Airport Campus Redevelopment

Draft Environmental Impact Statement (DEIS)

and

Draft Generic Environmental Impact Statement (DGEIS)

lead agency:
Town of North Castle Town Board

Applicant/Petitioner:
Airport Campus I – V LLC

prepared by:
AKRF, Inc.

DEIS Acceptance Date: June 23, 2021

DEIS Public Hearing: July 28, 2021

DEIS Comments Accepted Through: September 30, 2021

June 23, 2021

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June 23, 2021

Lead Agency:	Town of North Castle Town Board Town Hall 1 Bedford Road Armonk, New York 10504 Contact: Adam Kaufman, Director of Planning 914-273-3000 x43
SEQRA Classification:	Type I Action
Project Location:	Town of North Castle 113 King Street, Armonk, New York, 10504 Tax Map: 118.02-1-1, 113.04-1-13, and 113.04-1-14
Applicant/Petitioner:	Airport Campus I LLC, Airport Campus II LLC, Airport Campus III LLC, Airport Campus IV LLC, and Airport Campus V LLC Contact: Geoff Ringler Phone: 914-764-1000
Prepared by:	AKRF, Inc. 34 South Broadway White Plains, New York 10601 Contact: Peter Feroe, AICP Phone: 914-922-2350
DEIS Acceptance Date:	June 23, 2021
DEIS Public Hearing:	July 28, 2021
DEIS Comments Accepted Through*:	September 30, 2021

* Written comments on the DEIS will be accepted until the close of business on, or 10 days following the close of the public hearing, whichever is later. The comment period may be extended at the discretion of the Lead Agency.

Written comments may be submitted to the Lead Agency via:

USPS:	E-mail:
Lead Agency, as above	akaufman@northcastleny.com

This document is the Draft Environmental Impact Statement and Draft Generic Environmental Impact Statement for the Airport Campus Redevelopment. Copies are available for review at the office of the Lead Agency, on the internet: https://www.northcastleny.com/home/pages/airport-campus, and at the North Castle Public Library.

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Wastewater Engineer:	Provident Design Engineering 7 Skyline Drive Hawthorne, NY 10532

This DGEIS has been sent to the following Involved and Interested Agencies:

Involved Agencies

Town of North Castle Town Board, Lead Agency
Town of North Castle Planning Board
Town of North Castle Architectural Review Board
Town of North Castle Engineering
Town of North Castle Water & Sewer Department
Town of North Castle Highway Department
Town of North Castle Building Department
Westchester County Department of Environmental Facilities
Westchester County Department of Health
Westchester County Department of Public Works
New York State Department of Environmental Conservation, Region 3
New York State Department of Transportation
New York State Office of Parks, Recreation and Historic Preservation
New York City Department of Environmental Protection

Interested Agencies

Armonk Fire Department
North Castle Police Department
Town of North Castle Conservation Board
Town of North Castle Open Space Committee
Town of North Castle Parks and Recreation Department
New York State Office of the Attorney General, Environmental Protection Bureau

Others

Byram Hills School District
Westchester County Planning Board
The Environmental Notice Bulletin (ENB), enb@gw.dec.state.ny.us

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Chapter 1: Executive Summary

1.A. OVERVIEW AND PROCEDURAL CONTEXT

1.A.1. OVERVIEW

Airport Campus I LLC, Airport Campus II LLC, Airport Campus III LLC, Airport Campus IV LLC, and Airport Campus V LLC (collectively "the Applicant") is seeking discretionary approvals from the Town Board of the Town of North Castle (the "Town Board") in order to repurpose and redevelop approximately 38 acres of contiguous property known as "Airport Campus" located at 113 King Street (tax map parcels 118.02-1-1, 113.04-1-13, and 113.04-1-14) in the Town of North Castle, Westchester County, New York (the "Project Site" or "Site"). Specifically, the Applicant proposes to re-occupy the southernmost existing office building for office uses, adaptively re-use the northernmost existing office building as a hotel, and construct new residential uses to the north of the existing buildings, in the form of a five-story, approximately 149-unit multi-family building (with structured parking underneath) and approximately 22 two-story townhomes (the "Proposed Project"). To redevelop the Site as proposed, the applicant has petitioned the Town Board for text amendments to the DOB-20A provisions of the Town's Zoning Ordinance to permit residential and hotel uses via special permit and to provide bulk and density requirements for those uses (the "Proposed Zoning"). Collectively, the Proposed Project and the Proposed Zoning are the "Proposed Action."

The Project Site, located within the Town's Designated Office Business 20A ("DOB-20A") zoning district, is the former corporate headquarters of the Municipal Bond Insurance Association (MBIA) and is currently improved with approximately 261,000 square feet (sf) of office space within two currently vacant three-story buildings and other associated improvements (e.g., parking, accessory structures, ancillary uses). Access to the Project Site is provided from the existing signalized driveway intersection with King Street/NYS Route 120.

Pursuant to the rules and regulations of the State Environmental Quality Review Act ("SEQRA," Article 8 of the Environmental Conservation Law, and its implementing regulations at 6 NYCRR 617), the Town Board, acting as SEQRA Lead Agency, determined that the Proposed Action has the potential to result in one or more significant adverse environmental impacts. To identify appropriate measures to mitigate potential impacts and allow the public the greatest opportunity to comment on the potential impacts of the Proposed Action, the Town Board adopted a Positive Declaration on September 12, 2018, requiring the preparation of an Environmental Impact Statement (EIS). Public scoping for the EIS took place over two sessions (September 26th and October 10th, 2018) at the North Castle Town Hall (15 Bedford Road, Armonk, New York). The public comment period on the Draft Scoping Document concluded on October 26, 2018. On March 13, 2019, the Town Board adopted the Final Scoping Document, which sets forth the analyses required in the EIS (see **Appendix A-1**).

While a specific redevelopment proposal, the "Proposed Project," is being proposed pursuant to the requirements of the DOB-20A zoning district and SEQRA regulations, the Applicant notes that market conditions will necessarily dictate the precise composition of an eventual site plan. Accordingly, in addition to preparing a detailed analysis of the potential environmental impacts of the Proposed Project, the Applicant has prepared analyses for several different project alternatives. It is the purpose of these alternatives to identify and analyze the potential environmental impacts of a range of zoning-compliant site plans, such that if the Town Board approves the Proposed Zoning, the environmental impacts of a range of reasonably anticipated potential site plans that may differ from the Proposed Project will have been analyzed through the SEQRA process.

1.A.2. PROCEDURAL CONTEXT

This document is a Draft Environmental Impact Statement ("DEIS") and a Draft Generic Environmental Impact Statement ("GEIS"), collectively the "DGEIS." The DGEIS was prepared in accordance with the rules and regulations of SEQRA (6 NYCRR 617) and the adopted scoping document (see **Appendix A-1**). The DEIS portion of the document analyzes the potential environmental impacts that could result from implementation of the Proposed Project and alternatives and identifies potential mitigation measures for those impacts. The GEIS portion of the document analyzes the potential for the Proposed Zoning to have an adverse environmental impact by permitting new uses and density of uses on sites throughout the DOB-20A, not just on the Project Site.

The DEIS analyses are performed at a more detailed level than the GEIS analyses, given that a specific PDCP is proposed for the Project Site while no specific development proposal is being made for other parcels within the DOB-20A.

1.A.3. PURPOSE AND NEED

As described in the Applicant's Petition (see **Appendix A-2**), changing market conditions have put significant pressure on large office campus parcels. Since its acquisition of the property in 2015, the Applicant has been marketing the property to potential tenants, to date without success. The purpose of the Proposed Action is to provide a solution to this challenge by permitting a wider range of uses on the Project Site, consistent with the Town's recently updated Comprehensive Plan. At the same time, the Applicant recognizes that there is a Town-approved site plan that permits the expansion of the Site's current office uses. This plan was approved by the Town after consideration of the environmental impacts of that expansion. As such, the uses and densities included in the Proposed Zoning were calibrated to allow redevelopment of the Project Site in a manner that generally fits within the window of environmental impacts of the currently approved project, but that also provides the Applicant flexibility with respect to an ultimate redevelopment scenario.

1.A.4. INVOLVED AGENCIES AND REQUIRED APPROVALS/PERMITS

To redevelop the Project Site as proposed, the Applicant has petitioned the Town Board for text amendments to the Town's Zoning Code. The Applicant has also applied to the Town Board for approval of a Preliminary Development Concept Plan (PDCP) and a Special Permit, which would allow for the subsequent preparation of a detailed site plan and potential subdivision application to construct the Proposed Project. A future site plan or subdivision application would be subject to approval by the North Castle Planning Board.

A list of the approvals required to construct the Proposed Project is below. The governmental agencies responsible for those approvals, identified in parentheses, are identified as "Involved Agencies" pursuant to SEQRA.

- DOB-20A Zoning Text Amendment (Town Board)
- Preliminary Development Concept Plan Approval (Town Board)
- Special Permit for Hotel, Multi-Family, and Townhouse uses (Town Board)
- Site Plan Approval (Planning Board, Town of North Castle)
- Subdivision Approval (Planning Board, Town of North Castle)
- Wetland Buffer Disturbance (Planning Board, Town of North Castle)
- Tree Removal (Planning Board, Town of North Castle)
- Municipal Separate Storm Sewer System (MS4) Approvals (Town Engineering Consultant)
- Connections to North Castle Sewer District #3 (Town of North Castle Water and Sewer Department)
- Driveway Permit (Town of North Castle Highway Department)
- Building Permit (Town of North Castle Building Department)
- Water System Approval/Realty Subdivision (Westchester County Department of Health)
- Sanitary Sewer Allocation (Westchester County Department of Environmental Facilities)
- State Pollution Discharge Elimination System (SPDES) General Permit for Stormwater Discharges from Construction Activity (New York State Department of Environmental Conservation [NYSDEC])
- Water Withdrawal Permit (NYSDEC)
- Stormwater Pollution Prevention Plan (SWPPP) Approval (New York City Department of Environmental Protection [NYCDEP] and NYSDEC)
- Curb Cut to King Street (New York State Department of Transportation)
- Section 14.09 Review (New York State Office of Parks, Recreation, and Historic Preservation)
- Building Permit Review, Westchester County Department of Public Works/Department of Transportation (§239-f of General Municipal Law)

In addition to the above approvals, pursuant to §277.61 of the Westchester County Administrative Code, the Proposed Zoning must be referred to the Westchester County Planning Board prior to final action by the Town Board and the site plan must be referred at least 30 days prior to final action by the Planning Board.

Finally, several "Interested Agencies" will be participating in review of the Proposed Action pursuant to SEQRA, including:

- Town of North Castle Conservation Board
- Town of North Castle Open Space Committee
- Town of North Castle Parks and Recreation Department

- New York State Office of the Attorney General – Charles Silver, Ph.D, Watershed Inspector General Scientist, Environmental Protection Bureau

1.B. PROJECT SITE AND DEVELOPMENT HISTORY

1.B.1. PROJECT SITE

The Project Site is located at 113 King Street in the Town of North Castle, Westchester County, New York and is generally bounded by Cooney Hill Road to the north, King Street to the east, and undeveloped forested areas bordering the Kensico Reservoir (owned by the City of New York under the jurisdiction of the NYCDEP) to the west and south. The Project Site is approximately 38 acres in size and consists of the following three tax parcels and associated addresses (see **Figure 1-1**):

- **118.02-1-1 (113 King Street):** Approximately 36 acres generally located on the west side of King Street between American Lane and Cooney Hill Road;
- **113.04-1-13 (formerly 3 Weber Place):** Approximately 1 acre on the south side of Cooney Hill Road (northwest corner of the Project Site); and
- **113.04-1-14 (formerly 1 Weber Place):** Approximately 1 acre on the south side of Cooney Hill Road (northwest corner of the Project Site).

As shown in **Figure 1-1**, the southern portion of the Project Site is currently improved with what was previously MBIA's corporate headquarters and contains a vacant, three-story, approximately 100,000-sf office building in the southwest corner; a second vacant, three-story, approximately 161,000-sf office building immediately north of the 100,000-sf building; approximately 328 surface parking spaces (two surface lots); a three-story parking structure containing approximately 316 parking spaces; a circa 1820s farmhouse and accessory shed/barn (used for storage and maintenance purposes); a water feature/stormwater pond; and landscaping. The northern portion of the Project Site contains meadows, landscaping, and outdoor amenities for the uses described above, including paved tennis courts, a volleyball court, and walking paths.

1.B.2. CURRENTLY APPROVED DEVELOPMENT PLAN

MBIA, the Site's previous owner, acquired an approximately 93,000-sf office building on the Project Site in the early 1980s. As part of that acquisition, MBIA secured and transferred 60,000 sf of additional development rights from what is now the Swiss Re parcel and constructed a 60,000-sf expansion. After approvals were issued by the Town of North Castle, construction of the expansion commenced in 1991 and occupancy commenced in 1993. Following a period of rapid corporate growth, MBIA recognized the need to expand its headquarters. Toward that end, and following completion of a review under SEQRA, MBIA received approval to construct an additional 101,000 sf of office and related amenity space in 1996. Once constructed, this brought the total development to approximately 261,000 sf of office and related amenity space, which is the current development found on the Project Site.

In 2003/2004, the Town Board and Planning Board approved the development of an additional 238,000 sf of office and related amenity space, including a 20,000-sf meeting house. These approvals allow for an increase of office space on the Project Site from approximately 261,000 sf of office and related amenity space that exists today to

approximately 499,000 sf of office and related amenity space, including the proposed meeting house. This approval also provided for the construction of a five-story parking structure containing approximately 1,000 parking spaces.

A site plan delineating the currently approved development plan is shown in **Figure 1-2**. While the most recent approvals for the additional expansion have been granted extensions by the Town and remain in full force and effect today, no new structures contemplated by those approvals have been built. However, several site improvements were made pursuant to those approvals. Specifically, the 16 single-family homes within the Cooney Hill area were demolished and their associated infrastructure (e.g., oil tanks, septic systems) were removed. Similarly, Weber Place was de-mapped by the Town and demolished. Several walking paths were introduced in the northern portion of the Site. The improvement most visible from off-Site was the creation of the landscaped berm along King Street. This berm, planted with woody vegetation, significantly screens the interior of the Project Site from motorists traveling along King Street.

The potential environmental impacts of this office expansion were documented in the 2004 Statement of Findings (see **Appendix A-4**) and are considered as a baseline, or No Action, alternative in Chapter 18, "Alternatives," of the DGEIS.

In addition, subsequent site plan and Stormwater Pollution Prevention Plan (SWPPP) approvals, which are still in effect, were granted by the Town for a 94-space expansion of the existing 43-space parking area (for 137 total spaces) located adjacent to the farmhouse in the southern portion of the Project Site.

1.B.3. EXISTING CONSERVATION EASEMENT

During the approval process for MBIA's prior expansion, MBIA was contacted by the Natural Resources Defense Council (NRDC) and Riverkeeper, Inc. (Riverkeeper). MBIA, NRDC, and Riverkeeper entered into discussions with the goal of protecting and enhancing the environment by incorporating innovative design characteristics and maximizing the use of existing impervious surfaces. As a result of those discussions, the development plan provided for a decrease of impervious surface on the Project Site of approximately 11,700 sf below the then existing conditions (i.e., when there was a residential subdivision on the Project Site).

On October 8, 2003, MBIA, NRDC, and Riverkeeper entered into an agreement (the "Agreement") memorializing the mitigation measures and design components agreed to among the parties with respect to expansion of MBIA's corporate headquarters. A copy of the Agreement is attached as **Appendix B-1**.

Pursuant to paragraph 2.5 of the Agreement, MBIA agreed to forego any future right to develop a portion of the Cooney Hill area adjacent to the DEP property. Paragraph 2.5 also provided that the restriction on development was to be memorialized in a conservation easement to an appropriate entity to be mutually agreed upon among the parties. A portion of the conservation easement area was to be irrevocable in the form of a 50-foot-deep, approximately 1.95-acre strip of property immediately adjacent to the DEP property. The balance of the conservation easement area (approximately 6 acres) was to be revocable if two conditions were met, as follows: (i) MBIA has not constructed both the proposed office building and the associated parking structure; and (ii) MBIA sells the Cooney Hill lots to a third party for a stand-alone development.

MBIA never constructed the previously approved office expansion project and eventually sold the Cooney Hill lots (and the remainder of MBIA's property) to the Applicant, thereby satisfying the requirements for the revocation of that portion of the conservation easement area deemed to be revocable and enabling the Applicant, as successor in interest to MBIA, to revoke that portion of the Conservation Easement area. The irrevocable easement area remains, with no development permitted therein. The Proposed Project utilizes a small portion of the approximately 6-acre revocable portion of the Conservation Easement to construct a new stormwater management area, but respects the remainder of the revocable portion and all of the approximately 1.95-acre irrevocable portion.

1.B.4. OTHER EASEMENTS AND RESTRICTIONS

Other than the Conservation Easement described above, the Project Site does not contain any other easements, restrictions, or other conditions that affect the future development and use of the Project Site. A full Title Report for the Project Site is attached as **Appendix B-4**.

1.C. DESCRIPTION OF THE PROPOSED ACTION

1.C.1. PROPOSED PROJECT (DEIS)

As stated above, the Applicant has developed a PDCP for the Project Site, which details the Proposed Project. Approval of the PDCP by the Town Board would allow for the subsequent preparation of a detailed site plan and subdivision application to construct the Proposed Project (subject to approval by the North Castle Planning Board and other Involved Agencies).

The Proposed Project (PDCP), which is the primary subject of the DEIS, proposes the redevelopment of the Project Site as follows (see **Figure 1-3** and **Table 1-1**):

- Re-occupancy of the southernmost existing, approximately 100,000-sf office building for office uses. Other than the possibility of additional rooftop equipment, the addition of patios or terraces, etc. there would be no significant changes to the building's footprint or height;
- Conversion of the northernmost existing, approximately 161,000-sf office building to an approximately 125-key hotel with accessory spa, fitness, and restaurant space. Other than the possibility of additional rooftop equipment, the addition of patios or terraces, etc. there would be no significant changes to the building's footprint or height;
- Construction of additional surface parking to the south of the existing office buildings to support their proposed re-use;
- Construction of an approximately 149-unit multifamily residential building to the north of the hotel. The proposed multifamily building would consist of five floors of residential space over two stories of above-grade parking, with another level of parking proposed below-grade. The three levels of parking would provide approximately 331 parking spaces.

  The proposed multifamily building would be approximately 78 feet in height above average grade and would contain approximately 225,465 gross square feet (gsf) of residential floor area, including lobby and amenity space. Of the total 149 units,

approximately 49 would be one-bedroom units (average unit size of 930 sf) and approximately 100 would be two-bedroom units (average unit size of 1,183 sf).

- Construction of 22 two-story townhomes in the Cooney Hill (northern) portion of the Project Site. The total aggregate floor area of the townhomes would be approximately 67,760 gsf. The townhomes would be up to 32 feet in height above average grade.

Accessory uses and amenities for the Proposed Project are subject to change, but may include:

- Restaurant within the proposed hotel;
- Outdoor swimming pool and landscaped amenity terrace for the multifamily building;
- Landscaped outdoor recreation spaces with playground equipment for the multifamily building and townhouse community.

Table 1-1
PDCP Summary

Building ID	Existing Total Floor Area (gsf)	Proposed Total Floor Area (gsf)	Existing/Proposed Building Footprints (gsf)	Proposed Floor Area Breakdown (gsf)			Dwelling Units
				Residential	Hotel	Office	
Existing Northern Office Building	161,000	161,000	51,384	--	161,000	--	0
Existing Southern Office Building	100,000	100,000	25,921	--	--	100,000	0
Proposed Multifamily Building	N/A	225,465	67,094	225,465	--	--	149
Proposed Cooney Hill Townhomes	N/A	67,760	36,025	67,760	N/A	N/A	22
Total	261,000	**554,225**	**180,424**	**293,225**	**161,000**	**100,000**	**171 units**

Note: gsf: gross square feet
Sources: Airport Campus; Perkins Eastman Architects; JMC Engineering; and AKRF, Inc.

1.C.2. PROPOSED ZONING

To redevelop the Project Site as proposed, the Applicant has petitioned the Town Board for text amendments to the DOB-20A provisions of the Town's Zoning Ordinance in order to permit residential (multi-family buildings, townhouses, single-family dwellings, two-family dwellings, senior citizen housing and assisted living facilities) and hotel uses on the Project Site as special permit uses; to permit medical offices as a principal permitted use (considered as a clarification to the code); and to provide bulk and density requirements for those uses. Specifically, a new local law would amend several sections of Chapter 355 of the Town Code with respect to the DOB-20A Zoning District (see **Appendix A-2**). The proposed text amendments would:

- Implement the recommendations of the Town's 2018 Comprehensive Plan by allowing additional uses, and permitting a mix of uses, in the DOB-20A district (including office, medical office, hotel, multifamily, townhouse, single-family, and two-family dwellings, senior citizen housing, and assisted living facilities);

- Allow for the conversion of existing office and related amenity space and/or fully approved but unbuilt office and related amenity space to hotel use, including typical accessory uses such as a spa, fitness facility, and restaurant. Such conversion would be subject to Town Board approval and the following special conditions and requirements:
  - The conversion of existing office and related amenity space to hotel use can be accomplished either by repurposing existing building(s) or by demolishing existing building(s) and constructing new hotel space;
  - Hotel use shall be permitted on a single site in addition to other permitted uses; and
  - Parking requirements for hotel use shall be determined by the Planning Board.
- Allow for the conversion of existing office and related amenity space and/or fully approved but unbuilt office and related amenity space to multifamily, townhouse, single-family, and two-family dwellings; senior citizen housing; and/or assisted living facilities. Such conversion would be subject to Town Board approval and the following special conditions and requirements:
  - Residential conversion shall only be permitted for office and related space that has received all necessary approvals from the Town of North Castle, including zoning, subdivision, special permit, and/or site plan approvals, but not including building permit approval;
  - Each square foot of approved but unbuilt office and related amenity space, up to a maximum of 250,000 sf, may be converted into one and one-quarter (1.25) sf of residential and amenity space, with a maximum of 250 residential units (with density bonuses permitted for assisted living facilities and/or senior housing);
  - Each square foot of existing office and related amenity space, up to a maximum of 250,000 sf but not less than 50,000 sf, may be converted into one (1.00) sf of residential and amenity space, provided that at least 75 percent of the building(s) to be converted have been vacant and unleased for two (2) years prior to applying for the conversion;
  - Notwithstanding the provisions outlined above, the maximum residential unit count for any overall site shall not exceed 500; and
  - Notwithstanding any other provisions of Chapter 355, the Town Board, by special permit, may modify certain physical dimensional requirements, as follows:
    - Minimum front yard setback for multifamily buildings: 65 feet.
    - Minimum front yard setback for townhouses: 200 feet.
    - Minimum side yard setback for townhouses: 60 feet.
    - Minimum rear yard setback for multifamily buildings: 50 feet.
    - Maximum building coverage: 15 percent.
    - Maximum building height for multifamily buildings: 85 feet.
    - Maximum building height for townhouses: 35 feet.

Table 1-2 provides a summary of the existing and proposed dimensional regulations for the DOB-20A zoning district.

