares, Commercial activities in the town serve an area of about 2.5 Km. radius. As per data provided by the Municipal Board of Bilasipara there are large numbers of shops of all type in town are exists.

3.5.1 *Wholesale TRADE:*

The wholesale trade in the town mixed retail trade and to specific area is dealing in this trade separately. There are altogether 33 Nos. of wholesale commercial establishment which are scattered all over the town, out of which food grain wholesale trade is of 22 re-dominant nature. The area coming under wholesale trade is quite nominal.

As per URDPFI guidelines for existing population of Planning Area, 1 shop is required for every 200 persons, at each, at Community centre and Sector centre, 1 shop is required for 110 persons at Cluster centre. But now there is no hierarchy of commercial activities. So the average is, 1 shop is required for 170 persons.

3.5.2 *Retail TRADE:*

There are altogether 1368 Nos. retail, commercial establishment at Bilasipara Town. The retail activities are mostly concentrated on both sides of N.S. Road, J.N.Chakraborty Road, Masjid Road, Purani Bazar Road, etc. The shopping activities are mainly concentrated in the heart of the town. Retail trade centre have developed haphazardly along the roads with the result Truck Parking, Loading/unloading activities are taking place along the road which creates problem to traffic flow.

3.5.3 *Market/Shopping CENTRE:*

At present there are 3 Nos. of daily Municipal Market in Bilasipara town besides there markets are located near ASTC bus stand and at Ward No 12 area respectively. Presently there is also one small daily market at Chowk Bazar area has grown up. Though there are 3 Nos. of shopping centres viz. Choudhury Market, Barua Market and Bohagi Bazar Market at Bilasipara town, these are not upto the standard.

3.6 INDUSTRIAL DEVELOPMENT

Bilasipara district is industrially very backward. There is no heavy industry. Small industries like Handloom are found mainly in rural areas. There is a Growth Centre of 89.35 sqm area in Bilasipara

3.6.1 Growth Centre

Growth Centres have been setup in the town of Bilasipara by Department of Industries under State Govt. Policy to facilitate industrial development in cities with potential for industrialization

Table 3-4: Number of Growth Centre, Bilasipara, Assam 2018-19:

Districts	Name of Growth Centre	Total Area (in Sq. Mtr.)	Total No. of Sheds Constructed	No. of Sheds Allotted	Open Area Allotted (in Sq. Mtr.)	No. of Units functioning
Dhubri	Bilasipara	89.35	6	6	0	0
Assam		1944841	71	49	991700.5	62

Source: Statistical Handbook Assam 2019

At present, the Town has 24 micro industries, 1 small-scale industry with an average of 8-10 employee involvement. Most of the industries within the town are service industries like bakeries automobile workshops, printing press radio repairs and furniture making etc.

Table 3-5: Number of Registered MSME units under the Commissionerate of Industries and Commerce, Assam 2018-19:

Micro	Small	Medium	Total
24	1	0	25

Source: Statistical Handbook Assam 2019

Other industrial units of the planning areas are manufacturing of steel and wooden furnishers, rice milling, bakery products, tailoring, readymade garments, embroidery, handloom, spice grinding, repairing of 4 wheelers and 2 wheelers, DTP works, cement concrete products.

3.6.2 Classification & Registered of existing industries in Bilasipara:

The industrial establishment within Bilasipara Master Plan Area under small scale industries has been categorized under six different heads:-

Table 3-6: List of service enterprises registered with DIC&C in Bilasipara

Sl.No.	Name of the Unit	Service / products
1	M/S Skylark Offset Printers	Printing Work
2	M/S Gautam Offset Press	Printing Work
3	M/S Suraksha Steel Co.	Steel Fabrication
4	M/S Singhi Iron Factory	Steel Fabrication
5	M/SBhai Bhai Industries	Steel Fabrication
6	M/S Moromee Steel Furniture	Steel Furniture
7	M/S Maya Steel Factory	Steel Furniture
8	M/S Gurukul Computer Academy	DTP Works
9	M/S Jibika Cutting, Tailoring & Embroidery Centre	Cutting & Tailoring

10	M/S J.B Tailoring Centre	Tailoring
11	M/S Moon Tailors	Tailoring
12	M/S Ansary Jewellery	Jewelers
13	M/S Bimal Kr. Saha Rice & Atta Mill	Flour Mill
14	M/S J.B. Beauty Parlor	Beauty Parlor
15	M/S Esha Beauty Parlor	Beauty Parlor

Source:

3.7 TOURISM

Tourism in Assam is based on wildlife, natural beauty, unique flora & fauna, holy shrines, lush green tea gardens, turbulent rivers, vibrant and colourful cultural festivals.

Bilasipara has beautiful landscape which helps in the town being an important tourist place of Assam. Tourists can visit the natural sites in Bilasipara which comprises of many pukhuries (tanks) including- Florican Garden at Gaurang Nagar in Bilasipara. Bilasipara is a smaller but beautiful upcoming tourist destination in coming days.

4.

HOUSING AND SHELTER

4.1 HOUSING SCENARIO

Bilasipara has witnessed alarming urbanisation in the recent years. The population of Bilasipara Municipal area has seen an increase of 20.02% from 31171 in 2001 to 37410 in 2011 according to Census data, 2011. Similarly areas under Bilasipara Master Plan excluding municipal area have seen an increase of 25.94% from 24110 in 2001 to 32557 in 2011. This calls for construction of more houses. Defined narrowly, housing is just a unit of accommodation to protect its occupants from forces of nature, but defined more broadly, it also covers basic ancillary amenities like proper drainage, sanitation, power supply, water supply, health care, etc. to lead a dignified life.

Bilasipara Town have problems of unauthorized colonies. Lack of development particularly to suit the requirement and economic means of squatters has created conditions, which motivate unauthorized slums. Housing does not mean provision of housing sites or dwelling units alone, but much larger significance. In many areas Congestion and overcrowding is being seen. Open spaces are shrinking and agricultural lands are being converted for residential, commercial, and transportation purposes. Urbanisation in Bilasipara has imposed tremendous pressure on natural resources, particularly the groundwater level.

While most of the houses in Bilasipara are self-built, a few central and state government schemes are also in place to facilitate house construction. Private builders haven't entered the housing scenario yet.

4.1.1 Types of Housing

Basically, there are three different types of houses found in Bilasipara:

- **Kutch House:** A house having mud floor, bamboo wall plastered with mud and thatch roof.
- **Assam Type (Semi pucca):** A house having brick wall, cement concrete flooring, CGI/AC sheet roofing.
- **Pucca House:** A house having cement concrete flooring, brick wall and RCC slab roofing.

Besides, the houses being built are often rented out. The following Table depicts the percentage of self-occupied and rented houses in Bilasipara based on Census Data, 2011.

Table 4-1: Housing Typology of Bilasipara MP Area

Area Name	Ownership Status		
	Owned	Rented	Any Others
Bilasipara Municipal Area	90.10	8.20	1.70
Bilasipara Master Plan Area (excluding the municipal area)	98.14	0.38	1.49
Total Master Plan Area	94.12	4.29	1.60

Source: District Census Handbook, Census of India 2011

As is evident from the **table 4-1**, 8.20% of houses in Bilasipara Municipal Area are rented out. This implies very low influx of people from other areas to Bilasipara town in search of better economic activities. While the no. shown in has cast a pressure on the natural resources, it has also led to a new source of income to the people renting out their houses and an increased

demand for construction workers and construction materials thereby generating a greater income flow.

4.2 HOUSING SUPPLY MECHANISM:

Majority of the houses in Bilasipara are self-built but there are government schemes in place to meet the current demand and to provide affordable housing to economically weaker sections and low income groups.

4.2.1 *Schemes currently in operation in Bilasipara are:*

- i. **Prime Minister Awas Yojana (Urban) [PMAY (U)]:** This scheme launched in 2015 aims to provide housing for all in the urban areas by 2022. The mission seeks to address the housing requirement of urban poor including slum dwellers through the following programme verticals:
 - Slum rehabilitation of slum dwellers with participation of private developers using land as a resource.
 - Affordable housing through credit linked subsidy.
 - Affordable housing in partnership with public and private sector.
 - Financial assistance for beneficiary led individual house construction/enhancement.
- ii. **Individuals Household Latrine (IHHL) under Swachh Bharat Mission (SBM):** IHHL under SBM aims to eliminate open defecation in the country. Here applicants can approach the local authorities in their area to get central assistance for construction of toilets. They can also complete the process online through an official portal of the central government. Conversion of old toilets can also be applied for.
- iii. **National Urban Livelihood Mission (NULM):** Launched in 2013, NULM focuses on organizing urban poor in their strong grassroots level institutions, creating opportunities for skill development leading to market based employment and helping them set up self-employment venture by ensuring easy access to credit. In addition, the mission is aimed at providing shelters equipped with essential services to the urban homeless in a phased manner and also to address livelihood concerns of the urban street vendors.

4.3 BILASIPARA HOUSING STATUS

4.3.1 *Housing Condition:*

The condition of households (HHs) can be categorised as good, liveable, and dilapidated. The following table provides information on the condition of housing stock in Bilasipara:

Table 4-2: Overall Housing Condition of Bilasipara MP Area

Condition of Census Households as	Percentage of Households		
	Bilasipara Municipal Area	Bilasipara Master Plan Area excluding municipal area	Total Master Plan Area
Good	42.6	13.86	28.23
Livable	43.9	64.83	54.37
Dilapidated	13.5	21.31	17.41

Source: District Census Handbook, Census of India 2011

From the **table 4-2**, it is evident that most of the people in Bilasipara Master Plan area live in good and liveable condition of houses. Dilapidated houses account for 16.94% in the master plan area. Government schemes are in place to provide assistance for upgradation of these houses.

Table 4-3: HHs Condition as Residence of Bilasipara MP Area

Condition of Census Households as Residence	Percentage of HHs		
	Bilasipara Municipal Area	Bilasipara Master Plan Area (excluding MB area)	Total Master Plan Area
Good	41.10	13.69	27.40
Livable	43.00	64.61	53.81
Dilapidated	13.30	21.31	17.31

Source: District Census Handbook, Census of India 2011

Table 4-4: HHs Condition as Residence-cum-other Use of Bilasipara MP Area

Condition of Census Households as Residence	Percentage of HHs		
	Bilasipara Municipal Area	Bilasipara Master Plan Area (excluding MB area)	Total Master Plan Area
Good	1.5	0.17	0.84
Livable	0.9	0.23	0.57
Dilapidated	0.2	0.00	0.10

Source: District Census Handbook, Census of India 2011

4.3.2 Type of structure:

The structure of households can be classified as follows:

- **Permanent:** Houses with wall and roof made of permanent materials. Walls can be made of G.I, stone packed with mortar, Stone not packed with mortar, metal, asbestos sheets, burnt bricks, stones or concrete. Roof can be made of hand-made tiles, machine made tiles, G.I, Metal, asbestos sheets, brick, stone or concrete.
- **Temporary:** Houses with wall and roof made of temporary materials. Wall and roof can be made of grass, thatch, bamboo, plastic, polythene, mud or wood.
- **Semi-Permanent:** Either wall or roof is made of permanent material or the other is made of temporary material.
- **Serviceable:** Wall is made of mud, unburnt brick or wood.
- **Non-serviceable:** Wall is made of grass, thatch, plastic or polythene.

The following table depicts data on the type of structure of households in Bilasipara:

Table 4-5: Housing Structure of Bilasipara MP Area

Type of structure	Percentage of Households		
	Bilasipara Municipal Area	Master Plan Area (excluding MB area)	Total Master Plan Area
Permanent	48.9	23.02	35.96
Semi-permanent	47.1	70.12	58.61
Total Temporary	2	5.12	3.56
Serviceable	0.2	0.14	
Non-serviceable	1.8	4.99	
Unclassified	2	1.75	1.88
Total	100	100	

Source: District Census Handbook, Census of India 2011

Mostly half of the people in Bilasipara Municipal area live in permanent structures constituting 48.9%. While a majority of 47.10% live in semi-permanent structures Total Master Plan area indicating backwardness of the region as a whole.

4.3.3 Type of Material

The following table depicts data on the type of predominant material of roof occupied by households in Bilasipara.

Table 4-6: Housing roofing Material of Bilasipara MP Area

Material	Percentage of HHs		
	Bilasipara Municipal Area	Bilasipara Master Plan Area (excluding MB area)	Total Master Plan Area
Grass/Thatch/Bamboo/Wood/Mud etc.	1.7	2.42	2.06
Plastic/ Polythene	0.5	2.85	1.68
Handmade Tiles	11.3	13.48	12.39
Machine made Tiles	7.2	9.15	8.18
Burnt Brick	0.8	0.40	0.60
Stone/ Slate	0.5	0.72	0.61
G.I./Metal/Asbestos sheets	74.2	70.48	72.34
Concrete	3.6	0.29	1.95
Any other material	0.3	0.23	0.27
Total	100	100	

Source: District Census Handbook, Census of India 2011

Majority of the people in Bilasipara Total master plan area used G.I./Metal/Asbestos sheets in their roofing constituting of 72.34%.

4.3.4 Availability of Kitchen:

The following table depicts the availability of kitchen in Bilasipara households:

Table 4-7: Household with availability of kitchen facility

Kitchen Facility		Percentage of households		
		Bilasipara Municipal Area	Master Plan Area (excluding MB area)	Total Master Plan Area
Cooking inside house	Has Kitchen	64.4	35.38	49.89
	Does not have kitchen	9.1	9.33	9.22
Cooking outside house	Has kitchen	21.4	49.40	35.40
	Does not have kitchen	3.5	5.09	4.30
No Cooking		1.6	0.81	1.21

Source: District Census Handbook, Census of India 2011

Majority of 64.4% in Bilasipara Municipal Area have kitchen inside their houses. These houses rely mostly on LPG/PNG for cooking purposes. 49.40% in master plan area have kitchen

outside their houses. They rely mostly on firewood, crop residue, cow dung cake, and kerosene for cooking.

4.3.5 Availability of Latrine:

The following table depicts the availability of latrine facility in Bilasipara households:

Table 4-8: Household with availability of Latrine facility

Latrine Facility			Percentage of households		
			Bilasipara Municipal Area	Master Plan Area (excluding MB area)	Total Master Plan Area
Percentage of households having latrine	Flush/pour flush latrine	Piped sewer system	5.7	0.87	3.29
		Septic tank	27.4	3.75	15.58
		Other system	12.8	5.79	9.30
	Pit latrine	With slab/ventilated improved pit	22.9	17.99	20.45
		Without slab/open slab	9.3	16.98	13.14
	Night soil disposed into open drain		1.2	0.13	0.67
	Service latrine	Night soil removed by human	0	0.00	0.00
		Night soil serviced by animal	0	0.16	0.08
Households not having latrine			20.6	54.33	37.47

Source: District Census Handbook, Census of India 2011

A huge chunk of 54.33% of the households in Bilasipara Master Plan area do not have latrine in their house premises. They depend on public latrine or open defecation. The coverage of outdated facilities like pit latrine is also substantial in both Bilasipara Municipal Area and Bilasipara Master Plan Area.

4.3.6 Availability of Bathroom:

The following table depicts the availability of Bathroom in Bilasipara households:

Table 4-9: Households with availability of Bathroom facility

Bathroom facility		Percentage of Households		
		Bilasipara Municipal Area	Master Plan Area (excluding MB area)	Total Master Plan Area
Yes	Bathroom	48.4	9.15	28.78
	Enclosure without roof	9.1	9.44	9.27
No		42.5	81.40	61.95

Source: District Census Handbook, Census of India 2011

In Bilasipara Master Plan area, 61.95% of the households do not have bathroom in their house. This reflects the backwardness of the master plan area.

4.3.7 Availability of Drainage:

The following table depicts the availability of drainage facilities in Bilasipara Households:

Table 4-10: Households with availability of Drainage

Waste water outlet connected to-	Percentage of households		Total Master Plan Area
	Bilasipara Municipal Area	Master Plan Area (excluding MB area)	
Closed Drainage	4.10	0.86	2.48
Open Drainage	12.5	4.73	8.62
No Drainage	83.4	94.43	88.92

Source: District Census Handbook, Census of India 2011

The drainage system in Bilasipara is pathetic. Only 4.10% in Bilasipara Municipal Area and 0.86% in Bilasipara master plan area has access to closed drainage facility. As high as 83.40% in Bilasipara Municipal Area and 94.43% in Bilasipara Master Plan Area do not have any drainage facility. This paints a dire picture of the sanitation infrastructure in the region.

4.3.8 Houses for Married Couples and its deficient:

The following table depicts the Households having no. of Rooms available for Married Couples in Bilasipara.

Table 4-11: Percentage of Married Couples in a Household

No. of Married Couples in a Household	Percentage of Married Couples in a Household			
	Bilasipara Municipal Area	Master Plan Area (excluding MB area)	Total Master Plan Area	
			(%)	Value
None	15.5	13.60	14.6	2228
1	73.1	78.98	76.0	11598
2	9	6.26	7.6	1160
3	1.9	0.99	1.4	214
4	0.4	0.15	0.3	46
5+	0.1	0.03	0.1	15
Total	100	100	100	15261

Source: District Census Handbook, Census of India 2011

Most of the Married couples in Bilasipara total master plan area live in single HHs constituting of 76.00%.

Table 4-12: Deficient houses for Married Couples in Bilasipara MP Area

No. of Married Couples in a Household	Total Number of Household	No exclusive room
None	2228	96
1	11598	502
2	1160	50
3	214	9
4	46	2
5+	15	1
Total	15261	661

Source: District Census Handbook, Census of India 2011

Housing deficiency or Congestion Factor for Married Couples is about 661 rooms. This indicates Rental housing demand in Bilasipara MP Area.

4.4 HOUSING SITUATION

Presently there are no major players in the housing market in the Master Plan Area. People generally construct their houses with own expenses. As per the data collected from Bilasipara Municipality, the total building permission for the year 2011 is 132. It is witnessed that the trend of number of construction of houses has been increasing from last two to three years. The trend of increment of housing construction clearly suggests the increment in number of population and its pressure over land and housing requirement.

Table 4-13: Building Permission issued in Bilasipara

House Type	2011	PC(%) of Total
RCC	48	36.4
Semi RCC	31	23.5
Assam Type	22	16.7
Kutcha	31	23.5
Total	132	100

Source: data collected from Bilasipara Municipal Board

4.4.1 Household Family size

The following table shows the no. of person per house in Bilasipara MP area

Table 4-14: Family household size in Bilasipara MP Area

Year	Number of MP HHs	Total Population	Number of Persons per Houses
2011	15261 (8123+7138)	69967 (37410+32557)	4.58

Source: District Census Handbook, Census of India (01, 11)

4.4.2 Housing Shortage

Housing shortage in Bilasipara Master Plan Area considering census 2011 housing data has been taken into consideration.

Table 4-15: Factors taken into considerations for Housing Shortage

Sl. No	Factors	Description	Remarks
1	Obsolescence factor	As decided by ninth plan working group committee of Gol, dwelling units aged 80 years or more are treated as obsolete. Percentage of households living in the dwelling units having age 40-80 years are in bad condition and percentage of households living in all structures aged 80+ years, irrespective of condition of structure, taken together as obsolescence factor and considered as housing requirement.	2657 HHs <i>[17.41 % of total no. of HHs in Master plan area are in dilapidated condition (refer in Table 4-2)]</i>
2	Temporary housing	All temporary houses should be considered as housing requirements	830 HHs

		as per recommendations. According to census data both Temporary houses and unclassifiable houses should be taken into consideration to arrive at the total number of temporary housing	[(3.56% +1.88%) of total no. of HHs in Master plan area lived in temporary structure. (refer in Table 4-5)]
3	Houses with predominantly katcha or semi pucca roof material	Houses with Katcha and Semi Pucca roof in the cities are considered to be contributing towards the actual housing stock	3841 HHs [25.17% of total no. of HHs are made up of temporary roofing in Master plan area (refer in Table 4-6)]
4	Congestion factor	Congestion factor is defined as the percentage of households in which each married couple does not have a separate room to live. The congestion factor worked out by utilizing the data on household size and average number of rooms available	661 HHs [Housing deficiency or Congestion Factor for Married Couples (refer in Table 4-12)]

Source: Assam Urban Affordable Housing & Habitat Policy
Analysis by DD Dist. office, Bilasipara

Therefore the total housing shortage for Bilasipara Town is calculated as follows:

Table 4-16: Computation of Current Housing Shortage in Bilasipara

Parameter	Number of Housing Units
1. Obsolescence factor	2657
2. Temporary housing	830
3. Houses with predominantly katcha or semi pucca roof material	3841
4. Congestion factor Housing Deficiency or Congestion Factor for Married Couples (Rental housing demand)	661
Total Housing Shortage	7989
Total HHs in Bilasipara MP area (as per 2011 census)	15261
Housing Shortage in percent (Housing Shortage / No. of MP HHs)	52.35%

Source: Calculated Values

Based on the above table 4-16, in 2011 the housing shortage works out to be around 7989.

