

1.0 INTRODUCTION

Strathclyde emerged in the 1890's as a residential development in response to the housing shortage in the City. The houses comprised of single family units, each having its own individual architectural design consisting of sash windows, gable rooftops and jalousies. Despite their individuality, the neighbourhood is harmonious in character. In addition to the physical structures, the external furnishings in the neighbourhood created a picturesque atmosphere, characterised by high guard walls and winding narrow avenues.

In the nineteenth century commercial development slowly began to dominate Central Bridgetown. (Fraser H. and Hughes R. 1986). The commercial expansion created the need to develop new residential areas on the periphery of the city to accommodate the population that could no longer obtain housing in the urban centre. Therefore, Strathclyde became a minuscule fortress nestled on the periphery of Greater Bridgetown.

Strathclyde has retained most of its residential character. However in recent years there has been increasing pressure to change the use of buildings in the area for non-residential purposes. Similar to other older districts in Barbados, Strathclyde has buildings of special architectural and historical importance to the island, and as a consequence, the neighbourhood has been designated as a Cultural Heritage Conservation Area in the Physical Development Plan, Amended (2003). Conservation Areas as set out in Section 2.4.4 in the PDP, Amended (2003) are defined as areas containing groups of buildings and structures that together project a unique architectural character and/or reflect some aspect of the heritage of the community. Such areas may include both Listed Buildings and other non-heritage buildings.

The built environment in Strathclyde offers a distinctive link to the past and a sense of cultural identity in need of protection through conservation and preservations measures. As the Central Business District (CBD) in Bridgetown continues to expand, residential districts on its periphery, such as Strathclyde, will be targeted for commercial development. Development must proceed in a manner where older residential neighbourhoods, such as Strathclyde, are able to regenerate and remain vibrant, without sacrificing their cultural and historical significance.

Conservations Areas require extra planning controls to ensure that the areas' character is protected. In this regard, the Town and Country Development Planning Office has formulated policies to ensure that the residential character as well as the cultural and built heritage of the area are maintained.

- 4) To assess built form in the area.
- 5) To formulate traffic management policies to guide development of the area.

2.0 GOALS AND OBJECTIVES

The specific goals and objective of the Plan are:

Goal 1: To protect, preserve, conserve and enhance the cultural heritage and built environment in the Conservation Area.

2.1 Objectives:

- 2.1.1 To establish guidelines to protect the buildings of special architectural or historic interest.
- 2.1.2 To establish a comprehensive database of all buildings and structures in the area.
- 2.1.3 To establish guidelines to ensure preservation, conservation and enhancement of the built environment.
- 2.1.4 To categorise all buildings with in the study area.

Goal 2: Ensure that new development respects and complements the patterns, character and scale of the existing buildings.

2.2 Objectives:

- 2.2.1 Encourage detailed design plans of all new development to ensure that the architectural design, materials and fixtures of the building are in harmony with the conservation area.
- 2.2.2 Rigorously apply the building guidelines for Conservation Areas.

Goal 3: To protect the residential character and use of the Conservation Area.

2.3 Objectives:

- 2.3.1 Encourage stringent review of all applications in conservation areas to protect the residential nature of the neighbourhood.
- 2.3.2 Enforcement of illegal developments in the area.

Goal 4: To establish urban design guidelines for all development within the area

2.4 Objectives

2.4.1 Encourage building typologies that are compatible with the existing Built form

2.4.2 Enhance the streetscape in the area

2.4.3 Enhance pedestrian access in the area

2.4.4 Encourage provision of open space in the redevelopment of the area.

3.0 METHODOLOGY

The following methods were used in formulating the plan:

3.1 Review of Literature

- The Physical Development Plan (PDP) Amended (2003).
- The Greater Bridgetown Physical Development Plan (1987).
- Management Plan for the World Heritage Site (2011).
- Review of statistics from the Barbados Statistical Services relating to the demographics of the area. Categories for review included:
 - a) Age.
 - b) Household numbers.
 - c) Marital status.
 - d) Ethnicity.

3.2 Field Work

- Field surveys were conducted by the Town and Country Development Planning Office to identify existing land use.
- Update of listed building index within the study area.

- A deployment of traffic counters by the Ministry of Public Works and Transport Department from Jan. 18, 2007 to Jan. 28, 2007 to determine the level of vehicular travel throughout the area.
- Monitoring of traffic in the area since the deployment of traffic counters.

3.3 Desk Top Study- An analysis of all planning applications submitted to the Town and Country Planning Department Office (TCDPO) between 1986 and 2012 was undertaken. The following information was gathered:

- Type of development (residential, commercial, industrial), extensions).
- Current status of application (approved, pending, withdrawn or refused).
- Location of development.
- TCDPO records of illegal development and Enforcement Notices served in the area
- An analysis of listed buildings in the area.

3.4 Consultations

Consultations were carried out with the Ministry of Transport and Works and the Barbados Statistical Services.

4.0 Review of Policies from Draft Greater Bridgetown Physical Development Plan (GBPDP) 1987

Policies in the GBPDP (1987) have guided the development within Bridgetown and its environs over the years. Strathclyde, which lies on the periphery of Central Bridgetown and within Greater Bridgetown, cannot be separated from the development trends occurring in the city. Strathclyde is fully built-out and any redevelopment of the area must ensure that it does not impact negatively on the historic character and residential amenity of the area.

Strathclyde is a predominantly residential district with unique physical characteristics that must be taken into consideration for any future development. The policies contained in the GBPDP distinguished the preservation of individual buildings from their neighbourhoods, to determine the most effective method to conserve and regenerate the surrounding architecture in the area. In assessing the existing land use of Strathclyde, a review of the policies contained in the GBPDP was undertaken. They included:

- Complete the listing of buildings of historic and architectural interest. (Policy 6.1-1).
- Introduce legislation to amend the Barbados Town and Country Planning Act, 1986, in particular to make it a civil offence to demolish a listed building without consent. (Policy 6.1-2).
- Ensure that the needs of traffic on the lands surrounding listed buildings must be seen as less than the need to protect the built structure.
- Selected changes of use of listed buildings will be allowed to ensure that buildings continue to have economic uses. (Policy 6.1-4).
- Barbados has a strong individual tradition of its own type of building which should be reinforced in the present day design not by creating exact replicas, but by skilful interpretation of the traditional form. (Policy 6.2-5)

In assessing applications submitted to the Chief Town Planner to carry out development in the Strathclyde Area between 1986 and 2012, policies contained in the Greater Bridgetown Physical Development Plan (GBPDP) were used to assist in the decision making process.

