

# **Final Report Multnomah County East County Courthouse And Data Center**



Board of County Commissioners  
December 6, 2012



# Courthouse Objectives

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- **Identity:** Facility will reflect prominence and importance of providing due process to Multnomah County citizens east of 122<sup>nd</sup> while reflecting fiscal responsibility to the taxpayers.
- **Operations:** Use of durable, sensible materials and systems, focused on low long-term operational cost, and a functional, efficient facility that is easy to maintain.
- **Longevity:** The facility is intended to last at least 80 years, and designed to accommodate future growth of three additional courtrooms.
- **Sustainability:** The project team is working toward the goal to achieve a LEED Gold rating, meet the Architecture 2030 Challenge, and will incorporate the 1.5% Solar program.
- **Minority Involvement:** The County is seeking high levels of participation from M/W/ESB businesses and organizations.



# Data Center Goals

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- Build a Tier II+ primary data center.
- Design and build for efficiency using “Green” technologies.
- Design and build for redundancy, failover and disaster recovery.
- Design and build for scalability.
- Reduce overall footprint.
- Migrate with least amount of impact to customers.
- On time and on budget.



# Project Stakeholders

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- Multnomah County Commissioners
- Oregon State Courts
- Multnomah County District Attorney
- Multnomah County Sheriff's Office
- Department of County Assets
- Multnomah County Citizens



# Project Challenges

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- Addition of \$1.9 million Data Center scope after Design Development
- Maintain Architectural 2030 Challenge and LEED Gold Certification with addition of the Data Center
- Discovery, removal and decommissioning of numerous drywells and other hidden concrete structures - \$150,000
- Requirement of new drywell by City of Gresham after design approval - \$110,000
- Identification of soil and groundwater contamination
- Water production for primary extraction well for geothermal heating and cooling system insufficient to meet building needs
- Addition of \$428,000 supplemental fluid cooling system
- Modification by PGE of primary feed during construction



# Project Challenges...cont.

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- Upgrade of generator and electric controls to participate in the PGE Dispatchable Standby Generator Program
- Integrating RACC artwork into building design
- Challenging lead times for contracts associated with hidden conditions
- DAS requirements for emergency radio and cell phone operations



# Project Accomplishments

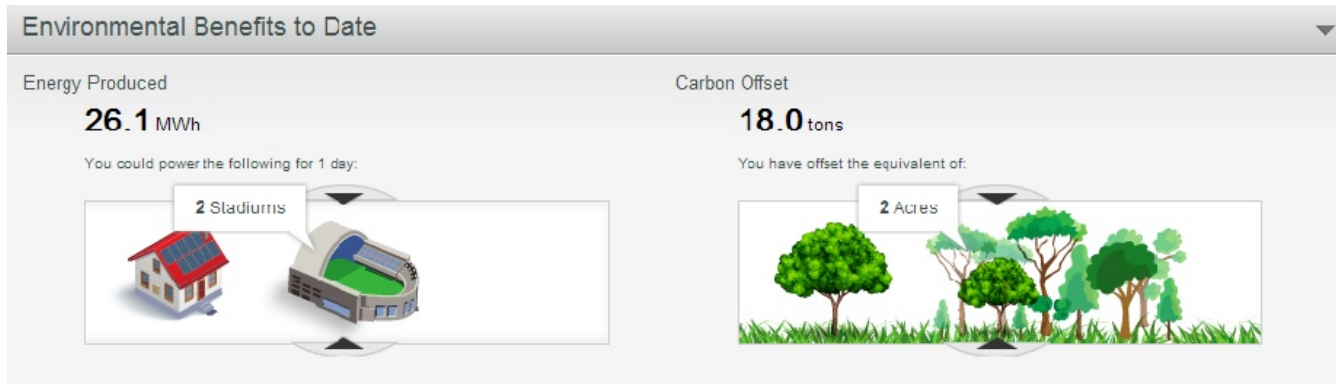
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- Project delivered on time and under budget
- Added three additional Courtrooms to the system incorporating contemporary design standards
- Successfully incorporated the data center
- Met Architectural 2030 Challenge with Geothermal system
- Submitted for LEED Gold Certification
- Incorporated Clean Diesel Program for off road vehicles
- Recycled 95% of deconstruction material
- Installation of geothermal ground source heat pump
- Developed Removal Action Plan with DEQ that mitigates groundwater contamination and integrates well into geothermal system
- Heat recovered heat from data center to heat building and walkways