4.4.3 Housing Need assessment

The numbers of dwelling units are available in comparison to the total population reveals that there is congestion both in the town as well as in surrounding village within Master Plan Area. So there will be a demand of additional houses in the MP area in future.

The projected housing requirement in Bilasipara Master Plan area in 2041 is as under:

Table 4-17: Future Housing Shortage in Bilasipara MP Area in a decade

Year	Projected Population	Incremental Population in a decade	No. of persons per households	No. of HHs needed	No. of HHs Available	Housing Demand	Shortage in 2011	Total Deficit
2011	69967	-	4.6	15210	15261	-	7989	7989
2021	88025	18058	4.6	19136	-	3875	-	11864
2031	107992	19967	4.6	23477	-	4341	-	16205
2041	130906	22914	4.6	28458	-	4981	-	21186

Source: Calculated Values

It is seen from **Table 4-17** that Bilasipara MB/Development Authority needs to provide for about 0.21 lakh new housing units to be distributed in the existing and new developments in the next 30 years.

Also, it is enunciated to provide 20% allocation of dwelling units in the flatted group housing projects for Economically Weaker Section (EWS) and Low Income Group (LIG) preferably at cross-subsidized rates.

5.

TRANSPORTATION

5.1 INTRODUCTION

Transport is the backbone of economy and social structure of any region. If urban Centres have been recognized as engines of Economic growth, Traffic and Transportation has rightly been termed as wheels of such engines. Road and Rail network plays a vital role in the urban planning and traffic & transportation has been considered as a function of land use planning. Transport network is considered as the life line of the town and if any bottleneck or obstruction comes in between it poses a severe threat to day to day life of the town people. The good road and rail network is the symbol of the sound development of any town and the study of transportation helps in understanding the existing situation, potentials, weaknesses etc. and helps to draft out strategies and projects for the future development.

In Bilasipara, the movement of goods and passenger traffic mainly takes place by the side of the roads as well as railways. Within the town, different type of land uses has been connected by roads. There are 30,954 no. of vehicles (all types) registered in Dhubri Dist. (*Statistical Hand Book Assam 2019*)

The road network has been studied in terms of classification of roads, length of roads, cross section of roads (divided and undivided carriageways), area under major existing roads and major road intersections. Available data regarding rail network has also been studied.

5.2 ROAD NETWORKS OF BILASIPARA

Bilasipara is well served by roads connecting it to various cities of other districts and within district. One National Highway i.e. (N.H.-31) passes through the northern side of the town (Bypass) which provides inter-district and inter-state transport facility as it connects Bilasipara with Guwahati and other urban centres of the State and outside the State. The road network links the town with the district head-quarter of Bilasipara and other towns of the district as well as the district head-quarter of Kokrajhar, Bongaigaon and Goalpara respectively.

Besides, long distance bus services are also available to Guwahati, Barpeta, and Coochbehar etc. Nearest railway station is Bilasipara, which is proposed to run along the northern fringe of the town connecting Moinaguri in west Bengal with Jogighopa Railway station leading to Guwahati. In Bilasipara town the passenger traffic has been increasing gradually and the bus traffic has been rising steadily. At present six bus associations are operating from Bilasipara besides Assam State Transport Corporation.

- i. Natun Besarkari Bus Asthan.
- ii. Haat Bazar Bus Association
- iii. Canter Bus stand Association.
- iv. Kokrajhar Bus Association.
- v. Sapatgram Bus Association.
- vi. Mini Bus Association.

Buses from various towns of Assam and West Bengal enter to the Bilasipara Town besides local buses serving surrounding towns and other rural areas.

Circulation Pattern

The road system is very much irregular in Bilasipara MP Area. The concept of road hierarchy is almost missing. There is complete lacking of road hierarchy. The category of roads can be defined only as P.W.D., local body and village road etc.

5.2.1 Traffic Volume at major Location

Traffic volume surveys conducted along the major transport routes and at the major intersection. This was carried out in order to generate idea about the traffic volume along the major routes and at the major intersections, the peak hour timing and the peak hour traffic and also the total day and the peak hour traffic composition.

Table 4.1: Traffic Volume Survey 2022 (July), BilasiparaTown, Morning Peak Hours (9.30 A.M to 11.30 A.M)

Name of the Road and Section	Fast Moving				Slow Moving					Total
	Car/Jeep	Bus	Truck/Tractor	Scooter/Motor Cycle	E- Rickshaw	Rickshaw	Cycle	Thella	Auto	
Maniram Dewan Road (Shiv Mandir Point)	176	16	13	678	870	20	229	40	142	2184
J.P.Road (State Bank of India Point)	211	25	23	900	744	42	255	33	143	2376
J.P.Road Purani Bazar (Rokahata Point)	279	34	26	1100	1395	3	246	8	193	3284
J.P.Road (Hakama Baniyapara Point)	182	17	13	431	322	3	65	6	231	1270
Bilasipara Baburhat Road (I B Point near Municipal Board , Bilasipara)	77	0	32	594	1013	32	135	14	0	1897
Total	925	92	107	3703	4344	100	930	101	709	11011

Source: Survey Conducted By Town & Country Planning Assam, Dist Office: Dhubri, 2022

In the morning time, it has been observed that a highest no. of 3284 vehicles entered J.P.Road Purani Bazar (Rokakhata Point) with highest no of 1395 E –Rickshaw in it.

5.2.3 Table 4.2: Traffic Volume Survey 2022 (July), Bilasipara Town, After Noon Peak Hours (2.00 P.M to 4.00 P.M)

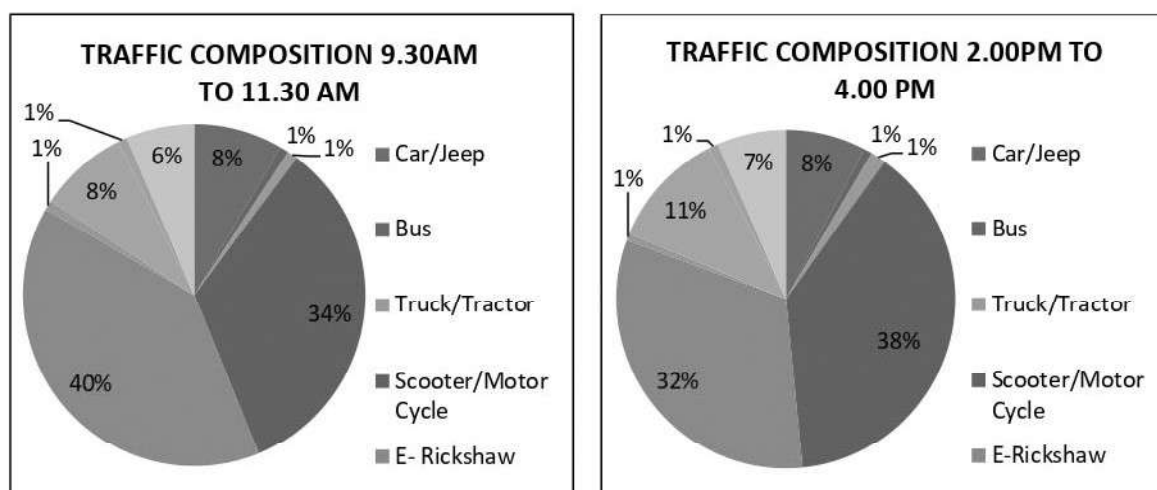
Name of the Road and Section	Fast Moving				Slow Moving					Total
	Car/Jeep	Bus	Truck/Tractor	Scooter/Motor Cycle	E- Rickshaw	Rickshaw	Cycle	Thella	Auto	
Maniram Dewan Road (Shiv Mandir Point)	191	22	36	972	860	20	321	43	162	2627
J.P.Road (State Bank of India Point)	174	16	43	915	459	39	250	17	95	2008
J.P.Road Purani Bazar (Rokahata Point)	183	17	19	679	640	0	184	9	165	1896
J.P.Road (Hakama Baniyapara Point)	127	18	18	443	182	2	62	3	195	1050
Bilasipara Baburhat Road (I B Point near Municipal Board , Bilasipara)	46	0	21	606	880	2	235	16	0	1806
Total	721	73	137	3615	3021	63	1052	88	617	9387

Source: Survey Conducted By Town & Country Planning Assam, Dist Office: Dhubri, 2022

In the Evening time, it has been observed that a highest no. of 2627 vehicles entered Maniram Dewan Road (Shiv Mandir Point) with highest no of 972 Scooter/Motor Cycle in it.

Figure 5-1: BMA Traffic Composition

5.2.4 The fig 5-1 shows that scooter and motor cycle accounts highest percentage in the fast moving vehicle and cycle in the slow moving category in the composition, in both morning and evening.



5.3 OVERVIEW OF CRITICAL ROADS AND THEIR IMPROVEMENT

The road junctions namely Maniram Dewan Road (Shani Mandir), J.P.Road (State Bank of India Point), J.P .Road (Rokakhata More Point), J.P.Road (Hakama Road Point) are critical in Bilasipara Town. The junctions are defective and instead of facilitating the movement of traffic serve as obstacles. The road junction at Banglipara and Beltoli Point with National Highway at the entrance to the town is not as per specification.

The railway lines passing through the town and hence there are a quite few no. of level crossing. The railway station has a over bridge for the pedestrian traffic only

The existing roads are proposed to be upgraded in terms of ROW, capacity and other geometrics. The new roads need to be planned and designed for a higher level of service from their entry into Bilasipara to their meeting with the peripheral Ring Road and other roads. Within the core area, the roads will lose their characteristics and are to be developed as all purpose roads.

5.4 BUS TERMINALS, BUS STOPS, INFRASTRUCTURE ISSUES

There is a temporary public Bus-Stand in the road side opposite Dhanhati Mayapara Road which is causing congestion and obstructing the smooth flow of traffic.

The proposal for Market Complex, in the site of Old Public Bus Stand, and converting the Existing Go-Hat into Mini vehicle stand is proposed by Bilasipara MB.

5.5 FREIGHT ZONES AND LOGISTICS

At present, there is no truck terminus at Bilasipara Town and the trucks do their loading and unloading of their goods on the road side itself.

Provision of efficient goods transportation facility is important to promote trade and commerce, and in turn economy of the town. Since the town has, an agro based economy with horticulture produces, there is lot of goods movement between the towns and surrounding villages/region is anticipated in future.

The truck terminus has to be developed in phases to avoid the creation of surplus infrastructure. Truck Terminal will be designed for the idle parking of the trucks and carriers/containers. Keeping all these aspects in mind the proposed truck terminal/ logistic hub is strategically located on outer ring road.

5.5.1 Movement of Goods Modes

The movement of goods modes on the road network needs to be rationalized. Goods modes can be grouped into three types as under:

- **Small sized vehicles like pickups:**

Small size vehicles like 'Pick ups' perform an essential distribution function. In space occupancy and manoeuvrability they are similar to cars. Their movement on all road sections, at all times of day may be permitted. As part of traffic management plans, separate parking areas for 'Pick ups' may be identified.

- **Medium sized vehicles like LCVs and**

Medium size vehicles like LCVs are important to move goods to and from industries, warehouses and other major activities. They affect overall level of service of traffic. These

are not to be permitted in the central town i.e. Planning Zone 3 and 5 after the development of Integrated Freight/Mandi Complex.

- **Large size vehicles like 2/3 Axle Trucks, Truck Trailer & MAVs**

Large sized goods vehicles consume high proportion of road capacity, impede traffic flows, causes accidents, adversely affect environment and consume large extent of land for parking. As these vehicles are bringing in/taking out traffic from/to other parts of the country, exclusive vehicle related restrictions that are valid only to Soper town. These vehicles need to be received at the urban periphery and facilitated in terms of planned terminals. Major truck terminals and/or idle parking are proposed to be developed as part of IFC.

5.6 FOOTPATHS AND BICYCLE TRACKS

As there is no footpaths and bicycle tracks easily visible in the Town. People often seen walking on the road creates slow moving of traffic. Also Road sides encroachment by the informal Sector on the footpaths creates haphazard in facilitate smooth movement of Traffic.

5.6.1 Pedestrian Facilities

Walking is a predominant mode in the town. The transport system plan promotes and facilitates walking. The main strategies and measures proposed as part of the plan are as under:

- Provision of side-walks on primary arterials, sub-arterials and collectors on both sides of the road and on at least one side on local roads;
- Cross pedestrian facilities to be provided as per the warrants recommended by Indian Roads Congress;
- Side- walks on all the major roads;
- Improvement measures in terms of pedestrian controlled facilities at intersections, grade separators and widening of side- walks in the Central Area and along major corridors.

5.7 PARKING: ON-STREET AND OFF-STREET

There is no any on- street, off-street provision of parking in the town. The town has highly inadequacy of organized parking space for the motorized vehicle. The cars are parked in the main road of the town creating congestion. The roads are already over burden with traffic and encroachment.

Informal parking and on- street parking. As per the data provided by the Bilasipara Municipal Board there are 80 street vendors throughout the entire planning area who are engaged in informal sector. The issue is to have formal spaces for such informal markets so that they don't create problem rather help in economic generation of the town.

5.7.1 Parking Policy:

Every vehicle trip ends in a demand for parking of the vehicle at its trip ends. The parking of vehicles needs extensive and exclusive land area. Otherwise parking would spill over to other use areas like road carriageway and footpaths, open spaces. In turn they affect safety and environmental quality.

The escalating demand and varied needs of parking in Bilasipara can only be met and organized in the framework of a comprehensive Parking Policy. Parking policy needs to move from 'non-restrictive' to 'restrictive' policy. 'Restrictive' policy would include from banning of

parking to restricted provision, regulation and pricing of parking spaces. However, the recommended parking policy for the town should have the following salient features as per the Urban National Transport Policy (NUTP)-2006:

- Preferential allocation of parking space(s) for public transport vehicles and non-motorized modes of transport;
- Levy of graded scale of parking fee representing truly the value of the land occupied;
- Development of efficient accessibility to parking lots;
- Encourage to go in for electronic metering for better realization of parking fee;
- Development of underground parking in green areas (considering the social acceptance of the people);
- Development of multi-level parking complexes in town centre(s);
- Encouraging people to use public transport to reach town centre(s);
- Development of parking lots on PPP format for reducing burden on public funds

The Master Plan asserts that a comprehensive parking policy for the area shall be prepared separately taking into account all aspects including existing and potential parking demand, institutional measures and implementation mechanism.

5.8 AREAS WITH MAJOR CONGESTION AND PARKING ISSUES

It has been observed from traffic Volume survey **Table 5-1 & 5-2**. In the Fast Moving Vehicle category, the SBI Point on the JP Road has witnessed the highest number of vehicular movement both in the morning and the evening peak hour followed by Shani Mandir Point in the morning and Aokhata Point in the evening peak hour. On the other hand in the slow moving vehicle category the SBI Point on JP Road has topped the chart in both the peak hours followed but the Shani Mandir Point in both the peak hours.

The main reason of this high vehicular movement in these two points is their proximity to the town's core area and no management of parking facilities are there. As the points taken for survey purpose has been far away from the core area the intensity of vehicular movement is diminishing gradually.

5.9 IMPROVEMENT OF ROTARY AND JUNCTIONS

The transport system plan includes improvement of Rotary and junctions geometrics including provision of acceleration/deceleration lanes, traffic signs, lighting etc and provision of appropriate traffic control systems. In all only one intersection is recommended for grade separation during the plan period. However, 5 junctions are identified for improvement. It is recommended that all the major intersections, especially those on the arterial and sub-arterials be signalized and in the next level of improvement be linked and integrated and brought under a central Area Traffic Control scheme (ATCs). Grade Separators/Flyovers may be built based on traffic intensity, site conditions and environmental impact assessment (EIA).

Sl. No	Major Intersections
i.	Maniram Dewan Road (Shani Mandir)
ii.	J.P.Road (State Bank of India Point)
iii.	J.P.Road (Rokakhata More Point)
iv.	J.P.Road (Hakama Road Point)
v.	Bilasipara Baburhaat Road (New Police Station Point)

5.10 STREET LIGHTING AND PROPOSED IMPROVEMENT PLAN

Power supply in the Bilasipara town is very pitiable. The infrastructure like LT poles, conductors and transmission lines seem to be decades old. A threat to life and property lures always in the old areas of Bilasipara town in particular. The power supply in the town is very erratic and a frequent curtailment has become the routine. There is a tremendous demand for street lighting in Bilasipara.

The Town street lighting in Bilasipara has been designed, operated or maintained very efficiently in future, which result in the energy consumption. It is proposed to have Energy efficient street lighting in the Town and the Continuity of street lighting for carriageway and pavements for safety purpose. The distance between poles should not be more than 30 meters.

Following points should be noted on all streets, important buildings and town level open spaces

- Provide lighting from a variety of sources at appropriate intensities and qualities for safety;
- Provide pedestrian-scaled lighting for pedestrian circulation and visibility;
- Use effective lighting for vehicular traffic while not overwhelming the quality of pedestrian lighting;
- Use lighting to convey a sense of safety while minimizing glare and contrast;
- Use vandal-resistant light fixtures that complement the neighborhood and character.
- Focus lighting to eliminate spill-over so that lighting is directed, and only the intended use is illuminated.

5.11 SIGNAGE AVAILABILITY AND REQUIREMENTS

5.11.1 *Lane Markings and Signage*

Generally no Lane Markings and Signage has been observed throughout the Town. Traffic signals, signs and pavement markings are used for traffic control to provide a smooth, orderly flow of traffic.

- All on-street parking spaces need to be clearly defined by lane markings.
- Adequate and appropriate signage's to be installed at all places on the street network to identify 'parking' and 'no parking' areas.
- Off-street parking places to be clearly identified by signs and distinguishing marks.

Bilasipara MC shall frame regulations or guidelines to regulate signs, outdoor display structures and street furniture in the town.

5.12 MAJOR PROPOSALS TO BE ON MAP INDICATING WIDTH OF ROAD AND RESERVATION OF LAND FOR THE PROPOSED ROAD OR WIDENING OF EXISTING ROAD.

The Bilasipara MP-2041 recommends development of a hierarchy based arterial road network system comprising primary arterial, sub-arterial and collector roads.

Based on the recommendation of the Traffic & Transportation, Comprehensive Mobility Plan (CMP) and subsequent DPRs may be prepared for up gradation of transport sector.

5.12.1 *Proposed Transport Development Strategy*

To improve the overall mobility in the region, the following policy imperative need to be taken by the authorities:

- i. Provision of efficient, reliable and accessible mass transportation system.
- ii. Integration of various mode of transport by way of evolving an integrated multimodal transport system.
- iii. Improvement in traffic management through short-term, medium and long-term interventions.
- iv. Strengthening of institutions dealing with various aspects of urban transport and formation of a Unified Transport Authority for Bilasipara Town
- v. Encouraging public transport and non-motorized modes of traffic.
- vi. Provision of environment friendly transport systems within the region.
- vii. Removal of traffic conflicts by way of grade segregation, provision of missing links, closure of avoidable junctions/cuts etc.
- viii. Development of regional corridors for Bye-Passing the regional traffic. Creating important transport nodes along the regional corridors for hassle free movement intertown traffic.
- ix. Development of adequate parking facilities across town and removal of Road-side encroachments.
- x. Removal of traffic bottlenecks as a short term measure.

