



2021

# Annual Report for National Roads Authority



For the 2021 Financial Year  
(Jan 1, 2021 to Dec 31, 2021)





National Roads Authority

P.O. Box 10426  
Grand Cayman, KY1-1004  
Cayman Islands

Tel: (345) 946 7780

Fax: (345) 946 4151

Email: [nra@nra.ky](mailto:nra@nra.ky)

Website: [www.caymanroads.com](http://www.caymanroads.com)



## Contents

<b>Section 1 – Foreword</b> .....	<b>5</b>
Message from the Minister .....	7
Message from the Chairman .....	8
Message from the Managing Director.....	9
<b>Section 2 - Nature and Scope of Activities</b> .....	<b>10</b>
<b>2021 Significant Events</b> .....	<b>11</b>
<b>Section 3 - Strategic Goals and Objectives</b> .....	<b>12</b>
<b>Section 4 – Future Goals and Economic Outlook</b> .....	<b>34</b>
<b>Section 5 – Executive Assets &amp; Output Accounts</b> .....	<b>38</b>
<b>Section 6 - Summarised Financial Statements</b> .....	<b>39</b>
<b>Other Financial Information</b> .....	<b>40</b>
<b>Capital Maintenance</b> .....	<b>41</b>
<b>Risk Management:</b> .....	<b>41</b>

## Section 1 – Foreword

This annual report is for the National Roads Authority of the Cayman Islands ('The NRA'). The report outlines the NRA's performance during the **2021** fiscal year and compares it to the budgeted performance for the corresponding period.

The requirement for an annual report is prescribed under Section 52 of the Public Management and Finance Act (2021 Revision) (PMFA) Section 52 states:

*In respect of each financial year, each statutory authority or government company shall within two months after the end of each financial year:*

- a) *prepare an annual report for the year, and*
- b) *submit the report to the Auditor General for review.*

An **annual report** shall:

- a) state details of the entity's activities during the year
- b) summarize the extent to which the ownership performance targets under the relevant ownership agreement were achieved during the year;
- c) include the amount of the following during the year:
  - (i) Cabinet equity investments into the entity,
  - (ii) Cabinet capital withdrawals from the entity,
  - (iii) Cabinet loans to the entity, and
  - (iv) The entity's dividends or profit distributions.
- d) Include details of any Cabinet guarantees relating to entity made during the year;

- e) Include details of any Cabinet guarantees relating to entity made during the year;
- f) Compare the actual performance shown by the financial statements with the performance proposed in the relevant ownership agreement.

**Financial statements** shall be prepared on a basis consistent with the forecast financial statements in the relevant ownership agreement

This annual report complies with the requirements of the PMFA and covers service delivery, financial performance, and governance.

The service delivery section outlines the contributions made by the NRA in furtherance of the Government's strategic policy goals. It also provides commentary which explains material variances in performance when compared to budget.

The financial performance section shows the financial resources the NRA was afforded in the 2021 budget and the inputs purchased to provide services.

The financial performance is presented in the form of financial statements prepared in accordance with the Public Sector Accounting Standards (IPSAS) and the

supporting notes to those financial statements.

The report also includes a section on Governance which outlines the NRA's efforts in the areas of risk management, and compliance with various statutory requirements.



## *Message from the Minister*

The NRA is a key policy instrument of this administration's goal to build modern smart infrastructure. I am therefore pleased to present this 2021 annual report which outlines the Authority's achievements during the year; and provide an account for its use of public funds.

The Government has galvanized its commitment to continued investment in improving Grand Cayman roads as is reflected in the CIG's 2022-2024 Strategic Policy Statement.

Infrastructure investments which facilitate trade and interconnectivity are a key component of a thriving economy; indeed, the role of the road network as the backbone of commerce is more evident in the Cayman Islands than in many other countries.

Our roads connect our children to schools; workers to their jobs; and efficiently moves goods and services across the Island. It facilitates our power, water and telecommunication infrastructures while providing hundreds of jobs through its continual maintenance and expansion.

Through road infrastructure investment, opportunities are created for new communities, economic development, a more efficient workforce and a greater sense of well-being among the Islands' population. The road network is the single largest, and



most valuable man-made asset owned by the people of the Cayman Islands.

It therefore gives me great comfort to have a team of highly skilled, committed and capable individuals at the helm managing this important asset and delivering this important work.

Through our policy framework, the Government will continue to support the creation of modern, smart infrastructure as a key to future growth and prosperity.

Yours sincerely,

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**Hon. Johany (Jay) Ebanks, MP**

Minister for Planning, Agriculture, Housing & Infrastructure

## Message from the Chairman

This annual report outlines the NRA's performance in 2021 in relation to the required outputs highlighted in the Ownership Agreement with Cabinet. This report is completed under my first year as Chairman of the Board. The Board's main focus during the period was to ensure stability, focus, and direction as the organization delivered on its legislative mandate while supporting the Government's policy outcome goals.

Despite COVID, the Board during 2021 continued to support a capital investment plan aimed at modernizing the NRA's fleet, machinery, and tools. The investment in asset replacements ensures that the NRA will be able to fulfill one of its key goals of enhancing service delivery capabilities and operational efficiency.

We firmly endorse the NRA's proactive strategy for the management of the road network. The development of a 3-year roads development programme stipulated by the NRA Act ensures that the NRA makes sound strategic planning and investments in projects that will ensure sustainable development in these islands for decades to come.

Another area that the Board is intently focused on is the maintenance programme for the road network. As we build more roads we inevitably have more to maintain. The Board is elated that the NRA already has a fully developed pavement management system that



catalogues and forecasts future maintenance requirements both time-wise and budget-wise.

The pavement management system is most effective in helping Government to reduce future road maintenance costs by proactively forecasting repair needs and recommending repair strategies or countermeasures for key sections of the network before they reach the point of critical failure.

The Board is grateful to our private sector partners and to the management and staff of the NRA for the excellent work carried out in 2021 which made possible the achievements highlighted in this report. We would also like to recognize the support of the Government in providing the policy framework and resources necessary to do our work. The Board remains committed to the continued development of the NRA, and reaffirm its support for the organization and its efforts to deliver the best transportation infrastructure to the people of the Cayman Islands.

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**Alric Lindsay**

Chairman, NRA Board of Directors



## Message from the Managing Director

I am pleased to present the National Roads Authority (NRA) Annual Report 2021. I would also like to thank the Board and Minister for the continued confidence entrusted in me to lead the Authority during this fiscal year.

This report highlights the NRA's accomplishments via the NRA Act (2016 Revision) as well as the goals and priorities set by the Board and Cabinet via the Ownership Agreement.

Roads contribute greatly to the economic stability of the country by mobility and access providing both access and mobility options. In short, roads allow the movement of people, goods and services.

NRA's continued success in this endeavor is largely dependent on the Authority being adequately funded both in the area of new capital development projects (via Cabinet) but also in the area of recurrent revenue (via the Road Fund). In recent times the current recurrent revenue levels received from the Road Fund has proven to be inadequate to fund the Authority's Operations. With the NRA's road fund revenue being capped, the Authority has had to rely more heavily on the Ministry of Infrastructure to fund a large part of its routine maintenance operations. Adequate funding of the NRA Operations is paramount to ensuring its continued success.

The pace of land development and the growth in vehicles now has the Island at a critical decision phase; there has never been a more critical time than now for the Government to develop a sustainable long range ground transportation plan that offers multi-pronged solutions to the ground transportation needs of this country for decades to come.



Safer Roads by Design has become a major focus of the NRA. We have taken advantage of our partnership with the International Road Federation (IRF) and increased our involvements with public and private stakeholders in highlighting the Five E's of Road Safety.

Despite significant COVID 19 impacts the NRA in 2021 continued implementation of key major infrastructure project aimed at providing short term and quick win solutions to traffic congestion experienced at peak hour. Upgrades to the Grand Harbour roundabout as well as, expansion of travel lanes from 4 lanes to 6 lanes along Hurley Merren Blvd, were completed in 2021 as part of the overall efforts of reducing travel times and increasing lane capacity for motorists travelling to and from the eastern districts.

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 increasing our communication with our stakeholders and providing more information to the motoring public on our plans, and progress towards improvement of the road network.

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**Edward Howard**  
Managing Director

## Section 2 - Nature and Scope of Activities

The NRA's primary function is the provision of a safe and efficient network of public roads. It has overall responsibility for the planning, construction, and maintenance of public roads. In addition, the NRA has a number of specific functions under the National Roads Authority Act 2004, including:

- Provision of medium to long term plans for road development referred to as a National Roads Plan to be updated every four years.
- Implementation of a management system for planning, organizing, directing and controlling routine and periodic maintenance activities performed by employees of the Authority or through independent contractors.
- Carrying out of construction improvements and maintenance works on national roads.
- Carrying out necessary engineering, traffic, and economic studies that it may consider necessary for the maintenance and improvement of public roads.
- Training, research, or testing activities in relation to any of its functions.
- Additionally, the National Roads Authority provides support services to:
  - Public Works Department to enable that Department to provide an appropriate response to Hurricanes and other national emergencies, and
  - Planning Department for the review of planning applications involving storm water and road related matters and site inspections of constructed projects.

### **Mission of the National Roads Authority**

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

### **Vision of the National Roads Authority**

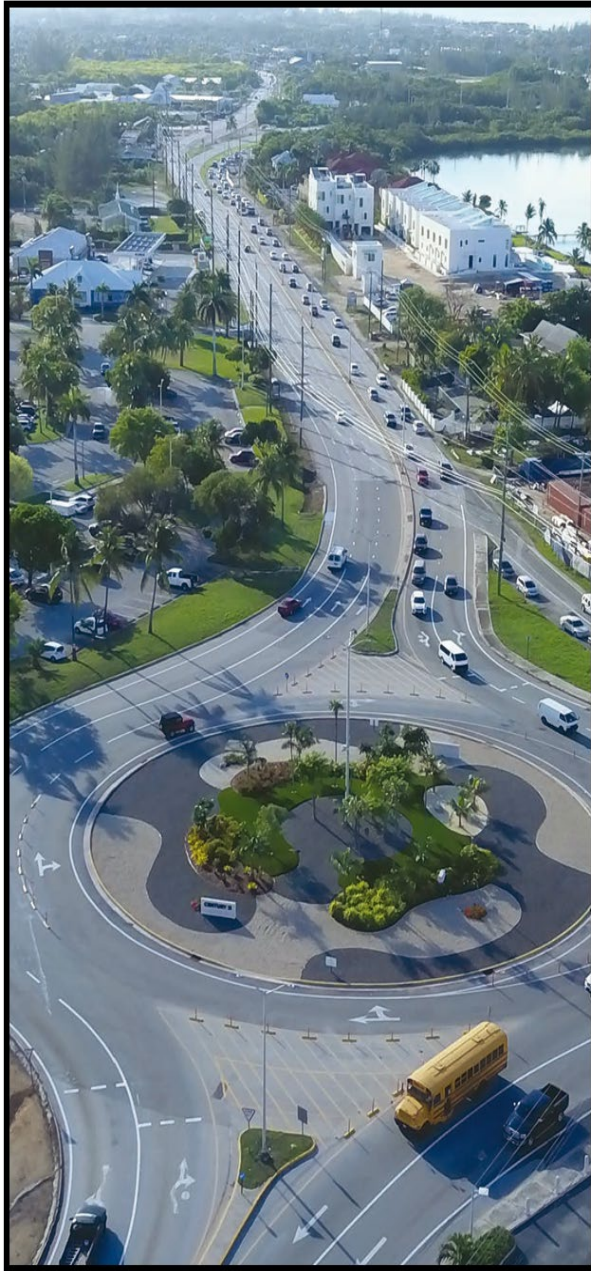
Commitment to our mission will enhance the quality of life, promote economic prosperity, and improve access and mobility for all residents and visitors of the Cayman Islands. We will be a recognized leader in the Caribbean for providing high quality roads and transport related infrastructure.

### **Customers and Location of Activities**

Road users are the primary customers of the National Roads Authority. Income is generated by providing engineering, construction, and maintenance services for fund-holding Government Agencies, approved private sector clients, and any other entity that the Authority agrees to provide services to. Services are provided only in the Cayman Islands.

## Compliance during the Year

The NRA operated in general compliance with the Nature scope of activities specified in in the Ownership Agreement for the year.



### *2021 Significant Events*

- General Elections 14<sup>th</sup> April 2021
- Hon. Johany (Jay) Ebanks appointed Minister of Infrastructure with direct responsibility for the NRA
- New NRA Board appointed 2<sup>nd</sup> July 2021.
- NRA presentation of E-W Arterial EIA plan to Cabinet in October 2021
- Ongoing Work on Capital Projects: Airport Connector Road; Godfrey Nixon Way; Hurley Merren Blvd, etc
- Island-wide hot mix asphalt rehabilitation

## Section 3 - Strategic Goals and Objectives

### 3.1 Approved Strategic Goals and Objectives

The key strategic goals and objectives for The National Roads Authority for the 2021 financial year as stated in the Ownership Agreement were as follows:

1. Continue establishment of the Authority, develop and implement effective administrative, financial and information management systems,
2. Identify and seek approval for strategies for financing future road development,
3. Continue the Traffic Improvement and Roads Development Programmes.

### 3.2 Compliance with Strategic Goals and Objectives

During the fiscal year 2021 the NRA impacted by the events of the worldwide COVID pandemic, endured a nearly three (3) month suspension of both maintenance and new capital works between March 2021 and May 2021. The NRA complied with the above approved strategic goals and objectives with the completion of upgrades to the Chrissie Tomlinson Roundabout in Prospect, and the start of the phase of the Airport Connector Road that provides connection between ETH and Sparky Drive. In addition to these two projects the NRA carried out hot mix resurfacing to several major road sections across the island of Grand Cayman. Total revenue for FY2021 budget cycle (Jan 1, 2021 to Dec 1, 2021) was \$33.4M with NRA operating expenses accounting for \$10.8M.

#### **Goal 1: Continue establishment of the Authority, develop and implement effective administrative, financial and information management systems.**

The NRA Management team supported by the Board continue to strive for betterment in the areas of administrative, financial and management information systems.

Sound administration is important as it functions as a connecting link between the senior management and the employees. To that end the NRA continues to strive to provide adequate administrative staffing levels along with the tools and techniques required to ensure that the administrative arm of the Authority is able to carry out its role in achieving a high level of workplace productivity and efficiency. NRA management began in 2019 to actively seek solutions for automating the current paper-based leave tracking system. NRA also launched a new electronic punch clock and time recording system (TRS).

On the finance side the NRA plans to upgrade or replace the current accounting software package which does not fully serve the needs of the Authority in several key areas. The current system has several shortfalls which result in unnecessary manual time-consuming production of financials and forecasts.

In 2021 the NRA utilised its asset management system (Cartegraph™) to catalog hundreds of privately built storm drains in both old and recently developed subdivisions across the island. An unusually busy hurricane season highlighted glaring gaps in the Authority’s inventory, and maintenance capabilities of a growing number of storm drains that exist in these subdivisions.



NRA crews were kept busy during the hurricane season as several named storms grazed the Cayman Islands bringing high winds and intense rainfall.

## **HUMAN RESOURCES**

The NRA boasts an all Caymanian staff complement of 94 full time employees with between 15 to 20 temporary employees (< 1year) hired as and when needed throughout the year. Fulltime employees average length of service at the NRA is 14 years.

Six percent of staff is educated to a graduate level, a further six percent hold undergraduate degrees, and 87% are educated to a high school diploma level. 93% of all employees have been with the authority for at least 6 years, with 65% having a tenure of 11 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 go towards healthcare premiums.









## **Management Team Profile**



Name: Edward Howard

Title: Managing Director

Qualifications: Bachelors in Civil Engineering - Howard University; Masters in Civil Engineering (Transportation) – University of Illinois Urbana Champaign; MBA (Corporate Finance) – University of Leicester, UK. More than twenty (20) years of educational experience and practical know-how in urban and regional planning, transportation engineering.



Name: Olsen Bush

Title: Chief Financial Officer

Qualifications: Masters in Business Administration- International Collage of the Cayman Islands  
More than 30 years of financial experience in the private and public sector.



Name: Shena Ebanks

Title: Chief Human Resources Officer

Qualifications: Masters in Human Resource Management- University College of the Cayman Islands

Over 10 years of Human Resources experience, Shena holds the dual role of Chief HR and Office Manager.



Name: Brian Chin Yee

Title: Works Manager, Engineering & Operations

Qualifications: Bachelors in Electrical Engineering B.Sc. – Florida Institute of Technology University (1993 -1997)

20 years of engineering experience.



Name: Denis Thibeault

Title: Assistant Director, Transportation & Planning

Qualifications: Bachelor of Environmental Studies in Urban & Regional Planning (Honors)- University of Waterloo

Over 33 years' experience in transportation and planning

**Goal 2: Identify and seek approval for strategies for financing future road development.**

Accomplishments:

The revenue and resources of the Authority comprise of the following:

Monies directed by law to the Roads Fund, as well as services purchased by Cabinet for the purposes of capital roads improvements. Other revenue sources may include:

- Road user charges collected by the Authority;
- Gifts or bequests received by the Authority;
- Other monies paid and property provided to the Authority by way of grants, rent, interest and other income derived from the investment of the Authority's funds.

