

2nd REPORT OF
THE
PUBLIC ACCOUNTS COMMITTEE

Session 2010

**REVIEW OF THE NASSAU ROAD
IMPROVEMENT PROJECT AND RELATED
GOVERNMENT SPENDING**

Tabled Monday 5th March, 2012

INTRODUCTION

Mr. Speaker:

This is the second Report of the Public Accounts Committee. Your Committee prepared an Interim Report which dealt with issues raised in the Auditor General's 2009 Annual Report, challenges faced by the Department of the Auditor General and matters related to the continuous failure of the Auditor General to certify the national Accounts and matters related to the Treasury Department.

Mr. Speaker, your Committee also sought to review several government projects where large sums of public funds were expended. These included:

- the Ministry of Youth, Sports and Culture's Self Starter Programme
- the Arawak Cay Port Development
- the New Airport Road Corridor
- the recently built Saunders Beach Bathrooms and
- the recent road works at the junction of Fox Hill Rd. and the Eastern Road

Mr. Speaker, your Committee requested documents and information associated with these projects but the information was not forthcoming up to the time of the preparation of this Report.

Mr. Speaker your Committee spent considerable time in reviewing the expenditure on the New Providence Road Improvement Project (NPRIP) because of concerns expressed by the Auditor General in his 2009 Report and also because of the many complaints expressed publicly by thousands of road users. This second Report by your Committee details the findings, to date, by your Committee on the NPRIP.

List Of Persons Appearing before Public Accounts Committee

Mr. Speaker, over a period of three months (September-November 2011) your Committee met and interviewed a number of persons associated with the NPRIP. These included:

Mr. Colin Higgs	Permanent Secretary- Ministry of Works and Transport
Mr. George Hutchinson	Deputy Director - Ministry of Works and Transport
Mrs. Joan Darling	Financial Controller - Ministry of Works and Transport
Mr. Joy John	Civil Transportation Engineer- Mott McDonald
Mr. Damian Francis	Chief Resident Engineer- Mott McDonald
Mr. Philip Tidy	Commercial Manager- Mott McDonald
Mr. Mariano Aranibar	Contractor's Representative JCCC
Mr. Sebastian Repetur	Project Manager- JCCC
Mr. Glen Laville	General Manager- Water and Sewerage Corporation
Mr. Chris Sherman	Deputy General Manager- Water and Sewerage Corporation
Mr. Leslie Hutchinson	Senior Engineer\ Project Manager " "
Mr. Burlington Strachan	Asst. General Manager- Bahamas Electricity Corporation

THE PROJECT

Mr. Speaker you would be aware that the NPRIP dates back to 1999. The objectives of the project were to decrease traffic congestion on New Providence roads and to relieve motorists' frustrations. The project was described as the largest civil works ever undertaken in the Bahamas and was to include construction of 11.6 miles of roads and comprised 9 new corridors and 10 existing corridors. In 2008 with the return of the FNM to Government, The Government of the Bahamas entered into a contract with Jose Cartellone to undertake the NPRIP and the funding was obtained from the Inter- American Development Bank (IDB). The Project was to be managed by the Ministry of Works and Transport.

BACKGROUND

JCCC first became involved with the New Road Improvement Project in 1999 when it participated in a 2-stage bid process. JCCC was the only company pre-qualified to go to tender on the NPRIP. The pre-qualification was the first stage of the 2-stage bid process. JCCC could not acquire the proper bonds in 1999 because banks in Argentina were experiencing difficulties.

In 2004 there was a subsequent request by the Bahamas Government for interested companies to bid on the NPRIP. JCCC again bid on the project, however, there were problems with warranties and assurances during the negotiation process. In 2007 the NPRIP was again put out to international bid. 5 competitors submitted bids on the project, JCCC was the lowest bid and was selected.

JCCC utilized preliminary prices provided by Bahamas Hot Mix Co. Ltd. with respect to the water mains, base and asphalt prior to JCCC putting in their tender for the project. JCCC explained that they had a prior relationship with Bahamas Hot Mix Co. Ltd. from 2001 when they first bid on the project.

Bahamas Hot Mix Co. Ltd. was the only sub-contractor consulted by JCCC prior to putting in its bid on the NPRIP.

On June 23, 2008 the Government of the Commonwealth of the Bahamas and the Inter-American Development Bank entered into a Contract for Supplementary Loan Funding in the amount of \$100 million Dollars for the New Providence Transport Program. This was in addition to the balance of \$29.58 Million Dollars on the Loan 1320/OC-BH.

AGREEMENTS

Mr. Speaker, the following agreements were entered into with Jose Cartellone Construcciones Civiles S.A. ("JCCC"):

On August 12, 2008 Jose Cartellone Construcciones Civiles S.A. submitted a Letter of Bid on the "**Completion of the New Providence Road Improvement Project – International Package**" in the amount of \$119,900,713.29.

On August 25, 2008 the Ministry of Works and Transport issued a Letter of Acceptance to JCCC in response to the August 12, 2008 Letter of Bid.

In August 2008 the MOWT and JCCC entered into a Memorandum of Understanding where the scope of works under the original tender were amended and modified. As a result of such modifications, the original tender price was reduced to \$113,200,713.29, and the adjustment of \$6,700,000.00 was included as a Provisional Sum.

