

NATIONAL ROADS AUTHORITY

"Paving the way to a Modern Smarter Infrastructure"



2015-2020
Corporate Strategic Plan



Foreword

Message from the Managing Director

I am pleased to present the National Roads Authority (NRA) Corporate Strategic Plan 2015-2020. Our first ten years in operation, since being established in 2004, have been very successful. By adding additional road capacity we have significantly contributed to the overall economic stability of the country by opening new avenues of competitive regions for growth and development.



Given the pace of change going on around us, we have taken the time to review our strategy to ensure alignment with our new business model, the expectations of our Parent Ministry, the Cayman Islands Government, and the needs of the people of the Cayman Islands.

The Corporate Strategic Plan 2015-2020 is structured by our core business areas: Maintain, Manage Trips, Build and Enable. Everything we do contributes to our core business. Our budget allocations are channeled to the highest priorities, to ensure that we remain focused on achieving our vision. Improving the trips and journeys that our customers- the road users- take is a key priority area for us. We intend to focus more acutely on customer satisfaction by optimizing the experience of their daily travel on the road network.

As we deliver on these commitments, we will keep all vested parties engaged by creating a service charter which specifies our commitment to our customers. We will endeavour to create a Customer Action Plan to fulfil these commitments and keep the community informed on our progress through regular public reports demonstrating our performance. This Corporate Strategic Plan is a high level snapshot of our objectives and the things we will do in 2015-20. I look forward to working with my colleagues and stakeholder partners to deliver these commitments for the people of the Cayman Islands.

Paul Parchment

Managing Director



PREFACE

The Corporate Strategic Plan 2015 – 2020 for the National Roads Authority (NRA) is designed to achieve the broad outcome goal of building a modern, smart infrastructure for the Cayman Islands. It is also designed to further the NRA's mission to provide a sustainable, safe and efficient transportation network.

Development of this plan began at the Board level by answering the questions: Who are our customers, and what are their expectations of us? The plan then progressed through a series of additional workshops to identify all stakeholders, their key requirements and the manner in which the organization could best deliver on those needs.

NRA's management team subsequently developed the aspects of "how", "measures of success" and "targets".

The result is a Strategic Plan which articulates the priorities, resource requirement, strategic issues, partnerships, timelines and tactics that will be necessary to meet the needs of our customers and stakeholders over the next five years.

This plan outlines various goals and objectives involving routine maintenance, lighting, rehabilitation, expansion and upgrading of our road network.

Routine maintenance, lighting and road safety measures will be funded from the annual allocation of \$10 million provided from the Road Fund; however major expansion projects or significant reconstruction efforts are expected to be funded either by the central Government's capital works program, or through Public-Private Partnerships.

As our GDP and per capita income grows, so does the aspiration for a higher quality of life. Citizens desire connections to more places, to get there faster and to get there in more comfort.

Development and implementation of a "Traffic Forecasting and Demand Model" will enhance our ability to plan and strategically deploy key resources; this is important given our limited land mass (76 square miles) and the fact that we cannot infinitely add to the road network.

A lasting solution that makes the best use of all transport modes is important for the long term health and prosperity of our economy. This may require a broader discussion on a land transport management agency with overall responsibility for the regulation of all public and private vehicles on the transportation network.

In the short to medium term, as the road network expands and the cost of raw material input increases, it will become necessary to review the funding model of the NRA to ensure that the Country's road standards are maintained.

The NRA's two greatest assets are its investments in its human capital and the physical plant. This strategic plan outlines the requirements to maintain and improve capacity in both areas as a means of ensuring sustainability and continued innovation within the organization.

The plan outlines a future with increasing investments in the efficient management of the road network asset as a key driver for economic growth. It also shows the desire to become more customer focused and to improve the corporate governance framework.

The 5-year strategic plan will be a rolling programme which will be reviewed annually and updated based on changes in socio economic developments, Government policy, and resource availability.

With the positive participation of our customers, partners and other stakeholders, the National Roads Authority will continue its efforts to make the roads of the Cayman Islands, safe, reliable and efficient.



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Abbreviations and Acronyms

| | |
|----------|--|
| NRA | National Roads Authority |
| SPS | Strategic Policy Statement |
| PCI | Pavement Condition Index |
| PLAHI | Planning, Lands, Agriculture, Housing & Infrastructure (Ministry of) |
| AASHTO | American association of State Highway and Transportation Officials |
| iRAP | International Road Assessment Program |
| PTU | Public Transportation Unit |
| CPA | Central Planning Authority |
| S.W.O.T. | Strengths, Weaknesses, Opportunities and Threats. |
| PPP | Public Private Partnerships |
| OSHA | Occupational Safety and Health Administration |
| PMS | Pavement Management System |
| PMFL | Public Management & Finance Law |
| ERM | Enterprise Risk Management |
| ESO | Economics & Statistics Office |
| GDP | Gross Domestic Product |
| TOR | Terms of Reference |



Statement by the Minister for Planning, Lands, Agriculture, Housing and Infrastructure

I am pleased to endorse the 5-year Corporate Strategic Plan for the National Roads Authority (NRA) covering the period July 2015 to December 2020.



A key outcome goal for this Progressives led administration is the construction of a modern, smart infrastructure. The importance of this outcome was further emphasized in the 2015-16 Strategic Policy Statement (SPS) as one of the four pillars of the Government's medium term fiscal plan.

Economic growth and the continued development of our Country is heavily dependent on our ability to continue to provide a safe and efficient transportation infrastructure. A congested road network can easily result in the loss of tens of millions annually through losses in productivity, increased fuel consumption and increased wear and tear on vehicles.

Several current initiatives to revitalize George Town, increase economic activities in the eastern districts, and improve our tourism product, are intricately linked to planned improvement in our road infrastructure.

Works are already underway to improve the road network in the George Town area as a key enabler for many of these projects. However, as the economy and population of the Islands continue to grow, so will the demand for greater efficiency and safety in our transportation network.

As the Government's key policy instrument in meeting the transportation infrastructure needs of the Country, and the steward for the most valuable asset on the Country's books, I am pleased to reaffirm my support for the National Roads Authority and for this strategic plan.

The Government has already committed \$50 million in funding to the NRA over the next 5 years by earmarking direct revenue streams for the benefit of the Road Fund. The Road fund will also be augmented by additional Government resources to finance major capital expansion projects as well as strategic partnerships with private sector developers.

With this commitment, the National Roads Authority can be assured of the Government's continued partnership and support for the goals and objectives outlined in this 2015-2020 Corporate Strategic Plan.

Hon. D. Kurt Tibbetts, OBE, JP, MLA
Minister for Planning, Lands, Agriculture, Housing, & Infrastructure



Foreword by Chairman, National Roads Authority

On behalf of the Board of Directors, I would like to congratulate the staff and management of the NRA for the development of this 2015-2020 Corporate Strategic Plan.

I would also like to recognize and thank the Hon. Minister for his support of this plan which will guide the policies and actions of the organization over the upcoming 5-year period.



This Strategic Plan outlines a number of goals and objectives in furtherance of our mission to promote sustainable transport and land development in the Cayman Islands through a safe and efficient network of roads. It is a customer focused document with the goals and objectives of the organization aligned with the priorities and needs of our customers and stakeholders.

The Board fully endorses and subscribes to the goals and objectives set out in this plan; we believe it will provide value for money while delivering on the desired outcomes of the Government and the general public.

As a Board, we will continue to provide the oversight, policies, and guidance that will afford the best opportunity for success. We will also continue to lobby for the necessary resources to build the required institutional capacity for successful implementation of this plan.

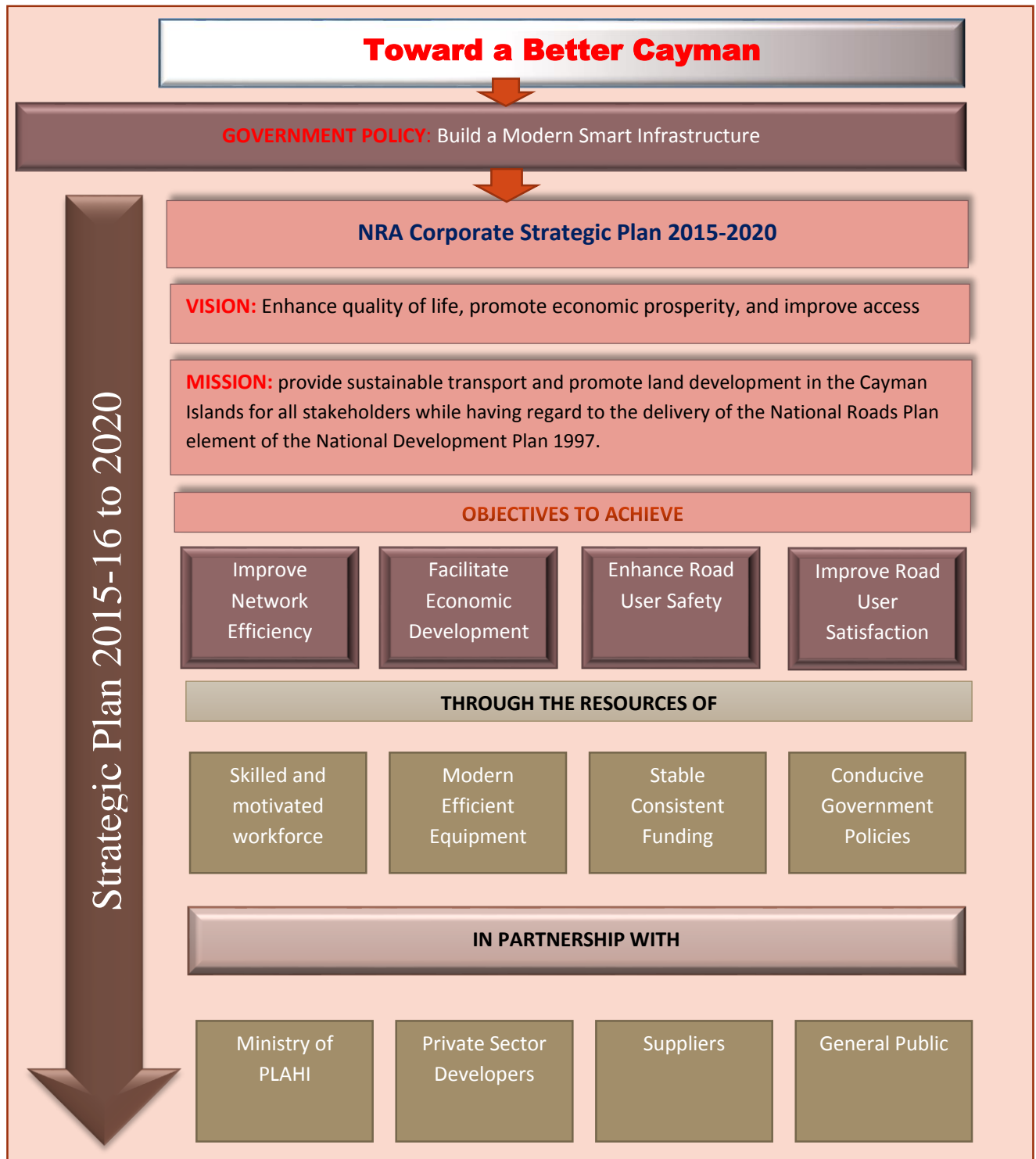
In return, the Board expects management's full commitment to performance, accountability, fairness, transparency and integrity. It is the effective participation of all employees that makes strategy happen; the plan therefore requires ownership at all levels with a commitment to excellence in customer service.

The NRA plays a significant role in the economic, social and physical development of our Country. It is a responsibility to be embraced with pride and I look forward to the continued support and participation of all staff members in the successful delivery of the goals and objectives set forth in this plan.

Donovan Ebanks, MBE, JP
Chairman, National Roads Authority



2015 - 2020 Strategic Plan at a Glance





Executive Summary

Grand Cayman presently has approximately 313 miles of road supporting almost 35,000 cars trucks and buses on a daily basis. This has placed significant demand on the road infrastructure to maintain the efficient movement of citizens and cargo. However, investments in the management, maintenance and expansion of the road network has not increased with such demand. As a result, the ability of the network to cope has declined with significant issues of congestion on many sections of our roadways.

Efficient traffic flow is vital to our economic and personal wellbeing. Our goal is to improve journeys and allow users to drive at consistent speeds and enjoy predictable travel on our roads. Continued under-investment is no longer a realistic option; as our population grows and our roads age further, they will increasingly fail to meet the social and economic aspirations we have as a country.

This Corporate Strategic Plan 2015-2020 outlines how we can grasp the opportunity to transform both our roads and the experience of driving on them, whilst also addressing strategic imperatives such as economic growth. It sets out our vision for enhancing the quality of life for residents and visitors, promoting economic prosperity and improving access.

Achieving these aspirations will require considered and strategic action. This means targeting improved levels of performance in the short term that will put us on course to deliver the network citizens deserve.

The plan focuses on four key areas to achieve the desired outcomes over the next five years; these are: Improvements in network efficiency, facilitation of economic development, enhancements to road user safety and improvements in road user satisfaction.

Certainty of funding, modern efficient equipment, a skilled and motivated workforce, the ability to plan for the long-term and the opportunity to drive increased efficiency will give us the tools to bring lasting improvements to the network and take us into the future.

To ensure the road infrastructure positively impacts growth, we must address congestion and delay on the network. The NRA will therefore work collectively with the Government and private developers to help unlock opportunities for growth, including the expansion and modernization of our ports, the revitalization of George Town, improvements in connectivity from the airport to our key tourism areas, and major commercial expansion projects such as hotels, schools and other public facilities.

The Authority will adopt a customer focused approach which focuses on all users of the road network. The network does not only impact motorists; the safety and access of pedestrians are also affected. This means that, continued focus will be placed on the creation of pedestrian friendly facilities, bike lanes, and appropriate lighting to improve the safety of pedestrians and other users of the network.

As economic and financial constraints continue, we will continue to work with all stakeholders in a consultative partnership to ensure the road network is developed in a way that drives growth, creates economic opportunities, improves the lives of our citizens, promotes access, and, ultimately, helps to achieve our individual and countrywide goals.



Introduction

Background

The National Roads Authority (NRA) was created on 1 July 2004 by the National Roads Authority Law (2004). It was created to administer, manage, control, develop and maintain the Islands' public roads and related facilities, such as signals, storm water facilities, roadway lighting, and roadway directional signage.

The Authority is governed by a Board of Directors composed of ten members representing the public and private sectors. The Board defines the overall policy of the Authority and sets the general conditions for its operations. The Minister with oversight responsibility for the Authority, may, after consultation, give general and lawful directions regarding policy to the board.

Our Board

| Member | Position |
|-------------------------|--------------|
| Donovan Ebanks | Chair |
| Sheree Ebanks | Deputy Chair |
| David Arch | Member |
| John Ebanks | Member |
| Gary Clarke | Member |
| Kenross Connolly | Member |
| Ministry Representative | Ex-Officio |
| Stanley Panton | Member |
| Dane Walton | Member |
| Financial Secretary Rep | Ex-Officio |

Vision, Mission and Core Values

Our Vision, Mission, and Values guide our decision making and behaviours when working with customers, colleagues, stakeholders and partners. Our Strategic plan was developed from these doctrines and they serve as our beacon in the execution of our work.

Vision

To enhance the quality of life, promote economic prosperity, and improve access and mobility for all stakeholders in the Cayman Islands through customer focus, efficiency, effectiveness, impact and reputation.

Mission

To provide sustainable transport and promote land development in the Cayman Islands for all stakeholders while having regard to the delivery of the National Roads Plan element of the National Development Plan 1997.

Purpose

Enabling safe and efficient road transport journeys throughout Grand Cayman.