Appropriation made by the Government for capital road improvement projects is based on service-based budgeting. The Minister of Planning, Agriculture, Housing and Infrastructure (PAH&I) will purchase the services of the Authority (called executive assets) as agreed upon in the Ownership Agreements. The service of the Authority is not only measured in terms of input cost but also in quantity, quality, timeliness and location.

**Goal 3: Continue the Traffic Improvement and Roads Development Programme**

The achievements in this area are highlighted in Section 3.3 which follows:

**1.3 Transportation Planning Activities:**

3.3.1 Transportation Planning Activities: The NRA employs a small core of transportation engineering and planning professionals who report to the Deputy Managing Director and Managing Director and advise on all matters relating to transportation planning, traffic, and roads development and funding.

One of the main tasks of the NRA's transportation unit is to assist in the development of a long term (20-25 yr) national roads plan. From the long term plan a short-term plan is developed; this short-term plan consists of roads and roads improvements that are deemed as critical within 3 to 5 years.

3.3.2 Recurrent Activities – Some of the main activities of the transportation unit for FY2021 (covering the period of January 1, 2021 to December 31, 2021) were as follows:

- i. In addition to numerous meetings and correspondence with various land developers to advise them on roads and drainage requirements, the transportation unit prepared assessments and provided commentary to the Central Planning Authority on two-hundred and ninety-two (292) planning applications during 2021.

ii. The following table provides a breakdown by quarter for the current Fiscal Year:

Quarter	Month	Plan Reviews	SWM/ Drainage Plan Reviews	Inspections
1	January	19	11	5
	February	29	7	8
	March	7		6
<b>Sub-Total</b>		<b>55</b>	<b>18</b>	<b>19</b>
2	April	11	11	6
	May	21	12	4
	June	32	8	9
<b>Sub-Total</b>		<b>64</b>	<b>31</b>	<b>19</b>
3	July	42	8	11
	August	9	11	11
	September	19	13	6
<b>Sub-Total</b>		<b>70</b>	<b>32</b>	<b>28</b>
4	October	14	9	11
	November	35	18	5
	December	54	17	7
<b>Sub-Total</b>		<b>103</b>	<b>44</b>	<b>23</b>
<b>Total</b>		<b>292</b>	<b>125</b>	<b>89</b>



- iii. The following table provides a breakdown of the type of developments in 2021.

<b>Development Type</b>	<b>Plan Reviews</b>	<b>SWM/ Drainage Plan Reviews</b>	<b>Inspections</b>
<b>Commercial</b>	23	13	4
<b>Government</b>	2		2
<b>Hotel</b>	3	1	
<b>Industrial</b>	28	12	8
<b>Institutional</b>	3	2	3
<b>Residential</b>	105	74	54
<b>Subdivisions/ Road Base</b>	66	15	16
<b>Mixed-Used Development</b>	9	4	
<b>Miscellaneous</b>	53	4	2
<b>Running Total</b>	<b>292</b>	<b>125</b>	<b>89</b>

- iv. Forty-one (41) due diligence letters were written in response to enquiries from attorneys and real estate agents dealing with land purchases;

3.3.3 Road Gazette Plans (Roads Act 2005R) were either started and/or completed for the following:

- a) Declaration of Road Access from Fairbanks Road to Cayman Enterprise City as a public road.
- b) Declaration of intention to construct a connection between Bonze Road and Webb Road.
- c) Declaration of intention to widen Linford Pierson Highway and Bobby Thompson Way to Fern Circle and a westward extension to Outpost.
- d) Declaration of Halley Street as a public road and its eastward extension.
- e) Declaration of Sextant Road and associated connected streets as public roads.
- f) Declaration of intention to improve the eastern intersection of Homestead Crescent and Shamrock Road.

- 3.3.4 Development of preliminary conceptual plans for improvements plans for the intersections of 1) Hirst Road at Rex Crighton Blvd; and 2) Shamrock Road at Agricola Drive. Feasibility.
- 3.3.5 Travel Demand Model and Traffic Operation Analysis Model

The National Roads Authority at the beginning of the fiscal year (July 2015) began the process of developing a traffic model for the island of Grand Cayman. Such a model is necessary to:

- Substantiate the NRA’s current and long-term planning efforts made under the National Roads Plan;
- Assess the merits of future road network proposals, and,
- Assess the traffic impact of future development proposals.

The National Roads Plan (NRP) is a strategic plan consisting of three parts:-

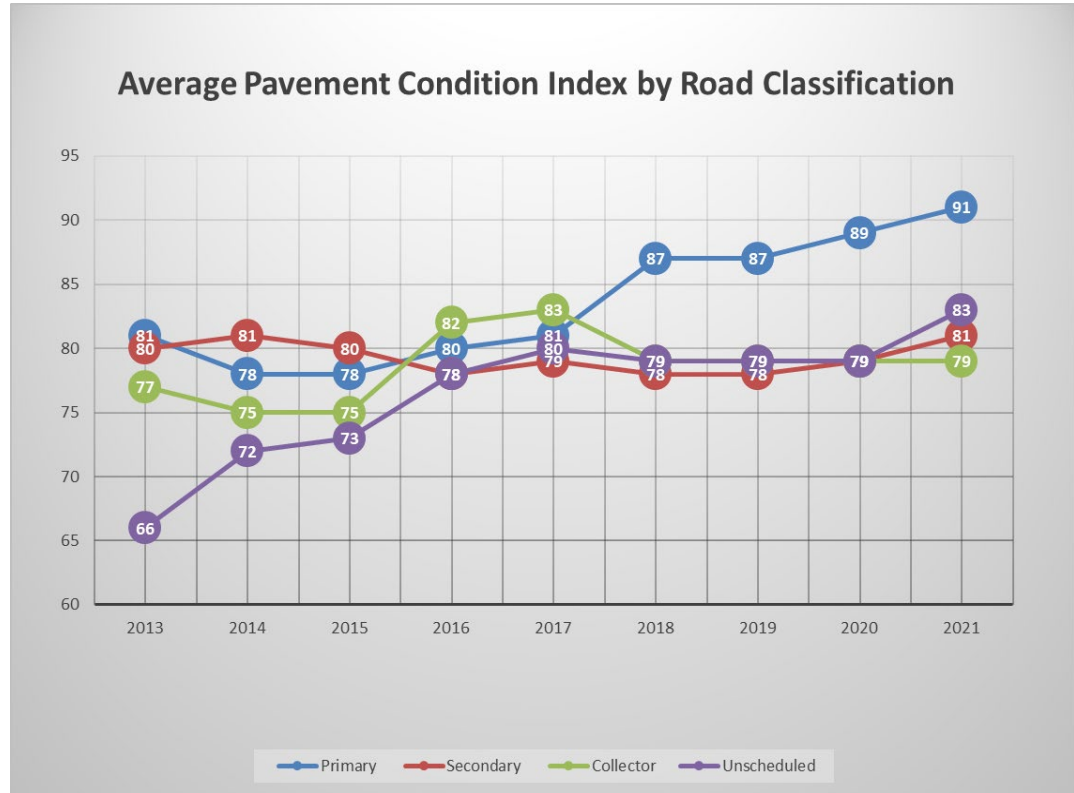
1. A 25-year road corridor plan (Section 26, Roads Act (2005)). This should be updated every five years.
2. A transportation management strategic document that highlights the NRA’s short to long term focus on access management, road safety, mobility, interconnectivity, smart growth, etc.
3. NRA funding mechanisms – this includes focus on the structure of NRA through a look at business process re-engineering, a road financing plan (for both maintenance and new construction); alternative revenue streams, etc.

The traffic model is a key assessment tool in the development of items 2 & 3 of the NRP. The traffic model is comprised of two distinct computerized models; the first being a travel demand model (macro level) and the second being a traffic operations model/simulation package (micro level).



### 3.4 Pavement Management:

The aim of the NRA's pavement management programme is to monitor and to prescribe maintenance strategies to pavements of varying classifications in the Grand Cayman road network. Primary Arterials are those main roads which carry most of the roadway traffic throughout the island and as such are prescribed a higher maintenance protocol.

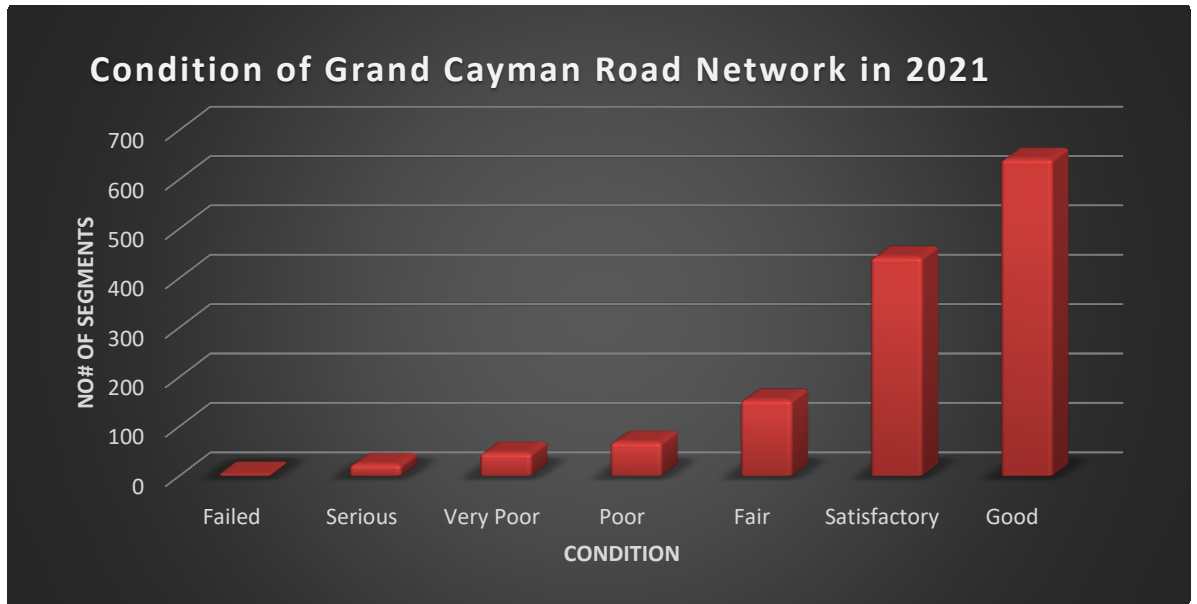


The above chart shows that at the end of FY 2021 all pavement types on Grand Cayman are in an overall 'good' to 'very good' condition. The goal for primary and secondary pavements is that of an average PCI of no less than 80.

Since 2012 the NRA has concentrated on local privately built subdivision roads in an effort to raise the pavement condition index (PCI) from an unsatisfactory level of 65 to above 75 which is representative of 'good' condition. In essence, concentrated efforts on subdivision roads has been effective in raising the average PCI level of these roads from fair to good. The term local private road, however, is a bit misleading as under the Roads Act these roads (with the exception of a few) do not involve restriction of access to the public as a right.

#### PCI by Surface Type

- 196 lane miles of roads have hot mix asphalt surface.
- 126 lane miles of roads have spray and chip surface.
- < 2 miles of roads are unsurfaced.



Overall condition rating of the Grand Cayman Road Network in 2021

In 2021 a total of 1383 road segments in the network had condition ratings as follows:

Condition Category	Num Sections
Failed	6
Serious	48
Very Poor	60
Poor	100
Fair	153
Satisfactory	356
Good	585

The majority of subdivision roads built by private developers in Cayman offer unrestricted public access, however, the official ownership of the developed roadway is often not 'transferred' to the Crown; the NRA prefers to classify these not as private roads but as 'unscheduled public roads'. It is important to add this brief explanation because the distinction between public roads and private roads have been blurred by actions of the Government who over the years has cleaned, repaired, installed streetlights, speed humps, and other street furniture without regard to their status. The challenge going forward is to keep the average PCI of private (unscheduled) roads at satisfactory and good levels.

### **3.5 Engineering and Operations Activities:**

A works manager, two engineers, two superintendents, and a fleet manager make up the management staff of the Engineering and Operations unit. They are responsible for engineering design; project budgeting, resource reporting, project costing, fleet operations, and completion of all road construction projects and maintenance undertaken by the NRA. They utilize an equipment fleet worth over \$2 million. Capabilities include sign making and pavement markings, traffic signal maintenance, survey crews with GPS and total station equipment, and computer aided design and drafting (CADD).

In addition to their road construction and maintenance responsibilities, they regulate the importation, transportation, and use of explosives in the Cayman Islands on behalf of the Managing Director in accordance with the Explosives Act and Regulations.



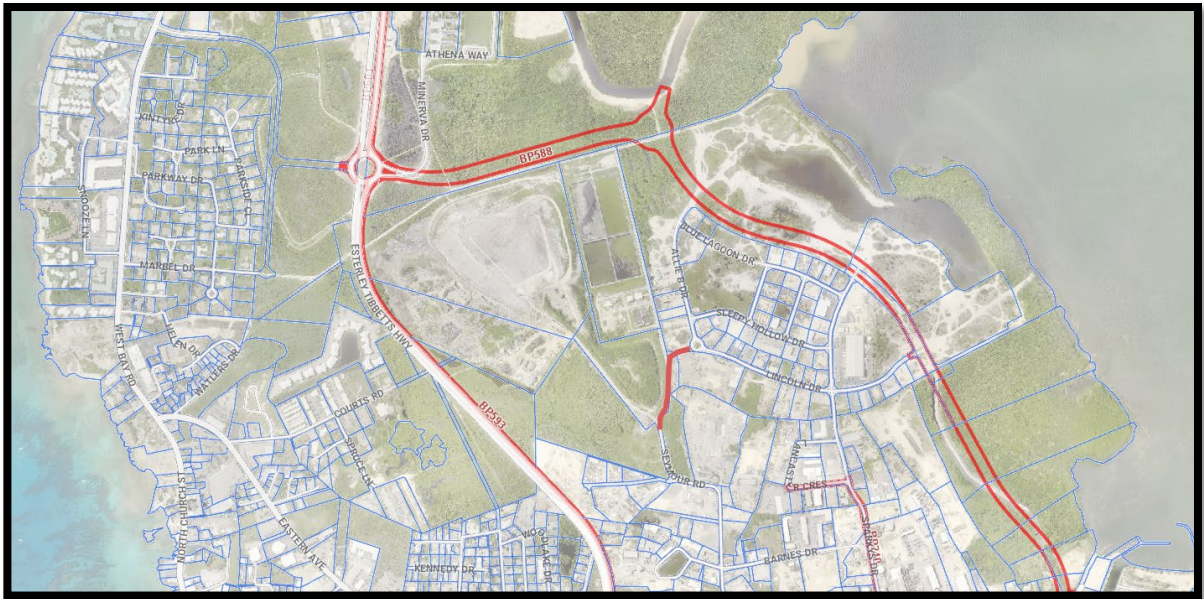


### **3.6 Executive Assets: Capital Works & Road Surface Upgrades**

New Capital Works and rehabilitation of roads surfaces on major arterials are systematically funded via Cabinet as “Executive Assets”. This year’s list of major EA’s funded via Cabinet includes:

#### **3.6.1 Airport Connector Road (ACR) – Section1**

The ACR project refers to a planned 2.0 mile link road that extends from the Owen Roberts Long Term Carpark to the ETH Roundabout adjacent to the GT Landfill. Preliminary works such as design, geotechnical investigations and tender for drainage culverts services was carried out in 2020. In 2021 earthworks and other tasks were delayed as the NRA worked to resolve issues with the stormwater/drainage culvert systems for the roadway, and also to develop cost-effective alternatives for construction of the roadway over a significant portion of section 2 that contains weak soil (i.e. silty marl) that is not suited for heavy traffic loading.



### **3.6.2 Hurley Merren Blvd & Shamrock Road Widening**

Earthworks and final base preparation were completed during 2021 after many months of waiting for electrical and telecom providers to complete relocation of their utility services. The main work completed in 2021 included the addition of a new westbound travel lane complete with bicycle lane and sidewalk. This is to allow three full travel lanes westbound from Red Bay Roundabout to Grand Harbour Roundabout. Further expansion of the three-lane system from Grand Harbour Roundabout to CUC Roundabout by Kings Sports Centre is planned for the year 2023.



