



# PERSPECTIVES ON ENERGY REDUCTION AND ENVIRONMENTAL INNOVATION

North Carolina Legislative Committee on Climate Change

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### **Presentation Overview**

- Introduction to Cherokee
- Representative Transactions
- Sustainability and Responsibility
- Cherokee's Action on Climate Change
- Concluding Remarks
- Contact Information



### **Introduction to Cherokee**



# **History of Cherokee**

- Cleanup of contaminated brick sites in the 1980s learned to handle environmental liability as a principle
- Remediation of contaminated soil from leaking petroleum storage tanks – became the largest remediator of petroleum contamination in the southeastern U.S.
- In 1990, started new business of deliberately buying contaminated brownfield sites as investments
- First institutional capital of \$50 million (Fund I) in 1996
- Raised \$250 million Fund II in 1998
- Raised \$620 million Fund III in 2002
- Cherokee Investment Partners IV first closing December 2005









### Introduction to Cherokee

MISSION: To acquire environmentally impaired properties, remediate them and return them to productive use. Cherokee embraces a win-win attitude, enabling our partners, our investors, our employees and the communities we improve to share in the benefits of our work restoring brownfields.

- Cherokee's investors are large institutional pension funds, university endowments and state funds
- Cherokee is the largest redevelopment firm of its kind
  - More than \$1.4 billion of assets under management
  - Acquired more than 520 properties since 1993
  - \$3 billion in available capital
  - More than \$250 million will be spent on remediation
- Investments encompass a wide variety of property types, sellers, contaminants and regulatory agencies
- In all of our transactions, Cherokee has never reverted to an indemnified party to support the costs of remediation or redevelopment



### **Cherokee Approach**

- Commitment to safety, remediation and sustainable development
- Service provider to corporations and local, regional and national governments
- Continuing, active community and stakeholder involvement
- Large pool of discretionary capital
- No financing contingencies
- Use of capital and experience to transfer liability and protect owners
- Effective environmental liability management and insurance

















# **Representative Transactions**



# **Completed Transactions**

#### **Prior owners include:**







Government entities



American Airlines<sup>a</sup>

Multinational corporations

b u r l i n g t o





Financial institutions







Private equity funds





Utilities



United Technologies

Private owners









# **Sustainability and Responsibility**



### **Cherokee Responsibility**

- Our investments have a three-fold outcome: positive economic, social and environmental results
  - Immense impact on environment and property reuse
  - Win-win outcomes for communities and other stakeholders (economic development, jobs, tax revenues, etc.)
- Our responsibility extends beyond real estate
  - We believe community service, compassion and social accountability make us better investors
  - Our nonprofit outreach efforts promote strong local communities and economic development around the world
- We strive to be innovative and a world leader in our performance
  - Smart growth approach to urban planning mixed use, rail transit, etc.
  - The first (and, we believe, the only) private equity firm with ISO 14001 certification



### **Sustainable Development**

- For Cherokee, sustainable development requires thoughtful consideration of both the environmental and social aspects of our work
- We see competitive advantage in careful land use and environmentally responsive design of the built environment
- Land use
  - Mixed-use, walkable or transit-oriented developments that integrate habitat, scale and aesthetics, storm water management
- Built environment
  - Innovative, environmentally friendly, energy and waterefficient, community-focused, safe, active, equitable, healthy developments



# **Cherokee and Sustainability**

- Business model → small industrial sites to large in-fill brownfield redevelopment
- Application of sustainability principles of smart growth/new urbanism
  - Mixed use
  - Compact neighborhoods with public amenities
  - Open space
  - Transportation alternatives
  - Consideration to aesthetics, a sense of place and history
- Use of progressive planning consultants and architects – William McDonough + Partners, Robert Stern, Shook Kelley and others
- Cherokee balances cost, profitability and community objectives with sustainability





### **Sustainable Development**

#### Cherokee's current evolution:





#### **Buildings currently consume:**

- 40% of all raw materials consumed by weight globally
- 65% of U.S. electricity consumption
- 138M tons of construction and demolition debris per day
- 30% of all greenhouse emissions





# **Cherokee's Action on Climate Change**



### North Carolina Green Power Program

- Cherokee's Raleigh headquarters uses 100% green energy through NC Green Power program.
  - Reduces annual carbon dioxide emissions by 570,000 lbs
  - Equivalent to not driving 700,000 miles per year

# **NcGreenPower**

- Cherokee aims switch its other offices to 100% clean energy in 2006
- Cherokee plans to implement green energy use in its redevelopments

### **Meadowlands Project**

- Located next to mass transit and hopes to reduce automobile traffic to the greatest extent possible
- Renewable energy studies underway: large-scale on-site solar, wind, biomass, combined heat and power, and geothermal energy sources



Methane produced from the landfills onsite will be captured and reused for electricity production.