Values

Customer focus

Our customers come first and are therefore the central focus of all our goals and activities

Employees

We believe that our colleagues within the organization are our most valuable assets. Through them our vision and mission will be accomplished

Solutions & Innovation

We strive to deliver sustainable and innovative solutions in order to provide the people of the Cayman Islands with a well maintained network of public roads

Teamwork & Collaboration

As partners and colleagues within and outside our organization, we value each other and are committed to working together to achieve common goals

Safety

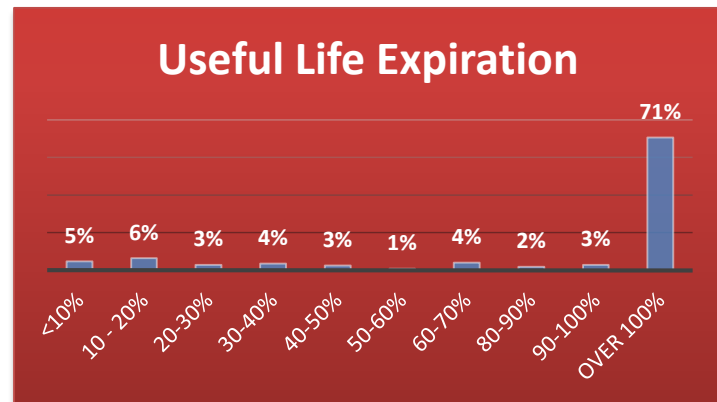
We prioritise road safety for the community and our customers



Situational Analysis

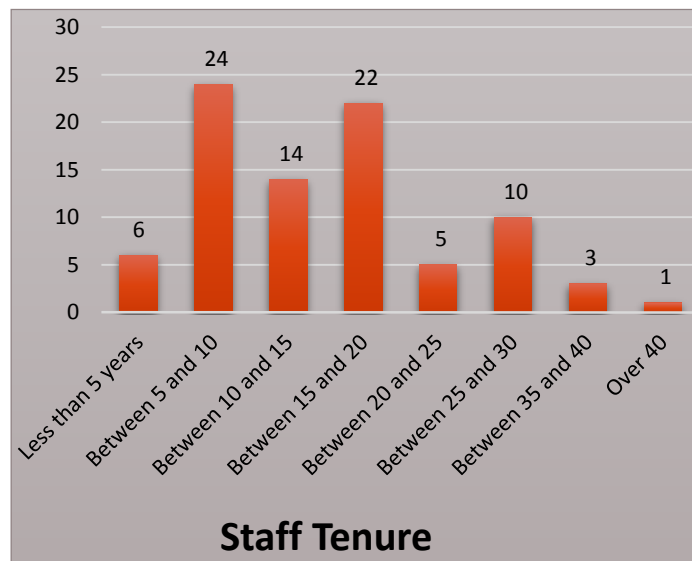
Physical Capital measures

The Authority currently tracks 297 individual assets with a historical cost value of \$5.8 million on its asset register. As at 30th June 2015, 71% of the assets tracked had exceeded their estimated useful life. Based on the usage of the property plant and equipment, the Authority should have an asset replacement fund of approximately \$4.4 million. However, as at 30th June 2015, total cash balances from all sources were only \$4.1 million. Plant & Equipment represented 65% of total property plant and equipment value for the Authority as at 30th June 2015. This was followed by 27% for vehicles, 4% in leasehold improvements, and 2% each in computers, furniture and hardware.



Human Capital measures

The Authority employed 85 staff members as at 30th June 2015. The staffing compliment was over 90% male and less than 10% female. Six percent of staff members were educated to a graduate level, a further six percent held undergraduate degrees, and 87% were educated to a high school diploma level. 93% of all employees have been with the authority for at least 5 years, with 65% having a tenure of 10 years or more. Average annual take home pay for NRA employees is approximately \$42,000, however, the average total annual compensation cost for each employee is approximately \$59,000. This reflects the fact that over 19% of the average employee emoluments goes towards healthcare premiums.



Pavement Condition

The present road network on Grand Cayman is approximately 313 miles spanning 5 districts. 36% of the road network is located in the district of George Town, followed by 27% in Bodden Town, 20% in West Bay, 9% in East End, and 8% in Northside. Based on a physical inspection of 89% of the road network over the past two

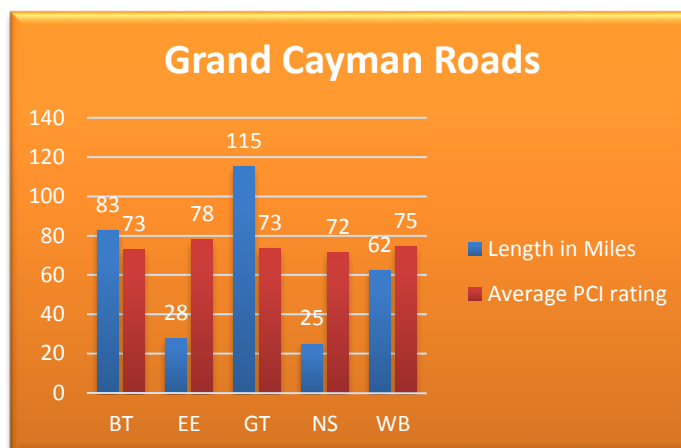


years, Grand Cayman presently has an average pavement condition index (PCI) rating of 74- the target PCI rating is a minimum of 80.

East End presently has the highest PCI rating at 78, this is followed by West Bay at 75, George Town and Bodden Town both at 73 and North Side at 72. This means, with the exception of East End, majority of the road work will require maintenance intervention over the next 1 – 5 years.

Over the last 10 years, 39% of road works carried out by the NRA was in the district of George Town. This was followed by Bodden Town where 25% of the work was carried out, West Bay 16%, East End 12%, and Northside 8%.

Based on the average PCI rating, 173 miles of the road network is Hotmix Asphalt, 134 miles is “Spray and Chip” and 5 miles consist of a Gravel base.



| PCI Decision Matrix | | | | |
|---------------------|----------|-----------|-----------|-------------------|
| TIME OF IMPROVEMENT | PRIMARY | SECONDARY | COLLECTOR | PRIVATE AND MINOR |
| Adequate | >85 | >85 | >80 | >80 |
| 6 to 10 years | 76 to 85 | 76 to 85 | 71 to 80 | 66 to 80 |
| 1 to 5 years | 66 to 75 | 56 to 75 | 51 to 70 | 46 to 65 |
| Now Rehabilitate | 60 to 65 | 50 to 55 | 45 to 50 | 40 to 45 |
| Now Reconstruct | <60 | <50 | <45 | <40 |

Road User Analysis

Where people live will influence their transportation needs and behaviours. George Town continues to be the greatest driver of economic growth; this is expected to continue for the foreseeable future with major port and airport expansion projects, increased investments at Camana Bay and along the Seven Mile Beach stretch as well as other major Government projects such as the completion of the John Gray High School.

At the end of 2014 Grand Cayman had an estimated population of 56,399¹. Of this number 53.4% lived in George Town, 20% lived in West Bay and 21% lived in Bodden Town. The fastest growing residential district on Grand Cayman is Bodden Town, which, at the last census, was growing at a rate of 5.6% per year.

With economic growth occurring on the western end of the Island and the residential population growing fastest towards the East, an increasing number of road users will be traversing areas of the network which are currently experiencing the highest levels of congestion.

The number of licensed and inspected motor vehicles on the road network at the end of 2014 was 34,950. Private motor cars accounted for 26,287 (or 75%) of this number, trucks accounted for 6,486 (or 19%) with the remaining 6% consisting of taxis, buses and rented motor cars.

¹ ESO Compendium of Statistics 2014



Stakeholder Analysis

Development of the Corporate Strategic Plan took into account the strategic priorities of the following four main stakeholders:

General Public: The General Public consists of citizens, visitors and local businesses. These groups are interested in the safe and efficient use of the road network. They require a high quality, aesthetically pleasing network with sufficient interconnectivity to get to their various points of interest in the shortest period of time. In delivering this outcome, appropriate care must be taken to respect the environment, and maximize value for money. In delivering these outcomes, the NRA will:

- ✓ Aim to achieve an average PCI score of at least 80 on all primary, secondary and collector roads;
- ✓ Reduce road user costs;
- ✓ Increase network capacity to reduce travel times during peak hours;
- ✓ Perform lighting, friction testing, and general safety audits of the network;
- ✓ Make greater provisions for the safety of Pedestrians and other vulnerable road users;
- ✓ Create greater interconnectivity in strategic areas such as George Town;
- ✓ Improve the aesthetics of the network through signs and lines and improved landscape maintenance; and
- ✓ Expand the network with due regard to impacts on the environment.

The Government: The Government represents the people and is therefore interested

in citizens' overall well-being from a macro level. As a service based economy, the Government is interested in the efficient movement of its residents and visitors to increase productivity and economic growth.

The road network drives economic activity; every item consumed in the local community traveled across the network at some point. It enables new housing and commercial developments and attracts investment to areas it unlocks.

Additional time spent on the road reduces productivity. At the end of 2014, per capita GDP was \$48,095, which means, if the average citizen spent an hour in traffic each work day, the cost to the economy in lost worker productivity is approximately \$200 million².

The road network is the Government's single largest asset with an estimated net book value of some \$787 million as at December 2015³. Government is therefore keen for the asset to be well maintained in a manner that achieves value for money.

The World Bank recommends an annual maintenance cost of 1.75% - 2.5% of the asset's value to keep roads to an acceptable standard. That would equate to \$13.8 million p.a. to maintain at a fair level and \$19.7 million p.a. to maintain at a satisfactory level based on the PCI range.

The Government is also interested in an efficient NRA that is responsive to policy, promotes good governance and who is able to provide an appropriate response in the event of disasters.

To achieve the interests of the Government, the NRA will:

- ✓ Work to expand the network in strategic areas in accordance with Government policies;

² 2014 Compendium of Statistics

³ 2015 Fixed Asset Valuation



- ✓ Prepare and present an asset management program for the road network over the next 3-5 years;
- ✓ Promote value for money through efficient procurement policies, increased worker productivity and innovation;
- ✓ Prepare an Enterprise Risk Management (ERM) framework to proactively ensure compliance with relevant policies, procedures and laws; and
- ✓ Update the disaster response strategy and ensure annual refresher training for disaster response personnel.

- ✓ Provide project management & Q/A services during construction; and
- ✓ Be approachable to discuss future development initiatives and their potential impact on the network.

The National Roads Authority:

As stewards of the road network, the National Roads Authority is a key stakeholder whose desire is to achieve a high road user satisfaction rating, stable and predictable road funding, a safe and pleasant working environment for staff, and access to modern equipment and technology to drive efficiency and innovation. To achieve these goals, the NRA will:

Private Sector Development

Partners: Private Sector Development Partners have played a key role in the expansion of the road network over the past 5 years. With limited Government resources and continued economic growth, it is expected that private sector developers will continue to play an important role in adding capacity to the network. From a stakeholder perspective, Developers are interested in ensuring adequate access to future customers of their development projects. They also want to ensure that network expansion is cost effective and that the NRA will provide the necessary expertise and guidance in engineering, design and quality control matters. Communication is key among developers as they would like to ensure open communication in the planning and execution of future road works which may have an impact on planned projects and developments.

To facilitate our private sector partners, the NRA will:

- ✓ Design the road network with due regard for future land use;
- ✓ Provide relevant expertise and advise for private sector led initiatives to add capacity to the network;

- ✓ Measure user satisfaction through surveys;
- ✓ Plan future road programmes in a consultative manner;
- ✓ Seek commitments from the Government for future road development and maintenance programmes;
- ✓ Prepare proposals to amend the National Roads Authority law where necessary and also draft accompanying regulations for implementation;
- ✓ Manage the network to achieve a 20% reduction in commuting time for present commutes of greater than 30 minutes between 7am and 9am;
- ✓ Invest in modern machinery and technology;
- ✓ Measure worker satisfaction through surveys and implement programs to foster a positive working environment;
- ✓ Invest in staff safety training;
- ✓ Promote a culture of learning through investments in training and development; and
- ✓ Bring online the National Transportation Traffic Model for both Macro & Micro level traffic & analysis.



Stakeholder Analysis Summary

| Area of Interest | What is Desired | | Reason | Strategies to Deliver |
|-------------------------------------|--|--|--|--|
| General Public | <ul style="list-style-type: none">• Safety and Efficiency of the Road Network• Quality of network• Commuting time• Connectivity• Value for money• Environment | <ul style="list-style-type: none">• Safe Roads• Efficient Travel• Ability to access network efficiently• High Quality roads• Interconnectivity between points of interest• Lower taxes• Less noise, greater aesthetics, minimal destruction to natural environment, less pollution | <ul style="list-style-type: none">• Reduce accidents• Reduce travel time• Improve productivity• Reduce vehicle operating costs• Improve quality of life• Reduce cost of living• Gain access | Goal 1 Goal 3 Goal 4 |
| Government | <ul style="list-style-type: none">• Economic Growth• Efficiency of Organization• Policy Delivery• Good governance• Disaster response Management | <ul style="list-style-type: none">• Network where residents and visitors can move efficiently and commerce is facilitated• Well maintained road assets• Achieving value for money• Adherence to policies, procedures and laws• Capacity for effective and efficient disaster response | <ul style="list-style-type: none">• Improve visitor experience and citizen productivity• Maximize returns for taxpayer• Maintain law and order• Keep citizens safe | Goal 2 Goal 5 Goal 6 Goal 8 |
| Private Sector Development Partners | <ul style="list-style-type: none">• Accessibility• Cost• Partnership• Design• Location | <ul style="list-style-type: none">• Ability for customers to access investment projects• Lower cost infrastructure• Assistance with cost, engineering and design• Designs conducive to development projects• Road location that is conducive to future development opportunities | <ul style="list-style-type: none">• To improve attractiveness of investment to customers• To make projects financially viable• To ensure compliance and project viability• To ensure proper access and alignment• To maximize investment value | Goal 1 Goal 2 Goal 5 |
| National Roads Authority | <ul style="list-style-type: none">• Road user satisfaction• Stable and predictable funding• Conducive Legislative Framework• Adequate Resources• Safety | <ul style="list-style-type: none">• High approval rating among users• Ring fenced funding for future maintenance and development• Modern legislative framework to enable required actions• Modern equipment and highly qualified staff• A safe and pleasant working environment | <ul style="list-style-type: none">• To enable effective planning• To update laws and regulations to account for changes in operating environment• To be innovate, efficient and serve our customers better• We owe it to our employees | Goal 4 Goal 5 Goal 6 Goal 7 Goal 8 |



Strategic Analysis (SWOT)

We will seek to leverage our strengths, improve our weaknesses, exploit our opportunities; and minimize our threats.

average minimum PCI grade of 80 within 5 years. The NRA presently **enjoys goodwill**, both with the public and the Ministry. This will be a key factor when seeking cooperation and understanding for necessary traffic interruptions due to expansion, repair and upgrade procedures.

In 2015, the Government amended legislation to provide **\$10 million in annual recurrent funding** to



Strengths: As a service based organization, **our greatest strengths are in our people**. Sixty-five percent of our employees have been with the authority for 10 or more years; this represents a tremendous amount of organization memory, commitment experience and training.

With an average pavement condition index of 74, we will leverage our **past gains in road improvements** to achieve our stated target of an

the NRA. The certainty and stability of this funding source will be a key strength in our future planning and execution phases.

The NRA has a good governance structure under the effective stewardship of its Chairman and Board of Directors. The NRA also has a sound financial management framework and regularly receives positive audit opinions from the Office of the Auditor General.



Weaknesses: Our plant and **equipment are significantly aged** with seventy-one percent of our traced assets presently beyond their estimated useful life. During the most recent financial year, the authority spent approximately \$190K on parts to repair and maintain our fleet of vehicles and equipment. This situation will only deteriorate until we make significant investments to modernize our fleet, and is a key weakness for the Authority.

The **NRA Law has not had a significant review or revision since it was first introduced in 2004**. The law was meant to be complemented by a comprehensive set of regulations, however, these were never developed or implemented. Consequently, the legislative framework under which the Authority operates requires update and revision. The NRA will continue to advocate for the necessary changes during the period covered by this Corporate Strategic Plan.

With the uncertainty of funding for major capital road projects, changes in Government policy and an austere environment, the Authority has been **limited in its ability to carry out any long term planning**. Based on international standards, it requires a minimum of \$13.8 million per annum to maintain a road network that is valued at some \$787 million; currently, the NRA has only been allotted \$10 million per year. Consequently, the approach to management, maintenance, and expansion of the road network has lacked the level of strategic context required for an asset of this magnitude.