Table 1-2
Dimensional Regulations – Existing and Proposed DOB-20A

DOB-20A Dimensional Regulations	Existing DOB-20A Zoning	Existing Condition	Proposed DOB-20A Zoning	Provided
Area				
Minimum Lot Area	20 acres	37.8 acres	No change	No change
Minimum Frontage	500 feet	2,215 feet	No change	No change
Minimum Depth	500 feet	857 feet (avg)	No change	No change
Minimum Front Yard Setbacks				
Currently Permitted Uses (§ 355-23)	150 feet	61 feet(7)	No change	No change
Multifamily Residential Buildings	N/A	N/A	65 feet(1)	65 feet
Residential Townhomes	N/A	N/A	200 feet(1)	244 feet
Minimum Rear Yard Setbacks				
Currently Permitted Uses (§ 355-23)	300 feet / 10 feet(2)	14 feet	No change	No change
Multifamily Residential Buildings	N/A	N/A	50 feet(1)	61 feet
Minimum Side Yard Setbacks				
Residential Townhomes	N/A	N/A	60 feet(1)	64 feet
Maximum Building Coverage				
Currently Permitted Uses (§ 355-23)	10 percent	6.86 percent	15 percent(1)	3.69 percent
Multifamily Residential Buildings	N/A	N/A	15 percent(1)	4.08 percent
Residential Townhomes	N/A	N/A	15 percent(1)	2.19 percent
Maximum Building Height				
Currently Permitted Uses (§ 355-23)	As in § 355-30J(3)(c)	<45 feet	As in § 355-30J(3)(c)	No change
Multifamily Residential Buildings	N/A	N/A	85 feet(1)	Approx. 78 feet
Residential Townhomes	N/A	N/A	35 feet(1)	Approx. 32 feet
Floor Area Ratio				
Currently Permitted Uses (§ 355-23)	0.15	0.16(4)	No change	0.06-0.10
Multifamily Residential Buildings	N/A	N/A	N/A(3)	0.14(3)
Residential Townhomes	N/A	N/A	N/A(3)	0.04(3)
Parking				
Currently Permitted Uses (§ 355-23)	As in § 355-30J	473	As in § 355-30J	Shared with Hotel
Multifamily Residential Buildings	N/A	N/A	TBD(5)	347
Residential Townhomes	N/A	N/A	TBD(5)	4 per unit(6)
Hotel	N/A	N/A	TBD(5)	Shared with Office

Notes:
(1) Subject to Special Permit approval by the Town Board
(2) 10 feet for building adjacent to NYCDEP watershed lands by Special Permit
(3) Subject to other density limitations
(4) Increased floor area ratio permitted due to previous transfer of development rights
(5) Parking requirements for multifamily and townhouse uses shall be determined by the Planning Board in connection with site plan approval
(6) Parking for each residential townhome includes 2 driveway and 2 garage spaces (4 total)
(7) Previously approved by Special Permit from Town Board
Sources: Zoning Petition prepared by the Applicant; Town Code of the Town of North Castle

1.C.3. DESCRIPTION OF OTHER POTENTIAL DEVELOPMENT PERMITTED BY THE PROPOSED ZONING (GEIS)

As discussed above, the Proposed Zoning would apply to the entirety of the DOB-20A district. In order to analyze the potential environmental impacts of the Proposed Zoning, outside of the impacts specifically identified as a result of the Proposed Project, the GEIS developed a reasonable "worst-case" development scenario for parcels in the DOB-20A. The potential environmental impacts of this hypothetical, worst-case, development are analyzed in the GEIS portion of this document.

To develop this scenario, the GEIS first identified the parcels and existing development within the DOB-20A. In addition to the Project Site, there are several other parcels within the DOB-20A:

- 127-acre Swiss Re Parcel (175 King Street / tax parcel 113.04-1-2)
- 27-acre Citigroup Parcel (188 King Street / tax parcel 113.04-1-3)
- 1-acre residential parcel at 3 Cooney Hill Road (tax parcel 113.04-1-20)
- 1-acre vacant parcel at 32 King Street (tax parcel 118.02-1-2)

As described more fully in Chapter 2, "Project Description," only the Project Site and the Swiss Re parcel have the potential for additional development as a result of the Proposed Zoning (see **Figure 1-4** and **Table 1-3**). The Citigroup parcel does not contain existing office uses and therefore would not qualify for residential or hotel conversions. The two smaller parcels are not large enough to meet minimum lot size requirements for the DOB-20A. Therefore, for purposes of analyzing the potential environmental impacts of the Proposed Zoning, the GEIS developed a "worst-case" development scenario for the Project Site and the Swiss Re parcel. No specific proposal is being made at this time to effectuate the maximum hypothetical development and any future plans would be subject to review by the Town, including a full environmental review.

Table 1-3
Maximum Development Potential (Proposed Zoning) Project Site / Swiss Re Parcel

Property	Existing/Approved Floor Area	Conversion Ratio(s) Applied (Proposed Zoning)	Maximum Allowable Floor Area Assumed (Proposed Zoning)
Project Site (113 King Street)	261,000 sf office (existing) 238,000 sf office (approved/unbuilt)	1:1 existing office to residential + 1:1.25 approved/unbuilt office to residential	558,500 sf residential (~500 units)
Swiss Re Parcel (175 King Street)	360,000 sf office (existing)	1:1 existing office to hotel/residential	110,000 sf hotel (~80 rooms); 250,000 sf residential (~250 units)
Sources: Town of North Castle, Airport Campus I-V LLC, Swiss Re Life and Health America			

1.C.3.a. Swiss Re Parcel

The Swiss Re parcel is currently developed with approximately 360,000 sf of existing office space, together with a parking structure. Given market conditions, it is reasonable to assume that the maximum potential development scenario for the Swiss Re parcel under the Proposed Zoning would be similar in nature to the Applicant's PDCP for the Project Site (i.e.,

conversion of the existing office buildings to residential and hotel uses). Therefore, the GEIS component of this document assumes that the existing 360,000 sf of office space on the Swiss Re parcel would be converted (in a 1:1 fashion) to a combination of hotel and multifamily residential floor area. Specifically, the GEIS analyses the potential environmental impacts of 250,000 sf of residential space (approximately 250 residential units), and an approximately 110,000-sf, 80-key hotel on the Swiss Re parcel.

1.C.3.b. Potential for Development in Excess of the PDCP on the Project Site

The Proposed Zoning would allow for the development of several programs on the Project Site that are different from the proposed PDCP. However, for the purpose of providing a conservative environmental review, as well as based on market conditions and recent development trends in the Town, the Applicant believes it is most appropriate for the GEIS to study a full residential conversion as the theoretical maximum build out for the Project Site under the Proposed Zoning. While other Site configurations are possible, the alternatives studied in this GEIS analyze many of them (e.g., senior housing).

The Proposed Zoning allows for the conversion of existing and approved but unbuilt office floor area to residential floor area at a ratio of 1:1 and 1:1.25. Therefore, the maximum allowable residential program on the Project Site would be 558,500 sf (approximately 500 residential units).

1.D. POTENTIAL IMPACTS OF, AND MITIGATION FOR, THE PROPOSED PROJECT (DEIS)

This section summarizes the analyses of the potential impacts of the Proposed Project as well as the measures incorporated into the Proposed Project to minimize and mitigate those impacts. Each topic is discussed in greater detail in the subsequent chapters of this DGEIS. As stated above, the Proposed Action was designed to provide the Applicant flexibility to redevelop and reactivate the Project Site in a manner that is consistent with the Town's Comprehensive Plan and that generally fits within the window of the environmental impacts of the currently approved office expansion project. Therefore, it is appropriate to consider the potential impacts of the Proposed Project within the context of the impacts that could occur as a result of the currently approved project, as summarized in Section 1.F.1, "Alternative 1: No Action – Currently Approved Plan" below, and set forth in more detail in Section 18.B, "Alternative 1: No Action – Currently Approved Plan."

1.D.1. {This Section Intentionally Left Blank}

1.D.2. {This Section Intentionally Left Blank}

1.D.3. LAND USE, ZONING, AND PUBLIC POLICY

1.D.3.a. Land Use

Land uses within ½-mile of the Project Site generally consist of corporate office and conference centers, a single-family house, and New York City water supply lands adjacent to the Kensico Reservoir (under the jurisdiction of the New York City Department of Environmental Protection [NYCDEP]). With the exception of the single-family house near the northeast corner of the

Project Site, the character of this area is primarily defined as a commuter area consisting of workers traveling to and from corporate campuses during weekdays. King Street also serves as a means for through-traffic among destinations including but not limited to North White Plains, Westchester County Airport, I-684, Greenwich, Connecticut, and the hamlet of Armonk.

The Proposed Project would redevelop the Project Site with a mix of land uses, as opposed to the existing office campus setting or the currently approved office/conference expansion plan. As discussed below, introduction of residential uses to the Project Site is consistent with the Town's recently adopted Comprehensive Plan. It is the Applicant's opinion that the Proposed Project would not introduce land uses that are inconsistent with the land uses surrounding the Project Site. The Applicant's opinion is supported by the results of the traffic impact study and visual impact assessment prepared for the Proposed Project. The Proposed Project would activate an area of the Town that was historically a mix of office and single-family residential uses which, over the last 15 years, has seen limited interest from corporate office tenants and has been lacking a traditional neighborhood identity. The former subdivision south of Cooney Hill Road was acquired and removed (but for one house) to facilitate the currently approved plan.

In terms of the Proposed Project's compatibility with the Westchester County Airport and the appropriateness of the Project Site for residential use, considering that the site is predominately located within the airport's 60 Day-Night Average Sound Level (DNL) noise contour, it is the Applicant's opinion that no land use impacts are anticipated. It should be noted that a portion of the southwest corner of the Project Site, where the southern office building is proposed to remain, is within the 65 DNL noise contour. The reintroduction of residential uses to the portion of the Project Site within the 60 DNL noise contour, while at a higher density than the previous 17-lot subdivision, would not represent a unique condition when compared to historic and existing land uses surrounding the airport. While airport flyovers are common, as detailed in Chapter 16, "Noise," no significant adverse noise impacts are anticipated on the future residential uses. The existing noise levels from the airport in the vicinity of the Project Site do not reach a level requiring a degree of window-wall attenuation above what can be achieved through standard multifamily residential construction practices.

1.D.3.b. Zoning

As described above, to redevelop the Project Site as proposed, the Applicant has petitioned the Town Board for text amendments to the DOB-20A provisions of the Town Zoning Code in order to permit residential (multi-family buildings, townhouses, single-family dwellings, two-family dwellings, senior citizen housing and assisted living facilities) and hotel uses on the Project Site as special permit uses; to permit medical offices as a principal permitted use (considered as a clarification to the code); and to provide bulk and density requirements for those uses. In the Applicant's opinion, the Proposed Zoning would implement the recommendations of the Town's 2018 Comprehensive Plan.

The Proposed Zoning would allow the Town Board, by special permit, to increase the maximum allowable building height in the DOB-20A district from 45 feet to 85 feet for multifamily residential buildings. This increase in allowable height would permit the construction of taller buildings than would otherwise be permitted under the existing height provisions. In terms of the Proposed Project, this increase in height would result in a multifamily building that would only be visible from certain locations off-site, most notably from vehicular traffic along King Street.

The Proposed Zoning would allow the Town Board, by special permit, to modify certain physical dimensional requirements in the DOB-20A district for applications seeking residential conversions. These dimensional requirements include required setbacks, buildings heights, lot coverage, and parking requirements for multifamily and townhouse-style residential development. In the Applicant's opinion, the current dimensional regulations, created to accommodate the existing corporate facilities, do not translate to, and are not functionally applicable to, the repurposing of these properties for mixed-use developments. In the Applicant's opinion, the setback distances included in the Proposed Zoning between new residential uses on the Project Site and existing uses in the vicinity, including the single-family residential use near the northeast corner of the Project Site and the Swiss Re solar installation to the north, are adequate and comparable to other existing and proposed mixed-use developments in the Town.

1.D.3.c. Public Policy

It is the Applicant's opinion that the Proposed Project is consistent with relevant public policies, most notably the Town of North Castle's 2018 Comprehensive Plan. The Project Site is specifically referenced in several places in the updated Comprehensive Plan with respect to both its locational importance and the need to expand its development potential to accommodate a mix of infill development including, but not limited to, residential, office and hotel uses. Given the fact that efforts to market the existing office buildings on the Project Site have thus far been unsuccessful, it is the Applicant's opinion that the Proposed Zoning and PDCP further the Comprehensive Plan's long-term goals for the Project Site and neighboring parcels within the DOB-20A district.

1.D.3.d. Mitigation Measures

While the Proposed Project would result in physical changes to portions of the Project Site, it is, in the Applicant's opinion, consistent with the land use plans governing the area, including the Town's Comprehensive Plan. The most notable impact would be a relatively minor change in views of the Project Site from King Street and Cooney Hill Road due to the presence of new structures on land that is currently landscaped lawn/wooded meadow. A new comprehensive landscaping plan is proposed to provide a visually attractive site as well as a transitional buffer between the Project Site and King Street/Cooney Hill Road. Several other mitigation measures have been incorporated into the Proposed Project, including:

- The Proposed Project would not result in an increase to impervious surfaces when compared to the currently approved site plans or the condition when the Cooney Hill area of the Site was developed for residential uses;
- The proposed multifamily building and townhomes have been sited and configured to take advantage of the site's topography. The proposed building placement preserves the existing visual screenings and buffers along the perimeter of the Project Site, which include landscaped berms, stone walls, and evergreen trees to remain undisturbed. As discussed in Chapter 11, "Visual Resources and Community Character," in the Applicant's opinion, the proposed enhancement of the existing perimeter screening along King Street and Cooney Hill Road is an important visual and community benefit of the Proposed Project;
- The townhouse portion of the PDCP has been designed as an aesthetically pleasing, pedestrian friendly residential neighborhood in a natural setting, set back from, and consistent with, the scale of surrounding uses;
- The Proposed Project does not include development within the Site's irrevocable conservation easement adjacent to the DEP property; and
- As discussed in Section 2.C.5, "Conservation Easement," the Applicant has satisfied the requirements for the revocation of that portion of the conservation easement deemed to be revocable. However, the Proposed Project does not include any structures, roads, or drives within the revocable portion of the easement.

1.D.4. GEOLOGY AND SOILS

Based on the preliminary evaluation by the Applicant's Engineer, construction of the Proposed Project may require limited blasting activities for development of the northeast corner of the proposed multifamily building's parking structure, which may extend approximately ten feet into a rocky subsurface area of the Project Site. There is no other potential rock removal or rock crushing anticipated as part of construction. Final determination of whether blasting needs to occur and, if so, to what extent, would be made by the Applicant's contractor, in coordination with the Applicant's Engineer.

Approximately 46.2 percent (17.5 acres or 760,625 sf of the Project Site would be affected by site development activities, building construction and infrastructure installation. Most disturbance (approximately 42.2 percent) would occur within the PnB – Paxton Fine Sandy Loam soil unit (approximately 695,678 sf or 16 acres), which is suitable for development. Preliminary soil testing revealed acceptable permeability rates for stormwater infiltration.

Based on the Preliminary Geotechnical Engineering Report, groundwater was encountered in a number of the borings performed at the site at depths ranging from 1'-6" to 23-'0". Additional test pits TP-104 and TP-105 were performed in the footprint of the proposed multifamily building (including the parking garage). Groundwater was encountered in both test pits at depths of 8'6" and 11'0" below the existing ground surface, respectively (elevations +425.5 and +424.0). The anticipated lower level will extend 7 to 9 feet below the groundwater table. It is anticipated that stabilization of wet subgrades with geotextile filter fabric and clean crushed stone may be necessary.

The Preliminary Geotechnical Engineering Report recommends that additional borings and supplemental groundwater study should be performed within the footprint of the proposed multifamily building to better evaluate the soil, rock and groundwater conditions and finalize design recommendations. The Applicant proposes to undertake these additional investigations at the time of site plan approval, prior to preparing construction documents for the building.

To minimize and mitigate the potential for adverse impacts to soils during construction, the Proposed Project includes an Erosion and Sediment Control Plan (ESCP) and SWPPP. In addition, the layout and configuration of the Proposed Project has been designed to take advantage of the Project Site's topography and contours, thereby minimizing the potential for erosion hazards.

Blasting during the construction of the Proposed Project, if necessary, would be done in accordance with the Town of North Castle's Blasting Protocol (Town Code Chapter 122, "Blasting and Explosives"). The site-specific blasting protocol, which would be finalized during Site Plan Review based on the final site design and updated geotechnical investigations, would ensure that blasting activities would be protective of public health and safety to the maximum extent practicable." As discussed in Chapter 6, "Vegetation and Wildlife," any required rock blasting activities would be confined to the period of October 1 through December 1 if required based on guidance received from NYSDEC during Site Plan review.

1.D.5. TOPOGRAPHY AND SLOPES

In the Applicant's opinion, the Proposed Project is not anticipated to have significant long-term post-development adverse impact due to changes in surface coverage and topography. Based on the topography of the Project Site, and in order to create generally level development pads for the various proposed buildings, the Proposed Project would result in a net cut of approximately 13,324 cubic yards of material. Approximately 79 percent of the material to be excavated would be reused on the Project Site as fill, and the balance of the excavated material would be exported over the course of the construction period.

No areas of Town-regulated steep slopes are present on the Site within the Proposed Project's limits of disturbance. Therefore, the Proposed Project would not have an impact on Town-regulated steep slopes and no mitigation measures are required.

1.D.6. VEGETATION AND WILDLIFE

The Project Site consists of office buildings and an associated manmade pond feature, a parking structure, parking lot, athletic courts, and trail system through the northern vacant section of the site. The vacant land within the northern, Cooney Hill, area of the Site consists of mixed upland forest that was previously developed as part of a residential subdivision and is now young forest and field area that is routinely mowed. There are no rare or critical habitats on or adjacent to the Project Site that may be expected to provide habitat for protected species. Wildlife expected to occur within the Site include species typical to suburban settings that are relatively tolerant of humans. Based on consultations with state and federal wildlife officials, there is the potential for the following species to be located on or near the Project Site: the endangered Indiana bat (*Myotis sodalist)*, the

threatened Northern long-eared bat (*Myotis septentionalis*), and the threatened bald eagle (*Haliaeetus eucacephlus*).

Construction of the Proposed Project would result in a temporary loss of habitat for species that use mixed upland forest/field as the dominant habitat. Approximately six acres, or 28 percent, of mixed upland forest/field cover type would be removed from the Project Site. The majority of the disturbed forest/field cover type is located in the northern portion of the Project Site where previous disturbance has already occurred. This change in habitat coverage is not, in the Applicant's opinion, a significant adverse impact owing to the relatively low quality of the existing on-Site habitat and that there would not be an increase in impervious coverage on the Site compared to the currently approved development plan.

There are 799 existing trees within the proposed limits of disturbance. Of this total, 744 trees have a diameter at DBH of 8 inches or greater and are regulated by Chapter 308 of the Town Code. The Applicant proposes to remove approximately 368 trees in connection with construction. Approximately 451 new trees (deciduous and evergreen) would be planted on the Project Site, as indicated in the proposed landscaping plan.

To minimize and mitigate potential impacts to vegetation and wildlife, the following mitigation measures would be incorporated into the Proposed Project:

- Proposed site disturbance would occur in areas of the Project Site that have been previously disturbed for office and single-family residential uses;
- The Applicant will minimize impacts by establishing undisturbed, naturally vegetated zones demarcated in the field by orange construction fencing and by clearing only necessary areas within the limit of disturbance area or within building envelopes.
- The Applicant's schematic landscaping plan retains and revegetates areas within the development with native plant species. The landscaping plan proposes trees and other plantings along the perimeter of the development, parking lots, walking paths, and undisturbed wetland area.
- Select trees would be removed only within the proposed limits of site disturbance. Prior to removal of the approximately 368 trees identified, a permit from the Town's Building Inspector would be obtained in accordance with Chapter 308 of the Town Code. No unique trees were observed on the Project Site.
- As discussed in Chapter 6, "Vegetation and Wildlife," no Indiana bats or northern long-eared bats were observed on the Project Site during the fieldwork. However, to avoid any direct impacts to these bats potentially utilizing the site, to the maximum extent practicable, tree clearing activities would be limited to the October 1 to March 31 time period; unless the Applicant receives approval during Site Plan review from NYSDEC and the Planning Board that tree clearing can occur outside this time period.
- As discussed in Chapter 6, "Vegetation and Wildlife," any required blasting during construction would occur more than 0.5 miles from a known Bald Eagle nesting site. However, any required rock blasting activities would be confined to the period of October 1 through December 1 in order to avoid adverse impacts to protected species if, during Site Plan review, such restrictions are deemed necessary by the NYSDEC based on current guidance.
- A Town-approved SWPPP would be implemented to mitigate erosion potential into the regulated on-site wetland area.

- Elimination and minimization of fertilizer, pesticide, herbicide, fungicide and other chemical concentrations through avoidance and containment, respectively.
- Final grading and clearing limit lines for the Proposed Project would be surveyed and accurately demarcated in the field prior to tree clearing or site disturbance. The clearing/grading limit lines would be identified by metes and bounds and documented on the final plans.

1.D.7. WETLANDS

One wetland segment of approximately 0.247 acres is located at the western corner of the Project Site, abutting the east/west-oriented site boundary to the south of the former Weber Place. This wetland segment is regulated by the U.S. Army Corps of Engineers (USACE) and the Town of North Castle via Chapter 137 of the Town Code. The Town of North Castle also regulates a 100-foot wetland adjacent area or "buffer." There is approximately 1.81 acres of Town-regulated buffer on the Project Site. The Proposed Project would have no direct impacts to the on-site delineated wetland. The closest component of the Proposed Project to the wetland is an emergency gravel access drive, which will impact approximately 0.19 acres of the 100-foot Town regulated buffer. The proposed emergency gravel access drive is generally in an area of previous disturbance on the Project Site associated with the former MBIA outdoor recreation exercise stations and connecting drive/walkway. The Proposed Project's impact on the on-site wetland area will require approval from the Town Board of the Town of North Castle, and the wetland delineation itself was subject to review and concurrence by the Town of North Castle.[1] No USACE or NYSDEC wetland permits are required.

Mitigation measures may be required for the proposed disturbance of the wetland buffer. Such measures may include, but are not limited to, mitigation plantings, wetland maintenance, establishment of no-mow zones, removal of invasive species, and wetland buffer enhancement. The addition of native plantings along the proposed gravel emergency access, between the road and the wetland, will increase the functional capacity of the buffer and better protect the wetland as compared to current conditions. The Applicant would also prohibit the use of any chemicals (fertilizers, pesticides, herbicides, fungicides, etc.) within the Project Site's identified wetland/watercourse proper and within 100 feet of this wetland/watercourse.

1.D.8. STORMWATER MANAGEMENT

The Project Site is located within the drainage basin of the adjacent NYCDEP-controlled Kensico Reservoir. The major function of Kensico Reservoir is to receive water from all six Catskill and Delaware system reservoirs, and to make those waters available for the fluctuating daily consumption demands of New York City. The Kensico watershed's drainage basin is 13 square miles and includes portions of the Towns of Harrison, Mount Pleasant, North Castle and a small part of Fairfield County, Connecticut. This watershed contributes two percent, or less, of the total water volume of the existing reservoir.

[1] The Applicant's wetland consultant (Ecological Solutions) walked the site with the Town's wetland consultant on October 7, 2020. No changes to the flagged wetland boundary (as analyzed in this DEIS) were determined necessary following the site visit.

