

City of Coral Gables City Commission Meeting
Agenda Item H-3
July 1, 2025
City Commission Chambers
405 Biltmore Way, Coral Gables, FL

City Commission

Mayor Vince Lago

Vice Mayor Rhonda Anderson

Commissioner Melissa Castro

Commissioner Ariel Fernandez (Absent)

Commissioner Richard D. Lara

City Staff

City Attorney, Cristina Suárez

City Manager, Peter Iglesias

City Clerk, Billy Urquia

IT Director, Raimundo Rodulfo

Public Speaker(s)

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Update on the Smart Districts Broadband Infrastructure Expansion Project

Mayor Lago: Final item, correct.

City Clerk Urquia: Yes sir, H-3.

Mayor Lago: H-3. Three for three. Let's see if we can get four for four. H-3.

Vice Mayor Anderson: You must have had a really good lunch.

Mayor Lago: Just tired. Raimundo, how are you sir. Thank you for being so patient. I apologize for skipping you over.

IT Director Rodulfo: Thank you, Mayor, Vice Mayor, Commissioners, Mr. Manager. We'll go over these very quickly slides. What I'm going to do is skip some of them and you'll get a copy and upload this. So, this is an update on an important project that we started in 2022 to expand our broadband corridors. Four additional corridors and install a lot of infrastructure in the Smart

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Districts for public safety, for mobility, for public Wi Fi, for connectivity and many other benefits. So, we at that time, I did three presentations with my team here to the Commission in 2022. To first one to present the scope of the project to get feedback from the Commission. The second one to present the design that we are doing for the Smart Poles, because we wanted to build the poles in a way that they were aesthetically pleasing, that they were aligned with the Mediterranean Revival architecture of the city. So, we presented the design that we did with Pininfarina and...and the City Commission selected two of three designs that they liked the most. And the final presentation in 2022 was to get approval for the award of the solicitation for the construction of the fiber optic corridors. And we accomplished the goals, the main goals. Basically, we built the four corridors, and we connected them. We connected all the city buildings and facilities that we needed to connect and when you connect city buildings with outsourced fiber connectivity, you have the risk that that fiber has the combination of overhead utilities and aerial fiber with underground, and we know when we have high speed winds, hurricanes, how we lose those connectivity that can affect critical services in our public safety facilities, for city services. So, we know how important it is to have a resilient underground facility utility that we can rely on that is not going to go away when we have a hurricane or a storm. So, we were able to connect those critical city facilities with city fiber, which is private by the way also, has higher levels of security which is important in today's world where we live; and also, we were able to connect the corridors and were able to install some of the poles, of the most critical poles that we agreed with, with Chief Hudak when we designed the better locations for those poles. So, that was 25 additional fiber optic corridor segments. Before 2023, we had 20 segments, so we expanded that with 25 more segments. We also connected those buildings that I mentioned there, Youth Center, Adult Activity Center, Museum, four parking garages, one, four, two and six, and the Fink Studio, which is also Economic Development Office, and we got to the Ponce Circle where after the renovation we were also able to install a pole there. And those four corridors, we call it the financial corridor in Alhambra Circle and we call it also that big corridor that is the spine of Coral Gables, the Ponce de Leon and also University corridor that connects to the Youth Center; the Mobility corridor, that's how we call it in Andalusia; and the one that we call the Arts and Culture corridor on Aragon that we have the Art Cinema, we have Books and Books, and we have the Museum, and the Historic Preservation Office. So, the funding came from funds that were allocated for broadband, and we had four phases, and I can say that we completed the project under budget and ahead of time. Basically, we were able to leverage a lot of the capacity on my team, so we did design, engineering, planning, connectivity, integration, and security. So, we did...we only outsourced the construction, the undergrounding of the conduits of the fiber, and also the directional boring and the boxes with the...fiber. When I presented this project, it was 42 months and I think that I have, Mayor and Commissioners done quicker. So, in those 3.5 years, we completed ahead of time, so we reduced it to 2.5 years. So, we completed the construction of the four corridors in 2.5 years, in 30 months, and also under budget because we were able to maximize the efficiencies of doing a lot of the work in-house by my team, so big kudos to my team, they worked very, very hard completing this on

