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 Construction Management
 Building Statistics – Part 1
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 August 31, 2012



U.S. General Services Administration Headquarters

General Building Data:

Building Name	U.S. General Services Administration Headquarters
Location and Site	1800 F St. Washington, D.C.
Building Occupant	U.S. General Services Administration
Occupancy Type	Non-Separated Mixed Use, Predominantly Group B Use Other Non-Separated Use Areas in the Building Include: -Group A – Assembly Use: Auditorium, Cafeteria, and Fitness Center -Group I-4 – Institutional Use, Child Care Facility -Incidental Use – Shops, Transformer Room, Emergency Generator Room, Storage Room, and Loading Dock
Size	799,000 SF Total (~400,000 SF for Phase 1)
Number of Floors	8 Stories Above Grade (91'-3") 9 Total Levels
Dates of Construction	September 15, 2010 – May 20, 2013
Overall Project Cost	\$200 million - \$250 million -Phase 1 Project Cost: \$124,349,000
Project Delivery Method	Design-Bid-Build

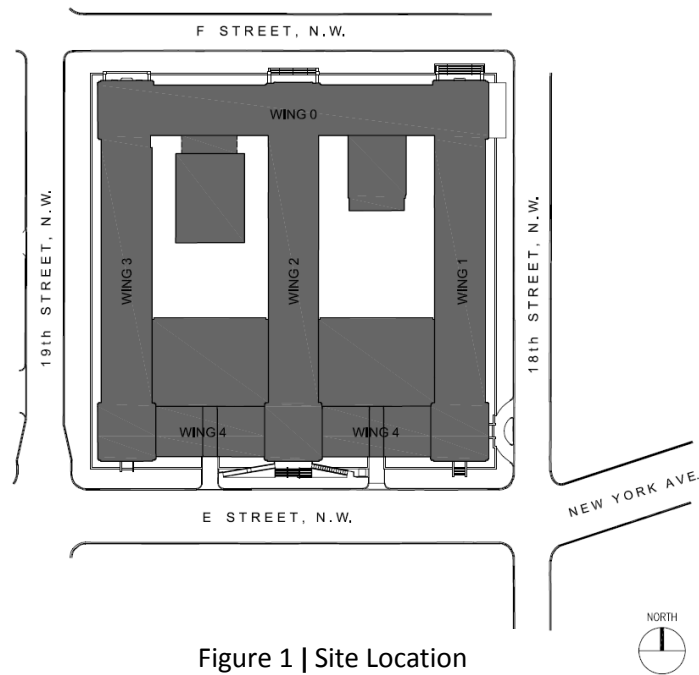


Figure 1 | Site Location

Primary Project Team:

Owner	U.S. General Services Administration
General Contractor	Whiting-Turner/Walsh Joint Venture
Construction Manager	Heery International
Architects	Gensler & Shalom Baranes Associates, PC
Civil Engineer	A. Morton Thomas Engineering
Structural Engineer	Thornton-Tomasetti Group
MEP Engineer	Syska

Architecture:

The U.S. General Services Administration (GSA) Headquarters, located in downtown Washington, D.C., was originally built in 1917 and updated in 1935. It is renowned for its role in the architectural development of the federal office building type and its neoclassical style. Due to the technology restraints for cooling systems during the time of its construction, the floor plan was designed similarly to the letter “E”, as shown in Figure 2, with maximum wing widths of approximately 50’. This was to help maximize cooling through the opening of windows during the warmer months of the year. Primarily used as an office building, the existing structure includes nine total stories at approximately 665,000 square feet, with an additional 134,000 square feet of new office space located in the building’s courtyards. The new infill structures will be composed of glass curtain walls, while the rest of the existing structure will contain salvaged limestone from the original construction.



Figure 2 | Google Earth Image

Major National Model Codes & Zoning:

Summary of Applicable Building Codes and Standards	International Building Code 2003 excluding Chapter 10 Means of Egress
Fire and Life Safety	NFPA 101 Life Safety Codes 2003, Chapter 7 Means of Egress NFPA 13 for Sprinkler Systems NFPA 73 for Fire Alarm Systems
Mechanical	International Mechanical Code 2003
Plumbing	International Plumbing Code 2003
Electrical	National Electrical Code (NFPA 70)
Accessibility	Uniform Federal Accessibility Standards (UFAS) Americans with Disability Guidelines (ADA-AG)
Vertical Transportation (Elevators)	ASME A17.1 Elevator Code 2000 with Supplements
PBS-P100	Facilities Standards for Public Buildings Service March 2005
Zoning	Unzoned (screenshot taken from http://maps.dcoz.dc.gov/)