5.12.2 *Proposed Transportation Network of Master Plan area*

The proposed land use under this category is around 38.20 sq. km which is about 5.86% of the total MP Area. The area in this category under roads is about 32.38 sq. km (4.97%) while that under railways is around 1.10 sq. km (0.17%).

5.12.3 *Proposed Traffic Circulation Plan for Town Core*

J.P.Road (State Bank of India Point), Maniram Dewan Road (Shani Mandir),..... Road, and Bilasipara Baburhaat Road (New Police Station Point)Road are important commercial areas and witness high degree of traffic congestion mainly because of parking spill-over on main commercial arterials. In order to make this area more accessible and reduce inconvenience caused by parking, a traffic circulation plan has been prepared which includes various traffic system management schemes such as one way streets, pedestrian trail, pedestrian only streets, no parking Roads, provision of automatic multilevel parking and multi-purpose vehicle stand.

- **One way Streets:** Owing to large scale built up areas in Bilasipara Town, widening of Roads is not possible at all places. Therefore, Road capatown can be enhanced by adopting low cost traffic circulation measures i.e. one way street.
- **Chowk Bazar Area:** It is proposed to enforce one way traffic movement for all modes on Roads near Chowk Bazar Area.

5.12.4 *Proposed Widening and Functional Hierarchy of Roads*

There are five main radial Roads entering the Bilasipara from different directions .Most of the radials suffer from congestion because of their over utilization of their limited ROW ranging from 8m to 24m. In addition, the limited carriageway, inefficiency of the junctions and their incapability to handle the volumes of traffic further reduces the capatown of the Road systems.

Accordingly it was found necessary that some critical junctions and quite a few important Roads will require improvements to cater to projected Road traffic up to the year 2041. Some of the critical junctions where normal signaling cannot effectively manage the traffic volumes, grade separators (Flyover/Underpass) are proposed.

6.

INFRASTRUCTURE, PUBLIC UTILITIES & SERVICES

6.1 PHYSICAL INFRASTRUCTURE

The urban service profile refers to the current state of infrastructure and utility systems in the town. It indicates the adequacy or inadequacy of infrastructure services in terms of coverage, quantity, and quality, and attempts to identify the factors responsible for inadequate development of infrastructure services. It measures the gap between demand and supply of different infrastructure services, and examines the factors that explain the gap.

6.1.1 Water supply

The Public Health Engineering Department, Government of Assam had taken up a scheme to supply potable water to the residents of Bilasipara. A part of the population of Bilasipara Town in ward no. 7, 8 & 9 is served by P.H.E water supply scheme, rests are depending on own sources like tube well, ring well, tank etc. The maintenance and other works of the water supply scheme was handed to Bilasipara Municipal Board soon after its completion. The source of the supplied water is ground water. The ground water at Bilasipara contains large amount of iron and the treatment done by the P.H.E. Department is not upto standard. However Bilasipara Town committee has provided 40 numbers of wells and 60 numbers of tube wells for community use at various locations

6.1.1.1 Present Water Supply Status

Main source of water is Hand pump and well. P.H.E. also provides drinking water in the town but due to technical problems supply is not very steady. The present water supply to the town is 35 MLD.

At Present, only 20% of the Bilasipara town area is covered under piped water supply. The total installed capacity of potable water generation under Bilasipara MB area is around 2.1 MLD. The present requirement of water (@ 135 lpcd) for the 88025 lakh population would be 17 MLD.

6.1.1.2 Per capita water supply:

Around 2204 HHs of 8123 HHs of the population about 10109 (*in ward 7,8 &9*) of Bilasipara receives water at the which rate of 35 lpcd is 100 lpcd less as compared to desired service level benchmark of 135 lpcd of MoUD requirement of URDPFI guidelines respectively.

Main Source of Drinking Water in Municipality

Table 6-1: Construction

Area	Tap water from treated source	Tap water from untreated source	Covered well	Un-covered well	Hand pump	Tube well/Bo rehole	Spr ing	Rive r/ Canal	Tan k/ Pon d/ Lak e	Oth er sou rce s	Tot al
Municipali ty	2.7	1	0.9	10.4	72.9	8.6	0.3	0.2	0	3	100 %

Outside Municipal Boundary (inside MP Area)	0.85	0.18	0.58	12.70	69.05	6.19	0.25	4.23	0.16	5.82	100 %
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Source: District Census Handbook, Census of India 2011

6.1.1.3 Water Demand Estimation for Resident in Bilasipara MP Area

As per the water supply demand calculation, the existing water supply demand is 17 MLD, whereas the demand will increase by 23 MLD by 2031 and 40 MLD in 2041.

Table 6-2: Construction of

Description	2021	2031	2041
Total Population of Bilasipara Master Plan Area	88025	107992	130906
Projected Water Demand (MLD)			
Total Water Demand @ 135 LPCD	12	17	30
15 % O & M loss	1.80	2.55	4.50
Sub Total	13.80	19.55	34.50
2% Fire Fighting	0.28	0.39	0.69
Total Water Demand	14.08	19.94	35.19
Grand Total Water Demand (Say)	15	21	36
Add 10% extra (Say for defense area, Floating population, Tourism, Service population etc.)	1.5	2.1	3.6
Overhead Population Water Demand (near about)	17	23	40

Note: Cities provided with piped water supply where sewerage system is existing / contemplated- 135 lpcd (URDPFI Guidelines)

To sum up, the total water demand **by 2041** in the Bilasipara Master Plan-2041 is estimated at around **40 MLD**.

6.1.2 Drainage System

At present, there is no such scientific and well defined storm drainage system at Bilasipara town, worth the name only a few kutchra unlined road-side drains are there to drain out the surface rain water as well as the storm waste to the nearby low lying areas. Most of the drains remain soaked throughout the year consequently water logging is a common factor in the vicinity. With the increase of population and built-up areas the natural low-lying areas and natural water courses have also been filled up. Of course the silting problem is also a vital factor.

The existing drainage network of Bilasipara town is mostly earthen in nature and is in need of improvement. Main market area and some residential areas have RCC drains but due to lack of the total network these drains get clogged due to blockage in the earthen drains. The town does not have a sewerage system and most of the treatment is through septic tank. Effluent from the septic tanks is directly discharged in to roadside drains.

The Action Plan shall be chalked out for the extension, augmentation and rehabilitation of existing drainage system in a comprehensive manner. Keeping the geo-climatic factors in view, it would be more feasible to develop a segregated drainage system under the Bilasipara Master Plan-2041 to avoid seasonal load on the sewerage system as proposed above. To benefit from GOI schemes, the concerned department shall get a DPR prepared immediately after the approval of this Master Plan so that the projects/schemes identified in the DPR are funded under the CSS.

6.1.3 Sanitation

Under “Swachh Bharat Mission – Gramin (SBM – G)”, in Bilasipara

- IHHL (Construction of Individual House Hold Latrine): - Incentive @ the rate of Rs.12000/- for construction of house hold Latrine for the identified prospective beneficiaries as per Base Line Survey. Under Swachh Bharat Kosh incentive @ 10000.00 is given to identified HH with dysfunctional toilet for repairing or construction of toilet.
- CSC (Construction of Community sanitary Complex) : - Support for community Sanitary Complex to be Rs.2.00 Lakh at sharing ratio 60:30:10

6.1.4 Sewerage Network

Presently the Bilasipara MB does not have any integrated sewerage system. There are generally septic tanks in the municipal boundary. The effluent is released untreated into the nearby drains and low-lying areas. Similar is the case of industrial wastewater. In case of septic tanks, the soak pits are becoming non-functional in many areas because of high sub-soil water table within a short span of time. The encroachments on existing natural drainage system, which is the main reason for the blockage, should be stopped.

There should be a separate DPR for the Sewerage network for the town and the sewerage flow has been calculated assuming 80% of the total water demand with 5% of this as infiltration.

It is strongly recommended that PHED and town drainage divisions shall prepare a DPR for the entire area of Bilasipara Master Plan-2041 after the approval of the Master Plan.

6.1.5 Solid Waste Management

Presently important sources of solid waste generation are (i) Residential areas including slum habitations (ii) Fruit and vegetable market (iii) Hotels and restaurants (iv) Hospitals (v) Drains de-silting (vi) Commercial & Industrial wastes from these areas.

The production of solid waste is considered as an important function of the socio economic profile of the population and activities in urban area. According to URDPFI Guidelines, the generating of waste varies from about over a quarter kilogram in small town to about half a kilogram per capita in large and metro cities.

Bilasipara which falls in the category of medium cities, the waste generation will be $\frac{1}{4}$ of kilograms per capita per day. This implies that total waste generation in Bilasipara master plan area by 2041 would be around 448.5 Metric Tons per day

As there is no garbage dumping points in the Bilasipara Municipal Area. The garbage collected by Municipality are dumped in low lying areas within the town which areas nuisance and may create health problem. The village area of the Master Plan has to be incorporated in the subsequent stage for waste management. Presently the town committee collects garbage by one mini truck, one tractor and by Thella. The details are given below.

Table 6-3: Solid Waste Management System Bilasipara

Garbage Collection	Trip generation per day for collection	Capatown
Mini Truck	5 times	5 cubic meter
Tractor	3 times	7.5 cubic meter
Thella	8 times	4 cubic meter

Source: Bilasipara Municipal Board

A new dumping site is very necessary to cater to the increased population of the Master Plan area. A plot of land measuring 10 Bighas at Hakama, Part I (covering Dag No.358 & 356) has been earmarked for solid waste disposal by the side of 31 National Highway at Bilasipara.

6.1.6 *Electric sub-station and major transformers*

Bilasipara at present receives power by long 33 kV lines with poor voltage regulation and with appreciable losses.

The power requirement for the town is - Domestic consumption is about 52.1% of the total power supply against 35.0% commercial consumption and 12.9% industrial consumption Bilasipara town has a electrical sub-station of 10- MVA capacity.

Table 6-4:Category wise electric connection

Electritown-Domestic Connection (Numbers)	Electritown-Industrial Connection (Numbers)	Electritown-Commercial Connection (Numbers)	Electritown-Road Lighting Connection (Numbers)	Electritown-Others Connection (Numbers)
5630	90	1100	900	512

Source: District Census Handbook, Census of India 2011

For the plan period of 2041, the town would require about 1195 MW power supply for domestic purposes @ 3-4 kw per household and about 1000 MW @1-3 kw for each commercial establishments, industrial units, street lighting etc.

According to URDPFI Guidelines and based on the estimated requirements of power supply as per the Master Plan of Delhi, the average consumption works out to 2 KV per household at the town level and includes domestic, commercial, industrial and other requirements. One electric substation of 11 KV switching station for a population of 15,000 is recommended.

6.2 SOCIAL INFRASTRUCTURE

Compared to other cities of Assam State, Bilasipara has the maximum concentration of community facilities and services viz. educational, health, cultural and recreational facilities which cater not only to the local demand but also the demand of the entire Lower Assam region. Availability of social facilities is a key for quality urban living. Social infrastructure involves much more than the provision of core public services such as schools and hospitals. It includes provision and delivery of facilities and services necessary for a community to develop facilities pertaining to Health, Education, Sports facilities, Socio-cultural activities, Recreation, etc.

6.2.1 *Education*

In Bilasipara there are about 70 number of educational institutions ranging from Primary School to College level with student population of about 12,541. The following table shows the number of different categories of educational institutions together with the number of students as per primary survey conducted by Town and Country Planning, District Office, Dhubri.

Table 6-5: BMA Educational Facility

Category of School	Total No. of Institution	Total Enrolment	Total No. of Teacher	Ratio Students Teacher (Rounded)
L.P. school	49	6352	140	45:1
M.E.M.V. School	15	2999	97	31:1
Highland Higher Secondary School	6	3190	131	24:1

Source: (A) L.P. /M.E. - District Elementary Education Office, Bilasipara.

(B) High/Higher Secondary - Inspector of School, Dhubri.

Most of the educational institutions are located within Bilasipara Town. At present there are 49 L.P. Schools, 15 M.E.,M.V Schools,6 High and H.S. Schools and one General College in the Bilasipara Master Plan Area. However, most of educational institutes are concentrated only in the Bilasipara Town. At present, a few private institutions have been set-up to provide educational facilities to primary and High School level in the Master Plan area.

6.2.1.1 Norms for provision of School level Educational Facilities

The Urban Development and Plan Formulation and Implementation guide lines provide the following norms for setting educational facility according to requirement of the population and level of enrollment.

Table 6-6: BM Norms for School Level Educational Facility

No	Educational Facility	Pop/Unit (approx)	Strength
1	Pre-primary School	2500	250
2	Primary School(I-V)	3,000-5,000	500
3	Senior Secondary School(VI-XII)	7,500	1000
4	College	1.25	1000-1500

Source: URDPFI Guidelines

The Master Plan envisages the establishment of integrated schools in new areas rather than opting for various levels of educational institutional facilities separately. Similarly, crèches and pre-nursery schools are permissible in the residential use as a part of the Mixed use Policy. In all educational institutions, proper provision for differently able children shall be made.

Table 6-7: Proposed Education Facilities according to URDPFI Guidelines

Type of Infrastructure	Existing Number	2031	2041
Nursery/Pre-Primary Schools	--	61	76
Primary Schools	49	51	66
Senior Secondary Schools	21	21	26
Colleges	1	2	2
School For differently abled children	0	1	1

Source:

It is seen that some of the estimated number are almost in the tune of existing scenario. But the existing strength is not only confined to the Bilasipara Master Plan area. These also serve outside the Master plan boundary limit. On the other hand the estimation has been made exclusively for Bilasipara Master Plan boundary limit. Beyond that separate educational requirement will be needed in future.

6.2.2 Health

Health facilities are very important for the well-being of people. A number of hospitals and dispensaries have been added both in the Government and private sector to extend medical facilities and in order to preserve and promote the health standard of people in the town. The age expectancy has reached the level of 65-70 years. With the increase of population, influx of migration from Valley and development of posh localities in the town, many private medical institutions have come up. There is one level Government hospital and a privately operated maternity hospital besides two others private nursing homes.

Table 6-8: BMA, Health Facility

Sl No.	Area	Name Of Hospital	No. of Hospital	Total No. of Doctor	Total No. of Bed	Patient Treated outdoor (per day avg.)	Patient Treated In door (per day avg.)
1	Bilasipara Town	Bilasipara Civil hospital	1	4	10	151	--
		Mat Centre (FW) Bilasipara	1	--	--	--	--
2	Village	Mazpara	Sub Centre 1(FW)	Vacant	--	34	--
		Gobordhan Para	--Do --1(FW)		--	24	--
		Andhurjhar Pt 2	--Do --1(FW)		--	18	--
		Hatipota Pt. 2	--Do --1(FW)		--	22	--
		Chirakuti Pt. 1	--Do --1(FW)		--	32	--
		Kurshakati	PHC--1		--	88	--

Source: Joint Director of Health Service: Dhubri, 2006

Presently a Government community Health center serves the Bilasipara Town. Besides there is one Maternity center (F.W.). 100 bed Government Civil Hospital has been constructed at Gaurang Nagar near the S.D.O. (C) Office, Bilasipara. This Hospital once started functioning is expected to serve the surrounding population besides the town itself. The table given above indicates the details of health institution in the Master Plan Area.

During last couple of years, the health sector in the district has seen tremendous progress. It was the advent of the Dist. Health Society, (NRHM) Bilasipara in 2005 that set the ball of progress rolling. The improvement was seen in all sections of health department in terms of infrastructure, manpower, service delivery, awareness and so on and so forth.

6.2.3 Recreational Facilities:

At present, there are number of facilities such as playgrounds, Parks, Sports clubs, library etc. within the Bilasipara Town limits. As the town is expanding the need for recreational facility would be in high demand so more number of such services shall be made available which can serve well within the town limits. Looking at the expansion of the town, the locations for new recreational facilities shall be rationally located within the town limit as per the URDPFI standards.

6.2.3.1 Parks:

In fact there is not any organized park in Bilasipara town. Though there are three Nos. of parks namely, Florican Park, Gaurangnagar under Master Plan area, Swami Vibekananda Park at ward No.4, Lachit Sishu Uddyan at ward No.5.

6.2.3.2 Play Ground:

At present, there are only three major play grounds besides the office of the District sports Association and an indoor table tennis facility.

6.2.4 Communication Services and other Facilities**6.2.4.1 Police Station**

Presently, there is 1 Police Stations, 1 police reserve & 1 District jail in Bilasipara.

There shall be a no. of Provision of police out posts needs to be incorporated at each of the villages added under the main police station for a regulated and crime free area.

According to URDPFI guidelines, one Police Station shall be there for serving 90,000 populations.

6.2.4.2 Fire Service

Fire Services are needed for protecting people from fire hazards, building collapses, and other unforeseen emergencies. There is only one Fire Protection Service for the entire Bilasipara Master Plan Area and it is located at old N.T. Road

Now that the planning area has increased a need for further 2 fire sub-station within the planning area needs to be accommodated.

Preparation of Fire Hazard Response Mitigation Plan (FHRMP) need to be carried out by concerned Dept. & Integration of FHRMP with 15th Finance Commission report and state five year plans for mobilization of funds.

6.2.4.3 Postal Services

The town has a 1 Head post office. Bilasipara Dak Ghar offers all the postal services like delivery of mails & parcels, money transfer, banking, insurance and retail services. It also provides other services including passport applications, P.O. Box distribution, and other delivery services in Bilasipara. Few Courier services has come up recently in the town and trending at a large pace. There are other 2 Nos. of Sub-Office in Bilasipara Town viz. Khatabari & Bidyapur.

According to URDPFI guidelines, one post office is to be provided for 5,000 populations.

6.2.4.4 Bank

The town has a total no. of 27 Nationalized. Banks and a no. of sub branches are established in different location at Bilasipara.

6.2.4.5 Telecommunication

Bilasipara also boasts of an excellent mobile phone, WLL and broadband internet connectivity provided by a number of national telecom giants.

6.2.4.6 Distributive facilities

Distributive Facilities include Milk Distribution, LPG Storage and Distribution and Petrol Pumps.

Table: Planning Norms and Standards for Distributive Facilities

S.No.	Category	Planning Norms and Standards
i.	Milk Booth/Milk and Fruit and Vegetable Booth	One per 5,000 population (in residential developments)
ii.	LPG Godown including Booking Office.	1 LPG Godowns to serve 40,000-50,000 populations
iii.	Petrol Pumps	As per URDPFI Guidelines

6.2.4.7 Cremation and Burial Grounds

The entire Bilasipara Master Plan Area has only one, cremation ground located at Garu Bazar area and three burial ground at Malikuchi, Khatabari and Moullapara.

Table: Norms for Cremation/ Burial Ground as per URDPFI Guidelines

Sl. No	Category	Population Served per unit	Min. Land Area requirement
i.	Electric Crematorium	1 for large size towns	2.00 Ha
ii.	Cremation Ground	5 lakh	2.50 Ha
iii.	Burial Ground	5 lakh	4.00 Ha

6.2.4.8 Cinema and Theatres:

There is only one Cinema Hall in Bilasipara which has to serve the population of whole the entire district. The seat capatown of the Cinema Hall is 750 Nos. and covers an area of 1 Bigha 1 Katha. The only Theatre Hall called Bilasipara Natya Mandir is located at the heart of the town with 450 Nos. of seat is not at all standardized. Again more often Cinema is showing in the Theatre Hall under the name 'Ananda Takies'.

These two Halls have to serve the population of Bilasipara town as well as the population of almost the entire district. The newly developed colonies in the peripheral localities of the town also need recreational facilities also.

6.3 PROVISION FOR PHYSICALLY CHALLENGED PERSONS IN THE PUBLIC BUILDINGS:**6.3.1 Scope**

These bye-laws are applicable to public buildings and exclude domestic buildings. Buildings which shall provide access to ambulant and non-ambulant physically challenged persons are listed below. Distinction is made for buildings to be designed for the use of large wheel chairs and small wheel chair.