The currently approved site plans and SWPPPs allow for 10.51 acres of impervious surface on the Project Site. The Proposed Project, however, would result in only 9.96 acres of impervious surface on the Project Site. As such, the Proposed Project would not result in an increase in impervious surface when compared to the currently approved site plans.

To minimize and mitigate potential stormwater impacts, the Applicant has developed a Stormwater Pollution Protection Plan ("2021 SWPPP"). As demonstrated in the 2021 SWPPP and Chapter 8, "Stormwater," the stormwater design of the Proposed Project would result in a reduction the rate of stormwater exiting the Project Site for each modeled storm event when compared to the existing condition.

The Applicant is proposing a variety of practices to enhance stormwater quality and reduce peak rates of runoff associated with the Proposed Project. To the extent feasible and practicable, enhanced treatment and green infrastructure practices would be employed at the Project Site in conjunction with the SWPPP. For example, the Applicant is considering green roof areas for the proposed multifamily building's parking structure.

It is expected that the Integrated Pest Management (IPM) plan currently in place for the Project Site's existing office uses would remain in the Future with the Proposed Project. Through the SWPPP, it is the Applicant's opinion that any increases in pollutant concentrations resulting from the use of fertilizers, pesticides, herbicides, fungicides, and other chemicals are not considered significant and would be appropriately managed on-site. Furthermore, the Applicant would prohibit the use of any chemicals (fertilizers, pesticides, herbicides, fungicides, etc.) within 100 feet of any existing or proposed stormwater management pond or basin which permanently or periodically retains/detains stormwater.

The Applicant agrees to pay the customary Engineering Inspection Fee to cover the cost of the Town's Consulting Engineer's inspections. It should be noted that since the Proposed Project is within the New York City East of Hudson Watershed, NYCDEP approval of the SWPPP will be required, and as such, erosion and sediment control inspections will be required twice per week. This will ensure that potential erosion and sediment control issues are identified and addressed in a timely manner.

A construction bond will be posted by the Applicant to cover the cost of all stormwater infrastructure improvements including but not limited to drainage structures, water quality structures, piping, and stormwater management areas. The Applicant will be party to a maintenance agreement which will cover post construction stormwater management practices in perpetuity.

1.D.9. UTILITIES

1.D.9.a. Water Supply

There are six wells on the Project Site, referred to as Wells 3, 4, 5, 6, 7, and 8. Water for the existing development on the Project Site is currently supplied by four of these wells (Wells 3, 4, 5, and 6). In 2018, Wells 3, 6, 7, and 8 underwent zone hydrofracks in order to "clear and open the water-bearing fractures in the wells to improve the well yields."

As discussed in more detail in Chapter 9, "Utilities," and **Appendix F**, a 72-hour pumping test was conducted on Wells 3, 6, 7, and 8 in March 2021. The test was conducted in accordance with the NYSDEC Recommended Pumping

Test Procedures document and the NYSDOH Sanitary Code Part 5, subpart-5-1 Appendix 5-D. The planned well testing program was reviewed by both the NYSDEC and WCDH prior to conducting the test. The combined yield capacity of Wells 3,6,7, and 8 demonstrated during the 72-hour pumping test was 108.5 gpm or 156,240 gpd. Well 8 performed the best with a yield of 40 gpm. As shown in **Table 1-4**, excluding Well 8, the combined yield of the remaining Wells 3, 6, and 7 was 68.5 gpm or 98,640 gpd.

Table 1-4
On-Site Well Yield

Well Name	Well Yield (gallons per minute)
Well 3	15.1
Well 6	14.5
Well 7	38.9
Well 8	40.0
Combined Yield	108.5
Combined Yield with Best Well Out of Service	**68.5**
Source: WSP (see **Appendix F-1**)	

The Proposed Project would be expected to generate an average water demand of approximately 58,600 gpd (see **Table 1-5**). Water for on-Site irrigation would continue to be sourced from the existing on-Site pond. It is conservatively estimated that 50,000 gpd would be used to irrigate the existing and proposed lawn and landscaped areas. Water for fire suppression would be sourced from on-site water storage, as discussed below. The on-Site pond would also be available for fire suppression if needed.

Table 1-5
Water and Wastewater Demand – Proposed Project

Use	Units	Usage Rate (gpd / unit)	Overall Usage
Office	500 employees	12	6,000
Hotel	125 rooms	110	13,750
Restaurant (Hotel)	150 seats	28	4,200
Multifamily	249 bedrooms	110	27,390
Townhome	66 bedrooms	110	7,260
		Total	**58,600**

Sources: Provided by JMC based on "New York State Design Standards for Intermediate Sized Wastewater Treatment Systems," 2014. Usage rate is reduced by 20 percent for use of water-saving plumbing fixtures.

The combined yield capacity of Wells 3, 6, 7, and 8 demonstrated during the March 2021 72-hour pumping test was 108.5 gpm or 156,240 gpd. Well 8 was the best well with a yield of 40 gpm. Therefore, excluding the yield of Well 8, the combined yield of the remaining Wells 3, 6, and 7 was 68.5 gpm or 98,640 gpd. This maximum daily demand of 98,640 gpd would support an average daily demand of 49,320 gpd, which is 9,280 gpd less than the calculated Project demand discussed above (58,600 gpd). In accordance with the guidelines of developing twice the average daily demand, this difference would facilitate the need for an additional 18,560 gpd (12.9 gpm) to meet the Proposed Project's water demand.

The yield testing results and individual well capacities observed on the Project Site strongly indicate that there is sufficient groundwater available to achieve this additional capacity. The individual well yields from the 72-hour pumping test on Wells 3, 6, 7, and 8 were 15.1 gpm, 14.5 gpm, 38.9 gpm and 40 gpm. There is also another existing well onsite, Well 5, that has a tested yield capacity of 40 gpm. However, Well 5 was not included in the recent pumping test because of its proximity to a proposed stormwater management practice.

The Applicant has identified two measures that could be taken onsite to mitigate the potential shortfall between the Proposed Project's projected water demand and the tested capacity from the March 2021 72-hour pumping test.

The first possible mitigation measure would be the use of existing Well 5 in conjunction with the other onsite wells. The known yield capacity of Well 5 at 40 gpm would likely be more than adequate to provide the additional capacity of 12.9 gpm that is needed. However, the use of Well 5 would require revisiting the location of the planned stormwater management practice near the well site.

Another possible mitigation measure would be to drill an additional well on the Project Site. Adding another well has been preliminarily discussed with WCDH and the department is amenable to drilling a new well location assuming that it meets regulatory offset distance requirements for a community, public water-supply well. The most reasonable location to drill an additional well for the Proposed Project is on the northwest corner of the property off of Cooney Hill Road. This area affords sufficient space for a new well that can meet sanitary offset distance requirements. In addition, the yield capacities demonstrated in the other onsite wells support that achieving a yield of 12.9+ gpm in a new well is reasonable.

Pursuing either of these mitigation measures to develop the additional 12.9 gpm needed to meet the Proposed Project's water demand would require the completion of a supplemental 72-hour pumping test. The results from the March 2021 72-hour pumping test demonstrated a combined yield of 108.5 gpm from the onsite wells, that the available groundwater recharge was sufficient to support this withdrawal, and that water-level drawdown was observed in only one offsite well monitored during the test that was attributed to pumping in the Project Site wells. In the Applicant's opinion, similar results from a new 72-hour pumping test that includes either Well 5 or a new well on the Project Site are reasonable to expect. Upon verification of a final site plan, the supplemental 72-hour pumping test would be completed.

In addition to the above measures, and as part of standard construction practices, water saving fixtures would be installed throughout the Proposed Project, including in the renovations of the existing office buildings. During site plan approval, the Applicant would consider other water-saving measures, which may include harvesting rainwater for irrigation (including use of the existing pond), the use of less water-intensive plantings, and other systems as may be appropriate based on the final project design.

Lastly, the Applicant understands that the Town and the County are participating in a study to determine the viability of extending the County's water district north along King Street, adjacent to the Project Site. If such an expansion is determined feasible and is constructed, the Applicant may make use of this potential public water supply to meet some or all of the needs of the Proposed Project.

1.D.9.b. Sanitary Sewer

The Project Site is located within Town of North Castle Sewer District 3, which is an extension of the Westchester County Blind Brook Sewer District. Westchester County operates the Blind Brook Wastewater Treatment Facility which experiences an average daily flow of 2.9 million gallons per day (MGD) as recorded in 2017. The treatment facility has a permitted discharge flow capacity of 5.0 MGD.

The collection system consists of Town-owned gravity sanitary sewer mains and low-pressure force mains located between Cooney Hill Road and Airport Road to the North Castle Town line. At the North Castle Town line, the sewer continues through the Westchester County Airport, terminating at the Blind Brook Trunk Main Sewer. This portion of the collection system is owned and maintained by Westchester County Department of Environmental Facilities (WCDEF).

The original design of the collection system was intended to replace individual, separate sewage disposal (i.e., septic) systems which served both commercial and residential properties along the King Street and New King Street corridors. The system was also designed with intentions to connect proposed new buildings along the King Street / NYS Route 120 corridor.

Sections of the gravity sewers are connected to three (3) sanitary sewer pump stations which are located at low points along the route of the collection system. Pump Station 1 is located at the end of Cooney Hill Road. Pump Station 2 is located on the shoulder of southbound King Street (NYS Route 120), approximately 1,000 feet north of the bridge crossing at I-684. Pump Station 3 is located on the western shoulder of New King Street opposite the parking lot for Safe Flight Instrument Corporation at 13 New King Street.

The Proposed Project would connect into the existing sanitary sewer mains located within King Street and would be tributary to Pump Stations 2 and 3 located to the south of the Project Site. No easements or agreements with adjacent properties would be needed to connect into the system. As discussed in Chapter 17, "Construction," no impacts are anticipated related to the construction of the proposed sanitary sewer infrastructure within the Project Site, including connections to the existing sewer mains.

The Proposed Project would be expected to generate a sanitary sewer flow of approximately 58,600 gpd. According to the sanitary sewer design calculations / flow rate analyses (see **Appendix F-2**) prepared by Provident Design Engineering and summarized in Chapter 9, "Utilities," when compared to their original design capacities (see **Table 1-6**), Pump Stations 2 and 3 would be able to accommodate the proposed cumulative flows

accounting for existing development in the study area at full occupancy plus the Proposed Project (**see Table 1-7** and **Table 1-8**).

Table 1-6
Original Flow Calculations for Design at Pump Stations 1, 2, and 3

Flows	Pump Station 1	Pump Station 2	Pump Station 3
ADF	77,200 gpd (53.61 gpm)	108,100 gpd (75.07 gpm)	134,100 gpd (93.13 gpm)
AHF	115,800 gpd (80.42 gpm)	162,150 gpd (112.60 gpm)	201,150 gpd (139.69 gpm)
PHF	308,800 gpd (214.44 gpm)	432,400 gpd (300.27 gpm)	536,400 gpd (372.53 gpm)

Source: Provident Design Engineering, 2021

Table 1-7
Pump Station 2 – Flow Rate Analysis

Pump Station	Average Daily Flow (ADF)		Peak Hourly Flow (PHF)	
	Original Design Flow	Cumulative Flow (Proposed Project and Study Area)	Original Design Flow	Cumulative Flow (Proposed Project and Study Area)
Pump Station 2	108,100 gpd (75.07 gpm)	83,070 gpd (57.7 gpm)	432,400 gpd (300.27 gpm)	281,607 gpd (195.6 gpm)

Note: See **Appendix F-2**.
Source: Provident Design Engineering, 2021

Table 1-8
Pump Station 3 – Flow Rate Analysis

Pump Station	Average Daily Flow (ADF)		Peak Hourly Flow (PHF)	
	Original Design Flow	Cumulative Flow (Proposed Project and Study Area)	Original Design Flow	Cumulative Flow (Proposed Project and Study Area)
Pump Station 3	134,100 gpd (93.13 gpm)	88,672 gpd (61.57 gpm)	536,400 gpd (372.53 gpm	297,051 gpd (206.28 gpm)

Note: See **Appendix F-2**.
Source: Provident Design Engineering, 2021

When compared to the original design capacity, Pump Station 2 would be able to accommodate the proposed cumulative flows shown above, running at approximately 77 percent of design capacity based on ADF and approximately 65 percent of capacity based on PHF. Pump Station 3 would also be able to accommodate the proposed cumulative flows stated above, running at approximately 66 percent of design capacity based on ADF and approximately 55 percent of design capacity based on PHF.

No modifications to either the Town or County collection system piping will be required to accommodate the projected flows summarized above. However, the pump station performance analyses, described further in Chapter 9, "Utilities," determined that minor modifications to correct an

existing deficiency (irrespective of the Proposed Project) in the wet wells of Pump Stations 2 and 3 will be required to meet current standards. Upon implementation of these mitigation measures, Pump Stations 2 and 3 would not experience any adverse impacts from the anticipated wastewater flows due to either the Proposed Project and/or the cumulative impact of full occupancy of all existing development. Pump Stations 2 and 3 would continue to provide sufficient pumping and storage capacity to accommodate all anticipated flows.

1.D.10. TRAFFIC AND TRANSPORTATION

A Traffic Impact Study (TIS) was conducted by Maser Consulting P.A. to assess the potential traffic and transportation impacts of the Proposed Project and its potential effects on the study area's vehicular safety and circulation conditions (see **Appendix G-1**). The TIS established existing (i.e., Year 2019) traffic conditions through turning movement traffic counts conducted in April 2019. In order to estimate traffic conditions that would exist in the Future without the Proposed Project (the "No Build" condition), several adjustments were made to the existing volumes. In order to account for normal background traffic growth, the Year 2019 existing traffic volumes were increased by one percent per year. Traffic generated for other potential developments in the area, as identified by the Town, was also added to the 2019 volumes. In addition, and in accordance with the DEIS Scoping Document, traffic resulting from the full occupancy of the Swiss Re parcel's existing office building (which is approximately 50 percent occupied), and re-occupancy of the Project Site's existing office buildings (for office use) was also included in the No Build condition.

As demonstrated in the TIS, the Proposed Project would result in fewer vehicular trips than would be the case if the existing office buildings on-Site were reoccupied. In the Applicant's opinion, the Proposed Project would not have a significant adverse impact on Study Area intersections when compared to conditions with the re-occupancy of the existing office buildings. Finally, while not necessary to mitigate a Project-related impact, the TIS recommends signal timing adjustments at four Study Area intersections, which, in the Applicant's opinion, would improve future traffic operation of area roadways in the Future with and without the Proposed Project.

1.D.11. VISUAL RESOURCES AND COMMUNITY CHARACTER

At present, the southern portion of the Project Site is currently improved with what was previously MBIA's corporate headquarters. The northern portion of the Project Site contains meadows, landscaping, and outdoor amenities, including paved tennis courts, a volleyball court, and walking paths.

The only publicly accessible vantage points from which the Project Site is visible are along King Street. As such, views of the Project Site are available only to motorists as they drive on King Street. The only unobstructed view of the interior of the Project Site is from an area just south of the main Site driveway on King Street. From this location, the eastern façade of the Project Site's existing northern office building is partially visible during leaf-off conditions. From vantage points farther north on King Street, the interior of the Project Site is visible during leaf-off conditions through deciduous and evergreen vegetation planted along a landscaped berm. As discussed below, the Applicant proposes

to preserve and enhance this existing berm, including planting additional deciduous and evergreen vegetation.

To evaluate the potential visibility of the proposed buildings, a three-dimensional computer model of the existing site and proposed buildings was developed to represent the general massing and architecture of the new structures. The model was then superimposed on photographs from the various vantage points to illustrate the potential visibility of the new structures (see **Figures 1-5 through 1-8**). Based on the visibility analysis presented in in Chapter 11, "Visual Resources and Community Character," it is the Applicant's opinion that the Proposed Action and Proposed Project would not result in significant adverse impacts to the visual resources or community character.

It is noted that the Lead Agency is not expressing an opinion on the Applicant's visibility analysis at this time nor is it presenting its opinion on whether or not the Proposed Action would have a significant adverse visual impact. Rather, the only determination made by the Lead Agency in this DEIS is that the analysis presented in this chapter meets the requirements of the adopted Scoping Outline and provides sufficient information for the public to evaluate the potential impacts and mitigation associated with the Proposed Action. Subsequent to the DEIS and based on the Lead Agency's evaluation of the Applicant's analysis, the Lead Agency will determine whether it believes the Proposed Action results in a significant adverse visual impact. Based on this evaluation, the Lead Agency will also decide whether further mitigation measures (such as the preservation of additional trees or the provision of additional new visual screening) or modifications to the concept plan (such as increased setbacks and reductions in building height) are required to address potential impacts to visual resources and community character.

From south of the main Site driveway, the top portion of the proposed multifamily building would be moderately visible during leaf-off conditions. The change in grade, as well as the relative distance between the building and this vantage point, significantly reduces the visibility of the multifamily building. Similarly, from a location along King Street to the north of Cooney Hill Road, the multifamily building's northern façade would be visible in the distance during leaf-off conditions. (It should be noted that the multifamily building is proposed to be located in the same general area as the currently approved five-story parking structure for the office expansion.) From vantage points along King Street in the "middle" of the Site, the façade of the multifamily building would be more prominent. The building's undulating exterior as well as uniform penetrations and perforations of windows and balconies would be visible through deciduous and evergreen trees in the leaf-off condition. The existing dense vegetation along the vegetated berm masks the majority of the multifamily building, and as discussed below, the Applicant intends to enhance this vegetative berm to provide further screening. The views that are available would only be visible for a few seconds while driving along King Street.

The following measures have been incorporated into the Proposed Project to minimize and mitigate potential visual impacts:

- The new multifamily building and townhomes would be designed to appropriately relate to the character of the area surrounding the Project Site, and would be reflective of other residential development in the Town;
- The proposed multifamily building and townhomes have been sited to take advantage of the Project Site's topography. The proposed building placement allows for the

preservation of existing visual screenings and buffers along the perimeter of the Project Site, which include existing landscaped berms, stone walls, and evergreen trees to remain undisturbed and, in certain locations, enhanced; and

- As illustrated through the photo simulations, the Proposed Zoning's front yard setback of 65 feet for multifamily buildings, when considered together with the existing berm and landscaping along King Street (proposed to be preserved/enhanced), significantly reduces the potential impacts of the maximum building height proposed.

The introduction of residential uses within the DOB-20A is consistent with the Town's Comprehensive Plan and would allow vacant and underutilized parcels to return to productive use. The new buildings proposed on the Project Site would be set back from public vantage points (i.e., King Street) and would be set behind existing and new landscaping. As such, the visibility of these buildings would be limited and the resulting visual character of the Site would be similar to the current character of the DOB-20A district that features large, relatively modern buildings set within landscaped settings and screened by vegetation.

While the amount of building area on the Project Site would increase with the Proposed Project, a significant amount of open space and landscaped perimeter berms would remain undisturbed (and in certain locations, enhanced), which is consistent with the King Street frontages of neighboring properties in the DOB-20A district. In the Applicant's opinion, the proposed enhancement of the existing perimeter screening along King Street and Cooney Hill Road is an important visual and community benefit of the Proposed Project.

As noted above, the Lead Agency has not determined the potential significance of the Proposed Action's visual impact at this time. Based on the Lead Agency's determination, additional mitigation measures or modifications to the concept plan may be required.

1.D.12. COMMUNITY FACILITIES AND SERVICES

1.D.12.a. Public Schools

The Project Site is located within the Byram Hills Central School District ("BHCSD" or "the District"). The BHCSD had a total enrollment of 2,300 students (pre-K to 12th grade) in 2018–2019, which is 518 fewer students (18 percent) than were enrolled in the 2007–2008 school year, the district's most recent peak.[2] Since the 2007–2008 school year, enrollment has declined each year. According to information from the District, enrollment is projected to continue to decline over the next five years. The District's 2019–2020 budget is $94,534,535. Approximately 91 percent of District's revenue is from the tax levy or Payment in Lieu of Taxes (PILOT) and 5 percent is from state aid.

The Proposed Project is estimated to have between 20 and 27 public school-age children (PSAC) living in its residential components. In calculating this estimate, it was assumed that the Proposed Project's 22 townhomes would be owner-occupied units and the Proposed Project's multifamily units would be rental. The upper end of this range was developed using New York State-wide multipliers for multifamily housing from the 2000 census, which are widely viewed as overly conservative for suburban multifamily buildings

[2] Cornell Program on Applied Demographics. Pad.human.cornell.edu/schools/enrollment.cfm.

owing to the influence of New York City's multifamily housing stock, which tends to have more children per unit. The lower end of this range was developed using actual data of the number of PSAC living in several newly constructed multifamily buildings in the region.

Spread out over all grades, 20–27 students is equal to 1.7 to 2.1 students per grade. This relatively low number of additional PSAC is unlikely to require the addition of new teachers or other staff. Put in context, between the 2016/2017 and 2017/2018 school year, the district experienced an enrollment decline of 23 students. Between 2017/2018 and 2018/2019, the District experienced an additional loss of 51 students. As such, in the Applicant's opinion, the Proposed Project can be seen as slowing the decline in enrollment within the school district, while at the same time adding to the District's tax base.

Applying the per pupil programmatic cost (net of state aid and other revenues) to the number of PSAC projected results in a potential annual additional cost to the BHCD District ranging from $525,640 to $709,614. It is important to note, however, that the per pupil programmatic cost to the school district is likely much higher than the actual marginal cost of adding students to the district. Specifically, the largest portions of the District's programmatic budget are salaries and employee benefits (65 percent). As described above, it is unlikely that the Proposed Project would require the District to hire more teachers or other staff. Therefore, it is likely that the actual cost to the district of an additional student would be approximately 35 percent of the total programmatic cost, or $183,974 to $248,365 per year. These figures can be compared to the estimated $291,870 increase in property tax revenues that the District would receive annually from the Proposed Project when compared to the existing tax revenue generated by the Project Site.

1.D.12.b. Police Services

The Proposed Project is anticipated to increase the population of the Town of North Castle by approximately 375 residents. If all of these residents were new to North Castle, the population of the Town would increase by approximately 3 percent. In order to service the Proposed Project, together with the cumulative increase in demand from several other proposed projects within the Town, additional police officers may be needed. The Applicant estimates the cost to be approximately $143,303 in salary and benefits and $9,963 in supplies per officer. The Applicant's proportionate share of the total cost of $153,266 would be some fraction of that amount. As discussed below, the Proposed Project is estimated to generate an additional $228,615 per year in tax revenue for the Town, which is in excess of the cost of the Applicant's share of providing a single police officer.

1.D.12.c. Fire and EMS Services

The Armonk Fire Department (AFD) provides fire protection and emergency medical services (EMS) to the Project Site. The AFD is a 100 percent volunteer department with approximately 61 volunteers, including 20 members certified as an Emergency Medical Technician ("EMT"), supplemented with a contract EMT during the day. The AFD responds to

approximately 1,100 calls per year and estimates that the Proposed Project would result in 99 calls per year, including calls to the existing on-Site buildings. Subtracting the calls generated by the Site's existing buildings, AFD estimates that the Proposed Project would result in 55 net new calls per year, a 5 percent increase in the number of annual calls. As discussed below, the Proposed Project is anticipated to result in approximately $30,825 in property taxes for the Fire and Ambulance Districts, an increase of $8,217 from the amount currently generated by the Project Site. In the Applicant's opinion, this revenue could be utilized to offset the potential impacts of the Proposed Project.

