

VERBATIM NOTES
PUBLIC PRESENTATION ON THE
FINIDINGS OF
THE ENVIRONMETAL IMPACT
ASSESSMENT
FOR THE NORTH/SOUTH LINK SECTION 2A
– CAYMANAS TO LINSTEAD
THURSDAY, OCTOBER 11, 2012



Taking Care of You and Your Environment.



**VERBATIM NOTES OF THE PUBLIC PRESENTATION ON THE
FINIDINGS OF THE ENVIRONMETAL IMPACT ASSESSMENT FOR THE
NORTH/SOUTH LINK SECTION 2A - CAYMANAS TO LINSTEAD
HELD AT THE ANGEL'S PRIMARY SCHOOL IN THE PARISH OF ST.
CATHERINE ON THURSDAY, OCTOBER 11, 2012 COMMENCING AT
6:35 PM.**

PRESENT WERE

- Mr. G. Gayle - Chairman
- Mr. I. Anderson
- Mr. C. Campbell
- Mr. Hamilton
- Ms. N. Tarawali
- Mr. R. Deng
- Mr. E. Mortley
- Mr. R. Brito
- Mr. G. Rose

PARTICIPANTS:

- Mr. E. Ellis
- Ms. K. Finlayson
- Mr. M Thompson
- Mrs. D. Andrade
- Mrs. P. Harris
- Mrs. S. Dixon
- Mr. Taylor
- Mr. Burke

AND OTHER INVITED GUESTS/COMMUNITY MEMBERS

Chairman: Good afternoon ladies and gentlemen.

Once again welcome to the Angel's Primary School I am very proud of this institution, it started September 2002 and we are now celebrating ten years of existence as a public education institution.

We started off with one hundred (100) students and a staff of seven (7) and we grow to a staff - an academic staff compliment of thirty-five (35) and a student population of one thousand one hundred and forty (1140).

Our performance in the academics or in the area of academia continues to be none in and around the St. Catherine area and we continue to do well in the activities, cultural activities and so forth.

Chairman: So once again welcome to Angels Primary School, I am Garth Gayle, I am the Principal and I am also the Chairman of this afternoon's function.

As I welcome you and give you a short history of the institution, I will try to be as entertaining as I can be. I must admit and let me do so if I will from the outset that most of what will be presented this afternoon or rather tonight is not new to me, but as I go through I ask for your patience. And if I make an error in regards to any of the presentations, I know my I would not call him a physic; I know that I will have able assistance.

And now, let us now, as is our custom in Angel's Primary School and is on the agenda let us ask the Lord - let us go the throne of Grace and I will ask my Vice Principal Mrs. Lorna Crooks to lead us in prayer. Can we stand please?

(Mrs. Crooks prayed)

Chairman: I want to thank you, Mrs. Crooks and continue to benefit our school. The community at large continues to benefit from Mrs. Crooks, she is in her first term as Vice Principal and she was here from early

this morning and she had a workshop for our teachers and she has not gone home yet. I was able to steal away for a while but she maintain and held the forth, I want to thank her.

I think you all have a copy of the agenda of tonight's function and I want to move along.

Before I go any further protocol, I am very sorry members of the head table, I would like to introduce to my far right Mr. Ivan Anderson and Mr. Ivan Anderson he is the Managing Director, although he is of NROCC and I know we all know that acronym, NROCC the company that has been doing wonders helping to reshape the landscape of Jamaica in a very meaningful way. We will now see how we are able to connect from one area of the island to another area with, you know,

Chairman:

ease and comfort and so, Mr. Anderson has responsibility for that or for all of those innovations - that is a legacy for this country.

Coming closer and closer to my right is Mr. Carlton Campbell and this gentleman is a gentleman that does not take no for an answer. From the get go, along with other members of his team Mr. Mortley and I just discovered that his brother and I studied at GC Foster College; but they would not accept no for an answer and hence we are here tonight as members of the head table.

So I have introduced Mr. Errol Mortley, Mr. Mortley is the Environmental Manager, Mr. Glyndon Rose Land Acquisition Manager so I know he has a very critical and crucial job title. Mr. Raul Brito, I always say to the students if I mispronounced your name please forgive me okay.

Thank you Mr. Brito.

Chairman:

I am going to call on Roy to join me at the head table and I am going to ask Roy to introduce members of the Chinese delegation that also will be involved in the work that will be done, and as I speak to the North/South Alignment, the Environmental

Impact Assessment and the work to be done in linking the other areas along with other areas within our community. So over to Roy.

Mr. Deng:

Good evening to everybody and I will introduce my team from China Harbour and to the very front of the line is our Deputy Manager of the Engineering Department, Mr. Du Xiegui, and to his right behind Mr. Du is our Environmental Engineer Ms. Nadine Tarawali, and to my right of Nadine is our Chief Engineer is Mr. Cha Minggao in charge of the design and next to Mr. Cha is our Design Engineer Wang Changqing and the gentleman sitting behind Mr. Wang is one of our Design Engineer is Mr. Yang Qiwu. Thank you.

Chairman:

I really want to recognize a beautiful lady, and I think Roy said that she is one of your engineers she is a rather charming lady. How you manage with so many of those men around but you seem to be able to, well, you can manage. There is also a very special lady and for those who know me know that I am

very passionate about the ladies. There is one very special lady that just joined us. Her name is Ms. Pat Harris. Ms. Pat Harris is the Councilor for North Central St. Catherine which is the constituency or rather the Angel's division to which the school and where we are currently located as we speak. Ms. Harris, could you stand please just to acknowledge for those who may not know of her. She is also a very good friend and good colleague a teacher by profession and someone to whom I share a very excellent working relationship with beautiful.

Now moving along. So we will now have a statement from the National Environment and Planning Agency and that will be done by Mr.

Chairman:

Hamilton. Mr. Hamilton will you please come forward. (Applause)

In the teaching profession, you see, when you are able to give a little encouragement it makes the person more incline to deliver. So let us really encourage our presenters, okay. (Applause)

Mr. Hamilton: Good evening, Mr. Chairman, other members of the head table, audience a pleasant good evening to you all. I am here representing the National Environment and Planning Agency so let me give you a statement of our position at this time.

"The statement from the National Environment and Planning Agency, at this public presentation for the proposed North/South link section 2A between the Caymanas and Linstead in the parish of St Catherine by the National Road Operating and Constructing Company Limited.

On the 27th of April 2012, the National Environment and Planning Agency received an

Mr. Hamilton: *application from the National Road Operating and Constructing Company Limited for an environmental permit for the proposed construction of a highway from Caymanas to Linstead in the parish of St Catherine.*

The information submitted in support of the application was received and a decision

arrived at that an Environmental Impact Assessment would be required for the project. The draft terms of reference were submitted and reviewed internally and also by external stakeholders. The Terms of Reference were approved in the letter dated 7th of August 2012, and the applicant was advised to proceed with the preparation of an EIA.

The EIA was submitted to NEPA on the 10th of September 2012 and circulated internally and externally for comments. The agency is currently awaiting these comments which when received will be reviewed, collated and communicated to the applicant for the necessary actions to be taken. The public

Mr. Hamilton:

presentation has been mandated by the agency and is being undertaken by the applicant in accordance with the terms outlined in the document titled "the guidelines for conducting public presentation" dated October 25th 2007.

Please note that the public consultation is an integral part of the review process conducted by the agency and that is, based on the issues raised and comments submitted by the relevant stakeholders the applicant may be required to provide clarification and/or additional information in the form of an addendum. It is very important that all participants are aware that the agency is represented at this meeting to only observe the proceedings and to hear the issues being raised. The agency will not participate in answering any questions at this time. Please bear in mind that no final decision has been made on the application. We wish to remind you that the process with respect with the public presentation for EIA is as follows:

- Mr. Hamilton:
1. *A copy of the verbatim minutes of the public presentation is submitted to the agency by the applicant within seven days of this presentation.*

2. The public is allowed up to thirty (30) days after the date of this presentation to provide written comments to the agency.

3. Upon receipt of comments they are collated and sent to the applicant for responses to be provided.

4. Once the responses are received, a submission is prepared to facilitate deliberations on the technical merits of the project in advance of a recommendation being made to the National Resource and Conservation Authority (NRCA) for a decision to be made.

Mr. Hamilton:

Please note carefully that final decision on the application is the sole responsibility of the NRCA.

And finally please be reminded that that EIA document is available for access by the public at the following

locations. The National Environment and Planning Agency Document Centre, NEPA Website www.nepa.gov.jm the St. Catherine Parish Library at 1 Red Church Street in Spanish Town, the St. Catherine Parish Council Office, at Parade Square Spanish Town, Angel's Primary School, Angel's Estate, Bog Walk Brank Library bog Walk, Linstead Parish Library, 9 King Street in Linstead, the National Road and Operating and Constructing Company Limited website at www.h2kjamaica.com and at CL Environmental Company Limited website www.clenvironmental.com this is the statement from us the National

Mr. Hamilton:

Environmental Planning agency at this time.

