



**Monsanto Chesterfield Technology Consolidation Project**  
 St. Louis Council of Construction Consumers  
 24 May 2017

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**Today's Agenda**

- The Owner's Story
  - Overview of the Chesterfield Site
  - Repurchase and Refocus
  - Technology Building Design
  - Project Management
    - BIM
    - OCIP
    - Diversity
    - Safety
- The CM's Story
  - Construction Strategy

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**Safety Moment**

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- Evacuation
- Take Cover
- Restrooms

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**GG Building – Floor 3**




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**The Owner's Design Story**

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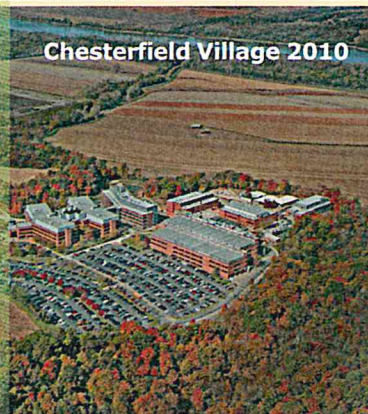
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### Chesterfield Village 2010

**HISTORY OF SITE**

- 1978: Monsanto purchases 210-acre sheep farm
- 1983: First building (GG) opens
- 1999: Pharmacia purchases Monsanto, Chesterfield becomes pharma research
- 2000: Monsanto spun off as independent company
- 2003: Pfizer acquires Pharmacia
- 2010: Monsanto repurchases site



### Chesterfield Village 2010

**MONSANTO REFOCUSSES**

"Technology" = "R&D"

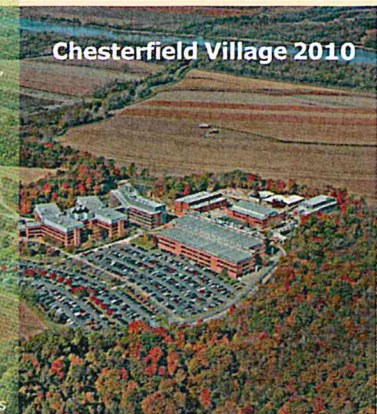
Creve Coeur site has mostly pre-1970 research buildings