# Project Accomplishments...cont.

- Executed a dispatchable standby power agreement with PGE for three County facilities saving \$500,000 over 10 years
- Achieved 33.65% MWESB participation
- No loss of access to adjacent businesses
- Integrated over \$300,000 worth of public art into the building construction
- 1 ½% Solar resulted in a 36.7 KW solar array on roof





# Project Accomplishments...cont.

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- Built in rainwater harvesting for on-site non potable water use
- Incorporated on-site storm water management system
- Diverted 50% of construction material from landfill
- Integrated 20% of recycled material into the project
- Employment Impact: 238 Construction Jobs (131 in County)
- Spending Impacts: \$34.9 Million (\$18.58 Million in County)
- Consolidated 3 County operations including the termination of two leases and disposition of the Kelly Building



# Data Center Accomplishments

- New Tier II+ class data center; anticipated availability of 99.741%.
- Hot air containment design.
- Redundancy or failover systems for all critical components (transfer switches, UPS, HVAC pumps, wells).
- VESDA and leak detection system
- Double-interlock, dry-pipe, pre-action sprinkler system
- Successful collaboration effort with all IT disciplines
- Project team consisted of staff and managers who recommended the two site strategy and selecting PlanNet
- Limited downtime / planned outages required for pre-work and migration
- Successful shutdown of data center prior to close of Kelly building
- New Disaster Recovery posture for the County
- Completed on time and under budget



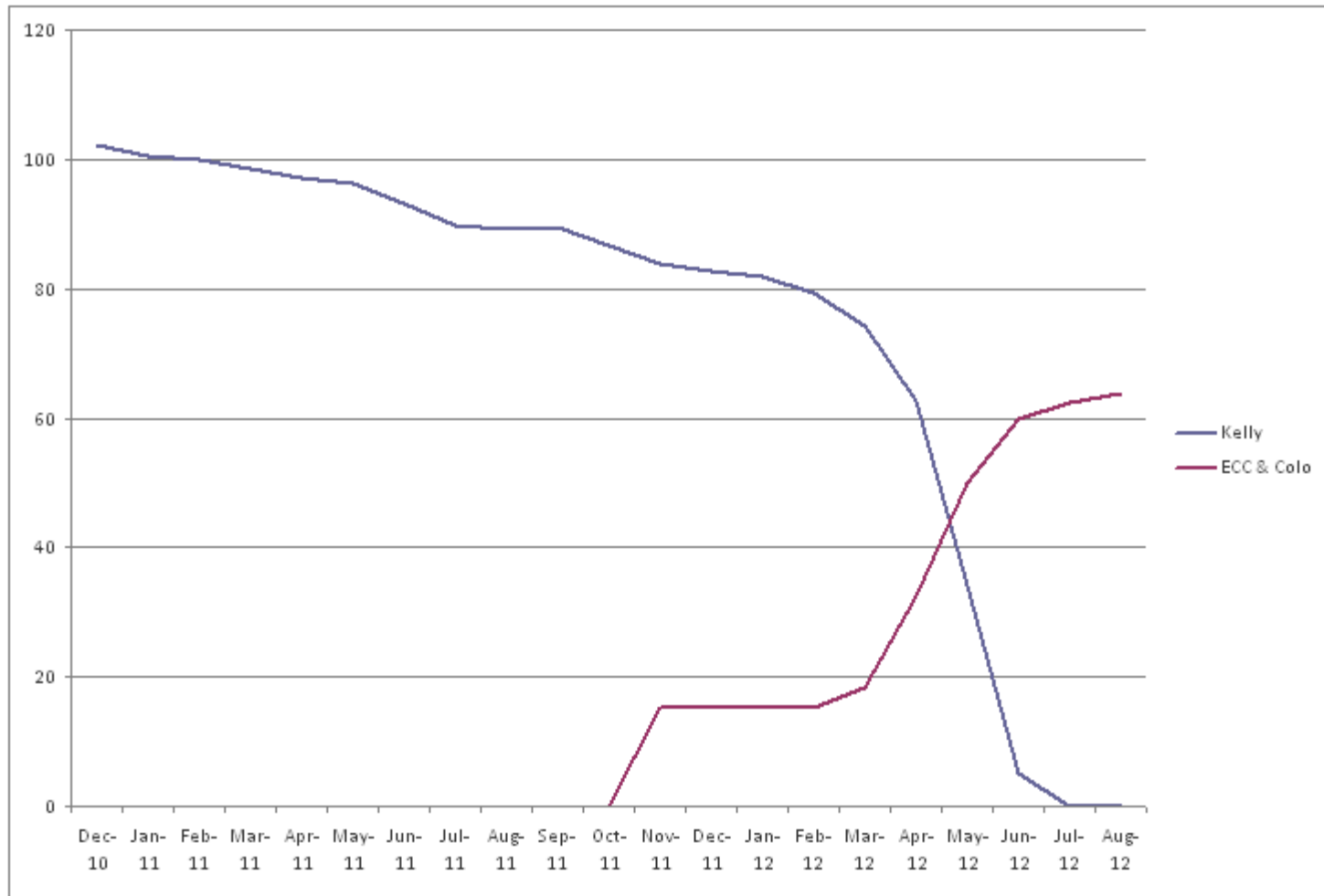
# Data Center Accomplishments...cont.