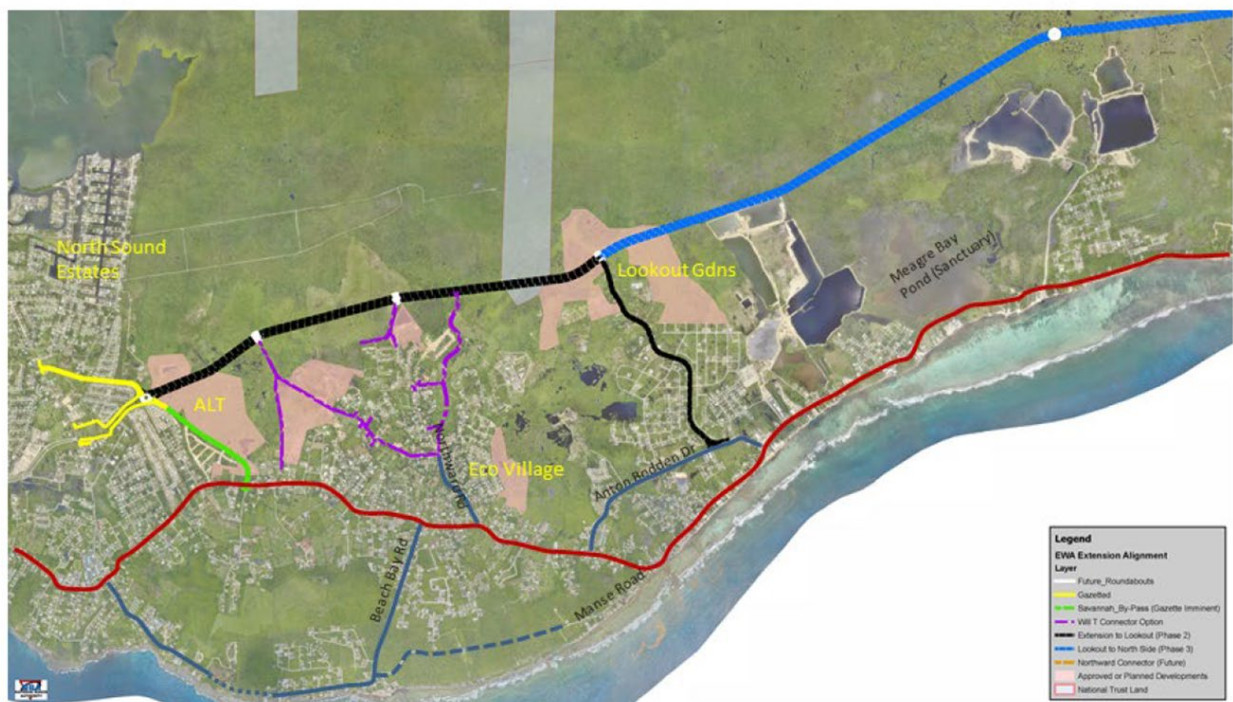


### **3.6.3 East-West Arterial Project Planning Exercises**

During 2021 the NRA was actively involved in the pre-project planning activated of the proposed 8-mile extension of the East West Arterial between Hirst Road (Newlands) and Frank Sound Road (Northside). A project steering team was formed which is made of both local and overseas subject matter experts in areas such as hydrology, engineering design, environmental science, coastal engineering, etc. A Scoping Opinion was completed as required by the National Conservation Council EIA Directive, and the project steering committee developed a preliminary project schedule both of which were presented to Cabinet in October 2021. The next phases of planned work for the EWA project includes:

- the development of a project business case and EIA request for proposals document
- Procurement for EIA Consultant
- Advance Hydrology and hydraulic studies
- Advance Traffic and transportation economics analysis

- **EWA Extension to Lookout Gardens**



### **3.6.4 Hot Mix Asphalt Surface Upgrades (\$5.5M)**

NRA completed hot mix surface upgrades to 18 major roadway segments as highlighted below:

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Hot Mix Asphalt Resurfacing Projects 2021

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1 North Sound Road (near traffic light)	\$36,378
2 Manse Road/Guard House Hill	\$84,070
3 Walkers Road (Hospital Road to Boilers)	\$183,522
4 Seymour Dr	\$257,385
5 Thomas Russel Way	\$129,312
6 Old Crewe Road	\$165,443
7 West Bay Road	\$1,322,225
8 Seaview Road	\$594,301
9 CUC Roundabout	\$154,304
10 Hospital 4-Way	\$47,452
11 Frank Sound Road (Seaview Rd to Off the Beaten Path Rd)	\$198,260
12 Water Cay Road	\$629,253
13 Camp Drive	\$51,465
14 Kaibo Crescent	\$91,679
15 Dorcy Drive	\$520,139
16 Galleria Roundabout	\$165,068
17 Krysl Global Roundabout by Cost U Less	\$114,340
18 Beach Bay Road	\$258,592
19 Shamrock Road (Spotts Straight)	\$492,085
<hr/>	
Total	<b>\$5,495,273</b>



## NRA District Roads Rehabilitation Programme

NRA completed spray 'n' chip upgrades on just under 100 road segments across all five districts for approximately \$8.3M.

Spray n Chip is used extensively by road agencies worldwide as:

1. A semi-permanent surface for minor roads, and
2. A preventative maintenance (surface treatment) for existing paved roads.

Typically roads having low daily traffic volumes (less than 5,000 ADT) will be prime candidates for spray n chip. Some jurisdictions however have experimented with spray n chip (aka Chip Seal) on roads with daily volumes of up to 20,000 ADT.

The most significant benefit of spray n chip is that is between 20% to 25% of the cost of hot mix asphalt so governments are able to get more roads done utilizing spray n chip methods. If done correctly and/or if good quality gravel ('chips') can be sourced then spray n chip roads can last between 5 to 7 years.

The following district roads were reconstructed and/or resurfaced with surface treatments under this programme. The MicroPAVER pavement management database was used to select the roads to be worked on and what type of work would be performed. Explanations of the abbreviations are given below:

Abbreviations:      R&R = Rip and Relay (Reconstruct the Road Base)  
                              Reconst = Reconstruction  
                              SC = Spray and Chip (Surface Treatment)  
                              2<sup>nd</sup> App = Second Application of Spray and Chip (Surface Treatment)



The NRA's policy is to apply spray n chip surfacing to local access/subdivision roads with low traffic and posted speeds of no more than 25 mph. Spray n Chip application may be applied to primary arterial roads but only as a temporary measure during major construction.

The COVID shutdown impacted this annual programme severely forcing the NRA to forgo nearly half of the planned district road upgrades for 2021. The West Bay constituencies in particular were left out in 2021. District roads carried out during the year breaks down roughly as follows:

#### East End Roads FY2021

No.	Suggested Priorities - EAST END	Electoral Constituency	Road Class	LENGTH	PCI	Repair Type	cost
1	HIGH ROCK DRIVE	EE			53	S&C	\$7,364
2	FARM ROAD	EE		500	61	S&C	\$14,349
3	Road to EAST END CIVIC CENTER	EE		800	70	HMA	\$70,747
4	SEAVIEW ROAD SHOULDERS	EE		0.9 miles	68	S&C	\$155,493

#### North Side Roads FY2021

No.	Suggested Priorities - NORTH SIDE	Electoral Constituency	Road Class	LENGTH	PCI	Type of Work	cost
1	PETERSON DR	NS	PUB	400	63	R&R + HMA	\$60,045
2	SERENITY LN	NS	UPR	600	65	HMA	\$45,158
3	ROSSINI ST	NS	UPR	2500	65	HMA	\$262,062
4	DUSTY LOG DR	NS	UPR	400	60	HMA	\$32,070
5	CHISHOLM DR	NS	UPR	350	65	S&C	\$43,706
6	JETSTAR LN (15ft ROW)	NS	UPR	400	70	HMA	\$21,340
7	MELVILLES LN	NS	UPR	350	70	HMA	\$20,170
8	SEXTANT RD	NS	UPR	800	68	HMA	\$48,751
9	PAVING ON CROWN 53a 70 Rem1	NS	UPR	450	50	HMA	\$39,884
10	FRANK SOUND ROAD SHOULDERS	NS	PUB	3.2 miles		S&C	\$467,301
11	OLD MAN BAY SHOULDERS	NS	PUB	2 mile	40	S&C	\$11,775
12	BOTANIC PARK ENTRYWAY	NS	UPR		70	S&C	\$73,660
13	BOTANIC RD/FRANK SOUND RD JCT	NS	PUB	JCT	65	HMA	\$30,080

#### Bodden Town Roads FY2021

No.	Suggested Priorities - BODDEN TOWN	Electoral Constituency	Road Class	LENGTH	PCI	Repair Type	cost
1	DEVONSHIRE DRIVE	NWS	UPR	800	37	R&R	\$37,667
2	WATER ST	NWS	PUB	2800	70	HMA	\$240,700
3	NADINE ST	NWS	PUB	400	55	S&C	\$15,764

No.	Suggested Priorities - BODDEN TOWN	Electoral Constituency	Road Class	LENGTH	PCI	Repair Type	cost
1	LUKE FORBES DR	SAV	UPR	150	67	S&C	\$4,729
2	PENNSYLVANIA AVE	SAV	PUB	300	60	S&C	\$8,408
3	BLUEJAY ST	SAV	PUB	574	54	S&C	\$3,756
4	HOMESTEAD CRES	SAV	PUB	1400	67	HMA	\$64,503
5	BODDEN TOWN RD (WESTBOUND)	SAV	PUB	4200	64	HMA	\$169,227
6	HARVEST AVE	SAV	PUB	900	63	HMA	\$90,923
7	CLEARWATER AVE	SAV	PUB	900	70	HMA	\$90,837
8	JIM BODDEN AVE	SAV	PUB	950	72	HMA	\$95,221
9	LOVEDALE AVE	SAV	PUB	900	68	HMA	\$95,913
10	PINTO DR	SAV	PUB	900	69	HMA	\$99,341
11	SAVANNAH AVE	SAV	PUB	1000	71	HMA	\$415,849
12	ELLCOT AVE	SAV	PUB	900	70	HMA	\$89,749

No.	Suggested Priorities - <b>GEORGE TOWN</b>	Electoral Constituency	Road Class	LENGTH (ft)	PCI	Repair Type	cost
1	POPLAR ST	BTW	PUB	700	70	S&C	\$34,946
2	DISCOVER DR	BTW	UPR	3100	70	HMA	\$327,074
3	AUNT SHANNYS RD	BTW	PUB	800	65	S&C	\$5,070
4	LEMON RD	BTW	UPR	800	70	S&C	\$9,321
5	NANTUCKET CL	BTW	UPR	334	37	S&C	\$6,680
6	LEMON RD	BTW	PUB	794	51	R&R	\$59,488
7	FIG TREE DR	BTW	PUB	1774	53	HMA	\$151,533
8	NANTUCKET CL	BTW	UPR	325	67	S&C	\$4,011
9	SPICE DR	BTW	PUB	600	73	S&C	\$4,108
10	ANTON BODDEN DR	BTW	PUB	300	71	HMA	\$15,142
11	AVALON ST	BTW	PUB	700	70	S&C	\$21,390
12	JACKDAW CL	BTW	UPR	300	73	HMA	\$28,222
13	KITTY CLOVER AVE	BTW	UPR	1400	69	HMA	\$77,711
14	OLD YARD LN	BTW	UPR	900	71	HMA	\$42,678
15	SCARF LN	BTW	UPR	450	67	HMA	\$23,962
16	CORELLA DR	BTW	UPR	950	68	HMA	\$59,082
17	KINGCHASE DR	BTW	UPR	700	68	HMA	\$94,383
18	FERNHILL DR	BTW	UPR	400	67	HMA	\$43,358
19	CRYSDEL DR	BTW	UPR	675	65	HMA	\$69,319
20	BERRY DR	BTW	UPR	2900	68	HMA	\$239,531
21	DAIRY RD	BTW	UPR	545	63	HMA	\$5,012

No.	Suggested Priorities - <b>BODDEN TOWN</b>	Electoral Constituency	Road Class	LENGTH	PCI	Repair Type	cost
1	WORDSWORTH ST	BTE	UPR	900	56	S&C	\$21,995
2	JEWEL ROSE RD	BTE	PUB	250	56	R&R	\$53,388
3	MIDLAND DR	BTE	PUB	1100	67	HMA	\$89,167
4	BREADFRUIT LN	BTE	PUB	700	70	S&C	\$9,333
5	SAFFRON LN	BTE	UPR	600	60	S&C	\$5,535
6	WILDE ST	BTE	PUB	800	54	S&C	\$15,685
7	FROST ST	BTE	UPR	100	50	S&C	\$1,493
8	LAKEVIEW DR	BTE	UPR	500	52	R&R	\$29,514
9	GARDENIA DR	BTE	UPR	1300	61	R&R	\$62,333
10	CHAUCER DR	BTE	PUB	1000	68	HMA	\$72,394
11	PERIWINKLE DR	BTE	PUB	1700	73	HMA	\$75,904
12	LONGFELLOW CIR	BTE	PUB	1800	64	HMA	\$137,455
13	TERRYSVILLE LN	BTE	UPR	311	63	R&R	\$16,587

## George Town Roads FY2021

No.	Suggested Priorities - <b>GEORGE TOWN</b>	Electoral Constituency	Road Class	LENGTH (ft)	PCI	Repair Type	cost
1	MISS KEPPIE LN	GTW	PUB			S&C	\$22,163
No.	Suggested Priorities - <b>GEORGE TOWN</b>	Electoral Constituency	Road Class	LENGTH (ft)	PCI	Repair Type	cost
1	BERNARD DR	GTC	PUB	450	57	R&R	\$49,504

No.	Suggested Priorities - <b>GEORGE TOWN</b>	Electoral Constituency	Road Class	LENGTH (ft)	PCI	Repair Type	cost
1	EUPHRATES CL	GTN	UPR	150	63	R&R	\$4,661
2	SPRING LN	GTN	UPR	200	45	S&C	\$2,616
3	SHADOW LN	GTN	UPR	453	40	R&R	\$21,873
4	ARTHURS WAY	GTN	PUB	379	42	R&R	\$5,244
5	SURREY LN	GTN	UPR	397	69	R&R	\$34,082
6	WEBB RD	GTN	PUB	200	55	S&C	\$8,875
7	MEMORY LN	GTN	PUB	200	62	S&C	\$8,951
8	MARBEL DR	GTN	PUB	1,200	65	HMA	\$89,031
9	PALM HEIGHTS DR	GTN	PUB	3,800	68	HMA	\$211,161

No.	Suggested Priorities - <b>GEORGE TOWN</b>	Electoral Constituency	Road Class	LENGTH (ft)	PCI	Repair Type	cost
1	ORANGE DR	Prospect	PUB	1600	68	HMA	\$110,160
2	MAHOGANY DR	Prospect	PUB	4000	65	HMA	\$326,192
3	ADVENTURE ST	Prospect	PUB	300	60	s/c	\$5,541
4	MANGROVE AVE	Prospect	PUB	3700	68	HMA	\$322,374
5	ROSEMARY ST	Prospect	PUB	1000	65	HMA	\$84,415



No.	Suggested Priorities - <b>GEORGE TOWN</b>	Electoral Constituency	Road Class	LENGTH (ft)	PCI	Repair Type	cost
1	BONNIE VIEW AVE	RBAY	PUB	565	30	R&R	\$10,599
2	BAY ISLAND AVE	RBAY	PUB	1,565	30	R&R	\$125,390
3	RIBBON CL	RBAY	UPR	305	43	R&R	\$12,089
4	SUMMIT CRES	RBAY	UPR	1,752	62	HMA	\$136,603
5	WOODSTOCK RD	RBAY	UPR	1,000	53	R&R	\$61,798
6	OXFORD CT	RBAY	PUB	230	63	R&R	\$3,859
7	SWEETLEAF CL	RBAY	UPR	354	63	R&R	\$9,183
8	PATRICKS AVE	RBAY	PUB	1,455	67	HMA	\$202,948
9	PARROT AVE	RBAY	PUB	419	67	R&R	\$8,380
10	VICTORY AVE	RBAY	PUB	3,100	65	HMA	\$271,414
11	PROSPECT POINT RD	RBAY	PUB	882	70	R&R	\$18,816
12	BAMBOO ST	RBAY	PUB	1,200	68	HMA	\$99,238
13	ADMIRALS AVE	RBAY	UPR	600	64	HMA	\$47,677
14	ROXBOROUGH	RBAY	UPR	1,100	68	HMA	\$88,990
15	SPINNAKER	RBAY	UPR	2,200	63	HMA	\$176,512
16	WHIRLWIND DR	RBAY	PUB	300	50	S&C	\$5,016

No.	Suggested Priorities - <b>WEST BAY</b>	Electoral Constituency	Road Class	LENGTH	PCI	Repair Type	cost
1	CAPTS JOE & OSBERT RD	WBC	UPR	2000	65	R&R	\$89,620
2	GLADE DR	WBC	UPR	1600	68	R&R	\$81,455

No.	Suggested Priorities - <b>WEST BAY</b>	Electoral Constituency	Road Class	LENGTH	PCI	Repair Type	cost
1	BARKERS RD	WBN	PUB	2000	70	S&C	\$23,109
2	SAND HOLE RD	WBN	UPR	800	65	R&R	\$40,181
3	WRAYS LN	WBN	UPR	200	68	S&C	\$3,302
4	KEMP ST	WBN	UPR	450	70	R&R	\$16,954

No.	Suggested Priorities - <b>WEST BAY</b>	Electoral Constituency	Road Class	LENGTH	PCI	Repair Type	cost
1	SHADY LN	WBW	PUB	500	70	S&C	\$7,907
2	FOREMAST CL	WBW	UPR	600	65	S&C	\$17,800
3	HAMLET LN	WBW	UPR	250	55	R&R	\$11,693
4	OSWALD DR	WBW	UPR	200	68	S&C	\$4,932
5	MISS DAISY LN	WBW	UPR	200	68	S&C	\$2,808
6	RENNIE EBANKS RD	WBW	UPR	400	68	R&R	\$26,564

No.	Suggested Priorities - <b>WEST BAY</b>	Electoral Constituency	Road Class	LENGTH	PCI	Repair Type	cost
1	CAPT CHARLIE RD	WBS	UPR		65	S&C	\$2,440
2	PHILLIPS CRESC	WBS	UPR		40	S&C	\$6,027



## Section 4 – Future Goals and Economic Outlook

The future goals of the NRA are not just concerned with continued compliance with the requirements of the PMFA but also with developing strategies for organizational growth going forward.

