

3.0 COMMENTS AND RESPONSES

3.1 Geology, Soils and Topography Comments and Responses

Comment 3.1-1 (Letter 1, January 20, 2011, James Moran, P.E., Yonkers Department of Engineering): Prior the issuance of a building permit, the applicant must produce a sheeting/bracing and dewatering design acceptable to the building and engineering departments that will ensure that all adjacent property owners (including the City of Yonkers) and infrastructure will be properly protected and not impacted. If any impact is deemed possible, an escrow account or bond will be necessary to mitigate.

Response 3.1-1: *The Applicant concurs. Prior the issuance of a building permit, a sheeting/bracing and dewatering design acceptable to the building and engineering departments will be provided that will ensure that all adjacent property owners (including the City of Yonkers) and infrastructure will be properly protected and not impacted. If any impact is deemed possible, an escrow account or bond will be necessary to mitigate same.*

Comment 3.1-2 (Letter 9, February 24, 2011, Patricia Dow, Majority Leader, Yonkers City Council): Soils (Page 1-2) - How will the developer plan to remove the contaminated soil through out the community?

Response 3.1-2: *Soil will be removed by trucks licensed and approved by the NYSDEC to transport impacted soil. Once filled with soil, the trucks will be covered to eliminate any soil and dust from being blown from the truck. A construction traffic route has been prepared by the Applicant and provided in the DEIS. The construction traffic routing will be finalized during site plan review.*

Comment 3.1-3 (Letter 9, February 24, 2011, Patricia Dow, Majority Leader, Yonkers City Council): Topography (Page 1-2) - Referencing Steep Slopes - What will the developers do to avoid a similar catastrophe that occurred at Velocity Greyston Apartments at 1077 Warburton Avenue? This project was a 79 Unit rental apartment development, project of the REMI Company, developer/owner. While construction was underway, a neighboring private home, owned by elderly woman, suffered severe foundation damage - (1065 Warburton Ave, Mrs. Bishop) Foundation was compromised and house was declared unsafe, thus, being condemned by the City and homeowner could not return back to her home. As Council Member I would not want to see another homeowner experience a tragedy such as this.

Response 3.1-3: *See Response 3.1-1. The City Engineering Department will approve a sheeting/bracing and dewatering design prior to issuance of a building permit.*

Comment 3.1-4 (Letter 15, January 24, 2011, Syrette Dym, AICP, VHB - City Planning Consultant): Page 3.1-5 – Connection of the Trolley Barn building to the proposed building requires a cut in the southerly brick wall. Are any approvals from SHPO needed to make this cut and connection and has this been called out in any review document sent to SHPO?

Response 3.1-4: *SHPO received a copy of the DEIS. Section 3.7, Historic Resources, states: "The Trolley Barn's southern exterior wall would be altered to allow an opening that would connect the interior space of the new apartment building to the Trolley Barn lobby area. Otherwise, no changes are proposed to the Trolley Barn and no significant adverse impacts are anticipated." SHPO's comment letter also acknowledges the*

proposed modification. Prior to issuance of a building permit to allow that work, the Applicant will provide SHPO with design and construction details of how the connection will be accomplished. The opening will be seven feet high by six feet side - see Section 1.0 of the FEIS.

Comment 3.1-5 (Letter 17, January 21, 2011, David McInerney, AICP, PS&S - City Engineering Consultant): Geologic Conditions - Even though no bedrock was encountered as part of the geotechnical investigation, the geologic conditions described within the provided materials consider that the underlying bedrock is comprised of rock representative of the Fordham Gneiss formation, which is part of the New York Series. PS&S agrees with this assessment.

Response 3.1-5: *Comment noted.*

Comment 3.1-6 (Letter 17, January 21, 2011, David McInerney, AICP, PS&S - City Engineering Consultant): The geotechnical report by Sor Testing Laboratories (STL) recommends that the proposed structures be supported on drilled piers (caisson) foundations bearing within the dense glacial till material encountered at the bottom of each of the explorations. STL has recommended an end bearing pressure of 8 tons per square foot with a side friction value of 2 tons per square foot. These values appear reasonable for this material.

Response 3.1-6: *Comment noted.*

Comment 3.1-7 (Letter 17, January 21, 2011, David McInerney, AICP, PS&S - City Engineering Consultant): As the DEIS does not identify the actual loads that will be founded on each drilled pier, PS&S can not comment as to whether or not the glacial till will be the ultimate bearing layer or if it will become necessary to extend the foundations to the bedrock. The borings did not reach bedrock so it may become necessary to perform additional borings to ascertain the depth to bedrock so that the length of the foundation elements can be determined. Obviously, if the drilled piers have to extend to the bedrock layer then the end bearing pressure can be increased to a value commensurate with the condition of the bedrock encountered. It is appropriate that the geotechnical engineer and engineer of record for the redevelopment project will decide at a later stage of the redevelopment process whether the glacial till or bedrock will be the bearing layer for the structure foundations. When that decision has been made, PS&S will be available to provide additional comments.