Growth in the population and their proximity to the central areas of commerce and economic activity has created additional demands on the existing road infrastructure. Network capacity has therefore become a major issue in recent years, with parts of the network becoming increasingly congested. It is important that we continue to address this to ensure that the network drives, instead of constrains economic growth. This

scenario creates the need for accelerated investment in the network to meaningfully address the various capacity issues. **Such funding has not been available in recent years** due to economic constraints placed on the Government.

While the NRA enjoys a committed and hardworking workforce, there are specific skill gaps in areas such as project management, and tertiary level training. **Only 13% of our staff has received tertiary level education**. This situation can create issues for succession planning and limits the Authority's ability to innovate and drive efficiency. Further investment in our human capital will be necessary to address this situation.

Opportunities: The Authority presently enjoys the **support of our Ministry and Minister** as a key policy instrument to deliver on several Government initiatives and policy priorities. This creates an opportunity to improve the quality and capacity of the network by improving interconnectivity in George Town, widening strategic corridors such as the Linford Pierson highway, and improve key roads in the outer districts.

The Authority also has an opportunity to add significantly to the network through **Public Private Partnerships** with private sector developers such as the Dart Group, Iron Wood and Beach Bay land. These partnerships are expected to create opportunities for greater connectivity between the airport and the main tourism area of Seven Mile Beach, reduction in demand on the Esterley Tibbetts highway, expansion of the East West Arterial and Bodden Town road network.

The ability to measure, model and forecast traffic volumes on the Road Network is critically important to the NRA's ability to manage the overall asset. The authority is presently collecting relevant data to build and implement a traffic forecasting and demand model. When online, this



model is expected to generate key metrics and statistics that will enhance the authority's ability to deploy appropriate resources to the areas they are most needed.

Plans are being developed to segregate the Authority's depreciation funds into a separate account for the **future strategic replacement of worn property plant and equipment** and the acquisition of more modern technology.

The approval of this strategic plan signals the willingness of key stakeholders to **embrace longer term planning** for the care and management of the road network. This will be a key opportunity as the country goes through an **infrastructure growth phase** with key developments in hotels, the port, the airport, government facilities and several large scale private sector commercial projects.

Threats: Constrained road investments over the past 7 years has resulted in the loss of certain major suppliers for the Authority. The result has created **monopolies in key strategic areas** which can have a negative impact on costs.

The Government has changed every four years going back to the 1990s. While the Authority is apolitical, **changes in the political environment** could result in changes to Government's policy priorities with resultant significant changes to the medium term strategic plans of the organization.

Litigation from landowners due to compensation or other disputes could significantly delay or alter network investment programmes. The Authority's strategy is to proceed in a consultative manner with landowners, however, this still remains a significant threat.

Inadequate funding is a significant threat to future network investments. Whilst the Government has committed \$10 million in annual funding, additional resources will be necessary for material network expansion and upgrades. The threat of

hurricanes and other **natural disasters** are always a threat considering the geographical location of the Cayman Islands. A further recent threat has been the strategy to privatize several areas of Government or to recentralize certain operations.

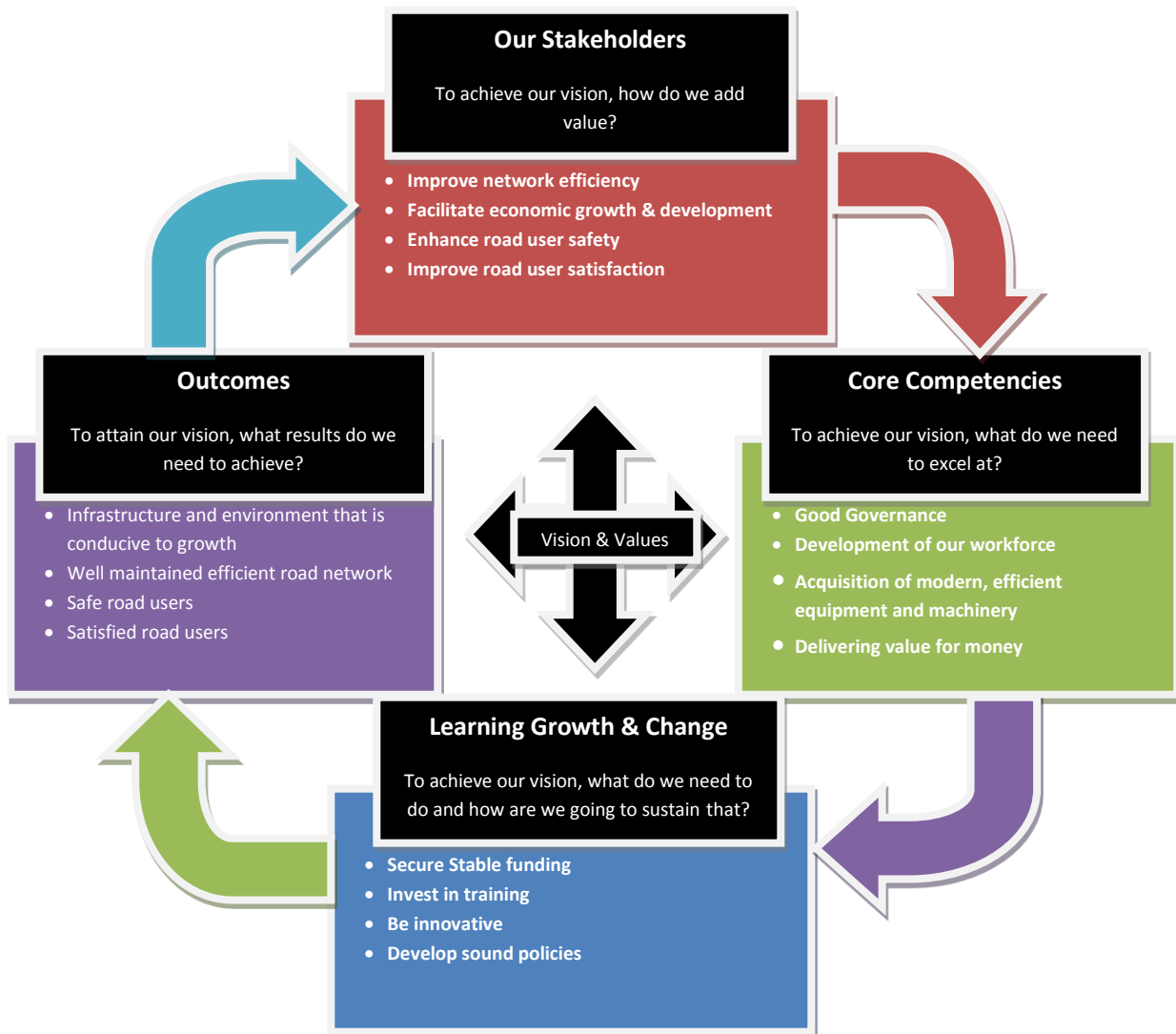
Changes to the autonomy of the NRA will significantly impact future network plans.

If the Authority's core mandate is changed to one where it becomes an oversight body, this will lead to a monopoly in the local market for road construction and maintenance activities. Based on past experience, this would likely result in increased costs for goods and services, reduced value for money and reduced capacity for the Government to provide an effective and reliable response to natural disasters and other calamities.



Balanced Scorecard

Our balanced scorecard shows the alignment of our strategic initiatives with the vision and values of our organization. It illustrates a measurement framework to improve organizational performance by concentrating on what matters, aligning the work our staff perform on a day to day basis with strategy, and focusing on the drivers of future performance.





Grand Strategy

The development of the Grand Strategy was informed from our stakeholder analysis and the mission and vision of the organization.

It includes efforts to improve the overall quality of the network, facilitate economic development, enhance value for money, improve road safety and user satisfaction, increase private sector participation, improve corporate governance, and develop our human and physical capital assets.

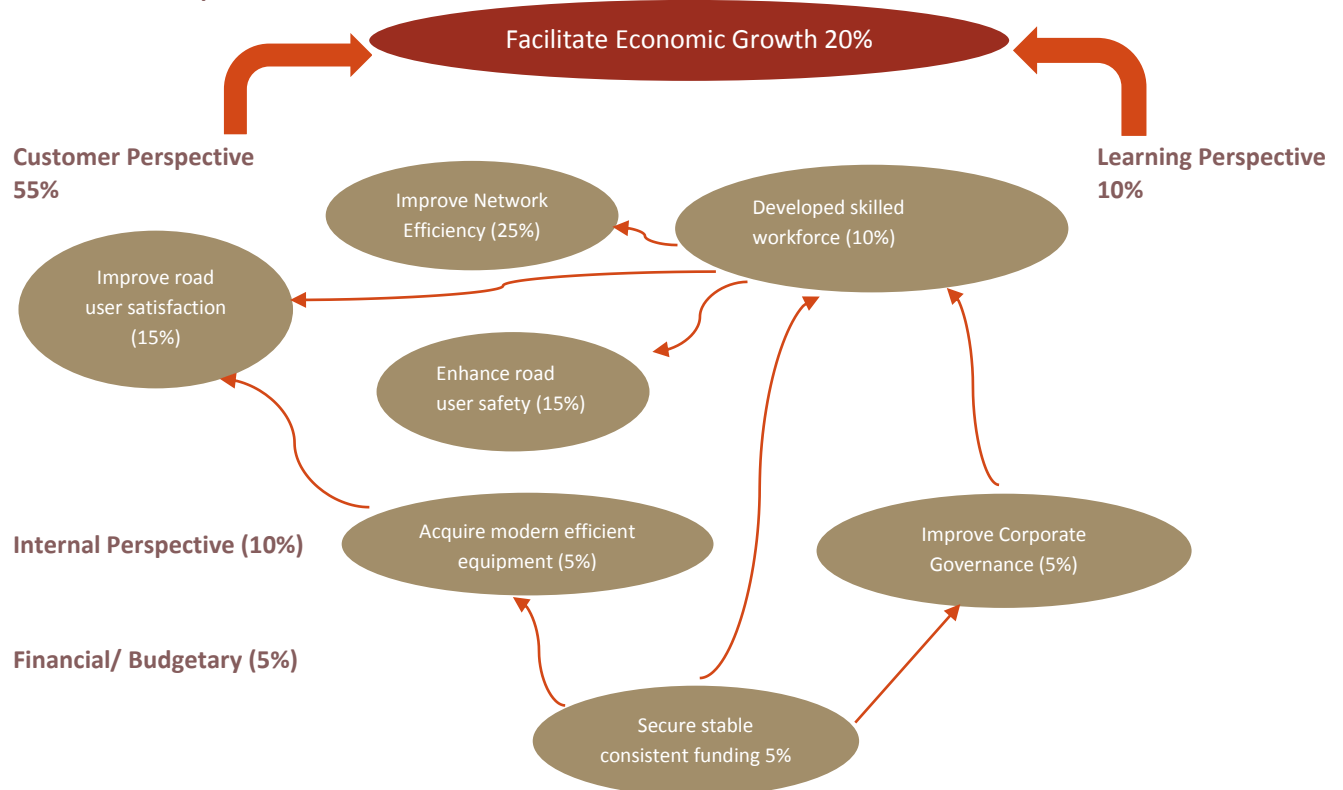
The weighting assigned to each strategy is meant to prioritise our intervention programmes and guide the implementation of our policies.

Grand Strategies

| | | |
|----|---|-----|
| 1. | Improve Network Efficiency | 25% |
| 2. | Facilitate Economic Development | 20% |
| 3. | Enhance road user safety | 15% |
| 4. | Improve road user satisfaction | 15% |
| 5. | Develop skilled and motivated workforce | 10% |
| 6. | Acquire modern efficient equipment | 5% |
| 7. | Secure stable consistent funding | 5% |
| 8. | Improve Corporate Governance | 5% |

Grand Strategy Map

Stakeholder Perspective 20%





Major asset Improvements over the next five years

Major Capital Road Asset Improvements

National Roads Authority of the Cayman Islands
5 Year Annual Programme 2015- 2020

Revised 15th February 2016

| LEGEND | |
|--------|--|
| | Private Financing Initiative Completed |
| | NRA Completed |
| | Other Capital Works Programme |
| | GT Port Development Road |
| | Ongoing |

| Project Name | 2014/15 | 2015/16 | 2016/17 | 2018 | 2019 | 2020 |
|---|---------|---------|---------|------|------|------|
| Esterley Tibbetts Highway from Butterfield RAB to Lawrence Blvd - Widening to 6 lanes | | | | | | |
| Esterley Tibbetts Highway - Island Heritage Roundabout leg extensions to WB Road and Snug Harbour | | | | | | |
| Raleigh Quay at ETH/West Bay Road - Roundabout and Pedestrian Crossing | | | | | | |
| The Strand at West Bay Road - Pedestrian Crossing | | | | | | |
| Lawrence Blvd at West Bay Road - Roundabout and Pedestrian Crossing | | | | | | |
| Camana Way at West Bay Road - Signalized Pedestrian Crossing | | | | | | |
| Camana Way at Esterley Tibbetts Highway - Signalized Pedestrian Crossing | | | | | | |
| West Bay Road & Marriot Hotel - Signalized Pedestrian Crossing | | | | | | |
| West Bay Road & Westin Hotel - Signalized Pedestrian Crossing | | | | | | |
| West Bay Road & St. Matthews School Hall - Signalized Pedestrian Crossing | | | | | | |
| Walkers Road at Adventist Primary School - Signalized Pedestrian Crossing | | | | | | |
| Shamrock Drive at Bodden Town Primary School - Signalized Pedestrian Crossing | | | | | | |
| Shamrock Drive at Savannah Primary School - Signalized Pedestrian Crossing | | | | | | |
| Esterley Tibbetts Highway - Extension to Batabano Road | | | | | | |
| Willie Farrington Drive to Esterley Tibbetts Highway - New Connector Road | | | | | | |
| Willie Farrington Drive to Reverend Blackman Road - New Connector Road | | | | | | |
| Reverend Blackman Road - Reconstruction and Intersection Upgrade | | | | | | |
| Water Course Road Upgrade - Mill & Pave from North West Point to Boatswain Bay Road | | | | | | |
| Water Course Road to NW Point Road - New Connector Road | | | | | | |
| Fountain Road Resurfacing HMA | | | | | | |
| Boatswain Bay Road Resurfacing HMA | | | | | | |
| Dorcy Drive/Owen Roberts Drive to Shedden Road - New Connector Road | | | | | | |
| Red Gate Road Extension to Airport | | | | | | |
| Airport Connector Road to Camana Bay - New Connector Road | | | | | | |
| North Sound Way Widening & Traffic Calming to North Sound Road | | | | | | |
| Godfrey Nixon Way - Widening to three lanes | | | | | | |
| Elgin Avenue to Eastern Avenue - New Connector Road | | | | | | |
| Elgin Avenue/CNB Roundabout to Crewe Road at Mango Tree - New Connector Road | | | | | | |
| Godfrey Nixon Way Extension (Eastern Avenue to Mary Street) - New Connector Road | | | | | | |
| Crewe Road Reconstruction from Silver Oaks to Lynhurst Avenue. | | | | | | |
| Shedden Road Reconstruction from Mango Tree to Elizebethan Square | | | | | | |
| Elgin Avenue to Smith Road - New Connector Road | | | | | | |
| Smith Road - Widening (constrained) | | | | | | |
| McField Lane Improvements (constrained) | | | | | | |
| Crewe Road at Smith Road and Lyndhurst Ave - Intersection Improvements | | | | | | |
| Owen Roberts Drive/Airport to North Sound Road - New Connector Road | | | | | | |
| East-West Highway - Extension to Frank Sound Road | | | | | | |
| Walkers Road to John Gray High School - New Connector Road for School Access | | | | | | |
| Bobby Thompson Way - Widening + Roundabout Upgrade | | | | | | |
| Linford Pierson Highway - Widening to 4 lanes from Crewe Road To BT Way | | | | | | |
| Belford Estates Drainage Improvement Project | | | | | | |
| East - West Arterial Road - Extension to Lookout Road | | | | | | |
| Anton Bodden Extension West - Connector Road | | | | | | |
| East - West Arterial Road - Connector Roads | | | | | | |
| Anton Bodden Road Overlay | | | | | | |
| Beach Bay Road Overlay | | | | | | |
| Rum Point Drive - Hot Mix Asphalt Paving from Ottos Drive to Rum Point | | | | | | |
| Frank Sound Road - Widen and add turn lanes for Entrance to Clifton Hunter High School | | | | | | |
| John McLean Drive - Extension to High Rock Road | | | | | | |
| Island-wide Shoulder Improvement & Bicycle Lanes Installation Program | | | | | | |
| Island-Wide Guard Rail Installation Program | | | | | | |
| Island-Wide Roadway Lighting Improvement Program | | | | | | |



Consistent Maintenance – a key strategic priority

As the strategy mapping on page 19 shows, 75% of our efforts will go towards improving the user experience on the road network while facilitating economic growth. Presently, our ability to do major network expansion is significantly constrained by funding and land availability. Therefore, our success in delivering the strategic outcomes outlined will largely depend on how effectively we are able to maintain the existing network infrastructure. Poorly maintained roads constrain mobility, raise vehicle operating costs, contribute to increased accident rates and can stifle economic growth.

