

A. INTRODUCTION AND SUMMARY OF FINDINGS

This chapter discusses the sustainability measures integrated into the Proposed Project. The City is a bronze-certified Climate Smart Community, and in 2013 adopted the Yonkers Green Building Code, which establishes sustainable design and construction standards. These standards, the Yonkers Green Development Standards, were updated in 2014.

All construction projects within the downtown that require a building permit, such as the Proposed Project, must comply with the Yonkers Green Development Standards. These standards were designed to conserve natural resources, increase energy and water efficiency, and improve indoor air quality. The Yonkers Green Development Checklist (“Checklist”) outlines these standards. In addition to the mandatory requirements included in the Checklist, new construction projects must meet certain additional, optional standards. A completed Checklist for each Project Site is included in **Appendix O-1**. It is noted that these Checklists are preliminary in nature. They represent the minimum sustainability measures that would be included in the buildings of the Proposed Project. As design of the buildings progresses and additional measures are incorporated, these Checklists will be updated.

The Proposed Project includes a number of sustainability measures that exceed the requirements of the Yonkers Green Development Standards. These measures include access to fresh, local foods; proximity to services; access to public transportation; tree plantings; use of recycling, salvaging, or diversion practices to reduce non-hazardous construction and demolition waste by at least 75 percent; and, for the Teutonia Project and Chicken Island Project, brownfield redevelopment.

B. LAND USE AND TRANSPORTATION

Reducing pressure on “greenfield” development, concentrating development in areas served by existing infrastructure, reducing the dependency of new developments on vehicular transportation, and remediating and re-using sites with environmental contamination are key strategies for improving the sustainability of new development. Each of the Project Sites have been previously disturbed and developed. Therefore, the Proposed Project is not a “greenfield” development. Similarly, and as required by Section 2.1 of the Checklist, the Project Sites do not contain habitat for threatened or endangered species.

Section 2.1 of the Checklist requires that new construction not occur on land with an elevation at or below the 100-year floodplain. There are no mapped floodplains on the Teutonia Site or the North Broadway Site. A portion of the Chicken Island Site is mapped within the 100-year floodplain; however, according to the federal Flood Insurance Rate Map (panel 0317), the A and AE flood zones (100-year floodplain) are confined to the channel and culvert of the Saw Mill River. Building 4 of the Chicken Island Project would span the underground culvert and, therefore, would be above the 100-year floodplain. Specifically, and as discussed further in Section F below,

the finished floor elevation of Building 4 would be above the elevation of the 100-year floodplain. With the redevelopment of the Chicken Island Site, the current low-level parking lot would be raised and redeveloped with new buildings, which would allow for stormwater to be collected and detained by the building system and underground detention systems, rather than sheet flowing over the existing pavement to catch basins and collection systems with no means of detention. The raised elevation of the Site surrounding the proposed buildings would allow for more consistent drainage patterns and the inclusion of additional stormwater management features, such as catch basins, manholes and conveyance pipes would allow more efficient discharge to the nearby Saw Mill River.

The Proposed Project achieves several optional standards from the Checklist. Compliance with these standards encourages more resource-efficient development of land and reduces greenhouse gas emissions.

Each of the Project Sites is within walking distance of community services and facilities, as well as public transportation (Sections 2.2 and 2.4 of the Checklist). Portions of the Teutonia Site and Chicken Island Site are Brownfield Cleanup Program (BCP) sites (Section 2.6 of the Checklist). As discussed in Chapter 14, “Hazardous Materials,” intrusive work on the Teutonia Site and Chicken Island Site would be completed in compliance with the Site Management Plan for the respective BCP site. Consistent with the optional standard, the Applicant would supply a letter from NYSDEC confirming that the BCP protective measures and remediation are effective, safe, and appropriate for the proposed use of each Site.

A minimum of 15 percent of the dwelling units of the Proposed Project would be designed in accordance with ICC /ANSI A117.1 - 2003, Type A, Fully Accessible guidelines, thus ensuring accessibility to persons with temporary or permanent disabilities (Section 1.2a of the Checklist).

The Chicken Island Project would include a farmer’s market in the undeveloped portion of the existing surface parking lot during Stage 1 and 2, and along new Centre Street beginning in Stage 3 and into the future. Consistent with the optional standard, this would provide access to fresh, local foods within a 0.5-mile walk from all three Project Sites (Section 2.7 of the Checklist).

C. ENERGY USE AND CONSERVATION

As part of the Yonkers Green Development Standards, the Proposed Project would comply with the NYSERDA Multifamily Performance Program (the “MPP”).¹ Buildings designed in compliance with the MPP achieve energy savings in heating, cooling, hot water, lighting, appliance efficiencies to perform at least 15 percent better than American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) standard 90.1-2010. In addition, the heating and cooling equipment would be sized in accordance with the Air Conditioning Contractors of America Manuals, Parts J and S, or ASHRAE handbooks.