Through the development of a corporate strategic plan, the NRA can be able to identify the roads infrastructure needs that are most important to these islands. A strategic plan would also allow us to look ahead and make provisions for the necessary investments that will ensure adequate and steady source of funding and other resources necessary to achieve a sustainable road network. The local and tourism economy remain vibrant and the nation's roadways play an important part in maintaining safe and efficient movement of people, goods and services.

The NRA Board of Directors remains committed to the continued development of the NRA and to its efforts to deliver the best roads and road related infrastructure to the people of the Cayman Islands.

Key strategies for ensuring a stronger and better NRA for the foreseeable future include:

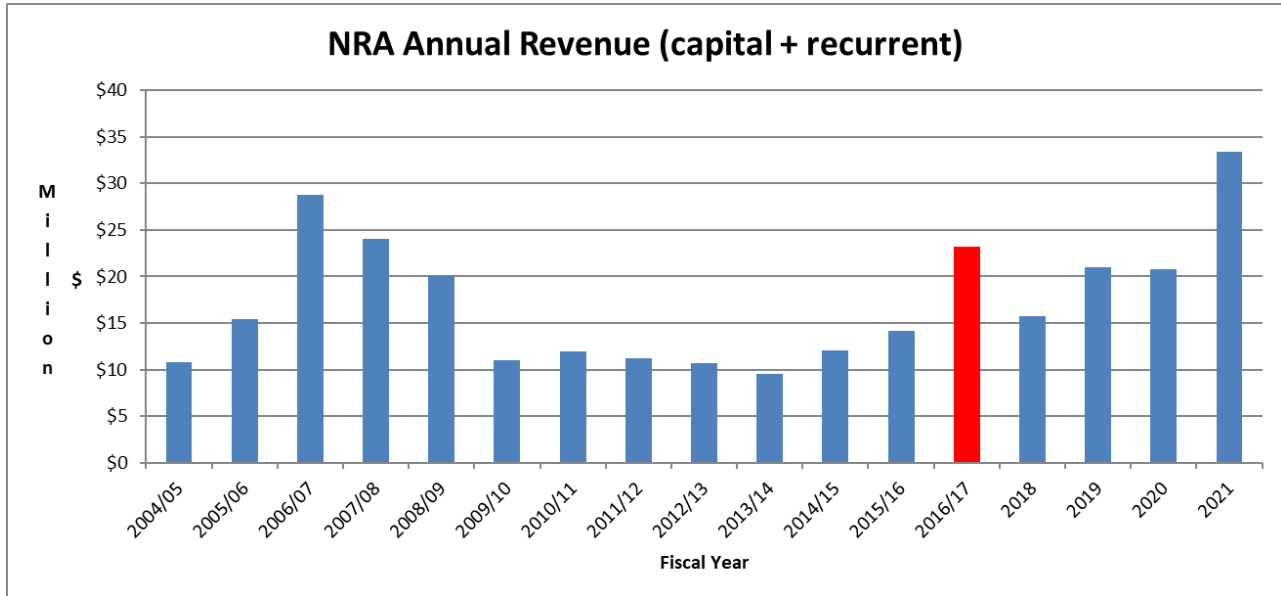
- Necessary amendments to the NRA Act and Roads Act;
- Adaptation of the organizational structure to meet future demands;
- Development of effective administrative, financial and management systems
- Attraction of young professional and technical employees that will

pursue career development with the NRA;

- Removal of the cap restriction on the NRA's Road Fund Revenue to allow for a measured increase in the Authority's operations budget.
- The Road Fund and other road user fees and/or charges to be further established as the dedicated funding stream for recurrent road maintenance activities;
- Commitment from Cabinet for continued investment in necessary capital road improvements (particularly roads in and around the Central Business District and roads providing mainline access between the CBD and eastern districts).



Through the development of its long range corridors plan and the strategies above NRA will be poised to deliver sustainable, reliable, safe and efficient roads for future generations of Caymanians.



In 2015 an amendment to the NRA Act placed a \$10M cap restriction on the recurrent funding for the NRA. Such restriction;

1. Limits the potential of the NRA to address its increasing maintenance budget;
2. Results in an increase of unfunded maintenance projects (backlog);
3. Prevents the NRA from addressing staffing shortfalls;
4. Restricts NRA’s ability to adequately address long term liability needs such Post-Retirement Healthcare for its employee.

The NRA as the statutory authority responsible for the maintenance of roads has a mandate to ensure that it delivers to the public on behalf of the Government, roadways that are safe and well maintained.

The cap on the NRA’s recurrent revenue has meant that certain key operations and maintenance activities cannot be achieved. The Ministry of Commerce, Planning and Infrastructure has in the interim been able to offset the problem temporarily by funding mostly all of the District Roads rehabilitation projects and the hot mix asphalt programme. The cap however will continue to pose a serious threat to the NRA as personnel, materials and overhead costs continue to rise significantly.

The summary breakdown of recurrent revenue shortfalls is as follows:

1. Executive and mid-level personnel vacancies (~\$1.0M) – Seven key high-level vacancies total approximately 800K per annum in personnel costs.
2. Temporary Hires – The NRA has employed over the last three years, an average of twenty temporary employees (i.e. less than 12 months employment) in order to supplement the workforce as and when needed. The goal however going forward is to be able to retain at least 80% of these workers as full-time staff and employ a much lower rate of employees on <12-month contracts. The added cost of doing so is approximately \$500K.
3. District Road Maintenance NRA 6 (\$1.5M) - The ideal revenue increase for NRA 6 is 2.5M (i.e. a 4.1M annual budget prescribed by Micropaver™ minus current \$1.6M). However, adding \$1.5M to the current \$1.6M yields \$3.1M per annum which would also be very effective in reducing the maintenance backlog. Logical use of the \$3.1M would also involve HMA surfacing of key district roads to prolong service life.
4. Post-Retirement Health Liability (\$1.8M) - The NRA is required to maintain a fund for safeguarding monies for the provision of health insurance for 50+ employees who were civil servants that were impacted by the transfer from PWD to NRA. An actuarial analysis recommends that the NRA reserve an annual amount of \$1.8M for a fund to meet the health insurance needs of these employees upon retirement.

*The total recurrent revenue shortfall for the NRA is around \$4.8M which means that ideally the NRA needs to have its annual recurrent revenue at a minimum of \$14M with revenue sources to the Road Fund also structured in a way that allows the Authority to adjust to future growth needs. It is imagined however that if the Ministry of Infrastructure assumes long term responsibility for some of the core operations expenses such as 1) The District Roads Maintenance, 2) New Drain-wells, and 3) The Government Street Lighting Programme, the Authority could operate effectively on a recurrent budget of approximately \$12M in 2021 with provisions for cost-of-living adjustments going forward.*

**National Roads Authority Board of Directors, 2021**





**National Roads Authority**  
**Statement of Financial Performance**  
**For the year ended 31 December 2021**  
**(Stated in Cayman Islands Dollars)**

## Section 5 – Executive Assets & Output Accounts

A summary of the Executive Asset and Output accounts as recorded at the fiscal year ending December 31<sup>st</sup>, 2021 were as shown below:

**NATIONAL ROADS AUTHORITY**  
**FUNDS AVAILABLE**  
**FOR THE TWELVE MONTHS ENDED 31 DECEMBER 2021**  
**12MONTH BUDGET JAN21-DEC21**

	Services to be provided from NRA Road Fund	First Supplemental	Current Budget	Amount Invoiced B/F	Amount Invoiced This Month	Total Invoiced To Date C/F	Funds Available	
		\$	\$	\$	\$	\$	\$	
Planning & Development of New Public Roads	NRA 5		200,000	12,384	1,080	13,464	186,536	
Grand Cayman District Roads Programme	NRA 6		-			-	-	
Policy Advice on Road Related Matters	NRA 7		-			-	-	
Storm Water Drain Wells	NRA 8		750,000	1,016,837	45,134	1,061,971	(311,971)	
Routine Maintenance of Public Roads	NRA 9		6,120,000	6,082,576	18,670	6,101,246	18,754	
Government Street Lighting Programme	NRA 10		1,100,000	899,299	90,849	990,148	109,852	
Pavement Mgt & Other Roads Asset Mangt. Programme	NRA 11		30,000	30,268	2,904	33,171.67	(3,172)	
Road Safety & Roadside Guard Rail Installation Program	NRA 12		-			-	-	
Explosive & Blasting Management	NRA 13		-			-	-	
Arterial Road Surface Rehabilitation	NRA 14		-			-	-	
Provisions for Other Costs	NRA 15		1,800,000	1,650,000	150,000	1,800,000	-	
			-	10,000,000	9,691,363.74	308,636	10,000,000	0.00
	<b>EA's</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>	
Miscellaneous Road Surface Upgrades	EA36		-			-		
Various District Roads hot mix overlay		3,777,442	6,777,442	-	-	-		
EA36GUARDRAIL				243,079	-	243,079		
EA36CAPITAL DRAINS PROJECT				567,971	6,772.13	574,743		
EA36 MISC.EXEC.ASSET ROADWORKS				5,703,220	17,110.64	5,720,330	239,289	
<b>NICE Project</b>				72,166		72,166		
EA150 Assist DVDL hardware EVR system	EA150	-	100,000	3,889	-	3,889	96,111	
EA148 Major Road Works - expansion Projects	EA148	2,350,000	15,210,972	171,334		171,334		
EA148B600								
EA148GT01 SHAMROCK/HIRST RD								
EA148GT02 NORTH CHURCH ST								
EA148GT05 CNB RAB to Mango Tree connector								
EA148GT04-Linford Pearson Highway widening				24,150	-	24,150		
EA148GT05 SELKIRK DRIVE/ABBAY WAY								
EA148 VAR DISTRICT PROJECTS				12,551,970	10,028.98	12,561,999		
EA148GT041 Island Heritage RAB								
EA148GT25 Airport Connector Road				2,191,770	-	2,191,770	261,719	
EA142GT George Town Revitalization				16,767	103,284.41			
EA147BT03/NS02-Ministry Minor Works				472,282	168,504.59	640,787		
				6,127,442	22,088,414	22,018,597	305,701	
							22,204,247	
							597,120	
PAH25 - Tropical Storm Grace Cleanup				612,603.25				

## Section 6 - Summarised Financial Statements

*A full set of audited financial statements for The National Roads Authority is provided in the Appendix to this Annual Report.*

A summary of those is as follows.

Operating Statement	2021 Actual \$
Revenue	33,409,550
Operating Expenses	10,850,259
Net Surplus(Deficit)	(353,116)

Balance Sheet	2021 Actual \$
Total Assets	17,586,106
Total Liabilities	32,020,255
Total Net Worth	(14,434,149)

Statement of Cash Flows	2021 Actual \$
Net cash flows from operating activities	1,682,466
Net cash flows from investing activities	(767,446)
Net cash flows from financing activities	-

### Equity Investments

Transaction	2021 Actual \$
EI 8: Equity Investments into National Roads Authority	Nil

### Capital Withdrawals

Transaction	2021 Actual \$
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**National Roads Authority**  
**Statement of Financial Performance**  
**For the year ended 31 December 2021**  
**(Stated in Cayman Islands Dollars)**

Capital Withdrawals from National Roads Authority.	Nil
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Dividends or Profit Distributions

Transaction	2021 Actual \$
Dividend or Profit Distributions to be made by National Roads Authority.	Nil

Loans

Transaction	2021 Actual \$
Government Loans to be made to National Roads Authority.	Nil

Guarantees

Transaction	2021 Actual \$
Government Guarantees to be issued in relation to National Roads Authority.	Nil

**Other Financial Information**

Detailed below is information about specific financial transaction required to be included in the Ownership Agreement by the Public Management and Finance Act (2005 Revision).

Related Party Payments (Non-Remuneration) made to Key Management Personnel	Nil
Remuneration Payments made to Board of Directors was \$32K and other Key Management Personnel was \$919K	\$951K
No of Key Management Personnel (9 Directors + 7 key managers)	16
No of Senior Management	2

Key management includes all of the key managers plus voting members of the Board of Directors.

Senior management personnel in 2021 included: Managing Director (1), Deputy Managing Director (vacant), and Chief Financial Officer (1).





**National Roads Authority**  
**Statement of Financial Performance**  
**For the year ended 31 December 2021**  
**(Stated in Cayman Islands Dollars)**

**Capital Maintenance**

<b>Human Capital Measures</b>	<b>2021 Actual \$</b>
Total full time equivalent staff	112 Fulltime:94 Temporary: 18
Staff turnover (%)	-
Average length of service (Number)	
Senior management	14.33(2)
Professional staff	14.71(29)
Administrative staff	13.22(50)
Significant changes to personnel management system	Upgrades were made to accounting and HRM software systems

Note 1: Length of service is calculated based on time of employment with NRA and formerly with PWD.

**Risk Management:**

<b>Key risks</b>	<b>Change in status from previous year</b>	<b>Actions to manage risk</b>	<b>Financial value of risk</b>
Work related injuries to persons	No change	Introduction, training and implementation of safety standards for heavy equipment machinery and workforce personnel.	Undefined: depends on extent of injury
Accidents related to the operation of vehicles and heavy equipment	No change	Implement driver-training courses. HOD to exercise appropriate disciplinary action for each offence or repeating offender, such as loss of authority to drive or financial contribution by driver. Appropriate training in operation of vehicle to reduce operational misuse of the vehicle.	Undefined: depends on extent of damage



**National Roads Authority  
Statement of Financial Performance  
For the year ended 31 December 2021  
(Stated in Cayman Islands Dollars)**

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**National Roads Authority**

**Financial Statements**

**December 31, 2021**

## Table of Contents

Statement of Responsibility for the Financial Statements.....	1
Auditor General’s Report .....	2-3
Statement of Financial Position .....	4
Statement of Financial Performance.....	5
Statement of Changes in Net Worth .....	6
Statement of Cash Flows.....	7
Notes to the Financial Statements.....	8-34

**National Roads Authority  
Financial Statements  
31 December 2021**

**STATEMENT OF RESPONSIBILITY FOR THE FINANCIAL STATEMENTS**

These financial statements have been prepared by the National Roads Authority in accordance with the provisions of the *Public Management and Finance Act (2020 Revision)* and referenced to Section 26 (1b) of the *National Roads Authority (2016 Revision)*.

We accept responsibility for the accuracy and integrity of the financial information in these financial statements and their compliance with the *Public Management and Finance Act (2020 Revision)*.

As Chairman and Managing Director, we are responsible for establishing; and have established and maintained a system of internal controls designed to provide reasonable assurance that the transactions recorded in the financial statements are authorised by law, and properly record the financial transactions of the National Roads Authority.

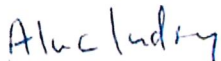
As Chairman and Managing Director we are responsible for the preparation of the National Roads Authority financial statements and for the judgements made in them.

The financial statements fairly present the statement of financial position, statement of financial performance, statement of cash flows and statement of changes in net worth for the year ended 31 December 2021.

To the best of our knowledge we represent that these financial statements:

- (a) completely and reliably reflect the financial transactions of National Roads Authority for the year ended 31 December 2021;
- (b) fairly reflect the financial position as at 31 December 2021 and performance for the year ended 31 December 2021; and
- (c) comply with International Public Sector Accounting Standards as set out by the International Public Sector Accounting Standards Board. Where guidance is not available, the financial statements comply with International Accounting Standards issued by the International Accounting Standards Committee or accounting practice that is generally accepted in the United Kingdom as appropriate for reporting in the public sector.

The Office of the Auditor General conducts an independent audit and expresses an opinion on the accompanying financial statements. The Office of the Auditor General has been provided access to all the information necessary to conduct an audit in accordance with International Standards on Auditing.