### **GreenHome Demonstration Project**

- **Demonstration green home project** 
  - NAHB pilot project
- **Located here in Raleigh near the Rex Hospital**
- Infill location reduces travel time, setting it apart from many green homes
- The home will use ground source heat pumps for its space conditioning needs which will reduce energy for this use by 30-40%





# **GreenHome Demonstration Project**

Estimated 50% less energy than a conventional home

- Solar photovoltaics and solar hot water systems
- Renewable energy credits through NC Green Power to achieve a zero carbon status in its operational energy use



### Kanawha

- 350-acre mixed-use development
- The future Museum of Life and the Environment
- William McDonough + Partners
- 50% less energy use in buildings, on-and off-site renewable energy to approach zero carbon status
- Reduced carbon emissions from transportation by using locally produced and harvested materials in construction.
- Mixed land use to reduce off-site travel



 Connected with a future area greenway linking to another community and bike/walking trails will encourage nonvehicular traffic within the site.



# Partnership with Energy Star

- Last year, Energy Star efforts saved enough energy to power 24 million homes and reduce greenhouse gas emissions equal to those from 20 million cars – all while saving \$10 billion.
- Cherokee is an official partner of the US EPA-DOE Energy Star Program.
- Cherokee is intent on promoting these kinds of energy- and money-saving designs in its redevelopments.







### **Conclusions**



### **Conclusions**

- Investors are becoming increasingly interested
  - Coalition of Environmentally Responsible Economies institutional investors representing over \$1 trillion in assets
  - Carbon Disclosure Project –
     institutional investors representing over \$31 trillion in assets
- Reduced energy use benefits the state economy
  - Millions of dollars leave our state each year in the purchase of out-of-state energy. Reducing total energy used or creating more renewable sources in state would help reduce this siphoning of state dollars out of state.
  - Knowledge-based companies seek locations with cleaner environments
  - Environmental innovations create business opportunities
    - Denmark example



### **Conclusions**

- National security
- Pollution = waste = dollars lost
- Waste = raw material
- Costs vs. Investments in energy reduction initiatives
- Smart growth reduces GHG emissions AND preserves open space
- Uncertainty: Is global warming induced by human activity?
  - If yes =>
    - Avoid more serious climatic repercussions plus those shown below
  - If no =>
    - Reduce operating costs, hedge against future energy price uncertainty, product and brand differentiation, good ROI
- Reducing GHG emissions achieves a number of other air pollution goals
  - Carbon emissions are often linked with nitrogen oxides, sulfur oxides, mercury, particulate matter, and other pollutants of concern. Reducing one often reduces the others, though not necessarily in the same proportion.





### **Contact Information**

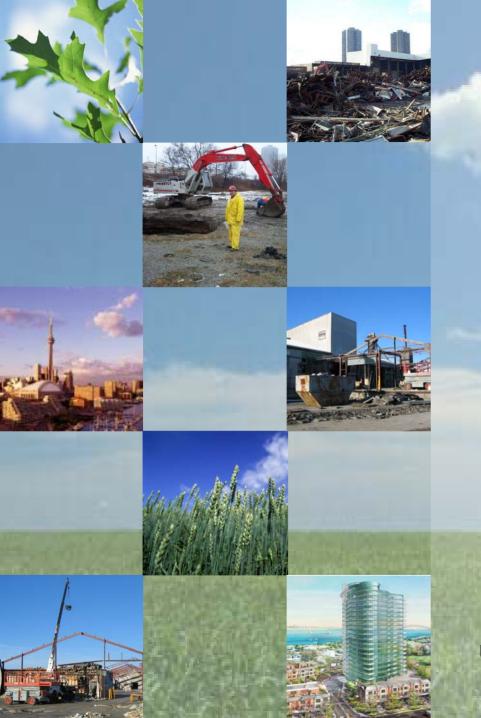
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