Unfortunately, the importance of road maintenance to the local economy is not reflected in the level of annual budgetary funding afforded to this key activity.

What is maintenance?

Maintenance is primarily geared at preserving the road asset as opposed to upgrading it or adding capacity. This entails activities to preserve pavements, drainage facilities, shoulders, medians, signs, lines and other road assets as near as possible to as new conditions.

The NRA's routine maintenance program involves vegetation cutting along road shoulders and medians, pothole patching, grass cutting and drain clearing. This ensures adequate visibility, prevention of pre-mature deterioration and added safety.

Periodically, our maintenance program will involve larger scale efforts such as the overlay recently carried out on the Linford Pierson highway. This is meant to Extend the life of the road surface by proactively addressing surface and structural deterioration. However, even with these efforts,

our crews will often respond to urgent maintenance such as the forming of large Pot Holes in the roadway following extensive rainfall or the clearing of debris following accidents or natural events.

The Importance of regular maintenance:

With a net book value of some \$671 million as at 30th June 2015, the road network is the highest valued asset owned by the Cayman Islands Government. For the benefits and value provided by this asset to be maintained, maintenance of the network must entail a strategically planned and adequately funded maintenance program.

Without regular maintenance, the quality of the network could rapidly deteriorate, leading to congestion, higher future maintenance cost, or large scale reconstruction efforts costing several times more than regular maintenance. This means the asset loses value, and road user satisfaction decreases as the network becomes more difficult to navigate while safety reduces.

Resources required: The goals and strategies outlined in this plan seeks to provide the NRA with the workforce, equipment and funding required to properly maintain the road asset. Our success in these efforts will markedly improve our ability to deliver the desired outcomes for our customers and other key stakeholders. However, these plans and efforts require a long-term commitment and sustained investment by the Government as well as our private sector partners. Based on international benchmarks, the Government should be investing \$12 million to \$17 million annually to effectively maintain its \$671 million road asset.



Goals and Strategies

Goal 1. Improve network Efficiency

Greater efficiency will be pursued through a combined strategy to expand the network through additional lanes and points of connection where possible, while seeking to reduce future demand through the promotion of mass and public transport use.

To make public transport more attractive, we will work with the Public Transport Unit (PTU) to devise strategies and partnerships focused on improving the capacity and reliability of the Islands' bus services while also seeking ways to modify the physical network to favour public transportation.

| Objectives | How | Performance Measures | Targets |
|---|--|---|--|
| 1.1. Increase existing network capacity | <ul style="list-style-type: none"> ✓ Build added lane capacity on major roadways where possible ✓ Implement strategic maintenance program | <ul style="list-style-type: none"> ✓ Miles of additional lanes added ✓ Approved and executed maintenance programme | <ul style="list-style-type: none"> ✓ Widen Esterley Tibbetts to 4 Lanes by Dec. 2017 ✓ Widen Bobby Thompson way by Dec. 2017 ✓ Widen Linford Pierson to 4 lanes by Dec. 2017 |
| 1.2. Improve design for future network additions | <ul style="list-style-type: none"> ✓ Develop internal planning guidelines for road network connectivity | <ul style="list-style-type: none"> ✓ Approval of SOP | <ul style="list-style-type: none"> ✓ Manual developed and completed by June 2016 |
| 1.3. Ensure strategic access and departure to and from major roadways | <ul style="list-style-type: none"> ✓ Formalize access management plan for approval ✓ Construct additional medians to reduce vehicle crossings | <ul style="list-style-type: none"> ✓ Approval and adoption of access management plan ✓ Linear feet of additional medians built | <ul style="list-style-type: none"> ✓ Access management plan to be completed and approved by December 2016 ✓ 1,000 feet of additional medians built by December 2017 |
| 1.4. Measure performance of road network | <ul style="list-style-type: none"> ✓ Develop KPI for travel times, traffic volumes and quality of roads ✓ Measure speed of travel on the network | <ul style="list-style-type: none"> ✓ Road performance surveys done quarterly ✓ Number of deployments for speed measurement devices ✓ Development of traffic forecasting and demand model | <ul style="list-style-type: none"> ✓ Quarterly performance surveys implemented by January 2016 ✓ Average vehicle speed on the Network measured twice annually ✓ Traffic demand and forecast model developed and implemented by December of 2016 |



NATIONAL ROADS AUTHORITY CORPORATE STRATEGIC PLAN 2015 – 2020

| Objectives | How | Performance Measures | Targets |
|--|---|---|---|
| 1.5. Increase interconnectivity | <ul style="list-style-type: none"> ✓ Build additional links between key points on the network. | <ul style="list-style-type: none"> ✓ Miles of additional connecting roads ✓ Reduction in travel time | <ul style="list-style-type: none"> ✓ Connector for Elgin Ave. to Crewe Road at Mango Tee by Dec. 2017 ✓ Connector for Elgin Ave. to Smith Road by Dec. 2018 ✓ Connector for Willie Farrington to Reverend Blackman drive by Dec. 2018 ✓ Connector for Elgin Avenue to Easter Avenue by Dec. 2018 ✓ Godfrey Nixon extension to Mary St. by Dec. 2018 ✓ Owen Roberts Dr. To North Sound connector by Dec. 2018 ✓ Walkers Rd. to John Gray connector by Dec. 2019 ✓ Water Course Road to NW Point Connector by Dec. 2019 |
| 1.6. Reduce load factors on existing road arteries | <ul style="list-style-type: none"> ✓ Building bypass and alternative routes ✓ Provide planning guidance for walkable communities and interconnected subdivisions ✓ Encourage car pooling | <ul style="list-style-type: none"> ✓ Number of bypass roads built ✓ Number of CPA meetings attended ✓ Number of media campaigns held ✓ Number of joint initiatives with PTU to promote public transport | <ul style="list-style-type: none"> ✓ Airport bypass by December 2018 ✓ Extension of Anton Bodden West by Dec. 2020 ✓ 100% attendance at CPA meetings ✓ Annual media campaign to encourage car pooling ✓ When requested |
| 1.7. Reduce peak period congestion | <ul style="list-style-type: none"> ✓ Work with the PTU to promote public transportation ✓ Work with employers to promote flexi-time | <ul style="list-style-type: none"> ✓ Number of strategy meetings held and policies developed ✓ Number of employer programs | <ul style="list-style-type: none"> ✓ Quarterly meetings ✓ Agreement with employers of 15% of workforce on flexi-time by December 2017 |



Goal 2. Facilitate Economic Development

According to the government's Economics and Statistics Office (ESO), growth in the local economy is expected to continue at a pace of 2.6% per annum over the next 3 – 5 years⁴. This growth is expected to be fueled by major development projects in the tourism sector such as new hotels, the expansion of Camana Bay, upgrades to the Port and Airport, and several other large scale development projects.

This growth will generate the need for more labour (imported and through higher local employment) as well as greater consumption of goods. To facilitate this growth, workers and goods will need to travel across the transportation infrastructure efficiently and cost effectively.

As an example of the NRA's role, if the Cruise Berthing project proceeds, the rate of dispersion of cruise passengers will change dramatically. This may require certain sections of George Town to become pedestrian only zones while other areas are redesigned to maintain traffic flow.

With the objectives and measures outlined below, the NRA will contribute to economic growth through infrastructure provisions, enhancements to our tourism product, and increased worker productivity.

| Objectives | How | Performance Measures | Targets |
|--|---|---|--|
| 2.1. Support major public infrastructure projects | <ul style="list-style-type: none"> ✓ Work with steering groups for Port, Airport and George Town redevelopment ✓ Provide studies and infrastructure designs to facilitate projects | <ul style="list-style-type: none"> ✓ Number of meetings attended ✓ Policy directives implemented ✓ Policy and advice given ✓ Road designs developed | <ul style="list-style-type: none"> ✓ Attendance at 100% of meetings when invited ✓ 100% implementation of policy directives ✓ Advice and designs within agreed timeframes ✓ Implement traffic model |
| 2.2. Support major private infrastructure projects | <ul style="list-style-type: none"> ✓ Provide Q&A design safety expertise to private sector partners in road development ✓ Provide quality control oversight to private sector led road projects | <ul style="list-style-type: none"> ✓ Meetings and presentations attended ✓ Number of projects where quality control oversight is provided | <ul style="list-style-type: none"> ✓ 100% Attendance at relevant meetings and presentations when invited ✓ Quality control presence on 100% of private sector led road projects ✓ Airport to Camana Bay connector road by Dec. 2017 ✓ Extension of East West Arterial by Dec. 2019 |

⁴ Cayman Islands Government Strategic Policy Statement 2015



NATIONAL ROADS AUTHORITY CORPORATE STRATEGIC PLAN 2015 – 2020

| Objectives | How | Performance Measures | Targets |
|--|---|---|---|
| 2.3. Reduce lost productivity | <ul style="list-style-type: none"> ✓ Reduce commute times for residents in the Eastern and Western Districts ✓ Create better interconnectivity in George Town ✓ Increase network availability for road users ✓ Produce flexi-time work schedules with employers | <ul style="list-style-type: none"> ✓ Reduction in time for travel from various points ✓ Number of additional road connection points constructed ✓ Development of policy regarding work on the network by statutory undertakers ✓ Percentage improvement in road construction efficiency | <ul style="list-style-type: none"> ✓ 20% reduction in average travel time from West Bay and all points east of George Town by 2020 ✓ Dorcy Drive to Shedden Rd. connector by Dec. 2018 ✓ Preparation of Statutory undertaker road work policy by Dec 2017. ✓ 10% improvement in efficiency for road construction work by 2018 |
| 2.4. Improve the experience of Tourists and visitors using the network | <ul style="list-style-type: none"> ✓ Improve connectivity from the airport to Seven Mile Beach ✓ Make West Bay road more pedestrian friendly ✓ Improve signage (directional and regulatory) along the roadways | <ul style="list-style-type: none"> ✓ Provide technical expertise by private sector developer for bypass road ✓ Reduce speed limit on west bay road and enhance pedestrian crossings ✓ Improve signage throughout the Island | <ul style="list-style-type: none"> ✓ Technical expertise provided within agreed timeframe ✓ Pedestrian improvements to West Bay road completed by June 2016 ✓ Signage audit and improvement work completed by December 2016 ✓ Red Gate road extension to Airport by Dec. 2015 |



Goal 3. Enhance Road User Safety

Improved design, an enhanced maintenance program and improved signage will better cater to the needs of drivers and pedestrians. These efforts will be augmented by improved lighting and aesthetics of the network.

| Objectives | How | Performance Measures | Targets |
|--|--|---|--|
| 3.1. Reduce number of accidents attributable to road factors | <ul style="list-style-type: none"> ✓ Redesign existing roundabouts to enhance safety ✓ Gather statistics from RCIP and review design of “accident hotspots” ✓ Improve overall road surface ✓ Review iRap safety audit and make appropriate recommendations ✓ Reduce or eliminate roadside hazards | <ul style="list-style-type: none"> ✓ Number of roundabouts redesigned ✓ Reports and designs reviewed ✓ PCI rating ✓ Safety audit reviewed and report prepared ✓ Implementation of recommendations ✓ Number of hazards identified and actioned | <ul style="list-style-type: none"> ✓ All major roundabouts redesigned by 2019 ✓ RCIPS reports and road designs reviewed at least quarterly ✓ Achieve PCI rating of at least 80 on all primary and secondary road surfaces (subject to funding availability) ✓ Safety recommendations presented by January 2016 |
| 3.2. Improve safety for pedestrians and cyclists | <ul style="list-style-type: none"> ✓ Construct dedicated bike lanes where space and resources permit ✓ Build additional sidewalks in high pedestrian traffic areas ✓ Improve lighting on busy roadways ✓ Improve road shoulders in rural areas ✓ Install new pedestrian crossings | <ul style="list-style-type: none"> ✓ Miles of dedicated bike lane on the network ✓ Feet of sidewalk constructed ✓ Areas of complete darkness on major roadways ✓ Miles of road shoulders improved ✓ Number of additional pedestrian crossings | <ul style="list-style-type: none"> ✓ Increase percentage of bike lanes available on the network by 20% by 2018 ✓ Add approximately 500 feet of new sidewalk by December 2020 ✓ Less than 5% of major roadways having complete darkness ✓ 5 miles of improved shoulders by December 2020 ✓ 5 new Pedestrian crossings by Dec. 2015 |
| 3.3. Improve education among road users | <ul style="list-style-type: none"> ✓ Media adverts ✓ Working with the licensing department to enhance drivers education program for road testing ✓ Improve signage ✓ Partnerships with the RCIP to encourage safe driving | <ul style="list-style-type: none"> ✓ Number of road user education campaigns ✓ Recommendations for revisions to road code handbooks ✓ Digital and other signs deployed when necessary ✓ Number of meetings attended for Traffic Management Panel | <ul style="list-style-type: none"> ✓ Twice annually campaigns ✓ Review of road code handbook on an annual basis ✓ 95% deployment of appropriate signs when necessary ✓ 100% attendance by suitably qualified individuals at TMP meetings |
| 3.4. Improve safety of road design | <ul style="list-style-type: none"> ✓ Develop road geometric design specifications ✓ Review existing road safety design based on AASHTO ✓ Carry out Road audits 1, 2 & 3 | <ul style="list-style-type: none"> ✓ Road performance audits done quarterly ✓ Completion of review ✓ Improvements in road designs implemented | <ul style="list-style-type: none"> ✓ Quarterly performance surveys implemented by January 2016 ✓ Review completed by June 2016 ✓ Improve intersection of Crewe Rd. and Smith Rd. by Dec. 2017 |



| Objectives | How | Performance Measures | Targets |
|--|---|--|--|
| 3.5. Reduce drainage time for rainwater | <ul style="list-style-type: none">✓ Increasing number of drainage wells on the network✓ Maintain existing drainage wells on the network✓ Improving road designs | <ul style="list-style-type: none">✓ Number of drainage wells installed✓ Number of times per year drainage wells cleared✓ Rate of drainage for water on new roads | <ul style="list-style-type: none">✓ 250 new drainage wells by December 2020✓ Drainage wells cleared at least 3 times per year✓ Belford Estates drainage improvement by Dec. 2015 |
| 3.6. Reduce speed in residential neighborhoods | <ul style="list-style-type: none">✓ Installing traffic calming infrastructure | <ul style="list-style-type: none">✓ Number of speed tables installed | <ul style="list-style-type: none">✓ Installed speed tables in 75% of areas where they are required by June 2018 |

Goal 4. Improve Road User Satisfaction

The satisfaction of network users is an important measure of both the NRA's performance and the quality of the network. It can also serve to highlight areas where greater attention or investment is needed.

Satisfaction levels also reflect expectations. Users have a right to expect a high performing network, this creates increased demand for better performance, while encouraging the NRA to improve on existing satisfaction levels. Achieving a user satisfaction score of 95%, or better within 10 years is our long-term goal, however, over the next five years, through customer surveys, we hope to achieve an average user satisfaction rating of at least 80%.

A safe and highly efficient network is important to our economic wellbeing as a country, and our personal wellbeing as individuals and families. We therefore want to improve the experience on the network and allow users to drive at consistent speeds and enjoy predictable travel on our roads.

