3.3 Utilities Comments and Responses

Water Supply

Comment 3.3-1 (Public Hearing, February 9, 2010 - Diedre Rylander, Yonkers Resident): At one point it says there is a dedicated fire water pipe and there is also going to be a new 12 inch water line. I am wondering who will be paying for those new lines, if it's going to be the city, if it's going to be the developer because they obviously will be installed off the actual site.

Response 3.3-1: *The Applicant will be responsible for the cost of water infrastructure improvements necessary to serve the new development.*

Comment 3.3-2 (Letter 1, January 20, 2011, James Moran, P.E., Yonkers Department of Engineering): The applicant proposes to improve the water supply of the project and Buena Vista Avenue by installing a new 12" water main from Prospect Street (at Hawthorne Avenue)[Executive Summary page 1-7]). The approved design and performance bond (in the amount of the engineering department approved estimated cost) is required prior to the issuance of a building permit. This will ensure that the proposed water supply design is feasible and a funding commitment has been made. The installation and acceptance of the water main must be completed prior to the issuance of a certificate of occupancy.

Response 3.3-2: *Agreed. The approved design and performance bond will be posted prior to the issuance of a building permit. The installation and acceptance of the water main will occur prior to the issuance of a certificate of occupancy for the new apartment building.*

Comment 3.3-3 (Letter 5, February 23, 2011, Albina Glaz, Water Engineer, Yonkers Water Bureau): DEIS states that total domestic water demand for whole project will only be 29,099 gallons per day. Based on projected occupancy of 791 persons the water usage will be less than 37 gallons per day per person versus the recommended standards of at least 100 gal/person/day. This is approximately 63 percent of water usage reduction than recommended standards. That is great but what happens if this will not be possible.

Response 3.3-3: *As per the New York State Department of Environmental Conservation, the average person uses 50 gallons of water per day. See: http://www.dec.ny.gov/lands/5009.html. As this is an apartment building, water consumption will also be less than average as activities that use water such as landscaping and car washing will not occur here.*

The calculations for estimating water demand are included in Appendix F of the DEIS. The low flow fixtures estimate will be achieved as the fixtures will be installed by the Applicant and cannot be removed by the tenants as per their lease agreements.

Comment 3.3-4 (Letter 5, February 23, 2011, Albina Glaz, Water Engineer, Yonkers Water Bureau): In order to achieve this significant reduction in water demand for the subject project, the developer is proposing to use water saving fixtures as manufactured by BRICOR Water & Energy Technology. This type of fixtures requires a certain minimum water pressure at the inlet of particular fixture. To my knowledge, if particular required pressure is not available than the fixture will not work or not work correctly. Please comment on this.

Response 3.3-4: *The booster pump system proposed to serve the upper floors of the building will be designed to deliver adequate pressure to meet the manufacturer's specifications for proper function of the fixtures. The details of the pump system will be determined during detailed site plan review in consultation with the City engineering department.*

Comment 3.3-5 (Letter 5, February 23, 2011, Albina Glaz, Water Engineer, Yonkers Water Bureau): DEIS addresses domestic water supply to upper levels of the 24-story building utilizing booster pump or pumps. Please clarify if one booster pump, duplex or triplex domestic booster pump system will be utilized for upper levels of the building.

Response 3.3-5: *As per Section 3.3 of the DEIS, a duplex booster pump will be used.*

Comment 3.3-6 (Letter 5, February 23, 2011, Albina Glaz, Water Engineer, Yonkers Water Bureau): DEIS estimates peak domestic water demand of 535 gpm. How this was determined. For this demand a duplex pump ? is proposed to provide total flow of 385 gpm at an output pressure of 130 psi. Why 385 gpm not 535 gpm. Considering all water loads due to head loss, friction, bends, length of pipe, etc., please explain by calculations what flow capacity and pressure will be required and if the proposed 12-inch main will be adequate to achieve the goal.

Response 3.3-6: *Appendix F of the DEIS provides the water calculations. The mechanical electrical plumbing (MEP) professional for the project provided the 535 gpm estimate. Appendix F states that the first 8 floors will be supplied by street pressure, and the upper 18 floors will be supplied by domestic booster pump. The calculation is 535 gpm divided by 25 floors (the upper level is a small amenity space only) which equals 21.4 gpm. For the upper 18 floors, multiply 18 floor times 21.4 which equals 385 gpm. The 12-inch main is anticipated to be adequate to achieve this goal. Sufficient water can be provided to the property line to serve the project. The on-site water distribution system will be detailed during site plan review in consultation with the City engineering department.*

Comment 3.3-7 (Letter 5, February 23, 2011, Albina Glaz, Water Engineer, Yonkers Water Bureau): DEIS states that the building's fire protection system will be supply by fire pump sizes to provide a total flow of 1,000 gpm at output pressure of 160 gpm. How the 1000 gpm flow was determine, is the 1000 gpm flow will be adequate for fire protection on the top floor of building. Were all water losses considered with this determination? What flow capacity and pressure will be required at inlet of the pump without any effect of our water distribution system in the project area and if the proposed 12-inch main will adequate to achieve the goal.