4.1 Review of Policies from the Physical Development Plan (PDP) Amended (2003)

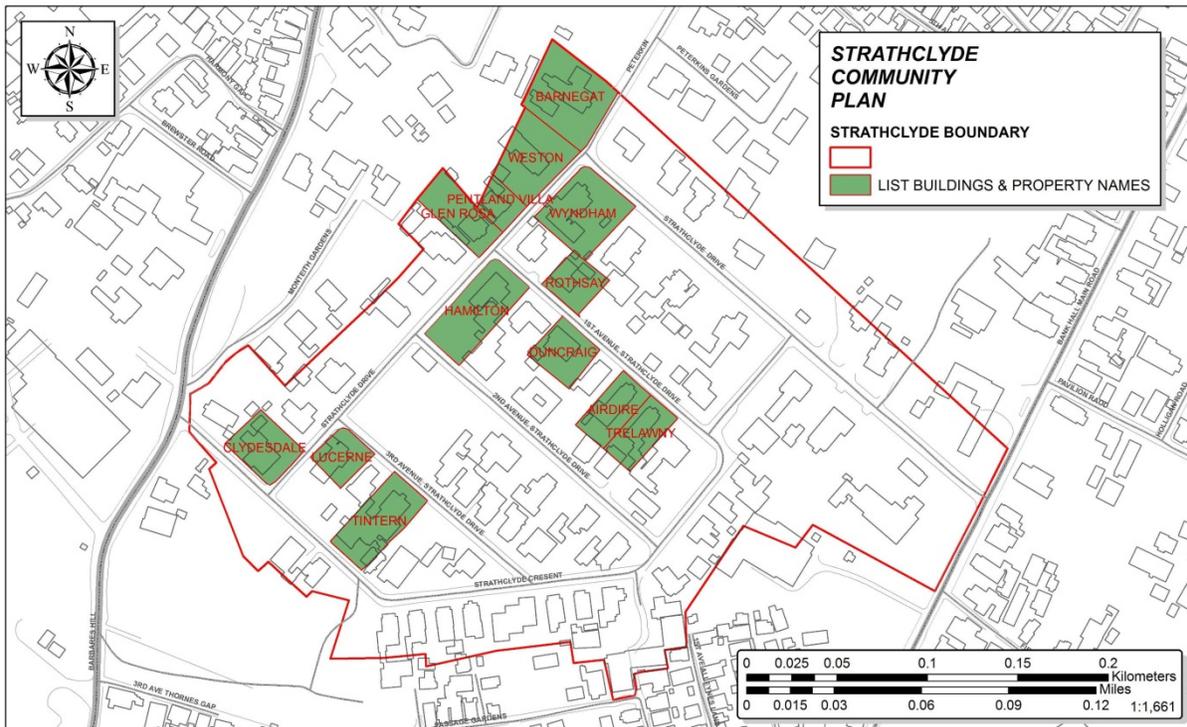
The PDP, Amended (2003) contains policies adopted from the GBPDP for the continued preservation and conservation of buildings in Strathclyde of special architectural and historic importance. These policies seek to maintain and conserve the cultural heritage of the area, both the built heritage and area of archaeological significance. Pertinent elements for the continued development of Strathclyde are contained in the PDP relating to listed buildings, Cultural Heritage Conservation Areas and the Greater Bridgetown Community Plan.

4.1.2 Listed Buildings

A listed building is considered an asset because of its significant architectural and historical features. The building must possess some ornate and historical characteristics and prove to be of special significance to the overall character of the area. The listing of buildings is to prevent the unrestricted demolition, alteration or extension of a listed building without the consent of the Chief Town Planner. It also ensures that the architectural and historic interest is carefully considered before any alterations can occur.

The Town and Country Planning Act make provision for the listing of buildings. Section 29 (1) of the Act states that ‘the Minister shall cause to be compiled lists of such buildings or approve, with or without modifications, such lists compiled by the Barbados National Trust or other persons or bodies of persons, and may amend any list so compiled or approved’. In Barbados the buildings listed were constructed prior to 1945. The list identifies the address of each property, together with a description of its architecture and history. The description includes age, style and main features of the building.

Strathclyde has thirteen (13) listed buildings dispersed throughout the neighbourhood. (See map 2) The majority have these have remained residential, however there have been increasing pressure to change the use of buildings to non-residential uses. Policies contained in the PDP Amended (2003) have outlined a rigorous process to redeveloped listed buildings.



The policies are as follows:

- The government will prepare an updated list of buildings to be designated in accordance with the Town and Country Planning Act. (PDP, Amended 2003: Section 2.4.3.1).
- All development, including alterations to the interior, or exterior appearance; changes to windows, balconies, materials, painting and colouring; additions and extensions, change of use or demolition of a listed building, will require express planning permission, and will be circulated to the Barbados National Trust, the Barbados Museum and Historical Society, and any additional nominated body for comments. (PDP, Amended 2003: Section 2.4.3.2).
- Proposals involving the alteration, extension, change of use or demolition of a listed building will only be permitted where:
 - a) they do not have an adverse effect on the architectural and historic character, or appearance of the building or its setting;
 - b) they respect the scale, design and materials of the existing building;
 - c) demolition or partial demolition will not be acceptable unless it can be shown to the Chief Town Planner that the building is beyond economic repair, viable alternative uses cannot be found, or there would be a substantial benefit to the larger community, and an appropriate and detailed redevelopment plan is submitted. (PDP, Amended 2003: Section 2.4.3.3).
- In order to retain their appearance, permanent advertisements, or signs of any type within the curtilage of Listed Buildings, will need the express permission of the Chief Town Planner. (PDP Amended 2003: Section 2.4.3.4).
- Change of use of listed building may be permitted by the Chief Town Planner taking into account the policies stated in Sections 2.4.3.2 and 2.4.3.3. (PDP Amended 2003: Section 2.4.3.5).
- Development adjacent to or in the vicinity of a Listed Building, where through its siting, scale, or design, it would have an adverse impact on the setting of the Listed Building will be discouraged. (PDP, Amended 2003: Section 2.4.3.7).

