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Memorandum

To: *Planning Board, Town of Westwood*
From: *Peter Guldberg, Tech Environmental*
Date: *April 26, 2013*
Subject: *Sustainability Initiatives for University Station*
cc: *New England Development, Goulston & Storrs*

To help create an environmentally sustainable development, University Station (the "Project") has committed to significant energy efficiency measures in its building design that will reduce overall Project energy use by over 21% compared to the State Energy Code base case, established by MEPA. Some of these measures will serve to satisfy the Massachusetts Stretch Energy Code that the Town of Westwood has adopted.

In some cases, the Project will build spaces equipped with full heating, ventilation, and air conditioning (HVAC) systems and lighting; in other cases, the Project will construct core and shell space in which tenants will fit-out the mechanical systems and lighting according to their needs, and the Project will assist tenants in selecting energy efficiency measures that comply with the Project's overall energy reduction goals. A Tenant Manual and Energy Efficiency Guide will help implement this process.

The Project has committed to reduce overall Project energy use by more than 21%, but retains the flexibility to achieve these goals using energy efficiency measures to be refined at the time of detailed design. At the present time, the following Sustainability Initiatives are part of the Project preliminary design.

Site Design Initiatives

- ***Sustainable Development Principles*** – The Project conserves land by reusing a previously developed industrial and commercial site.

- ***Support Alternative Transportation to the Site –*** The project adjoins the Route 128 MBTA Station, which provides commuter rail service.

- ***Energy Saving Street Lighting*** – The Project will evaluate LED street lights if they are determined to be a preferable option by the Town.

- ***Design Water Efficient Landscaping*** – Water efficient landscaping will be installed to minimize water use. Drought-resistant and native plants will be used for landscaping.

- ***Best Practices for Stormwater Design*** – To the extent possible, the stormwater management system will utilize Best Management Practices (BMP) to minimize impacts on the aquatic environment.

Building Design Initiatives

- ***Energy Efficient Windows and Building Envelope –*** The building envelope insulation will exceed Code and window glass will be better than Code for all buildings.

- ***Install High-Efficiency HVAC Systems*** – Energy-STAR rated HVAC units will be used and Energy Efficiency Ratios (EER) will be 10% above Code.

- ***High-Efficiency Heating Boilers*** – Heating systems will be 5% more efficient than Code.

- ***Demand Control Ventilation (DCV) and Energy Recovery Ventilation (ERV) –*** DCV controls for Outside Fresh Air will be used in retail buildings, where possible, except for the Supermarket, which will have dehumidification coils on HVAC units to reduce the power demand of the refrigeration system. Residential buildings will utilize ERV in HVAC design.

- ***Energy Management Systems*** –The buildings will utilize highly efficient energy management systems (EMS) to track and control energy use.

- ***Energy Efficient Interior Lighting*** – Interior Light Power Density (LPD) will be at least 10% below Code for the retail, office, and public spaces in all buildings and through a Tenant Manual the Proponent will encourage tenants to design for LPD at least 10% below Code.

- ***Energy Efficient Exterior Lighting*** – Energy efficient Metal Halide fixtures will be used to light the parking lots.

- ***High-Efficiency Refrigeration System*** – For Retail Building K (Supermarket), the refrigeration system design will achieve an overall 25% energy savings. For the Hotel, and Retail Buildings J and R, refrigeration equipment is also assumed and energy savings design features are assumed to reduce electrical use 15%.

- ***Recovery and Reuse of Waste Heat*** – Building K (Supermarket) will recover and reuse waste heat from the refrigeration system to reduce the natural gas demand for making hot water used within the Supermarket.

- ***Occupancy Controls for Lighting*** – The proponent will recommend occupancy controls to tenants for restrooms and offices.

- ***Energy STAR Appliances***–Energy STAR appliances will be used in residential units and associated laundry rooms to reduce plug load, and tenants will be encouraged to use Energy STAR rated computers and other equipment.

- ***Recycle Materials*** – The Project will encourage tenants to collect and recycle materials.

- ***Use Building Materials with Recycled Content, Building Materials that are Manufactured Within the Region, Use Rapidly Renewable Building Materials, and Use Low-VOC Building Materials*** – Whenever practical, the Project will use environmentally friendly building materials, including materials with recycled content, rapidly renewable building materials, and low-VOC materials. Also when practical, the Project will purchase building materials that are manufactured within the region.

- ***On-Site Renewable Energy*** – The Project affirms its commitment to set aside space on the flat roof of the two large buildings, Retail Building J and Retail Building K, for a possible third-party photo-voltaic (PV) installation and make those roofs solar-ready.

- ***LEED Calculation for Water Conservation*** - With its building permit application for each building, the Project will submit a LEED calculation demonstrating consistency with the 20% credit established in the water budget calculation for water use conservancy.