Response 3.1-7: *Comment noted. The City Engineering Department will review engineering details prior to issuance of a building permit.*

Comment 3.1-8 (Letter 17, January 21, 2011, David McInerney, AICP, PS&S - City Engineering Consultant): Seismic Class - The geotechnical report indicates that the site is defined as Seismic Class C, in accordance with Section 1615 of the NYS Building Code, considering where the bottom of the structures will be constructed and the depths to the bearing layer in which the foundation elements will be founded. PS&S agrees with this assessment.

Response 3.1-8: *Comment noted.*

Comment 3.1-9 (Letter 17, January 21, 2011, David McInerney, AICP, PS&S - City Engineering Consultant): Survey of Adjacent Structures - Since the DEIS appears to be preliminary in nature, no design details or type of excavation support system are provided. In

consideration of the depths of the excavations and the proximity of adjacent structures and rail tracks the design of the support systems are critical and should be thoroughly reviewed by the City of Yonkers and the City's structural consultant. STL recommends that existing condition surveys of the adjacent structures be performed prior to excavation. PS&S agrees with this recommendation.

Response 3.1-9: See Response 3.1-1. Prior to excavation, an existing condition survey of the adjacent structures will be performed. The properties to be surveyed will be selected based on consultation and the concurrence of the City engineering department.

Comment 3.1-10 (Letter 17, January 21, 2011, David McInerney, AICP, PS&S - City Engineering Consultant): It is virtually impossible to guarantee that no adverse movement of adjacent structures will occur when excavations of these proposed depths are proposed using the kinds of earth retaining support measures cited unless all structures to remain are underpinned to depths extending below proposed excavation levels. Accordingly, and due to the age and type of construction of the structures to remain, PS&S recommends that a structural engineer visit the adjacent structures and assess whether or not they can withstand slight movements that they will likely experience during proposed excavation. If the buildings cannot take the anticipated movements then the structures will have to be underpinned and braced to preclude adverse movements both vertical and horizontal.

Response 3.1-10: The Applicant's structural engineer will perform a site visit of the adjacent structures and assess whether or not they can withstand slight movements that they will likely be experienced during proposed excavation. Said visit shall be carried out with City staff and/or their designated engineering consultant. As per the comment, if the buildings cannot take the anticipated movements, the structures will have to be underpinned and braced to preclude adverse movements, both vertical and horizontal.

Comment 3.1-11 (Letter 17, January 21, 2011, David McInerney, AICP, PS&S - City Engineering Consultant): Earth Support System - The cross sections on Sheet CS indicate that the excavations for the underground parking structure will be near the property lines and will be adjacent to the Metro North Railroad (MNR) right-of-way along the western boundary. In some areas the excavation appears to extend six to eight feet below the top of track. PS&S anticipates that MNR will not tolerate impacts to a mainline track right-of-way. The plan review by MNR identified in Table 2-2 (Reviews, Permits and Approvals) should include review by MNR engineers of the detailed design of the earth support system to be used to preclude lateral and vertical movement of the tracks and other train line support systems.

Response 3.1-11: Prior to issuance of any building permit, construction details of the earth support system will be transmitted to Metro North for their review and comment. Said details shall ensure that lateral and vertical movement of the tracks and train line support systems are precluded.

Comment 3.1-12 (Letter 18, April 22, 2011, Yonkers Dept. of Planning & Development): Typo, third paragraph, "One (sic) Non-Hazardous..." should be ONCE

Response 3.1-12: Comment noted.

Comment 3.1-13 (Letter 18, April 22, 2011, Yonkers Dept. of Planning & Development): Temporary or permanent easements are proposed for tie backs to secure the foundation. Has there been consideration of payments to the City of Yonkers for the easements? What is the

estimated cost of repair or replacement of the area of the City of Yonkers infrastructure surrounding the easements? Will a cash bond or other surety be offered by the developer?

Response 3.1-13: *The Applicant will be required to repair or replace any infrastructure disturbed within said easement, once defined. As set forth in Comment 3.1-1, if any impact is deemed possible, an escrow account or bond will be necessary to mitigate in an amount recommended by the City engineering department.*

Comment 3.1-14 (Letter 18, April 22, 2011, Yonkers Dept. of Planning & Development):

Page 1-3 What payment to the City of Yonkers has been considered for the franchise use of the Right of Way for the proposed geothermal wells?