4.1.3 Cultural Heritage Conservation Areas

The PDP (2003) sets out precise policies guiding development within conservation areas. The policies outlined in the PDP Amended (2003) are as follows:

- All renovations and other development will require express planning permission, and will be circulated to the Barbados National Trust, the Barbados Museum and Historical Society, and any additional nominated body for comments. (Policy 2.4.4.2).
- Development in Conservation Areas will only be permitted where:
 - a) It enhances or preserves the character and appearance of the area, or its setting.
 - b) Demolition or partial demolition will not be acceptable unless it can be shown to the Chief Town Planner that the building is beyond economic repair, a viable alternative cannot be found, or there would be a substantial benefit to the larger community, and appropriate and detailed redevelopment plan is submitted.
 - c) The new development will respect the special character and quality of the area through design, size and materials. (Policy 2.4.4.4).
- All new development should normally conform to the relevant planning policies, but variations will be considered in order to maintain specific environmental characteristics of Conservation Areas. (Policy 2.4.4.5).
- Any alterations to the exterior appearance of the buildings in conservation areas need express permission from the Chief Town Planner. This will cover in particular windows, balconies, materials, painting, colouring. (Policy 2.4.4.7).
- Development by the Government, its agencies and statutory undertakers, including wirescapes, sub-stations, roads signs, street furniture, drainage activities, streetscaping, road repairs and widening that affect the appearance of Conservation Areas will require the express approval of the Chief Town Planner. (PDP, Amended 2003: Section 2.4.4.8).

4.1.4 Bridgetown Community Plan

Development in Strathclyde cannot be separated from the development objectives set out in the GBPDP. As a primarily built-out area, Strathclyde's main goal would be the maintenance of its buildings to service the needs of individuals seeking to remain in the urban core. In addition, the location of the Supreme Court at White Park Road in proximity to Strathclyde can offer the opportunity for the re-adaptive use of buildings in the area for law offices provided that the site planning requirements are met. Whether for residential purposes or commercial activity, Strathclyde's location meets the needs of those wishing to live close to work, or offers the opportunity to profit from business operations located on the periphery of the city.

Comparable to other older urban neighbourhoods, Strathclyde faces the challenge of maintaining its ever decreasing population. Given its designation as a Conservation Area, Strathclyde must endeavour to retain as much of its population to protect its heritage and residential component. Thus far, the present land use policies attempt to discourage large scale commercial activity from entering the residential area, while making allowances for small offices, shops and community services. Section 6 of the PDP Amended (2003) outlines the type of development that can be permitted in this predominately residential neighbourhood. These include:

- A full range of housing types, including single family, semi-detached, duplexes, townhouses and apartments according to policies stated in Section 3.4.2. (Policy 6.3.7.2)
- Home occupations ancillary to a residential use in accordance with Section 3.4.2. (Policy 6.3.7.2)
- Neighbourhood-oriented institutional uses such as primary schools, churches and halls, libraries and community centres, see Section 3.5.3 (Policy 6.3.7.2)
- Small-scaled neighbourhood commercial uses, including convenience stores, small offices and gas stations, see Section 3.4.4 (Policy 6.3.7.2)

However, development will only be permitted provided all site planning requirements are met and development does not impact negatively on the residential character and amenity of the area.

5.0 MANAGEMENT PLAN FOR THE WORLD HERITAGE PROPERTY

Strathclyde lies to the north of the Buffer Zone of the World Heritage Property of Historic Bridgetown and its Garrison. Therefore, any development within Strathclyde must be cognizant of the objectives contained in the Management Plan informing decision making for this property. This Management Plan is a core resource tool with an overarching goal to facilitate a participatory and comprehensive system of management to protect and preserve the outstanding universal value of the Property and its buffer zone, for future generations.

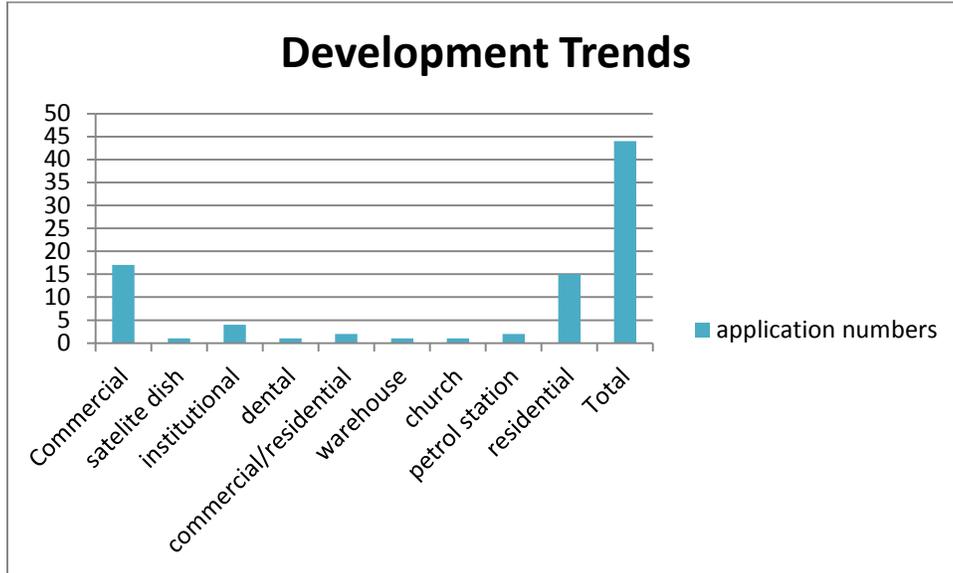
5.1 Strategically, the objectives of the Plan are to:

- To protect, preserve and enhance the cultural heritage within the Property.
- To ensure that future development does not have a negative impact on the Outstanding Universal Value of the Property.
- To enhance the accessibility of the Site, both physically and intellectually.
- To harness, manage and develop the recreational assets and tourism potential of the Site in order to contribute to the diversification of the economy.
- To raise the awareness, understanding and appreciation of the Outstanding Universal Value of the Property and encourage local participation in its preservation.
- To interpret the Outstanding Universal Value of the Site through a series of cultural programmes and educational activities.
- To establish guidelines and manage the social and economic activities within the Property.