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*Alric Lindsay*  
Chairman  
National Roads Authority



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*Edward Howard*  
Managing Director  
National Roads Authority

Date: May 4, 2022

Date: May 4, 2022

## AUDITOR GENERAL'S REPORT

To the Board of Directors of the National Roads Authority

### Opinion

I have audited the financial statements of the National Roads Authority (the "Authority"), which comprise the statement of financial position as at 31 December 2021 and the statement of financial performance, statement of changes in net worth and statement of cash flows for the year then ended, and notes to the financial statements, including a summary of significant accounting policies as set out on pages 8 to 34.

In my opinion, the accompanying financial statements present fairly, in all material respects, the financial position of the Authority as at 31 December 2021 and its financial performance and its cash flows for the year then ended in accordance with International Public Sector Accounting Standards.

### Basis for Opinion

I conducted my audit in accordance with International Standards on Auditing (ISAs). My responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Financial Statements section of my report. I am independent of the Authority in accordance with the International Ethics Standards Board for Accountants' *Code of Ethics for Professional Accountants (IESBA Code)*, together with the ethical requirements that are relevant to my audit of the financial statements in the Cayman Islands, and I have fulfilled my other ethical responsibilities in accordance with these requirements and the IESBA Code. I believe that the audit evidence I have obtained is sufficient and appropriate to provide a basis for my opinion.

### Emphasis of Matter

As outlined in note 14 of the financial statements, *The Public Authorities Act (2020 Revision), Section 47 - Terms and conditions and remuneration of staff* came into effect on 1 June 2019 and required all Statutory Authorities and Government Companies to comply with its requirements to standardise salaries and benefits. At the date of this report, the process to complete this standardisation has not been completed. My opinion is not modified in respect of this matter.

### Responsibilities of Management and Those Charged with Governance for the Financial Statements

Management is responsible for the preparation and fair presentation of the financial statements in accordance with International Public Sector Accounting Standards and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is responsible for assessing the Authority's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Authority or to cease operations, or has no realistic alternative but to do so.

Those charged with governance are responsible for overseeing the Authority's financial reporting process.

## AUDITOR GENERAL'S REPORT (continued)

### Auditor's Responsibilities for the Audit of the Financial Statements

My objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes my opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As part of an audit in accordance with ISAs, I exercise professional judgment and maintain professional skepticism throughout the audit. I also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for my opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Authority's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Authority's ability to continue as a going concern. If I conclude that a material uncertainty exists, I am required to draw attention in my auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify my opinion. My conclusions are based on the audit evidence obtained up to the date of my auditor's report. However, future events or conditions may cause the Authority to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the financial statements, including disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

I have undertaken the audit in accordance with the provisions of section 60(1)(a) of the Public Management and Finance Act (2020 revision). I communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that I identify during my audit.



Sue Winspear, CPFA  
Auditor General

4 May 2022  
Cayman Islands



National Roads Authority  
Statement of Financial Position  
As at 31 December 2021  
(Stated in Cayman Islands Dollars)

	Note	2021 \$	2020 \$
<b>ASSETS</b>			
<b>Current Assets</b>			
Cash and cash equivalents	3	10,348,524	9,433,504
Accounts receivable and prepayments	4	4,111,042	3,472,589
Inventories	5	134,623	37,541
<b>Total Current Assets</b>		<b>14,594,189</b>	<b>12,943,634</b>
<b>Non-Current Assets</b>			
Property, plant and equipment	6	2,991,917	2,649,949
<b>Total Assets</b>		<b>17,586,106</b>	<b>15,593,583</b>
<b>LIABILITIES AND EQUITY</b>			
<b>Current Liabilities</b>			
Accounts payable and accrued liabilities	7	2,221,169	3,045,780
Employee entitlements	8	69,086	62,836
<b>Total Current Liabilities</b>		<b>2,290,255</b>	<b>3,108,616</b>
<b>Non-Current Liability</b>			
Pension liability	11	1,601,000	2,889,000
Post-retirement health liability	12	28,129,000	29,772,000
<b>Total Non-Current Liabilities</b>		<b>29,730,000</b>	<b>32,661,000</b>
<b>Total Liabilities</b>		<b>32,020,255</b>	<b>35,769,616</b>
<b>Net Assets</b>		<b>(14,434,149)</b>	<b>(20,176,033)</b>
<b>Net Worth</b>			
Contributed capital	9	4,653,535	4,653,535
Accumulated Deficits		(19,087,684)	(24,829,568)
<b>Total Net Worth</b>		<b>(14,434,149)</b>	<b>(20,176,033)</b>

The accompanying notes on pages 8 - 34 form an integral part of these financial statements.

Approved on behalf of the Board on the 5<sup>th</sup> of May 2022

Alric Lindsay  
Chairman

Edward Howard  
Managing Director



**National Roads Authority**  
**Statement of Financial Performance**  
**For the year ended 31 December 2021**  
**(Stated in Cayman Islands Dollars)**

	Note	2021 \$	2020 \$
<b>REVENUE</b>	13	<b>33,409,550</b>	<b>20,757,037</b>
<b>COST OF GOODS SOLD</b>			
Subcontractors		15,531,207	7,225,695
Materials		4,292,950	2,035,663
Labour		3,076,462	2,826,774
Hired equipment		11,788	39,515
<b>Total Cost of Goods Sold</b>		<b>22,912,407</b>	<b>12,127,647</b>
<b>NET REVENUE</b>		<b>10,497,143</b>	<b>8,629,391</b>
<b>OPERATING EXPENSES</b>			
Personnel costs	10	4,437,483	4,095,928
Post- retirement health liability	12	2,855,000	2,666,000
Utilities (Streetlights)		1,009,885	949,072
Electricity and Water		42,707	36,568
Motor vehicle expenses (including insurance)		1,073,918	658,377
Depreciation	6	504,919	463,293
Past service pension	11	309,000	582,000
Computer maintenance and fees		175,018	163,289
Professional fees		132,265	130,971
Building maintenance		81,498	84,735
Telephone		56,952	45,387
Supplies and consumables		76,335	77,876
Advertising and promotion		41,147	40,556
Bank charges		12,295	8,656
Doubtful Debt Expense		-	73,523
Settlement of Case		27,378	-
Insurance		14,459	10,527
Office rental		-	15,235
<b>Total Operating Expenses</b>		<b>10,850,259</b>	<b>10,101,993</b>
<b>SURPLUS /(DEFICIT)</b>		<b>(353,116)</b>	<b>(1,472,602)</b>

The accompanying notes on pages 8 - 34 form an integral part of these financial statements.





**National Roads Authority**  
**Statement of Changes in Net Worth**  
**For the year ended 31 December 2021**  
**(Stated in Cayman Islands Dollars)**

	Note	Accumulated Surplus (deficits) \$	Contributed Capital \$	Total \$
<b>Balance at 31 December 2019</b>		<b>(19,868,966)</b>	<b>4,653,535</b>	<b>(15,215,431)</b>
Capital Contribution		-	-	-
2020 deficit		(1,472,602)	-	(1,472,602)
Remeasurement of employment benefit obligation	11	(1,266,000)	-	(1,266,000)
Remeasurement of post-retirement health obligation	12	(2,222,000)	-	(2,222,000)
<b>Balance at 31 December 2020</b>		<b>(24,829,568)</b>	<b>4,653,535</b>	<b>(20,176,033)</b>
Capital Contribution		-	-	-
2021 deficit		(353,116)	-	(353,116)
Remeasurement of employment benefit obligation	11	1,597,000	-	1,597,000
Remeasurement of post-retirement health obligation	12	4,498,000	-	4,498,000
<b>Balance at 31 December 2021</b>		<b>(19,087,684)</b>	<b>4,653,535</b>	<b>(14,434,149)</b>

The accompanying notes on pages 8 - 34 form an integral part of these financial statements.

**National Roads Authority**  
**Statement of Cash Flows**  
**For the year ended 31 December 2021**  
**(Stated in Cayman Islands Dollars)**

	Note	2021 \$	2020 \$
<b>CASH FLOWS USED IN OPERATING ACTIVITIES</b>			
<b>Surplus / Deficit</b>		<b>(353,116)</b>	<b>(1,472,603)</b>
Adjustment for non-cash transactions:			
Depreciation	6	504,919	463,293
Post-retirement health liability – Defined benefit cost		3,067,000	2,823,000
Past service pension – Defined benefit cost		445,000	348,000
Past service pension – – Net transfer in(business combination/divestitures)		-	324,000
Bad Debts		-	73,523
Gain on disposal of property, plant and equipment		(79,441)	(18,300)
Total		3,584,362	2,540,914
Net change in working capital			
Decrease in accounts receivable and prepayments		(638,453)	(649,965)
(Increase)/decrease in inventories		(97,082)	16,311
Increase/(decrease) in accounts payable and accrued liabilities		(818,361)	1,369,713
Post-retirement health liability – Employer contributions		(212,000)	(157,000)
Past service pension – – Employer contributions		(136,000)	(90,000)
<b>Net cash flows from operating activities</b>		<b>1,682,466</b>	<b>3,029,973</b>
<b>CASH FLOWS USED IN INVESTING ACTIVITIES</b>			
Purchase of property, plant and equipment	6	(846,887)	(592,217)
Proceeds on sale of property, plant and equipment		79,441	18,300
<b>Net cash flows used in investing activities</b>		<b>(767,446)</b>	<b>(573,917)</b>
<b>CASH FLOWS FROM FINANCING ACTIVITIES</b>			
Equity Investment		-	-
<b>Net cash flows from financing activities</b>		<b>-</b>	<b>-</b>
Net increase in cash and cash equivalents during the year		915,020	2,456,056
Cash and cash equivalents at the beginning of the year		9,433,504	6,977,448
<b>CASH AND CASH EQUIVALENTS AT END OF YEAR</b>	3	<b>10,348,524</b>	<b>9,433,504</b>

The accompanying notes on pages 8 - 34 form an integral part of these financial statements.

**National Roads Authority  
Statement of Cash Flows  
For the year ended 31 December 2021  
(Stated in Cayman Islands Dollars)**

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**1. Establishment and Principal Activity**

The National Roads Authority (“NRA” or “Authority”) is an independent Statutory Authority which was created on 1 July 2004 by the National Roads Authority Act, 2004. The Authority reports on its operations to the Ministry of Commerce, Planning & Infrastructure of the Cayman Islands Government.

The NRA was created to administer, manage, control, develop and maintain the Island’s public roads and related facilities, such as signals, storm water facilities, roadway lighting, and roadway directional signage. The scope of activities of the NRA include providing policy advice, publication of a National Roads Plan, provision of project and construction management services for the delivery of new road-works and the maintenance and management of the existing road infrastructure.

Section 19 of the *NRA Act 2006 Revision* was repealed effective on July 1, 2014 to make provision for the Authority to be funded from the Roads Fund. The substitution to the section of the Act makes way for the Cabinet to authorize the transfer of revenue, not exceeding ten million dollars, to the Authority, via the Road Fund, for the purpose of funding the Authority’s annual operating costs, in particular, the construction, upgrading, rehabilitation and maintenance of public roads.

As at 31 December 2021, the NRA had 112 employees (31 December 2020: 82 employees). The NRA is located at 342B Dorcy Drive, P.O. Box 10426, Grand Cayman KY1-1004, Cayman Islands.

**2. Significant Accounting Policies**

*(a) Basis of preparation*

These financial statements have been prepared in accordance with International Public Sector Accounting Standards (IPSAS) issued by the International Federation of Accountants and its International Accounting Standards Board using the accrual basis of accounting. Where additional guidance is required, International Financial Reporting Standards (IFRS) issued by the International Accounting Standards Board are used.

Certain new accounting standards have been published that are not mandatory for the 31 December 2021 reporting period and have not been early adopted by the Authority. The Authority’s assessment of the impact of these new standards is set out below:

IPSAS 41, Financial Instruments was issued in August 2018 and shall be applied for financial statements covering periods beginning on or after 1 January 2022. IPSAS 41 establishes new requirements for classifying, recognizing and measuring financial instruments to replace those in IPSAS 29, Financial Instruments: Recognition and Measurement. It is anticipated that IPSAS 41 will not have a significant impact on the Authority’s financial statements. This will be assessed more fully closer to the effective date of adoption.

The financial statements have been prepared on a going concern basis and the accounting policies set out below have been applied consistently to all periods presented. The financial statements of the Authority are presented in Cayman Island dollars and are prepared on the accrual basis under the historical cost convention.

**National Roads Authority  
Statement of Cash Flows  
For the year ended 31 December 2021  
(Stated in Cayman Islands Dollars)**

---

**2. Significant Accounting Policies (continued)**

*(a) Basis of preparation (continued)*

Corresponding amounts

The corresponding amounts are the audited amounts for the year ended 31 December 2021. When presentation or classification of items in the financial statements is amended or accounting policies are changed, comparative figures are restated to ensure consistency with the current year unless it is impracticable to do so.

The significant accounting policies adopted by the NRA in these financial statements are as follows:

*(b) Cash and cash equivalents*

This comprises cash at bank and short term investments with maturity at inception of three months or less.

*(c) Foreign currency translation*

All assets and liabilities denominated in foreign currency are translated to Cayman Islands Dollars at exchange rates in effect at the financial position date. Revenue and expense transactions denominated in foreign currency are translated to Cayman Islands Dollars at exchange rates ruling at the date of those transactions. Gains and losses arising on translation are included in the statement of financial performance.

*(d) Property, plant and equipment/depreciation*

Property, plant and equipment include motor vehicles, heavy equipment, dump trucks, furniture and fixtures and computer hardware and software are stated at cost less accumulated depreciation and impairment losses. Depreciation is calculated on a straight-line basis at annual rates estimated to write off the carrying value of each asset over the period of its expected useful life.

Annual rates are as follows:

Vehicles and Heavy Equipment	4 - 12 Years
Furniture and Fixtures	3 - 15 Years
Computer Hardware and Software	3 - 6 Years
Other Plant and Equipment	3 - 20 Years

*(e) Accounts receivables*

Receivables are stated at original invoice amounts less provision for doubtful debts.

*(f) Allowance for bad debts*

The allowance for bad debts is established through a provision for bad debts charged to expenses. Accounts receivable are written off against the allowance when management believes that the collectability of the amount is unlikely. The allowance is an amount that management believes will be adequate to cover any bad debts, based on an evaluation of collectability and prior bad debts experience.

**National Roads Authority**  
**Statement of Cash Flows**  
**For the year ended 31 December 2021**  
**(Stated in Cayman Islands Dollars)**

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**2. Significant Accounting Policies (continued)**

*(g) Accounts Payable and accrued liabilities*

Accounts payable are recorded at the amount owing after allowing for credit notes and other adjustments.

*(h) Employee entitlements*

*Pension Plans*

The Authority makes pension contributions for its eligible employees to the Public Service Pensions Fund, which is administered by the Public Service Pensions Board. The Fund has both a defined benefit and a defined contribution element.

Under defined contribution plans, the Authority pays fixed contributions and has no obligation to pay further contributions if the fund does not have sufficient assets to pay employee benefits relating to employee service in the current and prior periods. The Authority recognises contributions to a defined contribution plan when an employee has rendered services in exchange for those contributions.

A defined benefit plan is one that defines an amount of benefit to be provided, usually as a function of one or more factors such as age, years of service or compensation. The asset or liability in respect of defined benefit plans is the difference between the present value of the defined benefit obligation at the financial position date and the fair value of plan assets, adjusted for unrecognised actuarial gains/losses and past service cost. Where a pension asset arises, the amount recognised is limited to the net total of any cumulative unrecognised net actuarial losses and past service cost and the present value of any economic benefits available in the form of refunds from the plan or reduction in future contributions to the plan. The pension costs are assessed using the Projected Unit Credit Method. Under this method the cost of providing pensions is charged in the statement of financial performance so as to spread the regular cost over the service lives of employees in accordance with advice of the actuary, (who is due to carry out a full valuation of the plans every year). The pension obligation is measured at the present value of the estimated future cash outflows using discount estimated rates based on market yields on high quality corporate bonds at the time of the accounting date which have terms to maturity approximating the terms of the related liability.

Obligations for contributions to defined contribution and defined benefits pension plans are recognized as an expense in the statement of financial performance as incurred. (See also Note 11).

Amounts incurred but not paid at the end of the reporting period are accrued. Annual leave due, but not taken, is recognized as a liability.

**National Roads Authority  
Statement of Cash Flows  
For the year ended 31 December 2021  
(Stated in Cayman Islands Dollars)**

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**2. Significant Accounting Policies (continued)**

*(i) Revenue recognition*

Revenue from sale of services to other government agencies is recognised when it is earned. Unearned revenue comprises amounts paid to the Authority in advance of work performed and amounts which the Authority has invoiced for in advance of work performed. These unearned amounts are recognized as revenue in the statement of financial performance as work is performed related to the amounts received or billed in advance. Investment revenue is recognised in the period in which it is earned. Donations are recognised at fair value at the time of receipt.

*(j) Expense recognition*

Expenses are recognised when incurred.