Chairman:

Are there any questions and remember when you are going to ask any questions you are allowed - I am going to ask that you please identify yourself.

Now one of the main thing that I picked up, well from the beginning I must admit that Mr. Campbell and Mr. Mortley made it very clear, that Mr. Gayle, one of the responsibilities you are asked is to ensure that the information gets out and that the information must be posted.

When I finally got the document it was actually in the Vice Principal's office and I saw this thick document I said, how Mr. Campbell expect me to get this thing mounted. However, we at Angel's Primary School we have the information here, we leave it at the security post. And if you notice that we have thirty (30) days to have a written or any form of a complaint or

Chairman:

query or questions we have thirty (30) days members of the community.

It is very important that such discussions are held in each of the communities that is a part of this Highway 2000. Sometimes you sit at home and you wonder why is it that there is a group of citizens or citizenry

quarreling or making noise and protesting about something, if it falls with such public forum as we are having here tonight, which will allow for the citizens to be informed, to get the necessary information, to make themselves aware.

And therefore those who are not here tonight it is imperative that those who are here that we must also send the message out, so that if there is any problem along the way it does not make any sense you run up to Ms. Pat Harris house with placards and making all kind of noise.

Because while she is the councilor and the representative for the Angel's community she will do her best, but if you all read the

Chairman:

information you also can, by being informed you will be able to manage the various challenges if there is any. And for what I have seen so far, with all the necessary agencies that are involved and when we listen to the document that was just read you see that they are following the law

accordingly. And when Mr. Anderson does his presentation, I am sure that we will be more enlightened and be more aware of what is to happen and what is to come.

So I hand over to Mr. Anderson for his presentation. Caymanas to Linstead linking Caymanas to Linstead, members I don't know how that resonate with you, but as the school principal I travel from Portmore to get here in the mornings and I use the Dun Beholding back road. And we who are at Angel's it is easy for us to get in and out of the Spanish Town area we have several options. Now can you see this Caymanas to Linstead lineage it gives us even more options. When I have to go to Kingston for

Chairman:

meetings, you know, there is a route I use I have to head to the highway, link through Portmore and get downtown quickly. This is another opinion for me and so I welcome it and I know the citizens also will welcome it. Those who resides in the community here I see long lines many a morning I come

against because it is easy for me when they are coming out I am coming in and I can see the long lines in the mornings so I can see the benefit already. Are you seeing it members from the community?

Participants: Yes.

Chairman: Beautiful, I just want to set the stage because I don't want for there to be any challenge or any problem right Mr. Anderson? We want to make sure that tonight you are as informed as you possibly can.

Now we will have an overview of the project and I will now hand over to Mr. Ivan Anderson Chief Executive Officer of the National Road Operating and Construction Company Limited. Let us welcome him, and I

Chairman: want a more welcome, this is a CEO, he is the big man, you might not know but he is going to give us information to ensure and allay all our fears and ensure that all of us are comfortable with what is going to be happening very soon. Mr. Anderson.

Mr. Anderson: Thank you, Mr. Chairman.

Mr. Chairman, Mr. Campbell, ladies and gentlemen good evening. I feel like I am back home having been - having spent many years in this community, in fact, I went to school at the - the best high school in Jamaica just down at Monk Street..

Participant: St Jago.

Mr. Anderson: Absolutely, I went to St Jago a school that most of your children aspire to I am sure, Mr. Gayle.

Today is a very important time in Jamaica's history, we take another step to changing the way people live in Jamaica, where people chose to work in Jamaica, and where people chose to vacation in Jamaica. This highway

Mr. Anderson: is going to change Jamaica for generations to come. It has been a long time, it has been more than forty years since the country has been trying to figure out a way, another way to get from Spanish Town to Ocho Rios, another way to get around the Gorge we all

know what happens in the Gorge, another way to get around Mount Rosser, another way to get around Fern Gully another way to make it easy to get from the south coast of Jamaica to the north coast of Jamaica.

I am going to talk to you quickly about the project, the alignment of the project, and then show you actually where the roadway is. In fact, Mr. Gayle will be a little more pleased when we are finished, but we hope to have to an entrance just for him, we hope to have an entertainment just for him, about two hundred meters of road where he can jump on the highway and be into Kingston in just ten minutes.

So I am going to talk to you a little bit about the objectives of the project, look at

Mr. Anderson:

the alignment as I said earlier, and talk to you a little bit about the next step.

So in terms of the broader objectives, the project is much more than a road project, people tend to think that the project is how

you get from point A to point B, a little bit faster, that is an outcome of the project but it is not the primary objective of the project.

The primary objective of the project is how we can increase the pace of the development in our country. How can we accelerate economic development, we can do this through a number of mechanisms; providing direct and efficient link between major population centers, reducing population pressures.

Over the years, what has happened is that people tend to migrate; you cannot live in Linstead and work in Kingston, so people tend to migrate from Linstead to Kingston and live on the border of Kingston. But more and more pressure is on the infrastructure within Kingston itself.

Mr. Anderson:

The project obviously is designed to improve the safety of motorist and reduce the operating cost of motorist. I think everybody knows that when you are driving on roads which are ridden with potholes it cost

the driver of the car, not only in terms but obviously in terms of the maintenance of the vehicle.

So we are trying to tie together the major population centers of Jamaica; Ochi Rios, Montego Bay, Spanish Town, Kingston, Bog Walk, Linstead. How can we tie all of these major centers of the country together and that is what the highway is intended to do; running all the way from Kingston running all the way eventually going into Montego Bay, and the link that we have been talking about going from Spanish Town, or from Caymanas all the way into Coho Rios. While, we, at the same time trying to tie together all the large tourism development in the country. Not only do we have tourism development on the north coast but you will

Mr. Anderson: be amazed how many attractions that you have inside of the country.

Think of what would happen if we get the three million visitors who now tend to stay along the north coast to come and see what

else Jamaica has to offer. And that is what the highway is trying to do.

So how do we get from the north coast to the south coast where are we? So what I am going to talk to you about, I am going to show you the difference between the Bouygues project, everybody know the Bouygues project and distinguish that project from the north coast project which is the China Harbour Project.

So we are talking about distinguishing the various project, everybody knows the Bouygues project, and the Bouygues project starts from Kingston going all the way into May Pen that is what we call Phase 1A and Phase 1B of the highway; everybody with me?

Participants: Yes.

Mr. Anderson: That is the Trans Jamaica project and in addition to that Bouygues also has the option to do the section from May Pen going all the way to Williamsfield so all of that

is what we call the Bouygues Project, the Trans Jamaica Project.

The new project that we are going to talk about today is the project going from Spanish Town or Caymanas all the way over to Ochi Rios and that is the project we have been discussing CHEC and we have signed that concession agreement with CHEC for.

The EIA that we will be presenting today is the EIA for the backup section from Caymanas to Linstead. But I will talk to you about the overall project so you will understand how this piece will fit into the overall project itself.

Finally, we all expect to be able to do the section from Williamsfield all the way into Montego Bay that is the last phase of the process.

Mr. Anderson:

As I said, it has been a long time, it has been since 1968 that we have been trying to figure out a way of how do we get from Spanish Town to Ochi Rios, what are the

various alternatives? I don't think you can see all of those lines around on that map, but all of those lines on the map are actually different alternatives that we have looked at over the years as to how we can get from Caymanas or Spanish Town all the way to Ochi Rios.

Many different alternatives have been studied, many different studies have been done and today we are talking the next step forward in terms of concretizing the step from Caymanas going to Linstead.

So where we are? This year we signed a number of - over the past few years we signed a number of agreements, this year we sign what you called a concession agreement with China Harbour for the implementation of the project, and that project is expected to commence over the next few months, and I

Mr. Anderson: will talk to you a little bit more about that.

For the main feature of the concession agreement are as follows: We have a fifty (50) year concession, so what this is, it is a designed, build, finance project. So China Harbour is expected to design the road, build the road, get all the financing for the project, operate the road for fifty (50) years and then give it back to the people of Jamaica free, that is the concept around the project.

The cost of the project as we estimate it, is about US\$600 million, and unlike the existing highway where the Government of Jamaica provided funding, in the existing highway the Government of Jamaica provided about a hundred million dollars (\$100 M) to build this road.

In this north/south link the Government of Jamaica will provide no fund for the project, neither will the Government of Jamaica provide any guarantees for the

Mr. Anderson: project. And in fact, the Government of Jamaica is expecting to get back all the

money that we have spent so far on Mount Rosser, so China Harbour would actually give us back all the money that we have spent on Mount Rosser as part of the project.

