

**City of Coral Gables City Commission Meeting**  
**Agenda Item G-2**  
**May 14, 2019**  
**City Commission Chambers**  
**405 Biltmore Way, Coral Gables, FL**

**City Commission**

**Mayor Raul Valdes-Fauli**  
**Vice Mayor Vince Lago**  
**Commissioner Pat Keon**  
**Commissioner Michael Mena**  
**Commissioner Jorge Fors**

**City Staff**

**Interim City Manager, Peter Iglesias**  
**Assistant City Manager, Ed Santamaria**  
**City Attorney, Miriam Ramos**  
**City Clerk, Billy Urquia**  
**Information Technology Director, Raimundo Rodulfo**  
**Acting Assistant Police Chief, Raul Pedroso**  
**Police Major, Brian Lawrence**

**Public Speaker(s)**

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Agenda Item G-2 [10:48 a.m.]

A discussion regarding the City's Connected Citizens Waze Dashboard System.  
(Sponsored by Commissioner Mena)

Mayor Valdes-Fauli: Commissioner Mena.

Commissioner Mena: I'm sorry. What was that? I was talking...

Mayor Valdes-Fauli: Your item.

Commissioner Mena: To Peter. Oh, my apologies.

Mayor Valdes-Fauli: G-2.

Commissioner Mena: Yeah. Oh, this is -- are we ready for this now or -- okay. So, when I ran for office two years ago, before my first debate, I had researched and read some materials about a program that Waze had -- it's called a Connected Citizens Program. That was a free platform wherein basically you get all of Waze's data and you can sort of sync up to it as a city and you get it for free. And now we're finally at the point -- I've been pushing for a couple of years to finally get that system -- totally -- again, totally free to the City, where we have all that data. And so, I had asked Raimundo to give you guys an update, an initial sort of view of what that looks like. And then the question I think from here is we now have a lot of data, so how do you sort of aggregate it and use it to your advantage in a variety of fronts, from a security perspective, hurricane relief, whatever it may be. But also, first and foremost, from a traffic perspective. So, anyways, I'll turn it over to Raimundo so he can show you what it looks like.

Information Technology Director Rodulfo: Unidentified Speaker: Thank you, Commissioner. We're going to try to see if we can get the signal from this laptop into the screen. I think it's coming up. Yes, we are. So, the first thing that we did was to sign an agreement, a data licensing agreement with Waze, so free of charge, so it's part of the Connected Citizens Program, like the Commissioner was mentioning. There was a great initiative and that helped us to get data from Waze that is coming in real time from traffic, so from the drivers. And also, we are going to give them data about road closures, speed zones. And we're going to also contribute with data that they can use to help the drivers. So, this dashboard that we have here is one that is getting real-time data from Waze and you have some statistics to the left. Like you'll see, for example, the counts of traffic jams, road closures, hazards and crashes over the last hour. So, good that we had zero crashes over the last hour. So -- and then you will see on this map some sort of lines with color

coding that shows you where we have traffic jams. So, all that basically is actual data that can be used by public safety, can be used by traffic engineers. It can be used by City planners. And we are collecting that data -- just to give you an idea, we are collecting about one million data points every week, so that's becoming big data. It's anonymous data that we're getting with statistics and counts from Waze, so we -- if you see this graph to the bottom of the screen, you will see that we have some statistics of incidents for the last hour and we have some peaks at certain times. When you click on any of these points here, you get what is called metadata. So, the metadata is information about the alert. It can be an alert about a traffic jam. It can be a road closure, a hazard or crashes. Most of those things are coming automatically from the app, from the app that millions of people are using nowadays. It's becoming very popular as a way to plan your day and your routes and find the fastest way to get somewhere. So, we also have a (INAUDIBLE) here that we have preloaded. I have to commend our IT data analyst, Christopher Cowen. He was the developer of this app here using the Waze data. He did a great job. And we have here some analytics. So, this is where I guess that we can get the most of the system. So, with time, all those millions of data points we're collecting, using data analytics and new technologies that will give a sense, like predictive analytics using machine learning or artificial intelligence that will allow us to correlate this data with other data. We are going to do all those kinds of things in the Smart City Hub. So, the Smart City Hub is where you find this dashboard today. If you go to the Coral Gables homepage, you will see the Smart City Hub. And there, clicking on Community Intelligence Center, you will see an access to this dashboard. It's open to the public. Anybody can use it and that's the idea, to provide data that is useful for the public and also for first responders and for engineers.