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time, in crunch time in project management as well, with high quality. We installed high grade quality fiber. The benefits – I’m not going to worry about this, but a lot of benefits in economic growth, attracting business, attracting also customers and residents, providing free Wi-Fi has a lot of benefits. Also, public safety, big benefits, installing, expanding the public safety infrastructure for crime prevention and also for traffic management, traffic engineering, a lot of benefits we find in all those corridors. So, this is a big view of what we had before. So, before 2023, we had corridors in Miracle Mile, we had Giralda Plaza, we had Salzedo, we had segments of Sevilla, and we had 20 segments; and we had a lot of buildings already connected. So, we already have built a Smart City infrastructure...[Inaudible]...with a lot of district capacity, but we needed to continue growing and expand. And this is zooming to those corridors that existed before 2023. So, these are the new phases. So financial corridor – Alhambra Circle, we completed those new segments, we connected the entire corridor, we connected three new Smart City poles. We already had one pole at Alhambra and Ponce de Leon, and we completed those. These are photos of the three new poles. These two poles that you see at the top, they are the new design that was completed with Pininfarina. They are the only poles of their kind in North America. They were designed by aerospace engineers in Germany, and they pretty much incorporate all the technology in one single pole, no attachments, no cables or wires, already aesthetically pleasing and very smart. They have built-in intelligence powered by AI, and the poles on the bottom is a pole that we installed at the pump station. Basically, it allows us to connect for telemetry, so we can connect also for public works and telemetry. That’s a photo of some of the Wi-Fi service points that we installed. This one is Piedmont Park, I think. And the second corridor, Ponce de Leon. So, we completed all the segments that we wanted to complete. We connected the Fink Studio, we connected the Ponce Circle area, we connected the Youth Center, which is very important there. So now, we can say that all those sites are connected with underground, private, resilient fiber; and those poles that we planned for that segment, five poles, we are going to wait for the renovation at Ponce Circle. That way we are going to save a lot of money if we wait for the renovation, we synchronize work. We don’t do work twice. Photos of those boxes. Those boxes were done very professionally. We have all the as-builts for the fiber, the locates, which is very important, so we also share this with industry, make sure that those fiber corridors are not disrupted by other work. So, it’s very, very important to do this up to code. So, these are the photos of those. And the set corridor Andalusia – so we have there those segments that they connect to the Adult Activity Center. We connect to the Adult Activity Center now with city private fiber and also, we have one pole there planned next to City Hall here at Merrick Park. It’s going to be important for security for city events.

City Manager Iglesias: Just so the Commission – through the Mayor.

Vice Mayor Anderson: Of course, he’s standing up.

City Manager Iglesias: I just wanted to let the Commission know, the poles are German poles, but we designed them for hurricanes here, there are no hurricanes in Germany. So, we actually worked

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with the Germans. Mayor, I just wanted to say that the poles were designed in Germany, but there are no hurricanes in Germany, so we did the hurricane design here and made sure that they were compatible with our...

Vice Mayor Anderson: I appreciate that. My puppy also appreciates the fact that you didn't use metal lids, because when she steps on them and they make noise, she gets scared.

City Manager Iglesias: They are phenomenal poles. They are segmental, you can add different things to them, 5G, etc., and the design, as you recall were designed by Pininfarina. So, the idea was to have a 5G pole that was commensurate with the design standards of Coral Gables, instead of just a concrete pole with a box at the bottom and some antennas on top.

Vice Mayor Anderson: I remember that presentation. It was far better.