The AFD has opined that it will need a ladder truck to serve the Proposed Project's new construction. The Applicant understands that this need is the result of several proposed projects within the Town. As such, the Applicant is willing to contribute its fair share towards a potential district-wide solution to this issue, which may include the purchase of a new ladder truck.

All components of the Proposed Project will contain fire suppression sprinklers and will adhere to all local and state fire prevention codes. Standpipes will be installed in the stair towers, per code requirements. Knox boxes will be provided at the building lobby entrances in locations agreed upon with the AFD. Building elevators will be sized to accommodate a 24" x 84" stretcher. In addition, as described in Chapter 9, "Utilities," it is the Applicant's opinion that the Proposed Project would not result in any impacts on water demand related to fire suppression. The Applicant would coordinate with the Town and AFD on appropriate water storage and delivery infrastructure (including use of the existing pond) as part of future site plan approvals.

1.D.13. FISCAL AND MARKET IMPACTS

The Project Site has an existing assessed value of $1,146,000 and in 2019 paid approximately $1,230,656 in property taxes, including $802,991 in taxes to the Byram Hills Central School District and $194,275 to the Town of North Castle. The office buildings on the Project Site are currently vacant and have been for approximately the past five years. During this time, the assessed value of the Project Site has not decreased. In the absence of re-occupancy of the existing buildings or redevelopment, it is the Applicant's opinion that the assessed value of the Project Site and, consequently, the taxes paid by the Project Site, would decrease in the future as a result of the continued vacancy.

The Proposed Project would redevelop the Site with a wider range of uses, including residential and hotel uses. As discussed in more detail in Chapter 13, "Fiscal and Market Impacts," it is the Applicant's opinion that there is a strong market demand for residential uses in the Town and the region. In the Applicant's opinion, the market analysis also indicates there is a demand for another hotel in the Town. As such, permitting these uses in the DOB-20A zoning district is likely to increase the economic viability of the Project Site.

Annual operation of the Proposed Project would generate approximately $1.97 million in taxes, including approximately $1.67 million in property tax revenue annually to various taxing jurisdictions, an increase of approximately $440,000 in annual property taxes over

taxes currently paid by the Project Site. The Proposed Project would generate an increase of approximately $228,615 in tax revenues to the Town of North Castle, including its special districts (for a total of approximately $422,890) and an increase of $291,870 in tax revenues to the Byram Hills School District (for a total of approximately $1,094,861).

Construction of the Proposed Project would generate approximately $137.28 million in expenditures, resulting in an estimated 821 person-years of employment, $79.75 million in labor income, and $170.65 million in total economic output.

1.D.14. HISTORIC, ARCHAEOLOGICAL, AND CULTURAL RESOURCES

There are no properties listed on, or determined eligible for listing on, the State or National Register of Historic Places (S/NR) on the Project Site or in the surrounding study area. Therefore, in the Applicant's opinion, the Proposed Project would have no adverse impacts on historic architectural resources.

With regard to archaeological resources, the Phase 1A Archaeological Documentary Study prepared for the Project Site recommended Phase 1B archaeological testing (e.g., subsurface testing) in areas proposed for disturbance by a future potential site plan within the northern portion of the Project Site. The areas in which testing are required would be dependent on a future site plan and would be subject to OPRHP review and approval. With the completion of the Phase 1B Archaeological Investigation and any subsequent archaeological investigations and consultations that may be required by the New York State Office of Parks, Recreation and Historic Preservation (OPHRP), it is the Applicant's opinion that the Proposed Project would not result in impacts on archaeological resources.

1.D.15. AIR QUALITY

The Proposed Project has the potential to impact ambient air quality from stationary sources (i.e., fossil fuel-fired HVAC equipment) and from mobile sources (i.e., traffic generated by the Proposed Project). As the new buildings included in the Proposed Project have not yet been fully designed, the fuel source for the heating, ventilation, and air conditioning (HVAC) systems has not yet been determined. For purposes of analyzing the worst-case impacts to air quality, the analysis conservatively assumes that the proposed residential uses would utilize distillate fuel oil-fired HVAC systems. Even with this worst-case scenario, it is the Applicant's opinion that there would be no potential for significant adverse air quality impacts from emission of nitrogen dioxide, sulfur dioxide, and particulate matter in connection with the Proposed Project's HVAC systems.

In addition to air quality impacts generated by stationary sources, the Proposed Project would result in Project-generated traffic that would affect traffic conditions within the area of the Site. The potential for mobile source air quality impacts from the Proposed Project was analyzed using the screening procedures defined in the New York State Department of Transportation's (NYSDOT) The Environmental Manual (TEM). Based on the results of these procedures, it is the Applicant's opinion that Project-generated traffic would not result in a significant air quality impact.

1.D.16. NOISE

As is the case with impacts to Air Quality, the Proposed Project's HVAC systems (i.e., stationary sources) and project-generated traffic (i.e., mobile sources) have the potential to impact noise levels in the region. With respect to stationary sources, the Project's

HVAC systems would be designed in compliance with the Town of North Castle's code restrictions on noise and would be appropriately screened to avoid producing noise levels that would result in a significant increase in ambient noise at nearby sensitive uses (e.g., residences).

Noise measurements conducted for this analysis indicate that traffic along King Street is the dominant source of noise within the study area. Because future traffic volumes along King Street are not expected to quadruple with the Proposed Project, it is the Applicant's opinion that future noise levels would not result in a significant adverse impact. Additionally, increases in noise levels resulting from the Proposed Project would not be expected to cause an exceedance of 65 dBA, the standard for residential uses, at the nearby residential receptor at 3 Cooney Hill Road.

Based on the most recently published contour maps, a portion of the southwest corner of the Project Site, where the southern office building is proposed to remain, is within the 65 DNL Contour for Westchester County Airport; and the area of the Project Site proposed for residential uses is within the 60 DNL Contour, which is below the 65 DNL threshold for significant aircraft noise exposure. In the Applicant's opinion, although the contribution of aircraft overflights to the noise levels varies day-to-day due to flight conditions, review of the measured existing noise levels, from which aircraft noise was not excluded, and the published airport noise contours indicate noise levels at the Project Site would be appropriate for residential use. Additionally, standard construction methods are expected to provide at least 20 dBA of window/wall attenuation to further reduce interior noise levels at noise-sensitive receptors re-introduced to the Project Site with the Proposed Project.

1.D.17. CONSTRUCTION

1.D.17.a. Phasing and Construction Management Plan

Construction of the Proposed Project is anticipated to occur in four phases, summarized below. The duration and timing of the construction phases are estimates, and overlaps would occur among the various construction phases. The sequencing is also subject to change and is dependent on market demand. Regardless, the method for performing each activity would meet industry standards for construction and comply with the Town of North Castle's regulations. The phases may occur consecutively or completely or partially concurrently. Similarly, they may occur in a different order.

- Hotel Phase: Conversion of the existing northern office building to a 125-room hotel and related infrastructure improvements (8 to 12 months);
- Townhouse Phase: Construction of the 22 townhomes on the northern portion of the property, along with the access driveway from Cooney Hill Road and installation of related infrastructure and utilities (18 to 24 months);
- Multifamily Phase: Construction of the 149-unit multifamily building with associated parking structure, access drives, and related infrastructure improvements (18–24 months); and
- Parking Lot Expansion Phase: Implementation of the currently approved 94-space expansion of the existing 43-space parking area located adjacent

to the farmhouse in the southern portion of the Project Site, with associated curbing, utility, and stormwater management improvements (3 to 4 months).

In the Applicant's opinion, potential adverse impacts from construction of the Proposed Project would be avoided and minimized through the implementation of a detailed Construction Management Plan (CMP) prepared during Site Plan approval. The CMP would be prepared in close coordination with Town staff and consultants, and would be approved as part of the final Site Plan approval and be made a condition thereof. As such, the Town would be able to enforce the provisions of the CMP throughout the construction process. The CMP would provide for implementation of the Stormwater Pollution Prevention Plan (SWPPP) and Erosion and Sediment Control Plan (ESCP), as well as the measures to avoid impacts related to traffic, air quality, noise, blasting (if necessary), and hazardous materials, as described below. A draft of the CMP is included in **Appendix L**.

1.D.17.b. Construction Period Traffic

Construction of the Proposed Project would create daily construction-related traffic to and from the Project Site, including construction workers and the delivery of materials and equipment. The numbers and types of vehicles would vary depending on the phase of construction. All construction equipment, materials, deliveries, and worker parking would be accommodated on-Site and would generally occur during off-peak hours. There would be no construction equipment, truck, material or worker parking, queuing, or staging permitted on King Street or Cooney Hill Road at any time.

While the number of workers at the Project Site at any one time would vary based on the phase of construction, it is the Applicant's opinion that the maximum number of workers at any one time would be significantly less than the number of vehicular trips estimated for the peak hour of the Proposed Project. Combined with the fact that construction workers usually arrive and depart before peak hours, traffic from construction workers would not, in the Applicant's opinion, result in a significant adverse impact.

1.D.17.c. Construction Period Erosion and Sediment Control

To avoid an adverse impact from soil erosion during construction, the Applicant's engineer has designed erosion and sediment control measures that would conform to the requirements of NYSDEC State Pollution Discharge Elimination System (SPDES) General Permit for Stormwater Discharges Associated with Construction Activity Permit No. GP-0-20-001, the "New York State Standards and Specifications for Erosion and Sediment Control," dated July 2016, and Chapter 267, "Stormwater Management," of the Town Code. The permit requires that projects disturbing more than 1 acre of land develop a Stormwater Pollution Prevention Plan (SWPPP) containing both temporary erosion control measures during construction and post-construction stormwater management practices to avoid flooding and water quality impacts in the long term. Additionally, to avoid and mitigate the potential for adverse erosion and sediment impacts, the Applicant's engineer developed an Erosion and Sediment Control Plan (ESCP) that depicts the

measures that will be implemented to control erosion during construction and reduce the potential for sediment to leave the Site (see **Appendix E-2**). At a minimum, the ESCP would include:

- Stabilized construction entrances;
- Silt fences;
- Storm drain inlet protection;
- Measures to avoid erosion from soil stockpiles;
- Dust control measures (e.g., wetting surfaces and limiting truck speeds)
- Temporary sump pits and sediment basins; and
- Management plans to avoid storing, stockpiling, or handling waste materials proximate to sensitive environmental resources.

The SWPPP and ESCP would be updated based on a final proposed site plan and would be subject to review and approval by the Town, NYSDEC, and NYCDEP.

1.D.17.d. Construction Period Air Quality

Air quality impacts associated with construction activities are typically the result of fugitive dust or emissions from vehicles or equipment. In the Applicant's opinion, a large proportion of fugitive dust would be of relatively large particle size and would be expected to settle within a short distance of being generated and thus not affect off-Site receptors. Vehicle emissions from construction vehicles and equipment have the potential to result in elevated levels of nitrogen oxides (NOx), particulate matter (PM), and CO. The greatest potential for impact is typically associated with heavy-duty equipment that is used for short durations.

Measures to minimize and avoid impacts from fugitive dust and construction vehicle and equipment emissions to the maximum extent practicable would be incorporated into the CMP, which would be reviewed and approved by the Town during Site Plan approvals. These measures would include:

- Minimizing the area of soil that is disturbed at any one time;
- Minimizing the amount of time during which soils are exposed;
- Installing truck mats or anti-tracking pads at egress points to clean the trucks' tires prior to leaving the Project Site;
- Watering of exposed areas during dry periods;
- Using drainage diversion methods (e.g., silt fences) to minimize soil erosion during Site grading;
- Covering stored materials with a tarp to reduce windborne dust;
- Limiting on-Site construction vehicle speed to 5 miles per hour (mph); and
- Using truck covers/tarp rollers that cover fully loaded trucks and keep debris and dust from being expelled from the truck along its haul route.

To minimize emissions from construction vehicles and equipment to the maximum extent practicable, the following measures would be implemented at the Project Site:

- Ultra-low sulfur diesel would be utilized for construction equipment and vehicles;
- All equipment would be properly maintained; and
- Idling of construction or delivery vehicles or other equipment would not be allowed when the equipment is not in active use.

1.D.17.e. Construction Period Noise

In the Applicant's opinion, increased noise levels due to construction activity at the Project Site would be highest during the early construction phases such as grading, excavation, and foundation work. These phases would be relatively short in duration and noise generated would be intermittent based on the equipment in use and the work being done. Construction operations, for some limited time periods, would result in increased noise levels that may be intrusive and annoying and may significantly increase ambient noise levels in the immediate vicinity of the Project Site. In the Applicant's opinion, based on the Project Site's locational characteristics and surrounding land uses, there are no sensitive receptors in the immediate vicinity, with the exception of the single-family house near the northeast corner of the Project Site (3 Cooney Hill Road).

General site work, including excavation and grading, would occur during only a short period of time. Site work related to the Townhouse Phase, which would be proximate to the Project Site's only sensitive off-Site receptor—the single-family house located at 3 Cooney Hill Road—would be limited to 6 to 9 months. Site work for the multifamily building phase would be expected to last approximately 8 to 10 months, but would occur at considerable distance (over 900 feet) down gradient from 3 Cooney Hill Road, and would therefore, in the Applicant's opinion, be expected to result in a small increase in noise levels at this receptor.

Based on the temporary and intermittent nature of construction noise incident at surrounding noise receptors, together with the fact that the construction activities with the most potential to create a significant noise impact would occur proximate to the only identified sensitive receptor for a short period of time, it is the Applicant's opinion that the noise generated by construction of the Proposed Project would not create a significant adverse noise impact to off-Site receptors.

To minimize and mitigate potential temporary impacts related to construction noise at 3 Cooney Hill Road, the following measures would be incorporated into the Proposed Project. Implementation of these measures would result in a reduction of 5 to 10 dBA at this location.

- Construction activities would be conducted in compliance with the Town of North Castle's existing noise regulations (Chapter 210 of the Town Code), including local day and hour construction limitations. As required,

construction activities on the Project Site would be limited to the hours of 7:30 AM–7:00 PM during the week and from 9:00 AM–5:00 PM on weekends and legal holidays.

- As early in the construction period as logistics would allow, diesel- or gas-powered equipment would be replaced with electrical-powered equipment such as welders, water pumps, bench saws, and table saws;
- Where feasible and practicable, the construction site would be configured to minimize back-up alarm noise; and
- Contractors and subcontractors would be required to properly maintain their equipment and mufflers.

With respect to path controls (e.g., placement of equipment, implementation of barriers or enclosures between equipment and sensitive receptors), the following measures would be implemented to the extent feasible and practicable during construction of the Proposed Project:

- Where logistics allow, noisy equipment, such as cranes, concrete pumps, concrete trucks, and delivery trucks, would be located away from, and shielded from, the identified sensitive receptor (3 Cooney Hill Road); and
- During the townhouse construction phase, noise barriers constructed from plywood or other materials surrounding the construction site would be utilized to provide shielding for the single-family residence at 3 Cooney Hill Road.

The exact manner in which these controls would be implemented (e.g. location of equipment, etc.) would be determined during Site Plan approval. Implementation of these measures would be made a condition of any future Site Plan approval through the CMP.

1.D.17.f. Construction Period Blasting

Based on preliminary geotechnical investigations, construction of the Proposed Project may require limited blasting activities for development of the northeast corner of the proposed multifamily building's parking structure, which may extend approximately ten feet into a rocky subsurface area of the site. In the Applicant's opinion, there is no other potential rock removal or rock crushing anticipated as part of construction. Final determination of whether blasting needs to occur and, if so, to what extent, would be made by the Applicant's contractor in coordination with the Applicant's geotechnical engineer.

Blasting during the construction of the Proposed Project, if necessary, would be done in accordance with the Town of North Castle's Blasting Protocol (Town Code Chapter 122, "Blasting and Explosives"), which requires:

- Applications to the Town's Building Inspector, including proof of adequate licensing and insurance;
- Pre-blast notice to all residents within 500 feet as well as pre-blast surveys of all structures within 500 feet of the blast area;
- Independent monitoring of blasting activities, at the Applicant's expense; and

- The filing of reports of each blast to ensure compliance with permit requirements.

1.D.17.g. Construction Period Hazardous Materials

The most recent Phase I Environmental Site Assessment of the Project Site, which can be found in **Appendix B-5**, was completed in 2013 by EFI Global, Inc. (the 2013 Phase I ESA). The 2013 Phase I ESA revealed no evidence of Recognized Environmental Conditions in connection with the Property, except for the following:

- The 2013 Phase I ESA notes the absence of available closure reports and/or regulatory closure status for the heating oil tanks associated with the four former residences in the northern/currently undeveloped portion of the Project Site: 129 King Street, 137 King Street, 1 Cooney Hill Road and 7 Cooney Hill Road. As such, these potentially four remaining tanks were considered RECs in the 2013 Phase I ESA.
- The 2013 Phase I ESA notes that the currently developed portion of the Project Site contains three registered underground storage tanks (USTs) that are identified as a 6,000-gallon diesel tank, a 15,000-gallon No. 2 fuel oil tank, and a 10,000-gallon No. 2 fuel oil tank. The 6,000-gallon diesel UST was installed in 1990 and is a double-walled tank equipped with interstitial monitoring. The 15,000-gallon fuel oil UST was installed in 1996 and is a double-walled tank equipped with interstitial monitoring. The 10,000-gallon fuel oil UST was installed in 1998 and is a double-walled tank equipped with interstitial monitoring. The three USTs are tested for integrity/"tightness" annually. Given the underground storage of petroleum products, the three active USTs are considered RECs; however, given the registered regulatory status and annual integrity testing, no further action was deemed warranted in the 2013 Phase I ESA.

The existing office buildings on the Project Site, along with associated parking structures, were constructed between the early 1980s and the early part of the 21st century. Due to the age of the buildings, the presence of lead-based paint (LBP) and asbestos containing materials (ACM) cannot be ruled out. Standard measures, including building surveys and adherence to applicable Occupational Safety and Health Administration (OSHA) regulations prior to and during the proposed renovation of the buildings would address these potential conditions. This includes completion of surveys that are required as part of the building permit approval process with the Town.

The area of the Project Site where the new townhomes and a portion of the northern wing of the multifamily building are proposed currently contains meadows, landscaping, and outdoor amenities for the Project Site's existing office buildings. The southerly portion of the proposed multifamily building would be developed on what is currently a large surface parking lot. As stated above, the northerly portion of the Project Site was previously improved with 16 single-family homes. As part of the first phase of the currently approved site plan, all of the homes, foundations, associated septic systems, fuel oil

tanks,[3] and paved surfaces (including driveways and Weber Place) were demolished/removed and replaced with a system of mulched walking/exercise trails, tennis courts and a sand volleyball court. In accordance with the Town of North Castle's demolition permit requirements, it is assumed that the demolition process for these homes documented the handling/disposal of LBP and ACM in accordance with applicable regulations.[4]

Construction of the proposed townhomes and the multifamily building (which proposes underground parking) would involve demolition of paved surfaces, excavation, and grading. As discussed above, the 2013 Phase I ESA identified a REC in connection with missing information on fuel oil tank removal/regulatory closure in this area of the Project Site. In the absence of available subsurface (Phase II) testing, the environmental characteristics of the Project Site's subsurface soil and groundwater are currently unknown. Therefore, during subsurface disturbance, the potential exists for exposure to hazardous materials as a result of unexpected discoveries.

To minimize and mitigate potential impacts, the Proposed Project would incorporate standard and appropriate controls to avoid the potential for adverse impacts to construction workers and community members. These measures would include:

- Soil testing to determine suitability for on-Site reuse and/or off-Site disposal;
- Management of excavated soil, including off-site transportation, in accordance with all applicable regulations and requirements;
- A contingency plan in the event that unanticipated tanks or contaminated soil is discovered; and
- Documentation of the soil stockpile management, reuse, and off-Site disposal requirements in the Town-approved CMP.

1.E. POTENTIAL IMPACTS OF, AND MITIGATION FOR, THE PROPOSED ZONING (GEIS)

The Proposed Zoning, which applies to the entirety of the Town's DOB-20A zoning district, would permit residential development on the Swiss Re site as well as allow for development on the Project Site in excess of what is contemplated by the Proposed Project. It is important to note that no proposals are being made at this time to actually implement the maximum buildout. The GEIS portion of this document analyzes the potential impacts that could occur as a result of this development. This analysis is necessarily performed at a generic level and is intended to illustrate the nature and magnitude of potential impacts associated with the Proposed Zoning as well as detail the future analyses that would need to be performed if such "maximum development" were proposed. The sections below summarize these potential impacts.

[3] Oil Tank Removal Closure Reports: 129, 131, 133, 135 King Street; 1,5,7 Cooney Hill Road; 1,5,6,8,9 Weber Place, Armonk NY, prepared by Nesbro Corporation, January 2004 (**Appendix B-3**)

[4] https://www.northcastleny.com/sites/northcastleny/files/file/file/demochecklist.pdf

As stated above, the Proposed Action was designed to provide the Applicant flexibility to redevelop and reactivate the Project Site in a manner that is consistent with the Town's Comprehensive Plan and that generally fits within the window of the environmental impacts of the currently approved office expansion project. Therefore, it is appropriate to consider the potential impacts of the Proposed Zoning within the context of the impacts that could occur as a result of the currently approved project, as summarized in Section 1.F.1, "Alternative 1: No Action – Currently Approved Plan" below, and set forth in more detail in Section 18.B, "Alternative 1: No Action – Currently Approved Plan."

1.E.1. {This Section Intentionally Left Blank}

1.E.2. {This Section Intentionally Left Blank}

1.E.3. LAND USE, ZONING, AND PUBLIC POLICY

Redevelopment of the Swiss Re parcel in a manner similar to the Proposed Project would be consistent with the recently adopted update to the Town's Comprehensive Plan, which acknowledges the increased demand for hotels and a diverse housing stock within the Town. Similarly, in the Applicant's opinion, development of residential uses on the Swiss Re parcel would not introduce land uses that are inconsistent with the existing land uses surrounding the Site; rather, it would serve to activate an area of the Town that, over the last 15 years, has seen limited interest from corporate office tenants. The similarities of both sites, being large parcels with substantial frontage along King Street as well as opportunities for large setbacks and visual screenings, make these parcels suitable for larger multifamily buildings that can be screened from public rights of way, and support the Applicant's rationale for a district-wide zoning text amendment.

1.E.4. GEOLOGY AND SOILS

The potential exists for impacts to two affected DOB-20A parcels from the Proposed Zoning similar to those anticipated with the Proposed Project related to erosion and sediment control and blasting. Measures to mitigate these potential impacts would also be similar to those identified for the Proposed Project. Future plans on either parcel would be subject to site plan review as well as a full environmental review by the Town. In addition, since concurrent construction activities at both parcels cannot be ruled out, cumulative impacts may need to be considered and appropriately coordinated among the developers, the Town, and other interested/involved agencies at the time of any future site plan review. Cumulative impacts on the surrounding area related to erosion and sediment control and blasting are of particular importance if concurrent construction were to take place.

1.E.5. TOPOGRAPHY AND SLOPES

As was the case with the conditions relating to Geology and Soils, impacts of the Proposed Zoning related to Topography and Slopes would be highly dependent on a final site plan, but would be expected to be similar to the Proposed Project. There is the potential for additional impacts to steep slopes on the Swiss Re parcel; however, those impacts would be anticipated to be minor and mitigated through standard erosion and sediment control practices. It is anticipated that future development would avoid areas of the steepest slopes.

