

TREASURY ANNEX BUILDING

PROSPECTUS DEVELOPMENT STUDY for MODERNIZATION AND LEED® CERTIFICATION

GENERAL INFORMATION

Building Name: Treasury Annex Building

Building Location: Washington, DC

Project Size: approx. 139,000 SF

Project Type: Modernization of Existing Building

Original Construction Date: 1917-1919

Owner: U.S. Department of Treasury

Project Team: URS Group, Inc. / Shalom Baranes Associates, PC / Greenshape, LLC / Kohnen-Starkey, Inc.

Estimated Cost of Construction: approx. \$67 million



DESCRIPTION

Kohnen-Starkey, Inc. as part of the URS and Shalom Baranes Associates Team provided various cost estimating and scheduling services for the Prospectus Development Study of the Treasury Annex Building modernization. The initial study involved the modernization (renovation) of the building to achieve a LEED® Silver rating. A further study was performed to evaluate various design options and the additional cost associated with them to achieve a LEED® Gold or Platinum rating. The evaluation of each option included the initial cost impact, potential energy savings, life cycle cost analysis, and the potential impact to the overall construction duration.

The study utilized the U.S. Green Building Council's "Leadership in Energy and Environmental Design" (LEED®) - NC (New Construction and Major Renovation) rating system.

The following is a partial list of the strategies and alternatives that were reviewed:

Reduce the Heat Island Effect, Non-Roof

- Use permeable pavers for 75% and add planters to the other 25% of the site plaza.

Building Envelope Upgrades

- Higher level of performance for the window assemblies.
- Various types of rigid insulating systems.
- State-of-the-art "Phase Changing Material (PCM)" thermal mass insulation.

Recycled Content & Local Regional Materials

- Research materials to verify that these credits are achievable at no additional cost.

HVAC Heating and Cooling Systems

- Replace VAVs and diffusers with a Chilled Beam cooling and Radiator heating system.
- Compare various Treasury plant versus Dedicated plant configurations.
- Dedicated Heat Recovery Chiller option.

On-Site Renewable Energy

- Solar Thermal (hot water) on part of the roof.
- 200 ton Geothermal field on the south lawn of the main Treasury.
- Solar Photovoltaic (electric) on part of the roof.