

## **GREEN BUILDING DESIGN TERMS AND CONDITIONS**

### **Low and Moderate Income Housing**

Developer shall implement the following design standards in constructing the Proposed Development:

#### 1. General

- a. Reduce construction waste generation through separation of construction debris on site into separate containers for disposal or recycling. At a minimum, the following items will be separated for recycling:
  - i. Corrugated Cardboard
  - ii. Clean, untreated wood
  - iii. Scrap Metals
  - iv. Trees removed within the Limit of Disturbance (“LOD”).
  - v. Soils if removed from site.
- b. Recycling: Design to accommodate recycling for tenants and to allow for the separation of solid waste from recyclable materials in accordance with the Township’s recycling ordinance. Implement a continuous education program for recycling with new tenants, existing tenants, and guests.
  - i. Program to include:
    1. Posting of signage outlining the requirements of solid waste disposal.
    2. Posting of signage outlining the requirements of the Warren Township Recycling Ordinance and program.
      - a. Signage subject to approval of the Township prior to installation.
- c. Cigarette Smoking Policy: Prohibition of smoking within 25 feet of all entries and prohibition of smoking within residential occupancies and all common areas.

#### 2. Site & Landscaping:

- a. Implement a Tree Preservation and Replacement Plan, and a landscaping plan in accordance with the following parameters:
  - i. The developer will engage in tree planting and forest regeneration in accordance with the following activities, which are designed to provide credits against the Actual Tree Loss resulting in a net gain of trees planted and forest area protected for regeneration so that the Actual Tree Loss is reduced to less than zero:
    1. Credit for each healthy major tree (Greater than 6” diameter) within the LOD that is protected in accordance with standard tree protection procedures during development and not removed as determined by the Township Forester.
    2. Credit for each tree planted as the result of an approved landscape plan in accordance with the definition of Major (Greater than 6” Diameter Breast Height) and Minor (Less than 6” Diameter Breast Height) trees. Require that trees be native species for full credit.

**Prohibit invasive species as defined by the New Jersey Department of Environmental Protection, or another approved source.** Provide ¼ credit for each tree planted that is a non-native species and is non-invasive.

3. Nothing herein shall supplant the need for a landscape plan in connection with the Proposed Development to be considered and approved by the Planning Board in accordance with municipal land use law.
  - a. All plantings shall conform to the guidelines established by the Warren Township Environmental Commission including:
    - i. Prohibition of planting invasive species.
    - ii. Required native species for trees, shrubs and flowers.
    - iii. Implement rain gardens with appropriate plantings where appropriate based on topography and drainage.

3. Building & Site Utilities:

- a. Implement underground utilities where site conditions allow.
- b. Conceal and/or screen exposed utility structures such as transformers.
- c. Install individual metering or submeters as appropriate for water, gas and electric utilities.
- d. Prewire all units for hi-speed internet.

4. Building: Energy Efficiency and Green Initiatives:

- a. Implement education of tenants in the reduction of energy, water consumption, and environmental beneficial operations in concert with the efforts of the Warren Township Green Team.
- b. Appliances: Utilize only Energy Star appliances in all dwelling units.
  - i. Do not install any unvented combustion appliances (ovens and ranges excluded).
- c. HVAC Equipment shall meet the following minimum efficiency standards:
  - i. Furnaces shall be Energy Star Rated or have an AFUE of 95% or better.
  - ii. Air conditioning systems shall be Energy Star Rated or have a minimum SEER of 15 and a 12.5 EER for split systems.
    1. Package systems shall have a minimum SEER of 15 and an EER of 12.
  - iii. Domestic Hot Water heaters shall be Energy Star Rated or meet the following minimum energy efficiency standard:
    1. <math>\leq 55</math> gallon shall have an energy factor of 0.67 or better.
  - iv. The developer may apply to the Township for a hardship waiver on the installation of HVAC equipment meeting the standards outlined herein. Approval of such an application shall not be unreasonably withheld. The minimum requirements for such an application shall include the following information:

1. Proof that the Developer has applied to the New Jersey Office of Clean Energy for an energy rebate package on both HVAC and Hot Water systems. A complete copy of the application shall be submitted for review.
    - a. The full value of any rebates shall be clearly marked.
  2. Evidence that the inclusion of the systems substantially interferes with the structural design of the building.
  3. Financial documentation that the cost of the systems exceeds the cost of any potential rebates offered by any government agency requiring that the Developer expend a sum greater than two (2) times the cost of a system of lower energy standard.
- v. The Township shall review the application and respond within ten (10) days of receipt of all required information.
  - vi. The Developer may appeal a negative decision to the Township Committee for reconsideration.
- d. Utilize energy efficient double pane, low-e glazing on windows and patio doors throughout the development with the following minimum performance standards:
    - i. Windows will have a minimum National Fenestration Rating Council (NFRC) performance standard of:
      1. U Factor  $\leq .30$
      2. SHGC  $\geq .40$ 
        - a. Window selection may be modified based on the orientation of the residential units. Windows facing East/South and West must meet both criteria. Windows facing North may waive the SHGC standard but must meet the U factor standard.
    - ii. Patio or glass doors of any type leading from residential units to balconies or patios will have minimum National Fenestration Rating Council (NFRC) performance standard of:
      1. U Factor  $\leq .30$
      2. SHGC  $\geq .40$ 
        - a. Door selection may be modified based on the orientation of the residential units. Windows facing East/South and West must meet both criteria. Windows facing North may waive the SHGC standard but must meet the U factor standard.
- e. Utilize Energy Star or DLC approved LED lighting throughout interior and exterior. For common area exterior site lighting, provide Dark Sky Qualified lighting and incorporate one or more of the following:
    - i. Motion sensor controls
    - ii. Integrative photovoltaic cells.
    - iii. Photosensors
    - iv. Astronomic time-clock operation
  - f. Renewable energy: Design structures to allow for future incorporation of solar panels.
  - g. Each lavatory faucet will have a maximum flow rate of 1.5 gallons per minute.

- h. Each toilet shall utilize no more than 1.28 gallons per flush.
  - i. Each showerhead will have a maximum flow rate of 2.0 gallons per minute.
  - j. Covered Parking Areas: Where covered parking areas are proposed, reduce tenant exposure to indoor pollutants from covered parking through the use of tightly sealed building envelope and natural or mechanical ventilation of enclosed parking areas per the building code standards.
    - i. At a minimum, all conditioned spaces above a garage shall have all penetrations and all connecting floor and ceiling joist bays sealed.
    - ii. Electric Vehicle Charging Stations: Install electric vehicle charging stations at each building and make provisions for additional future charging stations through installation of conduit.
  - k. Bathrooms and Kitchens to be individually ventilated to the outside of the building in order to minimize excess moisture and odors in each dwelling unit.
    - l. Duct work to be protected during construction to avoid contamination.
    - m. Install permanent walk-off mats designed to allow for cleaning at each common exterior entryway.
    - n. In the interior of the units, use as many building components as possible based on availability, timing and cost (“cost” is defined as cost neutral for the specific product) that meet one or more of the following criteria subject to Paragraph (o) below:
      - i. Green Seal
      - ii. Cradle to Cradle
      - iii. California Department of Public Health Standard Method V1.1-2010 or equivalent
      - iv. UL Greenguard or UL Ecologo.
      - v. Green Squared
      - vi. SCS Global Services
      - vii. Declare Living Future Institute
      - viii. Forest Stewardship Council (FSC)
      - ix. Product contains at least 25% post-consumer and 50% pre-consumer material.
      - x. Product preference will be given to manufacturers who participate in an Extended Producer Responsibility Program.
    - o. The use of one or more of the standards outlined in Paragraph (n) above must apply to all interior paints and coatings, adhesives, and sealants.
5. Building: Safety and Appearance
- a. Building will be equipped with fire sprinklers throughout.
  - b. Exterior facade materials and claddings will be selected to be low-maintenance or maintenance-free to provide a lasting quality and appearance.
    - i. Vinyl siding is discouraged.
  - c. Install carbon monoxide detectors in each unit.
  - d. All common areas and dwelling units to be designed to meet or exceed accessibility standards prescribed by N.J.A.C. 5:97-3.14 and the Fair Housing Act.
  - e. Tenant amenities to be provided for both active and passive recreation. Among tenant amenity spaces will be interior mail room(s) and parcel package locker(s).
6. Records will be provided to verify each item outlined in this exhibit as requested by the Township of West Orange. Acceptable records will include:

- a. Receipts for products and materials.(Must be provided for all products. Pricing may be redacted).
- b. Product Labels.
- c. Product Extended Producer Responsibility Reports.
- d. Third Party standard descriptions for the specific Product.