

X. ENERGY CONSUMPTION AND CONSERVATION

Energy consumption would occur both during the construction and operation of the completed project. Construction would result in the consumption of gasoline, diesel fuel, oil and electricity used for the operation and maintenance of construction vehicles and equipment.

Once construction is completed, the project would require energy for electricity service, heating, air conditioning and cooking. Site generated automobile traffic would result in the consumption of fossil fuels. However, given the proximity to the Metro-North train station and the project's traditional neighborhood and transit-oriented design, the consumption level of energy is anticipated to be less than that of typical single-family home and commercial developments in Dutchess County.

The proposed homes would meet or exceed the New York State Energy Conservation Code, which requires the use of energy efficient products in all new and renovated construction. Project components would also include energy conservation measures such as thermal insulation so as to reduce heat loss in the winter and heat gain in the summer, water-saving devices, and efficient windows and appliances.

The Leadership in Energy and Environmental Design (LEED) Green Building System is a 3rd-party certification program developed by the US Green Building Council and used as a rating system for the design, construction and operation of high performance buildings. The LEED Rating systems were initially produced for new commercial and institutional buildings, but have been expanded in recent years to include homes, and neighborhood development, among others. Since the project is still at the conceptual site plan phase, construction documents and details for individual buildings have not yet been prepared to allow for assessment. However, the project and homes would be likely to include many of the design features that would produce credits in the LEED for Homes and LEED for Neighborhood Development Pilot rating systems. For example, on the LEED for Neighborhood Development checklist, the project would likely qualify for prerequisites and points under smart location, proximity to water and wastewater infrastructure, wetland and water body conservation, floodplain avoidance, brownfield redevelopment, preferred location, reduced automobile dependence, restoration of wetlands, compact development, diversity of uses and housing types, walkable streets, street network, access to surrounding vicinity, public spaces and active public spaces, building reuse, stormwater management, and construction waste management. On the LEED for homes checklist, it is anticipated that the new residences would likely qualify for a variety of credits under categories including LEED ND site, site stewardship, landscaping, compact development, irrigation systems, indoor water use, environmentally preferable products, and Energy Star performance, among others.