*(k) Financial Instruments*

*(i) Classification*

A financial asset is classified as any asset that is cash, a contractual right to receive cash or another financial asset, exchange financial instruments under conditions that are potentially favourable or an equity instrument of another enterprise. Financial assets comprise of cash and cash equivalents and accounts receivable.

A financial liability is any liability that is a contractual obligation to deliver cash or another financial instrument or to exchange financial instruments with another enterprise under conditions that are potentially unfavourable. Financial liabilities comprise of accounts payable, unearned revenue and employee entitlements.

*(ii) Recognition*

The Authority recognises financial assets and financial liabilities on the date it becomes party to the contractual provisions of the instrument. From this date, any gains and losses arising from changes in fair value of the assets or liabilities are recognised in the statement of financial performance.

*(iii) Measurement*

Financial instruments are measured initially at cost which is the fair value of the consideration given or received. Subsequent to initial recognition all financial assets are recorded at historical cost, which is considered to approximate fair value due to the short-term or immediate nature of these instruments.

*(iv) Derecognition*

A financial asset is derecognised when the Authority realises the rights to the benefits specified in the contract or loses control over any right that comprise that asset. A financial liability is derecognised when it is extinguished, that is when the obligation is discharged, cancelled, or expired.

*(v) Credit Risk*

Cash and short term investments are held with substantial financial institutions. Receivables are short term and settled after the year-end.

**National Roads Authority**  
**Statement of Cash Flows**  
**For the year ended 31 December 2021**  
**(Stated in Cayman Islands Dollars)**

**2. Significant Accounting Policies (continued)**

*(k) Financial Instruments (continued)*

*(vi) Interest Rate Risk*

The Authority's income and operating cash flows are substantially independent of changes in market interest rates.

**3. Cash and Cash Equivalents**

	<b>2021</b>	<b>2020</b>
	\$	\$
Bank account	3,056,862	3,949,383
Short term deposits	7,291,662	5,484,121
<b>Total Cash and Cash Equivalents</b>	<b><u>10,348,524</u></b>	<b><u>9,433,504</u></b>

The Board of Directors resolved to fund the post-retirement health liability with annual contributions as advised during 2016 by the Actuaries with an annual minimal amount of \$1,500,000. During 2021 Management approved a contribution of \$1,800,000. NRA holds the funds approved by the Board in a term deposit account held with RBC Royal Bank (Cayman Islands). The funds held in the term deposit account do not qualify as a "Plan Asset" as defined by IPSAS 39, Employee Benefits, and therefore have not been offset against the year-end post-retirement health liability of \$28,129,000. Ongoing steps are being pursued by the NRA to place these funds in a qualifying financial vehicle to allow the funds to meet the requirements of IPSAS 39, Employee Benefits.

**4. Accounts Receivable and Prepayments**

	<b>2021</b>	<b>2020</b>
	\$	\$
Receivables from Core Government	3,547,966	3,174,798
Receivables from other government agencies	13,168	6,577
Other accounts receivable and prepayments	549,908	290,764
Staff loans	-	450
<b>Total Accounts Receivable</b>	<b><u>4,111,042</u></b>	<b><u>3,472,589</u></b>

Receivables from core government is net of \$73,523 bad debt provision (2020: \$73,523) relating to StreetLight June 2014 not recovered from Ministry. Prepayments amount to \$545,734.(2020: \$283,430)net of \$4,174 (2020: \$7,334.) other receivables.

**5. Inventories**

	<b>2021</b>	<b>2020</b>
	\$	\$
Finished Goods - Cayman Rock	13,932	-
Finished Goods - AE60	83,052	14,929
Finished Goods - Crusher Run	10,033	12,420
Finished Goods - 3/8 Washed Chips	20,455	2,761
Finished Goods – Sand	2,872	1,292
Finished Goods – Concrete Stone	4,279	6,139
<b>Total Inventories</b>	<b><u>134,623</u></b>	<b><u>37,541</u></b>

**National Roads Authority**  
**Statement of Cash Flows**  
**For the year ended 31 December 2021**  
**(Stated in Cayman Islands Dollars)**

**6. Property, Plant and Equipment**

	<b>Vehicles &amp; Heavy Equipment</b>	<b>Furniture &amp; Fixtures &amp; Office Equipment</b>	<b>IT Equipment</b>	<b>Other Plant &amp; Equipment</b>	<b>Leasehold Improvement</b>	<b>Total</b>
<b>Cost</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>
Opening 2020	3,630,896	267,194	280,531	2,898,146	273,837	7,350,604
Additions 2020	351,741	1,542	9,029	229,905	-	592,217
Asset write-backs	-	-	-	-	-	-
Asset write-offs	-	-	-	-	-	-
Disposals 2020	(182,004)	-	-	(34,560)	-	(216,564)
As at 2020	3,800,633	268,736	289,560	3,093,491	273,837	7,726,257
Additions 2021	457,213	-	3,079	386,595	-	846,887
Asset write-backs	-	-	-	-	-	-
Asset write-offs	-	-	-	-	-	-
Disposals 2021	(157,566)	-	-	(14,140)	-	(171,706)
As at 2021	4,100,280	268,736	292,639	3,465,946	273,837	8,401,438
<b>Accumulated Depreciation</b>						
Opening 2020	2,558,852	162,096	196,353	1,638,441	273,837	4,829,579
Depreciation 2020	167,300	17,969	23,524	254,500	-	463,293
Write-backs	-	-	-	-	-	-
Write-offs	-	-	-	-	-	-
Depreciation on Disposal 2020	(182,004)	-	-	(34,560)	-	(216,564)
As at 2020	2,544,148	180,065	219,877	1,858,381	273,837	5,076,308
Depreciation 2021	202,191	17,586	22,391	262,751	-	504,919
Write-backs	-	-	-	-	-	-
Write-offs	-	-	-	-	-	-
Depreciation on Disposal 2021	(157,566)	-	-	(14,140)	-	(171,706)
As at 2021	2,588,773	197,651	242,268	2,106,992	273,837	5,409,521
<b>Net Book Value - 2020</b>	<b>1,256,485</b>	<b>88,616</b>	<b>68,764</b>	<b>1,235,110</b>	<b>-</b>	<b>2,649,949</b>
<b>Net Book Value - 2021</b>	<b>1,511,507</b>	<b>71,085</b>	<b>50,371</b>	<b>1,358,954</b>	<b>-</b>	<b>2,991,917</b>



**National Roads Authority**  
**Statement of Cash Flows**  
**For the year ended 31 December 2021**  
**(Stated in Cayman Islands Dollars)**

**7. Accounts Payable and Accrued Liabilities**

	<b>2021</b>	<b>2020</b>
	<b>\$</b>	<b>\$</b>
Trade creditors	2,140,827	2,982,578
Wages payable	80,342	63,202
<b>Total Accounts Payable and Accrued Liabilities</b>	<b>2,221,169</b>	<b>3,045,780</b>

**8. Employee Entitlements**

The leave entitlements are calculated based on current salary paid to those employees who are eligible for this benefit. During the year, accrued vacation leave amounted to \$69,086 (2020: \$62,836).

**9. Contributed Capital**

During the year, the Authority received no equity injections (2020: NIL).

**10. Personnel Costs**

	<b>2021</b>	<b>2020</b>
	<b>\$</b>	<b>\$</b>
Salaries and wages	2,185,607	2,081,370
Health Insurance	1,784,876	1,607,309
Employer and Employee pension expenses	294,094	288,195
Vacation due	6,250	(30,660)
Other personnel costs	166,656	149,714
<b>Total Personnel Costs</b>	<b>4,437,483</b>	<b>4,095,928</b>

**11. Pensions**

Pension contributions for eligible employees of the Authority are paid to the Public Service Pensions Fund (the "Fund"). The Fund is administered by the Public Service Pensions Board ("the Pensions Board") and is operated as a multi-employer plan. Prior to 1 January 2000 the scheme underlying the Fund was a defined benefit scheme. With effect from 1 January 2000 the Fund had both a defined benefit and a defined contribution element, with participants joining after 1 January 2000 becoming members of the defined contribution element only.

Benefit obligations are estimated using the Projected Unit Credit method. Under this method, each participant's benefits under the plan are attributed to years of service, taking into consideration future salary increases and the plan's benefit allocation formula. Thus, the estimated total pension to which each participant is expected to become entitled at retirement is broken down into units, each associated with a year of past or future credited service.

**National Roads Authority**  
**Statement of Cash Flows**  
**For the year ended 31 December 2021**  
**(Stated in Cayman Islands Dollars)**

**11. Pensions (continued)**

The Fund has been valued by the Actuary (Mercer) to the Pensions Board. The defined contribution part of the Fund is not subject to the special actuarial valuations due to the nature of the benefits provided therein.

The Authority paid both the employee and employers contributions. The actual amount of pension expense relating to the defined benefits for staff also includes the effect of the changes in the actuarial determined liability.

In March 2005, the Financial Secretary of the Cayman Islands Government informed the Authority that the decision to keep the unfunded past service liability a central liability of the Government had been reversed and the Authority recognizes the unfunded past service liability as a liability in its financial statements.

*The amounts recognized in the statement of financial position is as follows:*

	<b>2021</b>	<b>2020</b>
	<b>\$000</b>	<b>\$000</b>
Defined benefit obligation	7,506	8,313
Fair value of plan assets	5,905	5,424
Funded status	1,601	2,889
Net liability	1,601	2,889

*The change in defined benefit obligation is as follows:*

	<b>2021</b>	<b>2020</b>
	<b>\$000</b>	<b>\$000</b>
Defined benefit obligation at end of prior year	8,313	5,903
Service Cost	384	318
Interest expense	183	186
Cash flows	(348)	75
Remeasurements	(1,026)	1,831
Defined benefit obligation at end of year	7,506	8,313

*The change in fair value of plan assets is as follows:*

	<b>2021</b>	<b>2020</b>
	<b>\$000</b>	<b>\$000</b>
Fair value of plan assets at end of prior year	5,424	4,862
Interest Income	122	156
Cash flows – employer and participant contributions	188	165
Benefit payments from plan assets/Transfer other Employers	(400)	-
Other Significant events-Business combinations/divestitures/transfers	-	(324)
Remeasurements	571	565
Fair value of plan assets at end of year	5,905	5,424

**National Roads Authority**  
**Statement of Cash Flows**  
**For the year ended 31 December 2021**  
**(Stated in Cayman Islands Dollars)**

**11. Pensions (continued)**

*The net defined benefit liability (asset) reconciliation:*

	<b>2021</b>	<b>2020</b>
	<b>\$000</b>	<b>\$000</b>
Net defined benefit liability as of beginning of year	2,889	1,041
Defined benefit cost included in the Profit & Loss	445	348
Total remeasurements included in the Statement of Changes in Net Worth	(1,597)	1,266
Other Significant events-Business combinations/divestitures/transfers	-	324
Cash flows	(136)	(90)
Net defined benefit liability as of end of year	<u>1,601</u>	<u>2,889</u>

*The components of defined benefit cost are as follows:*

	<b>2021</b>	<b>2020</b>
	<b>\$000</b>	<b>\$000</b>
Service Cost	384	318
Net interest cost		
Interest expense on DBO	183	186
Interest (income) on plan assets	(122)	(156)
Total net interest cost	61	30
Defined benefit cost included in Profit & Loss (P&L)	445	348
Effect of changes in demographic assumptions	13	(234)
Effect of changes in financial assumptions	(537)	1,562
Effect of experience adjustments	(502)	503
(Return) on plan assets (excluding interest income)	(571)	(565)
(Return) on reimbursement rights (excluding interest income)	-	-
Changes in asset ceiling/onerous liability (excluding interest income)	-	-
Total remeasurements included in the Statement of Changes in Net Worth (SCNW)	(1,597)	1,266
Total defined benefit cost recognized in the P&L and SCNW	<u>(1,152)</u>	<u>1,614</u>

*The sensitivity analysis on defined benefit obligation is shown below:*

	<b>2021</b>	<b>2020</b>
1. Discount rate		
a. Discount rate – 25 basis points	7,950	8,830
b. Discount rate + 25 basis points	7,094	7,835
2. Inflation rate		
a. Inflation rate – 25 basis points	7,122	7,849
b. Inflation rate + 25 basis points	7,917	8,812
3. Mortality		
a. Mortality - 10% of current rates	7,711	8,554
b. Mortality + 10% of current rates	7,321	8,095

*The expected cash flow for the following year is as follows:*

**National Roads Authority  
Statement of Cash Flows  
For the year ended 31 December 2021  
(Stated in Cayman Islands Dollars)**

**11. Pensions (continued)**

	<b>Amount (\$000)</b>	
Expected employer contributions	121	132

*The significant actuarial assumptions are presented below:*

Weighted-average assumptions to determine defined benefit obligations

	<b>2021</b>	<b>2020</b>
1. Effective discount rate for defined benefit obligation	2.90%	2.60%
2. Rate of salary increase	2.50%	2.50%
3. Rate of price inflation	2.00%	2.00%
4. Rate of pension increases	2.00%	2.00%
5. Post-retirement mortality table	RP-2014 scaled back to 2006 using Scale MP-2014 then generationally Projected using Scale MP-2021	RP-2014 scaled back to 2006 using Scale MP-2014 then generationally Projected using Scale MP-2020
6. Cost Method	Projected Unit Credit	Projected Unit Credit
7. Asset valuation method	Market Value	Market Value

Weighted-average assumptions to determine defined benefit cost

	<b>2021</b>	<b>2020</b>
1. Effective rate for net interest cost	2.20%	3.15%
2. Effective discount rate for service cost	2.70%	3.60%
3. Effective rate for interest on service cost	2.50%	3.40%
4. Rate of salary increase	2.50%	2.50%
5. Rate of price inflation	2.00%	2.00%
6. Rate of pension increases	2.00%	2.00%
7. Post-retirement mortality table	RP-2014 scaled back to 2006 using scale MP-2014 then generational projected from 2006 using Scale MP-2020	RP-2014 scaled back to 2006 using scale MP-2014 then generational projected from 2006 using Scale MP-2019

**National Roads Authority  
Statement of Cash Flows  
For the year ended 31 December 2021  
(Stated in Cayman Islands Dollars)**

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**11. Pensions (continued)**

***Plan Assets***

The Defined Benefit assets as well as Defined Contribution assets of the Plan are held as part of the Public Service Pensions Fund (“the Fund”) and managed by the PSPB. The assets of two other pension plans are pooled together to constitute the Fund. The assets are notionally allocated to each of the three participating pension plans through an internal accounting mechanism that tracks, for each accounting period, actual cash flows and allocates investment income and expenses in proportion to the opening value of assets allocated. Based on the data provided, the gross rate of return earned by the Fund for the fiscal 2021 was 13.02% and 15.61% for fiscal 2020. Similar internal accounting is used for developing each participating entity’s share of the asset portfolio of the Fund.

The valuations are based on the asset values as at 31 December 2021 as well as asset value as at 31 December 2020 provided by PSPB, along with cash flow and other supplemental asset information. The assets are held in trust by CIBC Mellon.

The Fund currently has investment policy with a target asset mix of 80% equities and 20% bonds. As at 31 December 2021, the Fund was invested as follows:

<b>Plan Assets by Asset Category</b>	<b>2021</b>		<b>2020</b>	
	<b>(\$000)</b>	<b>Percentage</b>	<b>(\$000)</b>	<b>Percentage</b>
Global equities securities	945,780	82%	816,513	82%
Debt securities	190,942	17%	177,719	18%
Cash	7,275	1%	3,398	0%
<b>Total</b>	<b>1,143,997</b>	<b>100%</b>	<b>997,630</b>	<b>100%</b>

For fiscal 2021, the Defined Contribution portion of the Fund totaled to \$529,783,300 and \$423,060,600 as at 31 December 2020 as provided by PSPB. The share of the Fund that has been notionally allocated to NRA with regards to its participation in the Defined Benefit Part of the Plan is \$5.905 million as at 31 December 2021 (2020 \$5.424 million).

**The Actuarial Assumptions**

The actuarial assumptions have been approved by the Financial Secretary, the main sponsor of the Plan. The principal financial and demographic assumptions used at 31 December 2021 and 31 December 2020 are shown in the table below. The assumptions as at the reporting date are used to determine the present value of the benefit obligation at that date and the pension expense for the period.