1.E.6. VEGETATION AND WILDLIFE

Based on the NYSDEC Environmental Resource Mapper, the southwest corner of the Swiss Re parcel appears to contain a NYSDEC-regulated wetland area that appears to drain to the south/southwest toward the Kensico Reservoir. The Swiss Re site does not appear to provide a high-quality habitat for wildlife due to previously existing development on, and adjacent to, the site (including the recently constructed solar field). Similar to the Project Site, the Indiana bat, Northern long-eared bat, and bald eagle are listed as the threatened or endangered species that could occur on, or in the vicinity of, the Swiss Re parcel.

With regard to potential impacts from site clearing activities, including tree removal, the maximum residential buildout for the Project Site would likely result in a similar layout of buildings as the Proposed Project, and would focus on areas of previous disturbance, buffers to neighboring properties, and the on-site wetland and conservation easement area. For the Swiss Re parcel, impacts from site clearing and tree removal would depend on the location of future development. If future development would occur in areas of the parcel currently developed with the existing office building, parking, and the solar installation, minimal impacts would be anticipated. If future development on the Swiss Re parcel would occur in areas other than those identified above, potential impacts related to tree removal and site clearing could occur. Future plans on either parcel would be subject to a full environmental review by the Town, at which point the appropriate hard look at vegetation and wildlife impacts would take place based on the site-specific design.

1.E.7. WETLANDS

With the maximum residential build-out of the Project Site under the Proposed Zoning, it is assumed that efforts would be made to continue to avoid direct impacts to the on-site wetland and associated buffer area by focusing development on previously disturbed portions of the Project Site.

Based on the NYSDEC Environmental Resource Mapper, the southwest corner of the Swiss Re parcel appears to contain a NYSDEC regulated wetland area that appears to drain to the south/southwest toward the Kensico Reservoir.

Based on the size of the Swiss Re parcel, future development would presumably have opportunities to minimize impacts to wetlands and associated buffers. Any impacts to wetlands or associated buffers identified during a future review by the Town would require permits and mitigation at the discretion of the Town Engineer and any other agencies with jurisdiction.

Future plans on either parcel would be subject to a full environmental review by the Town, at which point the appropriate hard look at wetland impacts would take place. If, at a future date, it is determined that the potential exists for direct or indirect impacts to wetland areas, mitigation measures similar to those identified above for the Proposed Project would address those impacts.

1.E.8. STORMWATER MANAGEMENT

With the Proposed Zoning, the potential exists for impacts similar to those identified for the Proposed Project related to stormwater management and erosion/sediment control. Increases to impervious surfaces are possible, and would be dependent on the siting and

orientation of development. Measures to mitigate these potential impacts would be similar to those identified for the Proposed Project (i.e., a full SWPPP and ESCP), and would be based on the site plan(s) being proposed.

Future plans on either parcel would be subject to site plan review as well as a full environmental/stormwater review by the Town. In addition, since concurrent construction activities at both parcels cannot be ruled out, cumulative impacts would need to be considered and appropriately coordinated among the developers, the Town, and other interested/involved agencies in the event of concurrent construction. Cumulative impacts on the surrounding area related to stormwater are of particular importance if such concurrent construction was to take place and would be evaluated at the time of site plan approvals based on detailed site plan applications.

1.E.9. UTILITIES

1.E.9.a. Water Supply

Based on a mix of one- and two-bedroom multifamily units similar to the Proposed Project, full build out of 750 residential units and an 80-room hotel would have an estimated water demand of 146,300 gpd. It is important to note that this demand would be spread over two sites (e.g., Project Site and Swiss Re site) and assumes complete discontinuation of the current office uses on both sites. The actual water demand for each site would be determined based on a site-specific environmental review of an eventual site plan. Each site plan would have to demonstrate sufficient water capacity to serve the proposed uses.

1.E.9.b. Sanitary Sewer

The analyses of flow rates to Pump Stations 2 and 3, as well as the numerical (i.e., computational) analyses of the performance of both pump stations in **Appendix F-2** also include a "Future Buildout" condition based on the theoretical maximum development on the Project Site and Swiss Re parcel.

As discussed further in Chapter 9, "Utilities," the theoretical maximum development scenario under the Proposed Zoning ("GEIS Scenario") would have an estimated ADF to Pump Station 2 of 147,530 gpd (102.5 gpm) and an estimated PHF of 506,028 gpd (351.4 gpm), using a computed PF of 3.43. At Pump Station 3, the estimated ADF under this scenario would be 153,132 gpd (106.34 gpm) and the estimated PHF would be 517,586 gpd (359.43 gpm), using a computed PF of 3.38.

It is important to note that the projected demand would be spread over two sites (e.g., Project Site and Swiss Re site) and assumes complete discontinuation of the current office uses on both sites. The actual sanitary sewer flows for each site would be determined based on a site-specific environmental review of an eventual site plan.

The proposed modifications to Pump Stations 2 and 3, required to correct an existing deficiency as described above, would also provide sufficient pumping and storage capacity to accommodate these projected flows. The Town and County collection piping systems have adequate hydraulic

capacity, and no modifications would be required to accommodate these projected flows.

1.E.10. TRAFFIC AND TRANSPORTATION

An analysis was completed to estimate the number of weekday AM and PM peak hour trips for a hypothetical maximum buildout of 750 residential units and an 80-room hotel on the Project Site and Swiss Re parcel.

As shown in **Table 1-9**, the maximum hypothetical buildout under the Proposed Zoning would generate fewer trips than the full occupancy of each site's existing office uses. Therefore, it could be assumed that the Proposed Zoning would not have an adverse impact on Study Area intersections when compared to the Future without the Proposed Zoning.

Table 1-9
GEIS Scenario – Trip Generation

Site / Peak Hour	Trip Generation by Land Use		
	Office (Full Occupancy of Existing Buildings)	GEIS Residential (750 units)	GEIS Hotel (80 rooms)
Project Site			
Weekday Peak AM Hour	303	230	N/A
Weekday Peak PM Hour	300	280	N/A
Swiss Re Parcel			
Weekday Peak AM Hour	418	115	38
Weekday Peak PM Hour	414	140	48

Source: Maser Consulting P.A.

1.E.11. VISUAL RESOURCES AND COMMUNITY CHARACTER

It is reasonable to assume that, similar to the Proposed Project, a new 85-foot-tall multifamily building on the Swiss Re parcel could be developed under the Proposed Zoning. The similarities of both sites being large parcels with substantial frontage along King Street as well as the opportunities provided by both sites for large setbacks and visual screenings make these parcels suitable for larger multifamily buildings, in the Applicant's opinion. Specifically, new multifamily construction on both sites would likely include larger-format modern buildings located within large, landscaped parcels, set back from King Street, and visually screened by existing and new landscape plantings. In addition, in the Applicant's opinion, the impact of these changes would be mitigated by the relatively small geographic extent from which they could be visible by motorists traveling along King Street. To confirm this analysis, in the event that a proposal on the Project Site or the Swiss Re site were advanced that differs from the Proposed Project, the Town would require further study of the potential visual impacts of that proposal as part of any future site plan approvals. Mitigation for any potential impacts to visual resources and community character would be expected to be consistent with those identified for the Proposed Project.

1.E.12. COMMUNITY FACILITIES AND SERVICES

1.E.12.a. Public Schools

For purposes of calculating the impact of the maximum residential buildout with respect to the Byram Hills School District, it was assumed that all of the units constructed on the Project Site and the Swiss Re parcel (i.e., 750 units) are rental apartments. Based on case-study data of actual multifamily buildings recently constructed in the Westchester suburbs, it is likely that 73 PSAC would live in the 750 rental apartments. Using a more conservative methodology, based on 2000 census data and NYS-wide averages, up to 190 PSAC could live between the two Sites if they were fully built out under the Proposed Zoning.

To put these numbers in perspective, and assuming no further decline in the District's enrollment, the addition of 73 students would return the district to enrollment levels in 2017. The addition of 190 students would return the district to enrollment levels experienced in 2015. Even with the addition of 190 students, the District's enrollment would be more than 300 students less than its peak enrollment in 2007/2008. While a site plan specific study would need to be undertaken at the time of a specific proposal, it is anticipated that the additional tax revenue generated from redevelopment of these sites would offset the potential for increased costs to the District.

1.E.12.b. Police, Fire, and EMS Services

It is assumed that demand for police, fire, and EMS protection could be greater with the maximum residential buildout than that of the Proposed Project. In addition, the projected tax revenues for the Town would be greater than the Proposed Project.

As part of the required environmental review process for a future site plan in the GEIS scenario, coordination with the AFD and NCPD would be required to determine the project-specific potential impacts to police, fire, and EMS protection, including impacts to the budget or equipment of the departments. Feasible and practicable measures would be developed to mitigate potential impacts, similar to those identified for the Proposed Project.

1.E.13. FISCAL AND MARKET IMPACTS

The Proposed Zoning would permit a wider range of uses within the DOB-20A zoning district, which in the Applicant's opinion increases the economic viability of existing and future development within the district. New development has the potential to maintain, or increase, property tax payments to the Town from the current condition and the condition that could occur if the Project Site continues to remain vacant and the Swiss Re parcel continues to experience declining assessed value. The extent of future property and/or hotel tax benefits to the Town and other taxing jurisdictions would be dependent on the specific program and site plan(s) proposed and would need to be balanced with the potential increased community costs.

1.E.14. HISTORIC, ARCHAEOLOGICAL, AND CULTURAL RESOURCES

As noted above, there are no historic architectural resources listed on, or determined eligible for listing on, the S/NR within ½-mile of the Project Site or within the remainder of the DOB-20A zoning district. The Swiss Re complex was built between 1990 and 2000, and appears to have retained two earlier structures related to prior development on the property, but these are fragments of the original development.

In terms of archaeological resources, any future development plans for the Swiss Re parcel would be subject to consultation with OPRHP as required under SEQRA. With regard to the Project Site, it is likely that the limits of disturbance and extent of new building footprints necessary to provide up to 500 units of housing would be beyond what has been established for the Proposed Project, and it is likely that OPRHP would require an update to the Proposed Project's Phase 1A Study. Similar to the Proposed Project, recommendations for a Phase 1B investigation would likely apply under this scenario, particularly with regard to the archaeological sensitivity of the northern portion of the Project Site as well as the area around the historic farmhouse—areas which may be subject to more disturbance than what has been identified for the Proposed Project. Completion of the Phase 1B Archaeological Investigation and any subsequent archaeological investigations that may become necessary (e.g., a Phase 2 Survey/Evaluation or a Phase 3 Mitigation/Data Recovery) would depend on the nature of the redevelopment program.

According to the OPRHP, the Swiss Re parcel is located within an area of potential archaeological sensitivity. Redevelopment of the Swiss Re parcel pursuant to the Proposed Zoning would therefore be subject to consultation with OPRHP, and a Phase 1A Study would be required as a first step in OPRHP's review. Subsequent OPRHP review of additional studies, identification of potential impacts, and any mitigation measures deemed necessary would depend on the findings of the Phase 1A Study.

1.E.15. AIR QUALITY

Given the density and land use pattern in this area of the Town, similar to the Proposed Project, the new buildings that could be developed on either site are likely to be located at a considerable distance from nearby sensitive receptors of equal or greater height. Any new development under these scenarios would likely comply with height and setback requirements that ensure adequate spacing between both on-site and off-site sensitive receptors. If future redevelopment plans for either site pursuant to the Proposed Zoning come before the Town with requests for waivers to bulk and setback requirements, an analysis of potential air quality impacts would need to be undertaken to ensure that development did not have the potential for significant adverse air quality impacts.

As described above, maximum residential build-out under the Proposed Zoning would generate fewer trips than the Future without the Proposed Zoning. Therefore, the Proposed Zoning would not result in potential significant adverse air quality impacts from mobile sources.

1.E.16. NOISE

Similar to the Proposed Project, it is assumed that mechanical systems associated with the GEIS scenario (i.e., HVAC systems) would be subject to review by the Town as part of any future site plan application, and appropriately screened and designed to meet all applicable noise regulations and avoid producing levels that would result in any

significant increase in ambient noise levels at nearby noise-sensitive uses (e.g., residences).

As described above, maximum residential build-out under the Proposed Zoning would generate fewer trips than the Future without the Proposed Zoning. Therefore, it is unlikely that the Proposed Zoning would result in potential significant adverse noise impacts from mobile sources.

The Swiss Re parcel, which is farther away from the Westchester County Airport than the Project Site, is also partially within the 60 DNL Contour for the airport, which is below the 65 DNL threshold for significant aircraft noise exposure. Although the contribution of aircraft overflights to the area's ambient noise levels varies day-to-day due to flight conditions, review of the published airport noise contours indicate noise levels at the Swiss Re parcel that would be appropriate for residential use. Additionally, as noted above, standard construction methods are expected to provide at least 20 dBA of window/wall attenuation to further reduce interior noise levels at noise-sensitive receptors.

1.E.17. CONSTRUCTION

Based on the land use history and geographic characteristics of the Project Site and the Swiss Re site, the type of new construction practices anticipated to effectuate a mixed-use residential/hotel development, and the distance to off-site sensitive receptors (single family residence at 3 Cooney Hill Road and the Kensico Reservoir), the potential exists for impacts from the Proposed Zoning to be similar to those identified for the Proposed Project related to erosion and sediment control, air quality, noise, blasting, and hazardous materials. Measures to mitigate these potential impacts would also be similar to those identified for the Proposed Project, and would be based on the site plan(s) proposed.

With regard to construction period traffic under this maximum hypothetical development scenario, it is assumed that, due to the size of both parcels, all construction equipment, materials, deliveries, and worker parking would be accommodated on-site. In the absence of detailed site plans (including phasing), the number of construction period workers on site at any one time is not quantifiable. However, the anticipated traffic volumes estimated for the future condition absent the Proposed Zoning and Proposed Project (i.e. the "No Build" condition) accounted for full occupancy of existing office uses at the Project Site and Swiss Re parcel (approximately 700 trips in both the weekday peak AM and weekday peak PM hours). For the temporary construction period associated with this maximum development scenario, the number of construction worker trips during these same peak hours would be significantly less than 700 trips.

Future plans on either parcel would be subject to site plan review as well as a full environmental review by the Town. In addition, since concurrent construction activities at both parcels cannot be ruled out, cumulative impacts would need to be considered and appropriately coordinated among the developers, the Town, and other interested/involved agencies in the event of concurrent construction. Cumulative impacts on the surrounding area related to erosion and sediment control, noise, air quality, and traffic are of particular importance if such concurrent construction was to take place and would be evaluated at the time of site plan approvals based on detailed site plan applications.

1.F. SUMMARY DESCRIPTION OF ALTERNATIVES ANALYZED

SEQRA requires a description and evaluation of a range of reasonable alternatives to the Proposed Action that are feasible, considering the objectives and capabilities of the Applicant. Several alternatives to the Proposed Project were identified in the adopted Scoping Document (see **Appendix A-1**) and this DGEIS evaluates the relevant potential environmental impacts of those alternatives in Chapter 18, "Alternatives." These alternatives include the following:

- Alternative 1: No Action – Currently Approved Development Plan
- Alternative 2: No Action – Existing Site Conditions
- Alternative 3: Reduced Height Multifamily Building
  - Option 1: 45 feet
  - Option 2: 4 stories
- Alternative 4: Static Density
- Alternative 5: Multifamily Building in Cooney Hill Area
- Alternative 6: Senior Housing
- Alternative 7: Increased Townhouse Density
- Alternative 8: Combined Alternative

Descriptions of each alternative and its potential environmental impacts are provided below and the potential impacts of each alternative are summarized in **Table 1-10**.

1.F.1. ALTERNATIVE 1: NO ACTION – CURRENTLY APPROVED PLAN

1.F.1.a. Description of Alternative

In 2003/2004, the Town Board and Planning Board adopted zoning amendments, a PDCP, Special Permit, and Site Plan approvals to the Site's previous owner, MBIA, to develop an additional 238,000 sf of office and related amenity space, including a 20,000-sf meeting house. These approvals, which are still in effect, allow for an increase of office space on the Project Site from approximately 261,000 sf to approximately 499,000 sf of office and related amenity space, including the proposed meeting house. This approval also provided for the construction of a five-story parking structure containing approximately 1,000 parking spaces.

Subsequent site plan and SWPPP approvals, which are also still in effect, were granted by the Town and NYCDEP, respectively, for the 94-space expansion of the existing 43-space parking area located adjacent to the farmhouse in the southern portion of the Project Site (for a total of 137 spaces), with associated curbing, utility, and stormwater management improvements.

A site plan delineating the currently approved development plan is shown in **Figure 1-3**. While the approvals for the expansions have been granted extensions by the Town and remain in full force and effect today, no new buildings have been constructed pursuant to those approvals. However, several site improvements were made pursuant to those approvals. Specifically, the 16 single-family homes within the Cooney Hill area were demolished and their associated infrastructure (e.g., oil tanks, septic systems)

were removed. Similarly, Weber Place was de-mapped by the Town and demolished. Several walking paths were introduced in the northern portion of the Site. The improvement most visible from off-Site was the creation of the landscaped berm along King Street. This berm, planted with woody vegetation, significantly screens the interior of the Project Site from motorists traveling along King Street.

1.F.1.b. Potential Impacts of Alternative

It is noted that implementation of the currently approved office expansion is not economically viable at this time, does not meet the purpose and need of the Applicant, and is inconsistent with the Town's recently adopted Comprehensive Plan, which encourages a mix of uses for the Project Site. Nevertheless, it is important to compare the impacts of this Currently Approved Project to the currently Proposed Project.

With respect to physical site impacts, the Currently Approved Plan proposed 10.51 acres of impervious coverage, which is 0.55 acres more than the Proposed Project. Similar to the Proposed Project, the Currently Approved Plan would not have direct impacts to on-Site wetlands, but would impact approximately 1.0 acre of wetland buffer, compared to 0.28 acres of wetland buffer impacts with the Proposed Project. Construction of the five-story parking garage in the Currently Approved Project would require more blasting activities than development of the currently proposed multifamily building and associated parking.

The Currently Approved Plan is estimated to generate 49,900 gpd of water/wastewater demand, which is 8,700 gpd less than the Proposed Project. The Site's current water supply wells would be able to serve the currently approved plan.

The Currently Approved Plan would generate significantly more traffic than the Proposed Project. Traffic generated by the Currently Approved Plan is estimated to be 441 Peak AM Hour trips, 222 of which would be on Cooney Hill Road, and 401 Peak PM Hour trips, 165 of which would be on Cooney Hill Road. In comparison, the Proposed Project is estimated to have 253 Peak AM Hour trips and 285 Peak PM Hour trips, 10 and 12 of which would be on Cooney Hill Road.

With respect to visual impacts, the six-story parking structure included in the Currently Approved Plan would be located in a similar area of the Site as the multi-family building included in the Proposed Project. Both structures would be partially visible to motorists driving on King Street for a short period of time and through the existing woody vegetation on the landscaped berm, though the parking garage would be approximately 25-30 feet shorter in height. Therefore, in the Applicant's opinion, while the *visibility* of this alternative would be different from the Proposed Project, the difference in proposed building height of this alternative would not result in significantly less visual *impact* than the Proposed Project.

As described more fully in Chapter 11, "Visual Resources and Community Character," the Lead Agency has not determined the potential significance of

the Proposed Action's visual impact at this time, nor has it determined the significance of the potential visual impacts of the alternatives studied in this chapter.

While the Currently Approved Plan would not generate PSAC, as was discussed above, there would be no adverse impact to the BHSD as a result of the 20 to 27 PSAC expected to live within the Proposed Project. Similar to the Proposed Project, there would be additional demands placed on the AFD's firefighting and EMS services with the Currently Approved Plan. Other impacts, including those to vegetation and wildlife, air quality, noise, historic resources, and from construction would be similar between the two alternatives.

1.F.2. ALTERNATIVE 2: NO ACTION – EXISTING SITE CONDITIONS

1.F.2.a. Description of Alternative

Under the No Action – Existing Site Conditions alternative, the Proposed Zoning would not be adopted and the Proposed Project would not be constructed. The Project Site would continue to accommodate approximately 261,000 sf of office space, surface parking lots, a three-story parking structure, and various site amenities and stormwater features. This alternative further assumes that, absent the Proposed Action, both office buildings would be fully occupied with office tenants and no new structures or site improvements would be constructed.

1.F.2.b. Potential Impacts of Alternative

As was the case with the previous No Action alternative, this alternative is not economically viable at this time, would not meet the Applicant's purpose and need, and is inconsistent with the Town's recently adopted Comprehensive Plan. However, this alternative, which would require no discretionary approvals, also provides an important baseline comparison to the Proposed Project.

As stated above, there would be no physical changes to the Project Site, and therefore no impacts to geology, soils, topography, wetlands, stormwater, vegetation and wildlife, cultural resources, air quality, or noise. The visual character of the Project Site, including the visibility of the Site from King Street, would not be changed. There would be an increase in police, fire, and EMS calls from the current condition, likely equal in rate to when the buildings were previously occupied. Similarly, this alternative would generate vehicular trips above the current levels. Specifically, re-occupying the existing on-Site buildings would generate 303 Peak AM Hour vehicular trips and 300 Peak PM Hour vehicular trips. This represents 15-50 more trips in the PM and AM Peak Hours, respectively, than would be expected with the Proposed Project.

1.F.3. ALTERNATIVE 3: REDUCED HEIGHT MULTIFAMILY BUILDING

1.F.3.a. Description of Alternative

This alternative would have the same general program as the Proposed Project, but has been developed to evaluate the change in the potential visibility of the proposed multifamily building (and to a lesser extent, the townhomes) from King Street. To evaluate this change, the Applicant has developed two plans that reduce the maximum elevation (above average grade) of the proposed multifamily building, which would be located closest to King Street:

- **Reduced Height Multifamily Option 1**: reduction in height from what is currently proposed (approximately 78 feet above average grade) to the maximum allowable building height of the existing DOB-20A zoning district as defined in Section 355-30.J(3)(c), which is 45 feet; and
- **Reduced Height Multifamily Option 2**: reduction in height of one-story, to approximately 67 feet above average grade, which would be between the maximum allowable height in the existing DOB-20A district (45 feet) and the currently proposed height of 78 feet.

The Applicant has developed conceptual site plans for both options considered under this alternative, as illustrated in **Figures 1-9a and 1-9b**. Both of the options outlined above would result in a multifamily building with less overall height, less gross floor area, fewer residential units and fewer parking spaces when compared to the currently proposed multifamily building. The total number of residential units on the Project Site would decrease under both options when compared to the Proposed Project, but the total number of townhomes would increase. The overall number of bedrooms on the Site would be nearly identical to the Proposed Project with both options, owing to the larger proportion of townhomes.

1.F.3.b. Potential Impacts of Alternative

The total gross land coverage (impervious surfaces) would increase under both options when compared to the Proposed Project, primarily due to a larger number of townhomes and related access roads/driveways. This would require additional stormwater management features. Similarly, in order to maintain the same density, as was required by the Scope, certain townhomes would be located in the revocable conservation easements in both options, an area that the Proposed Project's structures avoid. However, encroachment into the easement areas as a result of this alternative may not result in significant impacts to vegetation and wildlife, as this area contains similar habitat to elsewhere on the Project Site and such development would be paired with appropriate stormwater management in compliance with NYCDEP and NYSDEC requirements. The water/sewer demand of this alternative is similar to the Proposed Project, as is the number of traffic trips.