On September 22, 2008 the Contract Agreement was entered into between the MOWT and JCCC covering the **“Completion of New Providence Road Improvement Project – International Package.”**

On March 3, 2011 the Addendum No. 1 to the Contract Agreement was entered into between the MOWT and JCCC extending the Completion Date to January 20, 2012 and agreeing to pay an additional \$234,492.30 for the maintenance of Offices, Messes, Stores and Workshops for the Contractor until the Time of Completion.

Various Parties to the Agreement

Mr. Speaker there were a number of parties that were involved in the NPRIP who will be referred to in this Report. They include the following:

Jose Cartellone Construcciones Civiles S.A. (“JCCC”) – The General Contractor for the NPRIP

Mott MacDonald (“Mott”) – an International Consultant from the UK engaged by the Government of the Bahamas to supervise the construction of the project. The contract was signed on September 17, 2008 but with effect from July 1, 2008.

Halcrow Group Ltd. (“Halcrow”) – the Designer from the UK engaged by the Government of the Bahamas to prepare the designs for the NRPIP. The contract was signed on November 10, 2008.

Mr. Khader Alikhan (“PEU”) – the Project Coordinator for the Project Execution Unit. The contract was signed on November 17, 2008.

Mr. Albert VG Hope (“TPPU”) – the Transportation Specialist for Transportation Policy and Planning Unit. The contract was signed on January 5, 2009 for a 2 year period.

Mr. Peter H.G. Chapman (“DAB”) – the sole adjudicator of the Dispute Adjudication Board. The contract was signed on March 3, 2009 providing for an annual retainer fee of \$61,404.00 and a daily fee of \$2,294.

Bahamas Electricity Corporation (“BEC”) – the electricity and power generation utility of the Commonwealth of the Bahamas.

Bahamas Water & Sewerage Corporation (“WSC”) – the utility that provides for the control and administration of the water resources of the Commonwealth of the Bahamas.

Bahamas Ministry of Works and Transport (“MOWT”)

Bahamas Ministry of Finance (“MOF”)

OBSERVATIONS MADE BY THE AUDITOR GENERAL

Mr. Speaker, certain expenditures on the NPRIP, and compliance with financial conditions in the respective loan documents, were reviewed and opinions issued by the Auditor General of the Commonwealth of the Bahamas. Expenditures as of year ended June 30, 2009 and June 30, 2010 were reviewed by the Auditor General with respect to the obligations under the respective Loan Contracts with the IDB. In the course of such reviews, the Auditor General made certain observations and recommendations.

On October 31, 2009 the Auditor General, in its Report on Compliance with Financial and Accounting Contractual Clauses New Providence Road Transport Program LO-1988/OC-BH observed the following examples of non-compliance with financial and accounting contractual clauses of the loan contract for the Supplementary Financing for The New Providence Transport Program LO-1988/OC-BH

Article 3.03(ii) Special Execution Conditions, non-compliance with the evidence of initiation of the competitive bidding procedure for the Big Pond area.

Article 4.02(b) Maintenance of Works, non-compliance as to the submission of annual maintenance report for five (5) years from the effective date of the 1988/OC-BH Loan Contract which is to be submitted within the first quarter of each calendar year.

Article 4.05(a) non-compliance with the request that evidence be provided, that prior to the initiation of works in each corridor that an updated EMP has been reviewed and approved by the Bahamas Environmental Science and Technology (“BEST”) Commission.

Article 5.01(b) (i) non-compliance as to the hiring of the Environmental Specialist by the Contractor with responsibility for the preparation and implementation of the site EMP’s and the monitoring of the construction activities and their impacts.

On December 15, 2010 the Auditor General, in its Report on Compliance with Financial and Accounting Contractual Clauses New Providence Road Transport Program LO-1988/OC-BH observed the following examples of non-compliance with financial and accounting contractual clauses of the loan contract for the Supplementary Financing for The New Providence Transport Program LO-1988/OC-BH

Section 3.01(i) Special Execution Conditions, non-compliance with the updated Management and Implementation Plan for the Big Pond area during the first six months from the date of the signature contract.

Article 3.03(ii) Special Execution Conditions, non-compliance with the evidence of initiation of the competitive bidding procedure for the Big Pond area.

Article 5.01(b) (i) non-compliance as to the hiring of the Environmental Specialist by the Contractor with responsibility for the preparation and implementation of the site EMP's and the monitoring of the construction activities and their impacts. The Environmental Specialist from Mott is not full time but rather does some island site visits.

Article 7.01 non-compliance as to the Executing Agency maintaining an appropriate system for the verification of procurement transactions.

Article 7.03(a) (i) non-compliance with the submission of the payment certificates required for verification of the financial information.

On December 15, 2010 the Auditor General, in its Report on Compliance with Financial and Accounting Contractual Clauses New Providence Road Transport Program LO-1988/OC-BH observed the following examples of non-compliance with financial and accounting contractual clauses of the loan contract for The New Providence Transport Program LO-1320/OC-BH:

Section 3.02(ii) unable to prove whether the Special Conditions Prior to the First Disbursement was satisfied with respect to whether the preparation of a program for the protection, rehabilitation and management of Big Pond and its surroundings has been implemented.

