



# FIU- Sweetwater UniversityCity

Prosperity Project  
Pedestrian Bridge

The FIU-Sweetwater UniversityCity Bridge, sidewalks and plaza will connect the Florida International University campus to the City of Sweetwater, **offering a safer pedestrian route for students and visitors.**

#### **BRIDGE MOVE:**

The bridge's main span has been built on temporary supports (temporary shoring) on the south side of Southwest 8<sup>th</sup> Street. Self-Propelled Modular Transporters (SMPTs) with pull-up gantries will be positioned under the main span, lift it from its temporary shoring, and then carry it along an arc-shaped path to the northeast roughly 90 degrees and lower it onto its permanent position. **It will be the largest pedestrian bridge move via a Self-Propelled Modular Transportation (SPMT) in U.S. history.**

**174 feet**  
Length of section  
being moved

Dimensions

**289' x 31.67'**

including stairs and elevators on each end. The pylon is **109** feet tall.

**Weight of section  
being moved:**

**950 tons**



FLORIDA  
INTERNATIONAL  
UNIVERSITY

fiu.edu

CITY OF  
**SWEETWATER**

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# Making Connections

This pedestrian bridge will cross Southwest 8<sup>th</sup> Street and the Tamiami Canal near the intersection of Southwest 109<sup>th</sup> Avenue to **connect Florida International University with the City of Sweetwater**. The innovative bridge design features a girder shape and pylon with pipe supports, a grand staircase and elevators. **The bridge will provide 9,900 square feet of gathering/event space.**

**Funding:** Funding for the **\$14.2 million** bridge is part of a \$19.4 million U.S. Department of Transportation TIGER grant. Key stakeholders include Federal Highway Administration, Florida Department of Transportation Local Agency Program, FIU, and the City of Sweetwater.

**Standing Strong in Hurricanes:** The new pedestrian bridge has been **designed to withstand a Category 5 hurricane.**

**Durability:** The new pedestrian bridge deck is post-tensioned in the longitudinal and transverse directions to maximize durability and achieve a design life that exceeds 100 years.

**Signature Lighting:** Eco-friendly LEDs will “paint” the pylon and pipe supports in programmable colors. The pylon is capped with a beacon of light.

**Self-propelled Modular Transporter (SPMT) Provider/Operator:** Barnhart Crane & Rigging

Design-Build Team

**MCM  
+ FIGG**

## Unique Structure:

The bridge is an “I-beam” section stretched vertically and horizontally to maximize deck area. The bottom flange is the walking surface. The top flange provides a canopy. The truss-like “web” provides design efficiency and openness.

## SUSTAINABILITY

The main span was built next to Southwest 8th Street using Accelerated Bridge Construction methods being researched at FIU’s Accelerated Bridge Construction University Transportation Center. These methods **reduce potential risks to workers, commuters and pedestrians and minimize traffic interruptions.**

The new bridge is the first in the world to be constructed entirely of **self-cleaning concrete**. Titanium dioxide will keep its surface white, remove pollutants from the air, and decompose UV radiation. The titanium dioxide, when exposed to sunlight, captures the pollutant particles from the air and self-cleans its own concrete surfaces. **This reduces maintenance. This self-cleaning concrete is considered a promising tool for reducing pollutant load on heavily congested traffic routes.**