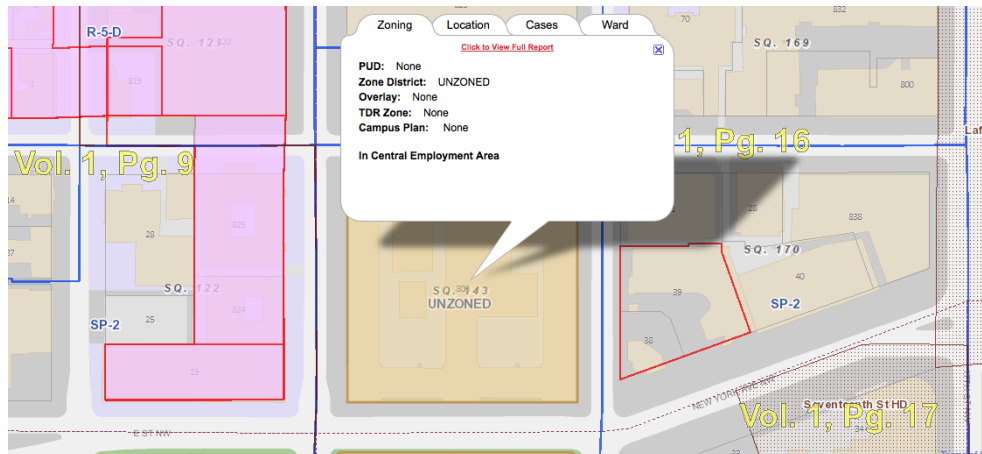


Figure 3 | Zoning Map

Historical Significance:

This building was not built in a historical district. Information on the historical requirements on this building has been requested.

Building Façades:

The typical wall section contains salvaged limestone on the exterior with brick masonry backup and 2-1/2" rigid insulation. Although there are numerous glass types used throughout the building, including a blast-resistant 7/8" Clear Laminated Insulated Low E glass type located along the street, the typical glass type used is a 1/4" Clear Spandrel Glass. Figure 4 illustrates a typical wall section.

Roofing:

The typical roof detail contains precast concrete ballast pavers on top of filter fabric over four layers of 2" extruded polystyrene rigid insulation boards with joints that are staggered between layers. A hot fluid applied rubberized asphalt waterproofing membrane with poly fab reinforcement is layered beneath the insulation boards and is located on top of the concrete deck. Figure 5 shows the typical roof detail for new roofs.