And finally, some of the issues that we have had with the existing project in terms of the geotechnical problem Chicana Harbour has agreed with the engineers to take over the full reign of geotechnical soil issues for themselves, the Government of Jamaica doesn't take that either.

So in terms of the various stages, we have the first phase from Caymanas to Linstead and that phase is expected to start sometime from around October 2014, next year, and be completed by October 2015.

The second phase which is the Mount Rosser piece, the piece in the middle, the piece that we have now being working on with Bouygues they will take over that section and that section is expected to start

Mr. Anderson: construction in about January 2013 and be completed by about end of 2013, and then the final stage for the section 3 is going all the way from Moneague all the way down in Ochi Rios to start in about October 2013 and also to be finished by October 2015.

And as I said, the existing route for those of you who have not been to Mount Rosser this is what the toll plaza looked like at Mount Rosser this is what the road looks like at Mount Rosser, all of this will be incorporated in the existing project, so you have a smooth flow once you leave Caymanas all the way through to Ochi Rios.

So a number of you have been asking the question, where is the highway, where is it going to run how is it going to affect me and what I would like to do now is to show you the actual alignment and actually where the highway passes.

Alright, if you think of yourself as driving down Mandela Highway going towards Spanish Town, everybody with me?

Participants: Yes.

Mr. Anderson: Going towards the Ferry Police Station, we are coming up towards Ferry Police Station, just passing Hydel School, this is where the highway starts, just west of the police station, everybody with me?

Participants: Yes.

Mr. Anderson: Alright, from here we go through the cane lands, so we are at the back of the cane lands, we are at the back of the cane land just about to go up the hill behind the Golf Course everybody with me?

Participants: Yes.

Mr. Anderson: Alright so we are passing right behind the Golf Course or passing right behind Keystone, everybody knows Keystone?

Participants: Yes.

Mr. Anderson: Everybody knows St. Jago Heights right, right there we are passing and then we are go over Sligoville road, going a little too fast?

Participants: Yes.

Mr. Anderson: Alright, so this is Sligoville road going down toe Sligoville. Keystone and St Jago Heights is around that side everybody with me?

Participants: Yes.

Mr. Anderson: So we are crossing over Sligoville Road and we are going to be running parallel to Rio Cobre round the back here, coming all the way up the river all the way up behind Content, so this is the river Rio Cobre, Spanish Town is right here so, and we are coming up the river everybody know what this is Angles right, so we are just over here. Okay let me back up a little bit. Now we are actually behind the school down here, everybody know where the school is? Right here, so everybody knows where we are?

Participants: Yes.

Mr. Anderson: Alright, so as I was saying to the principal this is our first interchange. So the school is right here the round-a-bout is right

Mr. Anderson: here, so it is this round-a-bout right here. So the first interchange is to connect back to Angels just about where that old warehouse is everybody knows where it is?

Participants: Yes.

Mr. Anderson: Right there is where the road comes to. So we are coming up the river and we cross over the river right at Dam Head, going too fast?

Participants: Yes, go back to Dam Head.

Mr. Anderson: Alright, let me show you Dam Head again. The highway is on that side of the river, so we are over on the Content side of the river and we have an interchange over on that side of the river and then we come across a bridge across Rio Cobre and come across what we call the slip road, the interchange road and we come right up into - right by where the warehouse is up there and come back and tie into the main road.

Alright, we will have a long presentation so you will have a chance to ask questions.

Participants: Show us again, the road.

Mr. Anderson: When we are asking questions we can talk about it in a little bit more detail.

One more time, this is the warehouse up here and we come right between the warehouse and the road. We actually don't affect any houses at all with the highway. So we come across the road come across the river and we are running parallel with the Rio Cobre.

Participants: Show us again.

Mr. Anderson: This is the last one and then we come back to the questions again, let me just show you the Dam Head crossing again. Everybody know where the device tower is?

Participants: Yes.

Mr. Anderson: Right there you are going to come across. The is the Digicel tower that is on the hill right here, and we come right between that road that go down to the Rio Cobre dam and we come right through that road and go across the road and continue up north. Sorry Cable & Wireless tower.

Chairman: I am going to ask members please, I am going to ask if you can hold your questions until the section where we have questions and answers.

Mr. Anderson: We can always comeback to it but Mr. Campbell has a long presentation. Mine is only the forerunner mine is not the real presentation. Carlton's presentation is really what we are here to see.

So quickly just to go through to the end we run parallel through to the Gorge, the Gorge is down here the railway line is down here, all the way up to Gibratore this is the condensery everybody knows where I am?

Participants: Yes.

Mr. Anderson: There is one more stop along the way, the round-a-bout is here, this is the round-a-bout at Bog Walk so we come upon the western side of the Gorge, on top of the hill above the train line on top of the hill, and then we come up to Gibratore, come down the hill, run parallel behind the Condensery, Tulloch

Mr. Anderson: farm, Cranbury farm, True Juice plantation all the back around there.

So come down along the side of the hill, running through the cane lands going to Bog Walk going north. So the highway alignment we try to immunize the impact on buildings and structures. Coming up to the old Bog Walk Linstead main road, come over the road just by the church. It is not affecting the church and then we tie into the existing Mount Rosser. So the existing Mount Rosser Bypass comes up goes around the corner to Ewarton, the train line is where the people sell the fruits, you know where I am?

Participants: Yes.

Mr. Anderson: Just where the intersection is now just where the stops signs are right now, we come up there and tie into the existing Mount Rosser and from there we go all the way through.

So quickly from there we tie into the existing Mount Rosser going along the

Mr. Anderson: existing Mount Rosser, the toll plaza that we saw earlier, the mud lake, all this is now paved, paved all the way up to about to around here, pass Charlie Mount, pass Mullock coming on the side of the hill, all this is cut and filled already. Here we have the issues which we have resolved with China Harbour. Coming back to the road all this is now paved everybody know where we are?

Participants: Yes.

Mr. Anderson: We are on top of the hill now by Faiths Pen. Faiths Pen vendors, everybody know where we are?

Participants: Yes.

Mr. Anderson: And we are running just the east of the Faiths Pen vendors. All of this is now built already, built, paved and completed. Come down the hill we are right beside the existing main road just pass Faiths Pen, come down through the tunnel. You know where the tunnel is with the highway over the top?

Participants: Yes.

Mr. Anderson: That is right here, Moneague is on the right, come all the way up to that round-a-bout right at the end of the highway everybody knows where it is?

Participants: Yes.

Mr. Anderson: So we come to the round-a-bout and then begin our way all the way down to Ochi Rios. Come pass Phoenix Park we have the old Lydford mining operations on the right hand side. We go west to avoid the old Dunns River area, avoiding that entire watershed to make sure that the highway does not impact on the watershed. Come through all the interchange, which is the interchange that will take you up to Golden Grove, to Brown's Town anywhere in that area that you want to go to.

So we come down off the hill now coming towards Baileys Town, this is the Baileys Town subdivision, coming down to Steer Town, the Steer Town primary school. Everybody knows where the truck route is where the car

Mr. Anderson: separate just before you go down into Ochi Rios?

Participants: Yes.

Mr. Anderson: That is right here, so the cars goes this way down to Ochi Rios and the trucks come this way. So we go right around in front of the UDC Great House, so Dunns River is on that side, Laughing Waters is on that side, the hydropower station is on that side and we tie into the existing north coast highway. Any of you know where the water wheel is, there is an old water wheel on the road right there is where we tie into the highway.

So this gives you a feel as to where the highway is. So what Carlton will do he is going to talk about what are the impacts of the highway and how we can mitigate these impacts.

So the process for us is that we go through the processing process. We can't start as the NEPA representative will tell you until

Mr. Anderson: we get a permit, so everything is on hold until we get a NEPA permit. So all of the environmental impact, all of your concerns will have to take into concern before we can go further. Once we get that approval then we begin the next stages begin the process of acquisition, CHEC will begin the process of surveying, geotechnical investigations and hopefully if everything goes well, we expect to start in October of 2014.

Thank you very much. (Applause)

Chairman: Remember members, you will have the opportunity to field your questions at the question and answer session and that will follow Mr. Campbell's presentation. While the changeover is actually being done, I would like to acknowledge the presence of me Dwight Burke and Mr. Burke is the councilor for the Sligoville division and we saw where his community will be a part of the Caymanas to Linstead link up.

I want to also acknowledge the presence of a few other members of the Environmental

Chairman: Company Limited, as you already you know, Mr. Campbell is setting up Mr. Kristoffer Lue who is also assisting, Ms Rachel D'Silva, she is on the outside she is ensuring that things are in place, make sure the bathrooms refreshments and so forth. Mr. Glen Patrick, Mr. Glen Patrick is one of the field technicians, Mr. Matthew Lee Environmental Scientist, Mr. Christopher Freeman, Civil Engineer and we already had the presentation from Mr. Allen Hamilton, Civil Engineer from NEPA.