Energy inefficient, hard to retrofit, chemistry-focused

Not suitable for agricultural research

Commitment to consolidate all Technology in Chesterfield

Creve Coeur remains corporate headquarters




### Chesterfield Village 2010



Tiered Surface Parking Lots

GG Surface Parking Lot

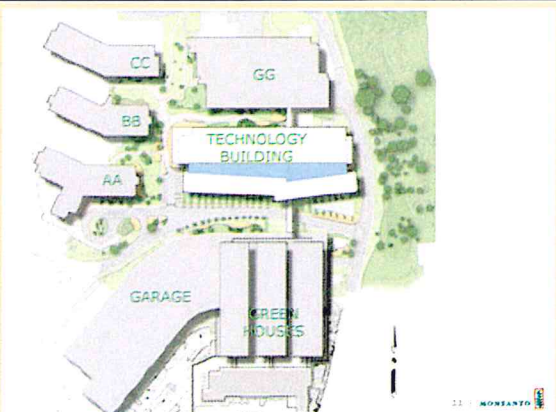
### Planning Concepts




Tiered Surface Parking Lot

Additional Greenhouses

GG Research Building Lot



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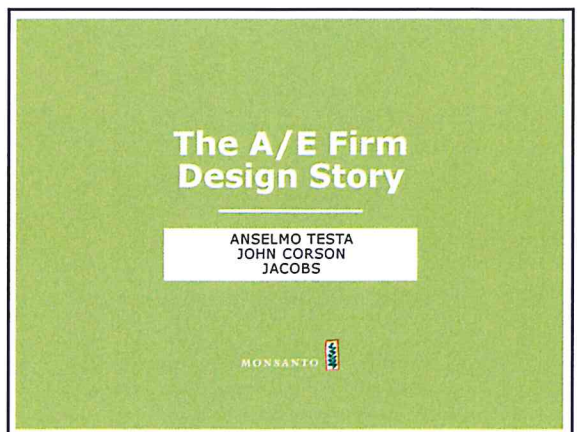
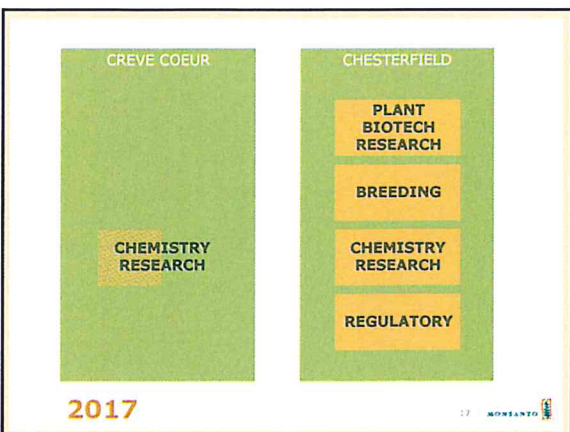
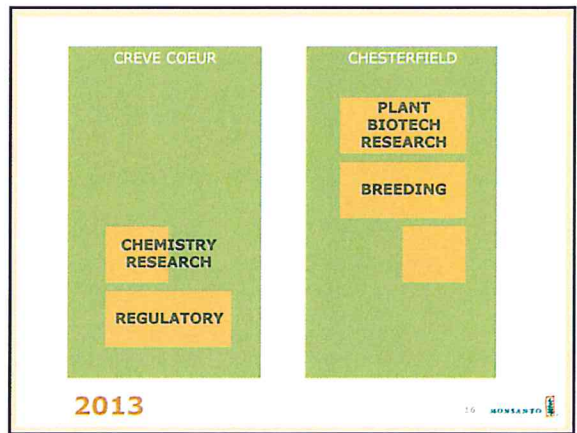
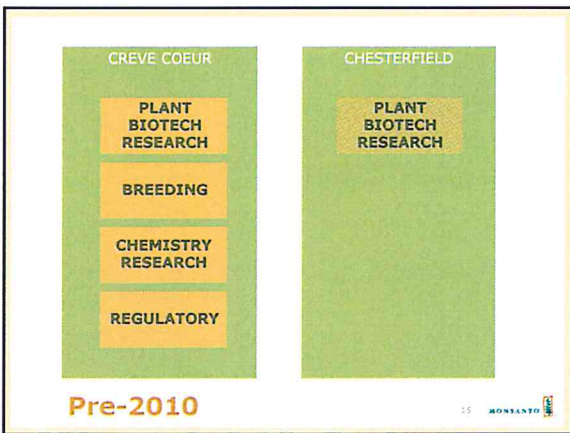