City Manager Iglesias: My team went to a – they were fantastic. They found a pole in one of their conferences from a German manufacturer and we designed them for hurricanes here and now we have probably the best poles in the country.

Mayor Lago: Perfect. Okay.

IT Director Rodulfo: So, the final corridor, Arts and Culture corridor. We completed the fiber optic. We connected the Museum Building and Historic Preservation, Parking Garage 2 and Parking Garage 6; and also, we built-out the segment at Merrick Way. And these are photos – you cannot see it, but there is technology there that is now...by this fiber, including previous emergency communication poles that we have there, now they can connect to the fiber directly and also cameras for security. These are the poles that the City Manager was mentioning. The first one pilot, or the first one in North America in 2021. This is still the only one of the kind in North America and the first one with a design that the City Manager has already designed for Florida Code. That design later was improved, version 2; and the last two are the new design in version 3, done with Pininfarina and also in collaboration with the University of Miami School of Architecture, Dean Rodolfe el-Khoury provided feedback also for the aesthetics and the Mediterranean Revival design. This is what we presented at that time, Pininfarina helped to get inspiration from the city's architecture, from the city's historic buildings, and also from nature. The design in the center was the one that we used at Alhambra. The design to the right is the one that is inspired by nature too, is the one that we are going to do at city parks, because it makes sense to have it together with trees. A lot of new Wi-Fi access points we have installed, so we expanded the city with free public Wi-Fi coverage. A lot of these sites that you see here on this long list was done with those new phases. One of the main drivers also when we hear from the community is that they want this project also to expand free public Wi-Fi coverage, so we have done throughout all these corridors, and we will continue as we build others. Now that we were able to complete this behind schedule and under budget, we have some remaining funds on CIP

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that we can use to start these new phases. So, Phase 5 would be a phase to help us extend the fiber corridor to the Underline and now we will have the opportunity to connect the Underline Park to collaborate with the Underline, because they also have a fiber corridor. We have had conversations with the leaders of the Underline on that and recently one with Chief Hudak too, because there's a public safety component there as well. That will allow us to connect the four very important facilities; the Backup PSAP, the 911 Backup PSAP connect the Passport Office, connect the Trolley Depot, and those are the main ones, and the Fire Station 2, of course that is part of the complex of the 911, the Backup 911. So, Fire Station 2, Backup 911, and Trolley Depot and also the Passport Office; and Phase 6, depending on how we can stretch those dollars that we still have, we can maybe do it now or request additional...for Phase 6 to connect the northern Gables District and get to the Flagler corridor, having the potential to collaborate with the county. I have had conversations with Miami-Dade County, because if they build a corridor in Flagler, then we will be able to realize a little bit of this vision of creating a triangle for resiliency that we can back each other up throughout the cities and the county, a regional vision, but also we can have more collaboration, inter-agency, community innovation centers, economic development and also public safety collaboration. We can do more if we get the county to collaborate and help us create this triangle...for innovation as well. The only thing I wanted to mention was that we also have all this infrastructure connected to the public in the Smart City Hub, coralgables.com/smartcityhub that has continued to evolve with Artificial Intelligence and transparency portals and also the Digital Twin – coralgables.com/digitaltwin. If you go today to the Digital Twin, it has evolved a lot since the last time that I presented it to the Commission. Today, you see the trolleys moving in real time, you click on the trolley, and you can see how many passengers are driving at that exact time. The infrastructure is connected. The sensors are connected, traffic sensors, environmental sensors. So, this is a state-of-the-art platform that was engineered by my team. So, thank you so much. If you have any more questions and sorry for the late presentation.

Mayor Lago: That was incredible. Wow. Thank you so much. Mr. Manager.

City Manager Iglesias: Mr. Mayor, I think you can see why we are the number two Smart City in the country.

Vice Mayor Anderson: Yes.

Mayor Lago: Pretty impressive.

Vice Mayor Anderson: Exactly.

Mayor Lago: An amazing team.