I think Mr. Campbell is now ready and as I said earlier, he has the main portion of tonight's presentation.

Mr. Campbell: Thank you Mr. Chairman, Mr. Ivan Anderson, ladies and gentlemen good evening.

What we are here to talk about is the Environmental Impact Assessment for the north/south link Phase 2A, which is the section from Caymanas to Linstead.

Mr. Campbell: It is going to be a four-lane controlled toll road having full intersections and interchanges. It has a distance of approximately 28km long. As you were shown before the connection at Ferry; and along this path we expect to have 28 crossings between here and the end of the road. These crossings include rivers, local roads, railways connection or connectors especially in the agricultural area in Linstead.

For the highway to go over or underway we facilitate the crossings by building either over passes or under passes so as not to prevent persons in their normal access.

There is a main toll plaza, three intersections, five separate grid crossings, two main river crossing, bridge crossing and an auxiliary, as you can see the route that Mr. Anderson had shown you where you will be crossing. And the design and the construction are expected to take thirty-six (36) months, three (3) years.

Mr. Campbell: This is a list of the persons, a long list of people who took part in the study I won't bore you with that.

The first thing we looked at was climate, we looked at three locations we set up stations to look at the temperature, wind speed and direction the relative humidity, and most of the numbers that we got were consistent with what Jamaica's weather is like.

We also look at the soil and geology along the alignment. Fourteen (14) soil types were identified, thirteen (13) of which were slight to moderate erosive properties. The Bonygate Stony Loam which is one of the major one, one of the predominant one, this is highly susceptible to erosion. And this map is giving you an idea of the alignment.

This is where the highway starts at Ferry a lot of the bruise are loam soil, so that is what we are talking about.

Mr. Campbell: We also looked at the elevation how the road is run and it is either a hilly side or a flat side. The grades represents lower level and as it goes lighter green gets dark, darker green is higher and of course they have the registry where the highest elevations are. You notice just about here, is where Giblatore comes off that slope as Mr. Anderson spoke about.

We also look at catchments around the highway; that is important in terms of water flow you have rainfall. Basically the catchment that covers that stretch of road is about 470km². It extends as far as Manning's Hills in the east, Thetford Mountain in the west, and Guys Hills to the north and Christian Pen to the south. And the length of it is about 31km and as wide as approximately 30km.

Part of the hydrology is looking at the flows, rivers, streams and we have also looked at water sources and sinkholes.

Mr. Campbell: Sinkholes are important in terms of how you drain, a lot of the natural drainage of land is done especially in the limestone area of Jamaica, and sinkholes are important in terms of getting of water and reduce flooding. The alignment would traverse eighteen (18) sinkholes. We also had a 50m buffer around the highway and within that 50m we found ten (10) sinkholes so in total there are about 28 sinkholes that will or might be affected. So we have to put in measures in place to prevent any flooding.

We also looked at wells, eleven were determined to be affected by the construction of the proposed alignment, that is important especially over the Content side a lot of those wells provide Kingston metropolitan area as the major source. This image gives you an idea of the catchment around the highway. The proposed alignment crosses five (5) rivers, four (4) of this occurs within a 4km radius between Linstead and the Rio Cobre and the dangers there.

Mr. Campbell: That table below gives you a list of five years, Jordon Spring Thomas River, Tributary one and Tributary two, Springvale River, and of course the major one which is Rio Cobre. These rivers are known to swell rapidly when you have rainfall events, most time over topping causes flooding so we have to take them into consideration when we are building the highway.

There is one area that we were asked to look at and that is in the Ferry area, and the reason for that is the UDC plans to build an industrial park and we don't want the highway to have an impact on that development. So we looked at it and the alignment does not cross the Fresh River but it crosses some of the tributaries. So of course, the necessary drainage thing has to be put in place.

These are, as you can see the green dots give you an idea where we expect the highway to cross the rivers and streams.

Mr. Campbell: This is one of the catchment for the various streams and of course, you can see the blue lines out where the tributaries feed into them. Blue catchment here is the catchment that feeds the Rio Cobre River, as you can see it is a large catchment. Jordon Spring in this yellowish green and Springvale River is this orange brown.

There are some pictures just giving an idea of what those locations look like. This is Jordon Spring you see it is vegetated around; this is a tributary of Thomas River running through the cane lands and also the Springvale River running through the cane lands. And so, of course, we have to ensure that we don't impact that river discharge. And as I said before that those alignments does not cross the Fresh River.

This is the catchment that we are looking at here of the Fresh River and this is where the alignment runs, you can see it is just at the bottom end of the catchment and two of the tributaries will cross it.

Mr. Campbell: We also looked at flood prone areas along the highway and in areas of development.

In 2007 NROCC commissioned a study and highlighted several flood prone areas, it was reported that funded and overflowing of the Rio Cobre was one of the major factors that caused the flooding. But also as we know, flooding can be caused by blocked drains which prevent the flood waters from flowing freely. It also pointed out that low line areas such as where we have the citrus and cane fields may act almost like a wetland and it will increase the potential for flooding. There is a picture which was shown in 2008; this was what the Rio Cobre looked like. Part of the Springvale Valley River as you can see these culverts and stones the free flowing of water and you can see the Thomas River just flowing here just below the bank in the cane area.

Based on information from ODPM these are known flood points just outside Ferry area there is Tredegar Park, Bog Walk. As you

Mr. Campbell: should know and just outside Linstead in that area, are the area known to be flooded.

Also important this climate change, I mean, I am sure everybody know or heard talk about climate change when we are designing stuff now we need to take that into consideration and we also did that in this case.

The river, historical rainfall data, from 1930 to '88 and also looked at recent ones from 1992 to 2008.

Also in this assessment we did interviews with persons who lived in the area to get an idea of what height of the water when the floods came. What analysis of the rainfall data has showed is that there is a general increase in rainfall intensity over the period. So we are having more rainfall, higher volumes of rain.

I won't bore you with these numbers, but in a 21 year period the increase is about point seven percent (.7%) to above a high of five point six percent (5.6%) over a twenty-one

Mr. Campbell: (21) year period; bearing in mind that the design life of this project is 75 years so we looked at what it would be on a 100 year event to make sure that it will satisfy the flows that we expect.

This shows you areas of similar rainfall bright reds are giving you the highest intensity of rain. As you can see, right at the Rio Cobre valley here and also the Jordon Springs where you have the highest rainfall.

A part of this building we have to look at quarries that will supply the material. Some of the material will be had from the cut and fill but also at some point we are going to need quarry and so we looked at quarries that are in close proximity to the alignment and there are some - probably it is hard to see but these green triangles shows quarries that are in close proximity.

We looked at hazards landslide as one of them. The Bog Walk fall zone consist of broad belt mainly limestone rocks and

Mr. Campbell: extensively fragmented. With this fragmentation we will have unstable slopes so we have to take that into consideration when we are building the highway. So the potential for landslides and land slippage is high. This is especially important if you have volcanic rocks around, as in the case that happen on the Moneague, that leg.

This is some pictures that are showing some ideas of landslides that occurred. Currently this is just outside on the Bog Walk Gorge road and this limestone is so soft that this gentleman could push his machete straight into the rock, so it is soft material.

We looked at landslide vulnerability using what we call GIS model and we put different parameters in there. We looked at landside inventory from the ODPEM. We looked at roads where roads dwell in relations to landslides that we know. We also looked at fault lines because those are important in terms of landslides and of course, the soil and

Mr. Campbell: geology. Once we ran that model, we found areas of high - that is likely to have landslides. North of Lime Walk is an area that was identified as strong possibility of having landslides; and also the area south of Bog Walk; susceptible Regions that are near to Crescent and Content where the proposed highway will cross at the Rio Cobre; in Caymanas bay that hill, coming up that hill is also a possible area of where land slippage will occur.

This is a map that will give you an idea based on the model; orange areas are there where we expect high land slippage or the potential for high land slippage. And as you can see on that, coming down Giblatore coming into Bog Walk cane lands that is an area that has a high potential for landslide.

As I have said, sinkholes are important. We also looked at earthquake, and the earthquake as to how the road will be built.

Mr. Campbell: This area in the black box that you are seeing, the area that we think will need some closer examination along with this hill.

We conducted water quality sampling just to see what the water quality is now, so that in the future when the road is operational then we can take water samples to see if the operation of the road is impacting on our water sources.

These are the areas that we took samples there are several locations along the alignment that we took water. What we found looking at various parameters Ph. phosphates, oil and grease and fecal coliform at different areas are exceeded what the National Environmental Planning Agency standards are. So at present, without the road, we are already having exceedances at certain areas.

