High-Performance Green Buildings

Big Opportunities for Small Businesses

presented by

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• Established in 1949 by President Truman
  – To streamline the administrative work of the Federal Government

• GSA’s priorities today
  – Expanding Opportunities for Small Businesses
  – Making a More Sustainable Government
  – Delivering Better Value & Savings
  – Serving Our Partners
  – Leading with Innovation
  – Building a Stronger GSA
Expanding Opportunities for Small Businesses

- More than $40 billion dollars in contracts each year
- FY14: GSA awarded 38.7% of available dollars to small businesses
  - FY15: 43.6%
  - Q1FY16: 48.6%
- GSA aids small businesses through
  - Identifying agency opportunities
  - Monitoring large businesses’ subcontracting goals
  - Increase access to small business opportunities
  - Evaluate policy for small business protection
  - Provide training and resources for business development
- [GSA.gov/smallbusiness](http://GSA.gov/smallbusiness)
  (Associate Administrator: Jerome Fletcher)
Expanding Opportunities for Small Businesses

- AbilityOne
  - GSA developed partnership with AbilityOne in 2002
  - Employs over 45,000 people with significant disabilities including 3,000 veterans
  - FY15
    - 286 projects ($228 million obligated)
      - 97% - Custodial & Grounds Maintenance
      - 2% - Facilities Management
      - <1% - Mail Services
      - <1% - Administrative
Making a More Sustainable Government

- Buildings are a critical focus
  - 40% of Annual US Energy Use
  - 30% of CO2 Production
  - 40% of Ozone Depletion
  - 35% of Municipal Solid Waste
  - 30% of Wood And Raw Materials Use
  - 25% of Water Use
  - 30%+ of Buildings Have Poor Indoor Air Quality
  - Most People Spend About 90% Of Their Time Indoors
GSA Asset Portfolio

- 9,700 Buildings; 1.1 million people
- 370 Million Square Feet; >1/2 Leased
- Replacement Value: $70 Billion
- Revenue: $9.8 Billion/Year
- Typical Capital Budget: $0-500 million
- Infrastructure Needs: $4 Billion
The American Recovery and Reinvestment Act of 2009

- Creating and saving jobs
- Increasing domestic renewable energy capacity
- Investing in infrastructure with long-term economic benefits
- Stabilizing state and local government budgets
- Assisting those most impacted by the recession
- GSA: $4.5 Billion = Make Existing Buildings Green
- GSA: $1 Billion New Construction
- FIVE TIMES As Much Work Ever Before Attempted
Green Building Modernizations

$4.5 B Focused On High-Performance Green Building Projects

$3.2 B For Full & Partial Building Modernizations With High-Performance Features & Existing Designs

43 Projects Selected For:

- High-Performance Features Concentrating On Energy Conservation And Renewable Energy Generation
- Speed of Construction Start (Creating Jobs)
- Execution Risk
- Facility Condition
- Improving Asset Utilization
- Return on Investment
- Avoiding Lease Costs
ARRA and Small Business Opportunities

• Within GSA’s Recovery Act Program, 63% of the firms we contracted with - for supplies, services, or both - were small businesses
• Each of the following three Recovery-funded projects employs at least one prime contractor that was a small business
  – GSA Headquarters (1800 F)
  – Herbert C. Hoover Building
  – Edith Green-Wendell Wyatt
Broad Range of Opportunities and Challenges

- Historic 1917 Building
- Last Upgraded in 1935

Plan:
- Modernization with Infill
- $161 M from Recovery Act, as Phase I
- Must Redesign for Energy Goals
- Future Funding Needed for Phase II
1800 F – Phase I

- 2,500 People → 4,400
- Eliminates 6 Leases; Saves $24 million/year
- 50% Occupancy → 85% Occupancy
- <20% Assigned Workstations
- Lockers; Booking System
- 250% Increase in Meeting/Quiet Rooms
- Telework & Mobility
- 100% Laptops; Strict Standardization
- Reduce Private Offices 90%
- Swing Space = Practice
1800 F – Phase I