Response 3.3-7: *As per Appendix F, the MEP has indicated 1,000 gallons per minute at an output pressure of 160 psi is adequate. In order to avoid cavitation of the pump the street main will need to be capable of providing 1,000 gpm at 35 psi to the building.*

Comment 3.3-8 (Letter 5, February 23, 2011, Albina Glaz, Water Engineer, Yonkers Water Bureau): Will the proposed 12-inch diameter water main supply approximately 3,500 gpm flow capacity at any hydrant closest to the development at minimum residual pressure of 20 psi that system for minimum of 2 hours.

Response 3.3-8: *The fire flow results prepared by the City of Yonkers Water Bureau are provided in Appendix F. Based on these results, the project engineers have indicated that there is adequate water available to handle fire fighting operations.*

Comment 3.3-9 (Letter 5, February 23, 2011, Albina Glaz, Water Engineer, Yonkers Water Bureau): Was water demand for proposed pool included in calculation of total domestic water demand?

Response 3.3-9: *The demand for the proposed pool was not included in the calculations contained in Appendix F of the DEIS. The pool will be filled once - the need to refill it will be minimal as the indoor pool is in a conditioned space with little evaporation. The space will be dehumidified and condensate will go back into the pool.*

Comment 3.3-10 (Letter 5, February 23, 2011, Albina Glaz, Water Engineer, Yonkers Water Bureau): DEIS states that although water to the hydroponic garden will be provided from a storm water retention tank but next sentence states that "a domestic water make up connection will be provided to the storm water retention tank" with RPZ device. Please be advice that under no-circumstance the Water Bureau will allow any connection/interconnection of potable water with storm water retention tank.

Response 3.3-10: *Comment noted. The hydroponic garden will not be connected to the City's water supply system.*

Comment 3.3-11 (Letter 9, February 24, 2011, Patricia Dow, Majority Leader, Yonkers City Council): Utilities (Page 1-6) - How can the City of Yonkers supply potable water to the project site, when developers are supposed to be utilizing gray water instead?

Response 3.3-11: *The project's hydroponic garden will utilize stormwater runoff stored in an underground cistern. All other potable water is being supplied by the City of Yonkers.*

Comment 3.3-12 (Letter 9, February 24, 2011, Patricia Dow, Majority Leader, Yonkers City Council): Utilities (Page 1-6) - Municipal Water will not be used for the irrigation system. If this is true, do the developers have a back up plan B in case the system fails?

Response 3.3-12: *The cistern has been designed to store 30 days of irrigation water for the hydroponic garden. This is expected to be more than ample to address the hydroponic garden's needs. In the unlikely event that the irrigation water in the cistern is depleted, the Applicant can utilize the water from the geothermal wells on a temporary basis for irrigation purposes*.

Comment 3.3-13 (Letter 15, January 24, 2011, Syrette Dym, AICP, VHB - City Planning Consultant): It is indicated that the details of the internal water distribution system for the proposed hydroponic garden and geothermal heating and cooling system will be provided at the time of project permitting. Are there any anticipated impacts that could vary due to the specifics of these systems that are not yet known? The water service upgrades referred to as potential mitigation that are under discussion with the City need to be detailed in the FEIS.

Response 3.3-13: *Sufficient information has been provided to determine the potential environmental impacts associated with the demand the project will place on water supply. As stated in the DEIS, a meeting between the applicant's engineers and the City of Yonkers Water Bureau and Engineering Department was held on March 24, 2010 and with the Engineering Department on September 13, 2010. Based upon those meetings, the City of Yonkers Water Bureau has accepted the conceptual proposal to construct a new 12-inch water main loop between Prospect Street and Main Street. According to the*

project engineer, the installation of a new looped 12-inch water main in Buena Vista Avenue will substantially improve water service over existing conditions. The new service will provide the water flow and pressure required for the domestic use as well as for fire fighting purposes.