Response 3.1-14: *The Applicant does not propose to pay a franchise fee for use of the City right-of-way. It is the Applicant's position that construction of geothermal wells results in an overall environmental benefit to the City by reducing air pollutants that are normally emitted from natural gas-fired boilers. The geothermal wells are being operated in conjunction with other on-site utilities to eliminate use of natural gas-fired boilers.*

Comment 3.1-15 (Letter 18, April 22, 2011, Yonkers Dept. of Planning & Development):

Page 1-3 Explain if the use of geothermal wells at this site would preclude the use of geothermal wells at other nearby sites. Explanation can be qualitative.

Response 3.1-15: *The geothermal wells will be placed in the sidewalk directly in front of the Teutonia Buena Vista development, spaced at a distance of approximately 20 feet apart. The wells will recirculate the heat exchange water in an open looped system. Groundwater would be pumped from the underlying aquifer and then recirculated within the wells to exchange heat. Based upon temperature gradients alone, geothermal wells could be installed on nearby properties greater than approximately 25 to 50 feet from the Buena Vista wells. This would not preclude a geothermal system being installed on the opposite (east) side of Buena Vista Avenue. Geothermal systems could be installed on nearby properties, greater than 50 feet from the Teutonia Buena Vista geothermal wells.*

Comment 3.1-16 (Letter 18, April 22, 2011, Yonkers Dept. of Planning & Development):

Page 1-4 The property has trapped soil vapors. It is not clear in the executive summary what is trapped and what will be released by the demo of the buildings.

Response 3.1-16: *As identified in 3.11 of the DEIS, tetrachloroethylene and trichloroethylene are constituents that have been measured in the soil via soil gas sampling. The Applicant proposes to remove contaminated soils after the demolition of the proposed buildings to remediate the site.*

Comment 3.1-17 (Letter 18, April 22, 2011, Yonkers Dept. of Planning & Development):

Which report is correct and does it matter what rock underlies the site?

Response 3.1-17: *The bedrock listed in the DEIS Soils and Topography Section 3.1, page 3.1-1, is correct, based upon review of the Geologic Map of New York State. See Comment 3.1-5 wherein the City's engineering consultant confirms that the underlying bedrock is Fordham Gneiss as represented in the DEIS. The nature of the bedrock is important to the extent that the drilled piers of the building may be supported by the underlying bedrock.*

Comment 3.1-18 (Letter 18, April 22, 2011, Yonkers Dept. of Planning & Development):
Page 3.1-2 How many truck trips does 43,430 cu. yd. equate to?

Response 3.1-18: *As per page 3.1-3, approximately 2,900 trucks trips are anticipated.*

Comment 3.1-19 (Letter 18, April 22, 2011, Yonkers Dept. of Planning & Development):
Page 3.1-3 notes that excavation and bracing system will be shown as a part of the construction documents after the site plan review approval. Schematic design should be submitted earlier, particularly discussion of easements, as a part of the environmental review to allow discussion of the propriety of the applicant's proposal. At the least this information must be a part of the formal site plan review to allow for any changes that might occur should the Planning Board or other city agency reject the proposed methods.

Response 3.1-19: *As set forth in Comment 3.1-1, the Applicant will produce a sheeting/bracing and dewatering design acceptable to the building and engineering departments that will ensure that all adjacent property owners (including the City of Yonkers) and infrastructure will be properly protected and not impacted prior to issuance of a building permit. If any impact is deemed possible, an escrow account or bond will be established.*

Comment 3.1-20 (Letter 18, April 22, 2011, Yonkers Dept. of Planning & Development):
Based upon other sites with similar sized cuts it is imperative that the site dewatering and site protection plans be reviewed as a part of the FEIS.

Response 3.1-20: *As set forth in Comment 3.1-1, the Applicant will produce a sheeting/bracing and dewatering design acceptable to the building and engineering departments that will ensure that all adjacent property owners (including the City of Yonkers) and infrastructure will be properly protected and not impacted. If any impact is deemed possible, an escrow account or bond will be established.*

Comment 3.1-21 (Letter 18, April 22, 2011, Yonkers Dept. of Planning & Development):
Page 3.1-4 Potential Soil Erosion Soil erosion impacts upon the rail road right of way are the most important short term impact. Soil slip or heavy erosion could have disastrous impacts on the rail road. Long term impacts on the Hudson are important but far more subtle.