Section 5.01 Records such as the procurement documents were not made available for inspection.

Article 7.03(a) (i) non-compliance with respect to the timely submission of the disbursement requests for the financial information.

Internal Controls

Mr. Speaker, on December 15, 2010 the Auditor General, in its Report on The System of Internal Control New Providence Transport Program LO-1988/OC-BH observed and identified the following material weaknesses in the MOWT's system of internal control and its operation:

An inadequate level of inspection being carried out on the submissions for payments by PEU. Recommendations were for the Executing Agency to ensure the measurements of the works being submitted on behalf of the contractor is being checked.

There is an inadequate level of onsite supervision of the corridors. It was recommended that the onsite supervision need is addressed by Mott MacDonald and by PEU. Verification of the works will then be noted at all stages of the project.

Unable to obtain a list of persons authorized to approve the payment certificates. In some cases all of the authorized signatures were not affixed to the payment certificates which include the Project Officer, the Director, the Deputy Director, the Accounts Officer and the Senior Engineer. A recommendation was made that it was important that compliance is sought for the approvals of payments to ensure that all parties are aware of what is being incurred on the project. A further recommendation was made that a list of the signatories be kept on file for audit inspection.

On review of the payments of BTC bills for members of the project, in some cases no details were submitted. It was recommended that supporting documents be attached to verify payments.

Backup documents including time sheets were missing from the submissions for payment. A recommendation was made that PEU ensures that all payment details are recalculated to ensure the total attachments are verifiable to the amount being requested.

On December 15, 2010 the Auditor General, in his Report on The System of Internal Control New Providence Transport Program LO-1320/OC-BH observed and identified the following material weaknesses in the MOWT's system of internal control and its operation and assessed the impact of the particular risk event:

Risk Event	Probably Implication	Impact
Communication and coordination between agencies is inadequate.	The parties to the project should ensure that communication improves to curtail any possible dispute issues.	Serious
Lack of a full time Project Coordinator.	The project would not be managed properly and decisions and approvals would not be received in a timely manner which could result in possible disputes.	Moderate
Project Execution Staff are not sufficiently motivated.	The works would not be properly supervised and the productivity level would not be optimized. Without closer monitoring the resulting impact could be requests for extension of works from the agreed completion date.	Moderate
There are excessive changes for variations to designs.	Excessive charges may result in cost overrun.	Moderate
The Public Relations effort is not consistent.	Without consistency in public relations there could be increased concerns from the residents and the business owners which could result in residential concerns and disputes.	Moderate
On site inspection is	Without adequate on site inspection the	Serious

inadequate.	works could be carried out at a substandard level.	
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Cost Overruns

Mr. Speaker, Your Committee found that the NPRIP would incur large cost overruns. Effective as of June 30, 2011:

Reason for Cost Overrun	Amount of Cost Overrun
Total Variations	\$ 9,025,086
Total New Items	\$ 4,123,560
Changes in Legislation	\$ 202,010
Other Amounts Due	\$ 143,377
<i>SUB-TOTAL</i>	<i>\$13,494,033</i>
Changes in Cost	\$ 9,866,335
TOTAL	\$23,360,368

The above schedule shows how \$13,494,033 of cost overruns as of June 30, 2011 were attributable to costs related to contractual matters and changes, while \$9,866,335 was attributable the fluctuation in costs of the raw materials used in the roadwork's project such as asphalt, cement, oil and plastics.

Testimony by representatives from JCCC shed more light on the anticipated cost overruns of the project. The original contract price was in excess of \$119 million, but was subsequently adjusted downward to approximately \$113 million due to the removal of anticipated works. It is of note that the project at the intersection of Fox Hill Road and Eastern Road in front of the headquarters of the Deputy Prime Minister and Member of Parliament for St. Anne's was removed from the Project pursuant to a Contract Addendum. This scope of works was ultimately contracted to Bahamas Hot Mix by The Government of the Bahamas in May 2011. The contract for the intersection of Fox Hill Road and Easter Road was for 3 months and in the amount of \$146,436.60.

By the end of the project, now anticipated to be the end of September, 2012, the cost of the direct works only is estimated to be \$127 million. The additional cost variance attributable to the fluctuations in raw material pricing is estimated to be \$27 million, based on the current trends for the project. The formula proportions for the raw material pricing is 20% asphalt, 20% diesel, 10% plastic, 10% cement, 40% fixed.

This places the total anticipated cost overruns to be \$154 million, or 36.28% above the adjusted contract price of \$113 million.

Reasons for Increased Costs

Your Committee noted that the Changes in Cost designation in the schedule above were directly attributable to the escalation clause in the Contract for oil, plastics, asphalt. This resulted in a

cost overrun of \$9,866,335 as of July 30, 2011. The Contract budgeted these commodity prices at approximately \$70 per barrel of oil, and had other commodities such as cement and plastics in the formula. It is of note that the estimate of the raw material cost overruns as a result of international pricing volatility is estimated to be \$27 million by project end.

Your Committee asked the Permanent Secretary of the MOWT if there was a discussion about the Government purchasing a “hedge” to insure against the escalating cost of oil on the international spot market. The Permanent Secretary of the MOWT explained that although he was not involved in that decision, he did recall sometime in September, 2010 the MOF had discussion regarding purchasing a hedge but concluded that it was too expensive to do so.