We looked at air quality; we looked at different particle size, which is important. We looked at what we called the coarse

Mr. Campbell: particle size which is 2.5 to 10 micron and we looked at the fine particle size to smaller blow 2.5. The importance you will see because different sources cause different type of particle sizes. Coarse will become dust, crushing grinding, vehicle driving along a dusty road and the dust that you normally see day to day; but also for fine particles which most people don't take into consideration, combustion, how people light their stoves, bush fire, motor vehicles that is what cause fine particles and in this case, of course, it is a highway so you have motor vehicle going up and down the fine particles would be important.

This is an example of the pumps that were set up to do the measurements so that we can get the values that we looked at.

Those are the stations that we did the sampling. And based on the result of the three samples run for both size particles they were within the national standard. So at present the levels are fine. We also look

Mr. Campbell: at noise; noise is an important fact when it comes to highway with vehicles travelling along. We did 9 noise stations along the alignment just to look at the baseline of what we are calling the noise level now. It is also have expediencies of day time noise levels and night time noise levels due to the presence of the highway.

We looked at the biological; we looked at flora, which are plants. Fifteen areas were assessed of that fifteen areas we found ninety (90) floral species of plants, of those 90 ten of them were found to be endemic, those are plants that are found either there alone, within the parish, within just Jamaica alone or just in the Caribbean.

We looked at tree density forestry area, it varied between 374 trees per hectare to about 2,400 in the hillier areas.

The vegetation along this area shows impact from human and other activities, so it is not a primary forest it is what you call

Mr. Campbell: secondary or restorative area so it is not - the highway won't be running through an area which is pristine. Some of the activities that occur in there substitute farming you have some major agricultural things. Residential areas, I mean, houses are built some industrial areas of course as I said prehistoric area.

The John Hills area which is over that side is of course least disturbed. When the development is done in that area then care extreme care has to be taken.

There are some ideas of the species that are endemic; it is in the EIA if you want to look at it.

These are the areas that we did the presentation sampling, if you notice we concentrated as closer as possible to the alignment to see what is there.

Some pictures showing different types of vegetation and this is the Caymanas area, this is the Content area, quarry, this is on

Mr. Campbell: the hillside coming down from Giblatore into Bog Walk if you notice tress are skinny and taller and not a lot of soil in there.

Those are some classification that we did with the vegetation in terms of giving an idea of where.

We also look at animals, birds, insects 45 species were found on birds 41 were observed in the Caymanas area, the other side had no diversity, no numbers. A number of them were endemic and were forest dependent and most of them, if not all of them did not require what we call the primary forest so they thrive in the secondary forest. So building a highway for that area would not impact negatively on these birds.

We also looked at an amphibian rhinella which is a frog, what we call a bull frog. There were other reptiles like lizards and stuff that were found land snails but the important thing is that none of them were known to be endangered or in need of any special protection. So, therefore, good

Mr. Campbell: environmental practices would be adequate to conserve these species once the highway is being developed. We looked at existing land use, it is important to see when you are doing a development how you impact what the existing land use is and how the future land use will be impacted. Of course, as we all know, it an agricultural and commercial area some areas you have motor rally, area strip, caves which are important when you are building highways, you have to be careful how you are building you don't want to build over a cave and it caved in.

Burial ground this is important to persons, the alignment if it is going through persons burial ground it is a sensitive area you know you will have to exhume and relocate the persons; power lines, wells which we spoke about before and water pipeline, the Rio Cobre pipeline into Kingston and Portland pipeline is important.

Historically the area were used by Tainos which were Arawak's we used to call

Mr. Campbell: Arawak's for planning and for trails spans of persons were settled around here followed by the English and all of them built new roads into these areas. If we go up into the hills of Gibraltore you will find old roads pavements and as I said before it is not primary or pristine, it has long being disturbed. Bog Walk Gorge was constructed in 1770 by the British; of course, you have other industries sugar tobacco and so forth. You have people doing small farming cassava and some things like that. In the future major developments are done by the UDC on the Caymanas lands and which you know is an industrial/residential area. We also did a structure survey; we looked around the alignment and around the buffer to see what structures would have fallen in that proposed alignment.

Well, incidentally approximately 220 structures will be impacted by the proposed highway from stalls, church, yards, cell towers, farms, pens and unfinished

Mr. Campbell: structures all these structures that we found of the 220 that we found, approximately 52% or a little above a half were found between Crescent and Content. This map gives you an idea of where you see these little black dots of where the impacted structures are.

We also looked at the socioeconomics, 33 schools are found within the area and the social impact area that we used is 3km around the proposed alignment so we looked at the area between 3km around the alignment. And what we found out is that the average house size was lower than the parish, but higher than Jamaica national levels. From this project we expect one thousand (1,000) persons to be employed during site clearance and preparation.

We also expect approximately 400 persons to be employed once it's operational.

We looked at the population and how we expect it to grow over the next 25 years because that is important to ensure that the

Mr. Campbell: highway that is being built is not just for now but for the future; so we looked at what the population will be over the growth.

The population now is considered as fairly youthful is mostly female this is the population of mostly females within 3km of the highway. Mostly female, most people are between one and 45 years of age. And what we used as one of the statistics is the sex ratio indicates that there are more female than males in the social impact area. But in St Catherine as a whole you have more males than females.

We also looked at houses, the number of rooms that people have in their houses and most houses that we came across in the 3km is between one and three bedrooms.

An important thing is land tenure. As you can see here 23% of those in the social impact area said they own the land, but importantly 48% did not report what the ownership is, I mean it can be left up to speculation. The important thing is that

Mr. Campbell: access around the proposed alignment and intersection are generally poor presently, and it proposes challenges with this new design in how you interact with them.

The alignment will divide some communities as you know, one of the important thing when you are building the highway is to allow people free access to areas that they would normally go to, you don't want to block them off at all. So in that case, measures will have to be put in places so that persons can get around to their various areas.

The increase of residential development in St. Catherine and in Spanish Town increase congestion and everybody around here I am sure experienced it. This proposed alignment have several benefits to the commuters, less congestion in Spanish Town, safer driving condition along the highway, reduction in travel time as noted before. As I said the design should consider preservation of vehicular access at current interception. And it is important that pedestrians have

Mr. Campbell: their access and we looked at how persons react. We did a survey for community perception on this proposed project. We looked at - 21 communities were visited 155 questionnaires were administered, 43% heard of NROCC, 46% out of that 43% were not aware of what the company does. 37% of these persons were aware of the proposed Caymanas to Linstead alignment. They expressed concerns and gave comments related to the projected, the proposed project. One of them was the reduced time as was said before; they expected that the existing off-roads and vicinities of the proposed highway will be upgraded.

Some of the concerns expressed were high toll rates or toll fees. Making currently accessible areas inaccessible is of concern as we have learnt before; and the issues of flooding or the potential for flooding in areas that were not affected by flooding before the proposed highway. Cultural and historic sites which is important, water

Mr. Campbell: preserved and cultural historic thing. A study was done on the 19 areas 10 of those showed areas of where Tainos or Arawak's used to be. A total of 245 pieces of artifacts were collected. The main areas that these were done were in the Caymanas area Cross Pen, Content, Crescent, Lignum Mountain which is heading into Giblatore, Heartfelt and Wakefield which is that side, and of course there are historical things that are very important like the pipeline and the train line.

And another thing that was expressed is that the proposed alignment with the new forested area and also opens up areas that were previously inaccessible. Another issue was the potential for finding quarry material, you know, how you would get this. And of course, noise nuisance from the operation of the highway.

As a part of the EIA process we have to look at different alternatives, one of them that must be looked at is no alternative, that

Mr. Campbell: is, leave it as it is and do not do the project. So we try to list what are the possible things if we decide not to go ahead with the proposed Caymanas to Linstead highway.

First you have no user fee challenge to Linstead, disturbing of our natural habitat would be avoided, but you will have continued delays in the Spanish Town area especially in the mornings and the evening hours; continued delays in the Bog Walk Gorge and the Spanish Town areas. When you have flooding you may have to build long roads through either Sligoville or Barry and of course those roads are in poor conditions as we do know.

You will have high fuel and maintenance costs because of the poor road conditions that you will be experiencing. Loss of potential employment opportunities for communities near the alignment; but when we looked at the alignment as proposed, it is a total alternative to the existing Bog Walk

Mr. Campbell: Gorge which is as we know subject to sessional flooding. It will reduce travel times from the urban centers to the residential settlements in St. Catherine and other northern and western parishes to and from Kingston.

Reduce the maintenance and fuel cost associated because you have better roads. Reduce traffic especially in the Spanish Town area and the Spanish Town Bypass. Of course, job opportunities will be created during the construction phase as well as during the post construction phase.