6.0 DEVELOPMENT TRENDS FROM 1986-2012

Between 1986 and 2012 a total of forty-four (44) applications were submitted to the Town and Country Development Planning Office to carry out development within Strathclyde. The applications included seventeen (17) for commercial development, fifteen (15) for residential use, four (4) institutional, two (2) petrol stations and one (1) each for satellite dish, dental, warehouse and church. A total of thirty-two (32) applications were granted approval, while the remaining applications were either refused or withdrawn.

Chart 1: Development Trends from 1986-2012



Source: Town & Country Development Planning Office, 2013

Of the forty-four (44) applications submitted, twenty (20) were along Strathclyde Drive; fifteen (15) on Strathclyde Crescent; five (5) on Third Avenue; two (2) on Second Avenue; and one (1) on First Avenue.

First Avenue

The application submitted on First Avenue was for a change of use and it was refused planning permission.

Second Avenue

Two applications were submitted on Second Avenue, one in 1986 and the other in 2004. The application in 1986 was for the erection of the satellite dish and given that it met the site planning requirements, permission was granted. The application submitted in 2004 was for the renovation and extension to a residence and permission was also granted.

Third Avenue

Five (5) applications were submitted to carry out development along Third Avenue for the period under review. Two of the applications were for commercial development at the same location, requesting an extension to a kitchen. A refusal was issued for the retention of the development. A subsequent application was submitted for the change of use of the said building to operate as a home occupation. Permission was granted as the development conformed to policies outlined in the PDP Amended (2003) relating to home occupation.

The other applications related to residential and institutional development. The residential proposals were for the erection of a new structure and renovation and extension to existing residence. Both developments conformed to the site planning requirements and policy guidelines for the area and permission was granted. The change of use from residential to institutional is still pending a decision.

Strathclyde Drive

A total of twenty (20) applications were submitted along Strathclyde Drive to carry out development. These included thirteen (13) for commercial purposes, four (4) for residential development and one (1) for institutional, church and dental office respectively. Of the four (4) applications submitted for residential development, two were granted approval, one withdrawn and one refused.

Of the thirteen (13) applications for commercial development, ten (10) were approved, two (2) were refused and one (1) is pending a decision. One of the commercial sites had a previous approval for commercial and residential use.

The two refusals for commercial development were for changes of use of listed buildings and which contravened the policies guiding development in this area.

Strathclyde Crescent

Strathclyde Crescent received ten (10) applications to carry out development for residential, industrial, institutional, and professional office purposes. Three (3) applications for residential development were granted permission. These developments were either for the erection of a residence, renovation or extension to the residence. Three of the applications for commercial uses related to the same site where the initial application was refused, but permission was subsequently granted on the other applications.

Presently, there are three (3) businesses operating illegally in Strathclyde, namely two day nurseries and a law office. Enforcement notices were served on the day nursery and the law office. The application for the law office is being reviewed by the Chief Town Planner in light of the policy of allowing law offices in the area.

6.1 Analysis of Applications Submitted Between 1986 and 2012

In general, the decision making process adhered to the policies protecting the residential character of the area. Permissions were issued for the residential developments, however, in a few cases the façade of the building was not in keeping with the architecture of the Conservation Area. This was observed along third avenue where the façade of the new building was out of character with the architecture in the area.

With respect to the applications for commercial development, thirteen (13) of the eighteen (18) applications were granted permission, while the others were either refused or pending a decision. Of the applications refused, three were issued for the same site on Strathclyde Crescent, as the development was not keeping with the general land use policy for the area, and was considered detrimental to the residential amenity of the area.

The auto body shop and garage located on the interior of Strathclyde Crescent was initially refused but was granted approval on review. The catering business located on third Avenue was granted permission, as the site planning requirements were met and the development was deemed not to be detrimental to the residential of the area.

The illegal operations in Strathclyde were served with enforcement notices. However, enforcement action has not be taken as applications were submitted for those developments and are being processed.

Policies contained in the GBPDP (1987) and reinforced in the Physical Development Plans (2003) were followed with a degree of stringency in the decision making process. The catering operation located on Third Avenue was the only listed building where permission was granted. It was for the change of use from residential to commercial development.

In general, while the urban design guidelines governing the erection of buildings in conservation areas were adhered to in the decision making process, the residence approved on third avenue, neither preserved nor enhanced the character of Strathclyde. The erection of the building has compromised the architectural character of the neighbourhood.

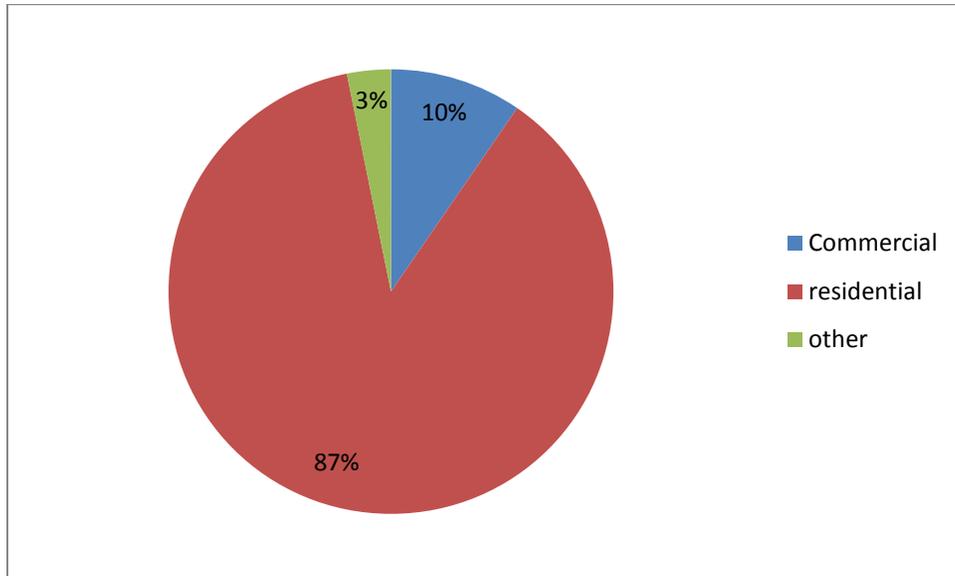
Generally, the commercial developments permitted in Strathclyde conformed to policies for the area. The beauty salon and catering operations were the type of commercial permitted in the area. However, developments that resulted in traffic congestion such as the day nurseries and general office use were not permitted. It is evident that the decision making process and monitoring have been reasonably successful in maintaining the integrity of this Conservation Area.