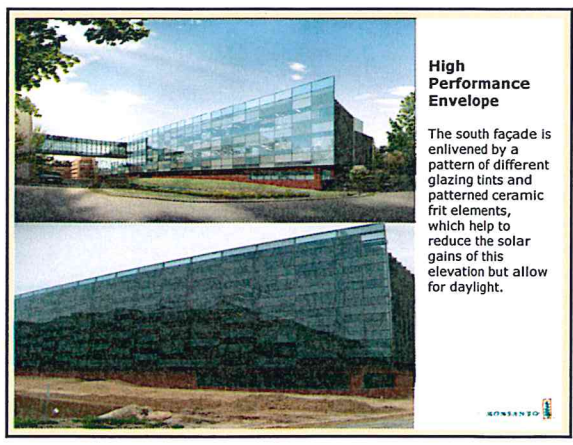
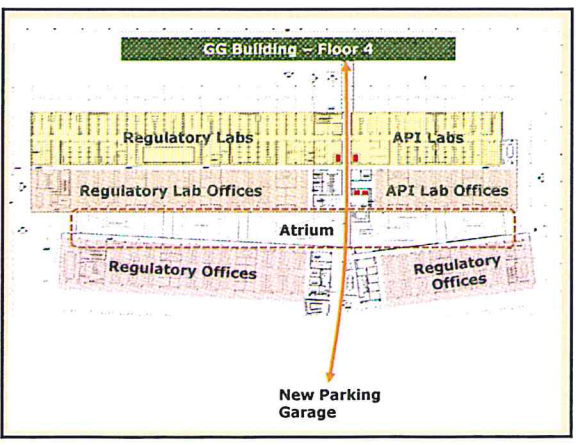
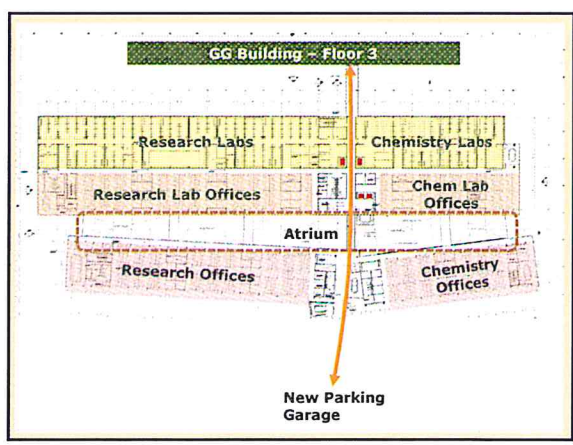
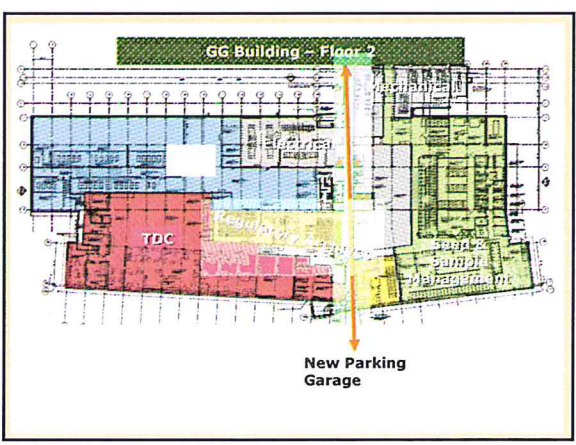
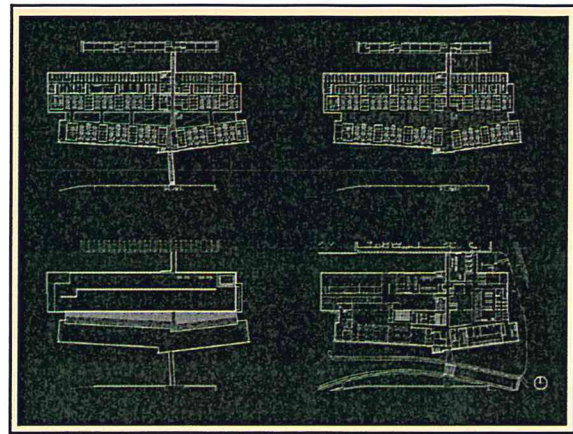
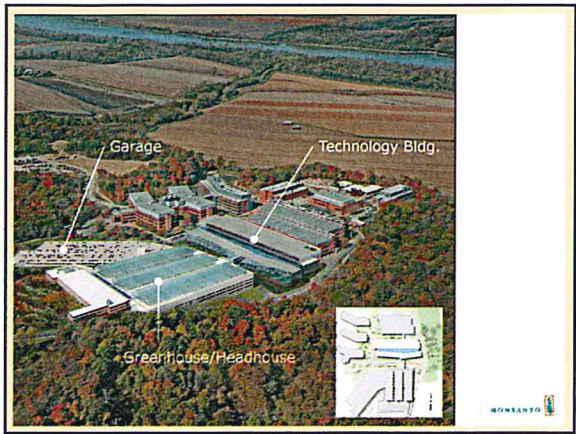
Garage Opened January 2015