To achieve this, we will embark on a multi-year program to raise the PCI standard across the network and improve safety and aesthetic standards. We will also work collaboratively with other infrastructure providers and private developers to improve user satisfaction by providing advice on access management for major developments while collaborating with local authorities to identify interventions on and off the network.



| Objectives | How | Performance Measures | Targets |
|--|--|--|--|
| 4.1. Reduce network congestion | <ul style="list-style-type: none"> ✓ Build additional capacity ✓ Encourage car pooling ✓ Encourage public transport use ✓ Improved road designs ✓ Ensuring the proper functioning of traffic signals ✓ Support public parking facilities | <ul style="list-style-type: none"> ✓ Miles of additional lanes added ✓ Number of media campaigns on use of public transport and car pooling ✓ Reduction in average travel times ✓ Improvement in average speed during peak hours ✓ Number of PPP partnerships for network expansion ✓ Percentage uptime of traffic signals | <ul style="list-style-type: none"> ✓ Complete Smith Rd. Widening project by Dec. 2016 ✓ Esterley Tibbetts – Coralstone roundabout extension by Dec. 2019 ✓ Annual media campaign on carpooling and use of public transport ✓ 20% percent reduction in average travel time by June 2020 ✓ 5-10% improvement in average travel speed during peak hours by June 2018 ✓ 100% support to PPP initiatives in accordance with Government policies ✓ 100% uptime of traffic signals |
| 4.2. Improve aesthetics of the network | <ul style="list-style-type: none"> ✓ Clear signs and lines ✓ Landscaping of medians ✓ Maintenance of road shoulders ✓ Discourage littering ✓ Appropriate lighting | <ul style="list-style-type: none"> ✓ Signs and lines condition audit ✓ Customer satisfaction surveys ✓ Number of miles maintained ✓ Street lighting audit | <ul style="list-style-type: none"> ✓ 90% or better rating on signs and lines condition audit ✓ 80% or higher customer satisfaction rating ✓ 75 miles of road shoulders maintained quarterly ✓ 98% functioning of all street lights |
| 4.3. Improve road surface quality on the network | <ul style="list-style-type: none"> ✓ Repair failing road network ✓ Perform regular road condition audits ✓ Ensure appropriate design for road surface mix | <ul style="list-style-type: none"> ✓ Miles of road repaired or rehabilitated ✓ Number of PCI surveys ✓ NRA standards for road surface mixes | <ul style="list-style-type: none"> ✓ Road network kept at average PCI rating of 80 or above (subject to funding) ✓ PCI surveys done at least twice annually ✓ 100% compliance with NRA specification for road surface design mix ✓ Reconstruct Reverend Blackman road by Dec. 2018 ✓ Upgrade Water Course Rd. by Dec. 2015 ✓ Resurface Fountain Rd. by Dec. 2015 ✓ Resurface Botswain Bay rd. by Dec. 2015 ✓ HMA Rum Point Dr. by Dec. 2016 |



| Objectives | How | Performance Measures | Targets |
|--|--|---|--|
| 4.4. Cut and Trim vegetation along the network | <ul style="list-style-type: none"> ✓ Deploying bush personnel and equipment to maintain road shoulders ✓ Develop brush cutting schedule for all roads ✓ Ensure functioning of equipment for maintenance | <ul style="list-style-type: none"> ✓ Number of miles cut ✓ Revisions to brush cutting schedule ✓ Percentage availability of equipment | <ul style="list-style-type: none"> ✓ 90% of bush cutting sorties carried out on schedule ✓ Bush cutting schedule revised based on changes in network ✓ Equipment maintained to be functioning 95% of the year |
| 4.5. Increase availability of the network | <ul style="list-style-type: none"> ✓ Reduce road closures due to NRA maintenance work ✓ Reduce closures due to maintenance by Statutory Undertakers ✓ Perform maintenance work during off peak seasons and off peak hours | <ul style="list-style-type: none"> ✓ Number of unscheduled road closures, percentage of time road closures extend beyond period planned ✓ Number of unscheduled roadway interventions by statutory undertakers ✓ Percentage of maintenance work carried out during annual summer break | <ul style="list-style-type: none"> ✓ 20% reduction for unscheduled road closures ✓ 20% reduction for unscheduled road closures annually ✓ 25% percentage of annual road works to be carried out during summer months |
| 4.6. Improved customer focus | <ul style="list-style-type: none"> ✓ Develop customer service charter and action plan ✓ Conduct customer satisfaction surveys ✓ Promote customer complaint numbers ✓ Improve communication with our customers | <ul style="list-style-type: none"> ✓ Completion of charter and plan ✓ Completion of satisfaction survey ✓ Number of signs erected and media placements ✓ Press releases ahead of all major network intervention efforts | <ul style="list-style-type: none"> ✓ Plan to be completed by March 2016 ✓ Customer satisfaction surveys to be conducted at least once annually ✓ Signs erected in all districts ✓ Media advised ahead of any major road intervention work |
| 4.7. Reduce annual vehicle operating cost | <ul style="list-style-type: none"> ✓ Reduce average travel times between points of interest on the network ✓ Reduce wear and tear on vehicles through improved road surfaces ✓ Reduce insurance premiums through efforts to reduce road accidents | <ul style="list-style-type: none"> ✓ Travel efficiency audit ✓ Condition of pavement ✓ Number of accidents with road conditions as a contributing factor | <ul style="list-style-type: none"> ✓ Reduce average travel time by 20% during peak hours ✓ PCI of at least 80 on all primary and secondary roads (subject to funding) ✓ 75% reduction of accidents with road conditions being a contributing factor |



Goal 5. Develop skilled and motivated workforce

As a service based organization, the NRA is highly dependent on the skills, knowledge and experience of our human capital asset. To develop a skilled and motivated workforce, it is important for the NRA to be an exemplary employer across the entire spectrum of staff.

Staff are happiest when they feel appreciated and valued. Our development policies must therefore include efforts to ensure fair compensation, effective performance management, and an open management culture that encourages the sharing of ideas, dialogue and engagement.

We will continue to place workplace safety at the forefront of our organization, invest in training, instill a culture of lifelong learning, and be fair and compassionate while also promoting a culture of pride and ownership at all levels of the organization.

Whilst the NRA currently performs well in employee retention with over 65% of staff having a tenure of 10 years or more, it is an area where complacency can never be allowed. We will therefore continually invest in our people as the catalyst for positive change, growth and innovation within our organization.

| Objectives | How | Performance Measures | Targets |
|---|--|---|---|
| 5.1. Improve worker safety standards | <ul style="list-style-type: none"> ✓ Implement OSHA standards relevant to the NRA ✓ Improve standards for work zone safety ✓ Staff training ✓ Provide appropriate gears and equipment | <ul style="list-style-type: none"> ✓ Implementation of relevant standards ✓ Areas identified and implemented ✓ Number of sessions conducted ✓ Staff safety inspection results | <ul style="list-style-type: none"> ✓ Relevant OSHA standards to be implemented by June 2016 ✓ Safety audit to be conducted at least twice annually ✓ Training sessions to be conducted quarterly ✓ Random staff safety inspection to yield 90% or above compliance with standards |
| 5.2. Improve competence levels in strategic areas | <ul style="list-style-type: none"> ✓ Support certification training ✓ Support tertiary education efforts ✓ Provide coaching and mentoring | <ul style="list-style-type: none"> ✓ Number of staff undertaking certification courses ✓ Number of staff support opportunities offered ✓ Number of mentoring programs developed | <ul style="list-style-type: none"> ✓ 10% of staff to undertake project management training by December 2016 ✓ Further Education support opportunities to be offered to minimum 5% of staff during 2016 ✓ Mentorship program to be developed and implemented by June 2016 |
| 5.3. Foster a culture of training and lifelong learning | <ul style="list-style-type: none"> ✓ Promote succession planning ✓ Effective performance management ✓ Enable exposure to new technology and working practices ✓ Staff achievement recognition programmes | <ul style="list-style-type: none"> ✓ Succession plan developed ✓ Percentage of performance agreement in place within 60 days of fiscal year end ✓ Staff incentive programmes in place | <ul style="list-style-type: none"> ✓ Succession plan to be developed by 30th June 2016 ✓ 100% of staff with performance agreement within 60 days of fiscal year end ✓ Training incentive programme to be announced by July 1st, 2016 |



| Objectives | How | Performance Measures | Targets |
|---|--|---|--|
| 5.4. Be a fair, caring and compassionate employer | <ul style="list-style-type: none"> ✓ Ensuring fair compensation practices ✓ Be an equal opportunity employer ✓ Encourage staff well-ness programs ✓ Provide staff with access to relevant support ✓ Create an internal social committee | <ul style="list-style-type: none"> ✓ Compensation reviews ✓ Hiring policy ✓ Staff access to Employee Assistance Programme ✓ Forming of social committee | <ul style="list-style-type: none"> ✓ Staff compensation policies reviewed on an annual basis ✓ Equal opportunity hiring policy ✓ Subscription to the Employee Assistance Programme ✓ Social committee in place by January 2016 |
| 5.5. Instill pride, performance and ownership at all levels | <ul style="list-style-type: none"> ✓ Staff recognition programmes ✓ Open management ✓ Staff communication ✓ Host monthly management meeting ✓ Host organizational wide meetings | <ul style="list-style-type: none"> ✓ Opportunities to be recognized for good work ✓ Inclusion of front line staff in management decision making ✓ Staff satisfaction survey ✓ Number of monthly management meetings ✓ Number of organizational wide meetings | <ul style="list-style-type: none"> ✓ Policy for staff assessment and recognition ✓ Open participative management framework ✓ 80% or higher score for corporate communication on staff satisfaction surveys ✓ 12 per year ✓ 2 per year |



Goal 6. Acquire modern efficient equipment

More than seventy percent of our plant and equipment are currently operating beyond their initial estimated useful life. This leads to higher annual maintenance cost, lower productivity, and longer periods of road work which leads to greater disruption for our customers.

Through a rigorous evaluation and assessment strategy, we will seek to replace aging, failure prone and high maintenance equipment and

vehicles in a systematic manner over the next 5 years. Going forward, we will develop an asset replacement policy and segregate our annual depreciation funds to ensure that future funds will be available to replace equipment as they come to the end of their useful lives.

This medium term equipment investment strategy will allow us to grasp opportunities to transform our roads, and the experience of driving on them, whilst also addressing strategic imperatives such as economic growth.

| Objectives | How | Performance Measures | Targets |
|--|---|---|---|
| 6.1. Evaluate condition of existing equipment | <ul style="list-style-type: none"> ✓ Visual and mechanical inspection ✓ Assess original useful life assumptions ✓ Assess annual cost of repair and maintenance ✓ Prepare equipment fleet status report | <ul style="list-style-type: none"> ✓ Completion of inspection report ✓ Preparation of revised useful life spreadsheet ✓ Preparation of report | <ul style="list-style-type: none"> ✓ Visual and mechanical inspection report by 12/31/15 ✓ Revised useful life report by 10/31/15 ✓ Maintenance cost report by 12/31/15 ✓ Comprehensive fleet status report by 12/31/15 |
| 6.2. Assess fitness for purpose against strategy | <ul style="list-style-type: none"> ✓ Evaluate existing equipment capability against future organizational needs ✓ Research new technologies that could markedly improve efficiency | <ul style="list-style-type: none"> ✓ Completion of report ✓ Presentation of research paper | <ul style="list-style-type: none"> ✓ Equipment evaluation report by 12/31/15 ✓ New Technology report by 12/31/15 |
| 6.3. Strategically modernize fleet | <ul style="list-style-type: none"> ✓ Develop fleet modernization plan ✓ Board review and approval of fleet replacement policy | <ul style="list-style-type: none"> ✓ Completion of plan ✓ Board approval | <ul style="list-style-type: none"> ✓ Fleet modernization plan completed by March 2016 ✓ Board review and approval by March 2016 |
| 6.4. Reduce annual maintenance cost | <ul style="list-style-type: none"> ✓ Decommissioning high maintenance equipment; ✓ Procurement policy to include bumper to bumper warranty on vehicles for 5 years ✓ Standardization of equipment policy ✓ Continued training of operators and maintenance crew | <ul style="list-style-type: none"> ✓ Decommission report and acceptance by Board ✓ Revised procurement policy ✓ Revised equipment policy ✓ Number of annual training programs for mechanics and operators | <ul style="list-style-type: none"> ✓ Decommission report prepared by 01/31/16 ✓ Board review and approval by 02/28/16 ✓ Revised procurement and equipment policy by 02/28/16 ✓ Twice yearly training programs for mechanics and operators |
| 6.5. Improve efficiency | <ul style="list-style-type: none"> ✓ Evaluate total cost of ownership in procurement exercises ✓ Replace equipment with high annual maintenance costs ✓ Improve availability of equipment for staff to deliver services | <ul style="list-style-type: none"> ✓ Vehicle procurement policy ✓ Ratio of annual maintenance cost against industry benchmarks ✓ Number of productivity hours lost due to equipment unavailability | <ul style="list-style-type: none"> ✓ Vehicle procurement policy completed by 02/28/16 ✓ Annual maintenance cost to be in line with or below industry benchmarks ✓ 50% reduction in lost productivity due to equipment breakdown by 12/31/16 |



Goal 7. Secure stable consistent funding

Effective asset stewardship, through monitoring and management, is vital to the successful operation and maintenance of the road network. It helps to identify problems and potential solutions before failures occur. This reduces costs in the long term.

Whilst effective maintenance programmes have been underfunded in recent years, the road asset still remains in fair condition with an average PCI rating of 74. The NRA will facilitate an asset valuation exercise and harness new technology to improve data collection techniques to provide a more in-depth and up-to-date understanding of the asset base.

This will create opportunities for more timely preventative maintenance, greater strategic approach to capacity building, better design capabilities and ultimately, greater value for money. Grasping this opportunity will require a long term commitment and sustained investment.

Continued underinvestment is no longer a realistic option – as our roads age and our population grows, our network will increasingly fail to meet the social and economic aspirations of the Cayman Islands. It is therefore imperative that the NRA is afforded stable and consistent funding over the medium to long-term in order to continue supporting Government's efforts to build a smart modern infrastructure while growing the economy.

| Objectives | How | Performance Measures | Targets |
|--|---|--|--|
| 7.1. Ensure adequate provisions for road network needs in overall government plans | <ul style="list-style-type: none"> ✓ Create linkages and alignment with internal strategic planning and Government's overall strategic planning process ✓ Seek endorsement for NRA's strategic plans ✓ Identify interlinks with planned road programs and other Government initiatives | <ul style="list-style-type: none"> ✓ Submission of annual strategic plans for Approval by Minister/Cabinet | <ul style="list-style-type: none"> ✓ Strategic plans to be submitted annually with NRA's contribution to Government's SPS |
| 7.2. Secure sufficient funding to properly manage network | <ul style="list-style-type: none"> ✓ Seek Government's commitment to future road work programmes ✓ Properly cost future road intervention programmes ✓ Seek commitment from private sector partners for cost sharing on beneficial projects ✓ Present fully argued business cases for budget requests | <ul style="list-style-type: none"> ✓ Annual Ministry approval ✓ Cost estimate reports ✓ PPP Agreements ✓ Number of business cases prepared | <ul style="list-style-type: none"> ✓ Ministry approval of 12 month work plan by SPS presentation date each year ✓ Cost estimates prepared for each project over \$10K ✓ Outline Business case prepared for each planned project over \$500K |
| 7.3. Evaluate road user funding schemes | <ul style="list-style-type: none"> ✓ Research funding schemes in similar jurisdictions ✓ Prepare business case for Cayman context ✓ Seek Cabinet's approval for relevant changes | <ul style="list-style-type: none"> ✓ Number of reports prepared | <ul style="list-style-type: none"> ✓ Alternative User funding schemes to be presented by 30th June 2016 |
| 7.4. Prepare business case for a maturing road authority | <ul style="list-style-type: none"> ✓ Consider the NRA as a Land Transport Management Agency ✓ Consider expanding remit to include management of public and private transportation | <ul style="list-style-type: none"> ✓ Business Case | <ul style="list-style-type: none"> ✓ Business case prepared and presented by 30th June 2016 |



Goal 8. Improve Corporate Governance

How our organization is managed and governed is a key success factor for this corporate strategic plan. As our organization further matures, so too will our governance and management frameworks. Over the period of this strategic plan, the NRA will undergo efforts to enhance our financial management capabilities, develop an enterprise

risk management framework and create policies and procedures which are conducive to good governance.

