



Washington Place Sustainability Narrative Mark Development

November 22nd, 2016

Sustainable Design

Sustainability, energy efficiency, and a focus on quality design that translates to occupant comfort are driving forces behind our vision for Washington Place. Mark Development understands the importance of a holistic, integrated design approach in achieving such ambitious goals, and has assembled a design team that has the experience and expertise necessary to realize this vision. Energy use reduction is a critical local and global challenge, and Washington Place is being designed with that challenge in mind.

Building Envelope

Careful attention will be paid to design and construction of high R-value, durable, environmentally sensitive building assemblies. Continuous insulation wrapping both the exterior wall and roof assemblies will be a critical component of this design. The team will also focus closely on air sealing of the exterior envelope, and the demising walls between apartments. This starts with the development of comprehensive air barrier details, and continues into construction with careful air barrier inspections, testing, and verification.

Improved resiliency resulting from this design and construction approach provides additional tenant, environmental, and financial benefits. A well-insulated building envelope will mean that the building will maintain habitable temperatures longer in the case of a power outage and allow for extended sheltering-in-place.

Mechanical systems

These advanced building envelopes will be complemented by mechanical systems that have been chosen and sized to meet the minimal heating and cooling loads and ensure comfort. Rather than designing large central heating and cooling systems, individual, apartment level boilers and fan coils will be used. This design allows for compact high efficiency equipment, and the added benefit of redundancy should an individual system need repairs or maintenance.

Domestic hot water production and distribution are notoriously inefficient, even in new buildings. New Ecology has measured actual system efficiencies in buildings with central domestic hot water systems in the 20-50% range. The majority of the losses are the result of inefficient circulation of hot water throughout a building. The typical inefficiencies of the distribution system will be counteracted by supplying domestic hot water at the apartment level, using the same high efficiency boilers that are being used to heat the space. Low flow, high performance fixtures that meet or exceed the EPA WaterSense standards will also be integrated to reduce water and energy use while maintaining tenant comfort.

Lighting and Electricity

Appliances will be top performers in function, design, energy, and water efficiency. Electrical load will be reduced through smart lighting design that takes full advantage of the efficient, reliable, and attractive LED fixtures and lighting controls that are now available. The Washington Place team will build on the positive impacts of this efficiency by incorporating electrical, structural, and other design elements that make the building “solar ready” for renewable energy systems. This is a critical component to the long term economic sustainability of the project.

Indoor Air Quality

Of equally important consideration are the indoor air quality impacts of our approach. Mark Development is committed to providing individuals and families with a living environment that enhances their lives and health. We will accomplish this through two methods: ventilation and material selection. Ventilation systems will be designed to provide fresh supply air directly to each apartment. Toxins and contaminants will be minimized through careful specification of low VOC and no added urea formaldehyde materials.

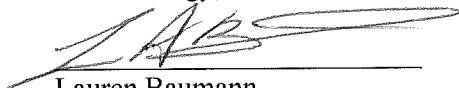
Site Design

Landscaping and site improvements will further emphasize the social and environmental priorities of this project. Outdoor spaces will be designed to encourage social engagement, turf will not be used on the project, and plantings will be drought tolerant and appropriate for the microclimates specific to each planting area. A focus on alternative and improved modes of transportation includes plenty of short term and long term bike parking, Zip Car availability on the property, and designated spots and charging stations for low emitting vehicles and electric cars.

Certification and Operation

As we tally the benefits of the integrated approach we have outlined above, the result is a project that far exceeds the minimum requirements related to LEED certification, and allows for the level of LEED Gold certification. Beyond certifications, we expect the investment in a highly sustainable design and construction process to yield significant operating and durability related dividends. At the same time, we actively acknowledge the role and importance of proper commissioning, optimization, and education to accomplish these goals. We will spend time and resources educating tenants about how to best take advantage of the comfort, health, and energy savings benefits of their apartments. We will ensure that our maintenance and management teams understand the building systems, and have the training they need to operate the building at the designed level of performance.

New Ecology, Inc.



Lauren Baumann
Vice President

Dated: November 22, 2016