Commissioner Mena: And you know, and again, and where I see this going is, you know, one of the reasons we're seeing so much cut-through traffic is because of apps like Waze, right, where people didn't previously know about a quiet residential street that they could cut through, they now know. And we can either sort of stick our head in the sand and pretend they don't, or we can try to address it. I know we've been doing a lot on traffic calming. And so, my hope is that as we learn to sort of aggregate this data, we can use it to our advantage to, you know, identify, you

know, even from the police perspective, identify in advance where we can expect heavier traffic flow at certain times of day, certain days of the week. And also, from a Public Works perspective, you know, as we get those emails from people saying, hey, the volume in my street's really increased or the speed has really, you know, increased, I know we would still, at the end of the day, before we implement any calming, have to go through our normal procedures. But it will at least give us an initial glimpse into what we're seeing in that location that we can already have our fingertips on in a quicker fashion. So, that's my sort of thoughts about where this can go. I just think we need to figure out how to get there now that we have it.

Assistant City Manager Santamaria: Good morning, Mr. Mayor, members of the Commission. Ed Santamaria, Assistant City Manager. We are working with IT to develop an application that will allow us exactly to do that, to use all the data that Waze is providing us through our relationship with them and to be able to determine the average speed in a certain roadway segment. Based on that average speed, we will follow our normal process, which involves working with police to deploy shields. If warranted, then we move on to an engineering study, which has to be done in compliance with the requirements of our interlocal agreement. At the end of the day also, we want to get to a place where we can use the information from Waze for analytics to see what role our interventions have developed. And so, this is the next big step. We have all this data and there's data all over the place. It's just getting to a point where this data is used. It's very interesting.

Vice Mayor Lago: So, let me ask you a quick question in reference to Commissioner Mena's comments. I think this is great. I love all this kind of techy stuff. It's very interesting. But now that we have the police up here, I think it's important to ask the Chief. Can we now go -- after we have this information and say let's -- while we're waiting to implement some sort of traffic-calming initiative after we've understood that this area is a hotbed for, you know, speeding, can we just go out there now using 25 miles an hour and say crack down, you know, and make sure that people cutting through our city feel the effects of not following the rules?

Acting Assistant Police Chief Pedroso: Good morning.

Mayor Valdes-Fauli: Morning.

Acting Assistant Police Chief Pedroso: Yeah. I think it's really exciting, you know, the technology that's available through this product and application presents a lot of value to us. Just in talking with IT over the last couple of weeks as they were preparing for this and starting to understand a little bit about what it provides and researching it, it's incredible to -- if you think about it, right now we send officers and we put all this -- all the resources out there to try to understand where there's a particular problem on a street or where a neighbor is complaining about something that they're seeing or feeling. The ability to go and visualize -- I mean, this is monitoring and tracking all the vehicles that are subscribers going up and down our streets. And to be able to look at that historical data and understand real-time what's happening or go over and look at a particular time where we had a problem and understand that and not have to have an officer necessarily out there measuring the traffic speed provides a lot of value to us. In reading about it, one of the things that I thought was interesting was, in Boston, what they do is they actually monitor real-time speed throughout the city and they can control their traffic signals in accordance with that traffic flow to improve and alleviate that congestion. So, I think that's -- you know, it's very interesting. We have Major Lawrence here. He represents our Traffic Enforcement Division and he can also provide some insight as far as things that he thinks would add value as a result of using Waze.

Police Major Lawrence: Good morning, everyone.