Improved travelling conditions during commute and there is some amount of destruction of habitat in the hills, especially between Bog Walk and Caymanas; and relocation potential for some residents depending on where the alignment the final alignment occurs. There is also the potential for raw water contamination and also surface water.

Another alternative is to relocate the highway to another alignment, but it is more or less the same socioeconomic effect but that there is that little bit due to environmental and engineering and geological and hydrological issues.

In terms of the potential impacts what we try to do is kind of summarize with a table and I will go through this quickly.

Soil we go over blasting, we have alternative measures, bulldozing and in terms of the blasting practices an implemented rock - catchment fence to prevent rocks from hitting people's houses or going on the road.

Soil erosion we have to look at soil erosion siltation to prevent where we cut from being eroded and also where we have materials from washing into the drains, into the rivers and into the sinkholes.

We have to protect water resources in terms of the wells and what is suggested is that we do a detailed mapping exercise and of

Mr. Campbell:

course, ensure drainage and penetration buffers around installed sinkholes.

Also water resources, we have to look at how we have the flows underneath the road, we have to look at proper culverts and proper size for these culverts.

In terms of vegetation habitats during site clearance, we have to limit rites of passage to areas that are already showing signs of depredation so we would have to fence and so forth to prevent persons from going into areas to further cut down trees and things figs.

Incorporate regular intervals, engineering solutions to prevent that. Also we move on to endemic species, we have to map them as we go along and try and best as possible not to remove them. If we have to remove them we have to put them in a nursery and replant

them. Another thing is that we try to reduce cutting down of the big trees as much as possible. And also a proper plan should be

Mr. Campbell:

developed for transportation routes for material and storage of equipment.

For noise pollution we use emission noise equipment operate during regular working hours, normal working hours, and we have given an example but it can be adjusted dependent on where we are. If we are away from persons and buildings that can be affected then you probably can work after hours. Of course, we have to protect the workers persons who are being exposed to high noise we need to have the necessary protective equipment there.

In terms of dusting and stuff, we looked damping of the area 4-6 hours to reduce the amount of dust. Minimize the areas that you clear, only clear areas that you need.

For solid waste we look at how you collect it and store it and dispose of it in regulated areas.

Waste water especially on the construction site, we have to ensure that there are port-

Mr. Campbell:

potties so that they don't go to the bush but use the port-potties.

The general storage of raw material a good housekeeping practice that we have in terms of how you have a central area how you store them at heart stand cover them so that they don't dust, store them away from drains so that they don't wash into drains and rivers. For fuel you store them in a valid area so that if the container leaks, then it does not run into the environment but it is contained.

The transportation of raw material, as I said before, know the rules, make sure there are adequate signs, use of flagmen and also when you are transporting of heavy material you do it during the off period either very

early in the morning or very late at night, and of course, you have proper pilotage. Emergency response, a lead person would be identified and appointed for dealing with emergencies. Also have on site first-aid kits arrange with hospitals, clinics and

Mr. Campbell:

nurses to be on call and have materials safe with data sheets on hand for the different chemicals that are being used.

Worker safety ensures that everybody have proper work safety equipment, provision of lifelines, safety nets et cetera.

Traffic management has it set up in a way that will help to minimize the impact on the commuting public as you go along, to minimize the delays.

Cultural and historical sites, we will have the JHT around as we go along with the site clearance to ensure that if everything comes up they are there to take it and preserve it.

During operation ensure that the structures can withstand flooding, hurricane, earthquake also take into account the climate change with the extreme rainfall. Last as I pointed out before, the necessary geotechnical studies will have to be done to make sure that the road is sturdy and also

Mr. Campbell:

in terms of putting up other structures to prevent land slippages. Debris flow the washing of soil, trees, vegetation material and of course you going to have to put in sedimentation basins and things like that to prevent them from going into the rivers and streams.

Emergency response noise of course, conduct annual noise assessment and where necessary put in the necessary noise mitigating structures to reduce noise impact on the residents. Cumulative impacts, we look at what the noise is now, did a noise monitoring in terms of the traffic we expect along the highway, determine what that noise is and what we do in layman terms, add

it together to see what the overall noise level will be and cumulative is what we call that. And in the daytime there are a couple areas that we put in red that would exceed the NEPA guidelines around Content, Dam Head, Banbury, Vanity Fair and Gibratore. In the nights we will have problem with

Mr. Campbell:

Waterloo, Obama Heights, Content, Dam Head, Banbury, Vanity Fair and Gibratore. Of course, with this the necessary noise mitigated structures will be put in place.

Air quality we look at nitrogen oxide and sulphur dioxide and other nitrogen oxide don't expect any major impacts from that.

And storm water runoff which is important we looked at what is existing but it is kind of hard to see, but there will be a general increase once the highway comes in so of course the drainage from the highway is going to be important so that we don't flood out areas downstream.

In terms of monitoring during construction and site preparation, we have to have people to monitor the EIA, we kind of listed out the list of people who would be responsible for different monitoring items, and also an idea of what the cost would be to do those monitoring. Some of them we suggested NEPA and some of the citizen association to do

Mr. Campbell: the spot check to ensure that what is said to be done is being done.

During construction phase, just quickly, we looked at site clearing and the plan, and make sure that the area that we are saying it going to be cleared will be cleared. Undertake monthly monitoring for water quality to make sure that we are not impacting the rivers, streams. The NROCC project engineer has to look at daily - look at how the construction activity is that day, so that they are not working outside the normal working hours.

Quality surveys are monitored to ensure that the trucks are not overladen, not dropping

off stuff on the roads as it goes along, and that they are not causing traffic and also to ensure that flagmen are properly in place and signage are up.

During the operation phase we do our annual checks to make sure the stream flows and river channels are not compromised meaning that there is not anything in there to

Mr. Campbell:

prevent the flows freely and cause flooding. Check the structure and integrity of the road and detecting the water quality monitoring to ensure the different run-off from the road is not impacting the streams. And also reporting requirements, what reports are expected, we expect from noise, occupational noise which the person is exposed like the toll booth operators. And the air quality for the different parameters, water quality parameters that were used and who the report should go to, what time when we expect the report to be done and how long they must keep these

reports on file so that persons are free to check it.

Thank you very much.

Any questions. (Applause)

Chairman: You would agree very informative.

We are not at the question and answer section. I see the hands rising but I would just like to recognize Reverent Frazer who

Chairman: is in charge of the Baptist Church that worships here every Sunday, so those in the community you need to visit the church. Questions now.

QUESTIONS AND ANSWERS

Chairman: You will have persons moving around with the mike and you will identify yourself.

Mr. Hines: The name is Earl Hines Chairman of the Parish Development Committee.

This is an excellent project and I can see where it will be heavily used, people from Ocho Rios, Linstead, Bog Walk Angels area here who would have to get into Kingston.

But the concern that I have is that presently at the Mandela Highway we have two bottlenecks High 95 and Mandela Highway and where the Highway 2000 joins Mandela Highway. And with the advent of this project, just a couple meters down the road from the ramp from Highway 2000 I see a third bottle neck.

Mr. Hines: Are there any plans to widen the Mandela Highway to take this flow of traffic from those three areas from there to 6 miles?
(Applause)

Mr. Anderson: Thank you and that was a very good point. NWA in fact does have a plan to widen Mandela to six lanes in the medium long term. In the short we are going to have to do a number of improvements to Mandela. Part of the concerns with Mandela is that a lot of the crossing movement has taken place; as you know, out at the school at Hydel that crossing movement with students across the highway traffic turning around coming from Kingston dropping off children on the other

side, all of those are issues that have to be looked at in the short term as part of the project. But NWA does have a medium term plan to widen Mandela to six lanes to six Miles all the way from the intersection at Highway 2000 at Caymanas.

Ms. Finlayson: Hello good evening my name is Kenisha Finlayson and a resident of Angel's Estate 2

Ms. Finlayson: I notice that the interchangeable road runs right behind my house. I just wanted to know the kilometers from house to road, is it going to be a road on a slope? That is one question.

And the next question is I notice that throughout the presentation nothing was done on health assessment. You know, during the whole thing is there going to be questionnaires saying if anybody has any help problems during the operation of the road?

Personally I want to do a baseline respiratory workout before it starts and

then during now if I have a problem now, I have the evidence stating that before it was done I was fine and then during after you guys finish and is constructed and people are driving on it and you have problems during that time. A health assessment needs to be done I don't know who is responsible the Ministry of Health should be here about this. (Applause) Because I notice air

Ms. Finlayson:

quality is done and a number of respiratory diseases are caused by the dust chemicals whatever you guys are using right. Something needs to be done about that.