As required by the Checklist, all appliances used in the Proposed Project would meet ENERGY STAR requirements, which are strict energy-efficiency criteria set by the United States Environmental Protection Agency (EPA). This includes but is not limited to clothes washers,

¹ Although the Yonkers Green Development Standards provide that compliance with the MPP is required for new construction projects, it appears the MPP is only for existing buildings, and that new buildings would enroll through a program called “New Construction – Housing” or “NC-Housing” which is online at https://portal.nyscrda.ny.gov/CORE_Solicitation_Detail_Page?SolicitationId=a0rt000001AZT26AAHJ.

dishwashers, and refrigerators. ENERGY STAR products reduce utility costs and greenhouse gas emissions.

In addition, lighting fixtures and efficient lighting products would also meet the ENERGY STAR standards and would be qualified LEDs where applicable. The Proposed Project would follow the ENERGY STAR Multifamily High Rise program guidelines, which require that 80 percent of installed fixtures within individual units be ENERGY STAR qualified or have ENERGY STAR qualified lamps installed. The ENERGY STAR standard would carry through to common area lighting as well. Lighting controls would be designed to comply with the 2020 Energy Conservation Code of New York State (which adopts the 2018 International Energy Conservation Code with amendments). Emergency signage and exit signs would meet or exceed LED efficiency levels and conform to local building codes. Emergency lighting above egress doors and in the path of egress would be circuited to emergency lighting panels backed up by an emergency generator.

The outdoor lighting would be designed to minimize light trespass from the Project Sites and minimize impact on nocturnal environments. Exterior fixtures would be ENERGY STAR qualified or LEDs and would be full cut-off “Dark Sky” approved fixtures.

Apartment units would be individually utility metered or sub-metered to allow tenants to track their energy usage, as required by the Yonkers Green Development Standards.

Additional energy savings measures would be explored as building design progresses during site plan review, including further improvements in energy performance beyond the required 15 percent above ASHRAE standard 90.1-2007, designing for future installation of photovoltaic/solar hot water systems and/or advanced metering infrastructure. If utilized, these additional measures would fulfill optional standards of the Yonkers Green Development Standards.

The Applicant will investigate the potential for incorporating renewable energy generation at one or more of the Project Sites as detailed design progresses, including photovoltaic panels, wind turbine, and geothermal generation.

D. INDOOR AIR QUALITY

Promoting healthy living environments through protection of indoor air quality is one of the goals of the Yonkers Green Development Standards. As discussed below, the Proposed Project meets the City’s minimum standards, as well as includes certain improvements made more relevant by the COVID-19 pandemic.

D.1. HVAC AND VENTILATION IN LIGHT OF COVID-19

The heating, ventilating, and air conditioning (HVAC) systems for the Proposed Project would comply with the 2020 Mechanical Code of New York State (which adopts the 2018 International Mechanical Code with amendments), the 2020 Energy Conservation Code of New York State (which adopts the 2018 International Energy Conservation Code with amendments), and all applicable state and local codes, including the Yonkers Green Development Standards. All residential units would be provided with a dedicated mechanical ventilation system in accordance with Yonkers Green Development Standards and 2020 Mechanical Code of New York State. All other areas of the buildings would include mechanical ventilation outside airflow rates in accordance with section 403 of the 2020 Mechanical Code of New York State. Apartments would be provided with

mechanical exhaust airflow rates in accordance with section 403 of the 2020 Mechanical Code of New York State.

As required by the Yonkers Green Development Standards, the Proposed Project would include ventilation systems capable of providing adequate fresh air per ASHRAE standard 62.1-2010 for all dwelling units and all hallways and common spaces. The Proposed Project would include either ENERGY STAR continuous or intermittent bathroom fans that exhaust to the outdoors per ASHRAE standard 62.2-2010 or central exhaust systems that meet ASHRAE requirements with rooftop fans, as required by the Yonkers Green Development Standards. Similarly, kitchens would be equipped with recirculating range hoods and separate room exhaust via individual ENERGY STAR continuous or intermittent fans that exhaust to the outdoors or central exhaust systems to meet ASHRAE requirements with rooftop fans.

In accordance with the ASHRAE Epidemic Task Force's published recommendations to reduce the airborne recirculation of COVID-19, mechanical ventilation would be provided for all common areas and dwelling units in accordance with ASHRAE-standard 62.1 and Section 403 of the 2020 Mechanical Code of New York State. In addition, HVAC equipment serving common areas would utilize air filters with a minimum efficiency reporting value (MERV) of 13 or higher. The filters would be properly installed and maintained.