Vice Mayor Lago: Good morning.

Police Major Lawrence: In learning about this technology -- well, first of all, my personal opinion is it's very futuristic looking, so I kind of -- I like that aspect of it. I think the maps just look really, really awesome. But I started thinking along the lines from a special events perspective as well.

Because that's another thing I do is help coordinate and run the special events on behalf of the Police Department. And there are times when we have large events that we do road closures. My understanding is of this technology not only are we getting information from Waze, but we can communicate back to Waze and we can also let Waze subscribers know when we are going to close the roads for these large events. And I think that's another layer, if you will, of communicating to the public because we do have other tools at our disposal. We put things out on let's say the City's website. We also use our message boards. We have people that are organizers that are shutting down special events like in front of City Hall, let's say. They have to pass out flyers and so forth. So, we still do some of those things as well. But this presents another opportunity for us to go ahead and communicate with the public about road closures ahead, which helps them to, you know, pick alternate routes so they can get to their destinations in a timely fashion and things like that so...

Commissioner Mena: And to dovetail on that, one of the things that Raimundo referenced, you know, just to make it a little more express was, you know, when we do things like you can't make a left turn here between these hours of the day, you know, when we implement that type of sort of measure on a given street, you can now input that into the software so that now if I'm asking for directions during that timeframe, it won't give me that left turn as an option in planning my route as a driver or commuter. So, again, these are tools that I think are -- can be really valuable. You know, and I can't stress enough -- Vice Mayor Lago just leaned over to me and said it's pretty much free. I mean, this is data that is free to us as a city. Now, obviously, we'll have to now, you know, do things to supplement what we can do with it, but I think it's invaluable and I'm actually very excited about the opportunity here to do all the things that you all just described.

Police Major Lawrence: Yeah. And I just think -- I'll say one more thing. IT has been a great partner, so I really appreciate all the work that they've done for us because we have -- and I think we've made great progress in reducing crashes. Our enforcement levels have gone up. We have a great relationship with Public Works as well. They try to -- we're not -- in Police, we're not engineers, per se, but you know, they have asked us to -- whether it's deploy shields to try to collect

data for them. We collect crash data, things like that to try to help them make the best decisions possible when, you know, making road changes or things like that. So -- but it's something -- this is a technology that I'm glad we're partnership with IT. I'm certainly excited about it and I'm interested to see where it goes. You know, and again, it's just another tool to help us be more effective at what we're trying to do, which is safety on the roadways, get people where they need to go, reduce congestion, all the goals that we've talked about over the years here.

Commissioner Mena: And the last...

Mayor Valdes-Fauli: Thank you very much, Chief.

Commissioner Mena: The last thing I'll say very quickly is just -- you know, I just want to make sure -- and this is more to the City Manager -- is, you know, we've got this now. I don't want us to feel like we got to the finish line and now we just have it and it's on our website and it's great. We really need to task staff and certain people on staff with really continuing to evaluate what we can do with this because, you know, I don't want us to just sort of feel like we've reached this point we now have it and it's just a tool that we don't really take full advantage of. I think it's going to be -- because again, I really believe the critical part now is how we implement it. So, I just want to make sure, Peter, that -- Mr. Manager, that you, you know, make sure that staff and IT, through Raimundo, obviously, has somebody who's really evaluating what else we can do with this.

City Manager Iglesias: And we will, Commissioner. What we're looking for is the smart city concept and this is part of our smart city concept. So, we're moving forward in the next two or three years to really -- we've already received the award for smart city for number one smart city between 50 and 75,000, but that's just the beginning. And we're going to move into technology heavily in the next two or three years, go paperless, smart city concept, smart parking and all these initiatives are part of that.

Commissioner Mena: Absolutely.

Mayor Valdes-Fauli: Thank you.

Commissioner Fors: Mr. Mayor, if I...

Mayor Valdes-Fauli: Thank you, everybody.