**National Roads Authority**  
**Statement of Cash Flows**  
**For the year ended 31 December 2021**  
**(Stated in Cayman Islands Dollars)**

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**11. Pensions (continued)**

**Turnover Rates at sample ages:**

<b>Age</b>	<b>Males</b>	<b>Females</b>
20	7.5%	12.5%
25	5.0%	12.5%
30	3.5%	7.5%
35	2.5%	4.5%
40	1.5%	2.5%
45	0.5%	5.0%
50	0.0%	0.0%

**Retirement Rates:**

<b>Age</b>	<b>%</b>
Below 55	0%
55-59	8%
60-64	15%
65	100%

<b>Measurement Date</b>	<b>2021</b>	<b>2020</b>
<b>Discount rate</b>		
-BOY benefit obligation disclosure	2.60%	3.50%
-EOY benefit obligation disclosure	2.90%	2.60%
-Following year current service cost	2.95%	2.70%
-Rate used to determine interest on defined benefit obligation and plan assets for following year expenses	2.65%	2.20%
-Rate used to determine interest on current service cost for following year expenses	2.85%	2.50%
Increases in pensionable earnings	2.50%	2.50%
Rate of Pension Increases	2.00%	2.00%

**National Roads Authority  
Statement of Cash Flows  
For the year ended 31 December 2021  
(Stated in Cayman Islands Dollars)**

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**11. Pensions (continued)**

<b>Measurement Date</b>	<b>2021</b>	<b>2020</b>
<b>Mortality</b>		
BOY disclosure and current year expense	RP-2014 generationally projected using Scale MP-2014, then generationally projected from 2006 using Scale MP – 2020.	RP-2014 generationally projected using Scale MP-2014, then generationally projected from 2006 using Scale MP – 2019.
EOY disclosure and following year expense	RP-2014 scaled back to 2006 using Scale MP-2014, then generationally projected from 2006 using Scale MP-2021	RP-2014 scaled back to 2006 using Scale MP-2014, then generationally projected from 2006 using Scale MP-2020
Disability	None	None
Turnover Rates	See turnover rates in table above	See turnover rates in table above
Retirement	See retirement rates in table above	See retirement rates in table above
Assumed life expectations on retirement	Retiring today (member age 57) 28.61 Retiring in 25 years (at age 57): 30.75	Retiring today (member age 57) 28.45 Retiring in 25 years (at age 57): 30.61
Liability Cost Method	Projected unit credit method	Projected unit credit method
Asset Value Method	Market Value of Assets	Market Value of Assets
Commutation of pension	All members commute 25% at retirement	All members commute 25% at retirement

There have been no changes in actuarial assumptions since the prior valuation other than the changes to the principal assumptions shown in the table above.

**National Roads Authority**  
**Statement of Cash Flows**  
**For the year ended 31 December 2021**  
**(Stated in Cayman Islands Dollars)**

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**12. Defined benefit liability: Post-retirement health liability**

The National Roads Authority provides health care benefits to staff members that transferred from Public Works Department in accordance to the NRA Act. The benefit is in the form of continuation of their health insurance coverage on the medical plan in force for active employees. The premiums for this health insurance coverage are paid for by the National Roads Authority for all eligible retirees until the end of their lives. This coverage falls within the definition of a defined benefit by the International Public Sector Accounting Standards and as such represents a future liability of the National Roads Authority. The National Roads Authority is required to use the actuarial valuation method to determine the present value of its health insurance benefit obligations for its former workers as well as future retirees and the related current service costs. International Public Sector Accounting Standards IPSAS 39 directs that funded or unfunded post-employment benefits must be recognized in the statement of financial position (in the case of net defined liability or asset) and the statement of financial performance (for the annual expense).

These actuarial valuations use several financial and demographic assumptions to determine the liability and current expense of the benefits which will be honoured on behalf of the retirees. Financial assumptions include, the discount rate, estimated future costs of the medical premiums, and the claims rate for the medical plans. Demographic assumptions include estimated mortality and benefits levels.

The Authority commissioned Mercer actuaries of Canada to provide this service and the results of their assessment are included hereunder. The National Roads Authority has a present value net defined benefit obligation of \$28,129,000 at the end of the financial year 31 December 2021 (2020: \$29,772,000). The details of the valuation and the assumptions used are reproduced hereunder in accordance with IPSAS 39.

The Board of Directors resolved to fund the post-retirement health liability with annual contributions as advised during 2016 by the Actuaries with an annual minimal amount of \$1,500,000. NRA holds the funds approved by the Board in a term deposit account held with RBC Royal Bank (Cayman Islands). The funds held in the term deposit account do not qualify as a "Plan Asset" as defined by IPSAS 39, Employee Benefits, and therefore have not been offset against the year-end post-retirement health liability of \$28,129,000. Ongoing steps are being pursued by the NRA to place these funds in a qualifying financial vehicle to allow the funds to meet the requirements of IPSAS 39, Employee Benefits.



**National Roads Authority**  
**Statement of Cash Flows**  
**For the year ended 31 December 2021**  
**(Stated in Cayman Islands Dollars)**

**12. Defined benefit liability: Post-retirement health liability (continued)**

Plan Name	National Roads Authority	
Financial year ending on:	31 Dec 2021	31 Dec 2020
	\$	\$
<b>A. Change in defined benefit obligation</b>		
1. Defined benefit obligation at end of prior year	29,772,000	24,884,000
2. Service cost		
a. Current service cost	2,355,000	1,993,000
b. Past service cost	-	-
c. (Gain) / loss on settlements	-	-
3. Interest expense	712,000	830,000
4. Cash flows		
a. Benefit payments from plan assets	-	-
d. Benefit payments from employer	(212,000)	(157,000)
5. Other significant events		
6. Remeasurements		
a. Effect of changes in demographic assumptions	55,000	(4,817,000)
b. Effect of changes in financial assumptions	(5,222,000)	5,892,000
c. Effect of experience adjustments	669,000	1,147,000
7. Effect of changes in Foreign exchange rates	-	-
8. Defined benefit obligation at the end of year	<u>28,129,000</u>	<u>29,772,000</u>
<b>B. Change in fair value of plan assets</b>		
1. Fair value of plan assets at end of prior year	-	-
2. Interest income	-	-
3. Cash flows		
a. Total employer contributions		
i. Employer contributions	-	-
ii. Employer direct benefit payments	212,000	157,000
iii. Employer direct settlement payments	-	-
b. Participant contributions	-	-
c. Benefit payments from plan assets	-	-
d. Benefit payments from employers	(212,000)	(157,000)
e. Settlement payments from plan assets	-	-
f. Settlement payments from employer	-	-
g. Administrative expenses paid from plan assets	-	-
h. Taxes paid from plan assets	-	-
i. Insurance premiums for risk benefits	-	-
4. Other significant events	-	-
a. Increase / (decrease) due to effect of any business combinations/ divestures or transfers	-	-
b. Increase / (decrease) due to plan combinations	-	-
5. Remeasurements	-	-
a. Return on plan assets (excluding interest income)	-	-
6. Effect of change in foreign exchange rates	-	-
7. Fair Value of plan assets at end of year	<u>-</u>	<u>-</u>
<b>C. Amounts recognized in the statement of financial position</b>		
1. Defined benefit obligation	28,129,000	29,772,000
2. Fair value of plan assets	-	-
3. Funded status	<u>28,129,000</u>	<u>29,772,000</u>
4. Effect of asset ceiling/onerous liability	-	-
5. Net defined benefit liability/(asset)	<u>28,129,000</u>	<u>29,772,000</u>

**National Roads Authority**  
**Statement of Cash Flows**  
**For the year ended 31 December 2021**  
**(Stated in Cayman Islands Dollars)**

**12. Defined benefit liability: Post-retirement health liability (continued)**

Financial year ending on:	<b>31 Dec 2021</b>	<b>31 Dec 2020</b>
	\$	\$
<b>D. Components of defined benefit cost</b>		
1. Service cost	2,355,000	1,993,000
a. Current service cost	-	-
b. Reimbursement service cost	-	-
c. Past service cost	-	-
d. (Gain) / loss on settlements	-	-
e. Total service cost	<b>2,355,000</b>	<b>1,993,000</b>
2. Net interest cost		
a. Interest expense on Defined Benefit Obligation (DBO)	712,000	830,000
b. Interest /(income) on plan assets	-	-
c. Total net interest cost	<b>712,000</b>	<b>830,000</b>
3. Remeasurements of Other Long Term Benefits	-	-
4. Administrative expenses and/or taxes (not reserved within DBO)	-	-
5. Defined benefit cost included in Profit and Loss (P&L)	<b>3,067,000</b>	<b>2,823,000</b>
6. Remeasurements (recognized in the Statement of Changes in Net Worth (SCNW))		
a. Effect of changes in demographic assumptions	55,000	(4,817,000)
b. Effect of changes in financial assumptions	(5,222,000)	5,892,000
c. Effect of experience adjustments	669,000	1,147,000
d. Total remeasurement included in the Statement of Changes in Net Worth	<b>(4,498,000)</b>	<b>2,222,000</b>
7. Total defined benefit cost recognized in the P&L and SCNW	<b>(1,431,000)</b>	<b>5,045,000</b>
<b>E. Net defined benefit liability/(asset) reconciliation</b>		
1. Net defined benefit liability/(asset)	29,772,000	24,884,000
2. Defined benefit cost included in P&L	3,067,000	2,823,000
3. Total remeasurement included in OCI	(4,498,000)	2,222,000
4. Other significant events		
a. Net transfer in/(out) (including the effect of any business combinations/divestitures)	-	-
b. Amounts recognized due to plan combinations	-	-
5. Cash Flows		
a. Employer contributions	-	-
b. Employer direct benefit payments	(212,000)	(157,000)
c. Employer direct settlements payments	-	-
6. Credit to reimbursements	-	-
7. Effect of changes in Foreign exchange rates	-	-
8. Net defined benefit liability/(asset) as of end of year	<b>28,129,000</b>	<b>29,772,000</b>
<b>F. Define benefit obligation</b>		
1. Defined benefit obligation by participant status		
a. Actives	17,861,000	22,279,000
b. Vested deferred	-	-
c. Retirees	10,268,000	7,493,000
d. Total	<b>28,129,000</b>	<b>29,772,000</b>

**National Roads Authority**  
**Statement of Cash Flows**  
**For the year ended 31 December 2021**  
**(Stated in Cayman Islands Dollars)**

**12. Defined benefit liability: Post-retirement health liability (continued)**

Financial year ending on	31 Dec 2021	31 Dec 2020
<b>G. Significant actuarial assumptions</b>		
<i>Weighted-average assumptions to determine defined benefit obligations</i>		
Discount rate	2.95%	2.70%
Health care cost trend rates		
Immediate trend rate	5.33%	5.00%
Ultimate trend rate	4.00%	5.00%
Year rate reaches ultimate trend rate	N/A	N/A
Post- retirement mortality assumption	RP-2014 Projected w/MP-2021	RP-2014 Projected w/MP-2020
 <i>Weighted-average assumptions to determine defined benefit cost</i>		
Effective discount rate for defined benefit obligation	2.70%	3.60%
Effective rate for net interest cost	2.40%	3.35%
Effective discount rate for service cost	2.75%	3.70%
Effective rate for interest on service cost	2.75%	3.65%
Health care cost trend rates	-	-
Immediate trend rate	5.00%	5.00%
Ultimate trend rate	5.00%	5.00%
Year rate reaches ultimate trend rate	N/A	N/A
Post- retirement mortality assumption	RP-2014 Projected w/MP 2020	RP-2014 Projected w/MP 2019
 <b>H. Sensitivity analysis</b>		
<i>Present value of defined benefit obligations</i>		
Effective Discount rate - 25 basis points	1,802,000	2,022,000
Effective Discount rate + 25 basis points	(1,666,000)	(1,863,000)
Health care cost trend rates – 100 basis points	(5,823,000)	(6,450,000)
Health care cost trend rates + 100 basis points	7,757,000	8,694,000
Post- retirement mortality assumption + 10%	(1,205,000)	(1,468,000)
 <b>I. Expected cash flows for following year</b>		
a. Expected employer contributions	232,000	197,000
b. Expected contributions to reimbursement rights		
c. Expected total benefit payments		
Year 1	232,000	197,000
Year 2	256,000	223,000
Year 3	282,000	250,000
Year 4	313,000	279,000
Year 5	347,000	313,000
Next 5 years	2,495,000	2,329,000

**National Roads Authority**  
**Statement of Cash Flows**  
**For the year ended 31 December 2021**  
**(Stated in Cayman Islands Dollars)**

**12. Defined benefit liability: Post-retirement health liability (continued)**

*The Actuarial Assumptions*

The actuarial assumptions as at the reporting date are used to determine the present value of the defined benefit obligation (DBO) at that date and the defined benefit cost for the following year. We have used actuarial assumptions selected by NRA, which are consistent with the assumptions used to determine the results for the Cayman Islands Government's ("CIG") Post Retirement Healthcare Program. The principal financial and demographic assumptions used at 31 December 2021 and 31 December 2020 are shown in the table below:

Economic Assumptions	Postretirement Healthcare	Basis of Development – Accounting Specific Assumptions
Discount rate benefit obligation(p.a) - 31 December 2020 - 31 December 2021	2.70% per annum 2.95% per annum	IAS 19 para. 83 determined by reference to market yields on high quality corporate bonds (consistent with the term of the benefit obligations) at the fiscal year end date. Mercer US Above Mean Yield Curve (referencing US corporate bond yields) used to determine discount rates due to strong economic and currency links between the US and Cayman Islands.
Discount rate next year service costs(p.a) - 31 December 2020 - 31 December 2021	2.75% per annum 2.95% per annum	
Administrative expenses	Included in projected premiums	
Rate of Medical Inflation (p.a)	5.00%	Based on short-term and long-term medical inflation expectations for the Cayman Islands and overseas care.

Demographic Assumptions	Postretirement Healthcare	Basis of Development – Accounting Specific Assumptions
Current mortality rates	RP-2014 Mortality Table scaled back to 2006 using MP-2014	Recent mortality studies in the U.S. and Canada shows that people are living longer. New mortality tables have been issued by U.S. and Canada. The mortality table has been updated to better reflect actual mortality improvement rates experienced in the US over the last 20 years.
Mortality improvements 31 December 2020 31 December 2021	Scale MP-2020 Scale MP-2021	Broad consensus amongst longevity experts that mortality improvement will continue in the future. Scale MP-2014 was released October 2014. In the U.S, the latest future mortality improvement scale issued by the Society of Actuaries is Scale MP-2021. The prior valuation used scale MP-2020.
Turnover rates	Age & gender based rates – see below	
Disability rates	None	
Retirement Age as per Public Service Pension Plan	Age & gender based rates – see below	
Material assumption	80% married, wife 3 years younger	
Current healthcare claims cost assumption	Based on CIG 2021 premium rates Health \$13,290 per participant Dental \$210 per participant	The National Roads Authority provides 100% coverage for employees, spouses and dependants and also retires and retires spouses' premiums.
Healthcare coverage – future pensioners	Male 27% single, 73% family Female 50% single, 50% family	Based on CIG experience
Healthcare utilization changes due to age	Current Mercer standard healthcare aging assumptions for medical and dental	Based on updated analysis of healthcare utilization for Mercer clients in US

**National Roads Authority**  
**Statement of Cash Flows**  
**For the year ended 31 December 2021**  
**(Stated in Cayman Islands Dollars)**

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**12. Defined benefit liability: Post-retirement health liability (continued)**

**Turnover Rates**

Age	Males	Females
20-24	7.5%	12.5%
25-29	5.0%	12.5%
30-34	3.5%	7.5%
35-39	2.5%	4.5%
40-44	1.5%	2.5%
45-49	0.5%	0.5%
50 +	0.0%	0.0%

**Retirement Rates:**

Age	%
Below 55	0%
55-59	8%
60	60%
61-64	8%
65	100%

The actuarial valuation results showed that a liability of \$29,772,000 existed at 31 December 2020, represented by accumulated liability of \$29,772,000 as at 31 December 2020 and service costs and adjustments totaling (\$1,643,000) for the year ended 31 December 2021, resulting in a closing liability of \$28,129,000 at 31 December 2021.

**13. Related Party Transactions**

The Authority provided Services to Road Users on behalf of the Government relating to the development and maintenance of the public roads within the Cayman Islands funded through the Roads Fund which amounts to \$10 million under the Ownership Agreement (2020: \$10 million). During this year, the Authority also delivered Capital Expenditure Projects of \$23 million (2020: \$10.5 million) to the Government for the construction of roads under the Ownership Agreement. The Authority also engages the services of other government departments of the Cayman Islands Government.

Sales to unrelated third parties of \$130,564 (2020: \$41,374) include services for drain wells and curbs, installation of signs, paving and trench reinstatement services.

	<b>2021</b>	<b>2020</b>
	<b>\$</b>	<b>\$</b>
Sales of services to Cabinet	23,236,443	10,512,419
Sales of services to other government agencies	42,543	203,244
Roads Fund and sales to third parties	10,130,564	10,041,374
<b>Total</b>	<b>33,409,550</b>	<b>20,757,037</b>

**National Roads Authority  
Statement of Cash Flows  
For the year ended 31 December 2021  
(Stated in Cayman Islands Dollars)**

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**13. Related Party Transactions (continued)**

Upon creation of the Authority on 1 July 2004, no movable properties were vested to the Authority. Henceforth, the Public Works Department (PWD) allowed the Authority to use its vehicles and heavy equipment for road construction and maintenance free of charge. As at 31 December 2021, the Authority owes PWD the amount of \$24k (2020: \$69k) for support services extended by the latter such as office and workshop accommodation, tenant's requirements, utilities, accounting services, service parking and compound security.

