Weather Disaster Preparedness and Recovery Seminar
Today’s Agenda

1. Introduction
2. Overview
3. Weather Disaster Preparedness Process
4. Weather Disaster Preparations
5. Disaster Recovery and Mitigation
6. Building Assessment Process
7. Recovery tracking and documentation
8. Important Vendor Information
9. Summary
10. Q&A
Overall Purpose: To restore “Normal” University operations ASAP!

FLASH Back — Katrina/Wilma ’05

- Caused a combined $11 million in damages.
- An estimated 60% of major campus buildings and infrastructure sustained significant damage.
Are YOU Prepared?
“A DRU is an institution that understands the threat posed by natural hazards to its campus and its mission. It actively implements policies, programs and practices to address its risks. It integrates loss reduction into its teaching, research and public service activities. It has the leadership and plans necessary to reduce risk to the level the campus community believes appropriate.” —FEMA
Weather Disaster Outlook

Hurricane Season: June 1st – November 30th

2014 Atlantic Hurricane Outlook

Named Storms: 8 - 13
Hurricanes: 3 - 6
Major Hurricanes: 1 - 2

Outlook Probability

Below Normal 50%
Near Normal 40%
Above Normal 10%

Be prepared: Visit hurricanes.gov and follow @NWS and @NHC_Atlantic on Twitter

It only takes one!

The outlook calls for a 50% chance of a below-normal season, a 40% chance of a near-normal season, and only a 10% chance of an above-normal season.
Hurricane Season Peak

Mid-August to Late October

[Graph showing the peak of hurricane season from May 10 to Dec 20, with a high frequency of storms in mid-August to late October.]
FIU’s Modesto Maidique Campus is categorized under Zone E, which is at the lowest risk for storm surge from Category 5 storms.
FIU’s Biscayne Bay Campus is categorized under Zone A, which is at the greatest risk for storm surge for Category 1 and higher storms.
Storm Surge Planning Zones

Address search: www.miamidade.gov
Storm Surge Planning Zones
The purpose of this procedure is to help facilitate building assessments throughout the university in the aftermath of a weather related disaster.

Facilities Management’s areas of responsibility include assessment of all campus infrastructure and preliminary building damage assessments.

Assessment teams will include key personnel from Facilities Management such as Construction, Operations, and if available, Police Department and Environmental Health & Safety.
Four Phases of a Weather Disaster:

- **PRE—Preparedness**
  - Plan of Action: Chain of Command, Communication, Construction, and Operations action plans
  - Evaluation and documentation tools

- **RES—Response**
  - Building Assessment Process
  - Use of contracted Debris Removal Vendors

- **REC—Recovery**
  - Restoration of impacted facilities within a systematic and documentable process
  - Use of continuing service contract professionals and builders

- **MIT—Mitigation**
  - FIU Facility Standards
  - Special needs projects (i.e. Mold, Hazardous Materials, etc.)
Hurricane Warning: 72-hour Confirmation

- Emergency Operations Center (EOC) will be activated
- Mass communication will be sent out via e-mail, posted on FIU’s main website: www.fiu.edu, and broadcasted through local media
- Internal preparedness meetings will be held
- Discussion of time frame regarding weather event with essential personnel
Tropical Storm Isaac Update

As we move into the most active part of the hurricane season, the FIU Department of Emergency Management is monitoring Tropical Storm Isaac, which is expected to approach South Florida by late Sunday night or early Monday morning.

At this time, every member of the university community is advised to stay alert to FIU and media updates about Tropical Storm Isaac. The university will keep you fully informed of emergency preparations and university operations.

This is the time to review personal as well as departmental plans and ensure that you have the supplies you will need should Isaac affect our area.

It is imperative that every member of the university community be familiar with FIU’s emergency communication plan. Please take a moment now to review this plan by visiting this link.

Thank you for your attention to this matter.

Have a wonderful fall semester.
Weather Disaster Preparations

1. Continuing Contracts - Vendors, CM’s, & A/E’s
   - Pre-position contractors/ protective measures/ Debris Removal contacts.
   - Secure availability of continuing service contract Architects and Construction Managers for minor projects prior to event.
   - Communicate with Construction Managers to prepare for possible roof damages and immediate recovery/repair efforts to mitigate water intrusion and roof equipment damage.