7.0 CURRENT LAND USE

The existing land use in Strathclyde comprise of a mixture of residential, commercial, mixed, vacant and open spaces. The area contains approximately sixty-three (63) lots, with two lots having more than one type of development. The commercial activity being carried out in the neighbourhood can be examined on their individual merit for their usage and compatibility to the area. Each use can be broken down into a number of categories namely medical, professional offices, institutional, retail, industrial and home occupation.

Chart 2 illustrates the proportional value of each development located in Strathclyde. The chart demonstrates that residences account for the majority of the development at 87%. Commercial activity account for the second largest type of development in Strathclyde at 10%, followed by mixed use, vacant lots and open spaces equally at 3% of the total land use respectively.

Chart 2: Current Land Use Pattern of Strathclyde in Percentage (%)



Source: Town & Country Development Planning, 2013

7.1 Residential

The residential buildings in Strathclyde are a mixture of single storey and two storey buildings. Situated on Strathclyde Crescent is the only apartment complex in the neighbourhood comprising of three (3) units. Between 1986 and 2012, fifteen (15) applications were submitted for residential development. With the exception of one application to erect a new residence, all others applications for residential development were for renovations, alterations or extensions to existing residences.

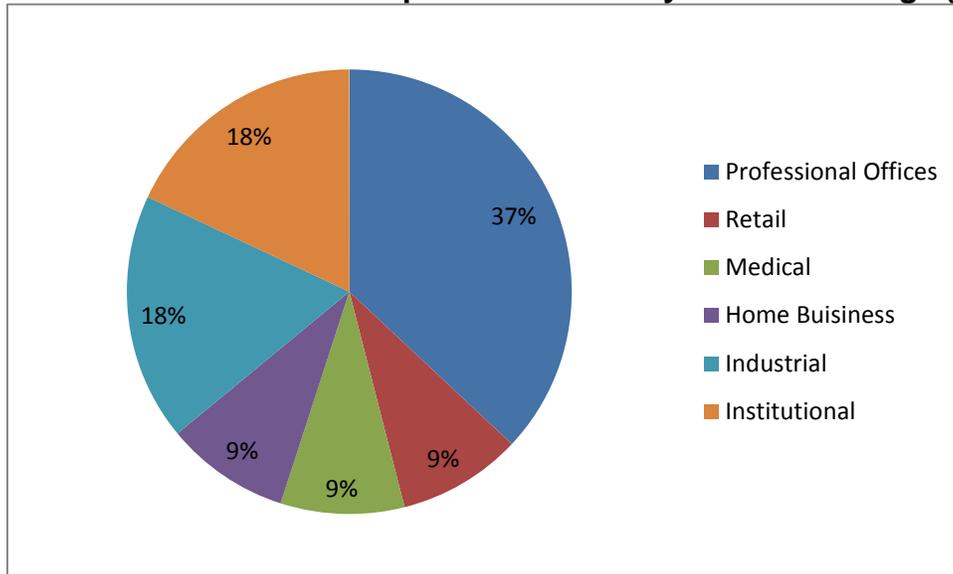
Presently 87% of the landuse in Strathclyde consist of residential development. Many of the buildings have retained much of the architectural features unique to the neighbourhood. Unfortunately two residences on Strathclyde Crescent namely, Strathville and Glenartvey have become severely dilapidated and abandoned.

The design, size and typology of each house in Strathclyde can be a reflection of the development of the area. The bigger lots contain houses with greater architectural features and are located towards Strathclyde Drive and the first avenue, while the smaller houses with less architectural features are located towards Strathclyde Crescent, second, and third avenues.

7.2 Commercial

Commercial developments accounts for approximately 10% of the land use in Strathclyde. Chart 3 indicates the categorization of the commercial businesses, showing professional offices as the dominant use accounting for thirty-seven (37%) Retail, home occupation and the medical Offices have the lowest percentage of land use at 9% each. Industrial and institutional uses account for 18% of the total development in Strathclyde.

Chart 3: Commercial Development in Strathclyde in Percentage (%)



Source: Town & Country Development Planning, 2013

Professional Offices

The professional offices operating in Strathclyde are predominantly Law Practices. There are four in total, constituting the largest of the Office development in the neighbourhood (37%). Three of the offices are located on Strathclyde Drive, with two located in the Ashton Clinic Complex. The other office is located on Strathclyde Crescent.

Industrial

The industrial activities are auto body repairs, workshop and garaging. They represent 18% of the non-residential development. Crane and Equipment is a long standing garage establishment located on Strathclyde Crescent, while the other establishment is a small valet operation on Strathclyde Drive.

Institutional

Schools accounts for 18% of the institutional use in the area. The Rock Primary School is the larger of the two learning institutions and is located on Strathclyde Drive on one of the larger lots in the neighbourhood. The Fun Loving Day Nursery is another institution situated in Strathclyde, it is located in the inner core of the neighbourhood on Strathclyde Crescent. A second nursery located in third Avenue.

Home Occupation

Corbin's Catering is the only home occupation in the area representing 9% of the commercial development.

Medical Office

The medical centre accounts for 9% of the office space in the area, and is located in the Ashton Clinic on Strathclyde Drive. The Clinic occupies the largest lot in Strathclyde, with entrances off Strathclyde Drive and First Avenue.

Retail Services

There is one beauty salon located in Strathclyde situated in the Ashton Clinic Complex. Similar to the medical centre and home business, the beauty salon constitutes a small fraction of the commercial activity in the area at 9%.

7.3 Vacant Lots

Located on Strathclyde Crescent are two vacant lots covering 3% of the overall land use in the area. One of the vacant lots is located at the corner junction near Barbarees Hill while the second site is located on the interior.