6.3.2 Buildings to be designed for Ambulant Physically Challenged People (Besides Hospitals)

Higher Secondary School, Conference Hall, Dance Halls, Youth centers, Youth clubs, Sports centres, Sports pavilion, Boat club houses, Ice/roller skating rinks, Swimming pools, Police stations, Law courts, Court houses, Sports stadiums, Theatres, Concert halls, Cinemas, Auditoriums, Small offices (the maximum plinth area 1400 sq.mt.), Snack bars, Cafes and Banqueting rooms (for capacity above 50 dinners).

Note:

- In sport stadiums provisions shall be made for non-ambulant spectators (small wheel chair) @ 1:1000 up to 10,000 spectators and additional 1:2000 for spectators above 10,000.
- In Theatres, Concert halls, Cinemas and Auditorium provisions shall be made for non-ambulant spectators (small wheel chairs) @ 1/250 up to 1000 spectators and additional 1/500 for spectators above 1000.

6.3.3 Buildings to be designed for Non-Ambulant Physically Challenged People

Schools for physically challenged persons, cremation grounds, public/semi-public buildings, Botanical gardens, Religious buildings, Old people clubs, Village halls, Day centres, Junior training centres, post offices, Banks, Dispensaries, Railway stations, Shops, Super markets, and Departmental stores.

Note:

- Large wheel chair criteria shall be applicable on ground floors of the following buildings:
Post offices, Banks, Dispensaries, Railway station, Shops, Super markets and Departmental stores.

6.3.4 Building to be designed for Non-Ambulant Physically Challenged Persons (using small wheel chairs)

Public lavatories in Tourist spots, Club motels, Professional and Scientific institutions, Museum, Art galleries, Public libraries, Laboratories, Universities, College for further Education, Teachers Training Colleges, Technical College, Exhibition halls, Dentist surgeries, Administrative department of the Hospitals, Service stations, Car parking, Building airports terminals, Bus terminals, Factories employing handicapped for sedentary works, large offices (with plinth area above 400 sq.mt.), Tax offices, Passport offices, Pension offices, Labour offices, Cafes, Banqueting rooms and Snack bars (for capatown above 100 dinners).

6.3.5 Building Requirements

The following building requirements are to be provided for buildings mentioned above:-

6.3.5.1 Site Planning:

- Access path from plot entry and surface parking for building to building entrance shall be minimum of 1800 mm wide having regular surface without any steps.
- The parking of vehicles of disable people @ two equivalent car spaces (ECS) shall be provided near entrance of 30 mt. from building entrance.

6.3.5.2 Approach to Plinth Level:

- Ramp shall be provided to enter the building; minimum width of ramp shall be 1800 mm with maximum gradient of 1:12 length of ramp shall not exceed 9.0 mt. having 90 mm high hand rail on both sides extending 300 mt. on both sides of ramps. Minimum gap from the adjacent wall to the handrail shall be 50 mm.
- Entrance landing shall be provided adjacent to ramp with the minimum dimension 1800 x 2000 mm.
- Minimum clear opening for the entrance door shall be 1000 mm. Threshold shall not be raised more than 12 mm.
- For stepped approach size of tread shall not be less than 275 mm and maximum riser shall be 150 mm.

6.3.5.3 Stairways:

- Height of the riser shall not be more than 150 mm and width of the tread not less than 275 mm, nosing if provided shall not extend beyond 25 mm. Maximum number of risers on a flight shall be limited to 12.

6.3.5.4 Lifts:

- Whenever lift is required as per bye-laws, provision of at least one lift will be made for non-ambulant disabled (using small wheel chairs with the following dimensions of lift).

Clear internal depth : 1090 mm.

Clear internal width : 1750 mm.

Entrance door width : 910 mm.

- A handrail not less 600 mm long at 1000 mm above floor level shall be fixed adjacent to the control panel.

6.3.5.5 Toilets:

- One special W.C. in a set of toilet shall be provided for the use of physically challenged persons. No additional provision of W.C. is to be made for physically challenged persons.
- Size of the W.C. shall depend on the category of physically challenged persons for whom it has been provided.
- All doors in W.Cs shall open outside.
- The type of W.C. shall be European with seat height as 500 mm.
- Handrails, where provided shall have min 25 mm dia.

6.3.5.6 Provision of W.Cs in building without lift:

- Provision of special W.C. shall be made on all floors for buildings designed for ambulant physically challenged persons.
- For buildings designed for non-ambulant physically challenged persons special W.C. shall be provided at Ground floor. Size of W.C. shall depend on the type of wheel chair used by the disabled.

6.3.5.7 Provision of W.Cs in building with lift:

- Provision of special W.C. shall be made on all floors. Size will depend on the category of physically challenged persons for whom it has been provided.

6.3.5.8 Toilet Details:

- For Toilets Designed for Ambulant Physically Challenged Persons:
 - The minimum size of W.C. shall be 1075 x 1650 mm with a minimum size of 1450 mm for entry door 900 mm. Long handrail on the side closer to W.C. width between the handrails shall be 90 mm and height of handrails shall be from floor level.
 - Minimum size of the clear door opening shall be 780 mm.
- For Toilets Designed for Non-Ambulant Physically Challenged People (using Small Wheel Chair):
 - The minimum size of W.C. shall be 1350 x 1500 mm with a minimum depth of 1500 mm for entry door. 900 mm long handrail on the side closer to W.C. shall be fixed towards one side to the opposite adjacent wall. The centerline of W.C. adjacent wall shall be 400 mm and minimum 950 mm from the other wall.
 - Minimum size of the clear door opening shall be 780 mm.
- For Toilets Designed for Non-Ambulant Physically Challenged Persons (using Large Wheel Chair):

- The minimum size of W.C. shall be 1500 x 1750 mm with a minimum depth of 1750 mm for entry door. 90 mm long handrail on the side wall closer to W.C. shall be provided. To provide movement space for wheel chair, W.C. seat shall be fixed towards one side of the opposite wall. The centre line of the W.C. from the adjacent wall shall be 400 mm and a minimum of 1100 mm from the other wall.
- Minimum size of the clear door opening shall be 860 mm.

7.**ENVIRONMENT AND TOWN BEAUTIFICATION
PLAN****7.1 INTRODUCTION**

Although Bilasipara town has a few hectares of eco-sensitive area like the national park, some farm lands and open grounds, but a very few developed parks and playgrounds are available. Based on existing land use survey, presently only 1 ha area is under developed parks and playgrounds.

For the purpose of creating a sustainable environment, the Revised Master Plan proposes preservation of natural endowment elements. In view of the projections made in this master plan, Bilasipara Town would require more infrastructure, amenities and other facilities at special scale which would generate enormous pressure on its environment. Below are the set of proposals and recommendations grouped by various issues to address; air quality, water quality, noise level, visual quality, eco-sensitive areas, heat, energy efficiency and climate change.

The main drawback for not being able to locate a specific area is for all being private lands. So if the space cannot be acquired for the purpose for some reasons, this way keeps flexibility.

For the purpose of creating a sustainable environment, the Revised Master Plan proposes preservation of natural endowment elements. Conservation of heritage sites shall include buildings, artifacts, structures, areas and precincts of historic, aesthetic, architectural, cultural or environmentally significant nature (heritage buildings and heritage precincts), natural feature areas of environmental significance or sites of scenic beauty.

7.2 PLAN/MEASURES FOR PROTECTION AND CONSERVATION OF ENVIRONMENTALLY-FRIENDLY ZONES

The various initiatives taken up by the GoI and GoA towards biodiversity conservation and improvement are mentioned below: In view of the projections made in this master plan, Bilasipara Town would require more infrastructure, amenities and other facilities at special scale which would generate enormous pressure on its environment.

7.2.1 *Issues pertaining to urban environment in Bilasipara*

The issues pertaining to urban environment in Bilasipara are largely to do with the poor quality of life due to the poor access to basic services than with impacts associated with environmental impacts on ecologically significant or protected areas.

- There is no major air polluting sources such as industries etc within the Master Plan area. The air pollution in the town is localized and limited to roads and major junctions in the town.
- The major cause for pollution of land and water in Bilasipara is the lack of an underground sewerage system, and an efficient solid waste collection and management system. In the absence of these, the natural streams and drains are the recipients of wastes leading to degraded quality of life in most of the localities within Master Plan Area.
- The levels of noise have been constantly increasing due to the increase in the vehicles on the road and other incompatible land uses, for example party plots located in residential areas, malls or market places.
- Due to the hard and reflective surfaces in urbanized area, heat effect can be seen through the climate change in the Bilasipara.

7.2.2 STRATEGIES FOR IMPROVEMENT OF URBAN ENVIRONMENT

Based on the identified issues strategies have been formulated to improve urban environ quality of the town. Table 9-2 identifies the strategies to be taken and the likely projects as part of these strategies to improve environmental health of the town.

Table 7-1: Strategies and projects to improve environmental health of the town

Sl. No	Sector	Issues	Strategies for environment improvement	Projects
1	Air	Degraded air quality		Infrastructure development in the northern portion of the master plan area to decongest the existing areas
		Congestion within the town		Tree plantation along roads and intersection
		Poor traffic management		Alternative road alignments to decongest roads
		Increased SPM levels		Widening/up gradation of roads
2	Water	Degraded water quality	Promotion of rain water harvesting	Afforestation programs along nallahs
			Restoration of catchment areas of natural water bodies and nallahs	
		Contamination of piped water with sewerage	Upgrading /improving infrastructure	Incorporation of rain water harvesting in building bylaws Replacement of water pipelines
		UFW	Measures to check UFW losses	Consumer and bulk water metering to be installed
3	Sewerage and sanitation	No sewer network	Upgrading /repairing sewerage infrastructure of the town	Provision of sewerage infrastructure of town
		Lack of sanitation facilities in Town area		Development of sanitation facilities especially in the poor income areas
4	Drainage	Vulnerability to landslides and erosion	Protection measures to improve the situation	Construction of landslip protection measures
				Provision of sewerage systems and improvement of waste collection systems
				Afforestation measures and buffer plantations
				Drainage improvement works
5	SWM	Indiscriminate dumping of garbage	Upgrade SWM infrastructure and facilities	Sanitary landfill sites for town
		Land Pollution by leachate		Purchase of waste collection trucks and dustbins
		Spread of vector, diseases		Public awareness and education campaigns
				Build transfer stations
				Compost plant

Sl. No	Sector	Issues	Strategies for environment improvement	Projects
6	Green cover and Open spaces	Loss of green cover and open spaces	Undertake plantation programs to Increase green cover of town	Plan for green belts and spaces in master plan
		Absence of recreation spaces		Development of parks and open spaces
				Urban forestry and plantation schemes for town
				Remove encroachments from open spaces in walled town
7	Urban Poverty	Increase in slum and Kacchi bastis	Improve housing and infrastructure conditions in all kacchi bastis	Slum infrastructure upgradation programs
		Environmental degradation due to poor living conditions		Community toilets in slum areas
				Low cost housing

7.3 TOWN BEAUTIFICATION PLAN/PROPOSALS

Roadside plantation

One of the best example of planned tree plantation along town roads in India is New Delhi. It is an exemplary model of architectural, structural and aesthetic excellence. Some of the remarkable features that can be attributed to its artistry are:

- Use of structurally large trees with very tall, straight trunks that form excellent sprawling crowns.
- The use of indigenous species that are hardy, sturdy and durable that makes them easy to grow and maintain. They are able to withstand the extreme environmental pollution from toxic automobile exhausts that usually threaten delicate trees.
- Evergreen varieties of trees used which lends to year-round green effect and protection from severe weather conditions.
- The entire expanse of open space between the concrete buildings and roads covered, creating a soothing visual effect.
- Avenues planted with single kind of trees that offers a glorious collective impact. The consistency, homogeneity of structure, texture and pattern it creates has helped bind the entire town together.
- Trees planted in straight rows and geometric patterns help create a beautiful effect in a town the magnitude of Delhi.
- Planting trees close to the verges, has helped separate vehicular and pedestrian traffic.
- All flowering species of trees that are structurally small, short-lived and difficult to grow and maintain have deliberately not been used for roadside plantation. Instead these have been exclusively planted in parks and various open spaces where they grow well and provide colour and beauty to the town.

Benefits of road side planting

- Reduced soil erosion: holds soils in place
- Remove dust and other pollutants from the air, protecting crops and road-side communities
- Flood control: slow and absorb road run-off
- Carbon dioxide sequestration
- Provide important pollinator habitat (honey production)
- Provide shade and keep the road cool for road users
- Beautification

7.3.1 *Urban Agriculture and Urban Forestry*

7.3.1.1 *Urban Agriculture*

Urban agriculture can be described as the growing of plants and the rearing of animals primarily for food and other domestic use within a town or a town and its environs. It also involves activities such as the production, processing, marketing, and delivery of farming products. Urban agriculture consists of a number of production systems. They vary from domestic production and household level processing to large scale agriculture. This is usually done within the town peripherals.

Types of Urban Agriculture	• Backyard Gardens • Tactical Gardens • Street landscaping • Forest gardening • Greenhouses • Rooftop gardens • Green walls • Vertical farms • Animal husbandry • Urban beekeeping • Aquaponics
Benefits of Urban Agriculture	• Economic benefits • Environmental benefits • Social and cultural benefits • Education, skill-building, and job training benefits • Health, Nutrition and Food Accessibility Benefits

PROPOSAL

7.3.1.2 *Urban Forestry*

Urban forestry or *Nagar Van* (Urban Forests) can be defined as the raising and management of trees in and around urban areas. Urban forestry is the art, science and technology of managing trees and forest resources in and around urban community ecosystems for sociological, economic and aesthetic benefits trees provide for society.

Urban forests will work as lungs of the cities and will primarily be on the forest land in the Town or any other vacant land offered by local urban local bodies. The Warje Urban Forest is now a role model for the rest of the country.

India has 8% of world biodiversity with only 2.5% of world land mass. It should also carry 16% of humans and cattle as well. Also, the fresh water availability in the second most populous country in the world is just 4%.

On the occasion of World Environment Day (5th June) 2020, the government today announced implementation of the Nagar van scheme to develop 200 Urban Forests across the country in next five years with a renewed focus on people's participation and collaboration between Forest Department, Municipal bodies, NGOs, Corporates and local citizens.

7.3.2 *Public Rain Water Harvesting Scheme*

Depending upon climatic conditions, topography, hydrogeology of the area, suitable structure for rain water harvesting and artificial recharge to ground water is required. Roof top rainwater harvesting need to be adopted in urban areas as well as in the subordinate village areas and proper scientific intervention for development of groundwater is required in water scarce areas

The artificial recharge to ground water aims at augmentation of ground water reservoir by modifying the natural movement of surface water utilizing suitable civil construction techniques. Artificial recharging facilitate to enhance the sustainable yield in areas where over-development has depleted the Aquifer. Conservation and storage of excess surface water for future requirements, improving the quality of existing ground water through dilution, removing bacteriological and other impurities from sewage and waste water so that water is suitable for re-use. To facilitate ground water recharging it is essential to identify availability of non-committed surplus monsoon run off in space and time.

PROPOSAL

Water harvesting by way of storage of rainwater in all new buildings existing on plots of 1000 sq. mtr. and above, and all group housing shall be mandatory. The plans submitted to the local authority shall indicate the system of storm water drainage along with points of collection of rain water in surface reservoirs or in recharge wells.

7.3.3 *Development of parks and recreational spaces*

PROPOSAL

Riverfront Development and Conservation of Water bodies

The polluted stretch of Gaurang River is approximately 4 KM in length with an area of 16 sq.km in town area, which is covering the major part of the length and breadth of the town, are proposed to be developed as the leisure valleys of Bilasipara. It is proposed that all sources of pollution along these nallahs are to be removed. The nallahs are proposed to be developed as the channels carrying clean water in order to improve the quality of ground water in the town. In addition, the walkways are proposed to be planned along these nallahs besides undertaking the landscaping. Further, the nallahs could also be used for draining the rainwater of the town in order to minimize the problem of water logging in the town. The development of nallahs is to be taken up in the shape of project for the area kept as green.

7.3.4 *Identification and demarcation of multi-purpose open spaces for sports, cultural functions, fairs, circus, etc.*

PROPOSAL

The Master Plan Area has total 165.12 Ha of land under open space and perks and play ground segment of the land classification. The Hakama beel (wetland) has a strong possibility of becoming recreational facility to cater to the Master Plan area.

7.3.5 *Beautification of major transit zones (major junctions, Bus depot, Railway Station, market zones, etc)*

PROPOSAL

Construction of rotary junction along with Lighting, painting and Gardening.

Industrial Area Management

In the industrial/residential areas, land should be identified for plantation/green belt development and for each of the developmental/industrial schemes; sufficient plantation may be undertaken in all the available spaces. The plant species should be selected in consultation with the Forest Department. Such areas should not be compounded later on for establishment of industries.

- The industries should preferably be permitted in industrial areas
- Establishment of industries outside the industrial area should be as per the initial environment
- examination (IEE) permitted in case it is not feasible to locate them within the premises of industrial area
- Suitable site for solid waste dumping should be identified for each of the industrial area
- The provision of combined effluent treatment facilities should form part of infrastructure provided to the
- industries
- The rainwater harvesting measures by the industrial units should be encouraged

7.3.6 Road signage and street furniture

Street furniture including benches in areas of high pedestrian traffic and/or areas of interest is very important and the design must take into consideration the local context in terms of weather resistance and material selection.

7.3.7 Buffer Zones

For preservation of the streams within the local area, following buffer belts have been proposed as 'No-Construction Zones'. However, following uses are permitted within the buffer zones:

- i. Public Utilities like STP, OHT, Electric sub-station, Water Pumping Stations, Utility Network;
- ii. Roads, Pathways, Cycle tracks;
- iii. Surface Parking;
- iv. Parks and jogging tracks;
- v. Open to sky jetties for boating, platforms for fishing; and
- vi. All such uses which do not involve construction of permanent structures on temporary basis.

7.3.7.1 Proposed Buffer belts:

Gaurang river: 50 meters from the Full Tank Level, however, in case of built up areas; a buffer of 30 meters shall be maintained. At Present the Embankment in the Left bank side is 42.8 km and the Right Bank side is 46.8 km of the river.

7.3.7.2 Regulating activities in the Flood Plain Zone/Buffer Zones

Sl. No	Action points	Responsible authority
i.	Plantation in the flood plain zone/Buffer Zones	Forest Department
ii.	Checking Encroachment	Local administration
iii.	Demarcation of the flood plain zone/Buffer Zones	Water Resource Department
iv.	Prohibition of disposal of all kinds of wastes	District Administration

8.

LANDUSE PLAN

8.1 EXISTING LANDUSE

The present Bilasipara Municipal area is 11.11 sq.Kms against the proposed Bilasipara Master Plan area of 45.49 sq. kms. Comprising of 21 (Twenty-one) adjoining villages. Low-lying/Marshy Land are present in few pockets across the proposed Master Plan area. Due to lack of land-use control and illegal constructions, these lands have been developing for residential as well as other purposes, which has been a reason for natural drainage to get affected.

8.2 LANDUSE PATTERN

Land use survey was conducted for the Bilasipara Master Plan area by Town & Country Planning office, Bilasipara.

Sl. No.	Land use	Total Master Plan Area		
		Area in Hectare	% To Developed Area	% To Total Area
1	Residential	5441.56	85.88	44.83
2	Commercial	32.87	0.52	0.27
3	Industrial	24.21	0.38	0.20
4	Public & Semi-Public	140.87	2.22	1.16
5	Transportation	486.47	7.68	4.01
6	Recreational	165.12	2.61	1.36
7	Railways	44.90	0.71	0.37
	Total developed area	6336		
8	Water Bodies	246.99		2.03
9	Agricultural	5556.31		45.77

Source : Primary Landuse Survey

It is seen from the above table that 6336 hectares of land comprises of Residential Landuse, which is about 52% of the total landcover of the Master Plan Area. Commercial and Industrial area covers 0.52% and 0.38% respectively. This indicates that Bilasipara is lagging behind in industrial and commercial activities even after having being one of the closest town to the Guwahati metro. The higher percentage of undeveloped land or Agricultural Land of the total Master Plan Area is due to the inclusion of rural settlements which awaits urbanisation and presence of water bodies, marshy lands, etc.