The main difference in impacts between this alternative and the Proposed Project is the potential change in visibility of the multifamily building and townhomes as viewed from King Street (see **Figures 1-12 to Figure 1-15**). In both options of this alternative, the proposed multifamily building would

be visible from the same vantage points as the Proposed Project. While the building proposed in this alternative would be shorter than the Proposed Project, the views of would be similar in nature to the Proposed Project—during leaf-off conditions, the façade of the building would be visible through and just over the existing woody vegetation on the berm. During leaf-off conditions, the multifamily building would be barely visible from King Street. Therefore, in the Applicant's opinion, while the *visibility* of this alternative would be different from the Proposed Project, the difference in proposed building height of this alternative would not result in significantly less visual *impact* than the Proposed Project.

As described more fully in Chapter 11, "Visual Resources and Community Character," the Lead Agency has not determined the potential significance of the Proposed Action's visual impact at this time, nor has it determined the significance of the potential visual impacts of the alternatives studied in this chapter.

In the Applicant's opinion, the most noticeable difference in visibility under this alternative would result from the introduction of townhomes closer to King Street. Due to the increased number of townhomes in the northern portion of the Site, resulting in clusters of townhomes closer to King Street than under the Proposed Project, structural elements of a few townhomes would be visible from Vantage Point 2 during leaf-off conditions at the far northern portion of this view. As discussed in Chapter 11, "Visual Resources and Community Character," the Proposed Project's 22 townhomes would not be visible from any of the four vantage points during leaf-off conditions. The townhomes in this alternative would only be visible to motorists traveling north on King Street from approximately the area of Vantage Point 2 to the approximate area of Vantage Point 3. The two-story townhomes would be set back at a distance greater than 65-feet from King Street and would be heavily screened by existing vegetation, which in the leaf-on condition would nearly eliminate views of these buildings. In the Applicant's opinion, the limited visibility to motorists traveling within a small area of King Street of these two-story townhomes screened by intervening vegetation would not be a significant adverse visual impact of this alternative.

1.F.4. ALTERNATIVE 4: STATIC DENSITY ALTERNATIVE

1.F.4.a. Description of Alternative

The Proposed Zoning allows each square foot of approved but unbuilt office and related amenity space to be converted into one and one-quarter (1.25) square feet of residential space. The Static Density alternative would result in the Proposed Zoning being amended to allow each square foot of approved but unbuilt office and related amenity space to be converted into one (1.00) square foot of hotel/residential space. As such, this alternative would reduce the proposed residential program on the Project Site from the currently proposed 293,225 gsf to 238,000 gsf, the latter number being equal to the amount of office and related amenity space included in the currently approved but unbuilt development plan. The total number of dwelling units on the Project Site under this alternative would decrease from 171 to approximately

138. For purposes of this analysis, the 33-unit reduction is assumed to come entirely from a reduction in multifamily units and, therefore, this program could be accommodated in a similar layout to the Proposed Project. The two existing office buildings would be re-used in a similar manner to the Proposed Project.

1.F.4.b. Potential Impacts of the Alternative

As with the Proposed Project, this alternative is consistent with the goal of the Town's updated Comprehensive Plan to introduce a mix of uses to the Project Site. Physical site impacts would be similar to the Proposed Project. This alternative would result in approximately 10 percent less water/sewer demand than the Proposed Project and slightly fewer traffic trips (i.e., 14 Peak AM Hour trips and 18 Peak PM Hour trips). The visual impacts of this alternative would be similar to the Reduced Height Multifamily alternative, discussed above. Finally, this alternative would be anticipated to have 19 to 22 PSAC, which is similar to the 20 to 27 PSAC estimated to live in the Proposed Project.

1.F.5. ALTERNATIVE 5: MULTIFAMILY BUILDING IN COONEY HILL AREA

1.F.5.a. Description of Alternative

This alternative evaluates the potential environmental impacts of relocating the proposed multifamily building to the northern portion of the Project Site (i.e., the Cooney Hill area) and retaining the same overall program as the Proposed Project. The Applicant has developed a conceptual site plan for this alternative, as illustrated in **Figure 1-10**. The analysis of potential environmental impacts is based on the new locations of both proposed residential uses—multifamily building and townhomes—since the overall development program would remain the same.

1.F.5.b. Potential Impacts of the Alternative

This alternative would have more impervious surfaces (10.48 acres) than the Proposed Project (9.96 acres) as a result of longer driveways and the need to provide adequate site-circulation. As a result, additional stormwater management facilities would be required. Similarly, this alternative would result in a larger area of disturbance on the Site, and the multifamily building would be located partially in the revocable portion of the Conservation Easement, an area that the Proposed Project's structures avoid. However, encroachment into this area as a result of this alternative may not result in significant impacts to vegetation and wildlife, as this area contains similar habitat to elsewhere on the Project Site and such development would be paired with appropriate stormwater management in compliance with NYCDEP and NYSDEC requirements.

While the trips generated by this alternative would be the same as the Proposed Project, a larger portion of trips would be likely to use Cooney Hill Road. In addition, a larger portion of construction activity would occur proximate to 3 Cooney Hill Road.

The roofline of the multifamily building in this alternative would be visible from Vantage Point 1, south of the Main Site Entrance, but not from other vantage points. The visibility of the townhomes in this alternative would be similar to the Reduced Height Multifamily alternative, described above.

1.F.6. ALTERNATIVE 6: PROVISION OF SENIOR LIVING

1.F.6.a. Description of Alternative

This alternative evaluates the potential environmental impacts of developing "senior citizen housing" for the project's residential component. The Proposed Zoning includes a provision for a density bonus related to senior housing and assisted living facilities by allowing each square foot of approved but unbuilt office and related amenity space to be converted into up to 1.875 square feet of senior housing/assisted living space. This bonus is proposed in recognition of the relatively lower per-unit impacts of senior housing as compared to market rate housing.

This alternative would increase the square footage of the proposed residential program on the Project Site from the currently proposed 293,225 gsf to approximately 446,250 gsf. The total number of dwelling units on the Project Site under this alternative would increase from 171 to approximately 350. These units would be programmed appropriately for senior living and the buildings would likely include space for supplementary services, such as centralized dining and other activities. Under this alternative, it is assumed that the two existing office buildings would be re-used in a similar manner to the Proposed Project (i.e., 100,000 gsf office and a 161,000 gsf hotel with 125 rooms).

A conceptual site plan has not been developed for this alternative, but it is assumed that construction of more than one building would be necessary to achieve the targeted unit count of 350. It is further assumed that, for operational efficiency, the building(s) in this alternative would be clustered together and located in similar areas of the Site to the buildings included in the Proposed Project.

1.F.6.b. Potential Impacts of the Alternative

As with the Proposed Project, this alternative is consistent with the goal of the Town's updated Comprehensive Plan to introduce a mix of uses to the Project Site. Physical site impacts would be dependent on a potential site plan, but would be expected to be similar in nature to those of the other alternatives studied in this DGEIS. This alternative would likely result in approximately 6,330 gpd more water/sewer demand than the Proposed Project, requiring the development of additional on-Site well capacity. The number of peak hour trips would be nearly identical to the Proposed Project, owing to the reduced peak hour trip generation of senior housing.

It is expected that no PSAC would live on the Project Site with this alternative, resulting in a larger financial benefit to the BHSD than with the Proposed Project. While the demand for fire and police services would be expected to be similar to the Proposed Project, this alternative is likely to

generate a higher number of EMS calls. The taxes generated by the senior housing development, and other site uses, would be anticipated to offset the increased in demand. To further mitigate this potential impact, operational policies within the senior living facility related to staffing and the degree of assistance offered to residents could be implemented, if necessary.

1.F.7. ALTERNATIVE 7: INCREASED TOWNHOUSE DENSITY

1.F.7.a. Description of Alternative

This alternative evaluates the potential environmental impacts of eliminating the proposed multifamily building and maximizing the number of townhomes on the Project Site while retaining the current office and proposed hotel use. The Applicant has developed a conceptual site plan for this alternative, as illustrated in **Figure 1-11**. This alternative would result in approximately half as many dwelling units on the Project Site when compared to the Proposed Project (78 compared to 149) and approximately 25 percent fewer bedrooms (234 compared to 315).

1.F.7.b. Potential Impacts of the Alternative

As with the Proposed Project, this alternative is consistent with the goal of the Town's updated Comprehensive Plan to introduce a mix of uses to the Project Site. The Alternative would, however, result in 11.7 acres of impervious surface on the Site, which is 1.74 acres more than the Proposed Project. Similarly, this alternative would disturb a larger portion of the Site and likely result in structures being placed in the revocable portion of the Conservation Easement, an area that the Proposed Project's structures avoid. However, encroachment into this area as a result of this alternative may not result in significant impacts to vegetation and wildlife, as this area contains similar habitat to elsewhere on the Project Site and such development would be paired with appropriate stormwater management in compliance with NYCDEP and NYSDEC requirements.

Water and sewer demand would be approximately 49,960 gpd, which is 8,910 gpd less than the Proposed Project. Similarly, the number of Peak Hour traffic trips would be less with this alternative than the Proposed Project. In the AM Peak Hour, this alternative would generate 211 trips, 17 percent fewer trips than the Proposed Project. In the PM Peak Hour, this alternative would generate 234 trips, 18 percent fewer trips than the Proposed Project. This alternative would be anticipated to have 22 PSAC as residents, which is comparable to the 20 to 27 PSAC anticipated to live within the Proposed Project.

Similar to the Reduced Height and Multifamily in Cooney Hill alternatives, the Increased Townhouse alternative would include townhomes located closer to King Street than currently proposed, but still set back over 65-feet. As was the case with those alternatives, the townhomes in this alternative would be partially visible in the leaf-off condition through existing vegetation at Vantage Points 2 and 3 (i.e., from King Street in the middle of the Site). This visibility would not cause a significant adverse visual impact.

1.F.8. ALTERNATIVE 8: COMBINED ALTERNATIVE

1.F.8.a. Description of Alternative

This alternative combines elements of the Proposed Project, the Reduced Height Multifamily alternative and the Static Density alternative, as required by the DEIS Scoping Document. As shown in **Table 1-11**, this alternative would allow for the office and hotel uses included in the Proposed Project, a residential program with the same square footage as the currently approved office expansion (which equates to approximately 139 total residential units), and a multifamily building with a maximum height permitted by the existing DOB-20A zoning (45 feet). The primary differences between this alternative and the Proposed Project would be a shorter multifamily building and a reduction in the residential development program by approximately 20 percent. The total number of dwelling units on the Project Site under this alternative would decrease from 171 to approximately 139.

Table 1-11
Comparison of Proposed Project and Combined Alternative

Development Details	Proposed Project (PDCP)	Combined Alternative
Office (gsf)	100,000	No change
Hotel (gsf)	161,000 (125 rooms)	No change
MF Building Height (feet above average grade)	78 feet	45 feet
Total MF units	149 units	83 units
Total Townhomes	22 units	56 units
Total Dwelling Units	171 units	139 units

Source: JMC, Airport Campus I-V LLC

1.F.8.b. Potential Impacts of the Alternative

As with the Proposed Project, this alternative is consistent with the goal of the Town's updated Comprehensive Plan to introduce a mix of uses to the Project Site. The physical site impacts of this alternative would be highly dependent on a potential future site plan. It is likely that with this alternative there would be more impervious surfaces than the Proposed Project, and subsequently additional stormwater management features would be required, more area of the Site would be disturbed during construction than with the Proposed Project, and some townhouses may need to be located in the revocable portion of the Conservation Easement, an area that the Proposed Project's structures avoid. However, encroachment into the easement area as a result of this alternative may not result in significant impacts to vegetation and wildlife, as this area contains similar habitat to elsewhere on the Project Site and such development would be paired with appropriate stormwater management in compliance with NYCDEP and NYSDEC requirements. The water and sewer demand would be slightly less than the Proposed Project, as would the traffic generated during the Peak Hours. As with the Static Density Alternative, this alternative would be anticipated to have 19 to 22 PSAC, which is similar to the 20 to 27 PSAC estimated to live in the Proposed Project.

Visibility of the new construction would be similar to Option 1 of the Reduced Height Multifamily alternative. The 45-foot-tall multifamily building and the 2-story townhomes would be visible through the existing Site vegetation to motorists as they travel along King Street. This change in visibility would not result in a significant adverse visual impact. ✷

Project Site Location, Tax Parcels, and Existing Conditions

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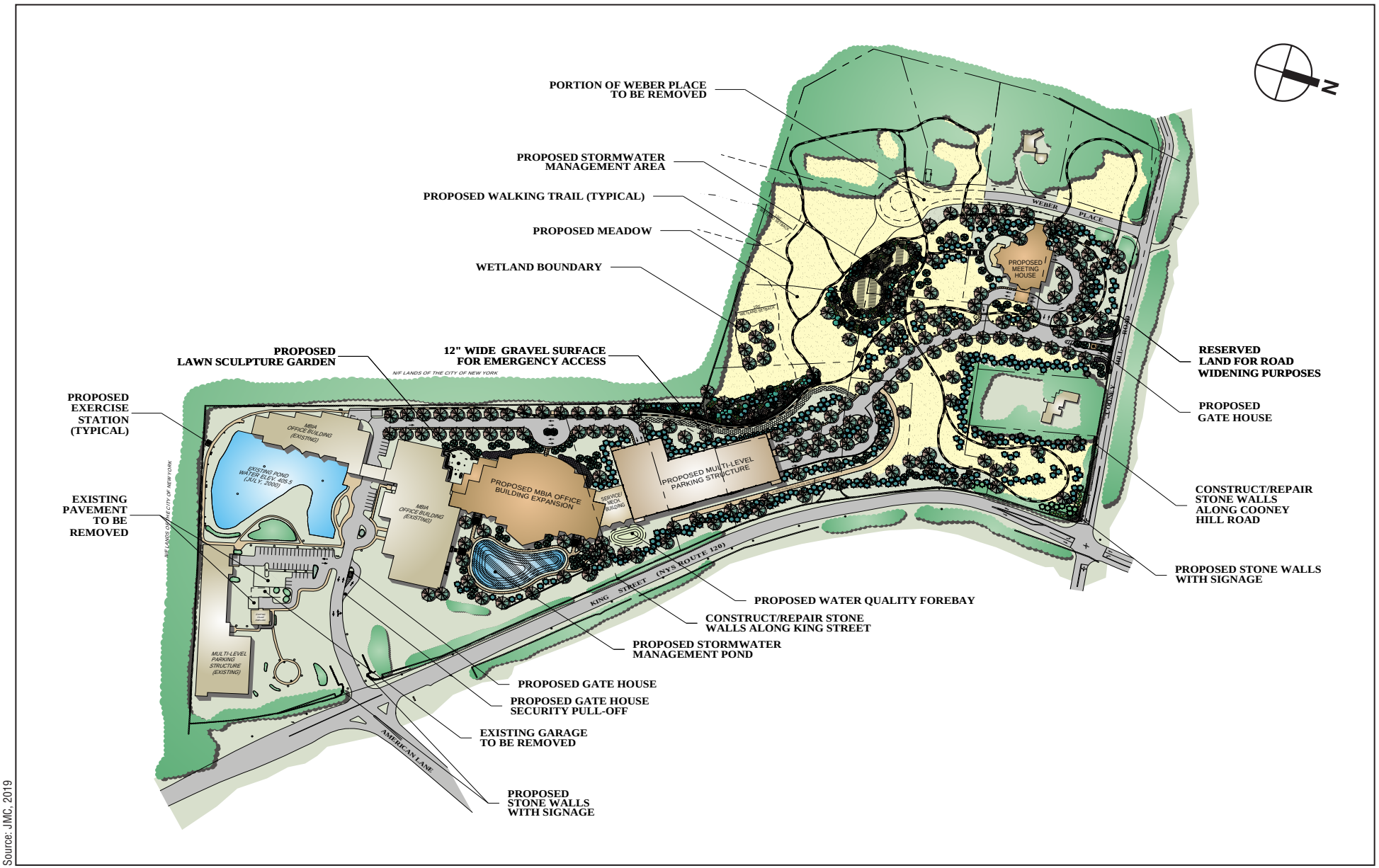
Figure 1-1

9.17.20



Source: JMC, 2019

Project Site - Currently Approved Development Plan

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Figure 1-2

9.17.20

Source: JMC, 2020

Project Site - Proposed PDCP Layout

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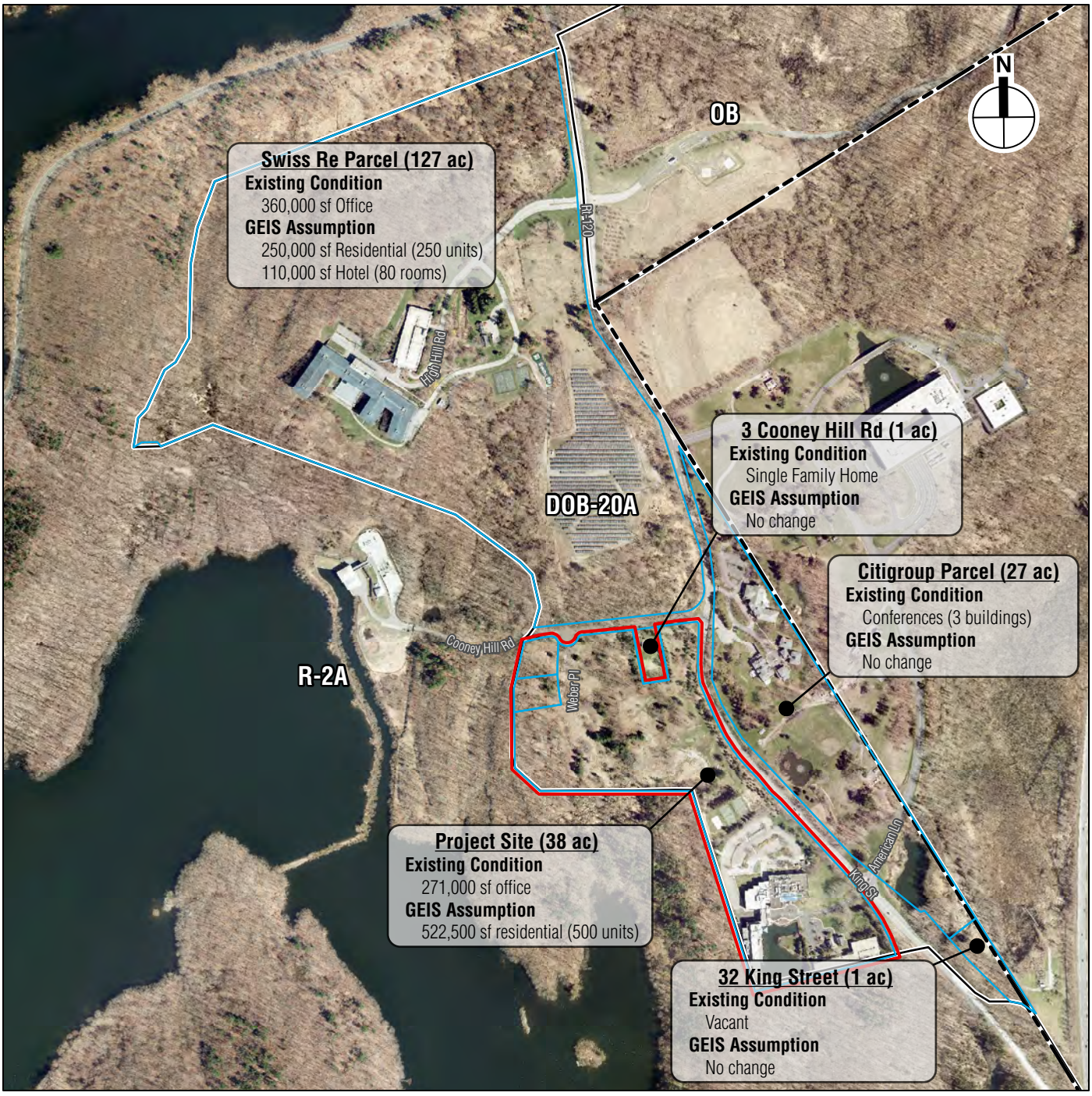
Figure 1-3

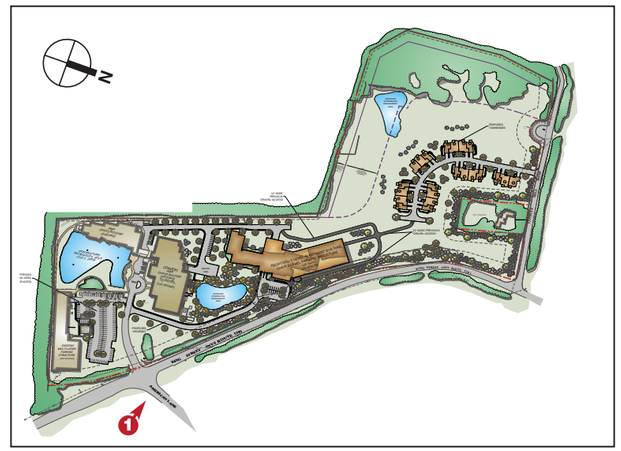


DOB-20A District - GEIS Development Assumptions

2.27.20

Existing Condition (Leaf-off)

Proposed Condition (Leaf-off)



Existing and Proposed Conditions — Vantage Point 1

Figure 1-5

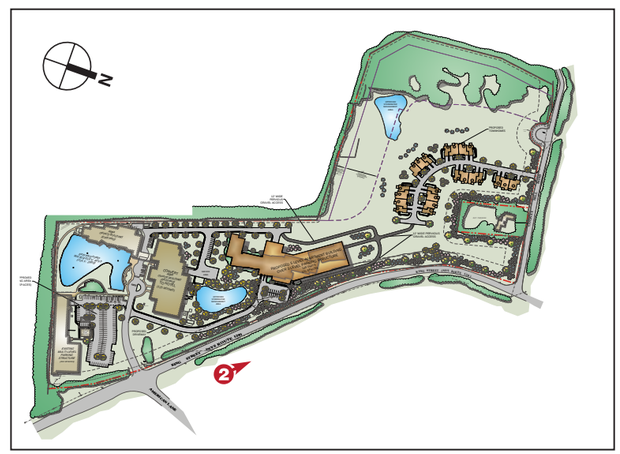
2.27.20

Existing Condition (Leaf-off)

Source: Perkins-Eastman

Proposed Condition (Leaf-off)

Proposed Condition (Leaf-on)



Existing and Proposed Conditions — Vantage Point 2
Figure 1-6

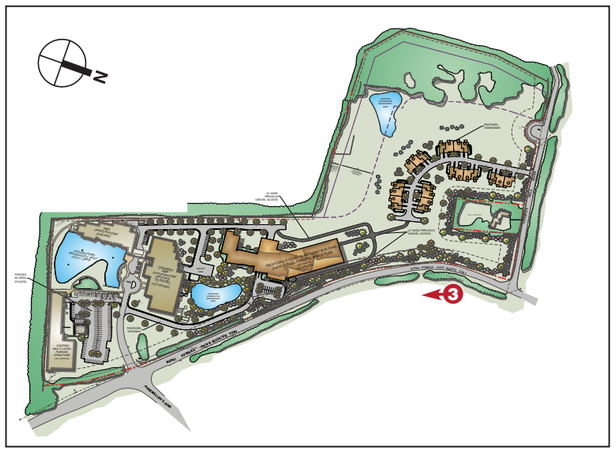
2.27.20

Existing Condition (Leaf-off)