The Ministry of Finance responded on November 11, 2011 indicating that “on the advice of the Project Engineer, Mott McDonald, it was determined that it would be more beneficial to the Government in the short run to adjust the formula used to calculate the level of escalation as opposed to purchasing a hedging contract.” The MOF stated that the ministry’s effort was focused on adjusting the formulas as opposed to purchasing a hedge contract, however, your Committee found no indications that the MOF was successful in re-negotiating the formula in the Contract.

It was brought to the attention at first Disputes Board Report dated March 11, 2009 by JCCC that changes in customs duty had caused it to incur unexpected higher costs. In fact, \$202,010 of the above calculation, as of June 30, 2011, is directly attributable to changes in legislation resulting in increased customs duty expenditures and an increase in work permit fees.

\$9,025,086 as of July 30, 2011 is attributable to Total Variations. This includes changes on Contract such modifications creating new rates and charges. Testimony indicated that some of the changes were necessary to preserve integrity of the project. Examples include revisions to the drawings for water pipes, infrastructure, etc.

Additional Funding Requirements

Mr. Speaker due to these cost overruns there will be a need for the Government to obtain additional funding for the project. JCCC in their testimony, and the MOWT in their testimony, indicated that the Government would require additional funding through additional borrowing from the IDB in order to fund the cost overruns. The amended schedule programme for completion of the NPRIP is a requirement in order to seek additional borrowing to complete the project.

In the seventh Disputes Board Report dated August 3, 2011 the Permanent Secretary of the MOWT made it clear that the MOWT required further funding for the project from the IADB. A specific amount was not discussed. Any further amount would require an agreed programme. Mott explained how the numerous attempts to devise an agreed programme had so far failed.

Contractor and Sub-Contractors

Mr. Speaker your Committee found that some stages in the project were performed by JCCC, and some stages were performed by subcontractors. JCCC testified that generally they performed the trenching and installation of water pipes. JCCC also performed the backfilling in the road preparation. JCCC stabilized the sub-grade and compacted and graded the roads to design levels. JCCC subcontracted the base layer of the roadwork, and the two layers of asphalt paving. JCCC also subcontracted the curbs and the wells. In at least one instance, JCCC subcontracted the water mains, specifically on Robinson Road.

There were a number of components of the NPRIP that were subcontracted to other companies. JCCC testified that they had a procedure that they followed. There was a quality standard process for subcontractors. JCCC would seek three bids for a particular scope of works. JCCC would also require all the necessary legal documents for subcontractors, including a valid business license and National Insurance Registration. The primary subcontractors include the following:

Item	Sub-Contractor
Base (LRB)	Bahamas Hot Mix Co. Ltd.
Asphalt	Bahamas Hot Mix Co. Ltd.
Kerbs	Bahamas Hot Mix Co. Ltd.
Road Marking	Roadgrip Two Thousand Bahamas Ltd.
Landscaping	Davis Landscaping Co. Ltd.
	Garden of Eden Plant Nursery
Well Drilling	Unique Sanitation Ltd.
	Bahamas Hot Mix Co. Ltd.
	Bayshore Drilling
Well Cleaning	Deep and Wide Drilling Supplies
Sidewalks	Valdez Campbell
	Nedco Construction
Water Main Works	Bahamas Hot Mix Co. Ltd.
Electrical Works	Campbell Electrical
Drainage and Service Ducts	Tynes Mainline Underground Activities

	Jireh Construction
General Construction	VC Construction
ICS Security Concepts	Security

As of September, 2011 total payments to sub-contractors was \$15,464,108.16. The three subcontractors receiving the most total payments from JCCC are:

Bahamas Hot Mix	\$12,035,380.63
ICS Security Concepts	\$ 1,024,077.70
Sanasha's Development and Heavy	\$ 270,725.00

Bahamas Hot Mix received over 77% of all subcontractor payments.

There were also a number of smaller subcontracts for trucking and other services.

The Loan Contract No. 1988/OC-BH dated June 23, 2008 was for Supplementary Financing of \$100 million for the New Providence Transport Program. The Loan Contract set forth procedures for tendering contracts and procurement of goods and works. It is of note that the Loan Contract provided for certain competitive bid requirements. The Loan Contract also provided for direct contracting for the rehabilitation and construction of road corridors and water mains for corridors. It is of note that Bahamas Hot Mix is the sub-contractor for these direct contract parts of the project. The Loan Contract also provided for direct contracting for the hiring of Mott for engineering supervision of the completion of the New Providence Transport Program.

Personnel / Employees

Mr. Speaker, JCCC testified as to the Bahamian employee components. There were 420 Bahamian workers directly hired by JCCC and between 75 and 80 Bahamians employed by subcontractors. Bahamians were hired to conduct a number of activities, including traffic management, environmental matters, and carpentry for concrete walls, masons, steel work and trenching. JCCC identified 4 high level Bahamian supervisors with supervision over equipment and personnel. There were dozens of Bahamian junior supervisors. JCCC had difficulty identifying local contracting rates for its workers. It is of note that JCCC did not consult the Bahamas Contractor Association in the course of hiring workers for the project.