7.4 Open Space

There are two open spaces situated between second and third avenues. Similar to the vacant lots, the open spaces account for 3% of the land use in the neighbourhood. One site appears to be used for additional parking for the residents while the other contains a bench and appears to be used for team sports.

8.0 POPULATION REVIEW

Strathclyde faces similar challenges as other urban neighbourhoods which is experiencing a decline in population. According to data provided by the Barbados Statistical Services the population in Strathclyde declined by sixty (60) persons in the ten year period from 136 in 2000 to 76 in 2010.

Table 1: Population Comparison in 2000 and 2010 between Strathclyde, St. Michael and Barbados

Area	Population (2000)	Population (2010)
Strathclyde	136	76
St. Michael	91, 025	88, 554
Barbados	268, 792	277, 762

Source: Barbados Statistical Services, 2013

8.1 Ethnic Origin

During the early development, Strathclyde was an affluent neighbourhood consisting mainly of Caucasians. In 2000, the ethnic population was more diverse, blacks accounted for 42% of the population, consisting of twenty-five (25) males and thirty-two (32) females. Whites were still prevalent in the neighbourhood accounting for 35% of the population with twenty-five (25) males and twenty-three (23) females. East Indians comprised 7% of the population, six (6) males and three (3) females. Sixteen percent of the population is of mixed race. .

The 2010 statistics showed a decline in both the white and black population living in the area during the ten year period, with 28% and 37% respectively. East Indians, which are a growing ethnic group in Barbados the population increased slightly to 9%. The mixed population also showed an increase, represents 20% of the population. It is evident from the 2010 data that the racial composition of the population in Strathclyde has changed over the years, creating a more varied representation of persons living in the area.

8.2 Marital Status

The data on the marital status of the population showed that in 2000 49% were married compared to 41% in 2010. The 2000 figures showed that 7% of the population were either divorced or widowed. In 2010 six percent of the population were divorced and ten percent widowed.

Table 2: Marital Status comparison between 2000 and 2010

Status	Percentage % (2000)	Percentage % (2010)
Not stated	n/a	4
Married	49	41
Divorced	7	6
Widowed	7	10
Never married	37	26

Source: Barbados Statistical Services, 2013

8.3 Age of Population

The largest groups of persons living in the area are between the ages of 5 to 9, 30 to 54, 60 to 64, and 70 to 74.

Table 3: Age/Sex Cross tabulation for Age of Population calculated in a Five Year Group

AGE IN FIVE YEAR AGE GROUPS	SEX (2000)		TOTAL	SEX (2010)		TOTAL
	MALE	FEMALE		MALE	FEMALE	
Under 5 years	2	2	4	1	1	2
5 to 9	6	5	11	1	1	2
10 to 14	5	4	9	1	1	2
15 to 19	3	1	4	3	1	4
20 to 24	1	4	5	1	1	2
25 to 29	6	2	8	1	1	2
30 to 34	6	3	9	1	1	2
35 to 39	5	11	16	1	4	5
40 to 44	8	2	10	2	5	7
45 to 49	7	2	9	3	1	4
50 to 54	2	8	10	1	1	2
55 to 59	2	3	5	2	3	5
60 to 64	3	8	11	2	3	5
65 to 69	4	2	6	4	3	7
70 to 74	2	4	6	1	3	4
75 to 79	2	3	5	4	1	5
80 to 84	3	4	7	4	3	7
85 +	0	1	1	1	4	5
missing	0	0	0	4	0	4
Total	67	69	136	38	38	76

Source: Barbados Statistical Services, 2013

The age group from 70 to 74 is consistent with the sex ratio associated with widows in the marital status. In the age group 70 to 94 the female population is greater. This is a direct correlation to the mortality rate among the sexes in societies. Similar conclusion could be drawn for the 60-64 ages however there is a slight increase in the male ratio in the 65-69 age group.

The 30 to 54 age group is largely representative of the married/unmarried segment of the population. This age category reflects individuals most likely to be settled and career oriented, with an income sufficient to maintain a comfortable lifestyle.

The ages 5 to 9 can be a direct relationship to the 25 to 39 age group, as these children could be the offspring of the latter. A total of thirteen (13) children between the ages of 5 to 9 live in the area. This figure is relatively low. However, given the low fertility rate of society it is not unrealistic. Statistics indicate seventeen (17) women are in the 25 to 39 age group live in the area. This can account for the small number in the 5 to 9 age group.

The moderately low number of persons between the ages of 15 to 25 living in Strathclyde, can be a direct correlation to education situation. This is the age group where the majority will be studying and might be living away from home.

8.4 Household Numbers

The population of Strathclyde tend to reflect more aging population. Though the population has always been minute, the data show that more than half of the households has an occupancy of one or two persons. (table 4).

Table 4: Size of Households

Size of Household	Occupancy Status (2000)	Occupancy Status (2010)
1 person	13	6
2 persons	15	11
3 persons	8	6
4 persons	9	2
5 persons	4	1
6 persons	1	2
7 persons	1	0
TOTAL	51	28