Source: Perkins-Eastman

Proposed Condition (Leaf-off)

Proposed Condition (Leaf-on)



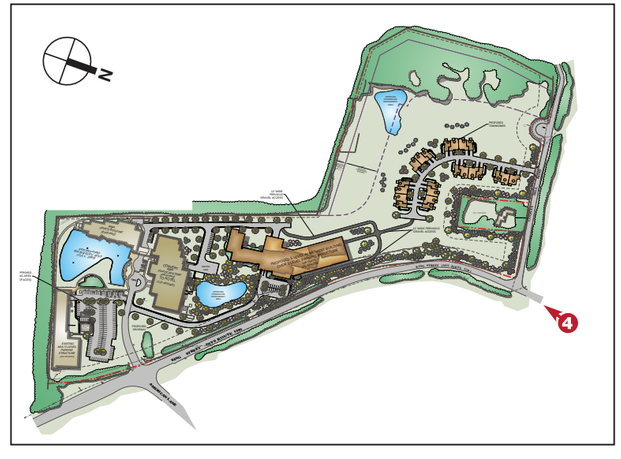
Existing and Proposed Conditions — Vantage Point 3

Figure 1-7

2.27.20

Existing Condition (Leaf-off)

Proposed Condition (Leaf-off)



Existing and Proposed Conditions — Vantage Point 4

Figure 1-8

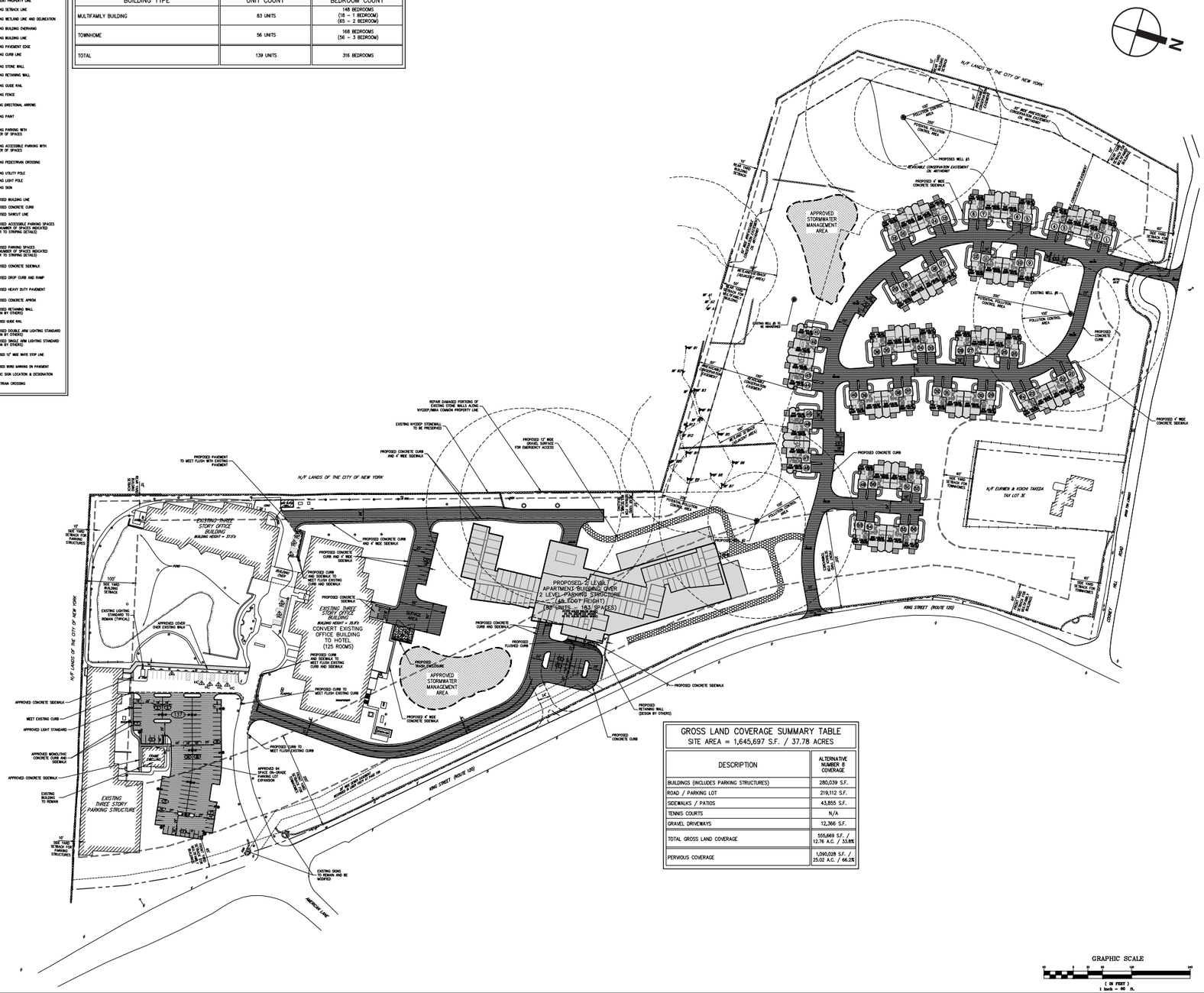
9.18.20

LEGEND

- EXISTING PROPERTY LINE
- ADJACENT PROPERTY LINE
- EXISTING SETBACK LINE
- EXISTING WETLAND LINE AND DELINEATION
- EXISTING BUILDING OVERHANG
- EXISTING BUILDING LINE
- EXISTING PAVEMENT EDGE
- EXISTING CURB LINE
- EXISTING STONE WALL
- EXISTING RETAINING WALL
- EXISTING GUIDE RAIL
- EXISTING FENCE
- EXISTING DIRECTIONAL ARROWS
- EXISTING PAINT
- EXISTING PARKING WITH NUMBER OF SPACES
- EXISTING ACCESSIBLE PARKING WITH NUMBER OF SPACES
- EXISTING PEDESTRIAN CROSSING
- EXISTING UTILITY POLE
- EXISTING LIGHT POLE
- EXISTING SIGN
- PROPOSED BUILDING LINE
- PROPOSED CONCRETE CURB
- PROPOSED SAWCUT LINE
- PROPOSED ACCESSIBLE PARKING SPACES WITH NUMBER OF SPACES INDICATED (REFER TO STRIPING DETAILS)
- PROPOSED PARKING SPACES WITH NUMBER OF SPACES INDICATED (REFER TO STRIPING DETAILS)
- PROPOSED CONCRETE SIDEWALK
- PROPOSED DROP CURB AND RAMP
- PROPOSED HEAVY DUTY PAVEMENT
- PROPOSED CONCRETE APRON
- PROPOSED RETAINING WALL (DESIGN BY OTHERS)
- PROPOSED GUIDE RAIL
- PROPOSED DOUBLE ARM LIGHTING STANDARD (DESIGN BY OTHERS)
- PROPOSED SINGLE ARM LIGHTING STANDARD (DESIGN BY OTHERS)
- PROPOSED 12" WIDE WHITE STOP LINE
- PROPOSED WORD MARKING ON PAVEMENT (ONLY)
- TRAFFIC SIGN LOCATION & DESIGNATION
- PEDESTRIAN CROSSING

RESIDENTIAL BUILDING SUMMARY TABLE

BUILDING TYPE	UNIT COUNT	BEDROOM COUNT
MULTIFAMILY BUILDING	83 UNITS	148 BEDROOMS (18 – 1 BEDROOM) (65 – 2 BEDROOM)
TOWNHOME	56 UNITS	168 BEDROOMS (56 – 3 BEDROOM)
TOTAL	139 UNITS	316 BEDROOMS



GROSS LAND COVERAGE SUMMARY TABLE
SITE AREA = 1,645,697 S.F. / 37.78 ACRES

DESCRIPTION	ALTERNATIVE NUMBER 8 COVERAGE
BUILDINGS (INCLUDES PARKING STRUCTURES)	280,039 S.F.
ROAD / PARKING LOT	219,112 S.F.
SIDEWALKS / PATIOS	43,855 S.F.
TENNIS COURTS	N/A
GRAVEL DRIVEWAYS	12,366 S.F.
TOTAL GROSS LAND COVERAGE	555,669 S.F. / 12.76 A.C. / 33.8%
PERVIOUS COVERAGE	1,090,028 S.F. / 25.02 A.C. / 66.2%

GRAPHIC SCALE
(IN FEET)
1 inch = 60 ft.

Source: JMC, 2020

AIRPORT CAMPUS

Alternative 3 - Reduced Height Multifamily - Option 1

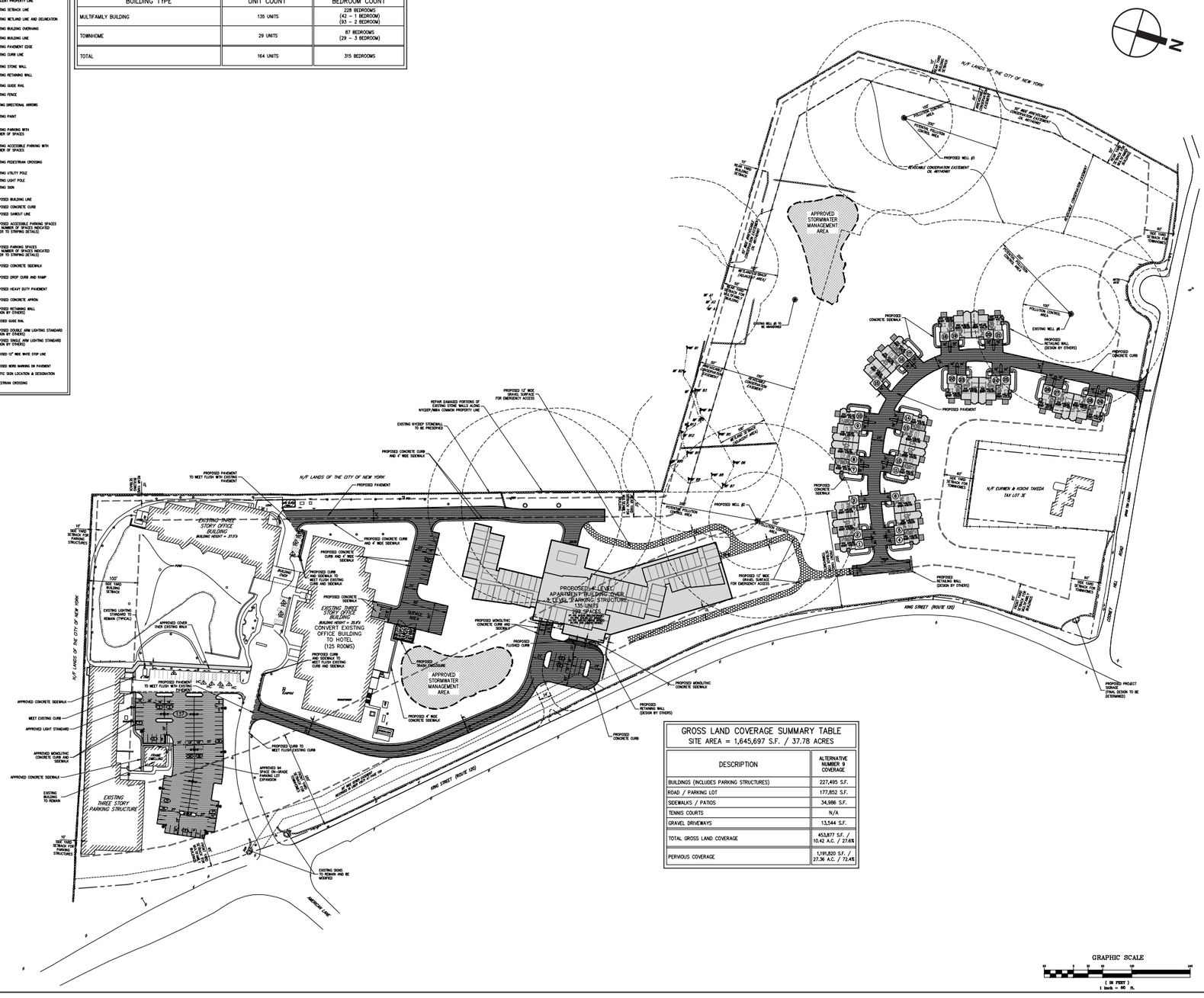
Figure 1-9a

9.18.20

RESIDENTIAL BUILDING SUMMARY TABLE		
BUILDING TYPE	UNIT COUNT	BEDROOM COUNT
MULTIFAMILY BUILDING	135 UNITS	228 BEDROOMS (42 – 1 BEDROOM) (93 – 2 BEDROOM)
TOWNHOME	29 UNITS	87 BEDROOMS (29 – 3 BEDROOM)
TOTAL	164 UNITS	315 BEDROOMS

LEGEND

EXISTING PROPERTY LINE
ADJACENT PROPERTY LINE
EXISTING SETBACK LINE
EXISTING WETLAND LINE AND DELINEATION
EXISTING BUILDING OVERHANG
EXISTING BUILDING LINE
EXISTING PAVEMENT EDGE
EXISTING CURB LINE
EXISTING STONE WALL
EXISTING RETAINING WALL
EXISTING GUIDE RAIL
EXISTING FENCE
EXISTING DIRECTIONAL ARROWS
EXISTING PAINT
EXISTING PARKING WITH NUMBER OF SPACES
EXISTING ACCESSIBLE PARKING WITH NUMBER OF SPACES
EXISTING PEDESTRIAN CROSSING
EXISTING UTILITY POLE
EXISTING LIGHT POLE
EXISTING SIGN
PROPOSED BUILDING LINE
PROPOSED CONCRETE CURB
PROPOSED SAWCUT LINE
PROPOSED ACCESSIBLE PARKING SPACES WITH NUMBER OF SPACES INDICATED (REFER TO STRIPING DETAILS)
PROPOSED PARKING SPACES WITH NUMBER OF SPACES INDICATED (REFER TO STRIPING DETAILS)
PROPOSED CONCRETE SIDEWALK
PROPOSED DROP CURB AND RAMP
PROPOSED HEAVY DUTY PAVEMENT
PROPOSED CONCRETE APRON
PROPOSED RETAINING WALL (DESIGN BY OTHERS)
PROPOSED GUIDE RAIL
PROPOSED DOUBLE ARM LIGHTING STANDARD (DESIGN BY OTHERS)
PROPOSED SINGLE ARM LIGHTING STANDARD (DESIGN BY OTHERS)
PROPOSED 12" WIDE WHITE STOP LINE
ONLY — PROPOSED WORD MARKING ON PAVEMENT
TRAFFIC SIGN LOCATION & DESIGNATION
PEDESTRIAN CROSSING



GROSS LAND COVERAGE SUMMARY TABLE SITE AREA = 1,645,697 S.F. / 37.78 ACRES	
DESCRIPTION	ALTERNATIVE NUMBER 9 COVERAGE
BUILDINGS (INCLUDES PARKING STRUCTURES)	227,495 S.F.
ROAD / PARKING LOT	177,852 S.F.
SIDEWALKS / PATIOS	34,986 S.F.
TENNIS COURTS	N/A
GRAVEL DRIVEWAYS	13,544 S.F.
TOTAL GROSS LAND COVERAGE	453,877 S.F. / 10.42 A.C. / 27.6%
PERVIOUS COVERAGE	1,191,820 S.F. / 27.36 A.C. / 72.4%

Source: JMC, 2020

Alternative 3 - Reduced Height Multifamily - Option 2

AIRPORT CAMPUS

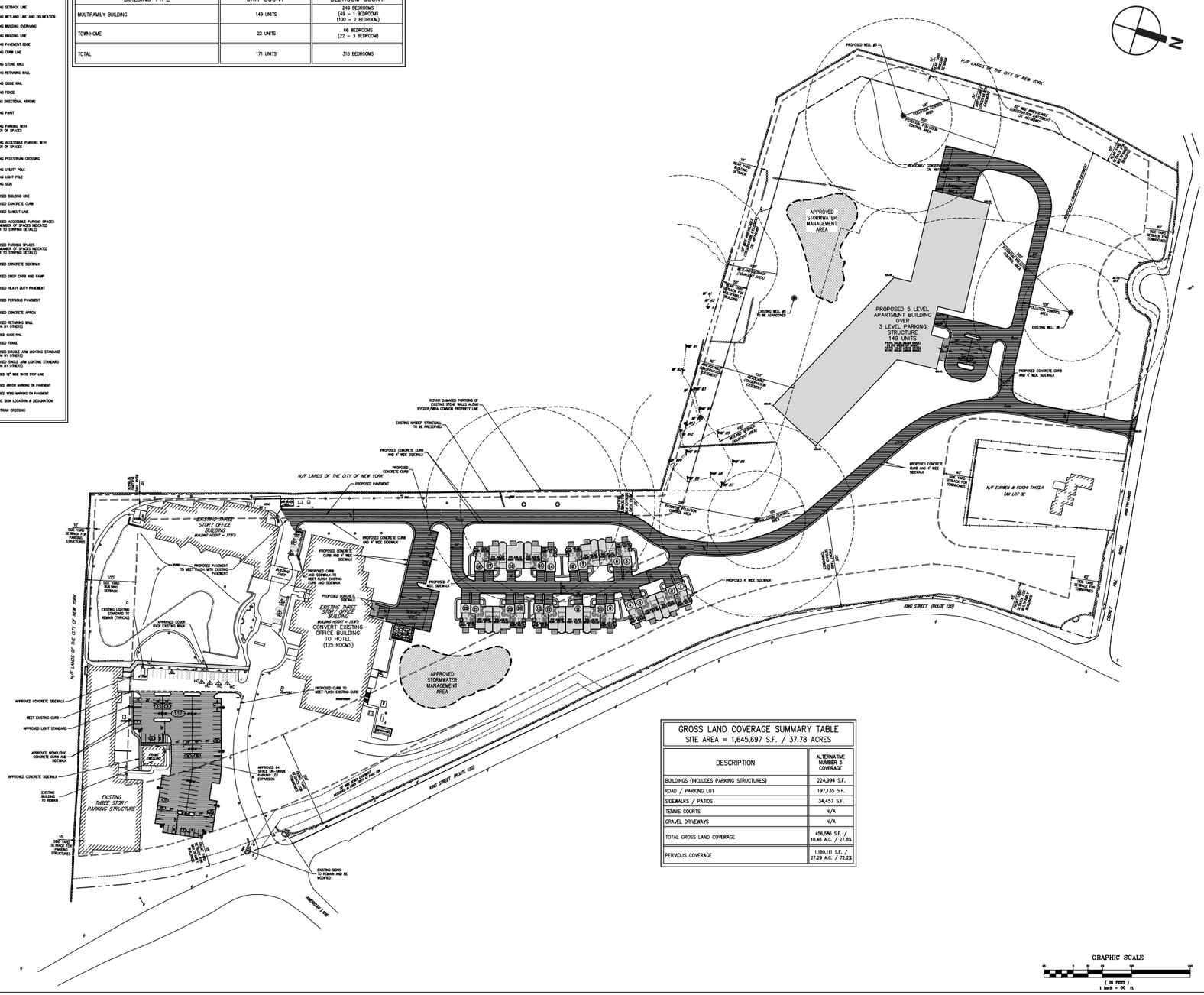
Figure 1-9b

9.18.20

RESIDENTIAL BUILDING SUMMARY TABLE		
BUILDING TYPE	UNIT COUNT	BEDROOM COUNT
MULTIFAMILY BUILDING	149 UNITS	249 BEDROOMS (49 – 1 BEDROOM) (100 – 2 BEDROOM)
TOWNHOME	22 UNITS	66 BEDROOMS (22 – 3 BEDROOM)
TOTAL	171 UNITS	315 BEDROOMS

LEGEND

EXISTING PROPERTY LINE
ADJACENT PROPERTY LINE
EXISTING SETBACK LINE
EXISTING WETLAND LINE AND DELINEATION
EXISTING BUILDING OVERHANG
EXISTING BUILDING LINE
EXISTING PAVEMENT EDGE
EXISTING CURB LINE
EXISTING STONE WALL
EXISTING RETAINING WALL
EXISTING GUIDE RAIL
EXISTING FENCE
EXISTING DIRECTIONAL ARROWS
EXISTING PAINT
EXISTING PARKING WITH NUMBER OF SPACES
EXISTING ACCESSIBLE PARKING WITH NUMBER OF SPACES
EXISTING PEDESTRIAN CROSSING
EXISTING UTILITY POLE
EXISTING LIGHT POLE
EXISTING SIGN
PROPOSED BUILDING LINE
PROPOSED CONCRETE CURB
PROPOSED SAWCUT LINE
PROPOSED ACCESSIBLE PARKING SPACES WITH NUMBER OF SPACES INDICATED (REFER TO STRIPING DETAILS)
PROPOSED PARKING SPACES WITH NUMBER OF SPACES INDICATED (REFER TO STRIPING DETAILS)
PROPOSED CONCRETE SIDEWALK
PROPOSED DROP CURB AND RAMP
PROPOSED HEAVY DUTY PAVEMENT
PROPOSED PERVIOUS PAVEMENT
PROPOSED CONCRETE APRON
PROPOSED RETAINING WALL (DESIGN BY OTHERS)
PROPOSED GUIDE RAIL
PROPOSED FENCE
PROPOSED DOUBLE ARM LIGHTING STANDARD (DESIGN BY OTHERS)
PROPOSED SINGLE ARM LIGHTING STANDARD (DESIGN BY OTHERS)
PROPOSED 12" WIDE WHITE STOP LINE
PROPOSED ARROW MARKING ON PAVEMENT
PROPOSED WORD MARKING ON PAVEMENT
TRAFFIC SIGN LOCATION & DESIGNATION
PEDESTRIAN CROSSING



GROSS LAND COVERAGE SUMMARY TABLE SITE AREA = 1,645,697 S.F. / 37.78 ACRES	
DESCRIPTION	ALTERNATIVE NUMBER 5 COVERAGE
BUILDINGS (INCLUDES PARKING STRUCTURES)	224,994 S.F.
ROAD / PARKING LOT	197,135 S.F.
SIDEWALKS / PATIOS	34,457 S.F.
TENNIS COURTS	N/A
GRAVEL DRIVEWAYS	N/A
TOTAL GROSS LAND COVERAGE	456,586 S.F. / 10.48 A.C. / 27.8%
PERVIOUS COVERAGE	1,189,111 S.F. / 27.29 A.C. / 72.2%