Bahamian employees were paid based upon what work they performed. For example, unskilled helpers were being paid \$4.50 per hour; masons started at \$6.50 per hour; operators were paid \$8.50 per hour. JCCC also testified that they never requested a pay scale for construction workers from the Ministry of Labour.

Delays in The Project

Unavoidable Delays

Mr. Speaker, your Committee reviewed the Notes to the Financial Statements of the Auditor General's Report on The Supplementary Financial information for The New Providence Transport Program LO-1320/OC-BH. It was observed that during the period of June to November 2009 the project experienced significant amount of work increase and delays due to unavoidable circumstances such as:

- Sink Holes on Corridor 05
- Large amount of unsuitable material (12,000 cubic yard) on Corridor 05
- Heavy rainfall during the months of June and July 2009

Because of these unavoidable delays the Contractor was given a three months extension of project time to complete the works by January 21, 2012.

Failure to Prepare Schedule of Issues

Mr. Speaker, your Committee is of the view that significant amount of delays could have been avoided if the engineers had complied with the DBP's recommendation to prepare a Schedule of Issues. It was recommended in the first Disputes Board Report dated March 11, 2009 that a schedule of matters in issue be created. A format was presented at this meeting. It was also suggested that the Engineer (Mott) update this schedule on a monthly basis with the objective that all matters in issue are committed to a schedule that is discussed by the parties and the Engineer (Mott) on a regular basis.

In the second Disputes Board Report dated September 6, 2009 the DBP again recommended that a schedule of issues be maintained, and it was suggested again that the Engineer (Mott) maintain and update this schedule of issues on a monthly basis. The DBP "strongly urged the parties and the Engineer (Mott) to adopt such a schedule as experience showed these lists were very helpful in ensuring all matters are dealt with expeditiously and skeletons do not suddenly emerge during the later stages of the project."

In the third Disputes Board Report dated February 6, 2010 almost one year after it was raised the DBP again raised the issue regarding the preparation of a schedule of issues. The Engineer indicated it had started this list. The DBP emphasized that this list was a "management tool and should not be viewed as an adversarial or confrontational document."

In the fourth Disputes Board Report dated June 25, 2010 the DBP observed that he had "yet to see a comprehensive schedule of issues as discussed during the previous three visits."

Failure to Communicate

Your Committee believes that if there had been proper communication between the parties much of the delays would have been avoided. In the second Disputes Board Report dated September 6, 2009 the DBP observed that the sense of cooperation between the parties was not as evident as before. The DBP further observed that “communication can certainly be improved between the protagonists on this project.” This was the first instance where the DBP observed that if communication, and the matter regarding a Contract programmer, was not resolved; the timely and cost-controlled completion of this project could be jeopardized.

In the fourth Disputes Board Report dated June 25, 2010 the DBP expressed his concern with the quality of communications between the parties. The DBP recommended that JCCC give special thought to improving its ability to communicate in the English language, implying JCCC employees could only communicate in Spanish. The DBP concluded that efforts to communicate in an appropriate manner to date have not proved to be adequate.

In the fifth Disputes Board Report dated October 23, 2010 the DBP observed that JCCC was preparing a two-week look ahead programme which has contributed to a great improvement in on-site communication.

Poor Coordination with Local Utilities

Your Committee during its hearings with the various parties involved with the Project discovered that despite several suggestions to the contrary in the dispute board meetings delays did in fact result from poorly managed coordination between JCCC and utility companies.

Mr. Strachan, Assistant general Manager of Technical Planning for BEC informed your Committee that BEC had attempted to coordinate its work with JCCC. He admitted that a statement was made by BEC to the effect that the road works may have to be dug up but the statement had to be put in context. Essentially the road works entailed paving of the roads and in some cases, not all cases putting in duct work for future works by utility companies. To a great extent a lot of the existing infrastructure that was buried under the road was only being paved over. So if there was a cable failure say under Blue Hill Rd, and there was no duct work to repair the problem, BEC would have no choice but to excavate to carry out the repairs

Mr. Strachan further informed the Committee that BEC worked with the Ministry of Works and the designers to identify these problems and had raised the issue. The problem was that the project was never specked out to contend with those problems and was not fully scoped to ensure that wherever there were utilities there must be provisions for alternative feeds without excavation. He emphasized that there was only limited duct work being put in with respect to the project so he felt that it was inevitable that there would be problems that the corporation will have to fix under the new roads.

Mr. Strachan in answering a question relative to the cooperation level it enjoyed with JCCC observed that the contract actually started before JCCC had become involved and essentially the company came in under the terms of the existing contract and it did not appear as if by the time

JCCC came into the picture there was much additional modifications that could be made to the scope of the work. He admitted that he was not involved with the project from the start during the time of Associated Asphalt but he was aware that BEC was called into some meetings to give advice. Some of the suggestions were accommodated while others were not and BEC had to apply some pressure to have modifications done. He gave as an example the fact that there was a time when for the main longitudinal ducts that were being put in for electrical utility, only two ducts were being put in. BEC insisted that three ducts were needed, so in some of the early corridors only two ducts were installed but in later corridors three ducts were put under the ground.