These efforts will improve our efficiency by ensuring consistency in our approach, adequate information for decision making, and effective future planning. It will also help to improve communication, provide a standard by which actions will be assessed and ensure we remain compliant with all relevant legislation.

| Objectives | How | Performance Measures | Targets |
|---|--|--|---|
| 8.1. Formally Establish the Road Fund | <ul style="list-style-type: none"> ✓ Get Board/Ministry approval for establishing separate fund ✓ Develop Road Fund Charter ✓ Arrange for Road Fund Management | <ul style="list-style-type: none"> ✓ Board/Ministry Approval for TOR ✓ Approval of Charter ✓ Approval of Fund Manager | <ul style="list-style-type: none"> ✓ Request for approval presented by 12/31/15 ✓ Charter drafted and presented by 01/31/16 ✓ Fund management in place by 02/28/16 |
| 8.2. Practice Sound Financial Management | <ul style="list-style-type: none"> ✓ Formalize the functioning of the road fund ✓ Comply with the PMFL ✓ Prepare quarterly financial management reports and presentations ✓ Preparation of business cases for expenditures above a certain threshold | <ul style="list-style-type: none"> ✓ Road Fund management policy ✓ Audit opinion ✓ Report ✓ Business Case | <ul style="list-style-type: none"> ✓ Road fund management policy developed by 31st December 2015 ✓ Unqualified Audit Opinion and favorable audit reports ✓ Full financial performance reports presented to the Board quarterly ✓ Outline Business case for projects and investments over \$500K |
| 8.3. Comply with all Laws | <ul style="list-style-type: none"> ✓ Staff training and familiarity with laws | <ul style="list-style-type: none"> ✓ Number of breaches of law | <ul style="list-style-type: none"> ✓ No breaches of the law |
| 8.4. Develop policies and procedures framework | <ul style="list-style-type: none"> ✓ Complete personnel manual ✓ Complete operations manual ✓ Complete procurement policy ✓ Complete vehicle use policy ✓ Complete media communications policy | <ul style="list-style-type: none"> ✓ Personnel manual ✓ Operations manual ✓ Procurement policy ✓ Vehicle use policy ✓ Communications policy | <ul style="list-style-type: none"> ✓ Manuals and policies to be reviewed/completed by 31st December 2015 |
| 8.5. Implement enterprise risk management (ERM) | <ul style="list-style-type: none"> ✓ Complete enterprise risk management assessment ✓ Train managers on enterprise risk management | <ul style="list-style-type: none"> ✓ Compliance with ERM framework | <ul style="list-style-type: none"> ✓ ERM Framework developed by 30th June 2016 |



Financial Projections

Summary

The Financial Projections show a fiscally prudent NRA which maintains a minimum 90 day cash on hand reserve while investing in modern equipment, improving the road network

and building staff capacity. The projections also show tangible contributions to the Authority's post retirement pension scheme, marked reductions in outstanding liabilities and more efficient collection of accounts receivable.

Timely agreement for future funding will be critical in providing the ability to plan for the long-term and the opportunity to drive increased efficiency.

Sources of Funding

The Road Fund



In 2015, the National Roads Authority law was amended to provide direct funding to the Authority using two direct revenue streams, specifically, payments collected from customs duties on gasoline and diesel, and fees collected by the Licensing Department for motor vehicle drivers' licences.

The amendment provided for up to \$10 million in annual payments to the Authority via the Road Fund ("the Fund"). Proceed from the Fund is

intended to cover the Authority's annual operating costs, in particular, the construction, upgrading, rehabilitation and maintenance of public roads.

Under this strategic plan, it is anticipated that separate governance arrangements will be put in place for the management and accountability of funding coming into the NRA from the Central Government as part of the Road Fund.



This will entail the formal establishment of the Road Fund (as contemplated by the amendment to the law) as well as the development of a Road Fund Charter, which sets out clear policies on monies coming into the fund, its management framework, the purposes for which the fund can be used, the procedure for disbursement, and accountability arrangements.

For good governance and accountability, monies transferred into the Road Fund should be accounted for and managed independently of the NRA.

Prior to the NRA providing works to be paid for by the fund, monies transferred into the fund should be held as a trust asset and not co-mingled with other operational cash under the jurisdiction of NRA management.

On a quarterly basis, the NRA will propose work packages to the fund manager based on PCI rating, maintenance schedule, or other strategic priority.

The fund manager will be responsible for assessing the reasonableness of the work package, cost estimates, agreeing proposed work packages with the Board and the Ministry representatives, auditing works completed, and paying the NRA for works performed.

This arrangement promotes financial discipline, brings greater transparency, and ensures accountability for the use of the Road Fund by requiring the organization to perform and deliver before earning operational income. It also provides an additional level of check and balance to ensure that road network interventions are strategically prioritized and works are completed to a particular standard before payment is made to the NRA.

In addition to quarterly reporting to the Ministry and the Board, at the end of each fiscal period, a separate report should be prepared showing monies coming into the Road Fund and the projects it was used to finance. This report should be

audited as part of the overall process of auditing the NRA.

An effective governance structure for managing the Road Fund is an important aspect NRA's maturity as an organization. It will demonstrate an ability to effectively manage road user fees, which will be an important element of future discussions regarding differing models of funding the management of land transportation.

Capital Works Program

The NRA anticipates that the Government will invest a further \$5 million per annum to build additional capacity on the road network through its capital works programme. This will be augmented by minimal fees from private sector developers for the NRA to provide technical services. Combined, revenues earned from the road fund and services provided to the Government under its capital works programme is expected to yield approximately \$79 million over the period covered by the Strategic Plan.

Sale of Outputs to Central Government

Approximately 20% of the annual amount provided by the Road Fund will be paid by the NRA for street lighting costs and contribution to post-retirement health and pension benefit schemes the Authority inherited from workers who transitioned from the Central Government as employees in 2004.

When the administrative, management and other overheads are taken into account, actual funding to spend on core road network maintenance activities become significantly limited. To achieve Government's overall objectives in a timely manner, it may be necessary for the authority to seek additional periodic funding through sale of outputs to the Ministry of PLAHI for high priority network interventions. This will be done as part of the Government's normal budgeting process.



Financial Performance

Consistent with our status as a non-profit organization, the NRA's financial plans are to break even in each of the upcoming 5 fiscal periods. With sustained works in the revitalization of George Town, we expect that 2015/16 will yield a modest 4.75% increase in our overall **revenue**. This will largely be realized through full utilization of proceeds from the road fund and enhanced road construction services.

Proceeds from the increased revenue will be invested in additional direct labour and materials for road maintenance efforts. In 2014/15 \$0.5 million was spent in litigation settlement, this was a one-off **expense** that will not be repeated in 2015/16. This reduction will be partially offset by the planned hire of a project engineer and a traffic operations engineer in March of 2016. The filling of those two positions, the addition of two other staff member in June and September 2015 plus the 4% cost of living adjustment, is expected to add approximately \$300K to the personnel cost budget in 2015/16.

The 2016/17 fiscal year will consist of 18 months as the Government transitions from a July to June fiscal year to a January to December one. That means, for that period, all things being equal, cost would show at approximately one and a half times a normal year. In July 2016, the NRA will complete its staffing complement with the addition of a transportation engineer, a project accountant and an in-house legal counsel. In addition to external recruitment, there are also plans for in-house succession planning for a senior site engineer, a deputy managing director and a design engineer.

In addition to the specific items previously mentioned, the plan also makes provision for growth in inflation of approximately 2.5% per annum. This is in line with expectations from the

Economics and Statistics Office for growth in the local economy.

Financial Position

The NRA's strategic plan shows a robust financial position for the Authority going forward. Key features include total assets of over \$6 million, liabilities of less than \$2 million with a resultant net-worth position of over \$4 million. Over the forecast period, \$1.5 million will be invested in modern equipment, vehicles and other assets, receivables and liabilities will be reduced along with modest reductions to cash as the authority begins to pay into its post-retirement obligations.

Cash Flows

The Statement of Cash Flows show that our operating activities will yield positive cash results in each of the three fiscal periods. However, the cash generated is expected to be reinvested in the acquisition of modern and efficient equipment.



Forecast Operating Statement

NATIONAL ROADS AUTHORITY
Comparative Statement of Financial Performance
For the Fiscal periods 2013/14 to 2020
(expressed in Cayman Islands dollars)

| | FY 2013/14 | FY 2014/15 | FY 2015/16 | 2016/17 * | 2018 | 2019 | 2020 |
|--|------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| Revenue | | | | | | | |
| Roads Maintenance Services | 7,763,784 | 9,299,397 | 10,000,000 | 15,000,000 | 10,000,000 | 10,000,000 | 10,000,000 |
| Road Construction Services | 888,824 | 1,786,964 | 2,000,000 | 3,300,000 | 2,200,000 | 2,313,199 | 2,392,363 |
| Storm Water MGT | 74,118 | 139,541 | 139,541 | 209,312 | 139,541 | 139,541 | 139,541 |
| Road Development Services | 456,630 | 431,016 | 431,016 | 646,524 | 431,016 | 431,016 | 431,016 |
| Sales of Services Interdepartmental | 351,584 | 391,822 | 391,822 | 587,734 | 391,822 | 391,822 | 391,822 |
| Explosive MGT | - | 47,240 | 47,240 | 70,860 | 47,240 | 47,240 | 47,240 |
| Interest and other income | 343,125 | 291,725 | 18,725 | 28,088 | 18,725 | 18,725 | 18,725 |
| Total Revenue | 9,878,065 | 12,387,706 | 13,028,344 | 19,842,517 | 13,228,344 | 13,341,544 | 13,420,708 |
| | - | - | - | - | - | - | - |
| Cost of Sales | | | | | | | |
| Labour | 1,953,763 | 2,066,301 | 2,428,221 | 3,657,002 | 2,449,525 | 2,449,525 | 2,449,525 |
| Material | 838,734 | 1,275,050 | 1,591,973 | 2,348,997 | 1,591,973 | 1,591,973 | 1,591,973 |
| Subcontractors | 767,112 | 2,411,714 | 2,411,714 | 3,210,749 | 1,990,173 | 2,035,267 | 2,035,268 |
| Owned Equipment costs | 231,270 | 215,727 | 221,120 | 307,375 | 204,916 | 204,916 | 204,916 |
| Fuel & Oil | 183,657 | 171,221 | 175,502 | 263,252 | 175,502 | 179,889 | 184,386 |
| Hired Equipment | 18,654 | 5,288 | 15,810 | 23,553 | 15,810 | 15,810 | 15,810 |
| Street Lighting Costs | 1,580,079 | 1,494,236 | 1,531,592 | 2,297,387 | 1,531,592 | 1,569,881 | 1,609,128 |
| Total Cost of Sales | 5,573,268 | 7,639,537 | 8,375,931 | 12,108,315 | 7,959,490 | 8,047,262 | 8,091,007 |
| Gross Profit | 4,304,797 | 4,748,169 | 4,652,413 | 7,734,202 | 5,268,854 | 5,294,282 | 5,329,701 |
| | | | | | | | |
| Operating Expenses | | | | | | | |
| Personnel Costs | 3,008,730 | 3,110,898 | 3,410,044 | 5,648,587 | 3,854,203 | 3,880,736 | 3,907,559 |
| Motor vehicle expenses | 27,872 | 12,239 | 12,544 | 18,817 | 12,544 | 12,544 | 12,544 |
| Utilities | 60,982 | 53,890 | 55,237 | 82,856 | 55,237 | 56,618 | 58,033 |
| Depreciation | 278,411 | 280,794 | 436,477 | 876,777 | 600,059 | 600,059 | 600,059 |
| Past Service Pension Expense | 186,000 | 232,000 | 232,000 | 348,000 | 240,700 | 240,700 | 240,700 |
| Computer maintenance & Fees | 112,244 | 122,281 | 125,338 | 188,006 | 125,338 | 115,338 | 115,338 |
| Professional Fees | 75,053 | 135,599 | 138,989 | 208,484 | 138,989 | 143,989 | 148,989 |
| Office Rental | 50,928 | 29,708 | 30,451 | 45,676 | 30,451 | 30,451 | 30,451 |
| Telephone | 32,595 | 32,469 | 33,281 | 49,922 | 33,281 | 34,113 | 34,966 |
| Building maintenance | 44,566 | 49,346 | 50,579 | 75,869 | 50,579 | 50,579 | 50,579 |
| Supplies & Consumables | 40,032 | 61,102 | 62,629 | 93,944 | 62,629 | 63,438 | 64,266 |
| Insurance | 62,428 | 41,758 | 42,802 | 64,203 | 42,802 | 42,802 | 42,802 |
| Bad debt expense | - | 19,550 | - | - | - | - | - |
| Other Expenses | 16,043 | 506,706 | 6,874 | 10,311 | 6,874 | 6,874 | 6,874 |
| Bank Charges | 4,977 | 7,154 | 7,333 | 11,000 | 7,333 | 7,333 | 7,333 |
| Advertising & Promotions | (120) | 7,519 | 7,707 | 11,560 | 7,707 | 7,707 | 7,707 |
| Travel & Subsistence | - | 124 | 127 | 191 | 127 | 1,000 | 1,500 |
| Total Operating Expenses | 4,000,741 | 4,703,137 | 4,652,413 | 7,734,202 | 5,268,854 | 5,294,282 | 5,329,701 |
| Net Surplus (Loss) for the period | 304,056 | 45,032 | - | - | - | - | - |



Comparative Statement of Financial Position

NATIONAL ROADS AUTHORITY
Comparative Statement of Financial Position
For the Fiscal Periods 2013/14 to 2020
(expressed in Cayman Islands dollars)

| | 2013/14 | 2014/15 | 2015/16 | 2016/17 | 2018 | 2019 | 2020 |
|--|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| Assets | | | | | | | |
| Current assets | | | | | | | |
| Cash and cash equivalents | \$ 3,188,347 | \$ 4,054,778 | \$ 3,557,622 | \$ 3,108,188 | \$ 3,828,247 | \$ 4,393,695 | \$ 5,043,755 |
| Accounts receivable | 1,589,560 | 1,551,569 | 1,039,417 | 843,076 | 743,076 | 643,076 | 543,076 |
| Deposits and prepaid expenses | 50,488 | 347,438 | 347,438 | 86,860 | 86,860 | 86,860 | 86,860 |
| Inventories | 158,529 | 144,789 | 144,789 | 50,163 | 30,163 | 30,163 | 30,163 |
| Total Current assets | \$ 4,986,924 | \$ 6,098,575 | \$ 5,089,267 | \$ 4,088,287 | \$ 4,688,346 | \$ 5,153,795 | \$ 5,703,854 |
| Non-current assets | | | | | | | |
| Property Plant & Equipment | \$ 1,164,418 | \$ 1,277,110 | \$ 1,540,632 | \$ 1,990,377 | \$ 1,390,317 | \$ 790,258 | \$ 190,198 |
| Total non-current assets | 1,164,418 | 1,277,110 | 1,540,632 | 1,990,377 | 1,390,317 | 790,258 | 190,198 |
| Total assets | \$ 6,151,342 | \$ 7,375,684 | \$ 6,629,899 | \$ 6,078,664 | \$ 6,078,664 | \$ 5,944,052 | \$ 5,894,052 |
| Liabilities and equity | | | | | | | |
| Current Liabilities | | | | | | | |
| Accounts payable and accrued liabilities | \$ 593,519 | \$ 1,413,170 | \$ 856,017 | \$ 399,098 | \$ 399,098 | \$ 264,487 | \$ 214,487 |
| Unearned Revenue | \$ - | \$ 377,265 | \$ 188,632 | \$ 94,316 | \$ 94,316 | \$ 94,316 | \$ 94,316 |
| Employee entitlements | \$ 185,307 | \$ 208,702 | \$ 208,702 | \$ 208,702 | \$ 208,702 | \$ 208,702 | \$ 208,702 |
| Total Current Liabilities | \$ 778,826 | \$ 1,999,137 | \$ 1,253,352 | \$ 702,117 | \$ 702,117 | \$ 567,505 | \$ 517,505 |
| Non-Current Liabilities | | | | | | | |
| Retirement pension liability | \$ 1,256,000 | \$ 1,215,000 | \$ 1,215,000 | \$ 1,215,000 | \$ 1,215,000 | \$ 1,215,000 | \$ 1,215,000 |
| Total Liabilities | \$ 2,034,826 | \$ 3,214,137 | \$ 2,468,352 | \$ 1,917,117 | \$ 1,917,117 | \$ 1,782,505 | \$ 1,732,505 |
| Equity | | | | | | | |
| Accumulated surplus | \$ (425,018) | \$ (379,987) | \$ (379,988) | \$ (379,988) | (379,988) | (379,988) | (379,988) |
| Restricted Funds | | | | | | | |
| Contributed capital | 4,541,535 | 4,541,535 | 4,541,535 | 4,541,535 | 4,541,535 | 4,541,535 | 4,541,535 |
| Net Worth | 4,116,517 | 4,161,548 | 4,161,547 | 4,161,547 | 4,161,547 | 4,161,547 | 4,161,547 |
| Total liabilities and equity | \$ 6,151,343 | \$ 7,375,685 | \$ 6,629,899 | \$ 6,078,664 | \$ 6,078,664 | \$ 5,944,052 | \$ 5,894,052 |