8.3 LAND-USE INTERACTIONS

The survey conducted by Town and Country Planning, District Office Bilasipara in the year 2017 reveals that the planning area has mixed land-use specially within the Municipal area. This has created inefficient and non-conforming land-use and loss of inter-relationship between various land-use. It is observed that quite a no. of land-use does not have functional relationship with the

surrounding area. A few of them cause nuisance in the area where they exist at present. Relocation of such incompatible land-use to suitable site is, therefore desirable.

8.4 PROPOSED LAND USE PLAN

All areas in the Bilasipara Master Plan Area have been designated as one of the 7 use-Zone, which are residential, commercial, industrial, public- and semi-public, recreational, transportation and industrial.

The over-all land use break-up for the new proposed Planning Area measuring 18 sq. Km. Is as follows:

Sl. No.	Land use	Proposed Total Master Plan Area		
		Area in Hectare	% To Developed Area	% To Total Area
1	Residential	5441.56	85.88	44.83
2	Commercial	32.87	0.52	0.27
3	Industrial	24.21	0.38	0.20
4	Public & Semi-Public	140.87	2.22	1.16
5	Transportation	486.47	7.68	4.01
6	Recreational	165.12	2.61	1.36
7	Railways	44.90	0.71	0.37
	Total developed area	6336		
8	Water Bodies	246.99		2.03
9	Agricultural	5556.31		45.77

9.**PROPOSED PROJECTS BRIEF AND
TENTATIVE FUNDING SOURCE****9.1 INTRODUCTION**

Bilasipara Town is capable enough of generating economic momentum in sustained manner. As a growing town, benefits of its urban vivatown need to effectuate so that cumulative benefits are not only reaped by its residents but transcend the boundaries of wider spectrum of interspersed urban settlement.

For achieving this, future urban planning decisions need to be based on the judicious disposition of activities along with greater planning expediency to align its role for prosperity and planned urban development. The planning decisions of the Revised Master Plan are consciously aimed at sustained and planned town development. It is also a fact that Bilasipara Town has shown economic and demographic momentum. In order to generate positive urban development, the Master Plan would focus on conscious decisions to provide impetus and support to anticipated urbanization.

9.2 IDENTIFICATION OF PRIORITY SECTORS AND PROJECTS

The Guiding Principles for preparation of Bilasipara Master Plan 2041 are derived from planning experiences and challenges confronted in the town which include as following:

- Environmentally and Ecological Suitable Development
- Transit Oriented Development
- Local Economic Development
- Sustainable and Integrated Transport System
- Preservation of Vitality and Viability of Town Core
- Inclusive and Collaborative Integrated Urban Development
- Mixed-use Development Policy

9.2.1 *Environmental and Ecological Suitable Development*

The topography and drainage system of this region presents a unique challenge towards attaining the perfect balance between resource conservation and utilization. The incorporation of effective environment conservation and sustainability features will be an important aspect in the preparation of this Master Plan. Environment conservation is a major issue that needs to be tackled while planning the development of any area. Efficient measures towards conserving the natural surroundings will be adopted, since the balance between natural and man-made surroundings significantly enhances the quality of life of residents.

Protecting the irrigated and fertile land as well as forest area and development in the less fertile area, will be the aspect of the planning proposal. An appropriate balance between built and un-built areas is proposed to be established so as to provide a good quality of life to the people inhabiting the area.

9.2.2 *Transit Oriented Development*

Transit Oriented Development is compact, mixed use development within easy walking distance of a transit corridor. Its pedestrian-oriented design encourages residents and workers to reduce use of personalized vehicles and use mass transit more often. These settlements are usually moderate to

high density compatible with the existing scale of development, and can be new construction or redevelopment. Mixed uses include residential, commercial space and office space, or a combination of the same. The success of TOD depends on a variety of characteristics. TOD is development designed to create connections between communities and transit the system in a way that encourages its use through walking and cycling instead of creating dependence on automobiles. The transit character of the town to be strengthened through appropriate infrastructure decisions and planning efforts. A well designed TOD displays the following physical characteristics:

- ☐ Mixed land use and compact higher residential densities than typical development.
- ☐ A transit stop or station that is a center of activity easily accessible via all modes of transportation.
- ☐ Pedestrian and bicycle friendly. Pedestrian-oriented design encourages residents and workers to use mass transit more often.
- ☐ Provides adequate amenities and open spaces for the linear town, extremely efficient with respect to community.
- ☐ Compact, mixed use development within easy walking distance of a transit corridor.

TOD's success depends on the benefits it brings to a particular community. Each community has different goals and objectives for transportation and land use planning, whether promoting reinvestment in older towns or reducing traffic congestion in rapidly growing suburbs.

When the main (primary) use accounting for not less than one half of permissible FAR/FSI as envisaged at sub-chapter 13.5 of Development control regulations (DCRs)". 33% FAR/ FSI can be used as Commercial/health/education use and 17% FAR/ FSI can be used for professional offices i.e. Doctor's consultation chambers/ Dentists, Lawyers, Architects, Chartered Accountants or alike of similar magnitude. This shall be applicable to designated core areas only.

In case of mixed use distribution, the secondary use shall be restricted to one floor only (preferably the ground floor) which is more susceptible to land use changes. While issuing the mixed use permits, care should be taken to consider the Secondary use as ancillary use to the main use in size and scale within the structure.

9.3 FUND REQUIREMENT FOR EACH SECTOR/PROJECT IDENTIFIED UNDER THE SECTORS

No fiscal plan has been worked out at this stage. The final Master Plan would provide a basis for preparation of five yearly development programmes and yearly fiscal plans for implementation.

9.4 IDENTIFICATION OF LAND SITE FOR PROPOSALS

The revised Master Plan proposes Negotiated Land Acquisition in place of compulsory land acquisition as an innovation in land acquisition procedures for speedy urban development in consultation with various Govt. Depts.

Concept of land pooling: As per the survey conducted by Town and Country Planning, Bilasipara, it was observed that few neighborhoods in the villages included in the MP are not deficient of housing but these are cases of non development of these areas may be due to lack of awareness of education. So the people are staying in houses which are made of locally available materials. The economic conditions and livelihood for these families still is agriculture and day to day informal business. The main need of the hour is to impart awareness among these masses that where they are residing in not sustainable and pose a threat to their lives. There is an urgent need to upgrade these houses as they have the tenure ship but their economic progress make it hard for them to do the same.

9.5 INDICATIVE SOURCES OF FUND:

Availability of adequate funds is an important determinant for successful implementation of the plan proposals. While conventional pattern of project financing is being in transition, the private investments and public private partnership modes of infrastructure development assumes greater significance. This apart, the programmes of the National Government provides greater opportunities for improving the status of infrastructure and service delivery. Hence, it is the responsibility of every development agency concerned to take initiatives to draw maximum funding for the plan implementation.

9.5.1 *National Programmes and Funding agencies available for the resources in urban area.*

Integrated development of Small and Medium town Programme, is a programme of national importance, which has identified the sectors and projects eligible for assistance, which include:

- i. Urban Renewal i.e redevelopment of inner (old) town areas this would include items like widening of narrow streets, shifting of industrial/commercial establishments from non-conforming (inner-town) to 'conforming' (outer-town) areas to reduce congestion, replacement of old and worn-out water pipes by new/higher capatown ones, renewal of sewerage/drainage/solid waste disposal systems, etc.
- ii. Water Supply (including de-salination plants) and sanitation
- iii. Sewerage and Solid Waste Management
- iv. Construction and improvement of drains/storm water drains
- v. Construction/Up-gradation of roads, highways/expressways
- vi. Parking lots/spaces on Public Private Partnership basis
- vii. Development of heritage areas
- viii. Prevention & rehabilitation of soil erosion/landslides only in case of Special Category States where such problems are common and
- ix. Preservation of water bodies.

DISASTER PLAN

10.1 INTRODUCTION

The District Disaster Management Plan, 2014 is an effective plan which envisages several measures that can be taken in the event of any kind of disaster. The State Policy recognizes that hazards are inevitable but these need not convert into disasters. This Policy is based on the twin principles of minimizing human suffering during disasters and reduction of financial losses through integration of disaster risk reduction activities into development planning.

Owing to a unique geographical and geo-climatic setting, the State of Assam has witnessed a number of disasters, ranging from incidents of fires to destructive floods and catastrophic earthquakes. The State has witnessed many natural and manmade disasters especially in the 19th and early 20th century. In the wake of recurring disasters, the State has always paid heavily in terms of loss of life and property. Like other parts of the State, Bilasipara Town is a multi-hazard prone area. Multi Hazards which are confronted in the town are detailed in table below-

Sl.No	Hazard	Areas Covered
I.	Floods	Bilasipara is one of the flood prone districts of Assam. There are several nos. of rivers and tributaries in Bilasipara which originates from Bhutan hills. They are Gourang Tipkai etc. They flows through the heart of the district and merges in the river Brahmaputra.
II.	Earthquakes	The tectonics of the Assam region is dominated by convergence of the India, Burma and Eurasian plates and is categorized as Seismic Zone- V which would need special measures to mitigate, minimize and safeguard the life, property and infrastructure which makes structural safety important.
III.	Landslides	Areas along major Riverbank
IV.	Drought	Most of the paddy growing areas depend upon the rainfall. The monsoon commences around the middle of April/May. For timely agricultural operation, a few showers of pre-monsoon rain is absolutely necessary. Regular rainfall till the middle of October can ensure a good harvest. But, if the rainfall at any circumstances will not happen then this will lead to improper agricultural operation and growth of crop and finally the drought will occur. So drought is caused due to failure of rains in season. The areas under drought need recharging and retention of water table for both urban and agrarian activities.
V.	Wind storm	Occasional wind storms is destroying crops, horticulture and houses in Bilasipara & it is prone to high speed winds causing extensive damages to urban infrastructure and urban forestry.
VI.	Hailstorms	Although hailstorms rarely involve loss of lives, their economic impact can be severe. The damage appears to be a function of the intensity and duration of storms and the size of the hailstones, which these produce. The damage itself is often produced not only by the impact of falling hailstones, but also by the high winds and torrential rains that is part of the hailstorm.
VII.	Fires	In Assam due to peculiar housing patterns maximum fire accident cases takes place. These houses are of generally mud-built walls with thatched roofs made out of timber, bamboo and straw. They spring up in clusters. In summer fire accident becomes frequent; it destroys houses and properties and causes serious distress to the afflicted people. In Assam, the Harijans, Adibasis and other economically backward group who live in congested localities are the

		targeted victims of the Fire Accident. However, incidents of fires are recorded in the congested parts of the town and urban poor areas.
VIII.	Human induced disasters	All parts of the Bilasipara Town vulnerable to man-made disasters due to competing urban uses, high cost of land and limited land resource.

District Disaster Management Authority should get area-specific hazard, vulnerability and risk maps prepared using GIS database for mitigation and emergency management. The plans so developed shall be operational, regularly reviewed and updated. This will help in the vulnerability assessment of the Bilasipara after proper zonation. Specific measures like micro-zonation of Bilasipara Master Plan 2041 based on disasters and integrating it with the land use planning and zoning regulations, retrofitting of infrastructure and buildings, disaster-safe construction technology and strengthening the capacities of communities shall be promoted in a time-bound manner. The construction work and other activities that may lead to situations eventually resulting in disasters shall be monitored regularly in vulnerable areas like water-bodies, hill slopes.

Hazards like earthquakes and cyclones do not kill people but inadequately designed and badly constructed buildings do. Ensuring safe construction of new buildings and retrofitting of selected lifeline buildings is a critical step to be taken towards earthquake mitigation. The Building construction, material and design specifications as laid down in the National Building Code-2005 shall have to be a mandatory requirement for important and high rise buildings. In case of areas having moderate to high vulnerability of flash floods and landslides, the buffer zones envisaged in this Master Plan need to be implemented while permitting any development in such areas.

10.2 SAFETY AGAINST NATURAL DISASTERS

10.2.1 *Earthquakes*

The application for seeking building permit shall be accompanied with a report of Architect/Structural Engineer certifying that the proposed structure has been designed structurally keeping in view the safety measures against earthquakes as indicated in the following Bureau of Indian Standards (B.I.S).

Bureau of Indian Standards (B.I.S).

- a. IS: 13935: 1993
Repair and Seismic Strengthening of building guidelines
- b. IS: 1893 (part i): 2002
Criteria for Earth quake Resistant Design of structure
- c. IS: 4326 1993 (2002-04)
Earthquake Resistant Design and Construction of building – Code of practice
- d. IS: 13920: 1993
Ductile Detailing of Reinforced Concrete structures subjected to seismic Forces – Codes of Practice
- e. IS: 13827: 1993
Improving Earthquake Resistant of Earthen Building – Guidelines
- f. IS: 13828: 1993
Improving Earthquake Resistance of low strength Masonry Building Guidelines

10.2.2 Fire Protection and Fire Requirements

This part covers the requirements of the fire protection for the multi-storied buildings (high rise buildings) and the buildings which are of 15 mtr. and above in height and low occupancies of categories such as Assembly, Institutional, and Educational more than two storeyed and built-up area exceeds 1000 sq.mt. Business where plot area exceeds 500 sq. mt., Mercantile where aggregate covered area exceeds 750 sq.mt., Hotel, Hospital, Nursing Homes, Underground complexes, Industrial storage, Meeting/Banquet halls Hazards Occupancies.

Fire protection requirements: Buildings shall be planned, designed and constructed to ensure fire safety and this shall be done in accordance with Part IV Fire protection of National Building Code of India. The building schemes as such also be cleared by the District Officer of the Fire and Emergency Services Department before issuance of building permit.

10.3 STANDARD OPERATIONAL PROCEDURE (SOP) ON DISASTER: PRE-DISASTER, DURING AND POST DISASTER

The District Disaster Management Plan-2014 (DDMP) updated by District Disaster Management Authority is an effective plan which envisages several measures that can be taken in the event of any kind of disaster within its territorial limits.

The plan deals with Risk Assessment and Vulnerability Analysis, Identification of disaster prone areas, Response structures, Inventory of Resources, Standard Operating Procedures, Directory of Institutions and key Individuals. The plan is prepared to help the District Administration focus quickly on the essentials and crucial aspects of both preparedness and response.

The Master Plan proposes that the facilities like hospitals, fire services, police, schools, water supply, bridges, flyovers and underpasses, electritown, grid stations are critical in nature for post – disaster management. To ensure functioning of critical facilities, buildings occupying such facilities and falling in Seismic Zone- V shall be retrofitted. District Disaster Management Authority- Bilasipara, shall develop a clear cut retrofitting strategy at its own level for this purpose. Safety audit of all existing important public and assembly buildings shall be done within one year.

11.**11. DEVELOPMENT CONTROLS AND
REGULATIONS****11.1 ZONING REGULATIONS AND BUILDING BYE-LAWS**

Zoning Regulations and Building Bye-Laws are the basic tools for implementation and enforcement of a development plan within the frame of the landuse proposals with the intention of achieving orderly growth and development of the town as envisaged. Zoning regulations help in controlling density as well as landuse in ensuring standards provided for the future expansion of each zone in an appropriate manner.

Urbanization in the recent past and present context exhibits not only rapid growth, but as importantly the changing face of urban centres. The planning approach also needs to respond to these transformations to meet the very basic objective of town planning. The fundamental structure of the cities is now being dominated by 'Flexibility'. The technological advancements are now making the importance of location fade day by day. Hence, the strict segregation of land uses is being replaced by flexible and mixed land uses. The quantitative norms are losing shine to performance standards. It is required that planning rather than imposing interventions shall facilitate the market forces to enable urban development in a streamlined and cohesive way.

The set of regulations also initiates the practice of Transit-Oriented Development and Premium Charges, and Transferrable/Tradable Development Rights (TDR). The regulations are formulated such that it provides a strong support in attracting private investments for Housing, Commercial Complexes, Industries and IT Parks, Hotels, Malls, and also in developing facilities like, schools, colleges, hospitals, transport terminals, etc. Some of the higher order activities like shopping malls, multiplexes, colleges, large hospitals are permitted in most of the zones, subject to they shall be located on major Roads. Thus, mixed uses are permitted considering the Symbiotic Dependency, and absence of any detrimental effect to the main use. As the transport corridors play a vital role in enhancing the development potential of adjacent lands, it is important to permit similar kinds of such uses along major Roads, irrespective of land use zone boundaries. Intensive use of land along transport corridor justifies the investment made after them and the opportunity made available by such Roads.

The enforcement of zoning regulations will require a detailed development plan of the planning area. The adoption of the regulations will, therefore, guide to undertake the necessary physical surveys and also to keep the land record up-to-date so as to enable the effective enforcement of the zoning regulations. Zoning regulations shall be applicable to the entire planning area except areas designated otherwise like special areas. There will be a separate set of norms to deal with such areas. The zoning regulations are broad in nature. The detailed regulations will be framed or restructured at the time of preparation of Divisional/zonal plans.

11.1.1 SCOPE

1. The Schedule lays down regulations for the use of land and building built thereon, consistent with maintaining minimum standards of density of building, protection of open spaces, sanitation and environmental hygiene.
2. The zoning regulations should be read in conjunction with the zones proposed in the Master Plan.

11.1.2 DEFINITIONS

For the purpose of this regulation, the following definitions shall apply.

1. Words used in the present tense shall include the future; the singular number also includes the plural also the singular.
2. "agriculture" includes horticulture, farming, growing of crops, fruits, vegetables, flowers, grass, fodder, trees or any kind of cultivation of soil breeding and keeping of lives-stock including cattle, horses, donkeys, mules, pigs, fish, poultry and bees, the use of which is ancillary to the farming of land or any other agricultural purposes, but shall not include the use of any land attached to the building for the purpose of a garden to the used along with such building; and "Agricultural" shall be constructed accordingly.
3. "Authority" shall mean the local, regional or any other "Authority" appointed by the State Government for the purpose of administering the Act, unless otherwise appointed by the State Government, the authority in the case of Municipal Areas shall be taken to mean the Municipal Board for the area constituted under the Assam Municipal Act, 1956 (Assam Act XV of 1957).
4. "Boarding House" means a building or part of a building in which is carried on wholly or partially the business of the supply of meals to the public or a class of the public for consumption in the premises.
5. "Building" – Any construction for whatsoever purpose and of whatsoever materials constructed and every part thereof whether used as human habitation or not and includes foundation, plinth walls, chimneys, drainage works, Fixed platforms, verandah, balcony, cornice or projection, part of building or anything affixed thereto or any wall enclosing or intended to enclose any land or space.
6. "Building of Accessory use" – A subordinate building, use of which is incidental to that of a principal building of the same plot such as garage, coal or woodshed, peon's quarters, etc.
7. "Building height of" – The vertical distance measured, in the case of flat roofs from the average level of the centre line of the adjoining street to the highest point of the building adjacent to the street wall, and in the case of pitched roofs, upto the point where the external surface of the outer wall intersects the finished surface of the sloping roof and in the case of gable facing the road, the mid-point between the eaves level and level the ridge. Architectural features serving no other function except that of decoration shall be excluded for the purpose of taking heights. If the building does not abut on a street, the height shall be measured above the average level of the ground and contiguous to the building.
8. "Building Set Back" – The distance by which any building or structure shall be separated from the boundary lines of the plot.
9. "Clean Industry" – Industries which do not throw out any smoke vibration, dust, fume, noise offensive odour or harmful industrial wastes beyond tolerable limits and employing not more than 10 workers with or without power.

10. "Commerce" – Means carrying on any trade, business or profession, sale or exchange of goods of any type whatsoever, and includes the running of with a view to make profit, hospitals, nursing homes, infirmaries, educational institutions and also includes hostels, club, theatres, restaurants, boarding houses not attached to any educational institution, saries and "commercial" shall be construed accordingly.
11. "Commercial Use" – Includes the use of any land or building or part thereof for purposes of commerce as defined or for storage of goods, or as an office, whether attached to industry or otherwise.
12. "Coverage" – Is the percentage ratio of the plinth area of the main and accessory building to the total of the plot.
13. "Customary Home occupation" – Means occupation other than that of operating an eating or drinking place offering residing on the premises and in accordance with which there is no display that will indicate from the exterior that the building is being utilized in whole or in part for any purpose other than that as a dwelling and in connection with which no articles or services is sold or held up for sale except that produced by a member of the family residing on the premises and no mechanical equipment is used except as is customary for purely domestic or household purpose.
14. "Development" – Means carrying out of building, Engineering, Mining or other operation in, on, over or under the land or making of any material change in the use of any building or of land.