2. Specialized Work
   - Identify and contract with specialized vendors for specific post impact services.

3. Preparation of Building Damage Assessment Binders
   - Prepare building damage assessment toolkits.
   - Retrieve building floor plans and roof plans to graphically note damages encountered.
Weather Disaster Preparations

- **Potential Hazardous Conditions** – Work with Environmental Health & Safety for documenting hazardous conditions within specific buildings. Identify hazardous materials, equipment, fumes, chemicals, explosives, radioactive materials, biological waste, etc.

4. **Assessment and Documentation of Existing Conditions**

- Assessment of pre-event conditions - building assessments & pictures (i.e. Multivista)
- Document roofing as well as all roof mounted equipment conditions.
- Projects under construction - record and photo document all work in place prior to event.
- Roof access points secured - doors and roof hatches positively latched and locking mechanisms fully operational and in locked position.
- Roof equipment - all covers secured; no missing latches, bolts and/or screws.
- Remove any roof debris and/or loose materials or equipment.
- Storm shutters operational and lock-down capable.
5. Designation of FMD Command Center

- FMD’s Control Center: **Campus Support Complex** (CSC Building), **Room: # 1123**. Assembly and information point for all facilities related assignments; Point of contact for all Vendors and Construction Managers.

- Emergency Generator - space fed by emergency electrical power for lighting, HVAC (air cooled units), and charging cell phones, radios, laptops.

- Secure computers, printers, and communication devices to be operational on emergency power.
Secure all files, drawings, office computers, and any other equipment from jobsite that is at risk of water damage.

Obtain pictures and/or video of jobsite and surrounding areas.

Protect all building windows, shafts, chases, and roof openings.

Secure building materials and remove all debris and loose lumber.

All interior and exterior areas should be broom swept and free of debris.

Disconnect all electrical equipment from power source.

Remove all signage from fence lines.

Lower and secure all cranes to the ground in a remote area.

Ensure dumpsters are emptied or covered with tarps.

Secure all hazardous materials to prevent chemical spills.
During a Weather Disaster

**No one** is allowed on campus premises!

FIU’s **Emergency Operations Center** will be actively tracking the weather event and provide further information when possible.
Two MAIN priorities:

- **Safety**
  - No one should report to campus until the “all clear” is given to safely drive on the roadways and instructed by your supervisor.
  - All FIU essential personnel will be required to present their **FIU One Card** in order to be allowed onto campus premises.

- **Communication**
  - Direct contact with Supervisor or Co-workers.
  - Landline *(primary source if available)*, cell phones, and/or FIU radios.
FMD Command Center

- Designated essential personnel will report directly to CSC 1123 (unless otherwise specified) after arriving safely onto campus premises.
- All essential personnel will be required to sign-in and wait for instructions to be given.
- Assessment teams will be formed and organized depending on necessary job function:
  - Teams of 3 to 5 people
    - Building Manager (Point of Contact- POC)
    - Project Manager
    - Administrative Support
    - Police Department (if available)
    - Environmental Health & Safety (if available)
- Teams will assess all FIU MMC & BBC campus buildings.
- Complete all “Building and Site Condition” assessments.
- All information will be organized and consolidated.
- Assessment information will be shared with the Emergency Operations Center (EOC).
- FMD will provide recommendations and action strategies regarding restoration of damages.
- Additional assistance will be provided by the Debris Removal Vendors, Metric Engineering, and Custodial Services; will be on call for immediate assistance.
Initial 72 Hour Building Damage Assessment

- Organize and capture preliminary information after a weather related event.
- **Infrastructure Occupancy Status:**
  - **C**: Light Damage- Debris Cleanup, Minor Leaks (Windows/Doors)
  - **CO**: Limited Roof & Equipment Damage/Leaks (Water Extraction)
  - **UN**: Extensive Roof & Bldg Envelope Damage/Flooded Areas
- Execute immediate mitigation to prevent further damage (i.e. Tarp, Roof Cover, Board, etc.).
- Provide immediate recommendations to EOC.
Only Vendors with debris removal contracts and Construction Managers (CM) with active construction projects will be allowed on campus.