Comparative Statement of Cash Flows

NATIONAL ROADS AUTHORITY
Comparative Statement of Cash Flows
For the Fiscal Periods 2013/14 to 2020
(expressed in Cayman Islands dollars)

| Cash Flow from Operating Activities | 2013/14 | 2014/15 | 2015/16 | 2016/17 | 2018 | 2019 | 2020 |
|---|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| Operating Surplus or (Deficit) | \$ 304,056 | \$ 45,032 | \$ - | \$ - | \$ - | \$ - | \$ - |
| Adjustment for items not involving cash: | | | | | | | |
| Depreciation | 278,411 | 280,794 | 436,477 | 876,777 | 600,059 | 600,059 | 600,059 |
| Past Service Pension Expense | 186,000 | 232,000 | - | - | - | - | - |
| Adjustment for unrealized gains/losses | (302,000) | (273,000) | - | - | - | - | - |
| Net changes in operating assets and liabilities: | | | | | | | |
| Accounts receivable | 1,172,041 | 37,991 | 512,153 | 196,340 | 100,000 | 100,000 | 100,000 |
| Deposits and prepaid expenses | 2,411 | (296,951) | - | 260,579 | - | - | - |
| Inventories | (22) | 13,740 | - | 94,626 | 20,000 | - | - |
| Accounts payable and accrued expenses | (405,953) | 819,651 | (557,153) | (456,919) | - | (134,611) | (50,000) |
| Unearned Revenue | - | 377,265 | (188,632) | (94,316) | - | - | - |
| Employee Entitlements | 29,830 | 23,395 | (0) | (0) | - | - | - |
| Total cash flow from operating activities | \$ 1,264,775 | \$ 1,259,917 | \$ 202,845 | \$ 877,086 | \$ 720,059 | \$ 565,448 | \$ 650,059 |
| Investing activities | | | | | | | |
| Purchase of fixed assets | \$ (132,626) | \$ (393,486) | \$ (700,000) | \$ (1,326,521) | \$ (0) | \$ (0) | \$ - |
| | (132,626) | (393,486) | (700,000) | (1,326,521) | - | (0) | - |
| Financing activities | | | | | | | |
| Borrowing | - | - | - | - | - | - | - |
| Loan Repayment | - | - | - | - | - | - | - |
| | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Net increase/(decrease) in cash and cash equivalents | \$ 1,132,150 | \$ 866,431 | \$ (497,155) | \$ (449,435) | \$ 720,059 | \$ 565,448 | \$ 650,059 |
| Cash and cash equivalents at beginning of period | 2,056,197 | 3,188,347 | 4,054,779 | 3,557,623 | 3,108,188 | 3,828,248 | 4,393,696 |
| Cash and cash equivalents at end of period | \$ 3,188,347 | \$ 4,054,779 | \$ 3,557,623 | \$ 3,108,188 | \$ 3,828,248 | \$ 4,393,696 | \$ 5,043,755 |



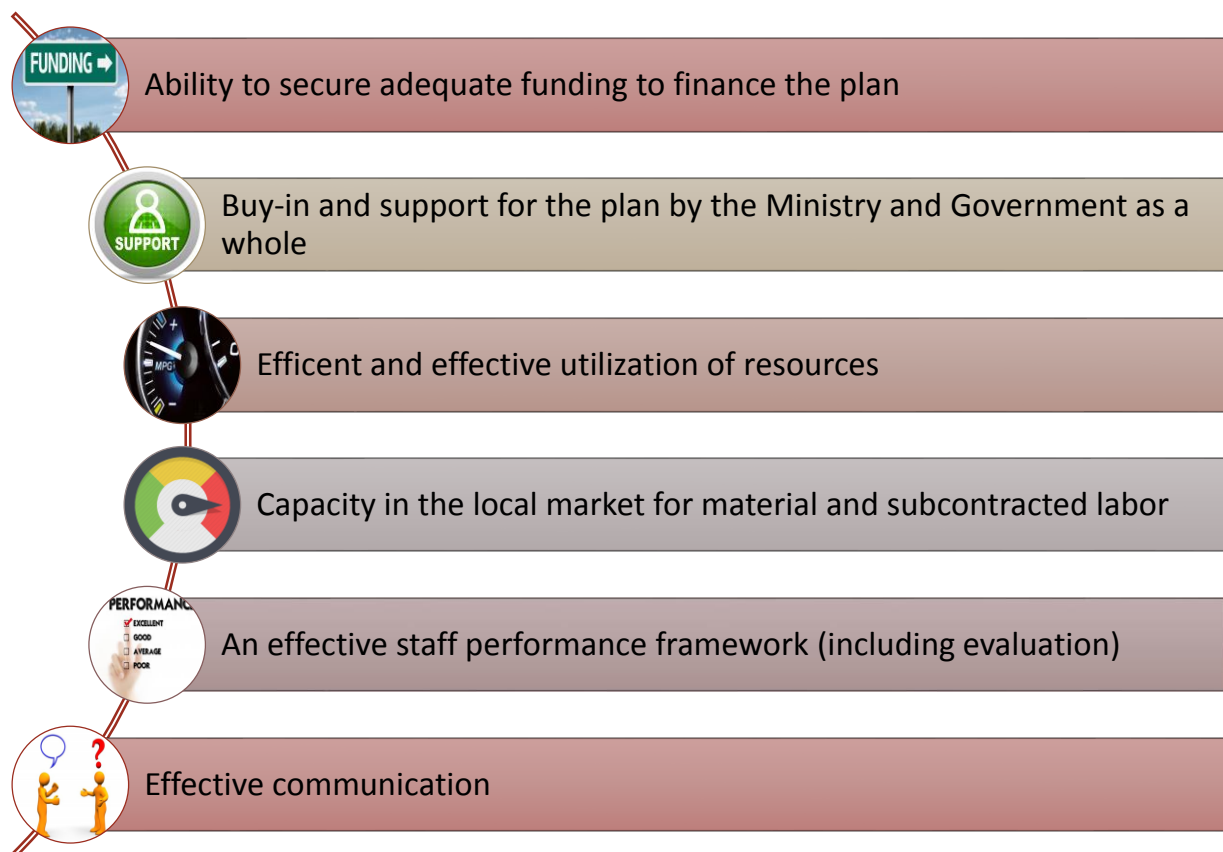
Team

The Managing Director will be tasked with responsibility for the implementation of this plan. He will be assisted by a management team consisting of a Deputy Managing Director (Transportation & Planning), a Deputy Managing Director for Engineering and Operations, along with a Chief Financial Officer.

The senior management team will be supported by a team of engineers, transportation planners, and managers. At end of the 5 year period, the NRA is expected to have a staffing complement of ninety men and women. Together, they will deliver the goals and objectives of this plan.

Critical Success Factors

The NRA is depending on the following as critical success factors for the successful implementation of the corporate strategic plan. They represent conditions and factors which are essential to the achievement of the stated outcomes.



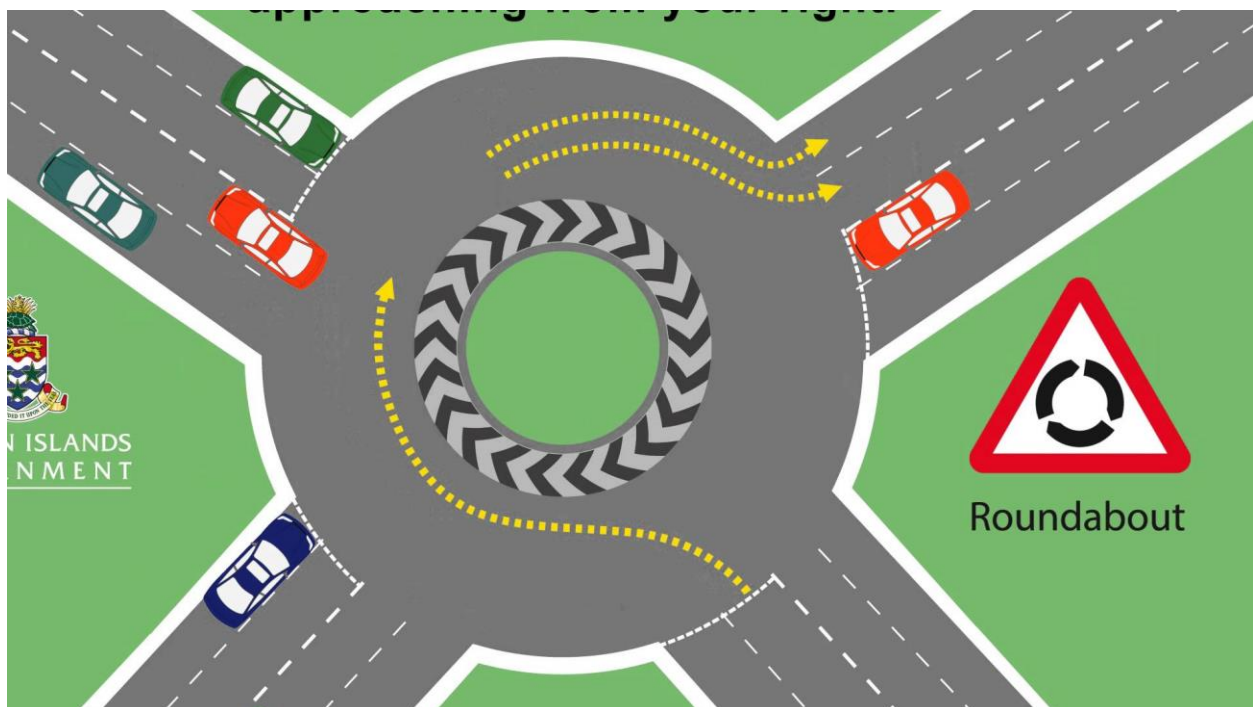


Implementation process

Implementation of this Corporate Strategic Plan will begin by educating the various stakeholders of its contents and its importance to the future of our transportation infrastructure. Key stakeholders include the Cabinet, the Ministry of Finance & Economic Development, Private Sector Development partners and key suppliers.

The NRA's Board of Directors will sign a performance agreement with the Authority's Managing Director on an annual basis. That performance agreement will include the goals and objectives for that year as set out in this Corporate Strategic Plan.

The Managing Director will then delegate relevant sections of his overall performance agreement to his Deputies and Chief Financial Officer who will then have performance agreements for execution with the staff members reporting to them.





Assumptions and Risks

The table below shows key assumptions and risks identified by the NRA in the strategic planning process.

| Assumptions | Risks | Assessment of risks |
|--|---|--|
| NRA will continue to have \$10 million in operating maintenance funding for period of strategic plan. This amount will be paid over promptly on a regular basis | <ul style="list-style-type: none"> Change in legislation to remove automatic funding; Use of maintenance funds to do capital projects; Funding may be inadequate due to growth in road network | Medium, the NRA law was recently amended to provide this funding, there are no known plans to repeal the amendment. |
| No major increase in asphalt costs | <ul style="list-style-type: none"> Monopoly in local market; Global forces such as oil prices; Increased cost of doing business | High, lack of competitive local market has created some volatility in pricing. |
| Availability of aggregate and other materials in the local market | <ul style="list-style-type: none"> Material of the appropriate quality not available on local market; Inability of sole provider to produce asphalt | High, reduced quarrying activity on Grand Cayman leads to greater reliance on imports. No alternative if sole asphalt supplier machinery has catastrophic breakdown. |
| Investment in modern equipment | <ul style="list-style-type: none"> Central Government may request the pay over of funds intended for asset replacement; Asset replacement funds could be utilized for road construction purposes; | Medium, NRA will demonstrate the importance of using modern and efficient equipment to deliver value for money. This strategy is endorsed by the Board of Directors. |
| No major disasters | <ul style="list-style-type: none"> Hurricanes Earthquake Failure of major road infrastructure | Medium, inherently difficult to predict |
| Government will continue to prioritise the transportation infrastructure | <ul style="list-style-type: none"> Change in capital priorities for administration Capital budget restrictions | Medium, the need to provide citizens with proper road infrastructure spans political divides. |
| Adherence to strategic plan | <ul style="list-style-type: none"> Ad hoc approach to road management Change in policy priority Lack of funding | Medium, this risk is being mitigated by the preparation of this strategic plan. |
| Stable organization | <ul style="list-style-type: none"> Change in status from Statutory Authority Change in role of organization Increased outsourcing | Medium, this possibility is being discussed as part of project future, however, the ramifications of a market monopoly are profound and will most likely be deemed unacceptable. |
| Partnership with the Private Sector | <ul style="list-style-type: none"> Change in Government policy; Change in Developer plans and attitude Change in economy | Medium, the Economy remains stable and all indications are that private sector financed projects will proceed |
| Current road network will not significantly increase without a correspondent increase in funding | <ul style="list-style-type: none"> Major roads added to national network Increased requirement to maintain unscheduled roads | High, current funding is inadequate to meet maintenance needs, there are no commitments for additional funding |



Key performance indicators

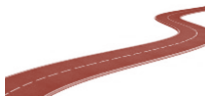
In order to assess performance we've set a number of Key Performance Indicators for the organization. These will be augmented by a framework that shows a more detailed view of the performance of the NRA and the road network we manage. Our goal is to improve existing measures and develop new ones for future strategic planning.

Our success will be measured by our ability to:

- ✓ **Improve network efficiency** by enhancing the ability to forecast traffic demand; increase network capacity where needed, improve future designs, create better access management, reduce load factors and reduce traffic congestion during peak hours;
- ✓ **Facilitate economic development** by supporting major project, reducing lost productivity from time spent in traffic and improving the experience of tourists and visitors;
- ✓ **Enhance road user safety** by reducing road accidents caused by road factors, improving safety for cyclists and pedestrians, improving drainage time for water settling on roadways and by making driving in neighborhoods safer;
- ✓ **Improve road user satisfaction** by reducing network congestions, improving the aesthetics and quality of the road network, better maintaining our medians and road shoulders, and improving our customer focus;
- ✓ **Develop our workforce** by improving our worker safety standards, training, and the continued development of a positive workplace culture;
- ✓ **Acquire modern and efficient equipment** by investing in modern, innovative, efficient technology;
- ✓ **Secure stable consistent funding** by demonstrating value of good road network to the Country and seeking support from our stakeholders; and
- ✓ **Improve Corporate Governance** putting in place relevant governance structures, developing policies and procedures, complying with all laws and effectively managing risks.

Assessments against or Vision, Mission, Goals and Objectives will be carried out using the following criterion.

| Strategy level | Corresponding Indicators | Monitoring and Evaluation |
|-----------------------------|--------------------------|--------------------------------------|
| Vision | Impact Indicators | ✓ Baseline assessment in year 1 |
| | | ✓ Survey assessment at end of year 5 |
| Mission | Outcome Indicators | ✓ Baseline assessment in year 1 |
| | | ✓ Survey assessment in year 5 |
| Goals and Objectives | Output Indicators | ✓ Staff performance agreements |
| | | ✓ Quarterly progress reports |
| | | ✓ Annual Reports |



Monitoring and evaluation

Each strategic goal outlined in this plan is supported by specific objectives, methods, performance measures and targets. These will be key components in the monitoring and evaluation of the plan execution.