Providing that the following operations or uses of land shall not be deemed for the purposes of this Regulation to mean development of the land that is to say –

- a) the carrying out of works for the maintenance, improvement or other alteration of any building, being works which affect only the interior of the building or which do not materially affect the use and the external appearance of the building.
 - b) The carrying out by a local or statutory authorities of any works required for the maintenance or improvement of road being works carried out on land within the boundaries of the road.
 - c) The carrying out by local authority of any works for the purposes of inspecting, repairing or renewing and sewers, main pipes, cables or other apparatus including the breaking open of any street or other land for that purpose.
 - d) The use of any building or other land within the cartilage of a dwelling unit for any purpose incidental to the enjoyment of the dwelling unit as such.
15. "Development Scheme" – Means the scheme for the development or redevelopment or improvement of the Bilasipara Master Plan area or any part thereof.
 16. "Dwelling" – A building or a portion thereof which is designed or use wholly or principally for residential purposes. This shall not include boarding or rooming houses, tents, tourist camps, hostels or other structures designed or used primarily for transient residents
 17. "Family" – A group of individuals normally related to blood or connected by marriage living together as a single housekeeping unit and having a common kitchen. Customary domestic servants shall be considered adjunct to the term "family".
 18. "Floor Area" – Means useable covered of a building at any floor level.
 19. "Floor Area Ratio (FAR)" – Means the ratio of total covered area (Plinth Area) on all floors to the area of the plot.

- a) "FAR Index" – Means quotient obtained by dividing the total covered area (Plinth Area) on all floors by the area of the plot and multiplied by 100.

$$\text{FAR Index} = \frac{\text{Total covered area of all floors}}{\text{Plot Area}} \times 100$$

20. "Hotel" – Means a building or a part of a building used as a lodging and boarding house.
21. "Industry" – Includes the carrying of any manufacturing process as defined in factories Act, 1948, and as amended and "Industrial" shall be construed accordingly.
22. "Industrial Use" – Includes the use of any land or building or part thereof for industry as defined.
23. "Light Industry" – Industries which do not throw out excessive smoke, noise, offensive odour or harmful industrial wastes, employing not more than 100 workers and using power of not more than 100 H.P. such industries, except in the case of foundries and smithies do not consume any solid fuel.
24. "Lodging House" – Means a building or a part thereof used for the reception of guests and travelers desires of staying or sleeping therein.
25. "Medium Industry" – Medium Industries are those which employ more than 100 workers and may use any kind of motive power of fuel subject of course to toxious features. Factories which are classified as heavy industries under the Factories Act do not come under this category.
26. "Non-conforming building or use" – A building structure or use of land existing at the time of commencement of these regulations and which do not conform to the regulations pertaining to the zone in which it is situated.
27. "Occupier" – Includes – (a) A tenant; (b) An owner in occupation of, or otherwise using his land; (c) A rent free tenant of any land; (d) A licensee in occupation of any land; and (e) Any person who is liable to pay to the owner damages for the use and occupation of any land;
28. "Open Space" – Means any land whether enclosed or not on which not more than one twentieth part is covered with buildings and whole of the remainder has been laid out as a public garden or used for purpose of recreation or lies waste and unoccupied.
29. "Owner" – Includes a mortgagee in possession, a person who for the time being is receiving or is entitled to receive, or has received, the rent or premium for any land whether on his own account or on behalf or for benefit of any other person or as an agent, trustee, guardian or for any other persons or for any religious or charitable institution, or who would so receive the rent premium or be entitled to receive the rent or premium if the land were let to a tenant; and includes the Head of a Government General Manager of a Railway, the Secretary or other Principal Officer of a Local Authority, Statutory Authority or Company, in respect of properties under their respective control.
30. "Parking Space" – Means an area enclosed or unenclosed sufficient in size to store one or more automobiles or any other conveyance together with a drive way connecting the parking space with a street or alley and permitting ingress or egress of all such conveyances.
31. "Plinth" – Means the portion of a structure between the surface of the surrounding ground and surface of the floor, first above the ground.

32. "Plinth Area" – Means the built up covered area measured at the floor level of the basement or of any storey.
33. "Plot" – A piece of land occupied or intended for occupancy by a main building or use together with its accessory buildings and uses customary and incidental to it, including the open spaces required by these regulations and having frontage upon a street or upon a private way that has officially being approved by the competent authority.
34. "Plot Width" – The shorter distance from one side of the plot line to the other measured through that part of the plot to be occupied by the building.
35. "Prescribed" – Means prescribed by rules and regulations under the Assam Town and Country Planning Act, 1959 (as amended).
36. "Public and semi-public" – Means any place of building which is open to the use and enjoyment of the public, whether it is actually used or enjoyed by the public or not, and whether the entry is regulated by any charge or not.
37. "Repairs" – Means any renovation applied to any structure which does not in any way change the specification of the structure but saves the structure from further deterioration.
38. "Residence" – Includes the use for human habitation of any land or building or part thereof including gardens, grounds, garages, stables and out houses, if any appertaining to such building and residential shall be construed accordingly.
39. "Required Open Space" – The space between the plot lines and the minimum building set back lines.
40. "Road or Street" – Any highway, street, line, pathway, alley, stairway, passage-way, carriage-way, foot-way, square, place or bridge whether a through fare or not over which the public have a right of passage or access or have passed and had access uninterruptedly for a specified period whether existing or proposed in any scheme and includes all bunds, channels, ditches, storm water drains, culverts, sidewalk, traffic island, roadside trees and hedges, retaining walls, fences, barriers and railways within the road lines.
41. "Service Industry" – Industries which are not engaged in the manufacture of goods or articles, but mainly concerned with repairs, maintenance, servicing and / or other jobbing works.
42. "Set back line" – Means a line usually parallel to the plot boundary and laid down in each case by the authority beyond which nothing can be constructed towards the plot boundary.
43. "Site" – of a building includes not only the land actually covered by the building but also the open space around the building required under these rules.
44. "Storey" – the portion of a building included between the surface of any floor and the surface of the floor next above it or if there be no floor above it then the space between any floor and the ceiling next above it. When measured, the height of a habitable basement extending at least 5 feet above ground level or a habitable attic shall be counted as storey.
45. "Street line" – Means the line defining the site limits of a street.
46. "Structure" – Any combination of material including buildings constructed or created the use of which requires location on the ground including among other things, signs, signboards, fences and walls that are more than three feet high.

47. "To Abut" – Means to abut on a road such that any portion of the buildings is facing the road boundary.
48. "To Construct" – Means to erect, re-erect make, material alterations.
49. "To Erect" – To construct a building for the first time or to re-construct existing building after demolishing it according to some fresh or revised plans.
50. "Total Floor Area" – The area of all floor of a building including habitable attics and basements.
51. "To make Material Alterations" – To make any modification in any existing building by way of an addition or alteration or any other change in the roof, window, door, compound, sanitary and drainage system in any respect whatsoever. Opening of a window and providing inter communication doors shall not be considered as material alterations. Similarly modification in respect of gardening white washing, painting retailing and other decorative works shall not be deemed to be material alterations, it further includes :-
 - a) Conversion of a building or any apart thereof for human habitation as one dwelling house in to more than one dwelling house and vice-versa;
 - b) Conversion of a building or a part thereof suitable for human habitation into a dwelling house or vice-versa;
 - c) Conversion of a building used intended to be used for one purpose such as shop, warehouse or factory, etc. to one or another purpose.
52. "To Re-erect" – To construct for a second time or subsequent time a building or part of a building after demolishing it on the same plan has been previously sanctioned.
53. "Water Course" – Means a natural channel or an artificial one formed by draining or diversion of a natural channel meant for carrying storm water either from a single property or several properties draining thereto in combination.
54. "Warehouse" – Means a building the whole or substantial part of which is used or intended to be used for the storage of goods whether for keeping or for sale or for any similar purpose but does not include a store room attached to and use for the proper functioning of a shop.
55. "Yard" – Means an open space at ground level between a building and the adjoining boundary lines of the plot unoccupied and unobstructed except by encroachment or structures specifically permitted by these bye-laws on the same plot with a building. All yard measurement shall be the minimum distance between the front, rear and side yard plot boundaries, as the case may be and the nearest point of the building including enclosed or covered porches. Every part of every yard shall be accessible from every other part of the same yard.
56. "Yard Front" – Means a yard extending across the front of a plot between the side yard lines and being the minimum horizontal distance between the street line and the main building or any projection thereof other than steps, unenclosed balconies and unenclosed porches.
57. "Yard Rear" – Means a yard extending across the rear of a plot measured between a plot boundaries and being the minimum horizontal distance between the rear plot boundary and the rear of the building or any projection other than steps, unenclosed balconies or unenclosed porches. In a corner plot the rear yard shall be considered as parallel to the street

upon which the plot, has its least dimensions, in both the corner and interior plots the rear yard shall be at the opposites end of the plot from the front yard.

The definition of the terms which are not covered by these Regulations shall be covered by the definitions prescribed by the Assam Town and Country Planning Act, 1959 and as amended the Rules framed there under.

11.1.3 GENERAL REGULATIONS:

1. The requirements of these Regulations within each zone shall be the minimum requirement and shall apply uniformly to each class and each kind or structure or land except as herein and after provided.
2. No building, structure and land shall hereinafter be used or occupied and no building or structure or part of the building or structure or part of the building shall hereinafter be erected, re-erected or materially altered unless in conformity with all of the regulations herein specified for the zone in which it is located.
3. No building or any other structure shall hereafter be erected or materially altered :
 - i. to exceed the height ;
 - ii. to accommodate or a house a greater number of families ;
 - iii. to occupy a greater percentage of plot area ;
 - iv. to have narrower or smaller rear yard, front yards, other open space than herein required or in any other manner contrary to provision of this regulations.
4. Non- conforming plots, non conforming use of land, non conforming structure and non conforming use of structure and premises.
5. Within the zones established by these regulations or amendments that may later be adopted therein , existing plot structure and use of land and structure which were lawful before regulations came in force or were, amended, but which would be
6. Prohibited, regulated, or restricted, under the terms of these regulations or future amendments, shall be permitted to continue until they are removed. Such uses are declared by these regulations to be incompatible with permitted uses in the zone.
 - i. A non conforming use of a structure, non conforming use of land, or a non conforming use of a structure and land shall not be extended or enlarged after coming in to force of this regulations by attachment on a building premises of additional sign intended to be seen from the premises, or by the addition of the other uses of a nature which would be prohibited generally in the zone involved.
 - ii. Nothing in these regulations shall be deemed to require a change in the paln, construction, or designated use of any building on which actual construction was lawfully begun prior to the coming into the force of this regulation has been differently carried on. Actual construction hereby defined to include the placing of construction materials in permanent position and fastened in a permanent manner; except that where demolition or removal shall be deemed to be actual construction provided that work shall be diligently carried on until completion of the building involved.

- iii. Non conforming uses of land where, on the date of coming into force of these regulation or amendments thereto lawful use of land exists that is made no longer permissible under the terms of this regulations as enacted or amended, such use may be continued, so long as it remains otherwise lawful, subject to the following provisions :
- iv. No such conforming use shall be enlarged, or extended to occupy a greater area of land than was occupied on the date of coming into force of those regulation or amendments thereto.
- v. No such conforming use shall be moved in whole or in part to any other portion of the lot or parcel occupied by such use on the date of coming into force of these regulations or amendments thereto .
- vi. If any non conforming use of land ceases for any reason for a period of more than 30days, any subsequent use of such land shall conform to the requirements specified by these regulations for the zone in which such land is located.
- vii. Non conforming structure where a lawful structure exists on the date of coming into force of these regulations or amendments thereto, that could not be built under the terms of these regulations by reasons of restrictions on area, plot coverage, height, yards or other characteristics of structure of its location on the plot, such structure may be continuedso long as it remains otherwise lawful, subject to the following provisions.
 - No such structure may be enlarged or altered in a way in which it is non conforming.
 - Should such structure be destroyed by any means to an extent of more than 50 percent of its replacement cost at the time of destruction, it shall not be reconstructed except in conforming with the provisions of these regulations.
 - Should such a structure be moved for any reason any distance whatsoever, it shall thereafter conform to the requirements for the zones in which it is located after it is moved.
- viii. Non conforming uses of structure if a lawful use of a structure, or of structure and premises in combination, exist on the date thereto, of coming into force of these Regulations or amendments that would not be allowed in the zone under the terms of these regulations, the lawful use may be continued so long as it remains otherwise lawful, subject to the following provisions.
 - No existing structure devoted to a use not permitted by these regulations to the zone in which it is located shall be enlarged, extended , constructed, reconstructed moved or structurally altered except in changing the use of the structure to the use permitted in the zone in which it is located ;
 - No such non conforming use shall be enlarged or increased or extended to occupy a greater area of the building than occupied by use such at the time of the coming in the force of those regulations or amendments to.
 - Any structure, or structure and land in combination, in which a non- conforming use in superseded by a permitted use, shall thereafter conforms to the requirements of these regulations for the zone in which such structure is located, and the non conforming use may not thereafter be resumed ; when a conforming use of a structure, or structure and premises in combination, is discontinued or abandoned for a six consecutive months or for a 18 months during any three year period, the structure and premises in combination, shall not thereafter be used except in conformance with the regulations of the zone in which it is located.

- Where non conforming use status applies to a structure and premises in combination, removal and destruction of the structure shall eliminate the non conforming status of the land.
- Repairs and maintenance of any building devoted in whole or in part to any non-conforming use, work may be done in any period of 12 consecutive months for ordinary repairs, or on repairs or replacement of on load bearing walls, fixtures , wiring or plumbing, to an extent for exceeding 10 percent or current replacement value of the building, provided that the cubic contents of the building as it existed at the time of coming into force of these regulations or amendments thereto shall not be increased. Nothing in these shall be deemed or prevent or strengthening or recurring to a safe condition of any building or part thereof declared to be unsafe by any official charged with protecting the public safety upon order as such official.
- Uses under exception provisions not non conforming uses, any use for which a special exception is permitted as provided in the regulations shall not be deemed a non – conforming use, but shall without further action be deemed a conforming use, in the zones which it is permitted.
- “Accessory Use” the term accessory use shall not include :
 - Any use on the same plot, with the use to which it is accessory, unless authorized by the Authority.
 - Any use not customarily incident to a permitted use :
 - Any use detrimental to the neighborhood by reason of emission of smoke, noise, odor, vibration, dust or fume.
 - Storage of more than two automobiles except on an agricultural piece of land ;
 - A secondary dwelling on the same plot with a main dwelling, unless each building shall have at least open space and plot size as required under these regulations ;
 - Advertising sign excepting signs not more that 10 sq. ft. or 0.9 sq. mtr., in total area pertaining to the lease, sale or use of a plot or building on which they are placed. On the plot occupied by a dwelling there shall not be more that two signs with a total area of 2 sq. ft. or 0.18 meter per sign for each family house.
- Years and open spaces :
 - Each structure hereafter erected, re-erected or materially altered shall be provided with the front side or rear yard as specified with zoning regulation;
 - No open space of plot required for building of structure shall, during its life be occupied or counted as open space for another building of structure ;
 - On plot occupied by building only not exceeding 30 per cent of the rear yard may be occupied by one storied building as accessory use.
 - Special type of building : Subject to the requirement of the setback from prescribed street lines and side and rear yards under the respective rules no building used for theaters, cinema hall, concert or assembly halls, stadium, building intended for religious worship, Hospital , Dispensary building, Market, Exhibition halls or Museum and other such buildings shall have an open space of not less than 25 ft. or (7.5.M) from the front boundary and 15 ft. (4.5 mtr) from the side and rear boundaries of the plot on which such the constructed.

- Visibility at Intersection in residential Zones :
- On a corner plot in any residential zone, nothing shall be erected, placed, planted or allowed to grow in such a manner as materially to impede vision between a height two and half feet and 10 feet (0.7 M and 3 M) above the center lines of such plot and the joining points along the said lines 20 ft. or 6.0 meter minimum from the point of the intersection .
- Building abutting two or more streets:When a building abuts two or more street the setback from the street shall be such as if the building was fronting each such street.
- Means of access :
 - No building shall be constructed on any plot for any use where there is no means of access to such plot.
 - Notwithstanding anything prescribed in the Master Plan, the width of such access or lanes, road etc. to one individual plot or plots whether private or public shall be prescribed by the Authority.
- The Authority may prescribe a line on one or both sides of any public or private road or street and no person shall construct, re-construct or materially alter any portion or any portion of any building or any structure on land within such prescribed street line.
- If any building or structure or part of a building or structure abutting on a public or private road or street is within such line or the street , the authority may require such building or structure to be a setback beyond such prescribed line to a distance as prescribe in these regulation whenever it is proposed.
- To build such building or structure or to take down such building or structure:
- To remove, re-construct or to make any addition to or structural alteration in any portion or such building or structure which is within such regular prescribed line of the street.
- ix. When any building or structure or any part thereof within such prescribed line of the street fall down or is burnt or is take down, the authority may at once take possession of portion of land within the prescribe line of the street previously occupied by the said building or structure and if necessary clear the same under the provision of the Assam Town and Country Planning Act, 1959 (as amended).
- x. Land subdivision and layout except as otherwise provided, no land will be developed or sub-divided and no layout of the land shall be prepared, altered and executed unless in conformity with this regulation therein specified for the zones in which the land is located.
- xi. Fences , walls and hedges :
 - Notwithstanding and other provisions in this regulations, Fences, Walls and Hedges may be permitted in any required yard or long the edge of any yard provided that no fence, walls or hedge along side or front edge of any front yard shall not be over 1.5m in height from the central line of the nearest developed road.
 - Provided in Commercial zone the height of the fences, wall, hedges along the front boundary and up to 3 meter along the said boundary from the edge of the road or from the prescribed street line shall not exceed 3.0' or 0.9m.
 - Provided in Industrial building or any other public building requiring special security protection, 2.7 mtr. 9'-0" grille or wire fencing.

- xii. Off-street parking space for motor vehicles, scooter, cycle etc.
- Off street parking shall be provided on any plot on which any structures proposed as specified in the table-I and hereafter established and such parking space shall be provided with the adequate vehicular access to a street .
 - Each off street parking space provided shall not be less than (2.7m x 5.4m.), (2.5m X 1m) and (2m x 0.5m) for car, scooter and cycle respectively. The area of drives, aisles and such other provisions required for adequate access shall not be counted as part of the parking space.
 - Off street parking space provided shall be not less than requirement specified in the Table –I for each type of use.
 - If a vehicle parking space required by these regulations is provided in parking areas by a group of property owners by their mutual benefit, the Board of Zoning Appeal may construe such use of this space as meeting the off street parking requirements of these regulations.
 - If off street vehicle parking space cannot be reasonably provided in the same plot on which the principal use is conducted, the Authority may permit such space to be provided on their off street property, provided such space lies within 400 ft or 120 meters of the main entrance to such principal use. Such vehicle parking space shall be deemed to be required open space associated with the permitted use and shall not, therefore be reduced or encroached upon in any manner.

11.1.4 Permission

- i. Written permission for development works and Sub-division of land. No person shall use any land, Sub-divide any land, or develop any land or set up any new structure on any land, or create, re-create, or materially alter or change the existing structure of any building or land within the limit of the Master Plan Area without the written permission of the Authority, as defined in the section 13 of the Assam Town and Country Planning Act, 1959 (as amended).
- ii. Manner of obtaining permission.
- a. For the purpose of obtaining permission for the erection, re-erection renovation and material alteration of any building or structure the applicant shall submit the following plans, in triplicate and documents together with a application as prescribed by the Authority.
 - b. A block plan of such building or structure and site, which shall be drawn to the scale of largest revenue survey maps at the time in existence for the locality and shall be shown the position and appurtenances of properties, if any, immediate adjoining streets and the means of access, Dag No, Patta No, Name of village.
 - c. A site plan of 1 inch to 16 ft. (1 cm to 2 mtr.) scale indicating the plot boundaries, and position of the existing structure if any, line plan of the proposed structure with its location, set back, side yard, projection dimensions.
 - d. For special type of building such as Cinema Hall, Apartment Buildings, Nursing Home Market, Commercial Building etc. parking layout plan and service plan and service plan in detail must be submitted.
 - e. The detail floor plans for each floor on 1 inch to 8 ft. or 1 cm to 1 mtr. scale with projection if any, showing the use of every room or portion of the building or structure and full and

detail dimensions of the structure, height, plinth above and below the ground level and each floor and of roof over the staircase.