Mr. Anderson:

Okay let me try and address the highway elevation part and that is a difficult thing to talk about now because we don't actually have a final design yet, what we have is a route that we are looking at. As you see, the highway elevation changes depending on where it is, for example, when you are going through flat lands the highway tends to be maybe two or three meters above the areas around it. When we are going through cuts

the highway can be very far away from the actual cut. For example, when we are going through Content we expect that there can be a different cut - well that is not true. On the Content side we have to make - on the western side of the Content road, but further back to the Sligoville when we are coming through the hills we may be coming through cuts. When we come across the river

Mr. Anderson:

up at just north of Dam Head we are coming across on a bridge so in that area we are probably going to be above the road we probably not going to have any embankment at all, the highway is expected to be on here, it will be on a bridge structure and the we come across the river, come across the road and then go on to the hill on the other side and on the other side we probably have cuts again.

The connection to the interchange that we are talking about is not part of the highway per se that will be a much smaller road, similar to what we have coming into the

scheme from the round-a-bout that road will be virtually at grade with the existing lands around it.

Mr. Campbell: I will try and address the health impact, that was a very valid point but part of the terms of reference we were given a terms of reference which we followed, a health impacted was not requested. But in terms of your concerns because it is an highway we

Mr. Campbell: don't expect congestion, so we don't expect a buildup of the fumes.

The issue of noise would probably be the major one and as I said before then where we have the noise issue then noise structures will be put in place to deter or deflect the noise so that it won't impact you.

Participant: Part of the question was not answered Sir; the part about how close will be it to the houses.

Mr. Campbell: He did say but at this point it is a regular road but at this point we don't - the final alignment is not done as yet.

Ms. Finlayson: You are saying that this should not happen, but what if it does happen what is the recourse?

Mr. Campbell: The NEPA person is here so I am sure they will bring it back. But as I said before it was not a part of the terms of reference for this study.

Chairman: Remember again the notes are carefully taken; everything that is being said is recorded. Go ahead.

Mr. Thompson: Good evening, as was said it is a good project and it will aide in the development of the country. But I am directly impacted that the road is - I am Michael Thompson I am a resident of Crescent. I see the term Dam Head is used but it is actually Crescent all that area from the last gas station to right to Flat Bridge that is Crescent. Where the road comes across the river and just north of the dam and it cuts across where I live and impacts on other properties on the other side.

I was wondering why wasn't the road was kept on the wilderness area more on the eastern bank of the river and come across further up, outside of the population area there. Is there a particular reason for it?

We live there for a lot of reasons why people flock to St. Catherine and this particular area here because if another

Mr. Thompson: housing estate should go up here it would be sold out overnight. So we have a lot of practical reason for residing here.

Mr. Anderson: I am not sure where you are in particular, but if you look at the diagram we actually avoid the entire crescent community. We stay on the western side of the crescent community. When we come along the river we are on the Content side so we are close to the river so we are between the river and the Content road. But when we come across the river we actually avoid almost all the buildings by staying west of the alignment. As we discussed earlier this is the initial alignment, we are looking at this

environmental impact issues, this is where we are now it may be adjusted slightly. But the objective is to try and minimize the social impact. So if you notice the highway tries to meander around to avoid impact on housing and we will continue to do that.

Chairman: The Lady with the mike now and then I will allow the Councilor and then the lady in the glasses. And we go in that order, thank you.

Ms. Andrade: Good evening my name is Daniel Andrade and I am from the Jamaica Environment Trust. We have a number of concerns but most will be put in writing and sent to NEPA. I, however, wanted to raise one which is the impact on the water resources which you highlighted fairly well in your presentation and I think you said it was twenty sinkholes that would be affected and eleven drinking wells would be affected during construction. You said that a water resources risk management strategy or plan would be developed. And I wanted to know if that plan would be developed prior to or during the permitting

process or is it something that you are going to do after permit is in hand?

Mr. Campbell: In terms of the alignment, I mean one of the issues as I said before, one of the wells there is a major well to Kingston so we have to avoid it there is no two ways about it,

Mr. Campbell: we can't destroy it because of course you know, you will disrupt the water supply. So we have to work closely with water resources in terms of how we put the alignment through that area so that is something that we are working with along.

Ms. Andrade: Is that plan going to be developed prior to your permission...

Mr. Campbell: It is going to be - well it is going to be done concurrently, put it that way.

Mr. Anderson: Let me try and add to that. Right now the highway reservation when Carlton talks about impact for example on structures and wells, what we using is a hundred meter wide. The highway itself is only about, the paved highway is only about 22 meters so in fact

right now what we are doing Carlton has identified all these structures along the alignment and what we are doing with the development is looking at how we can shift the alignment to avoid many of these structures. So we are not expecting as indicated to affect as many structures as we

Mr. Anderson:

have identified. What we have identified is the worst case scenarios if the road was a hundred meters wide, the roadway is actually 22 meters wide itself and so we would adjust the alignment to try and mitigate the alignment and all those structures wells, houses anything along the line we don't want to affect them and so we try and mitigate them.

Mrs. Harris:

Good evening ladies and gentlemen, my name is Pat Harris I am the councilor for the Angel's division I must say that based on the presentation I know that residents within the Angel's division will benefit greatly especially the motorists. And I welcome your suggestion re health because

living in Angel's 1 for 12 years, when I came there - I lived there without any health issues in terms of respiratory system and coincidentally it was when your scheme was being built that I developed sinusitis. But my question is and Mr. Anderson I wish for you to speak to the

Mrs. Harris:

residents especially those whose lands will be affected in terms of the road alignment. I wish for you to speak to them in terms of land acquisition, in terms of the ownership those who have titles those who don't have titles and those who live on lands that were passed down especially from relatives and so forth. (Applause)

Mr. Anderson:

Thank you Councilor. I think that is an important issue. However, the land acquisition manager is here and we can talk with more detail with him on a one and one after. But let me just outline the broad strategies that we propose to adopt. So as the Counselor outlines there are basically three or four groups of people who will be

impacted in terms of ownership there are people who have titles in their names. Then you have people who live on a family land who the land maybe in a grandfather's name or mother's name...

Participant: Grandmother (laughter)

Mr. Anderson: Or grandmother's name but the name on the title is not the person who is now living there they may have died without a will and the land has not been transferred, so they have claim to the property. And then there may be a third category of people who are informal settlers, people who have settled on the lands but they have no claims to the land per se. So those are the three categories so let me talk about how we propose to deal with them.

Obviously the people who have titles will be the easiest one, you can always negotiate with them come to an agreement with them and acquire the land from them. So that process we have employed some independent valuers who will go into the field, sit with the

people agree on a price and we will pay them for the land and that is easy.

For the people who don't have claim to the land, but don't have title to the land, maybe a mother grandmother as we were talking about earlier. For those people the

Mr. Anderson:

first thing we do is again sit with the people and reason with them how we can compensate them for the buildings that are on the property and we will be compensating for the building at the current price for the building so that allows them to move the building to another location. Then in relation to land itself where the building was, what we do is work with the people through LAMP, through the National Land Agency, to resolve the land issues who actually should be on the title which one of the brothers and sisters should be on the title and get a title in place. And once the title is in place then we pay for the land itself.

Then for the third category of people who now have claim to the land, they just came saw a piece of land decide them are just going to build a house on it, we do a similar thing, we value the building at today's price that what it would cost to rebuild the building today and we pay them

Mr. Anderson: to relocate the building to another location. And so basically that is how we deal with the three categories of people. So the objective at the end of the day is that nobody should be any worse off than they were before we came. In fact, everybody should be better off. (Applause)

Chairman: Once you are identified and I recognize you will have the opportunity to speak. If someone who had - like for instance, Councilor Pat Harris does raise a question and if it is that she wishes a follow-up question then I will allow that.

Mrs. Harris: No, it is not a follow up it is another question.

Chairman: It is another question. Could I ask you to be patient and allow the lady the ask hers and then I will go the gentleman in the blue and then back to councilor Harris.

Mrs. Dixon: Okay good night everyone; I am Sasha Dixon from the Angel's Estate 2 area. Again thank you very Kenisha for leading the respiratory

Mrs. Dixon: question. I had major concern about that being that my son has a asthma related illness and we currently have a dust issue which is, I don't know what happened with Angel's Estate 2 but I had sinusitis also. I never had it when I was born and I got it when I went there to live.

We currently have that dust issue and I know your air quality assessment stated that it would be minor, I mean minor is relative to everyone I just would like to take that into consideration.

My question that I wanted to ask, originally when the environmentalists folks came around to make us aware of this whole project that

is going on, because we live along the stretch there that is right to the back of the scheme that is right in front of the warehouse that you guys are going to be running the road. We were told that you were going to run right through the warehouse which would impact us directly because we are exactly in front of it. So we were told

Mrs. Dixon:

that and then now we are told that oh, I am sorry, it is not going to impact anybody again it is going to be behind the warehouse and then there is still that little question mark that is there, because you can't really specify the parameters because you are not totally sure.