To enable effective monitoring evaluation, the plan ensured that the measures outlined to achieve the various objectives were specific, measurable, achievable, results focused and where possible, time specific.

To promote accountability and instill discipline, these measures should form part of the staff performance agreement discussed in the implementation process. The monitoring and evaluation method will therefore be synonymous with staff annual performance evaluation.

For the organization to be successful, its people must be successful. Therefore, linking the successful execution of agreed strategy to the individual performance of each staff will promote a healthy level of ownership throughout the organization and assist in the overall education process.

To ensure objectivity and fairness in monitoring and evaluation, it is important that certain measurements be done independently of the NRA. These include PCI indexing, user satisfaction surveys, speed measurements and general assessments of the overall network. An independent agency such as IRAP may be useful in providing objective assessments for improvements made and goals achieved.

Finally, for accountability to the public, relevant sections of the plan should be included in the NRA's annual budget and reported against as part of its annual report.

| What | Indicator | How we measure |
|--|---|---|
| <input type="checkbox"/> Quality of Network | <input type="checkbox"/> Pavement condition index | <input type="checkbox"/> Condition Audit |
| <input type="checkbox"/> Efficiency of Network | <input type="checkbox"/> Average speed at peak times | <input type="checkbox"/> Performance Audit |
| <input type="checkbox"/> Safety of Network | <input type="checkbox"/> Accidents due to road conditions | <input type="checkbox"/> Police accident reports |
| <input type="checkbox"/> User Satisfaction | <input type="checkbox"/> Feedback rating | <input type="checkbox"/> Road user surveys |
| <input type="checkbox"/> Financial Management | <input type="checkbox"/> Financial Health | <input type="checkbox"/> Audit reports |
| <input type="checkbox"/> Good Governance | <input type="checkbox"/> Compliance | <input type="checkbox"/> Governance audit and no evidence to the contrary |



Conclusion

This Corporate Strategic Plan outlined the goals and aspirations of the National Roads Authority for the period 2015 to 2020. It showed the Authority's detailed strategies to achieve the four key objectives of:

- Improved Network Efficiency;
- Economic Development;
- Enhanced Road User Safety; and
- Improved Road User Satisfaction.

The Road infrastructure is a key asset for the Government and people of the Cayman Islands. As stewards of this asset, it is incumbent on NRA to ensure it is effectively maintained, and expanded where necessary to foster a growing economy.

Over the next five years, our plan will deliver significant improvements to the road network while working with the Central Government and our private sector partners to increase capacity and extend the network into key areas for future development.

In this endeavor, we are fortunate to have the support of our Ministry, our Board of Directors and our team of loyal, hardworking and committed staff. Through this continued partnership, the National Roads Authority will deliver on the Government's outcome goal of building Modern Smart Infrastructure for the continued benefit of the people of the Cayman Islands.



APPENDIX 1- Detailed Capital Works Programme

Major Capital Road Asset Improvements National Roads Authority of the Cayman Island 5 Year Annual Programme 2015- 20



Revised 12th October 2015

| LEGEND | |
|--------|-----------------------------------|
| | Private Financing Initiative |
| | Completed |
| | GT Port Development Road Projects |
| | Ongoing |

| Reference No. | Project Name | 2014/15 | 2015/16 | 2016/17 | 2017/18 | 2018/19 | 2019/20 | 2020/21 | Approximate Length - miles | Approximate Construction Cost - C1\$ x 1,000,000 | Notes |
|---------------|---|---------|---------|---------|---------|---------|---------|---------|----------------------------|--|---|
| A - West Bay | | | | | | | | | | | |
| EA 126 | Esterley Tibbetts Highway from Butterfield RAB to Lawrence Blvd - Widening to 4 lanes | | | 6,500 | | | | | 1.60 | \$ 6.0 | NRA estimate 2008 - "shovel ready" |
| EA | Esterley Tibbetts Highway - Coralstone Roundabout leg extemions to WB Road and Snug Harbour | | | | | 2,500 | | | 0.63 | \$ 2.5 | Based on \$4.0 million per mile (same as E-W Arterial Connectors) |
| CIG/DRCL | Raleigh Quay at West Bay Road - Roundabout and Pedestrian Crossing | | PFI | | | | | | n/a | \$ 0.100 | Pending CIG/Dart Agreement |
| EA 126 | The Strand at West Bay Road - Pedestrian Crossing | 50 | | | | | | | n/a | \$ 0.050 | TAP Approved |
| EA 126 | The Strand at West Bay Road - Pedestrian Crossing | 50 | | | | | | | | | TAP Approved |
| EA 36 | Lawrence Blvd at West Bay Road - Roundabout and Pedestrian Crossing | 300 | | | | | | | n/a | \$ 0.100 | Pending Board Approval |
| CIG/DRCL | Camana Way at West Bay Road - Roundabout and Pedestrian Crossing | PFI | | | | | | | n/a | \$ - | Pending CIG/Dart Agreement |
| CIG/DRCL | Camana Way at Esterley Tibbetts Highway - Pedestrian Crossing | PFI | | | | | | | n/a | \$ - | Pending CIG/Dart Agreement |



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| LEGEND | |
|--------|-----------------------------------|
| | Private Financing Initiative |
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| | GT Port Development Road Projects |
| | Ongoing |

| Reference No. | Project Name | 2014/15 | 2015/16 | 2016/17 | 2017/18 | 2018/19 | 2019/20 | 2020/21 | Approximate Length - miles | Approximate Construction Cost - C\$ x 1,000,000 | Notes |
|-------------------------------|---|---------|---------|---------|---------|---------|---------|---------|----------------------------|---|--|
| A - West Bay continued | | | | | | | | | | | |
| CIG/DRCL | Esterley Tibbetts Highway - Extension to Batabano Road | 30,600 | | | | | | | 1.80 | \$ 30.6 | Pending CIG/Dart Agreement |
| CIG/DRCL | Willie Farrington Drive to Esterley Tibbetts Highway - New Connector Road | PFI | | | | | | | 0.51 | \$ 2.0 | Pending CIG/Dart Agreement |
| EA | Willie Farrington Drive to Reverend Blackman Road - New Connector Road | | | | 900 | | | | 0.23 | \$ 0.9 | |
| EA | Reverend Blackman Road - Reconstruction and Intersection Upgrade | | | | 700 | | | | 0.41 | \$ 0.7 | Based on \$1.6 million per mile (same as Hell Road widening) |
| EA 36 | Water Course Road Upgrade - Mill & Pave from North West Point to Boatswain Bay Road | 300 | | | | | | | | \$ 0.3 | |
| EA | Water Course Road to NW Point Road - New Connector Road | | | | | 800 | | | 0.50 | \$ 0.8 | Based on \$1.6 million per mile (same as Hell Road widening) |
| EA | Fountain Road Resurfacing HMA | 98 | | | | | | | | | |
| EA | Boatswain Bay Road Resurfacing HMA | 115 | | | | | | | | | |
| Sub-Total | | 31,463 | | 6,500 | 1,600 | 3,300 | | | | | \$42,863.00 |



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|--------|-----------------------------------|
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| | GT Port Development Road Projects |
| | Ongoing |

| Reference No. | Project Name | 2014/15 | 2015/16 | 2016/17 | 2017/18 | 2018/19 | 2019/20 | 2020/21 | Approximate Length - miles | Approximate Construction Cost - C\$ x 1,000,000 | Notes |
|---|---|---------|---------|---------|---------|---------|---------|---------|----------------------------|---|---|
| B - George Town & Industrial Park Area | | | | | | | | | | | |
| EA | Dorcy Drive/Owen Roberts Drive to Shedden Road - New Connector Road | | | | 1,100 | | | | 0.28 | \$ 1.1 | Based on \$4.0 million per mile (same as E-W Arterial Connectors) |
| EA | Red Gate Road Extension to Airport | 900 | | | | | | | 0.57 | \$ 0.9 | Based on \$1.6 million per mile (same as Hell Road widening) |
| EA | Airport to Camana Bay - New Connector Road | | | 34,000 | | | | | 2.00 | \$ 34.0 | Based on design by APEC Engineers |
| EA 126 | NS Way Widening To NS Road | | | | | 1,500 | | | | | |
| EA 126 | Godfrey Nixon Way - Widening to three lanes | 400 | | | | | | | 0.28 | \$ 0.4 | Based on \$1.6 million per mile (same as Hell Road widening) |
| Sub-Total | | 1,300 | | 34,000 | 1,100 | 1,500 | | | | | \$37,900.00 |



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| LEGEND | |
|--------|-----------------------------------|
| | Private Financing Initiative |
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| | GT Port Development Road Projects |
| | Ongoing |

| Reference No. | Project Name | 2014/15 | 2015/16 | 2016/17 | 2017/18 | 2018/19 | 2019/20 | 2020/21 | Approximate Length - miles | Approximate Construction Cost - C\$ x 1,000,000 | Notes |
|---|--|---------|---------|---------|---------|---------|---------|---------|----------------------------|---|---|
| C - George Town & The Central Business District Area | | | | | | | | | | | |
| EA 126 | Elgin Avenue to Eastern Avenue - New Connector Road | | | | 1,000 | | | | 0.25 | \$ 1.0 | Based on \$4.0 million per mile (same as E-W Arterial Connectors) |
| EA 126 | Elgin Avenue to Crewe Road at Mango Tree - New Connector Road | | | 1,100 | | | | | 0.27 | \$ 1.1 | Based on \$4.0 million per mile (same as E-W Arterial Connectors) |
| EA 126 | Godfrey Nixon Way Extension (Eastern Avenue to Mary Street) - New Connector Road | | | | 1,300 | | | | 0.33 | \$ 1.3 | Based on \$4.0 million per mile (same as E-W Arterial Connectors) |
| EA 126 | Crewe Road from Silver Oaks to Lynhurst Avenue. | | | | | | 2,200 | | 1.20 | \$ 1.8 | Based on \$1.8 million per mile (same as Elgin Avenue widening) |
| EA 126 | Shedden Road from Mango Tree to Elizebethan Square | | | | | | | 1,700 | 0.90 | \$ 1.8 | Based on \$1.8 million per mile (same as Elgin Avenue widening) |
| EA 126 | Elgin Avenue to Smith Road - New Connector Road | | | | 500 | | | | 0.25 | \$ 1.0 | Based on \$4.0 million per mile (same as E-W Arterial Connectors) |
| EA 126 | Smith Road - Widening (constrained) | | 1,880 | | | | | | 0.60 | \$ 1.0 | Based on \$1.6 million per mile (same as Hell Road widening) |
| EA 126 | McField Lane Improvements (constrained) | | | | 200 | | | | | \$ 0.2 | |
| EA 36 | Crewe Road at Smith Road and Lyndhurst Ave - Intersection Improvements | | | 250 | | | | | n/a | \$ 0.250 | |
| EA 36 | Owen Roberts Drive/Airport to North Sound Road - New Connector Road | | | | 240 | | | | 0.15 | \$ 0.6 | 2-lane road only & utilizes existing private subdivision road |
| Sub-Total | | | 1,880 | 1,350 | 3,240 | | | | | | \$6,470.00 |



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| | GT Port Development Road Projects |
| | Ongoing |

| Reference No. | Project Name | 2014/15 | 2015/16 | 2016/17 | 2017/18 | 2018/19 | 2019/20 | 2020/21 | Approximate Length - miles | Approximate Construction Cost - C\$ x 1,000,000 | Notes |
|---|--|---------|---------|---------|---------|---------|---------|---------|----------------------------|---|---|
| D - George Town and the South Sound Area | | | | | | | | | | | |
| EA | East-West Highway - Extension to Frank Sound Road | | PFI | | | | | | 0.33 | \$ 1.3 | Based on \$4.0 million per mile (same as E-W Arterial Connectors) |
| EA 126 | Walkers Road to John Gray High School - New Connector Road for School Access | | | | | 900 | | | 0.22 | \$ 0.9 | Based on \$4.0 million per mile (same as E-W Arterial Connectors) |
| EA 126 | Bobby Thompson Way - Widening + RAB | | | 2,400 | | | | | 0.30 | \$ 2.4 | Based on \$8.0 million per mile (same as LPH Extension) |
| EA 126 | Linford Pierson Highway - Widening to 4 lanes from Crewe Road To BT Way | | | 6,500 | | | | | 1.50 | \$ 6.0 | Based on \$4.0 million per mile (similar to Esterley Tibbetts Highway widening) |
| Sub-Total | | | | 8,900 | | 900 | | | | | \$9,800.00 |
| E - Bodden Town - Savannah Area | | | | | | | | | | | |
| EA 116 | Belford Estates Drainage Improvement Project | 950 | | | | | | | Phase II | \$ 0.5 | Based on design by APEC Engineers |
| EA | East - West Arterial Road - Extension to Lookout Road | | | | | PFI | | | 3.00 | \$ 25.0 | NRA estimate 2008 |
| EA | Anton Bodden Extension West - Connector Road | | | | | | | 1,500 | | \$ 1.5 | |
| EA | East - West Arterial Road - Connector Roads | | | | | 6,200 | | | 1.55 | \$ 6.2 | NRA estimate 2008 |
| EA 36 | Anton Bodden Road Overlay | 180 | | | | | | | 0.74 | \$ 0.2 | |
| EA 36 | Beach Bay Road Overlay | 140 | | | | | | | 0.88 | \$ 0.1 | |
| Sub-Total | | 1,270 | | | | 6,200 | | 1,500 | | | \$8,970.00 |



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| LEGEND | |
|--------|-----------------------------------|
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| | Ongoing |

Revised 12th October 2015

| Reference No. | Project Name | 2014/15 | 2015/16 | 2016/17 | 2017/18 | 2018/19 | 2019/20 | 2020/21 | Approximate Length - miles | Approximate Construction Cost - C\$ x 1,000,000 | Notes |
|-----------------------|--|---------|---------|---------|---------|---------|---------|---------|----------------------------|---|---|
| F - North Side | | | | | | | | | | | |
| EA 36 | Rum Point Drive - Hot Mix Asphalt Paving from Ottos Drive to Rum Point | | 386 | | | | | | 2.50 | \$ 0.4 | NRA estimate 2008 - This would complete the HMA surfacing of arterial roads |
| EA 36 | Frank Sound Road - Widen and add turn lanes for Entrance to Clifton Hunter High School | 500 | | | | | | | 0.32 | \$ 0.5 | Based on \$1.6 million per mile (same as Hell Road widening) |
| Sub-Total | | 500 | 386 | | | | | | | | |
| G - East End | | | | | | | | | | | |
| | John McLean Drive - Extension to High Rock Road | | | | | | 1,200 | | 1.36 | \$ 1.2 | Based on \$900k per mile (same as Iguana Reserve Road) |
| Sub-Total | | | | | | | | | | | |



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| LEGEND | |
|--------|-----------------------------------|
| | Private Financing Initiative |
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| | Ongoing |

Revised 12th October 2015

| Reference No. | Project Name | 2014/15 | 2015/16 | 2016/17 | 2017/18 | 2018/19 | 2019/20 | 2020/21 | Approximate Length - miles | Approximate Construction Cost - CI\$ x 1,000,000 | Notes |
|--|--------------------------------|---------------|---------------|---------------|------------------|------------------|------------------|---------|----------------------------|--|---------------------------------|
| ROAD MAINTENANCE PRELIMINARY TOTALS | | | | | | | | | | | |
| <u>Code</u> | <u>Activity</u> | <u>Actual</u> | <u>Actual</u> | <u>Actual</u> | <u>Projected</u> | <u>Projected</u> | <u>Projected</u> | | | | |
| NRA 6 | District Roads Programme | 2,200 | 1,500 | 500 | 2,266 | 2,334 | 2,404 | | | | Public & Private Roads |
| NRA 9 | Maintenance of Roads Programme | 3,500 | 2,720 | 1,270 | 4,532 | 4,668 | 4,808 | | | | Complete Maintenance Activities |
| NRA 10 | Street Lighting | 1,224 | 1,500 | 1,500 | 1,648 | 1,697 | 1,748 | | | | Street Light Pass Through Costs |
| | TOTAL | 6,924 | 5,720 | 3,270 | 8,446 | 8,699 | 8,960 | | | | |



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