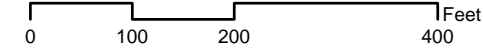
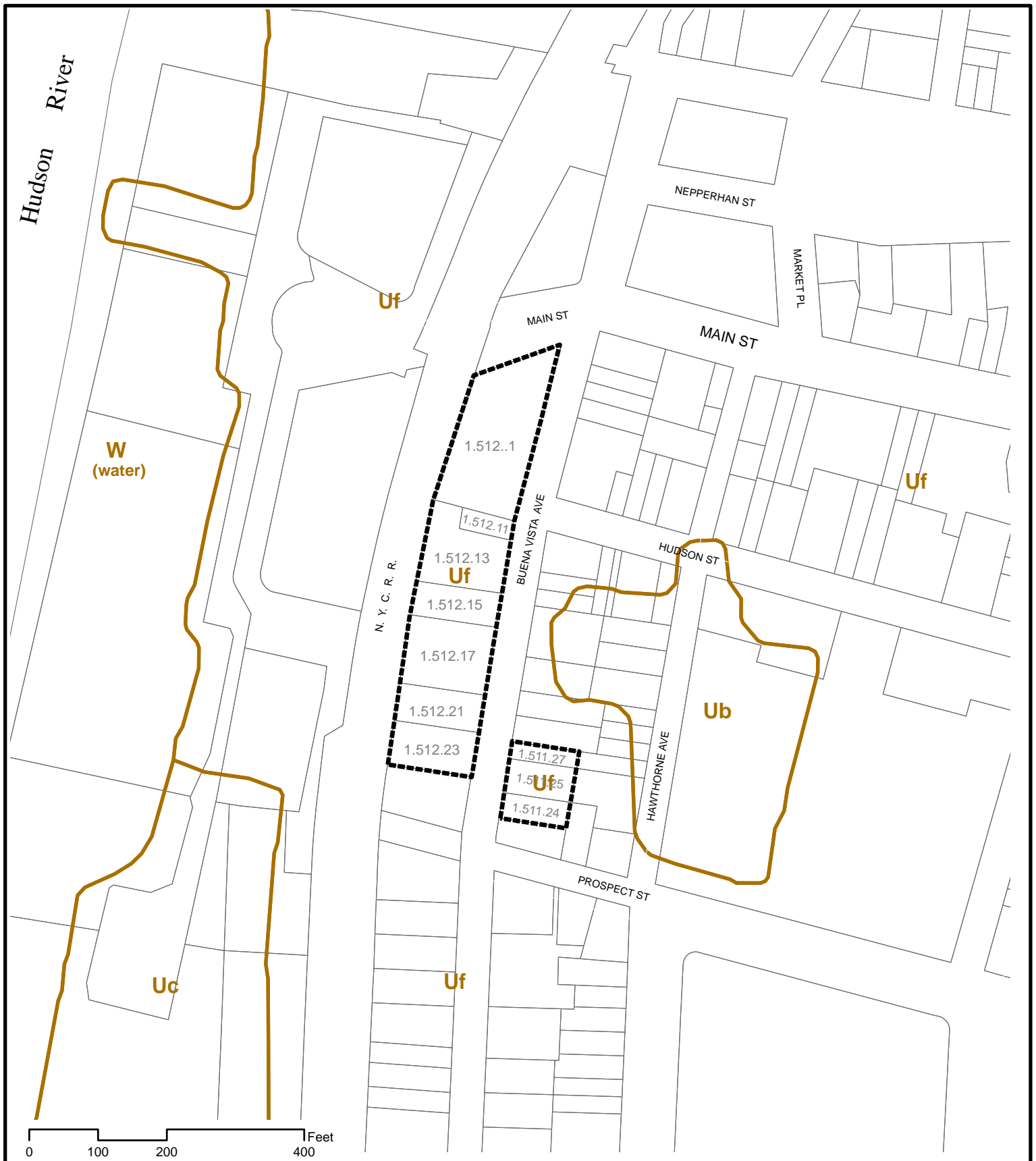
Response 3.1-21: *The construction manager will ensure that the proposed erosion control structures at the western property line (adjacent to the Metro North rail line) are properly installed and that they are rigorously maintained. The SWPPP provides a maintenance schedule for the inspection and maintenance of the stormwater management facilities.*

Comment 3.1-22 (Letter 18, April 22, 2011, Yonkers Dept. of Planning & Development):
Figure 3.1-1 Soil Map Key needed for the soil types.



Response 3.1-22: *A key is now provided in the revised Figure 3.1-1 Soils Map.*

Comment 3.1-23 (Letter 18, April 22, 2011, Yonkers Dept. of Planning & Development):
Figure 3.1-5 Proposed grading plan. Seems to be mislabeled as it seems to be a storm water plan.

Response 3.1-23: *Figure 3.1-5 of the DEIS is reproduced from Sheet GR, Site Plan - Grading & Utilities, of the site plan set. It includes data regarding grading.*



Soils Legend

-  Soils Classification Boundary
-  Site Property Boundary
- Ub** Udorthents, smoothed
- Uc** Udorthents, wet substratum
- Uf** Urban Land

File: 09044 5/25/11
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Figure 3.1-1: Soils Map
Buena Vista Teutonia PUR
 City of Yonkers, Westchester County, NY
 Source: Westchester County GIS, 2006 Soil Survey (SSURGO)
 Scale: As shown