Comment 3.3-14 (Letter 15, January 24, 2011, Syrette Dym, AICP, VHB - City Planning Consultant): It is indicated that the Water Bureau and Fire Department will continue to assess existing hydrants and other fire protection infrastructure in the vicinity of the site. That evaluation needs to be provided as part of the FEIS for determination of area adequacy and potential need for upgrades and mitigation.

Response 3.3-14: *As stated in the DEIS, a flow test was conducted using two hydrants - one hydrant has a pressure gauge and the second has the flow gauge. The pressure measured pre flow is the static pressure and the residual is the pressure measured under flow. Based on the flow tests that were conducted, the project engineers indicate that there will be adequate water available for fire fighting operations. The test conducted by the Water Bureau indicated the fire flow at 20 psi ranged from about 5,000 to 6,900 gallons per minute, so with the fire pump running at full capacity (1,000 gpm) there will be approximately 4,000 gpm remaining for the fire department. Regardless, the Applicant has stated that it will continue to work with the applicable City agencies during detailed site plan review to ensure that the agencies are satisfied with necessary infrastructure improvements. For example, upon detailed review, the City engineering department may prefer that two rather than one hydrant be installed.*

Comment 3.3-15 (Letter 17, January 21, 2011, David McInerney, AICP, PS&S - City Engineering Consultant): Water Supply - Section 1.2.3 and Section 3.3.1 of the DEIS reference telephone conversations with City of Yonkers Bureau of Water personnel on consecutive days in October 2010. DEIS Section 3.3.2 references meetings between the Applicant's consultants and City of Yonkers Bureau of Water and Engineering Department personnel in March and September 2010. Written documentation should be provided that verifies that water supply for the project exists and is available for the project.

Response 3.3-15: *Based on a communication with Albina Glaz, P.E., an engineer with the City's Water Bureau, water quantity is not an issue and can be supplied to the project.[1] Ms. Glaz has raised other comments with regard to water supply which are set forth in this section.*

Comment 3.3-16 (Letter 18, April 22, 2011, Yonkers Dept. of Planning & Development): The Fire Department should confirm that the "the pump will provide adequate fire pressure throughout the building including to the top floor of the Building" and that only one fire hydrant is necessary.

Response 3.3-16: *The Fire Department reviewed the DEIS - Chief Flynn's comments are included in Appendix B. The Fire Department did not raise any concern with regard to fire pressure. At the time a building permit is sought, the City's Building Department will refer plans to the fire department and the details of construction including the pump system will be reviewed. If necessary, any revisions or refinements regarding the pump system will be made at that time.*

[1] *Phone communication on July 6, 2011.*

Comment 3.3-17 (Letter 18, April 22, 2011, Yonkers Dept. of Planning & Development): Approximately 950 feet of water main would be replaced. Clarify who is responsible for replacing, i.e. the applicant or the city?

Response 3.3-17: *The Applicant will be responsible for the cost of water infrastructure improvements necessary to serve the new development*.

Comment 3.3-18 (Letter 18, April 22, 2011, Yonkers Dept. of Planning & Development): page 1-9 While the cost and details of the water service upgrades are still being determined with the City it must be made clear that the cost of the upgrades will be the responsibility of the applicant.

Response 3.3-18: *The Applicant will be responsible for the cost of water infrastructure improvements necessary to serve the new development.*

Comment 3.3-19 (Letter 18, April 22, 2011, Yonkers Dept. of Planning & Development): Page 3.3-1 Does Kensico water mix with Cat/Del? I believe that Yonkers gets the vast majority of its water directly from the Catskill and Delaware Aqueducts, a small amount from the Hillview Reservoir, which is a mixed source system and some water from the Kensico. I don't believe that this site gets any water from Kensico.

Response 3.3-19: *As per the New York City Department of Environmental Protection website, the Kensico Reservoir first receives water from all six Catskill and Delaware system reservoirs.*

Comment 3.3-20 (Letter 18, April 22, 2011, Yonkers Dept. of Planning & Development): Page 3.3-2 Third Paragraph Does the 72-inch trunk line flow north to the Alexander Street North Yonkers County Pump Station or to the small pump station on Main Street adjacent to the rail tracks?

Response 3.3-20: *Data were as reported in the SFC DEIS document. Based on a recent communication with the City engineering department, the 72-inch trunk line in Main Street flows to the Main Street pump station.*

Comment 3.3-21 (Letter 18, April 22, 2011, Yonkers Dept. of Planning & Development): Water Supply Page 3.3-3 the project proposes water saving features in the units. Explain how the applicant can insure that these features are not removed by the residents of the units.