- Energy down 2/3 from Baseline
- 100% Daylighting in Working Space
- LED in Hallways, Stairwells & Outside
- 100% Rainwater Capture
- New Cisterns
- Solar Direct to Computer Servers (DC to DC; No Inverter)
- 100% Solar Hot Water

- 88 Small Businesses participated in Phase I
1800 F – Full Renovation Renderings
Edith Green-Wendell Wyatt (Portland, OR)

Broad Range of Opportunities and Challenges

- 1975 Federal Building
- Never Upgraded

Plan:
- Updating Cutting Edge ‘Green’ Design
- $133 M from Recovery Act
- Full Building Modernization
- High Aims for Sustainability and Curb Appeal
- Reoccupied 2014
Edith Green-Wendell Wyatt

- Integrated Design
- Reduced Load from Envelope
- Radiant Heating & Cooling
- Raised Ceiling (Water vs. Air: No Ducts)
- 100% Rainwater Capture & Re-use
- 70% ↓ Water Consumption
  - Collect All Rainwater
  - Create Cistern from Firing Range
  - No Potable Water for Chillers, Flushing or Landscape
- Lighting ↓ 50%: Daylighting & Controls
- PV = 20% Electricity
- Floor Space Re-capture: Equivalent to Adding One Full Floor
Edith Green-Wendell Wyatt
Small Business Opportunities

- Owner reviewed bidders’ mailing lists to ensure socio-economic firms were sourced
- Small Business Manager was hired to help small businesses prepare bid documents
- Small business goals were renegotiated quarterly, improving as new opportunities surfaced
  
  About 20% of total contract value awarded to small businesses (significantly exceeded original goals)
  
  Extensive number of Disadvantaged, HUBZone, Women-Owned, Veteran-Owned, Minority-Owned, and Emerging Small Business vendors involved in nearly every stage of the renovation

- Small Business successes were recognized and company profiles were shared with other GSA prime contractors
Herbert C. Hoover Building

- Historic 1932 Building
- 8-Phase renovation began in FY 2005
- Phases I-III modernized roughly 238,000 usf
  - Phase I: New infill space and recaptured basement space; cooling tower replacement
  - Phase II: Significant building systems replacement (chiller and heating plants, transformers, switchgear), installation (emergency generators and exterior security system), and restoration (exterior windows)
  - Phase III: south end (Constitution Ave) interior renovation
- Phase IV-VIII (FY15-?): Complete interior renovation and extensive exterior repairs
• Currently 18* small business contractors involved
  – Includes Women-Owned, Veteran-Owned, Disabled-Veteran, and Small Disadvantaged vendors
• Broad scope of work including:
  – Cleaning, paint, glass, floors, drywall and plaster, historic doors and stone, restoration, and industrial hygiene

*Number reflects vendors with submitted small business plans. Other vendors to be added once plan is submitted.
Herbert C. Hoover Building
“21st Century Workplace”

- Pilot Floors 1, 3, 5 & 6 (ITA, NOAA, CFO & CIO)
- Intent: create balance in the space between focus work and collaborative work
  - Allow choice in where and how to work
  - Create social space to break down barriers within departments and across bureaus
- Cultural and logistical barriers
  - Belief in Mission
  - HQ Culture (private offices)
  - Multiple tenants and multiple generations
  - Space ownership (me vs. we space)
  - IT support is critical (hoteling, telework)
  - 21st Century workplace in a 19th Century building
- This is a step towards what is possible, not the end state
Current Utilization Model

Window line
Private offices
Open work areas
Existing partitions

Workplace Suite
These workplace suites isolate bureaus from one another, as well as groups within bureaus

Corridor

Formal conference rooms
Activity-Based Work Setting Model

Diagram showing a model of an activity-based work setting with various areas such as:
- Private work/short stay rooms
- Central Corridor
- Collaboration Hub
- Informal meeting spaces
- Open work areas
- Access to natural light

Photos of different work environments are also included to illustrate the concept.
Resources

- Green Procurement Compilation
  - Comprehensive source for green purchasing
    - [https://sftool.gov/greenprocurement](https://sftool.gov/greenprocurement)
- GSA Vendor Support Center
  - [https://vsc.gsa.gov/](https://vsc.gsa.gov/)
- GSA Sustainability
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