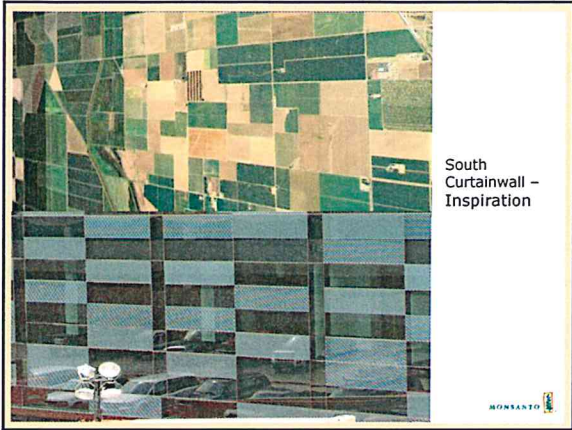
Roundabout Opened Fall 2014

**2014 - 2015**

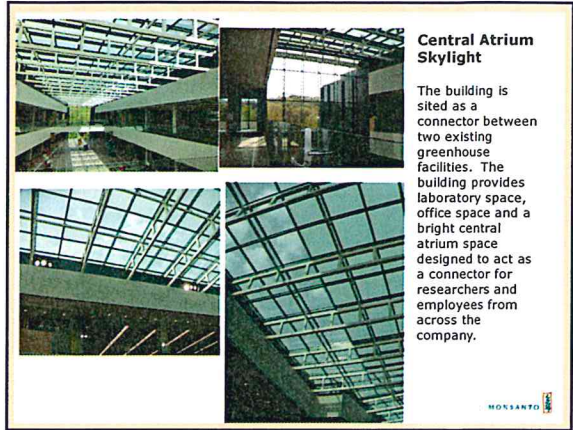
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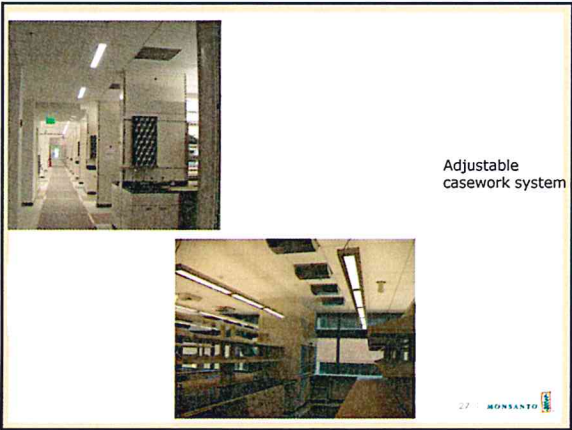


South  
Curtainwall –  
Inspiration

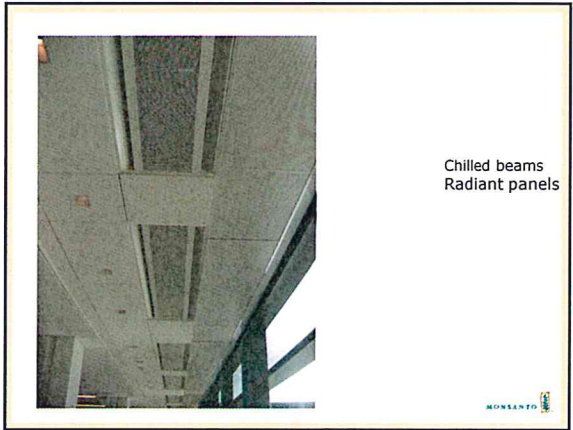


Central Atrium  
Skylight

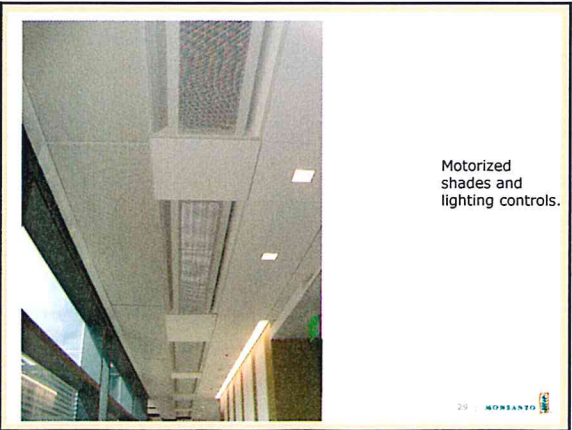
The building is sited as a connector between two existing greenhouse facilities. The building provides laboratory space, office space and a bright central atrium space designed to act as a connector for researchers and employees from across the company.