Response 3.3-21: *The Applicant is constructing a rental apartment building and under the terms of the lease agreement, tenants will be prohibited from removing the water saving devices.*

Comment 3.3-22 (Letter 18, April 22, 2011, Yonkers Dept. of Planning & Development): page 3.3-4 What amount of "savings" is reflected in reality? Do low flow shower heads remain in place or are they changed by the renters? Do they actually result in less water use or does the user simply take a longer shower, etc. What part of the water savings are already mandated – for example, are the 1.0 gpf toilets already mandated? Low flow wc's simply lead to more flushes to do the same job.

Response 3.3-22: *The Applicant is constructing a rental apartment building and under the terms of the apartment leases, tenants will be prohibited from remove the water*

saving devices. As per federal and state law, toilets are mandated to meet a standard of 1.6 gallons per flush - the fixtures to be incorporated in the apartment exceed this requirement. For showerheads, the standard is 2.5 gallons per minute; the applicant proposes 0.5525 gallons per minute.

Comment 3.3-23 (Letter 18, April 22, 2011, Yonkers Dept. of Planning & Development):
Page 3.3-4 Applicant notes that the demand will not have any impact on service. What impact will the added demand have on per capita pricing of water from the NYC system?

Response 3.3-23: *As per the Scoping Document, the DEIS addressed impacts associated with the physical infrastructure and water supply demand. The City of Yonkers currently purchases water from the New York City water system. The population of the City of Yonkers is allotted a fixed amount of gallons based on Census population data and is sold this amount of water at a set rate - this is the entitlement amount. If there is an increase in the City's population between Census periods which results in an increase in water usage above agreed upon amounts, the City is charged for the additional water usage. Any new development that is constructed and occupied between Census time periods increases excess water use and will result in the City incurring additional charges. To the extent that the project proposes to use very low flow water saving devices, the potential increase in pricing is mitigated compared with more conventional developments.*

Comment 3.3-24 (Letter 18, April 22, 2011, Yonkers Dept. of Planning & Development):
Page 3.3-4 Last Paragraph Irrigation water for the farm will "come solely from storm water runoff", however, elsewhere it notes that there will be only a 30-day supply of water for the farm. Which statement is correct?

Response 3.3-24: *Both. Irrigation water is coming solely from storm water runoff. The cistern has been designed to store 30 days worth of irrigation water.*

Comment 3.3-25 (Letter 18, April 22, 2011, Yonkers Dept. of Planning & Development):
Page 3.3-4 How much Yonkers potable water will be used for processing of the farm produce?

Response 3.3-25: *None.*

Comment 3.3-26 (Letter 18, April 22, 2011, Yonkers Dept. of Planning & Development):
Page 3.3-5 Cross contamination prevention. Statement notes "all make up water connections to hydroponic garden and geothermal system will be provided with dedicated approved" RPV's. Are these systems connected to city potable water or not? Will there be a RPV between the cistern system and the irrigation area and for what reason?

Response 3.3-26: *The cistern will not be connected to the City's potable water supply system. The hydroponic garden will rely on water supplied from the cistern or water supplied from the geothermal wells in the unlikely event the 30-day irrigation storage is depleted.*

Comment 3.3-27 (Letter 18, April 22, 2011, Yonkers Dept. of Planning & Development):
Page 3.3-5 Third Paragraph in Cross Contamination. It was made clear at early reviews that no connection between the city's domestic water system and the farm would be permitted.

Explain the statement about connection to domestic water and the use of a RPV backflow preventer.

> ***Response 3.3-27:*** *The cistern will not be connected to the City's potable water supply system. The hydroponic garden will rely on water supplied from the cistern or water supplied from the geothermal wells in the unlikely event the 30-day irrigation storage is depleted.*

Wastewater Treatment

Comment 3.3-28 (Public Hearing, February 9, 2010 - Diedre Rylander, Yonkers Resident): This project is specifically referring to a combined 18 inch sanitary storm sewer so I am just wondering if there were also discussions about separating those sewers as part of this project because my impression from the SFC project, the whole downtown was going to be revamped for that.

> ***Response 3.3-29:*** *No sewer separation is proposed as part of this project. The storm and sanitary systems for the project are proposed to be designed in a manner that reduces flows to the combined sewer system.*

Comment 3.3-29 (Public Hearing, February 9, 2010 - Diedre Rylander, Yonkers Resident): Another question that I had had to do with the stormwater, not the storm water but the sewer treatment facility which according to this and according to every new project the Westchester County Ludlow treatment plant always has enough capacity for any new project, but my understanding is that they are operating on a temporary overflow permit....I think it would be wise to take a look at that more closely....

