Agenda

1) General Overview

2) Project Phasing

3) Current Projects:
Utilities Ductbank
Landfill Gas Project
Greenway
Research Building and Infrastructure
Army COE Individual Permit

4) Development Agreement:
Minor Modification Request – Improvements to ecological value and connectivity of Conservation Areas
Carolina North
Carolina North

- **What is Carolina North?**
  - 947 acres of land owned by the University

- **What will it be?**
  - Mixed-use academic campus
  - Extension of the main campus

- **What does it mean to the University?**
  - Provide space for necessary growth
  - Enable new activities and relationships
  - Enhance research mission
50-year Development Plan

Carolina North Plan
Carolina North Development Agreement Plan
Projected Development: First 800,000 square feet

<table>
<thead>
<tr>
<th>Building Type</th>
<th>Square Feet</th>
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<tbody>
<tr>
<td>Research Building One</td>
<td>225,000 sf</td>
</tr>
<tr>
<td>Small Central Utility Plant</td>
<td>5,000 sf</td>
</tr>
<tr>
<td>Law School</td>
<td>250,000 sf</td>
</tr>
<tr>
<td>Research Building Two</td>
<td>120,000 sf</td>
</tr>
<tr>
<td>Housing</td>
<td>200,000 sf</td>
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</table>
2011-2012 Development Schedule: Ductbank (Electrical Infrastructure Additions)

Ductbank (Electrical Infrastructure Additions) Construction
The ductbank will provide more reliable power to Giles Horney Building Complex and Administrative Office Building.

Nationwide permit received from Army Corps of Engineers July 2011

Phase One construction Aug 2011-Aug 2012

Phase Two early site clearing Oct - Nov 2011

Phase Two construction Feb 2012 - Aug 2012
2011-2012 Development Schedule: Landfill Gas Project

Landfill Gas Pipe Construction Phasing
The pipe brings landfill gas from Eubanks Road to a generator located at Carolina North. The electricity generated there will connect to the Duke Energy power grid at a point on Martin Luther King, Jr. Blvd. Eventually, heat will be recovered from the generator to be used to heat buildings at Carolina North.

Phase One: collection system at Eubanks Rd.

Phase Two: pipe from Eubanks Rd. to Homestead Rd.
Jan – April 2012

Phase Three: pipe from Homestead Rd. to generator (with ductbank)
Feb 2012 – Aug 2012
2011-2012 Development Schedule: Carolina North Greenway

Carolina North Greenway
A paved greenway from Homestead Road to Municipal Drive, co-located with the ductbank, will be built when ductbank construction is complete.

Greenway completion       February 2013
2011-2012 Development Schedule: Research Building & Infrastructure

Infrastructure
- Design commenced in June 2011

Research Building
- Design commenced in October 2011
2011-2012 Development Schedule: Conservation Areas
Conservation Areas with 20 year Development Area
Carolina North Conservation Areas Report: Overview Map
Exhibit E-2012-1. Map: Conservation Areas

<table>
<thead>
<tr>
<th>Area</th>
<th>Crow Branch Conservation Area (Areas 1-2)</th>
<th>Bolin Creek East Conservation Area (Area 4)</th>
<th>Bolin Creek West Conservation Area (Areas 3-5-6A)</th>
<th>Bolin Creek 100-year Limited Development Area (Area 6B)</th>
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<tr>
<td>Acres</td>
<td>51</td>
<td>24</td>
<td>183</td>
<td>53</td>
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</table>

Approximate Acreage:
Crow Branch Conservation Area Changes Explained

1. Area 1 moved to create contiguous area along Crow Branch and to include mature forest.

2. Area 2 reshaped to avoid landfill and to include additional wetlands and xeric forest.

3. Area 3 moved due to existing landfill & groundwater treatment infrastructure.
Bolin Creek East Conservation Area Changes Explained


2. Offset Conservation Area 100’ from Development Area boundary to account for fill slope from old runway.

3. Included more streams, stream buffers, and wetlands. Created wildlife corridor that connects to west side.
Bolin Creek West Conservation Area & Bolin Creek 100-Year Limited Development Area (6B) Changes Explained

1. Extended Conservation Area to the property boundary.

2. Created contiguous Conservation Area.

3. Included more streams, stream buffers, and wetlands.
Exhibit E-2012-1. Map: Conservation Areas

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Conservation Areas

• Use restrictive covenants as mechanism

• Third-party monitoring

• Protection identical to what is in Development Agreement

• Conservation area total remains 311 acres
For further information

Carolina North:
http://www.carolinanorth.unc.edu

Capital Improvement Projects:
Landfill Gas Project
Electrical Infrastructure Additions (ductbank)
http://www.fpc.unc.edu

Project Permits:
http://fpc.unc.edu/Projects/CurrentPermits.aspx

Carolina North Forest Website:
http://www.fac.unc.edu/FacilitiesServicesHome/GroundsServices/CarolinaNorthForest.aspx

Carolina North Forest Facebook Page:
http://tinyurl.com/4484tgz