## Meet Darlene Fernandez '06, new executive director of Miami-Dade Expressway Authority

**David Drucker** 



Fernandez was awarded Miami-Dade County's Company of Women Non-elected Government and Law

For the quarter of a million people who use the Dolphin Expressway every day, the sight is impossible to miss. Gigantic concrete pillars stretch high above the road, making commuters on the already-elevated expressway feel small. A fleet of construction equipment surrounds the supports. To commuters passing by, the emerging infrastructure feels as tall as a downtown building.

This is the start of an unprecedented project in Miami-Dade: the county's first double-decker highway.

The Florida Department of Transportation (FDOT) and the Miami-Dade Expressway Authority (MDX) are combining resources to alleviate chronic traffic near downtown. Alumna Darlene Fernandez '06 is the executive director of MDX. She is one of the leaders helping to make this project and a multitude of other transportation innovations around Miami-Dade County happen. She was hired as head of MDX in March, making her the first woman to hold the position.



A rendering of the completed SR 836/I-95/I-395 Interchange. Image courtesy of MDX.

In her role, Fernandez is responsible for some of Miami's greatest arteries of transportation. In addition to the Dolphins Expressway, MDX oversees State Road 112, which connects to Miami International Airport, and three other highways in Miami-Dade County.

"My goal is to bring an innovative perspective and vision to move MDX forward, benefitting the community we serve and making a contribution to the prosperity of Miami-Dade's economy," Fernandez says.

The new double-decker being built, known as a viaduct, will provide a direct uninterrupted connection to I-395 that leads to Miami Beach. A new ramp from the viaduct to I-95 South is also being constructed, which will alleviate congestion in the morning peak.

The project is the combination of roughly 180,000 tons of steel, 580,000 tons of concrete and a strong supply of engineering ingenuity. The double-decker project should provide great relief to drivers in the

area while utilizing a relatively small amount of space on the ground.

"This is what we engineers do," Fernandez says.

## A foundation built at FIU

When Fernandez began classes at FIU, she was actually a biology major who interned at a local hospital and wanted to work in medicine. After her freshman year, she decided she wanted to make a change.

Fernandez's dad, a mechanical engineer at FDOT, made a pitch for engineering.

"He was literally banging the table for me to try it," Fernandez says.

Fernandez switched to the College of Engineering and Computing and secured an internship at FDOT. It was the beginning of what has been a decorated career.

Over the last 20 years, Fernandez has worked in both the private and public sectors of transportation. Before her time at MDX, she spent seven years managing signals and signs maintenance and operations as well as traffic engineering design as an assistant director for Miami Dade County's Department of Transportation and Public Works.

"Everything traffic-related in Miami fell on my shoulders," Fernandez says. "I would handle big picture problems and the most microscopic issues that affect even our residential streets due to cut-through traffic. I would work on resolving issues for people who were walking their dogs, riding bikes and had kids playing in the street.

"I worked with senior citizens, angry tourists, people who only took the

bus and people from all over the world. I learned a lot about how to relate transportation engineering to the everyday person."

## Managing an evolving transportation landscape

Fernandez is excited about how MDX's expressways will innovate as Miami grows. Her team is preparing to adapt highways for not only more cars, but also additional buses and other methods of transportation.

Fernandez is also preparing for more electric vehicles and autonomous vehicles on MDX's roads.

"Autonomous vehicles could help ease traffic and make roads safer since they communicate with each other as they drive," Fernandez says. "With [non-autonomous vehicles], you have a lot of stop-and-go. That creates a lot of delay over time when it's happening all day long. And you have distracted drivers, which is a huge issue from a safety perspective."

Fernandez says that today's students will become important players in the future of engineering as new technologies emerge. She has a piece of advice for them: learn a little about everything.

"At the government level, you can be a great engineer. But you also need that other piece, the ability to communicate and relate to others," Fernandez says. "To get into leadership, you have to be able to see things from all lenses."

One group that has massive potential in engineering leadership is women, Fernandez adds. She spoke more about the importance of women in the field for an FIU News story on <u>International Women in</u>

## Engineering Day.