> ***Response 3.3-29:*** *The storm and sanitary systems for the project are proposed to be designed in a manner that reduces flows to the combined sewer system. If there are capacity issues at the treatment plant, the reduction in flow will be a benefit.*

Comment 3.3-30 (Letter 1, January 20, 2011, James Moran, P.E., Yonkers Department of Engineering): The existing City sewer in Buena Vista Avenue has been t.v. inspected by this office (on 10/7/10) and numerous pipe defects have been detected (i.e., multiple cracks, offset joints, protruding house connections impeding flow, pipe holes, etc.). During the inspection, groundwater infiltration was documented. In lieu of the condition of the existing combined sewer in Buena Vista Avenue between Prospect Street and Main Street and Westchester County's prior requirement of mitigating impacts due to increases in wastewater discharges to combined sewer systems, this office recommends the applicant funds the cured in place sewer lining of the referenced sewer. This lining and installation of a new manhole (location to be designated by this office) will eliminate groundwater infiltration and offset the increased sanitary sewer flow due to this project.

> ***Response 3.3-30:*** *Comment noted. The Applicant agrees to make said improvements.*

Comment 3.3-31 (Letter 6, February 25, 2011, Edward Burroughs, AICP, Commissioner, Westchester Co. Department of Planning): WASTEWATER DISCHARGE — The sanitary sewer discharge rate noted in the draft EIS of approximately 29,099 gallons per day appears to be low for a development of this size. Assuming a 70 gallon per day per capita rate (which is less than half of the 150 gallons per capita per day allowed in the County sewer ordinance) and an occupancy of 2 people per unit, a much higher rate of 57,680 gallons per day is estimated.

The City should require that these calculations be clarified to determine the most accurate estimation of anticipated sanitary sewage flow to the YJWWTP.

> ***Response 3.3-32:*** *The calculations for water consumption are included in Appendix F of the DEIS. The sewage estimate corresponds to the daily water consumption estimate for the project. Offsets for the proposed sewer flow generated by this project have been considered. The offset will be provided by a combination of water saving fixtures, reuse of stormwater for irrigating the proposed garden, and potentially from offsite infrastructure improvements.*

Comment 3.3-33 (Letter 6, February 25, 2011, Edward Burroughs, AICP, Commissioner, Westchester Co. Department of Planning): SEWER MITIGATION — The applicant has proposed a remote television inspection of the existing combined sewer line within the vicinity of the project and the provision of spot repairs to the line as appropriate. While this could include reductions to inflow and infiltration (I&1) within the existing combined sewer adjacent to the site, the applicant is not proposing system wide improvements to the City wastewater or combined sewer systems related to I&I. We point out that the increased sanitary sewage flow from the site will add to the volume requiring treatment at the YJWWTP. Consistent with PEP policy, we recommend that the City consider, or require the developer to consider, measures that will offset the projected increase in sanitary sewage flows, less the anticipated mitigation provided by the stormwater diversion to the garden irrigation system.

> ***Response 3.3-33:*** *The City's engineering department has recommended that the Applicant fund the cured in place sewer lining of the referenced sewer. This lining and installation of a new manhole (location to be designated by this office) will eliminate groundwater infiltration and offset the increased sanitary sewer flow due to this project. The Applicant agrees with this recommendation.*

Comment 3.3-34 (Letter 7, January 18, 2011, Natasha Court, P.E., Westchester Co. Health Dept.): The proposed development may require approval as a realty subdivision from this Department in accordance with Article X of the Westchester County Sanitary Code.

> ***Response 3.3-34:*** *Section 873.941 of the applicable Code defines a realty subdivision as "any tract of land which is divided into more than two (2) habitable building sites or parcels on any site along an existing or proposed street, highway, easement or right-of-way or other means or proposed means of access, road or street, for sale, lease or rent, regardless of whether the sites are to be sold or offered for sale or leased for any period of time, are described by metes and bounds or by reference to a map or survey of the property or by any other method of description." The Applicant does not propose to divide the site into two or more parcels - the project is not a realty subdivision.*

Comment 3.3-35 (Letter 15, January 24, 2011, Syrette Dym, AICP, VHB - City Planning Consultant): The applicant's suggested inspection of pipe condition and spot repairs does not impact existing issues of inflow and infiltration. The requirements of the City to alleviate conditions in the vicinity of the project need to be identified.

> ***Response 3.3-35:*** *As per the City engineering department's recommendation, the Applicant will fund the cured in place sewer lining of the referenced sewer. This lining*

and installation of a new manhole (location to be designated by this office) will eliminate groundwater infiltration and offset the increased sanitary sewer flow due to this project.