D.2. LOW VOC/HEALTHY MATERIALS

The Yonkers Green Development Standards include a number of standards designed to protect indoor air quality. As discussed below, the Proposed Project would meet these standards.

D.2.a.i Paints and Coatings

Interior paints and primers would comply with volatile organic compound (VOC) standards and best practice recommendations, including avoiding epoxy-based paints. Interior paints and primers would be less than or equal to the following VOC levels, in grams per liter, and would strive to meet one of the following standards: MPI, Green Seal, and GreenGuard.

D.2.a.ii Adhesives and Sealants

As set forth in Section 6.2 of the Checklist, adhesives would comply with Rule 1168 of the South Coast Air Quality Management District and applicable VOC levels, in grams per liter. All caulks and sealants would comply with Regulation 8, Rule 561 of the Bay Area Air Quality Management District.

D.2.a.iii Composite Wood

Subcontractors would be required to seek products compliant with California 93120, a regulation issued by the California Air Resources Board ("CARB"). Products would be CARB No-Added Formaldehyde ("NAF") or Ultra-Low Emitting Formaldehyde (if a product does not comply with California 93120. In addition, exposed edges would be sealed with low-VOC sealants if the product does not achieve NAF.

D.2.a.iv Flooring

Non-carpet flooring alternatives would be incorporated, including Forest Stewardship Council certified hardwoods. Other floor products would seek to meet the FloorScore program criteria, and any carpet products used would meet the Carpet and Rug Institute’s Green Label or Green Label Plus certification.

D.2.a.v Integrated Pest Management

Sealing of cracks and penetrations would be completed with low VOC caulk or other appropriate non-toxic sealing methods to prevent pest entry. Rodent and corrosion-proof screens would be used for openings greater than ¼-inch, and a full integrated pest management policy would be implemented that outlines appropriate material and housekeeping methods.

E. POTABLE WATER USE AND CONSERVATION

Water conservation measures would be incorporated in the buildings, which would translate into direct utility savings for residents, tenants, and building owners. A smart water conservation plan would lower infrastructure costs associated with stormwater management and would reduce pressure on the local water treatment facilities.

Fixtures would be installed to meet the following requirements in accordance with the Yonkers Green Development Standards:

- Toilets – 1.28 gallons per flush (gpf) or less
- Urinals – 0.5 gpf or less
- Showerheads – 2.0 gallons per minute (gpm) or less
- Kitchen faucets – 2.0 gpm or less
- Bathroom faucets – 1.5 gpm or less

The Applicant is exploring additional high-efficiency measures, including requiring all fixtures to meet the EPA’s WaterSense standards.

An efficient irrigation or water reuse system would be installed and maintained regularly.

F. STORMWATER MANAGEMENT AND GREEN INFRASTRUCTURE

The Proposed Project does not include any stormwater drainage infrastructure that could potentially affect local flooding conditions during severe precipitation events. All of the proposed buildings throughout the Project Sites would be set at finished floor elevations above the nearby base flood elevation (“BFE”).

Based on the latest Flood Insurance Rate Map for the Chicken Island Site, the base flood elevation (“BFE”) at the crossing of the Saw Mill River culvert and New School Street near proposed Buildings 3 and 4 is approximately 55.5 feet. In this location, the Saw Mill River is conveyed through the existing culvert, and New School Street runs over the culvert and is at a minimum elevation of 69.0 feet. It is not anticipated that a flood event would overtake the top of the culvert and the surrounding roadways. In the vicinity of proposed Building 5, the BFE is approximately 60.0 feet.

As discussed in Chapter 9, “Stormwater Management,” the Proposed Project would include permanent mitigation measures to lessen the severity of flooding downstream. These measures include a detention system at the Teutonia Site, manufactured treatment devices and detention systems at the Chicken Island Site, and a manufactured treatment device and a detention system at the North Broadway Site. The detention systems at all three Sites would provide stormwater discharge control which would assist in reducing the downstream flooding effects during larger storm events. The manufactured treatment devices at the Chicken Island Site and North Broadway Site would provide some of the stormwater runoff from these Sites with treatment prior to leaving the site, which would improve the downstream water quality.

As noted above, with the redevelopment of the Chicken Island Site, the current low-level parking lot would be raised and redeveloped with new buildings, which would allow for stormwater to be collected and detained by the building system and underground detention systems, rather than sheet flowing over the existing pavement to catch basins and collection systems with no means of detention. The raised elevation of the Site surrounding the proposed buildings would allow for more consistent drainage patterns, and the inclusion of additional stormwater management features, such as catch basins, manholes and conveyance pipes would allow more efficient discharge to the nearby Saw Mill River.