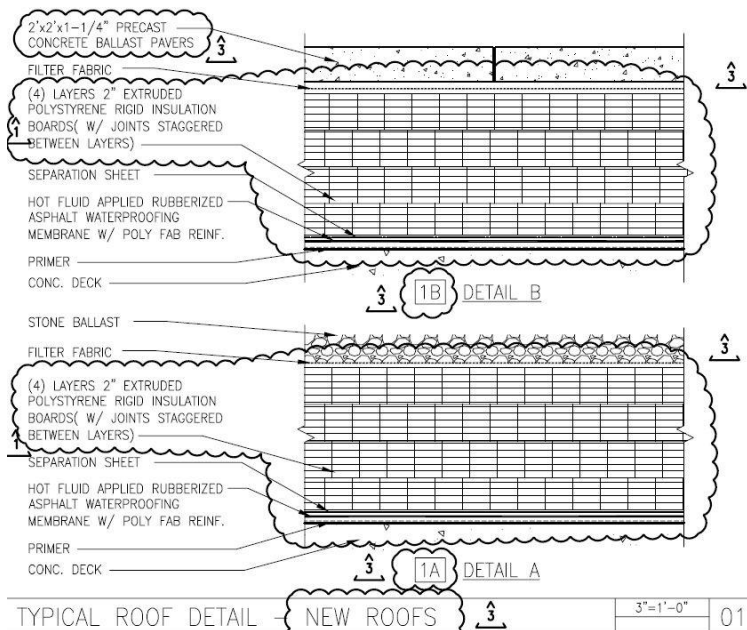


Figure 5 | Typical Roof Detail – New Roofs

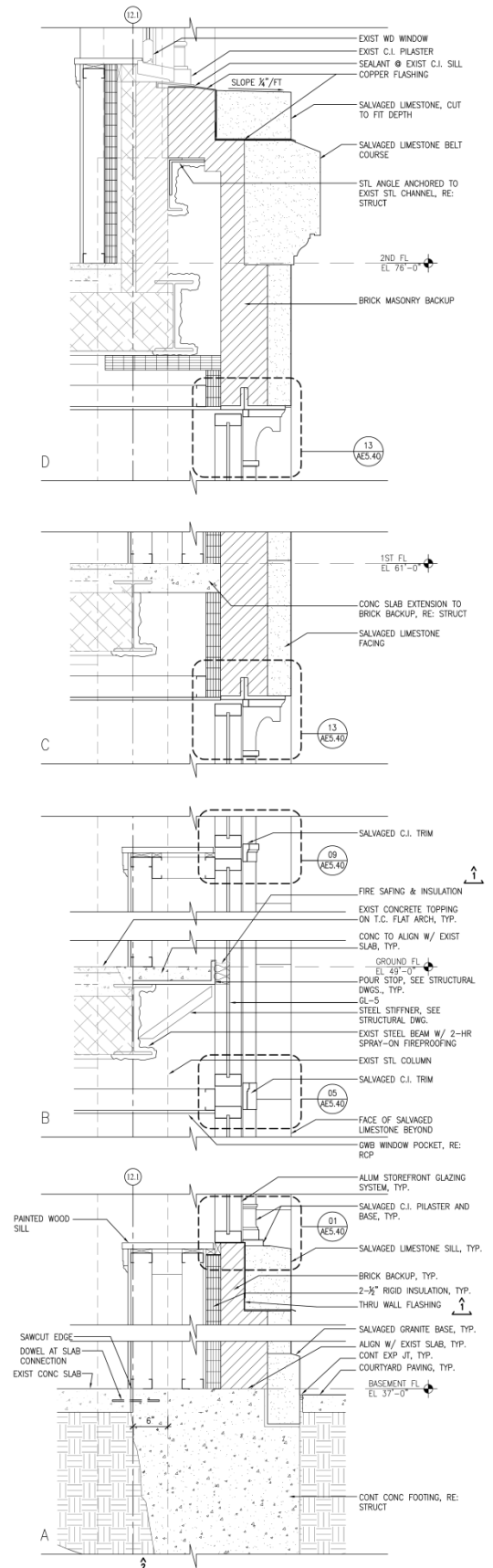


Figure 4 | Typical Wall Section

Sustainability:

The GSA Headquarters is designed to meet LEED Gold Certification and will include structural support for photovoltaic roof panels, green roofs, and a wastewater retention system. Figures 6 and 7 illustrate the locations of the green roofs and photovoltaic panels. In addition, the project will include rapidly renewable materials, regionally manufactured materials, and regionally extracted, harvested, or recovered materials.

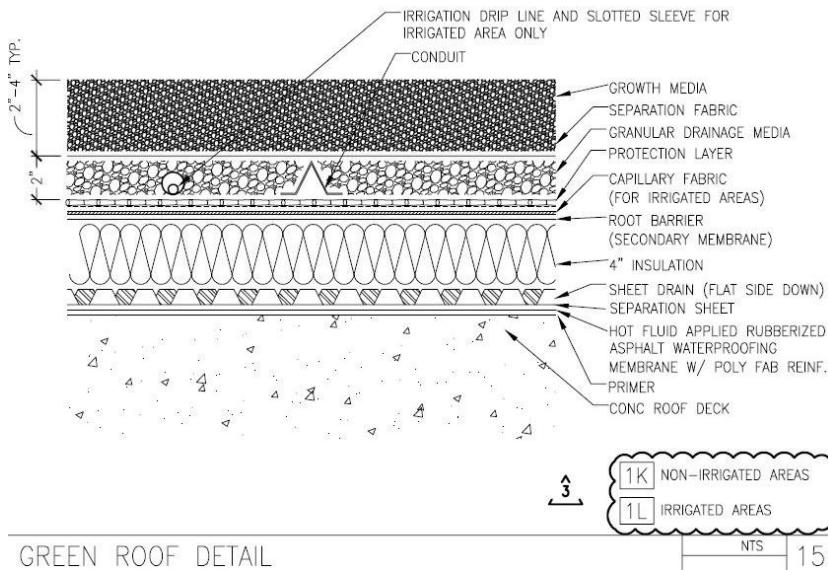


Figure 6 | Green Roof Detail



Figure 7 | Rendering of Photovoltaic Roof Panels and Green Roofs