Comment 3.3-36 (Letter 17, January 21, 2011, David McInerney, AICP, PS&S - City Engineering Consultant): Wastewater Treatment Capacity - DEIS Appendix B includes a letter from the Applicant's consultant to the Westchester County Department of Environmental Facilities requesting confirmation of available wastewater treatment capacity for the project. No responding correspondence is provided. Section 1.2.3 of the DEIS references a telephone conversation with Westchester County Department of Environmental Facilities personnel. Written documentation should be provided that verifies that wastewater treatment capacity for the project exists and is available for the project. The documentation could be in the form of a confirming letter from the Applicant to the Westchester County Department of Environmental Facilities or a memorandum that summarizes the telephone conversation.

Response 3.3-36: *Appendix C of this FEIS includes correspondence from the Westchester Department of Environmental Facilities. As per the correspondence, the County trunk sewer and Yonkers Joint Wastewater Treatment Plant have sufficient capacity to accommodate the anticipated sewage flows. The Applicant will fund the cured in place sewer lining of the sewer lines serving the project as recommended by the City engineering department.*

Comment 3.3-37 (Letter 18, April 22, 2011, Yonkers Dept. of Planning & Development): Applicant proposes the TV the sewers and do spot repairs as required. Shouldn't the TV have been done already to allow for discussion of mitigation in the EIS?

Response 3.3-37: *See Comment 3.3-30. This work has been completed.*

Comment 3.3-38 (Letter 18, April 22, 2011, Yonkers Dept. of Planning & Development): Page 1-9 Inspection of a portion of the wastewater treatment infrastructure between the site and the Yonkers Joint Wastewater Treatment Plant is not considered mitigation. Mitigation would be creating a condition where the net flows to the YJWTP are the same after development as they were before. What is the proposed mitigation for the increase in wastewater to the system?

Response 3.3-38: *As per the City engineering department's recommendation, the Applicant will cure in place sewer lining of the referenced sewer. This lining and installation of a new manhole (location to be designated by this office) will eliminate groundwater infiltration and offset the increased sanitary sewer flow due to this project.*

Comment 3.3-39 (Letter 18, April 22, 2011, Yonkers Dept. of Planning & Development): Wastewater Treatment Page 3.3-7 There seems to be a phrase missing in the wastewater equation. The storm water system stores water during storms and meters it out to the combined sewer system during and after the storm. This does not mean that it removes the 29,000 gpd of sanitary sewer inputs. Where is there a removal of 29,000 from the buildings system so that: 29,000 gpd sanitary use – 29,000 gpd removals = no net impact. What is removing 29,000 gpd from the system?

Response 3.3-39: *The project's wastewater and stormwater will discharge to a combined 18-inch sewer/stormwater line. The stormwater volume required to handle the hydroponic garden's irrigation demand (46,300 gallons) plus the 38,542 gallons of storm water to contain the 90 percent rainfall event totals a required storage of 84,842 gallons. By comparison, 115,158 gallons of additional storage is provided which will offset the*

proposed sanitary sewer discharge. The stormwater calculations are provided in Appendix F of the DEIS.

Comment 3.3-40 (Letter 18, April 22, 2011, Yonkers Dept. of Planning & Development): Page 3.3-7 "In addition, the storm water storage system has been designed with the capacity to offset the proposed sanitary sewer system …" How? Is this an "apples to apples" comparison? One system has to send water directly to the sewer while the storm system can hold back water while waiting to later send all of the water out into the system.

Response 3.3-40: *The existing site presently discharges to the stormwater system without any detention. After the project is constructed, the existing amount that enters the system will be retained as well as the net additional stormwater generated by the project - this results in a net reduction to the system and increases capacity. Since the project site discharges to a combined sanitary/sewer line, holding back stormwater discharge to off-peak time periods adds capacity to the combined line.*

Comment 3.3-40 (Letter 18, April 22, 2011, Yonkers Dept. of Planning & Development): Page 3.3-8 Waste Water from the Greenhouse. How much wastewater and from what sources will the greenhouse produce? What characteristics will it have, i.e., what is in it? Can there be a closed system to recycle the wastewater on site via an aquaculture filter system or other means?