During the year, the Authority purchases goods and services worth \$247k (2020: \$53k) from companies partially owned or controlled by one of its Board members.

The remuneration of directors and other members of key management personnel during the year was \$951k. This consists of \$32k for the Board of Directors, being \$150 per member per meeting with two meetings per month on average (2020: \$921k consists of \$22k for the Board of Directors being \$150 per member per meeting with two meetings per month on average). There were 16 personnel categorized in 2021 broken down as 7 key management personnel and 9 Directors (2020: 7 key management personnel and 9 Directors).

**14. Contingencies**

i) Section 47 of The Public Authorities Act, (2020 Revision), (the "PAA"):  
Section 47 of the PAL came into effect on 1 June 2019. The section requires public authorities to use the same salary scale as determined by the Cayman Islands' Cabinet and requires the remuneration of employees of a public authority to be adjusted to reduce any differences between the public authorities' and public service's pay grades.

The Cayman Islands Government's Portfolio of the Civil Service had not completed its evaluation of NRA's salary grade versus that of the public service. As such, management could not adjust for the impact of section 47 of the PAL in these financial statements. Management is also unable to derive an estimate of the potential impact of the evaluation on its financial statements and as such, no resultant provisions have been made in these financial statements.

ii) Sections 39(2) and 39(3) of the PAA:

The Authority is required to comply with The Public Authorities Act, (2020 Revision), (the "PAA"). Amongst other matters, the PAL requires that where a public authority has surplus cash reserves for a period of more than ninety days, the surplus shall be paid to core government unless otherwise directed by Cabinet, after written consultation with the Board. The PAA also requires that a public authority pay dividends in accordance with the formulae established by the Minister of Finance and Economic Development (the "Ministry") after written consultation with the Board, unless otherwise directed by Cabinet.

For the 2021 financial year, NRA's total assets exceeded its total liabilities and as such it has been exempted from the requirement to pay dividends based on section 19(e) of the "Policy for the payment of annual dividends by statutory authorities and government companies (SAGCs)" approved by Cabinet on 8 January 2019.

**National Roads Authority  
Statement of Cash Flows  
For the year ended 31 December 2021  
(Stated in Cayman Islands Dollars)**

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**14. Contingencies (continued)**

NRA is also exempted from the requirement to pay surplus cash reserves to core government for the 2021 financial year based on an exemption granted by the Cayman Islands' Cabinet of Ministers in a meeting held on 5 April 2022.

iii) Section 28(1) of the National Roads Authority Act (2016 Revision):

Under section 28(1) of the National Roads Authority Act (2016 Revision), an annual payment to the core government may be due. At the date of these financial statements there has been no request made.

iv) Litigations, claims and assessments

At the date of the audit opinion, the Authority was involved in pending/ threatened litigations, claims and assessments relating to a dispute with an ex-employee who is seeking damages for an injury sustained at work arising from alleged negligence by the Authority; and a dispute with a third party alleging accidental damage of power lines by NRA during field works. The potential provisions/ contingent liabilities have not been disclosed in these financial statements so as not to prejudice the position of the Authority in the disputes but will be disclosed in the financial statements of the Cayman Islands Government's Entire Public Sector.

**15. Financial Risk Management**

The Authority is exposed to a variety of financial risks including interest rate risk, credit risk and liquidity risk. The Authority's risk management policies are designed to identify and manage these risks, to set appropriate risk limits and controls, and to monitor the risks and adhere to limits by means of up to date and reliable information systems. These risks are managed within the parameters established by the Financial Regulations.

*Interest Rate Risk*

The Authority is subject to interest rate risk on the cash placed with a local bank which attracts interest. No interest payments are charged to customers on late payments on accounts receivable. The Authority is exposed to interest rate risk on its short term. The total interest earned during the year ended 31 December 2021 was \$7,542 (2020: \$5,147).

*Credit Risk*

Credit risk refers to the risk that a counterparty will default on its contractual obligations resulting in financial loss to the Authority. Financial assets which potentially expose the Authority to credit risk comprise cash and cash equivalents and accounts receivable.

The Authority is exposed to potential loss that would be incurred if the counterparty to the bank balances fails to discharge its obligation to repay. All bank balances are held with one financial institution (RBC Royal Bank (Cayman Islands)) located in the Cayman Islands which management considers to be financially secure and well managed.

The Authority is also exposed to a significant concentration of credit risk in relation to accounts receivables, majority of which are due from other Government entities. No credit limits have

**National Roads Authority**  
**Statement of Cash Flows**  
**For the year ended 31 December 2021**  
**(Stated in Cayman Islands Dollars)**

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**15. Financial Risk Management (continued)**

been established and no collateral is required from the Authority's debtors. None of these assets are impaired and management considers these debts to be recoverable in full.

The carrying amount of financial assets recorded in the financial statements represents the Authority's maximum exposure to credit risk.

*Liquidity Risk*

Liquidity risk is the risk that the Authority is unable to meet its payment obligations associated with its financial liabilities when they fall due. The ability of the Authority to meet its debts and obligations is dependent upon its ability to collect the debts outstanding to the Authority in a timely basis. As at 31 December 2021 and 31 Dec 2020, all of the financial liabilities were due within one month of the financial position dates.

**16. Financial Instruments- fair values**

As at 31 December 2021 and 31 December 2020, the carrying amount of cash deposits, accounts receivable, accounts payables and employee entitlements approximate their fair value due to their short-term maturities. Fair values are made at specific points in time, based on market conditions and information about the financial instrument. These estimates are subjective in nature and involve uncertainties and matters of significant judgement and therefore cannot be determined with precision. Changes in assumptions, economic conditions and other factors could cause significant changes in fair value estimates.

**17. Commitments**

There are no commitments as at 31 December 2021 (2020: Nil).

**18. Events Occurring After the Reporting Date (31st December 2021)**

In December 2019, a novel strain of coronavirus was reported to have surfaced in China. The global efforts to contain the spread of the coronavirus began to cause significant disruption in the global and local economies from January 2020 to date. While the disruption is currently expected to be temporary, there is considerable uncertainty around the duration. Therefore, while NRA expects this matter to negatively impact its operating results, the related financial impact and duration cannot be reasonably estimated at this time. At 31 December 2021, \$4k in accounts receivable was outstanding from entities not related to the Cayman Islands Government.

In addition, on the basis of management assessment and forecasts, management believes that the risk that NRA would not be able to meet its obligations as they become due is low and that NRA will continue as going concern for the foreseeable future.

Management is not aware of any other events after the reporting date which will have an impact on the financial statements at 31st December 2021.



**National Roads Authority**  
**Statement of Cash Flows**  
**For the year ended 31 December 2021**  
**(Stated in Cayman Islands Dollars)**

**19. Explanations of major variances against budget**

***Statement of Financial Position***

	<b>2021 Actual</b>	<b>2021 Original Budget</b>	<b>2021 Final Budget</b>	<b>Variance Original vs Actual</b>
	\$	\$	\$	\$
<b>ASSETS</b>				
<b>Current Assets</b>				
Cash and cash equivalents	10,348,524	4,057,121	4,057,121	(6,291,403)
Accounts receivable and prepayments	4,111,042	921,169	921,169	(3,189,873)
Inventories	134,623	95,293	95,293	(39,330)
<b>Total Current Assets</b>	<b>14,594,189</b>	<b>5,073,583</b>	<b>5,073,583</b>	<b>(9,520,606)</b>
<b>Non-Current Assets</b>				
Property, plant and equipment	2,964,759	1,582,069	1,582,069	(1,382,690)
Intangible Assets	27,158	25,068	25,068	(2,090)
<b>Total Assets</b>	<b>17,586,106</b>	<b>6,680,720</b>	<b>6,680,720</b>	<b>(10,905,386)</b>
<b>LIABILITIES AND EQUITY</b>				
<b>Current Liabilities</b>				
Accounts payable and accrued liabilities	2,133,970	888,161	888,161	(1,245,809)
Employee entitlements	69,086	64,604	64,604	(4,482)
Revenue Deposits	87,199	-	-	(87,199)
<b>Total Current Liabilities</b>	<b>2,290,255</b>	<b>952,765</b>	<b>952,765</b>	<b>(1,337,490)</b>
<b>Non-Current Liability</b>				
Pension liability	1,601,000	1,776,000	1,776,000	175,000
Post-retirement health liability	28,129,000	14,552,000	14,552,000	(13,577,000)
<b>Total Non Current Liabilities</b>	<b>29,730,000</b>	<b>16,328,000</b>	<b>16,328,000</b>	<b>(13,402,000)</b>
<b>Total Liabilities</b>	<b>32,020,255</b>	<b>17,280,765</b>	<b>17,280,765</b>	<b>(14,739,490)</b>
<b>Net Assets</b>	<b>(14,434,149)</b>	<b>(10,600,045)</b>	<b>(10,600,045)</b>	<b>3,834,104</b>
<b>Net Worth</b>				
Contributed capital	4,653,535	4,653,535	4,653,535	-
Accumulated Deficits	(19,087,684)	(15,253,580)	(15,253,580)	3,834,104
<b>Total Net Worth</b>	<b>(14,434,149)</b>	<b>(10,600,045)</b>	<b>(10,600,045)</b>	<b>3,834,104</b>

**National Roads Authority  
Statement of Cash Flows  
For the year ended 31 December 2021  
(Stated in Cayman Islands Dollars)**

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**19. Explanations of major variances against budget (continued)**

**Statement of Financial Position**

**Cash and Cash Equivalents**

Cash total of \$6.3m over budget includes \$7.3m remaining at bank budgeted to place as a Post-retirement health liability offsetting Asset. These funds however remained at RBC term deposit. This is net of an additional approximate \$1m required to meet personnel hires other employee costs to meet resources required for capital works directed by the Ministry.

**Accounts receivable and prepayments**

The \$3.2 million variance in the actual Accounts Receivable when compared to the budget directly relates to non-budgeted billings to the Ministry of Commerce, Planning and Infrastructure (CPI) as a result of CPI's directives to complete Executive Assets (EA) works fully paid by the CPI beyond the scope of NRA's 12 month fiscal budget.

**Property, plant and equipment**

Property Plant and Equipment reflects \$1.4m over budget with equipment acquisitions during 2021 \$844k (2020: \$582k) being additional purchases approved by Management/Board of Directors post budget driven by demands related additional EA works and meeting needs of the NRA.

**Accounts payable and accrued liabilities**

Accounts payable were \$1.33m over budget primarily due to balances of payments on goods and services delivered near year end resulting from late works performed on behalf of CPI and not possible to anticipate in original budget. These payments to primary vendors have been settled in unison with payment receipts from CPI subsequent to period end.

**Pension liability**

Pension liability experienced a positive shift of \$175k based on actuarial assumptions compared to budget. This movement correlates to Actuarial calculations at year end.

**Post-retirement health liability**

Post-retirement health liability experienced a significant positive shift of \$1.64 during 2021 based on OCI changes of approximately \$4.5m net of \$2.85m annual cost. Prior years adjustment however net \$13.5m overall variance. In addition, the intended \$7.3m to be placed as an offsetting asset remains in cash to be established for alleviating the outstanding net liability.

**National Roads Authority**  
**Statement of Cash Flows**  
**For the year ended 31 December 2021**  
**(Stated in Cayman Islands Dollars)**

**19. Explanations of major variances against budget (continued)**

**Statement of Financial Performance**

	<b>2021</b>	<b>2021 Original Budget</b>	<b>2021 Final Budget</b>	<b>Variance Original vs Actual</b>
	<b>\$</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>
<b>REVENUE</b>	<b>33,409,550</b>	<b>10,355,184</b>	<b>10,335,184</b>	<b>23,054,366</b>
<b>COST OF GOODS SOLD</b>				
Subcontractors	15,531,207	520,327	520,327	(15,010,880)
Materials	4,292,950	570,543	570,543	(3,722,407)
Labour	3,076,462	2,522,188	2,522,188	(554,274)
Hired equipment	11,788	6,050	6,050	(5,738)
<b>Total Cost of Goods Sold</b>	<b>22,912,407</b>	<b>3,619,108</b>	<b>3,619,108</b>	<b>(19,293,299)</b>
<b>NET REVENUE</b>	<b>10,497,143</b>	<b>6,736,076</b>	<b>6,736,076</b>	<b>3,761,067</b>
<b>OPERATING EXPENSES</b>				
Personnel costs	4,437,483	3,966,691	3,966,691	(470,792)
Post- retirement health liability	2,855,000	-	-	(2,855,000)
Utilities (Streetlights)	1,009,885	1,100,000	1,100,000	90,115
Electricity and Water	42,707	35,000	35,000	(7,707)
Motor Vehicle expenses(including insurance)	1,073,918	463,854	463,854	(610,064)
Depreciation	504,919	319,756	319,756	(185,163)
Past service pension	309,000	445,000	445,000	136,000
Computer maintenance and fees	175,018	125,000	125,000	(50,018)
Professional fees	132,265	105,000	105,000	(27,265)
Building maintenance	81,498	59,500	59,500	(21,998)
Telephone	56,952	38,000	38,000	(18,952)
Supplies and consumables	76,335	35,850	35,850	(40,485)
Advertising and promotion	41,147	27,500	27,500	(13,647)
Bank charges	12,295	8,400	8,400	(3,895)
Settlement of Case	27,378	-	-	(27,378)
Insurance	14,459	6,525	6,525	(7,934)
<b>Total Operating Expenses</b>	<b>10,850,259</b>	<b>6,736,076</b>	<b>6,736,076</b>	<b>(4,114,183)</b>
<b>Surplus/ (Deficit)</b>	<b>(353,116)</b>	<b>-</b>	<b>-</b>	<b>(353,116)</b>

**National Roads Authority**  
**Statement of Cash Flows**  
**For the year ended 31 December 2021**  
**(Stated in Cayman Islands Dollars)**

**19. Explanations of major variances against budget (continued)**

Several categories were presented in summary within the Ownership Agreement whilst being presented in detailed form by NRA in their Financial Statements and throughout the course of the year. The ownership agreement figures shown below represent the budget actually approved by the Legislative Assembly, compared with the detailed Financial Statement figures. Note however the total Revenue and Expenses remained the same in both formats.

**Reconciliation of Ownership Agreement and the Statement of Financial Performance**

	<b>2021 Approved Budget \$</b>	<b>Financial Statements 2021 \$</b>
<b>REVENUE</b>	<b>10,355,184</b>	<b>10,355,184</b>
<b>COST OF GOODS SOLD</b>		
Labour	-	2,522,188
Materials	-	570,543
Subcontractors	-	520,327
Hired equipment	-	6,050
<b>Total Cost of Goods Sold</b>	<b>-</b>	<b>3,619,108</b>
<b>NET REVENUE</b>	<b>10,355,184</b>	<b>6,736,076</b>
<b>OPERATING EXPENSES</b>		
Personnel costs	6,488,879	3,966,690
Post- retirement health liability	-	-
Utilities (Streetlights \$1.1m)	-	1,135,000
Motor vehicle expenses (including insurance)	-	463,854
Depreciation	319,757	319,757
Past service pension	445,000	445,000
Computer maintenance and fees	-	125,000
Professional fees	-	105,000
Building maintenance	-	59,500
Telephone	-	38,000
Advertising and promotion	-	27,500
Bank charges	-	8,400
Insurance	-	6,525
Office Rental	-	-
Supplies and consumables	3,101,548	35,850
<b>Total Operating Expenses</b>	<b>10,355,184</b>	<b>6,736,076</b>
<b>SURPLUS/ (DEFICIT)</b>	<b>-</b>	<b>-</b>

**National Roads Authority  
Statement of Cash Flows  
For the year ended 31 December 2021  
(Stated in Cayman Islands Dollars)**

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**19. Explanations of major variances against budget (continued)**

**Statement of Financial Performance**

**Revenue**

Revenue saw a positive variance of \$23m when compared to budget, directly related to executive asset works which were completed on the directive of the Ministry of Commerce, Planning and Infrastructure. These projects were within the remit of the Ministry and not included in NRA initial budgeted works.

**Cost of Sales**

The \$19.3 million budget variance in cost of sales is primarily driven by costs incurred in completing the additional works as detailed in the revenue note above.

**Personnel costs**

The \$471k budget variance in personnel costs for the period was primarily driven by increased health insurance cost (\$170k) resulting from a shift in insurers (CINICO) billing mechanism along with the impact of additional works on the Capital projects requiring overtime (\$158k).

Budgeted Post-retirement healthcare costs and past service defined benefit pension costs were based on Actuarial estimates of cost to be charged to the statement of financial performance with adjustments based on receiving 2021 Actuarial reports hence the additional costs of \$2.85m and preserving of \$136k respectively.

Motor vehicles expenses increased over budget by \$610k due to additional fuel and maintenance expenses related to additional works performed over and above the budget (as highlighted in the revenue section above).

Depreciation increased expense (\$185k) was directly due to BOD and management approved acquisitions not budgeted however deemed essential particularly with added demands related to Ministry required works and life expiration of fleet being replaced.