Mr. Strachan noted that when it came to BEC's working relationship with JCC BEC did make suggestions on various topics as to how the contractor could realize savings especially where things were being done in not the most practical way. He gave as an example that on some of the main roads like Blue Hill Rd. and Abundant Life Rd. where BEC had existing wooden street light poles, the project called for underground cabling and steel column street lighting. BEC suggested as a means to save cost, if the lighting levels were the concern, it would be more cost effective if the designers came up with a way to enhance the existing lighting perhaps by putting more lights on existing poles or installing high wattage. Those were some of the kinds of practical measures BEC had recommended rather than investing in expensive underground infrastructure.

In reply to a question by your Committee regarding the failure of some underground cables that ran to the eastern end of the island and had been installed somewhat recently Mr. Strachan explained that as with any new technology there was a distribution curve and probability where generally you would have a small amount of products that fail fairly early, small amount of products that will take forever and probably never fail, but the majority will fail under the normal distribution. In the case of the cable referred to, that was a case where the corporation experienced failure very early in the life of the cable. Much of the cable had not been scrapped and was being stored in BEC's compound. An investigation was ongoing to determine whether the problem was with the manufacturer or with the specification.

Mr. Strachan admitted that BEC did not have a team based permanently with JCCC because the contractor was working on so many sites all at the same time. Moreover, BEC had its own programmes that were ongoing. BEC did, however, have a cable location team that was called in whenever the contractor was nearing power lines and BEC would come in and trace the cables or perform a procedure called "spotting" where either BEC or the contractor would excavate so they could physically see the cables at intervals and see where the cables ran thus reducing the likelihood of the cables being impacted. He spoke of incidents where the contractor working with heavy equipment would nick BEC's cable but not sufficiently to cause immediate failure and the nicked cable was then covered over. He expressed the view that there would be more incidents where there would be power failure due to the contractor's fault as there was a process that was suppose to be followed where heavy machinery was not to be used within three feet of where the cable mark was but this process was not apparently always being followed.

Poor Quality of work

In the second Disputes Board Report dated September 6, 2009 it was noted that JCCC's Quality Management Plan has been signed off by the Engineer (Mott) but the Engineer expressed serious concerns about JCCC's Quality Manager departure from the site and the fact no replacement had been appointed.

In the second Disputes Board Report dated September 6, 2009 the Engineer (Mott) noted that it was of the view that "JCCC was not complying with its contractual obligations to exercise quality control of materials (e.g. concrete). JCCC was not checking certain items as part of its quality control obligations. It was recommended by the NDB that the engineer (Mott) prepare a protocol for quality control.

In the fourth Disputes Board Report dated June 25, 2010 Motts "repeated its complaints that JCCC was not treating the quality assurance in the correct manner, there having been no Quality Manager on site for the majority of the project date." Motts did not believe that quality assurance was being complied with by JCCC.

In the fourth Disputes Board Report dated June 25, 2010 it was observed by Motts that there was a problem with certain construction matters, such as the quality of the sidewalk concrete. Although JCCC said if the work was incorrect it would be taken out and re-done, Motts pointed out that this was a waste of resources, caused completion delay, and gave the public a bad impression.

In the fourth Disputes Board Report dated June 25, 2010 the DBP concluded that clearly JCCC was falling down on various quality matters and it was urged that steps were urgently required to perform the contractor's quality assurance and quality management roles in a better fashion.

In the sixth Disputes Board Report dated March 10, 2010 certain matters were observed regarding the WSC pipe testing. JCCC was experiencing difficulty in obtaining a zero drop in pressure that was required. According to JCCC the cause for this was that the pipes were expanding and settling. It was observed that the delay to the pipe acceptance was causing disruption to the completion of the pipelines. WSC, however, complained that the level of workmanship was sub-standard and this could mean that WSC had justified concerns that it would be required to incur expenses in the years ahead to repair and maintain poorly laid and badly connected pipes. Bahamas Hot Mix was a water main subcontractor. WSC testified that the portions of the water main that Bahamas Hot Mix worked on met the pressure tests that JCCC couldn't meet.

JCCC and WSC both testified about concerns of WSC with respect to the quality of the fill being used on the project. After certain quarries were exhausted, JCCC decided to obtain its fill from Arawak Cay, using the Nassau Harbour dredge material. WSC had a concern that the material from Arawak Cay had a high content of salt. The concern was that fittings would deteriorate, even though pipes are PVC. JCCC explained that the material was sent to labs to test for salt and other components. Materials were also tested. The conclusion from the testing was that the amount of corrosive components was less than 10% of what was recommended by manufacturers of the materials.

WSC representatives testified about their dissatisfaction with the quality of work as it pertained to the laying of the water pipes. WSC was not satisfied with JCCC's use of bedding material, the joining of the pipes, and the pressure testing on the pipelines. The work being performed by JCCC, in the opinion of representatives of WSC, was not in accordance with the standard specifications for laying water pipes. WSC expressed its concerns with both the MOWT and Mott.

Things got so bad that in November, 2010 WSC threatened to remove JCCC from its list of approved contractors. Even so, deficiencies kept reoccurring in the following areas:

- Joining of pipes
- Bedding material and laying
- Connections to go to properties and the preparation of the fittings.
- Service laterals – the length and depth at which they were laid.