Source: Barbados Statistical Services, 2013

Chart 4: Strathclyde Occupancy Status in 2000

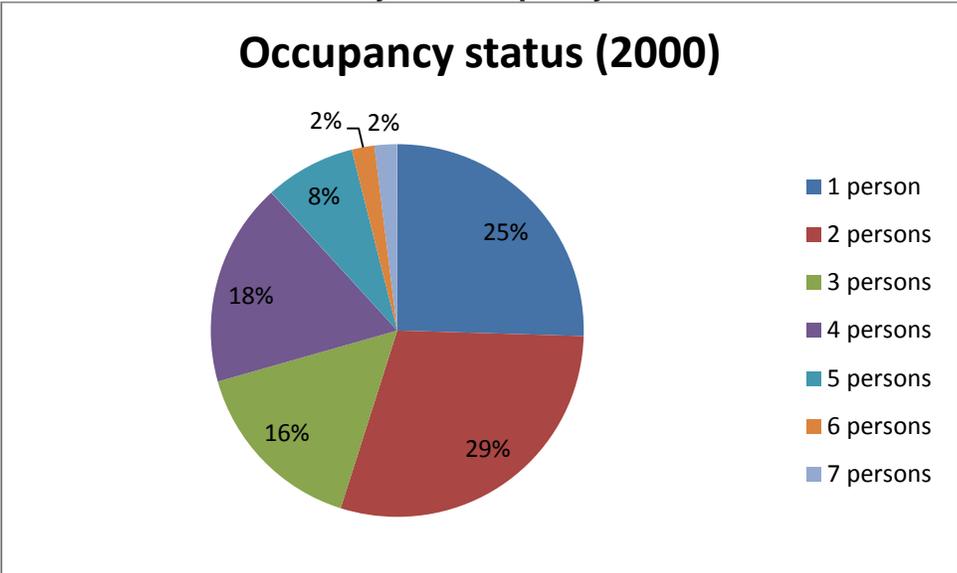
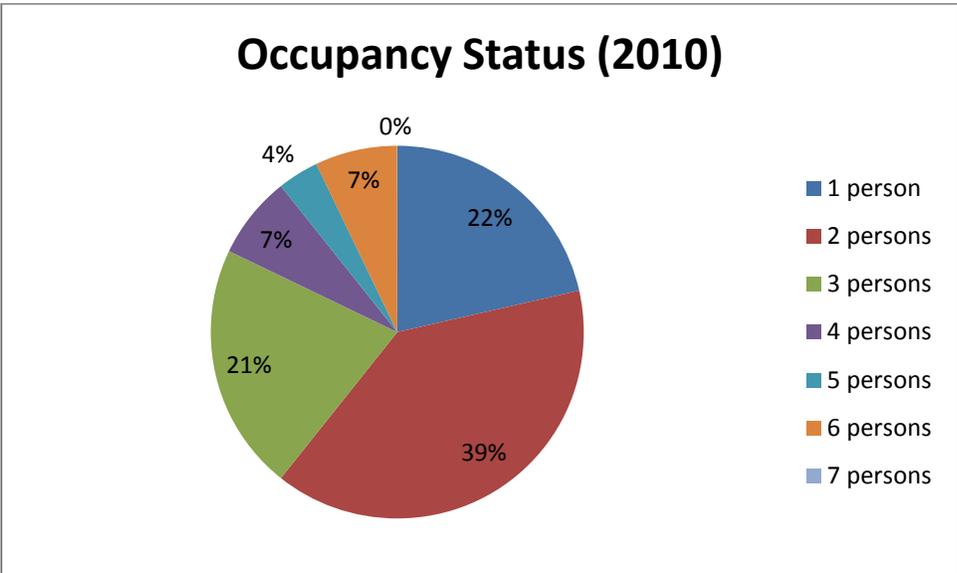


Chart 5: Strathclyde Occupancy Status in 2010



9.0 TRAFFIC STUDY

Traffic counters were deployed in Strathclyde by the Ministry of Transport and Works between January 18, 2007 and January 28, 2007 to determine the level of traffic traversing the area. The data collected related to traffic impact and on-street parking. Allowance must be made for the figures presented on Monday January 22nd, as it was a public holiday.

First Avenue

The traffic survey on First Avenue took place from January 22, 2007 until January 28, 2007. On the Monday morning there was peak of four (4) vehicles travelling in either direction of First Avenue. By the afternoon, the average movement of vehicles increased to six (6). On Tuesday twenty-eight (28) vehicles traverse the area during the morning and sixteen (16) in the afternoon. On Wednesday, the morning numbers were the same as Tuesday (28) but the afternoon increased to twenty-four (24) vehicles. Thursday, the numbers fell slightly to twenty (20) in the morning and sixteen (16) in the afternoon. However, on Friday there was a sharp increase to thirty-three (33) vehicles in the morning and twenty-three (23) in the afternoon.

First Avenue is the rear entrance to the Ashton Clinic. The complex accommodates two of the four law offices in the area, as well a medical centre, and beauty salon. Adjoining the medical complex is the Rock Primary School. Vehicles can use First Avenue as an alternative access point to drop off and pick up persons going to the Ashton Clinic or School, in an effort to avoid traffic congestion on Strathclyde Drive.

The weekend traffic was expected to be lower than during the weekday. On Saturday the number of vehicles travelling through First Avenue dropped dramatically to nine (9) in the morning and eleven (11) in the evenings. The numbers for Sunday were also expected to reduce with a high of five (5) vehicles in the morning and six (6) in the afternoon.

Second Avenue

In comparison to First Avenue, the number of vehicles travelling through Second Avenue was relatively low. On Monday only seven (7) vehicles traversed both in the morning and evening. Tuesday saw a slight increase to twelve (12) vehicles in the morning, but only six (6) in the evening. Wednesday's figures increased during the morning and evening, reaching ten (10) vehicles at peak time in the morning and thirteen (13) in the evening. Similar to First Avenue, the numbers decreased on Thursday, with the morning peak falling to eight (8) vehicles and six (6) in the evening. Friday's figures rose to nineteen (19) in the morning and eight (8) in the evening. Again, the results were similar to those from First Avenue.

The weekend traffic was to be expected lower than weekdays. Saturday showed a total of nine (9) vehicles during peak time travelling along Second Avenue in the morning, and eight (8) during the evening. On the Sunday the numbers were comparable to First Avenue with six (6) vehicles in the morning and five (5) in the afternoon.

Third Avenue

The highest vehicular count for Monday was recorded along third avenue with ten (10) in the morning and eight (8) in the evening. Tuesday provided the expected increase with twenty-three (23) vehicles travelling during the morning and twenty-six (26) in the evening. Wednesday increased steadily to twenty (20) in the morning and twenty-four (24) in the evening. However, Thursday's figures were inconsistent with the previous avenues, in that the morning peak hour increased as expected, while the evening number decreased. On Friday the lowest figures were recorded of all the avenues with twenty-three (23) in the morning and twenty-one (21) in the evening.

The weekend numbers varied, the figures for Saturday were similar to those for the weekdays. On Saturday, the morning traffic rose to twenty (20) vehicles which are highly unusual for weekend traffic. In the evening, the traffic was also high with twelve (12). Sunday's figures were comparable to the other avenues with five (5) in the morning and ten (10) in the evening.

Located on Third Avenue is Corbin's Catering Services. It is the only home occupation in Strathclyde, and this could have accounted for the increase in traffic on Saturday. Compared to other avenues, third avenue experienced the highest Saturday traffic.