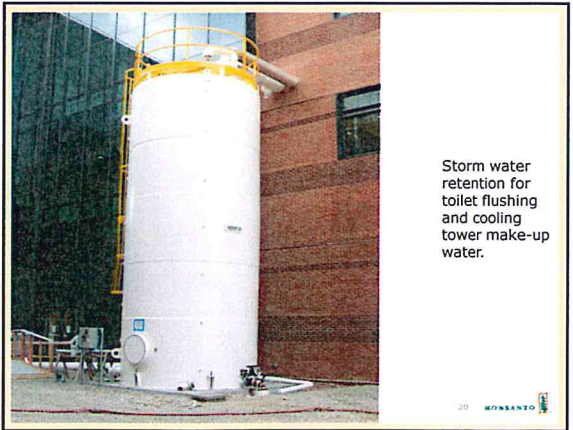
Adjustable  
casework system



Chilled beams  
Radiant panels

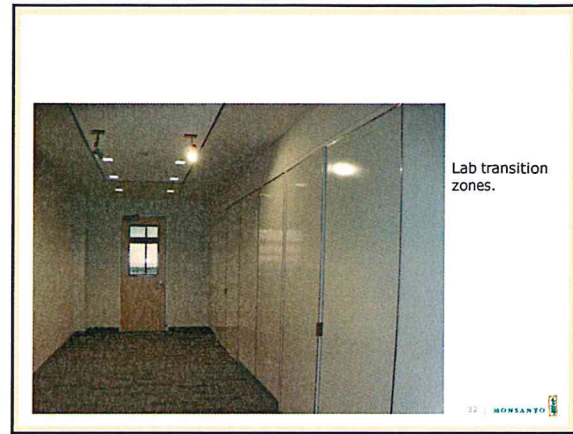
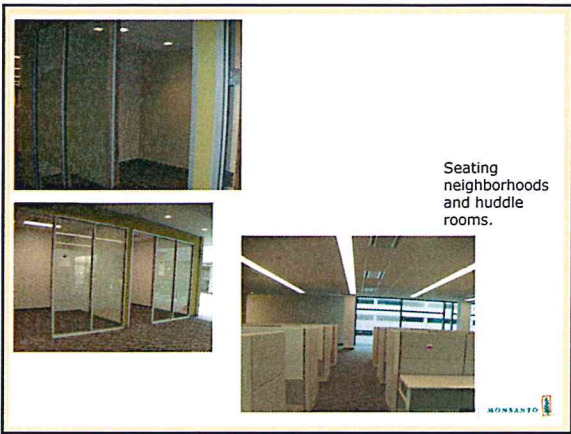


Motorized  
shades and  
lighting controls.



Storm water  
retention for  
toilet flushing  
and cooling  
tower make-up  
water.





- Sustainability Approach**
- Site Selection
  - Parking & Transportation Impacts
  - Maximizing Open Space
  - Protecting & Restoring Habitat
  - Light Pollution Reduction
  - No Smoking Campus
  - Green Operations Practices
  - Water Efficiency
  - Energy Efficiency
  - Indoor Environmental Quality
  - Reducing Indoor Pollutants
  - Sustainable Construction Materials
  - Sustainable Construction Process
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- Key Sustainability Goals Met**
- Climate Action**
- Reduced Energy Use by 21%
  - Reduced Energy Costs by 20.9%
  - Reduced CO2 Emissions
  - Reduced GHG Emissions
- Increase Water Efficiency**
- Decreased Indoor Water Use by 41%
  - Decreased Outdoor Water Use by 100%
- Protect Biodiversity and Pollinators**
- 36% of site (12.5 acres) was protected forest or restored prairie
- Resource Conservation**
- Over 20% recycled content, 19% local materials; 94% certified wood
  - Diverted over 93% waste from landfill through construction waste recycling
- Awaiting LEED Gold Certification
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- Monsanto's Sustainability Goals**
- Act Ethically and Responsibly
  - Create a Great Work Environment
  - Embrace Collaboration and Transparency
  - Engage Communities and Society
  - Preserve and Advance Biodiversity
  - Reduce our Operational Footprint
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**The Owner's Construction Story**

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### Owner Controlled Insurance Program (OCIP) & Diversity Participation

- General Liability & Workmen's Comp - Underwritten by Zurich
- Enrollment and Claim Support - MARSH
- Approximately 80 Contractors Enrolled in The OCIP
- Diversity – Sub-Contractor Participation
  - Second Tier Participation – 29%
  - Lower Tier Participation – 9%
- Exceeded Project Stated Goal

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### Project Safety Data

- Peak Headcount – Approximately 600
- Safety Professionals @ Peak – 17
- Project Hours To Date - ~ 1.8 Million
- Total Recordable Rate to Date – 1.45
- Safety Audits
  - 950 Audits Completed Resulting in 75,000 Observations (Safe & Unsafe)
  - Approximately 50% of the Audits Were BBS Focused
  - Predictive Solutions Safety Net Audit Software Was Used to Conduct and Document Audits

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## The CM's Story

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### CONSTRUCTION

- Safety Strategy
- Safety Results
- East to West
- Batches
- CW Naming Scheme
- Unique Construction
- Prefab Construction
- Special Challenges

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Thank You

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