JCCC subsequently changed supervisory personnel and WSC assigned an engineer full time to the MOWT Project Execution Unit who was subsequently loaned to Mott in February, 2011. This resulted in the quality improving with respect to the pipe laying.

Design Delays

Mr. Speaker delays in the project also occurred because of delays in completing designs. It was first recommended in the first Disputes Board Report dated March 11, 2009 that regular meetings be held between the Engineer (Mott), the designer, Halcrow, and JCCC where design issues can be discussed and hopefully resolved.

In the second Disputes Board Report dated September 6, 2009 JCCC specifically raised the issue of the documents required for the construction. JCCC took the position that there was a delay in the issue of construction drawings that adversely impacted the Contractor's planning and execution of the Works. It was also explained that final construction drawings could not be prepared by Halcrow until JCCC had verified the utilities and prepared existing utility drawings.

In the fourth Disputes Board Report dated June 25, 2010 it was observed that the "drawing issue remained a contentious issue." It was recommended that the presence on site of a Halcrow Utilities Coordinator was vital to avoid physical clashes that would cause delays to the project. It was also suggested that a task force utilizing personnel from Halcrow, Mott, the utility companies, MOWT Project Implementation Unit and JCCC be established so that clashes and other utility site issues can be efficiently and promptly resolved.

JCCC, in its testimony, gave further insight into the issues related to the design drawings. JCCC bid the project with what is referred to as "tender drawings." JCCC testified that it is necessary for the tender drawings to be adjusted for the project, however, the drawings received were exactly the same as the tender drawings. Mott presented the drawings on behalf of the MOWT.

JCCC testified that there were further issues related to the utility drawings. JCCC conducted a utilities investigation and provided the information to Mott. It was then Mott's responsibility is

to have revised drawings prepared reflecting the utility investigation. JCCC testified that revisions only done for some components of the works, resulting in utility clashes with existing utilities during the infrastructure component of the project. In JCCC's opinion, the design drawings "could have been better."

The designer did not revise drawings based on the utility investigations provided by JCCC. The obstructions identified on the job were not on new drawings even though they were on the utility investigation report provided by JCCC. The utility drawings came back to JCCC all different, there were no unified drawings. As a result of the challenges with the utility design drawings, tie-ins with existing utilities provided a challenge. Marathon Road, Blue Hill and Market Street were identified to be the worst corridors for utilities.

Programme Revisions

Mr. Speaker your Committee noted that in the second Disputes Board Report dated September 6, 2009 several variations in instructions were by the Engineer (Mott). These variations had been priced by JCCC, but had not yet been accepted by the Engineer. It was noted that JCCC was reluctant to proceed with the variations to the Works until such time as the price was agreed; however, JCCC was reluctant to provide the Engineer with a breakdown of the prices. The DBP noted that this impasse was likely to have an impact on the progress of the Works and thus it was a matter of urgency that this issue was resolved.

In the second Disputes Board Report dated September 6, 2009 it was observed that although it was agreed that a Contract Programme was necessary for the administration of the Contract, the DBP found it "lamentable" that no Contract Programme has existed eight months into the Contract. The draft programme that had been submitted was not acceptable as a Contract Programme according to the DBP because corridors were combined and the utilities sub-programme was unclear.

In the fifth Disputes Board Report dated October 23, 2010 it was noted that the work programme submitted to Cabinet in June 2010 had been approved, inclusive of the 3-month extension. In a high level programme proposed by Mott the number of work fronts that would be required at any one time would increase from the current 4 up to 8 and the monthly amount of work executed to be increased from the current amount (of approximately \$US5 million) to about \$US7.25 million.

An agreed upon revised programme has been produced that shows a completion date for the NPRIP as the end of September, 2012. The addendum reflecting the additional extension still has to be approved.

Construction Delays

Mr. Speaker, delays in the construction slowed progress of the project. In the seventh Disputes Board Report dated August 3, 2011 the MOWT and Mott expressed concern about the progress of the construction. They pointed out that the JCCC labour force had been reduced over the past few months, and "the necessary productivity to complete the project by mid-2012 (the currently proposed date for final completion) is not being achieved. The Permanent Secretary of the

MOWT expressed concerns that the resources required on the project were insufficient and urgent and significant steps were necessary.

JCCC claimed that the labour resources were reduced because insufficient work was available to maintain a full component of the labour force. JCCC was then asked what resources it needed, in addition to excavators and backhoes, JCCC said it saw no difficulty in engaging more labour. It is unclear how this statement is consistent with the prior statement that there was insufficient work available to maintain a full labour force.

JCCC testified to certain unforeseen circumstances that contributed to the delays on the project.

Unknown Underground Conditions

The underground utilities caused some delays, which were said to be 90% mitigated by a utilities investigation which was carried out. A key contributor to the delays was what is referred to as the “substrate factor.” From Saunders Beach to Sanford Drive swampland was found, whose prior use was as a dump. This swampland had to be dug out at times, and backfilled with boulders. This was not an anticipated component of Corridor 5, as the original drawings did not show it. It was also discovered that Corridor 5 had been illegally excavated. JCCC indicated that it had to purchase additional quarry, resulting in delays and additional cost. There were also a number of sinkholes, especially in Corridor 5, that had to be filled.