Commissioner Fors: If I may say one more question for the Police Department. I think is really a question that Commissioner Lago asked earlier. I understand that this data can be used to do great things, eventually implement into our application. But is there anything from -- preventing us or has the Police Department already taken this data which we already have and made adjustments to its traffic enforcement during the day? Is it even necessary or what does it entail to actually start using that data before even incorporating it into any kind of smart city system?

Police Major Lawrence: This specific technology?

Commissioner Fors: Yeah.

Police Major Lawrence: Honestly, no, this is very new for us right now. And I actually tried to - there's a tab here for public sentiment, and I think that IT's still working on it. I tried to myself go onto the public sentiment tab and it's asking me to create an account, so I wasn't able to access that portion. And I don't want to create any account or do anything without talking to IT first. But we do also have other existing platforms. I think, again, this is just another layer, another tool for us as we move into the future. But just keep in mind that we already have a -- whether it's our records management system. We have another tool that Chief Hudak got through, which is the NC-4 platform. I also -- I had them built in through Major Padrosa's office, a crash module there. So, I'm using NC-4 now, which also gives real-time data. You can check back crashes the previous day, last seven days, and then that helps us see where the problems are occurring and then deploy



resources to those areas. So, again, I think this is just another tool going forward that's going to help us. But just keep in mind also we have other existing platforms as well.

Vice Mayor Lago: If I...

Mayor Valdes-Fauli: Thank you.

Vice Mayor Lago: If I may, I just have one thing to Commissioner Fors' comments. I think they're important. This Commission, a few years ago, took the guidance and we started hiring -- correct me if I'm wrong -- started hiring retired police officers, correct?

Commissioner Keon: Right.

Police Major Lawrence: Yes, sir.

Vice Mayor Lago: And I see them in the mornings doing enforcement. And we're getting those calls from residents says, listen, it's working in certain areas. And I know that we only have a limited resource. I think having this technology is -- once we can identify, okay, we have X, Y and Z problems in these areas, why not hire more police officers who are retired, who are, you know, individuals that, again, would serve honorably and capable and they can come in -- I mean, it's -- this service pays for itself. We have over I don't know how many hundreds of thousands of people driving through our city every single day. We can't cover every inch of the city. There's 190 -- I think 190, 188 entrances in the city. There's people speeding through our city. But when we have this technology now, you know...

City Manager Iglesias: Vice Mayor, we're currently...

Vice Mayor Lago: I think the sky's the limit, right?

City Manager Iglesias: Vice Mayor, we're currently looking into that right now.

Vice Mayor Lago: No, but I've seen them already and I've seen them on Ferdinand.

City Manager Iglesias: No, no.

Vice Mayor Lago: I've seen them on Coral Way.

Unidentified Speaker: Yes.

Vice Mayor Lago: We have the off -- the retired police officers that are there in the mornings.

City Manager Iglesias: And we're looking right now at adding some additional officers to that and we're looking at that -- I'm looking at that with Chief Hudak right now.

Vice Mayor Lago: And I'd like to see if it pays for itself. I think it does. I think it does because of just the amount of entrances. I mean...

Commissioner Keon: I...

Mayor Valdes-Fauli: Let's go on.

Commissioner Keon: I spoke to someone yesterday. I was at a community meeting and she said we get so much traffic on my street. About every third day, I call them and tell them that there's a crash on Waze to try and get them to note it on the website...

Mayor Valdes-Fauli: What they have to do is...

Commissioner Keon: So, no one comes down my street.

Mayor Valdes-Fauli: What they have to do is hack Waze...

Commissioner Keon: So...

Mayor Valdes-Fauli: And divert all the...

Commissioner Keon: (INAUDIBLE) use.

Mayor Valdes-Fauli: Hack Waze and divert all the traffic to Palmetto Bay and to North Miami.  
Thank you very much.

Unidentified Speaker: Thank you.

Mayor Valdes-Fauli: Let's go on.

Commissioner Keon: Thank you.

Vice Mayor Lago: Great work. Great work, Commissioner Mena.