Barbarees Hill to Strathclyde Crescent

The lowest number of vehicular traffic traversing Barbarees Hill to Strathclyde Crescent occurred on Monday. Ten (10) vehicles were recorded during the morning and sixteen (16) in the evening. The traffic counts for Tuesday, Wednesday and Thursday were relatively high at forty-five (45), forty (40) and forty-one (41) respectively during their peak morning hours. Similarly, in the evening the numbers were also high with thirty-two (32), thirty (30) and thirty-nine (39) respectively.

The data recorded on Friday was consistent with the Friday figures for the avenues. Fifty-seven (57) vehicles traversed Strathclyde Crescent in the morning and forty-nine (49) in the evening. The high recordings for this peripheral street can be attributed to the location of the day nursery on Strathclyde Crescent. The highest recordings for Tuesday to Friday occurred during the peak hours 7:00 am and 8:30 am. In the evenings, the peak times were between 4:00pm and 5:00pm.

The weekend traffic was extremely high on Saturday with twenty-six (26) recorded in the morning and twenty (20) in the evening. The figures for Sunday were on par with the other streets in terms of reduced numbers. Eleven vehicles were recorded on Sunday both in the morning and evening.

Strathclyde Drive VIA Bank Hall Main Road and Peterkin Road

Strathclyde Drive is connected to two major arteries leading into the city, and the vehicular traffic increased along this street. On Monday ninety-four (94) vehicles were recorded in the morning and one hundred and seventy-nine (179) in the evening. The numbers increased significantly during the remainder of the week. On Tuesday morning four hundred and thirty-six (436) vehicles passed through Strathclyde Drive, to or from Bank Hall Main road and Peterkin road. During the evening, the numbers increased significantly to 527 vehicles. On Wednesday and Thursday the traffic counts in the morning were 427 and 446 respectively. The evening traffic decreased in comparison to Tuesday's figure, but remained relatively high at 486 and 443 respectively. Similar to the other avenues, Friday's figures were extremely high at 487 in the morning and 548 in the evening. The Ashton Clinic complex and Rock Primary School main entrances are from Strathclyde Drive and this could have accounted for the high traffic counts.

The weekend traffic on Strathclyde Drive was considerably higher than those of the other avenues. The counts for Saturday were relatively high with 306 in the morning and 346 in the evening. The traffic on Sunday was also high with 165 in the morning and 171 in the evening.

Strathclyde Drive via Barbarees Hill

The data collected for this section of Strathclyde Drive is considerably lower than the section of Strathclyde Drive providing access to the Rock Primary School and Ashton Clinic. The traffic count for Friday indicated that one hundred and ninety-four (194) vehicles traversed Strathclyde Drive between 7:00am and 8:00am. In the afternoon the traffic travelling in either direction increased to 242.

The data collected on the weekend and on Monday, a public holiday, was lower than the other days. On Saturday one hundred and thirty-two (132) vehicles traversed this road in the morning and one hundred and fifty-four (154) in the afternoon. On Sunday and Monday the data showed that the traffic passing through this street was forty-five (45) and forty-four (44) in the morning respectively, and fifty (50) and forty-six (46) in the evening.

The traffic for Tuesday, Wednesday and Thursday showed an average peak time at 7:00am. The data indicated that 230, 198 and 203 vehicles traversed the area on Tuesday, Wednesday and Thursday during the morning respectively. In the

evening, the counts were on par with the morning traffic at 219, 225 and 221 respectfully.

9.1 Analysis of Traffic Survey

While a traffic survey was not conducted in the area since 2007, officers from the Town and Country Development Planning Office visited the area regularly, as recent as February 2012, to observe the traffic flow during peak periods. The monitoring revealed that there is still a heavy built up of traffic during peak hours. Hence the information contained in the traffic survey is still relevant to the preparation of the plan.

The analysis of the data generated from the survey revealed that the majority of the traffic flow occurred on the periphery. Strathclyde Drive, which is access from both Bank Hall Main Road and Peterkin Road, accounted for the highest volume of traffic passing through the area. The majority of this traffic can be attributed to the use of Strathclyde Drive as a diversion for traffic coming from Barbarees Hill and Bank Hall Main Road. Similarly, the high volume of traffic using First Avenue is the direct access it provides to Ashton Clinic and the Rock Primary School. There is also a strong correlation between the heavy traffic flow on Third Avenue and Strathclyde Crescent, and the location of a day nursery, home occupation auto body shop on these streets.

It is evident from the traffic and field surveys that Strathclyde's streets cannot accommodate on-street parking during peak periods, as most of these streets are narrow. The parking of vehicles on first and third avenues where non-residential activities are located, have also contributed to heavy traffic flow.

10.0 CONCLUSION

Strathclyde has limited capacity to further extend its road infrastructure to accommodate an expansion of commercial activity in the neighbourhood.

However, consideration will be given to commercial activities fronting onto main arteries, where the lots are large enough to satisfy the site planning requirements and to avoid on-street parking.

Based on the assessment applications submitted to carryout development and the decisions issued, every effort was made for Strathclyde to retain its dominance as a predominantly residential neighbourhood. Of the forty-four (44) applications submitted during the study period, thirty-two (32) received planning permission of which the majority was for residential development.

11.0 POLICIES

Land use

The following land use policies will apply to Strathclyde and are intended to guide development in a manner that will maintain and protect the character of this conservation area.

1. Any development being carried out shall protect, maintain and enhance the character of the area.
2. Commercial development (Professional Offices) will be permitted along Strathclyde Drive and Strathclyde Crescent provided all site planning requirements are met.

Urban Design

Strathclyde is a conservation area and any development or redevelopment of the area shall be compatible with the existing built form.

1. Buildings will be permitted up to a maximum height of two stories.
2. New Developments shall compliment the material and architectural design of the existing streetscape.
3. Development shall respect the existing setback conditions of the existing streetscape.
4. All buildings shall be coated with pastel colours.
5. As development occurs sidewalks and streetscapes shall be integrated into the site design

Traffic

The following policies shall apply to improve the traffic situation in the area:

- 1) No parking will be permitted along the streets in Strathclyde.
- 2) Any development to properties fronting on to Strathclyde Drive and Strathclyde Crescent shall provide pedestrian pavement.