Response 3.3-40: *According to Bright Farms, a hydroponic garden operator, wastewater from the hydroponic crops are fertilized similar to land agriculture operations. It will be a very small amount in comparison to the total water use of the facility (<10%). The water comes from flushing the growing systems to clean them (this is done once or twice a season).*

In layman's terms, it is very similar to mixing water with "miracle gro" - it has the main nutrients that plants require (nitrogen, phosphorus, potassium; and then micro nutrients such as iron, manganese, calcium, etc.) and it is slightly salty.

A closed system could be explored during detailed site plan review.

Comment (Letter 18, April 22, 2011, Yonkers Dept. of Planning & Development): Page 3.3-7 The applicant proposes to mitigate I & I by tv'ing and spot repairing of the local combined sewer. Does this proposed work equal 29,000 gpd of I&I based upon the equations used by the County?

Response 3.3-41: *See Response 3.3-30. No additional calculations are necessary*.

Comment 3.3-42 (Letter 18, April 22, 2011, Yonkers Dept. of Planning & Development): Waste water mitigation Page 3.3-9 Inspection of an aging sewer serving the project is not mitigation, it is insurance. What actual mitigation of increase septic flows will be made? Given the proximity to the county sewer can this project and the area around it be taken off the combined system and piped directly into the county trunk system?

Response 3.3-42: *See Response 3.3-30.*

Electric, Natural Gas and Cable

Comment 3.3-43 (Letter 9, February 24, 2011, Patricia Dow, Majority Leader, Yonkers City Council): Utilities (Page 1-8) - City of Yonkers is requesting that all overhead lines be buried underground. In reference to this matter, which entity will absorb the cost of this process — the City of Yonkers or the Developer of the project?

> ***Response 3.3-43:*** *The Applicant will be responsible for undergrounding any existing utility poles located in front of the proposed apartment building.*

Comment 3.3-44 (Letter 15, January 24, 2011, Syrette Dym, AICP, VHB - City Planning Consultant): When will further feedback from Con Edison be available regarding the capacity to serve the needs of the project?

> ***Response 3.3-44:*** *Con Edison, in a letter dated June 24, 2010 (see Appendix B of the DEIS), has indicated that it will supply a standard three phase, four wire, alternating current service at approximately 60 cycles and 120/208 volts, subject to the provisions of the company's rate schedule and the Requirements for Electric Service Installations.*

Comment 3.3-45 (Letter 15, January 24, 2011, Syrette Dym, AICP, VHB - City Planning Consultant): The geothermal heating and cooling system is intended to augment the Combined Heating and Power (CHP) and reduce the consumption of traditional electricity and natural gas. What is the anticipated reduction in usage due to this system for both electricity and gas?

> ***Response 3.3-45:*** *According to data presented in Appendix F of the DEIS, the CHP will eliminate use of 4,673,635 kilowatt hour of grid energy and transmission and distribution losses.*

Comment ((Letter 18, April 22, 2011, Yonkers Dept. of Planning & Development): Figure 3.3-1 CHP Plant Diagram. Not helpful at all. What are inputs? Outputs?

> ***Response 3.3-46:*** *The CHP input is natural gas as the plant consists of gas-fired microturbines. Electric power and heat is produced, i.e., the outputs. The electric power is used to run the geothermal ground and condenser water pumps and the automated parking garage. The heat produced by the CHP system is used to heat the hydroponic garden in the winter and other building loads such as the pool, some amenity areas and domestic hot water pre-heating.*

Comment 3.3-47 (Letter 18, April 22, 2011, Yonkers Dept. of Planning & Development): Other utility providers Page 3.3-9 It is not clearly explained how the individual units will be supplied with utilities and what services are provided. The only gas service is a one meter supply. Will the units have electric stoves? Will the CHP system provide all heat to the units or will the units have to produce/pay for the heat in some way separate from their rent. Given electrical overloads in Yonkers in recent years is it prudent to rely on electric systems in the individual units?

> ***Response 3.3-47:*** *There will be one master electric meter for the residential tenants, and each residential unit is submetered by a third party. The building will supply conditioned geothermal water and the tenants will pay for electricity to run compressors in the heat pumps to raise and lower this conditioned water as required to heat or cool their space. The electrical demand required to raise and lower the conditioned water is*

substantially less than traditional air cooled systems. The residential units will not have gas service and will have electric stoves. The CHP will provide surplus heat for the various uses in the building.

Comment 3.3-48 (Letter 18, April 22, 2011, Yonkers Dept. of Planning & Development): Page 1-8 Will FIOS service the building as well with cable TV?

