Florida International University (FIU)
Pedestrian Bridge Collapse, Miami, Florida
March 15, 2018
Robert Accetta, IIC
Location of FIU Pedestrian Bridge
Bridge Design Concept

Source: FIU, annotated by the NTSB
Collapse Timeline

• On March 15, 2018, about 1:46 p.m.
  – Catastrophic failure in truss member 11/12 nodal region and bridge deck

• Traffic was stopped below the main span

• Construction crew working on retensioning internal PT rods within member 11
<table>
<thead>
<tr>
<th>Injury Severity</th>
<th>Fatal</th>
<th>Serious</th>
<th>Minor</th>
<th>None</th>
<th>Total</th>
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<tr>
<td>Bridge Construction</td>
<td>1</td>
<td>4</td>
<td>1</td>
<td>0</td>
<td>6</td>
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<tr>
<td>Workers</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Vehicle Occupants</td>
<td>5</td>
<td>2</td>
<td>3</td>
<td>0</td>
<td>10</td>
</tr>
<tr>
<td>Total</td>
<td>6</td>
<td>6</td>
<td>4</td>
<td>0</td>
<td>16</td>
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</tbody>
</table>
Investigative and On-Scene Staff

• Robert Sumwalt – Chairman
• Erik Strickland – Special Assistant
• Robert Accetta – Investigator-In-Charge
• Dan Walsh, P.E. – Sr. Bridge Factors Investigator
• Steve Prouty, P.E. – Sr. Bridge Factors Investigator
• Kenneth Bragg – Sr. Human Performance Investigator
• Thomas Barth, PhD – Sr. Survival Factors Investigator
• Adrienne Lamm – Materials Engineer
Investigative and On-Scene Staff (cont.)

- Ben Allen – General Counsel/Advisor
- Nicholas Worrell – Chief, Safety Advocacy
- Chris O’Neil – Chief, Media Relations
- Max Green – TDA Specialist
- James Anderson – Audio/Visual
- Pummy Bawa – Computer Specialist
- Bill English – Drones, Air Safety
- Ronda Lindsay – Observer
Investigative and On-Scene Staff (cont.)

- Christy Spangler – On-Scene Graphics/Web Support
- Tim Monville – Sr. Air Safety Investigator
- Alexander Coppeans* – Intern RE

*(has since left the NTSB)*
Report Development Staff

- Michele Beckjord – Project Manager
- Ensar Becic, PhD – Project Manager On-Scene
- Christy Spangler – Graphics/Web Support
- Alice Park – Animation/Electrical Engineer
- Shane Lack – Mechanical Engineer
- Gwynne O’Reagan – Writer/Editor
- Debbie Stocker* – Writer/Editor
- Michael Budinski – Chief, Materials Laboratory

*(Retired)
Report Development (cont.)

- Julie Perrot – Safety Recommendations Specialist
- Ben Hsu – Chief, Vehicle Recorders
- Carl Schultheisz, PhD – Chief, Vehicle Performance
- Don Eick – Meteorology
- Sean Payne – Videos/Engineer
- Bob Squire – Sr. Highway Crash Investigator
Parties to the Investigation

- Federal Highway Administration (FHWA)
- FHWA – Turner Fairbank Highway Research Center
- US Department of Transportation, Office of the Inspector General
- Florida Department of Transportation
- Miami-Dade Police Department
- Florida Highway Patrol
- Florida International University (FIU)
- City of Sweetwater
Parties to the Investigation (cont.)

• Barnhart Crane & Rigging
• Bolton, Perez & Associates Consulting Engineers
• FIGG Bridge Engineers, Inc.
• MCM
• Structural Technologies, LLC

*(The US Department of Labor, Occupational Safety and Health Administration, was removed as a party member, effective June 20, 2019)*
FIU Pedestrian Bridge Project

- Florida DOT
  - Local Agency Program (LAP)
  - Florida International University (FIU)
    - MCM
    - FIGG Bridge Engineers
    - Louis Berger
    - Bolton, Perez & Associates
Order of Presentations

1. Evidence testing and results
2. Mechanisms of structural failure
3. Evaluation of structural distress and actions to control cracking
4. Bridge design errors
5. Independent peer review of complex bridge design
6. Redundancy guidelines for pedestrian truss bridges