Other Vendors will be contacted by designated Project Manager (PM), as needed.

Work will be assigned on an as needed basis depending on the severity of the event.
Metric Engineering will support FIU on **damage assessment, recovery**, and potential **reimbursements**.

In case of an event, the company will provide **full service debris monitoring staff** including collection and disposal site monitors, permitting and environmental specialists, administrative staff, and state-of-the-art technology necessary to successfully complete the debris disposal operation.

Also, will monitor contractor operations for proper truck certification and load eligibility for FEMA and NRCS reimbursement and continuously strive to find operational and innovative ways to **control costs, reduce waste, eliminate fraud**, and **maximize reimbursement**.
Meeting the Objectives

Work Plan:
- Prior to Event
- During the Event
- First 70 Hours – Initial Push
- After the first 70 Hours
- Hangers, Leaners, & Stumps
- Load Tickets
- Communications
## Debris Load Ticket

**METRIC ENGINEERING, INC. DEBRIS LOAD TICKET**  
No. 00000

<table>
<thead>
<tr>
<th>Applicant:</th>
<th>Date:</th>
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<tbody>
<tr>
<td>Contractor:</td>
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<table>
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<tr>
<th>Placard No.:</th>
<th>Capacity: CY</th>
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**Loading Site: Street or Intersection**

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<tr>
<th>City:</th>
<th>County:</th>
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**When Using GPS Coordinates use Decimal Degrees (N xx xx.xx)***

<table>
<thead>
<tr>
<th>Road Classification</th>
<th>Pass Classification</th>
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</thead>
<tbody>
<tr>
<td>FHWA ON</td>
<td>First Pass</td>
</tr>
<tr>
<td>FHWA OFF</td>
<td>Subsequent Pass</td>
</tr>
<tr>
<td>Private Property</td>
<td></td>
</tr>
<tr>
<td>Other (specify):</td>
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**Load Classification (check one):**

- C & D
- White Goods
- Vegetative/Woody
- Mixed
- Other (specify):

**Driver’s Name (print):**

**Departure Time: AM PM**

**Odometer:**

**Load Monitor (Print):**

**Signature:**

**Disposal Site Location:**

**Arrival Time:** AM PM

**Date:**

**Odometer:**

**Capacity (CY):**

**% Loaded:**

**Volume Hauled (CY):**

**Total Weight (Ton):**

**Tare Weight (Ton):**

**Load Weight (Ton):**

**Disposal Monitor (Print):**

**Signature:**

**Contractor Monitor (Print):**

**Signature:**

**Notes:**

<table>
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<tr>
<th>White Agency</th>
<th>Canary &amp; Blue Contractor</th>
<th>Pink Metric</th>
<th>Green Driver</th>
<th>Gold DMS</th>
<th>Tan Loading Site Monitor</th>
</tr>
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Important for Vendors

- Be prepared to verify **actual** work completed vs. **original** project worksheet descriptions.

  - **Challenges/Realities:**
    - Post-event mobilization/transportation
    - On the spot proposals/approvals
    - Maintain record of all e-mail transactions for submittal process for reimbursement requests
Hurricane Season Peak → Aug./Sept./Oct.

Pre-Weather Disaster
- General Communication
- Construction Site Preparations

During a Weather Disaster
- No one allowed on campus premises!

Post-Weather Disaster
- Command Center for FMD: CSC 1123
- First 72 hours only:
  - Debris Removal
  - Capital Project CMs
- Other Vendors will be contacted, as needed

Metric Engineering
- Maximize reimbursement for FIU
- Timely Pay for Vendors
- Efficient and Safe Operation

Vendor Information
- Maintain updated information in FIU database
- Insurance Requirements
Facilities Management Point of Contacts:

- **John Cal**: Associate VP Facilities Mgmt.
  (305) 323.1488

- **Nicholas DiCiacco**: Director of Physical Plant
  (954) 651.8972

- **Danny Paan**: *Interim* Director of Facilities Construction
  (305) 812.2052

- **Marco Benitez**: Director of Analysis, Assessment & Risk Mgmt.
  (954) 261.4059

http://facilities.fiu.edu/AARM/aarm.htm
From Everyone here at FIU

Thank You!