- f. All the plans and sections shall be signed by the applicant.
- g. Any other information, documents, required by the Authority.
- iii. In case of plans pertaining erection, re-erection, renovation and material alteration of any building or structure, the Authority may either grant or refuse the approval to the plans if it is not in conformity with the Master Plan or Zoning Regulations and shall communicate its decision to the applicant giving the notice within a period of one month from the receipt of the application of such other information as may be called for by the Authority.
- iv. For the purpose of obtaining permission for Sub-Division of any plot of land the applicant shall submit the following plans in triplicate together with necessary statement to the authority.
 - a. A block plan of such land which shall be drawn to the scale of largest revenue survey map at the time of existence for the locality showing location of the land, boundaries of the proposed land, shown on the map and sufficient description to define the same location, name and present width of the adjacent road and lanes and major physical characteristics of the land proposed to be subdivided, including topography, the location and width of any water course and location of any areas subject to inundation or flood and North line.
 - b. A plan of such land which shall be drawn to suitable scale showing the complete layout of the proposed subdivision including location and width of all the proposed streets, dimensions, uses of all plot, location of all drains sewers and other utilities, building line permissible, and north line.
 - c. A key plan drawn on a suitable scale including north line.
 - d. Any other items of information which may be required by the authority from time to time.
 - e. All the plans shall be signed by the applicant (the seller) and the buyer.
- v. In case of plans pertaining to subdivision of land, the Authority may either grant or refuse the approval of plans or may approve them with such modifications as it may deem fit and thereupon, shall communicate its decision to the applicant giving the notice within two months from the date of submission of the plans to the Authority.

11.2 CLASSIFICATIONS AND ESTABLISHMENT OF ZONES

- i. The following land use zones have been prescribed for the Bilasipara Master Plan Area.

i.	Residential Zone	(a)	Low density
		(b)	Medium density
		(c)	High density
ii.	Commercial Zone	(a)	Retail Commercial
		(b)	Wholesale Commercial
iii.	Industrial Zone	(a)	Light Industry
		(b)	Medium Industry
		(c)	Obnoxious Industry
iv.	Public and Semi – public Zone.		
v.	Recreational and open space Zone.		
vi.	Green Belt Zone.		
vii.	Agriculture Zone.		
viii.	Circulation.		
ix.	Government Land		

NOTE: - No regulation is required to be specified in these Zones, only in land use and zoning maps these zones be specified.

- ii. The zone designated under 6.1 above may be further divided into sub-zones by the Authority where it deems it expedient, the designations of such sub-zones being dependent on the special use to which each such sub-zones is being utilized.
- iii. Boundaries of zones: The boundaries of each zone shall be as established in the Master Plan and a copy of the plan shall be kept on record at the official premises of the Authority. Unless otherwise shown on the Master Plan, the boundary line of the zone shall be plot lines, the center line of the streets or such line extended the Railway right of way lines or corporate limit lines as it exists at the time of enactments of the regulations.
- iv. All the disputes and differences with respected to the exact boundaries lines of the zones shall be referred to the Director of Town and Country planning, whose decision shall be final and binding.

11.3 REGULATION FOR DIFFERENT ZONES

- i. Regulations for different zones regarding size of plots, minimum set back of the building or structure from the prescribed street line, minimum yard width , maximum coverage's shall be according to the Table II.
- ii. Regulations for different zones regarding use prohibited shall be as followings. All other use not specifically mentioned herein shall be permissible in respective zones.

- iii. **Regulations For Residential Zone :**

Use prohibited:

- a) Cinema Theater.
- b) All industries not covered by Annexure I.
- c) Hospitals, Nursing Homes and Sanatorium treating contagious disease or Rental patients.
- d) Petrol filling station having a plot area less than 1340 sq. mtr. (1 bigha).
- e) Show room for motor vehicles and machinery.
- f) Coal, wood and timber depots.
- g) Motor repairing garage.
- h) Manufacturing unit using more than 5 HP and employing more than 5 persons.
- i) Godowns and Warehouses.
- j) Bus / Truck parking area.
- k) Wholesale shops.
- l) Mechanical workshop/ welding shop.
- m) Industries creating noise, smoke, odor, vibration and pollution.
- n) Saw mills.
- o) Dairy farming and milk processing.
- p) Printing press (however, modern offset printing press etc. using less than 5 HP may be allowed.)
- q) Storage of Petroleum and other inflammable materials.
- r) Bakeries and confectioneries using power other than electritown .
- s) Stone crusher and quarrying.
- t) Storage and drying of fertilizers and pesticides.
- u) Burial ground and cemetery.
- v) Junk yards.

iv. Regulations For General Commercial Zone:

Use prohibited:

- a) Hospitals, Nursing Homes and Sanatoria treating contagious disease or mental patient.
- b) Coal, wood and timber depots.
- c) Manufacturing unit using more than 5 HP and employing more than 5 persons.
- d) Wholesale godowns and warehouses.
- e) Bus and truck parking area.
- f) Wholesale shops.
- g) Mechanical workshop / welding shop with motive power more than 15 HP.
- h) Industries creating noise, smoke, odour, vibration and pollution.
- i) Saw mills.
- j) Dairy farming and milk processing.
- k) Printing press (however, modern offset printing press etc. using less than 5 HP may be allowed.)
- l) Storage of petroleum and other inflammable materials.
- m) Bakeries and confectioneries using power other than electricity.
- n) Stone crusher and quarrying.
- o) Storage and drying of fertilizers and pesticides.
- p) Burial ground and cemetery.
- q) Junk yards.

v. Regulations for wholesale commercial zone :

Uses prohibited:

- a) Hospitals and sanatoria treating contagious disease or mental patients.
- b) Manufacturing unit using more than 15 HP and employing more than 15 persons.
- c) Bus parking area.
- d) Mechanical workshop / welding shop with motive more than 15 HP.
- e) Industries creating noise, smoke, odour, vibration and pollution.
- f) Saw mills.
- g) Dairy farming and milk processing.
- h) Stone crusher and quarrying.
- i) Burial ground and cemetery.
- j) Junk yards.

vi. Regulations For Light Industrial Zone

Use prohibited.

- a) Hospitals and Sanatoria treating contagious disease or mental patients.
- b) Mechanical workshop/ welding shop with motive power more than 75HP.
- c) Industries creating pollution.
- d) Burial ground and cemetery.

vii. Regulations for medium industrial zone:

Use prohibited.

- a) Sanatoria treating contagious diseases or mental patient.
- b) Industries creating noise, smoke, odour, vibration and pollution.

- c) Burial ground and cemetery.

Note: - Industry Department norms may be followed.

viii. **Regulations For Public And Semi Public Zone:**

Use prohibited:

- a) Cinema Theater.
- b) All industries not covered by Annexure-I.
- c) Sanatoria treating contagious disease.
- d) Petrol filling station having a plot area less than 1340Sq. Mtr. (1 Bigha)
- e) Show room for motor vehicles and machinery.
- f) Coal, Wood and timber depots.
- g) Manufacturing unit using more than 5 HP and employing more than 5 persons.
- h) Godowns and warehouses.
- i) Wholesale shops.
- j) Storage of building materials.
- k) Mechanical workshop/ welding shop with motive power more than 5 HP.
- l) Industries creating noise, smoke, odour, vibration and pollution.
- m) Saw mills.
- n) Dairy farming and milk processing
- o) Printing press (However, modern offset printing press etc. using less than 5 HP may be allowed).
- p) Storage of petroleum and other inflammable materials.
- q) Bakeries and confectioneries using power other than electricity.
- r) Stone crusher and quarrying.
- s) Storage and drying of fertilizers and pesticides.
- t) Junk yards.

ix. **Regulations for recreational and open space zone:**

Use prohibited:

- a) All Industries not covered by Annexure-I
- b) Hospital, Nursing homes and sanatoria treating contagious disease or mental patients.
- c) Show room for motor vehicle and machineries.
- d) Coal, wood and timber depots.
- e) Motor repairing garage.
- f) Manufacturing unit using more than 5 HP and employing more than 5 persons.
- g) Godowns and warehouses.
- h) Wholesale shops.
- i) Storage of building materials.
- j) Industries creating noise, smoke, odour, vibration and pollution.
- k) Saw mills.
- l) Stone crusher and quarrying.
- m) Storage and drying of fertilizers and pesticides.

x. Regulations For Green Belt Zone:

Use prohibited:

- a) All the industries other than cottage industries, Horticulture / Agriculture Industries, Dairy farming and milk processing industries.
- b) Manufacturing unit using more than 5 HP and employing more than 5 persons.
- c) Godowns and warehouses.
- d) Wholesale shops.
- e) Mechanical workshop/ welding shop with motive power more than 5 HP.
- f) Industries creating noise, smoke, odour, vibration and pollution.
- g) Urban Housing and residences. However, rural residence in existing villages with its normal extension is allowed with connection given in 6.2.8 (h).
- h) When any development is allowed in this zone this should be limited to 35% coverage and 100 FAR with maximum height of 4 mtr with minimum plot size of 2.5 katha (567 Sq.m.)

xi. Regulations for agriculture zone:

Use prohibited:

- a) Cinema Theater.
- b) All industries not covered by Annexure-I
- c) Show room for motor vehicle and machineries.
- d) Motor repairing garage.
- e) Manufacturing unit using more than 5 HP and employing more than 5 persons.
- f) Godowns and warehouses.
- g) Wholesale shops.
- h) Mechanical workshop/ welding shop.
- i) Industries creating noise, smoke, odour, vibration and pollution.
- j) Printing press.
- k) Storage of Petroleum and other inflammable materials.
- l) Tank yard.

11.4 EXCEPTION**i. Exception to height yard and set back limits:**

- a) The height limitations of these regulations should not apply to churches, schools, hospitals and other public and semi-public buildings provided that the minimum depth of front and rear yards and minimum width of the side rear required in the zone are increased by one ft. or 304.8 mm per foot or meter by which the height of such public and semi-public structure exceeds the height limits in the feet or meter prescribed for the structure other structure in the zone.

- b) Chimneys, elevator, poles, spires, overhead water tanks and other such projections not used for human occupations are allowed to a height not more than 1.5 meter from the minimum permissible height of a building in a particular zone.
- c) Steps, gallery or balcony, weather frame, sun breaker cornice, caves, window sills or other ornamental projection may project into any yard provided such projections are not more than 0.60 meter from plinth of a building.
- d) In any zone, on plots less than 60 ft. or 18 meter deep, the rear yard may be reduced by 1% for each feet or 304.8 mm if the plot depth is less than 60 ft or 18 meter.
- e) Notwithstanding anything contained in this regulation, the front set back in any zone can be prescribed by the Authority in pursuance of any street schemes.
- f) Height of compound walls of any zone modified in these regulations shall not exceed 5.6ft. or 1.65 meter from the ground level.

ii. **Group Projects:**

- a) In case group housing projects containing of a group of twenty or more buildings, notwithstanding anything contained in the regulations, the Authority may prescribed special requirements in harmony with the character of zone.
- b) Plinth Height end finished Ground level :
- c) The maximum and minimum height of plinth of any structure shall be 2".6" or 0.75mtr. and 1'.6" or 0.45 mtd. Respectively. From the nearest developed road.
- d) The maximum height of finished ground level must not exceed 9" or 0.23 mtr. from the nearest development road.

iii. **Boundary wall / compound wall :**

- a) Except with the special permission of the Authority the maximum height of the compound wall shall be 1.5 cm above the center line of the front street. Compound wall up to 2.4m height may be permitted if the top 0.9m. is of open type construction of a design to be approved by the Authority.
- b) In the case of corner plot the height of the boundary wall shall be restricted to 0.75 mm for a length of 10 m on the front and side of the intersections and balance height of 0.75 m if required in accordance with (a) may be made up of open type construction (though railing) and of design to be approved by the Authority.
- c) The provisions of (a) are not applicable to boundary walls of jails, in industrial buildings, electric sub-stations transformer stations, institutional building like workshop, factories, and educational buildings like schools, colleges, including the hostels and other uses of public utility undertakings and height up to 2.4 m may be permitted by the Authority.
- d) Compound gate should open entirely inside the property and shall not open any access / path ways/ roads/ street.

11.5 SUB COMMITTEE ON ZONING APPEALS

- i. Sub-committee shall be constituted from out of the members or the Authority by the Chairman, and if no Authority is constituted, in such cases by the Director of Town & Country Planning, which shall be called the "Sub Committee on Zoning Appeals".
- ii. The Sub Committee shall consist of at least five members. The Chairman of the Authority, Director of Town and Country Planning or his nominee, the Town Planning Officer and two other members of whom one representing the local Authority and other member representing commerce and industry (private sector) shall be the members subject to the approval of the Government, when the Authority is superseded, the Administrator, or when no Authority is constituted the Deputy Commissioner / Sub-Divisional Officer or his nominee, and the Director of Town and Country Planning or his nominee. The Town Planning Officer of the Authority and two other members one of whom representing the local Authority and the other presenting commerce and industry (private sector) to be nominated by the State Government shall be the members .
- iii. The Chairman, Administrator, Deputy Commissioner / Sub-Divisional Officer or his nominee or in his absence, Director of the Town and Country Planning or his nominee shall preside over such meeting and the quorum shall consist of all least members.
- iv. The Chairman or the Administrator or when no authority is constituted the Director of the Town and Country planning or his nominee shall convene such meetings of the sub-committee of zoning will normally meet once in a month to consider any cases of zoning Appeals.
- v. The Sub-Committee shall have power to grant variance with respect to front, rear or side yard or building and area requirements if at the time of adoption of these regulation a plot of land is smaller than minimum size specified for the land in which it is located and compliance with front, rear, side yard and height and area regulation is not feasible because of topography or other special consideration, the case may be brought before the sub-committee on Zoning Appeals. This sub-Committee can grant variance and permission given with such modifications as are necessary but should conform as closely as possible to the requirement specified for the zone in which the plot is located. In all cases the particulars reasons for the variance should be recorded by the Sub-Committee.
- vi. The Sub-Committee on zoning appeals shall not have the power, however to grant use variance , where a change of use other than that specified in the zone in which the plot located is permitted.

11.6 PENALTIES

- i. Appellate Authority: Any person, firm body or corporation aggrieved on the order of the authority may appeal to the appellate in the Assam Town and Country Planning Act, 1959 and as amended.

- ii. Penalties to be revised for violation of provision of Master Plan/ Zoning Plan Regulations and Bye Laws.
- iii. All provision of Zoning Regulations except items given below shall not be compounded / regularized and shall have to be rectified by alterations/ demolition at the risk and cost of owner.

Compoundable Item:

- | | | |
|-----------------------------|---|--------------------------|
| a) Coverage | - | Maximum of 15% |
| b) FAR | - | Maximum of 10% |
| c) Set back | - | Up to 2'.6" |
| d) Open Space | - | Maximum of 10% reduction |
| e) Total Height of building | - | 1.5% |

Non- Compoundable Item:

1. Use of Building.
2. Addition of extra floor.
3. Parking norms.
4. Projection / Encroachment of public land.

- iv. Rate of building constructed prior to approval of this regulation.

- a) Rs. 25.00 per Sq.mtrs. area constructed unauthorisely for residential building up to 110Sq. mtrs. Also for all public and semi public and utility building, religious institution and educational building.
- b) Rs. 100.00 per Sq. Mtr. of area constructed unauthorisely for residential building above 100 Sq. mtrs Group and apartment building etc.
- c) Rs. 500.00 per Sq. mtr of area constructed unauthorisely for commercial business (office, Hotel , Shop etc) Industrial, Cinema, petrol pump etc. The building not specially covered under above categories shall be compounded as decided by the Authority considering the merit of each case individually.

- v. 9.2.3. For building constructed after the approval date of this regulation the rates will be double the rates given in 9.2.2.

- vi. Additional penalties will be levied for infringe of setbacks as per the rates in addition to the penalties proposed in CL (ii) & (iii).

- | | | |
|-----------------------|---|-------------------------------------|
| (i) Upto 0.15 mtrs. | - | no penalty |
| (ii) Above 0.15 mtrs. | - | to 0.30 Mtr. Rs. 10.00 per Sq. mtr. |
| (iii) Above 0.30 mtr. | - | to 0.75 mtr. Rs. 20.00 per Sq. mtr. |

Note- Considering the local condition of the towns the fines proposal in the zoning regulations may be adjusted and modify by the sub-committee on zoning appeals with approval of the authority concerned who will be implementing the Zoning Regulations.

- vii. The minimum floor area ratio (FAR) for residential, commercial, institutional and other industrial building accordingly to plot size and abutting road width from 12m and above and special norms for plotted development for minimum size of residential plots will be governed by the local condition of the town. And accordingly the Zoning Regulation for the particular town should incorporate their provision, over and above the requirement given in this regulations it is deemed required by local Authority.

TABLE –I
MINIMUM OF STREET PARKING SPACE

Table of use	One parking space shall be provided for every.	
	Car	Scooter
Bicycle		
(Sq. Mtr/ Sq. Ft.)	(Sq. Mtr/ Sq. Ft.)	(Sq. Mtr/ Sq. Ft.)
(a) Residential Building	93Sq. mtr. (1000 Sq.ft.)	-
	of floor Area.	
(b) Group Housing	Each dwelling unit or	-
	Part thereof.	
(c) Theaters & Auditoriums	40 Seats of	25 seats of
25 seats of		
& Marriage Hall	accommodation	accommodation
accommodation		
(d) Retail Business	93Sq. mtr. (1000 Sq.ft.)	46 Sq. mtr.
9 Sq. mtr(100 Sq.ft)		
	of floor Area.	(500 sq.ft) of
of floor Area		of floor Are
(e) Office Building	93Sq. mtr. (1000 Sq.ft.)	456Sq. mtr.
9 Sq. mtr(100 Sq.ft)		
	of floor Area.	(500 sq.ft) of
of floor Area		of floor Area
(f) Hospital	30 beds of accommodation	20 beds of
10 beds of		

accommodation	accommodation
(g) Hotel 9 Sq. mtr(100 Sq.ft)	93Sq. mtr. (1000 Sq.ft.) 46 Sq. mtr.
of floor Area	(500 sq.ft) of of floor Area
(g) Restaurants —	30 seats of 10 Seats
accommodation	accommodation
(i) IndustrialBuilding	(Considering the type of Industry the parking space requirement will be determined by the authority)
(j) Wholesale & Warehouse 9 Sq. mtr(100 Sq.ft)	93Sq. mtr. (1000 Sq.ft.) 46 Sq. mtr.
of floor Area	(500 sq.ft) of floor Area
(k) Nursing Homes	46 Sq. mtr. 46 Sq. mtr
(500 sq.ft) of	(500 sq.ft) of (500 sq.ft) of
	of floor Area of floor Area
(l) Any other special type of building of building to be determined by the authority.	
Note: One Car Parking space.	
Shall normally mean 3.0mc6.0m (10'-0"x20'0")	

The parking space to be provided in the building shall be as per the details given in the Table-I. In providing the parking car has to be taken that 50% of the open space is left for landscaping and not counted for in the parking calculations. At least 25% of the open space reserved as organized open space which should be clearly shown in the service plan.

For calculation of car space the following shall be considered.

Area of each car space:

- i) Basement parking - 30 Sq. mtr.
- ii) Stilt - 25 Sq. mtr
- iii) Open parking - 20 Sq. mtr

TABLE-II
REGULATIONS FOR DIFFERENT ZONES.