Impervious areas would be minimized to the extent practicable. The Proposed Project would include tree plantings, which is consistent with the optional standard of the Yonkers Green Development Standards.

The Proposed Project would follow NYSDEC erosion and sedimentation control standards during construction, as required by the Yonkers Green Development Standards. Erosion and sediment control measures for the Proposed Project are discussed in more detail in Chapter 15, “Construction,” and in **Appendices J-1, J-2, and J-3**.

G. LANDSCAPING, VEGETATION, AND STREETSCAPE IMPROVEMENTS

At least 50 percent of the area available for landscaping would be planted with native or adaptive species, as required by the Yonkers Green Development Standards. New plants would be appropriate to each Site’s soil and microclimate.

Urban areas often have higher temperatures than the less developed surrounding areas, a phenomenon referred to as the urban heat island effect. This effect results from differences in the rate at which buildings, roadways, and other infrastructure absorb and re-emit heat from the sun. The Proposed Project would include several components to reduce the impact that new hardscape materials would have on the local environment. The buildings would have ENERGY STAR compliant roofs, rated by the Cool Roof Rating Council, which would be white or light grey. Consistent with the Yonkers Green Development Standards, at least 90 percent of the total roof area would comply with Yonkers Green Development Standard 6.9a Option 1, which requires ENERGY STAR-compliant roofing with an emissivity (i.e., emission of thermal radiation, a measure of heat dissipation) of 0.8 or greater for at least 90 percent of the roof area. The buildings would not have PVC membrane roofing, which is manufactured using phthalates.

At least 50 percent of the hard-scaped areas would use light-colored, high-albedo (i.e., highly reflective) materials with a minimum solar reflectance of 0.3, as required by the Yonkers Green Development Standards. This includes ground level pavement and rooftop amenity hardscapes.

The Applicant is exploring installation of a green (vegetated) roof in one or more locations. Any area that is not a green (vegetated) roof would be ENERGY STAR compliant or have an appropriate solar reflectance index value. If green roofs are implemented, then the Proposed Project would be in compliance with Yonkers Green Development Standard 6.9a Option 2, which allows for a combination of ENERGY STAR compliant roof and vegetated roof covering 75 percent or greater of the roof area.

H. CLIMATE CHANGE

Cities have a central role to play in tackling climate change, as they contribute much to it and are further under severe threat from its impacts. Sustainable and environmentally friendly communities are an integral part of reducing the effects of climate change.

Adherence to the Yonkers Green Development Standards would serve to decrease greenhouse gas emissions, thereby helping to combat climate change. Such standards include compliance with the energy efficiency requirements of the State’s Multifamily Performance Program, the ENERGY STAR Multifamily High Rise program guidelines for lighting, and the installation of ENERGY STAR appliances.

I. ADAPTATION AND RESILIENCY

The Proposed Project incorporates measures to increase resiliency and contribute to the creation of an adaptive community. The approximately \$48.5 million spent on the first three phases of the daylighting of the Saw Mill River have helped to contribute to a healthy and safe community. The Proposed Project would build on this public investment and continue similar improvements by adding to the existing urban fabric. For example, the Proposed Project would provide connections between the neighborhoods to the north and east of the North Broadway Site to the commercial/retail uses along North Broadway. In addition, the Proposed Project would transform long-vacant lots or otherwise underutilized areas, including BCP sites, into active mixed-use developments, thus supporting the City’s revitalization of its downtown. The proximity of the Proposed Project to the Yonkers Train Station would also support the City’s goal of providing transit-oriented development. Improvements to existing neighborhoods help to maintain a high quality of life and a thriving economy.

The sustainability measures discussed throughout this chapter, such as energy efficiency measures, access to public transportation, tree plantings, and construction waste management (discussed below), would help the City adapt to the challenges of climate change.

The Proposed Project advances Smart Growth principles, which are inherently resilient, including a mix of land uses, compact building design, and walkable neighborhoods. Smart Growth strategies can also help diversify local economies, which is critical for adaptation and resiliency.

As discussed above, implementation of the Proposed Project would not have a significant adverse impact on off-site stormwater management facilities or stormwater runoff conditions and would not exacerbate local flooding conditions during severe precipitation events.

J. CONSTRUCTION DEBRIS

In accordance with the Yonkers Green Development Standards, the Construction Management Plan for the Proposed Project (discussed further in Chapter 15, “Construction”) would include a construction waste management plan to reduce non-hazardous construction and demolition waste

AMS Yonkers Downtown Development

by at least 75 percent by weight through use of recycling, salvaging, or diversion practices. In addition, the Proposed Project would provide one or more easily accessible, permanent, and dedicated areas for collection and storage of recyclable materials for each construction Site. Materials would include, at a minimum, paper, corrugated cardboard, glass, plastics, and metals. *