Response 3.3-48: *Yes.*

Metro-North

Comment 3.3-49 (Letter 17, January 21, 2011, David McInerney, AICP, PS&S - City Engineering Consultant): Metro North Railroad - The Applicant indicates that an easement from MNR will not be required for the project. Correspondence should be provided from MNR to verify that statement. As noted in the PS&S comments on the DEIS Geology, Soils and Topography section, due to the close proximity of the proposed buildings to the railroad right-of-way, the Applicant should provide MNR engineers with details identifying design procedures to reduce impact to the right-of-way. The details should include verification that there would be no utility conflicts. MNR may also require additional design information and analyses prior to the commencement of construction.

Response 3.3-49: *As no encroachments are proposed, no letter is required from Metro North. As per discussions with Metro North, the agency will comment on proposed plans once detailed engineering documents have been developed for the project.[2] The proposed building alternative provides a minimum 5-foot set back from Metro North's right-of-way.*

Comment 3.3-50 (Letter 17, January 21, 2011, David McInerney, AICP, PS&S - City Engineering Consultant): Off-site Utilities - Prior to construction, the Applicant should provide the City of Yonkers with details and cross sections identifying the relationship between existing utilities within the Buena Vista Avenue right-of-way and the proposed use of sheet piles, tiebacks, or shoring. Potential conflicts should be identified so that the utilities and services for adjacent properties can be protected and are not interrupted. As noted above with respect to MNR, prior to construction the Applicant should provide details of the proposed earth support system to confirm that Buena Vista Avenue and the existing utilities will not be impacted.

Response 3.3-50: *Comment noted. The Applicant will submit the requested information.*

Geothermal System

Comment 3.3-51 (Public Hearing, February 9, 2010 - Diedre Rylander, Yonkers Resident): I am just wondering who is responsible for determining those [geothermal] lease agreements with the applicant.

***Response 3.3-51*:** *As per the City engineering department, the geothermal wells that are proposed to be located within the Buena Vista Avenue right-of-way will require City Council encroachment approval. This approval will require the review of the City engineering department and Corporation Counsel to ensure that the City rights are preserved and liability mitigated.*

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[2] *Communication with Bob Paley, Director of Transit-Oriented Development, April 2011*.

Comment 3.3-52 (Letter 1, January 20, 2011, James Moran, P.E., Yonkers Department of Engineering): The 10 geothermal wells that are proposed to be located within the Buena Vista Avenue right of way will require City Council encroachment approval. This approval will require the review of the engineering department and corporation counsel to ensure that the City roadway rights are preserved and liability mitigated.

Response 3.3-52: *Comment noted*.

Comment 3.3-53 (Letter 7, January 18, 2011, Natasha Court, P.E., Westchester Co. Health Dept.): The proposed geothermal system may require approval from the New York State Department of Environmental Conservation.

Response 3.3-53: *Approvals will be obtained from the NYSDEC if necessary.*

Comment 3.3-54 (Letter 15, January 24, 2011, Syrette Dym, AICP, VHB - City Planning Consultant): It is stated that the geothermal wells are not anticipated to adversely impact underlying soils due to the use of steel casing and that the exchange of natural groundwater via the system is not expected to adversely impact the underlying bedrock. What are the impacts that could occur and under what circumstances would these be likely to occur?

Response 3.3-54: *No impacts are anticipated. The steel casing will extend 500 feet and then through rock. No impacts have been experienced at 66 Main.*

Comment 3.3-55 (Letter 18, April 22, 2011, Yonkers Dept. of Planning & Development): Page 3.3-7 A better explanation of the geothermal system using lay terminology is desired and had been asked for. The figures are not particularly helpful.

Response 3.3-55: *See the following link provided from NYSERDA for a description of geothermal wells and heat pumps:*

http://www.nyserda.org/programs/geothermal/default.asp

Comment 3.3-56 (Letter 18, April 22, 2011, Yonkers Dept. of Planning & Development): Page 3.3-7 Will the steel casing extend the full 1,500 feet of the well or will it be only a partial casing? Do the casings need to be replaced due to rusting or other corrosion? What is the nature of the maintenance work on the wells and will it impact the use of the sidewalks by pedestrians?

Response 3.3-56: *Refer to Response 3.3-54. The casings do not need to be replaced. The sidewalks can remain open, and maintenance involves pulling the pumps and checking their components.*

Comment 3.3-57 (Letter 18, April 22, 2011, Yonkers Dept. of Planning & Development): Page 3.3-7 What is the value of the wells in terms of annual rental payments to the owner of the land, the city of Yonkers?

Response 3.3-57: *The Applicant has not determined any value. The Applicant does not propose to make annual rental payments to the City. The overall benefit to the City is reduction that will result in reduced air pollutant emissions.*