Requirement commercial zone	residential zone	wholesale commercial zone
(Dimensions are indicated as M/F)		
1. Minimum set back of the		
Building or structure from		
the edge of the road/ pres-		
cribed Street line for plots		
with minimum size		
Low density 3.00/10'0"	3.70/12'-0"	6.00/20'-0"
Medium density for corner plots plinth	3.00/10'0"	Cantilever
High density set back on both roads	3.00/10'0"	Projection of the
Cantilever projection of		Ground floor &
Ground floor may be		Upper floors may
allowed leaving 1.50mtr		be allowed leaving
(5'-0")clear to sky over to sky		4.5m(15'-0") clear
front open yard.		over frontOpen yard.
For construction of		
Building meant for		
No posts walls or any other		
residential uses in the		
Projection of the building		
commercial zone the		
Or structure shall be allowed		
requirement shall be		
Within the set back line, for		
same that of high		
Ground floor of a building or		
Density residentialzone		
Structure which is permitted		
for shops, any projection or		
canopy from it may however be		
allowed up to 1 50m (5'-0')		
from the edga of the road/		
Prescribed street line. But		
no post, pillar or any supporting		
Column of any type projection.		
But for all upper floors the		

minimum at back prescribed			
must be maintained.			
The range of density may be as follows:			
Low density		- Below 75 P.P.H.	
Medium density		- 75/150 P.P.H.	
High density		- above 150 P.P.H.	
Requirement	Residential Zone	Wholesale	commercialZone.
Commercial zone			
(Dimensions are indicated as meter/ feet)			
3. FAR & coverage	FAR Max. coverage	FAR Max. coverage	
FAR Max. coverage			
320 80%	125 55%	240 60%	
Med. Density :	200 60%	A. Mezzanine t the extent of 33% of	
plinth area shall not be counted for Calculation for FAR.			
High Density	240 60%	B. Basement not used for human	
habitation shall not be counted for FAR calculation			
Green belt :	100 35%		

Note: Maximum height of building:

Building shall not exceed three story or a height of 10.70 mtr. (35'0") without the following additional provisions for open spaces all round the building.

- (a) The side and rear set back should be increased by 0.30mtr. (1'-0") for every 1.50 mtr. (5'-0") of additional height of the building in addition to the set back already prescribed in these rules.
- (b) Building shall not exceed 1.5times the width of the road plus front open space.

Special requirements of high building.

- (a) When a building is created or raised to a height greater than four story (Maximum height of 16.0mtr. or 52'-0") at least one left should be made available.
- (b) When a building is created or raised to a height greater than four story (Maximum height of 16.0mtr. or 52'-0") the following requirement shall be complied with.
 - (1) The requirement for the fire prevention and fire fighting shall be carried out . A no objection certificate from fire services to be furnished with the application.
 - (2) Water storage tanks and pumps of approved size shall be provided and maintained in working condition.
 - (3) A service plan indicating the following shall have to be furnished with the application.
 - (i) Solid waste/ waste water disposal system and internal drainage.
 - (ii) Source of water.

- (iii) Location of septic tank, soak pit etc.

Requirement for special types of building:

- a) The following shall apply for special types of building viz : Cinema House, Nursing Homes etc.

- (1) The requirement for fire prevention and fire fighting with the application
- (2) Water storage tanks and pumps of approved size shall be provided and maintained in working condition.
- (3) A service plan indicating the following shall have to be furnished with the application.
 - (i) Solid waste/ waste water disposal system and internal drainage.
 - (ii) Source of water.
 - (iii) Location of septic tank, soak pit etc.

- (B) For petrol filling stations:

- (1) The minimum area of plot shall be 2k , 10L
- (2) The minimum distance between underground tank and outlet point must not be less than 10mtrs. And yard requirement shall be as per requirement for light industrial Zone.

1.0. Electric High Tension Line:

For areas over which electric high tension line passes the norms specified by ASEB from time to time to be followed.

2.0. Special regulations for construction in hilly areas.

- (i) The authority may ask for detailed topographic survey map of the site, showing the proposed ground levels of the plot and the remedial conservation measures to check the undesired erosion that may effect the adjoining areas. The authority may also give special direction for framing the proposal in such a way which involves least disturbance to the natural terrain and keeping for bare land which is not allowed.
- (ii) If terrace cutting is done for building constructed on hill the depth and slope of the cut should be restricted according to the soil characteristic of the area.
- (iii) Adequate drainage provision should be kept to the satisfaction of authority so that rain water and waste water can drain out from the plot without causing soil erosion.

Set back line, yard width, coverage and other particulars will be according to the standards as below:-

Minimum Plot Size for Residential Use:

Density	Plot	Size	Far	Coverage
(a) High	15 Lessa i.e.	200 Sq.mt.	240	60%
(b) Medium	01 Katha i.e.	268 Sq. mt.	200	60%
(c) Low	01K-05L. i.e.	335 sq. mt	125	55%

Minimum width of plot:

a)	Upto 15 Lessa i.e. 200 sq.mt.	-	75 mtrs.
b)	15 lessa to 1L-10L i.e. 400 sq.mt	-	10 mtrs.
c)	1K-11L to 2K-10L i.e. 670 sq.mt.	-	11.5 mtrs.
d)	More than 2K -10 i.e. 670 sq.mt.	-	12 mtrs.

Set Back Regulations.

- (a) Minimum set back of the building or the structure from the prescribed street line.
- i) Front Set Back:
Every building fronting a street shall have a front space from the prescribed street line forming and integral part of the size as below:-

Width of street fronting the Plot.	Minimum front open space for building	
	Below height of 11.50m	above the
height of 11.50m		
Upto 6.6 meters	3.0 mtrs.	3.0 mtrs.
Upto 15 meter.	3.0 mtrs.	4.5 mtrs.
Upto 15 meter	3.0 mtrs.	6.0 mtrs.

The proposed width of the street will be taken as street width for consideration of these set backs.

In case of building abutting two or more streets the wider street shall be considered for determining front set back.

- (ii) Side Set Back:
For high density zones side set back shall be 1.5 meters.
For medium density zones side set back shall be 1.5 meters.

- (iii) Rear setback for all density zone shall be 3.0 mtrs.

Regulations fro apartment building :

Minimum plot size	- 803 sq. mt.	-3 Katha in high & medium density zone and
	-1883sq mt.	- 1 bigha for low density zone.
Maximum coverage	- 35%	
Minimum front setback	- 4.5 meters.	
Minimum rear setback	- 4.5 meters.	
Minimum side setback	- 2.4 meters.	

A plot abutting a street with a width of above 15 meters, the front set back shall be calculation according to the width of the abutting street as given in the clause No.3.

Regulations for commercial use in commercial zone:

- (iv) Minimum plot size - 167.4 sq.mtr.
Set back up to the height of 11.5 mtrs.
Minimum width of plot -5.0 mtr. with 1.5 mtr.

Minimum front set back - A minimum of 1.0 mtr has to be maintained in each side Which can be relaxed to only one side if the adjoining plot owner agrees to have a common wall with his buildings.

Minimum Rear set back -

Upto plot depth of 18mtrs 1.5 mtrs.

Above plot depth of 18 mtrs. 3.0 mtrs, with maximum 1.5 mtrs.

Projection on the upper floors.

If any part of the ground floor or any other upper floor is used for residential purpose or for human habitation the side set back of the building shall be as per the high density residential zone.

A Plot abutting a street with a width of above 15 mtrs. the front setback shall be calculated according to the width of the abutting street as given in the clause No. 03 . For commercial zone the maximum FAR shall be 320 and maximum coverage shall be 80% . But for a building mixed use in this zone the maximum FAR should be limited to 275 in this zone.

(ii) Additional setback for a building with a Height of above 11.5 meters.

Height	rear set back	side set back
11.5 meters upto	----	1.5 meters.
Upto 15 meters	----	2.43 meters.
Above 15 meters	----	Side and rear setback should be increased by 0.3 meters

For every 1.5 meters of additional height of the building in addition to the set back already prescribed for a

building of 15 meters height up to a maximum of 1.5 meters of additional set back on both rear and sides.

Regulations for wholesale commercial zone and for whole sale use.

Minimum plot size - 670 sq. mtrs.

Minimum plot width - 15 meters.

Minimum coverage - 55%

Minimum front set back - 6 mtrs.

Maximum side set back -1.8 mtrs. on one side and the set back on the other side will be 3.6 mtrs.

Rear set back - 3.0 mtrs.

F.A.R. - 175 for building of public and semi public use.

Regulations for public and semi public zone and public and semi public use:

Minimum plot size - 400 sq. mtrs.

Minimum coverage - 45%

Minimum front set back -

Front set back - 6.0 mtrs

Side & Rear - 3.0 mtrs.

F.A.R. - 175 for building of public and semi public use.

Regulations For Industrial Zone :

Requirements		light Industry		Medium Industry.	
		Area in sq. mtrs.	Width in mtrs.	Area in Sq. mtrs.	Width in mtrs.
(1)	Minimum Size of Plot	744.00	15.2	1800.00	27.5
(2)	Minimum set Back of the structure Building or. the structure From the prescribed Street line	All	6.00	All structure	9.0
(3)	Minimum yard Width	Rear	6.0	Rear	6.0
		side	3.0	Side	6.0
		If any structure of building is permitted for human habitation under the provision of these rules the yard conditions shall be same as prescribed residential zone.		if any structure of building is permitted for human habitation under the provision of these rules the yard conditions shall be same as prescribed for medium density residential zone.	
(4)	Maximum Height			15	15 mtrs
(5)	Maximum Coverage			50%	50%

Requirments For Special Types Of Buildings:

(To be applicable for all zones where the particulars use is permissible)

(A) Nursing Home/ Hospitals:

(In all zones where, it is permitted / permissible on appeal)

Minimum plot size	1000 sq. mtrs. i.e.	0.75 Bigha
Minimum coverage	- 45%	
Minimum front set back	-	
Front set back	- 7.5 mtrs	
(a) Side & Rear	- 4.5 mtrs.	
(b) F.A.R.	- 200	

(B) Place of Worship:

(Applicable for new proposals)

Minimum plot size - 804sq. mtrs. i.e. 3 k

Minimum coverage - 50%

Minimum front set back -

Front setback - 7.5 mtrs

(a) Side & Rear - 5.0 mtrs.

(b) F.A.R. - 3.0

(C) Cinema Hall and Auditorium

Minimum plot size - 1860 sq. mtrs. i.e. 1B-3K-9L

Minimum coverage - 40%

Minimum front set back -

Front set back - 9.0 mtrs

(a) Side & Rear - 4.5 mtrs

(b) F.A.R. - 125

(D) Filling Station:

(a) Minimum plot size - 31 mtrs. x 17 mtrs.

(b) Petrol filling station with servicing bed

Minimum plot size - 31 mtrs. x 31 mtrs.

(E) School building:

	Minimum Plot Size	Maximum Coverage	Minimum front set back	Minimum side set back	Minimum rear set back
(a) Pre-535 sq.mt Nursery / Nursery 02 Katha		50%	6.0 Mtr	3.0 Mtr	3.0 Mtr
(b) Primary 804 Sq.mt. 03 Katha		50%	7.5 Mtr	3.0 Mtr	3.0 Mtr
(c) High School 2677 Sq.mt.		50%	7.5 Mtr	3.0 Mtr	3.0 Mtr
(d) College 4015sq. mt. 03 Bigha		50%	7.5 Mtr	3.0 Mtr	3.0 Mtr
Organized Parking		-	20% of the total Plot area.		
Organized recreation Of open space.		-	20% of the total Plot area.		

* For Govt institutions regulations adopted by Educational Department with be followed.

Mezzanine to the extent of 33% of plinth area shall not be counted for F.A.R. Calculation.

The height of the mezzanine shall not be less than 2.2 mtr and not more than 2.7 mtr

Basement shall not be counted for F.A.R. calculation for following uses:-

- Storage of house goods of not inflammable materials.
- Dark rooms, strong rooms and bank cellars etc.
- Air conditioning and other machines used for services and utilities of the building.
- Parking places and garage.
- Stock rooms and libraries.

If the basement is used for office or commercial purpose it shall be counted in F.A. R.

1. Partial unenclosed balcony projections for a length 1/ 4th of the building length / Breadth in upper floors up to a minimum setback line of 1.5 mtr from plot boundary will be allowed subject to a maximum width of 1.5 mtr.
2. The projection of cantilever or cupboard or shelve up to 0.75 mtr. in depth shall be permitted and exempted from covered area calculation. The will be allowed only from first floor and shall not exceed 20 mtr. per habitable room and cupboard under window.
3. A canopy not exceeding 4.5 mtr in length and 2.5 mtr. in width in the from of unenclosed cantilever over the main entrance with a clear height of 2.2 mtr below the canopy shall be allowed.
4. Light and Ventilation:-

When any habitable room excepting bath W.c. store room , kitchen and dining are not abutting on either the front side rear open space it shall about in an interior open space where minimum width will be 3mtr.

For ventilating the spaces for W.C. bath store, kitchen and dining if not opening or any open space shall open on the ventilation shaft the size of which is given below:

	Height Building	Minimum area of shaft	Minimum width of shaft.
W.C. & Bath & Store	(a) Upto 18m.	4Sq. m	2m.
	(b) Above 18m.	6.25sq.m.	2.5m
Kitchen & Dining	(a) Upto 18m.	6.25Sq. m	2.5 m.
	(b) Above 18m.	9 sq.m.	3m.

The parking space to be provided in the building shall be as per the details given in the appendix –I in providing the parking, care has to take that 50% of the open space is left for landscaping and not counted for in the parking calculations. At least 25% of the open space reserved as organized open space which should be clearly shown in the service plan.

- | | | |
|----------------------|---|-------------|
| (i) Basement parking | - | 30 Sq. mtr. |
| (ii) Stilt | - | 25 Sq. mtr. |

- (iii) Open parking - 20 Sq. mtr.

Additional requirements for multistoried and special type of building :

- (A) Service plan showing the following details private water sewerage disposal system and details of building services where required by the authority shall be made available on a scale not less than 1:100 and it should also include the following .
- (a) For outlet from the soakpit to municipal drain if provided an intermediate treatment chamber should be installed, details of which is to be shown in service plan subject to approval of authority.
- (b) Garbage Vet.
- (c) Organised open space as specified by clause 2.25
- Details of building services include:-
- (i) Air conditioning system, if any.
- (ii) Details of exists including provisions of ramps, etc. for hospital and special risk building.
- (iii) Location of generator, transformer and switch gear.
- (iv) Smoke exhauster system and fire alarm, if any.
- (v) Location of centralized control of fall firm alarm system if any.
- (vi) Location and dimension of static water storage and pump house.
- (vii) Location of fire protection installation sprinklers wattrisers, etc. if any.
- N.B: These should generally be as per specifications of national building code.
- (viii) Size (Width) of main and alternate staircase along with balcony approach, corridor and ventilated lobby approach.
- (ix) In case of nursing homes and hospital details of incinerator for treatment of hospital waste is to be submitted and clearance from appropriate authority under Assam Health Establishment Act, 1993 and 1995 will be required before its clearance by development Authority.
- (x) The height of the ground level and the plinth level from the nearest development road level.
- (B) NOC from the State Fire Service shall required for building above the height of 15.8 m
- (C) specifications :- General specifications of the proposed construction giving type and grade of materials of public use along with soil testing report and structural details should be as giving in appendix duly signed by architect / engineer / supervisor / group may be should accompany the application for building above three story.
- (D) Supervision: - Applications shall be further accompanied by a certificate of supervision by the licensed architect engineer groups as the case may be.

E.12: For the hazardous and industrial building Authority may ask for NOC from the state population control Board.

E.13: All other regulations not specifically mentioned here will be applicable as per the provision of Bye laws.

- E.14: Authority may ask for any other information considering special nature of building and location of the plot.
- E.15: Panel action for violation of master Plan and its zoning Regulations and Bye Laws.
The Authority under provision fo T& C.P. Act, 1959 shall panel action for violations of Master Plan/ Zoning Regulation or Bye Laws which may include stoppage of construction activity, demolition/ Alternation and in paying fine and by having penalties as given in the Act.
- E.16: The structural design, construction standard etc. of all multistoried building are required to be supervised during construction at three stage at (1) foundation (2) plinth/ Ground floor (3) upper floor in the manner described below.
- (i) The individual / promoter so required to get their construction mentioned three stages of construction through licensed technical firms of Authority before proceeding with next stage of construction failing which the authority may revoke the permission.
- E.17: Any dispute arises about the interpretation of any definitions or provisions of these rules, the decision of the authority shall be fine. However, aggrieved persons may appeal to the appellate authority against such decisions and the decisions of the appellate Authority shall be shall be final and binding to all concerned checked at

ANNEXURE-1

AN INDICATIVE LIST OF INDUSTRIES WHICH COULD BE PERMITTED IN
RESIDENTIAL AREA AS STATED
IN ARTICLE 7.2.1

1	Cosmetic Products	2	Agarbatti
3	Writing Ink	4	Sealing box
5	Watch, pen and spectacles repairing.	6	Acrylic sheet button.
7	Plastic covers (Dairy and Files etc.)	8	Knitted plastic bags.
9	Shoe repairing and manufacturing	10	Rubber stamps
11	Rubber molded goods	12	Food products
13	Creamery & Dairy products	14	Atta chakki& Masala grinding
15	Repacking of Medicines	16	Paper products
17	Card Board boxes.	18	Book binding
19	Assembly of Furniture units	20	Readymade garments.
21	Making of lac Bangles	22	Batik Printing
23	Ivory carving	24	Embroidery
25	Watch straps (Nylon)	26	Canvas bags & Products.
27	Hosiery items	28	Surgical bandages.
29	Shoe laces etc.	30	Thread rolls.
31	Tailor labels	32	Mirror & Frame making
33	Decorative Glass articles	34	Chalk sticks.
35	Tailor shop	36	Cycle repairing shop.
37	Basket making	38	Wire brushes.
39	Umbrella assembly	40	Wooden toys
41	Paper pins, gem clips	42	Manufacture, repairing & tuning of Musical instruments.
43	Wire staples	44	Wire stands for kitchen.
45	Wire for curtains	46	Wire loops
47	Decorative key rings	48	Like clips.
49	File clips	50	Shop & Tent eyelets.
51	Brass Jewelry	52	File cover Accessories
53	Garments Hooks and Eyes	54	Link Chain.
55	Heating elements (For domestic appl)	56	Decoration lighting series
57	Transistor Radio Covers.	58	Decorative Leather goods.
59	Industrial leather hand gloves.	60	Manufacture of bidis.
61	Processing of suparis	62	Laundry, Dry Cleaning & Cleaning
63	Cotton cloth weaving in Hand Looms	64	Metal Polishing
65	Repairing of electric Instruments	66	God, Silver, Thread, Zari Work, Jewellery, Ornaments.

11.7 SOWT Analysis Balasipara Master Plan :

Strength:

- ❖ Emerging growth Trade and commerce
- ❖ Rich agricultural lands support a variety of crops, providing a strong base for Agro-based industries.
- ❖ Cultural Heritage: A blend of diverse cultures and traditions enhances the town's cultural richness and tourism potential.

Opportunities:

- ❖ Scope to Food processing industries, agro-based agro-business and cottage based Industries leveraging the region's strengths.
- ❖ Emerging growth trade and commerce.
- ❖ Eco-tourism potential: Natural beauty, wetlands, river basin, beautification Hakma Bill, cultural sites can be developed into developed eco-tourism attractions.

Weaknesses:

- ❖ Outmigration: High levels of outmigration, especially among the youth, seeking better employment opportunities elsewhere.
- ❖ Limited industrial development: Lack of growth of significant industries base job creation and economic diversification.
- ❖ Lack of infrastructures, road, drain, and bus and truck terminus, lack civic amenities as such parks, open space, public Toilet etc.
- ❖ Flood Vulnerability: Flooding affects some time agriculture and livelihood.

Threats:

- ❖ Economic Instability: Dependence on agriculture and limited industrial activity make the economy vulnerable to market fluctuations and climatic conditions.
- ❖ Climate Change: Increasing frequency of extreme weather events due to climate change.