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- Successful collaboration effort involving all IT disciplines and facilities. Project team consisted of staff and managers who recommended the two-site strategy and the hiring of PlanNet.
- Limited downtime / planned outages required for pre-work and migration efforts.
- Successful shutdown of data center before Kelly building sale.
- Greater data center resiliency not seen at Kelly.
- New disaster recovery posture for the County.
- Completed on time and under budget.
- Multiple sub-projects completed that allowed project to succeed and modernized several County systems.



# Data Center Power Consumption



# Project Schedule

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- Target Completion Date: Spring 2012
- Grand Opening: April 10, 2012
- Commencement of Court Operations:  
April 16, 2012



# Project Building Budget

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- Initial Estimate: \$20.7 million
- Schematic Design Estimate: \$19.6 Million
- **Estimated Final Budget: \$19.4 million**



# Project Oversight Committee

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- Commissioner Diane McKeel
- Commissioner Judy Shiprack
- Commissioners' Chiefs of Staff
- DCA
- Oregon State Courts



# Project Stakeholder Representatives

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- District Attorney
  - Jodie Erikson
  - Scott Marcy
- Multnomah County Sheriff Office
  - Captain Raimond Adgers
  - Liz Daily
- State Courts
  - Judge Jean Maurer
  - Judge Nan Waller
  - Judge Alicia Fuchs
  - Court Administrator Doug Bray





# Facilities Operation and Maintenance Team

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- Mechanical Engineers
- Carpenters
- Security
- Electronic Services
- Electric
- Lighting



# Core Project Team

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- DCA
  - Peggidy Coffman Yates, FPM
  - Alan Proffitt, FPM
  - John Lindenthal, FPM
  - Gary Wohlers, IT
  - Rodney Chin, IT
  - Kaleb Smith, IT
  - Mel Blanchard, Network Administrator
- Shiels Oblatz Johnsen
  - Doug Oblatz
  - Steve Cruzen
- LRS Architects
  - Paul Boundy
- Howard S Wright
  - Dan Pelissier
  - Jeremiah Dodson
  - Wade Huber
  - Oleg Saidov



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# Questions or Comments