Inadequate staff

Your Committee learned that the contractor employed poorly trained staff in order to avoid paying standard labour rates. In the fifth Disputes Board Report dated October 23, 2010 we first hear issues pertaining to the Bahamian employees working on the project. MOWT was concerned that JCCC was not using sufficient numbers of skilled operatives but was constantly training up an inexperienced workforce and this took time and compromised quality. Also, having gained experience the operatives would leave JCCC and seek better paid employment elsewhere. MOWT stressed that market rates for experienced operatives needed to be paid to attract and retain the right quality of operatives.

Changes to Completion Date

The original Contract period was 1,019 calendar days with an agreed Completion Date of October 20, 2011. Through an agreed Addendum No. , 1 the Contract Period was amended to 1,111 calendar days with a Completion Date of January 20, 2012. This date will not be met and a new Contract Programme and Completion Date are under discussion.

In the third Disputes Board Report dated February 6, 2010 it was observed that a Contract Programme had been “provisionally agreed which shows a three month overrun to the Contract dates for completion.”

In the fourth Disputes Board Report dated June 25, 2010 it was observed that the provisional agreement had been reached for a programme that indicated a time extension to the Contract Completion together with an associated sum of money as compensation. This agreement had yet to be ratified by the Government although it was observed that the Cabinet was meeting on June 8th with the purpose of adoption of this programme on its agenda.

In the fifth Disputes Board Report dated October 23, 2010 it was noted that Cabinet had approved the recommendation that the Date for Completion of the Contract was to be extended by three months to January 2010. It was also observed, however, that 55% of the time had passed but only 30% of the Contract Sum had been invoiced, thus indicating a significant shortfall in real progress.

In the sixth Disputes Board Report dated March 10, 2011 the DBP observed that 43% of the Contract Amount had been spent, 70% of the time to completion had elapsed and 57% of the work still had to be undertaken, indicating significant delays in the project.

In the seventh Disputes Board Report dated August 3, 2011 the DBP was advised that there were ongoing negotiations which proposed to allow JCCC until July 31, 2012 to complete the Works. The supplemental agreement was in draft form. It was noted that the injection of additional plant and equipment, additional labour, and importantly, additional management and supervision were vital if completion by July 2012 was to be achieved.

JCCC provided further clarification to the anticipated completion date. JCCC testified that discussions for another extension began during the started March – April timeframe. According to the new agreed upon programme, the anticipated completion time for the NPRIP was to be extended to the end of September 2012. JCCC clarified that the new addendum has to be approved, and is required in order to seek the needed additional financing.

Traffic Management

Mr. Speaker your Committee believes firmly that the issues related to traffic management were poorly handled. This had significant negative impact on the public and on the public perception of the project. In the seventh Disputes Board Report dated August 3, 2011 it was observed that “traffic management – or the lack of it – was a major concern of the MOWT and Mott.” It was acknowledged that this was a difficult and costly matter. It was stressed that good traffic management was fundamental to the PR efforts on the project.

JCCC testified that there was a group that had the responsibility on deciding traffic diversions. Efficiencies were reduced on the project with only partial road closures. Full road closures increased the efficiencies on the project. Full road closures had been authorized in September 2010, shortly after Mott asked to choose a priority on the project.

Political Interference

Mr. Speaker, your Committee in reviewing documents and testimony by persons appearing before it, concluded that the pace and scope of the project were unduly influenced by politics.

In the fourth Disputes Board Report dated June 25, 2010 first indications of the political influence was evident. It was noted that “it had been agreed that for various reasons, not least political/public relations requirements, that the Western Route (Corridors 18, 5, Section 24 and Corridor 4) would be opened to the public by 31st August 2010.” JCC had given assurance to the Government that this could be achieved.

In the seventh Disputes Board Report dated August 3, 2011 the Permanent Secretary of the MOWT emphasized that the public had lost confidence in the management of the project and there were frequent and serious complaints from the public, shopkeepers and businesses. It was noted by the Permanent Secretary that the “Government was extremely concerned at the potential negative impact that the project may have on the General Elections scheduled for mid-2012.

In that same Disputes Board Report dated August 3, 2011, it was emphasized that “PR is a matter for all involved in the project, especially at this crucial stage when so much of the downtown area was severely disrupted by the works being undertaken. Businesses were suffering and there was a pressing need for the public to be reassured that the end was in sight and the infrastructure improvements would be of lasting benefit.”

On June 25, 2010 “Motts explained that with the current situation facing the project, a clear definition from the Employer (Government) of the project objectives would assist.” The question was one of choosing a priority, whether priority is to be given to completion within the time for completion, completion within the Contract Price or completion of the original scope of works. Motts suggested that the achievement of all three of these objectives could not be simultaneously reached.

On March 10, 2011 the DBP indicated that two key objectives had been clarified by the Cabinet and the Prime Minister. First was that the full scope of work under the Contract is to be undertaken and any shortfall in funding would be made up by the Government of the Bahamas. Secondly, that traffic management would be required to facilitate the demands of the project. Temporary inconvenience to the traveling public would have to be accepted in order to allow the project work to continue safely and without delay. The result of this the Bahamian people will be inconvenienced, and will have to pay more in order to ensure the timely completion of the project.