I just have some concerns about that because I just need to know that we will not be directly impacted, if so, when will the land valuers be coming out I just need to get some time lines for that when will the land valuers be coming out to let us know you know what is going to be happening with us along that stretch there. Because the

environmentalist people I think they were doing some GPS tracking of the houses and we saw our housing scheme in red dots. So we had that legitimate concern from day one and we have been calling NROCC and all of that. So we got that big pile of document in our email as well and we cannot print. So that is one question.

Mrs. Dixon:

And the last one is, in terms we know that it is a minor slip road, will there be any blasting, and can you guys tell us about that. Will there be any walls to block, you know, block off the schemes from the road and stuff like that? I think that is it thanks.

Mr. Campbell:

I will attempt to answer the part about the alignment. As Mr. Anderson said, we had an original alignment when we came by you was the original alignment based on the report that we gave back then we are adjusting as we said to minimize the impact. So we had an original idea going into the field now the reality is no we don't want to do it that

way we are trying to adjust it, that is why you have that adjustment there, and we are still working on the final alignment so that is why we are saying there is an adjustment to be made; as was said before we are trying our best to minimize the social impacts.

Mr. Anderson: Alright this is the area that you are talking about. What we expect is that this

Mr. Anderson: boundary here - your actually where you live - so this back fence here, what we expect is that this is the hard back fence of the highway, when I say on the back fence of the highway on the renovation. So the highway will start this way and go this way. So when we are talking about - let me explain - so again when we are talking about the reservation the reservation that we are talking about is 100 meters wide, so all the impact that Carlton had spoken about is based on 100 meters wide corridor. So if we are thinking about here and 100 meters going this way then the highway the middle of the highway itself would probably be out here.

Let's say 22 meters in the middle so between the highway itself and the fence if we took that 100 meters we would have forty meters on this side and 40 meters on the other side. So if we follow that, then the fence, the roadway itself would be about 120 feet from your back boundary roughly.

Mr. Anderson:

In relation to the valuers as we had indicated earlier what we anticipated as we being to finalize the alignment, as CHEC begins to finalize the designs of the road, then we expect the valuers to be in the field. So before the end of the year, what will happen is that you will start to see notices, you will actually be seeing notices for every single property that you think we may affect.

The first notice that you will see for that we call that a section 3, notice. It is a notice that says your property maybe affected by the highway, so you will begin to see those notices over the next two three four five weeks, that is the first notice

that you will see, and then you will begin to see the surveyors begin to come, beginning to peg, beginning to adjust et cetera. When we get through that process and the highway alignment has been finalized you get another notice what we call a section 5 notice and that notice says, yes this

Mr. Anderson:

particular property is going to be affected and this is approximately how much of the property is going to be affected based on the highway alignment.

So in terms of the process; so we have the first process that says the highway may affect the property and the surveyors will come do adjustments, analyze et cetera and those notices we expect will be for the next month or two months.

Then we have a notice that says, yes this particular property is going to be affected once that happens then you would have the valuator in there talking to people trying to agree and a point being agreed. Once they agreed on a point then you would be

compensated for the property as we discussed with the various options and the project will continue from there.

Carlton just reminded me that the slip road that is coming through here is not actually 20 meters I was thinking of the highway. The highway is actually 20 meters but the road

Mr. Anderson: that will be coming out here is like the road you have out here, it is a much narrow road, only about 8 meters wide.

Mrs. Dixon: Will there be a wall that will block us there?

Mr. Campbell: In terms of the wall, especially for noise it will depend when we do the model to see if there is really going to have an impact. As I said we went along and did some of the impact along the main highway to see what impact will have, but in your case we can look at it to see if it is necessary.

As was said there was hydrology study at the end we have highlighted those issues, but when the final alignment is being done then

the size of the drains and stuff will be finalized based on the flows that we calculate.

Mr. Taylor: Good evening ladies and gentlemen, sorry to be so late. I am travelling all the way from Mandeville, so I am here about this meeting. I am a citizen of Content, I have land there

Mr. Taylor: so I really come to hear about what is going to happen over there, so it seems that I come the right time. As you said, I hear you said whoever has title will be compensated. Well I have my grandma land there over six acres of land so I would really like to know if something is really profitable she is not here anymore so I would just like to know what is going to happen across there I still have access there and I pay tax said way.

Chairman: Mr. Anderson has clearly stated the answer to that. We will take counselor Harris and then go to the gentleman behind the lady and back up to Councilor Burke. I see no other

hand so that is where we go for the time being.

Mrs. Harris: Yes, we spoken about health issues and you know construction of wall and so forth. I am sure the residents would want me to speak on behalf of their employment opportunity. I really need to know if persons in the area around will be employed in this regard or is

Mrs. Harris: it that we stand by and let persons come in and do the construction and what have you. I need to know on behalf of the residents what the employment opportunities are. (Applause)

Mr. Deng: Good evening everybody I must say that China Harbour did not only come here to do a project but to bring development to the community, people in Jamaica, and so they will hire as many people as possible, Jamaicans, local laborers and we have a ratio of one to one, and the majority of laborers and so we will be hiring locally skilled people.

Mrs. Harris: Thank you so much for that information and I am pleased to know that persons within my division will be employed. What I would like to know as well, I want to know if the employment opportunity will be done through the councilors or the MP or civic groups?

Ms. Tarawali: Yes, to address that question we will be looking at persons actually from the community, we will be having liaison officers and employment will be done through

Ms. Tarawali: the liaison officers so if we for example want any mason, welders anybody like that the liaison officers will know exactly the persons in the community and that is how we will be doing the employment.

Mrs. Harris: Could that flow down through the representative. (Applause/talking)

Chairman: I am shouting, I am shouting. Okay we will to this gentleman here and then I now come back to Councilor Burke. I have not seen any other hand, so we will be winding up.

Participant: Good evening I live right where you have the alignment coming by my house I have not heard anytime line or anything like that. I have my family to consider about if there is any movement to be made, I need to know when to do that, you cannot wait and tell me one or two months before. I have my family to consider, and that road is going right by me.

Mr. Anderson: I had explained that earlier, but we can have dialogue after.

Mr. Burke: Good evening everybody I just have about four questions. The first one is can you repeat, Mr. Anderson for me where does the proposed road from Ferry crosses Sligoville road.

Mr. Anderson: It crosses just by the church.

Mr. Burke: That is where the bell is within the vicinity?

Mr. Anderson: This is the church with the red roof - this is Keystone and coming up the road we cross over just about right here.

Mr. Burke: The next question is related to Content district. What is not clear is how you propose to do the construction of the highway in that area. What I would like to know is the soil quality and the strength and I tell you why. If it is that you are going to put a bridge in that area and put the road above that community or is it that you are going to just cut and fill to build up the road then it could determine the level of challenges that we might face.

Mr. Burke: So the question is what method of construction that you propose to use in that area because 90% of water from Sligoville flows through that area to Rio Cobre. Last week Sunday we have all of that area washed out, 90% of the road was washed away, it is bad it is like a gully in that area now. I have made another proposal for the drainage around that side to be redesign seeping into the Rio Cobre. Is there any word on that; is there any information on that?

But the last question I would want to ask you, for business persons who might have equipment and we might have marl and we might have resource material to do a part of the development do we have a place in there?

Mr. Anderson: I think it is a little bit too early what we said happening now is probably going around and drilling around now to establish the various soils testing and doing the alignment.

Mr. Deng: I think it is just too early to discuss construction phase, we are now in the design

Mr. Deng: phase and Mr. Anderson just mention the design programmers that will bring out construction team and that is a decision to be made by the construction manager it is a little bit too early.

Mr. Burke: Just another follow up question will there be a follow up meeting?

Mr. Anderson: We expect that we will have smaller groups but we will be meeting with the community and with some kind of liaison member from

the community who will liaison on a day to day operation. We intend to get from them obviously - get information from them of course on what is the height of flood that occurs before, issues from the community which will feed back into the design of the road way.

Ms. Finlayson: I just think that for the follow-up meetings, I think it needs to be better communicated instead of by word of mouth. I am just saying that for persons to be provided with e-mail address so that we are properly informed.

Mr. Campbell: I just want to agree and to say for this meeting, we put it in two newspapers; we actually had a town crier during the week and on weekends.

Chairman: We will also contact the citizens association in the future and the councilors. Are there any more questions? All good things must come to an end.

I want to thank you members who came this afternoon. I want to also thank the various entities that chosed Angel's Primary School we are happy to have assisted because this is one of our mandate as a school within the community. And so, as we close this afternoon or rather close tonight's function, I just want you to understand that the school is here to be used and to help in whatever way we can help.

God bless, travel safely.

Adjournment taken at 9:13 p.m.