Source: JMC, 2020

Alternative 5 - Multifamily Building in Cooney Hill Area

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Figure 1-10

9.18.20

LEGEND

- EXISTING PROPERTY LINE
- ADJACENT PROPERTY LINE
- EXISTING SETBACK LINE
- EXISTING WETLAND LINE AND DELINEATION
- EXISTING BUILDING OVERHANG
- EXISTING BUILDING LINE
- EXISTING PAVEMENT EDGE
- EXISTING CURB LINE
- EXISTING STONE WALL
- EXISTING RETAINING WALL
- EXISTING GUIDE RAIL
- EXISTING FENCE
- EXISTING DIRECTIONAL ARROWS
- EXISTING PAINT
- EXISTING PARKING WITH NUMBER OF SPACES
- EXISTING ACCESSIBLE PARKING WITH NUMBER OF SPACES
- EXISTING PEDESTRIAN CROSSING
- EXISTING UTILITY POLE
- EXISTING LIGHT POLE
- EXISTING SIGN
- PROPOSED BUILDING LINE
- PROPOSED CONCRETE CURB
- PROPOSED SAWCUT LINE
- PROPOSED ACCESSIBLE PARKING SPACES WITH NUMBER OF SPACES INDICATED (REFER TO STRIPING DETAILS)
- PROPOSED PARKING SPACES WITH NUMBER OF SPACES INDICATED (REFER TO STRIPING DETAILS)
- PROPOSED CONCRETE SIDEWALK
- PROPOSED DROP CURB AND RAMP
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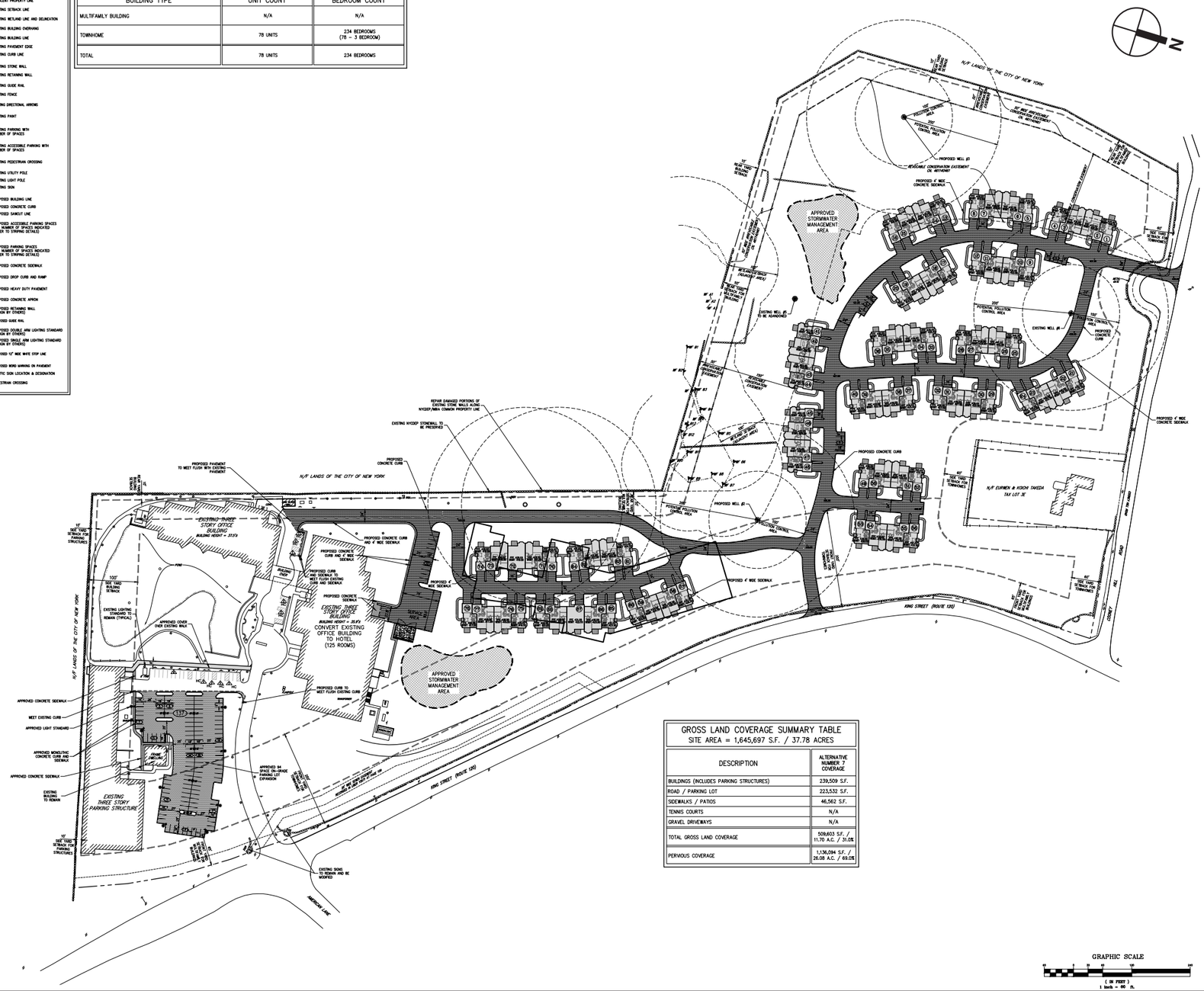
- PROPOSED CONCRETE APRON
- PROPOSED RETAINING WALL (DESIGN BY OTHERS)
- PROPOSED GUIDE RAIL
- PROPOSED DOUBLE ARM LIGHTING STANDARD (DESIGN BY OTHERS)
- PROPOSED SINGLE ARM LIGHTING STANDARD (DESIGN BY OTHERS)
- PROPOSED 12" WIDE WHITE STOP LINE
- PROPOSED WORD MARKING ON PAVEMENT (ONLY)
- TRAFFIC SIGN LOCATION & DESIGNATION
- PEDESTRIAN CROSSING

RESIDENTIAL BUILDING SUMMARY TABLE

BUILDING TYPE	UNIT COUNT	BEDROOM COUNT
MULTIFAMILY BUILDING	N/A	N/A
TOWNHOME	78 UNITS	234 BEDROOMS (78 – 3 BEDROOM)
TOTAL	78 UNITS	234 BEDROOMS



GROSS LAND COVERAGE SUMMARY TABLE
SITE AREA = 1,645,697 S.F. / 37.78 ACRES

DESCRIPTION	ALTERNATIVE NUMBER 7 COVERAGE
BUILDINGS (INCLUDES PARKING STRUCTURES)	239,509 S.F.
ROAD / PARKING LOT	223,532 S.F.
SIDEWALKS / PATIOS	46,562 S.F.
TENNIS COURTS	N/A
GRAVEL DRIVEWAYS	N/A
TOTAL GROSS LAND COVERAGE	509,603 S.F. / 11.70 A.C. / 31.0%
PERVIOUS COVERAGE	1,136,094 S.F. / 26.08 A.C. / 69.0%

GRAPHIC SCALE
(IN FEET)
1 inch = 60 ft.

Source: JMC, 2020

Alternative 7 - Increased Townhouse Density

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Figure 1-11

2.27.20

Existing Condition

Photo Key

Proposed Project

Reduced Height Multifamily (45 feet)

Reduced Height Multifamily (4-stories)

Multifamily in Cooney Hill

Views of Project Site with Alternatives - Vantage Point 1

Figure 1-12

2.27.20

Existing Condition

Photo Key

Source: Perkins Eastman

Proposed Project

Source: Perkins Eastman

Reduced Height Multifamily (45 feet)

Source: Perkins Eastman

Reduced Height Multifamily (4-stories)

Source: Perkins Eastman

Multifamily in Cooney Hill

Views of Project Site with Alternatives - Vantage Point 2

Figure 1-13

2.27.20

Existing Condition

Photo Key

Source: Perkins Eastman

Proposed Project

Source: Perkins Eastman

Reduced Height Multifamily (45 feet)

Source: Perkins Eastman

Reduced Height Multifamily (4-stories)

Source: Perkins Eastman

Multifamily in Cooney Hill

Views of Project Site with Alternatives - Vantage Point 3
Figure 1-14

2.27.20

Existing Condition

Proposed Project

Reduced Height Multifamily (45 feet)

Photo Key

Reduced Height Multifamily (4-stories)

Multifamily in Cooney Hill

Views of Project Site with Alternatives - Vantage Point 4

Figure 1-15

Chapter 2: Project Description

2.A. PROJECT OVERVIEW

Airport Campus I LLC, Airport Campus II LLC, Airport Campus III LLC, Airport Campus IV LLC, and Airport Campus V LLC (collectively "the Applicant") is seeking discretionary approvals from the Town Board of the Town of North Castle (the "Town Board") in order to repurpose and redevelop approximately 38 acres of contiguous property known as "Airport Campus" located at 113 King Street (tax map parcels 118.02-1-1, 113.04-1-13, and 113.04-1-14) in the Town of North Castle, Westchester County, New York (the "Project Site" or "Site"). Specifically, the Applicant proposes to re-occupy the southernmost existing office building for office uses, adaptively re-use the northernmost existing office building as a hotel, and construct new residential uses to the north of the existing buildings, in the form of a five-story, approximately 149-unit multi-family building (with structured parking underneath) and approximately 22 two-story townhomes (the "Proposed Project"). To redevelop the Site as proposed, the applicant has petitioned the Town Board for text amendments to the Town's Designated Office Business 20A ("DOB-20A") provision of the Town's Zoning Ordinance to permit residential and hotel uses via special permit and to provide bulk and density requirements for those uses (the "Proposed Zoning"). Collectively, the Proposed Project and the Proposed Zoning are the "Proposed Action."

The Project Site, located within the Town's DOB-20A zoning district, is the former corporate headquarters of the Municipal Bond Insurance Association's (MBIA) and is currently improved with approximately 261,000 square feet (sf) of office space within two currently vacant three-story buildings and other associated improvements (e.g., parking, accessory structures, ancillary uses). Access to the Project Site is provided from the existing signalized driveway intersection with King Street/NYS Route 120.

Pursuant to the rules and regulations of the State Environmental Quality Review Act ("SEQRA," Article 8 of the Environmental Conservation Law, and its implementing regulations at 6 NYCRR 617), the Town Board, acting as SEQRA Lead Agency, determined that the Proposed Action has the potential to result in one or more significant adverse environmental impacts. To identify appropriate measures to mitigate potential impacts and allow the public the greatest opportunity to comment on the potential impacts of the Proposed Action, the Town Board adopted a Positive Declaration on September 12, 2018, requiring the preparation of an Environmental Impact Statement (EIS). Public scoping for the EIS took place over two sessions (September 26th and October 10th, 2018) at the North Castle Town Hall (15 Bedford Road, Armonk, New York). The public comment period on the Draft Scoping Document concluded on October 26, 2018. On March 13, 2019, the Town Board adopted the Final Scoping Document, which sets forth the analyses required in the EIS (see **Appendix A-1**).

While a specific redevelopment proposal, the "Proposed Project," is being proposed pursuant to the requirements of the DOB-20A zoning district and SEQRA regulations, the Applicant notes that market conditions will necessarily dictate the precise composition of an eventual site plan.

Accordingly, in addition to preparing a detailed analysis of the potential environmental impacts of the Proposed Project, the Applicant has prepared analyses for several different project alternatives. It is the purpose of these alternatives to identify and analyze the potential environmental impacts of a range of zoning-compliant site plans, such that if the Town Board approves the Proposed Zoning, the environmental impacts of a range of reasonably anticipated potential site plans that may differ from the Proposed Project will have been analyzed through the SEQRA process.

2.B. REQUIRED APPROVALS

To redevelop the Project Site as proposed, the Applicant has petitioned the Town Board for text amendments to the Town's Zoning Code. The Applicant has also applied to the Town Board for approval of a Preliminary Development Concept Plan (PDCP) and a Special Permit, which would allow for the subsequent preparation of a detailed site plan and potential subdivision application to construct the Proposed Project (subject to approval by the North Castle Planning Board).

A comprehensive list of the approvals required to construct the Proposed Project is below. The governmental agencies responsible for those approvals, identified in parentheses, are identified as "Involved Agencies" pursuant to SEQRA.

- DOB-20A Zoning Text Amendment (Town Board)
- Preliminary Development Concept Plan Approval (Town Board)
- Special Permit for Hotel, MultiFamily, and Townhouse uses (Town Board)
- Site Plan Approval (Planning Board, Town of North Castle)
- Subdivision Approval (Planning Board, Town of North Castle)
- Wetland Buffer Disturbance (Planning Board, Town of North Castle)
- Tree Removal (Planning Board, Town of North Castle)
- Municipal Separate Storm Sewer System (MS4) Approvals (Town Engineering Consultant)
- Connections to North Castle Sewer District #3 (Town of North Castle Water and Sewer Department)
- Driveway Permit (Town of North Castle Highway Department)
- Building Permit (Town of North Castle Building Department)
- Water System Approval/Realty Subdivision (Westchester County Department of Health)
- Sanitary Sewer Allocation (Westchester County Department of Environmental Facilities)
- State Pollution Discharge Elimination System (SPDES) General Permit for Stormwater Discharges from Construction Activity (New York State Department of Environmental Conservation [NYSDEC])
- Water Withdrawal Permit (NYSDEC)
- Stormwater Pollution Prevention Plan Approval (New York City Department of Environmental Protection [NYCDEP] and NYSDEC)
- Curb Cut to King Street (New York State Department of Transportation)
- Section 14.09 Review (New York State Office of Parks, Recreation, and Historic Preservation)

- Building Permit Review, Westchester County Department of Public Works/Department of Transportation (§239-f of General Municipal Law)

In addition to the above approvals, pursuant to §277.61 of the Westchester County Administrative Code, the Proposed Zoning must be referred to the Westchester County Planning Board prior to final action by the Town Board and the site plan must be referred at least 30 days prior to final action by the Planning Board.

Lastly, several "Interested Agencies" will be participating in review of the Proposed Action under SEQRA, including:

- Town of North Castle Conservation Board
- Town of North Castle Open Space Committee
- Town of North Castle Parks and Recreation Department
- New York State Office of the Attorney General - Charles Silver, Ph.D, Watershed Inspector General Scientist, Environmental Protection Bureau

2.C. PROJECT SITE DESCRIPTION

2.C.1. EXISTING IMPROVEMENTS

The Project Site is located at 113 King Street in the Town of North Castle, Westchester County, New York and is generally bounded by Cooney Hill Road to the north, King Street to the east, and undeveloped forested areas bordering the Kensico Reservoir (owned by the City of New York under the jurisdiction of the NYCDEP to the west and south. The Project Site is approximately 38 acres in size and consists of the following three tax parcels and associated addresses (see **Figure 2-1**):

118.02-1-1 (113 King Street): Approximately 36 acres generally located on the west side of King Street between American Lane and Cooney Hill Road (majority of the Project Site);

113.04-1-13 (formerly 3 Weber Place): Approximately 1 acre on the south side of Cooney Hill Road (northwest corner of the Project Site); and

113.04-1-14 (formerly 1 Weber Place): Approximately 1 acre on the south side of Cooney Hill Road (northwest corner of the Project Site).

As shown in **Figure 2-1**, the southern portion of the Project Site is currently improved with what was previously MBIA's corporate headquarters and contains a vacant, three-story, approximately 100,000-sf office building in the southwest corner; another vacant, three-story, approximately 161,000-sf office building immediately north of the 100,000-sf building; approximately 328 surface parking spaces (two surface lots); a three-story parking structure containing approximately 316 parking spaces; a circa 1820s farmhouse and accessory shed/barn (used for storage and maintenance purposes); a water feature/stormwater pond; and landscaping. The northern portion of the Project Site contains meadows, landscaping, and outdoor amenities for the uses described above, including paved tennis courts, a volleyball court, and walking paths. Representative photographs of the Project Site's existing conditions can be found in Chapter 11, "Visual Resources and Community Character."

2.C.2. FRONTAGE AND ACCESS

The Project Site has approximately 2,200 feet of frontage along King Street and approximately 900 feet of frontage along Cooney Hill Road. Vehicular and pedestrian access is provided through the existing signalized driveway intersection with King Street/NYS Route 120. No vehicular access is provided to the northern portion of the Project Site from Cooney Hill Road.

2.C.3. SITE TOPOGRAPHY

The topography of the currently developed (southern) portion of the Project Site ranges from a low of approximately 390 feet above mean sea level at the King Street entrance, to a high of approximately 430 feet along northerly portion. This currently developed portion of the Project Site generally slopes up from King Street to the northwest.

The Cooney Hill area (northern extent) of the Project Site ranges in elevation from a high of approximately 470 feet above mean sea level at the Cooney Hill Road/King Street intersection, and generally slopes in a southwesterly direction to a low of approximately 390 feet.

As described and mapped in Chapter 5, "Topography and Slopes," the majority of slopes within the Proposed Project's limits of disturbance fall within the 0–15 percent category, and no areas of Town-regulated steep slopes are present on the Site within the Proposed Project's limits of disturbance.

An approximately 15-foot-wide by 30-foot-long bedrock outcrop (Precambrian-age gneiss) is located in the northwest portion of the Project Site, southeast of the former location of the Weber Place roadbed.

2.C.4. ON-SITE WETLANDS

As described and mapped in Chapter 7, "Wetlands," one wetland segment of approximately 0.247 acres is located at the western corner of the Project Site, abutting the east/west-oriented site boundary to the south of the former Weber Place.

The wetland on the Project Site is regulated by the U.S. Army Corps of Engineers (USACE) and the Town of North Castle via Chapter 137 of the Town Code. This wetland was delineated on July 10, 2018 in accordance with the Town of North Castle Code and the USACE Wetland Delineation manual and Northeast supplement. The Town of North Castle regulates a 100-foot wetland buffer resulting in approximately 1.81 acres of Town-regulated buffer on the Project Site. The total wetland and buffer area on the Project Site is 2.06 acres (5.4 percent of the site).

2.C.5. CONSERVATION EASEMENT

During the approval process for MBIA's prior expansion plans (see Section 2.E.2, "Currently Approved Development Plan"), MBIA was contacted by the Natural Resources Defense Council (NRDC) and Riverkeeper, Inc. (Riverkeeper). MBIA, NRDC, and Riverkeeper entered into discussions with the goal of protecting and enhancing the environment by incorporating innovative design characteristics and maximizing the use of existing impervious surfaces. As a result of those discussions, the development plan provided for a decrease of impervious surface on the Project Site of approximately 11,700 sf below the then existing conditions.

On October 8, 2003, MBIA, NRDC, and Riverkeeper entered into an agreement (the "Agreement") memorializing the mitigation measures and design components agreed to among the parties with respect to expansion of MBIA's corporate headquarters. A copy of the Agreement is attached as **Appendix B-1**.

Pursuant to paragraph 2.5 of the Agreement, MBIA agreed to forego any future right to develop a portion of the Cooney Hill area adjacent to the DEP property. Paragraph 2.5 also provided that the restriction on development was to be memorialized in a conservation easement to an appropriate entity to be mutually agreed upon among the parties. A portion of the conservation easement area was to be irrevocable in the form of a 50-foot-deep, approximately 1.95-acre strip of property immediately adjacent to the DEP property. The balance of the conservation easement area (approximately 6 acres) was to be revocable if two conditions were met, as follows: (i) MBIA has not constructed both the proposed office building and the associated parking structure; and (ii) MBIA sells the Cooney Hill lots to a third party for a stand-alone development.

Pursuant to paragraph 2.5 of the Agreement, a conservation easement (the "Conservation Easement") between MBIA as grantor and the Westchester Land Trust, Inc. as grantee was executed on January 11, 2006. The Conservation Easement was recorded in the Westchester County Clerk's Office, Division of Land Records, on May 1, 2006 at Control No. 461140461. The Conservation Easement granted to the Westchester Land Trust mirrors the language in the Agreement with NRDC and Riverkeeper, i.e., a portion of the conservation easement donation was irrevocable and a separate portion was revocable, as established in the original Agreement. A copy of the Conservation Easement is attached as **Appendix B-2**.

MBIA never constructed the previously approved office expansion project. MBIA eventually sold the Cooney Hill lots (and the remainder of MBIA's property) to the Applicant, thereby satisfying the requirements for the revocation of that portion of the conservation easement area deemed to be revocable and enabling the Applicant, as successor in interest to MBIA, to revoke that portion of the Conservation Easement area. The irrevocable easement area remains, with no development permitted therein. The current development proposal by the Applicant utilizes the approximately 6-acre revocable portion of the Conservation Easement area but respects the approximately 1.95-acre irrevocable portion.

2.C.6. OTHER EASEMENTS AND RESTRICTIONS

Other than the Conservation Easement described above, the Project Site does not contain any other easements, restrictions, or other conditions that affect the future development and use of the Project Site. A full Title Report for the Project Site is attached as **Appendix B-4**.

2.D. DESCRIPTION OF SURROUNDING USES, FACILITIES, AND ZONING

Land uses in the vicinity of the Project Site consist of corporate office and conference centers, a single-family house, and New York City water supply lands adjacent to the Kensico Reservoir (under jurisdiction of DEP). The Project Site is located approximately 500 feet west of the border between New York and Connecticut (Town of Greenwich, Connecticut) (see **Figure 2-2**).

The zoning districts within a ½-mile vicinity of the Project Site (see **Figure 2-3**) consist of a mix of DOB-20A, Single-Family Residence (R-2A), and Office Business (OB) zoning districts.

Notable corporate office park/conference facilities, residential uses, major roadways, hamlet centers, and critical environmental areas in the immediate vicinity of the Project Site are described below.

2.D.1. SWISS RE AMERICA (175 KING STREET)

The approximately 127-acre parcel (tax parcel 113.04-1-2) directly north of the Project Site (across Cooney Hill Road) serves as the North American headquarters of Swiss Re America. The Swiss Re property is located in the DOB-20A zoning district and has the capacity to accommodate approximately 1,000 employees. The property is developed with approximately 360,000 sf of office space and a parking structure, completed in 1999 and expanded in 2004. Included as part of the Swiss Re property is the largest solar installation in Westchester County, located on the west side of King Street between the Swiss Re access drive and Cooney Hill Road. The Swiss Re solar field, which includes approximately 7,700 individual solar panels across ten acres of the Swiss Re parcel, has been in this location since 2016.

2.D.2. CITIGROUP ARMONK CONFERENCE CENTER (188 KING STREET)

The approximately 27-acre parcel directly across King Street from the Project Site (188 King Street, tax parcel 113.04-1-3) is owned by Citigroup and used for conferences and corporate retreats. Similar to the Project Site, the Citigroup property is located in the DOB-20A zoning district. The complex consists of three groups of buildings serving as conference/meeting halls, with associated surface parking lots as well as landscaping and outdoor amenities, including walking paths.

2.D.3. IBM WORLD HEADQUARTERS (1 NEW ORCHARD ROAD)

IBM purchased the 432-acre former apple orchard located approximately one mile to the northeast of the Project Site in the mid-1950s and relocated its headquarters from New York City to Armonk in 1964. The principal building on the campus is approximately 283,000 sf on a 25-acre parcel with associated surface parking and landscaping (tax parcel 113.02-1-18). There are two other IBM buildings (with parking) on the campus within walking distance of the principal building: the North Castle office (which previously served as IBM's headquarters after relocating from New York City) and the IBM Learning Center, a resort hotel and training center that has approximately 182 guest rooms, 31 meeting rooms, and various amenities. The IBM World Headquarters site is located within the Town's OB zoning district. In 2017, IBM sold approximately 32.5 acres of land located at North Castle Drive and Route 22 to MADDD Madonna Armonk, LLC, the applicant for the proposed Eagle Ridge development. As discussed further in Chapter 3, "Land Use, Zoning, and Public Policy," the Eagle Ridge proposal involves a zoning petition to allow the development of new townhomes and a hotel (with apartments above) on this 32.5 acre site.

2.D.4. GREENWICH AMERICAN CENTER

The approximately 155-acre property, located entirely within Greenwich, Connecticut (east of the Citigroup Armonk Conference Center), contains a total of approximately 690,000 sf of leasable office space within two buildings ranging in height from one to

four stories. The larger of the two buildings includes covered parking for approximately 1,600 vehicles.

2.D.5. NYCDEP SHAFT 17

The large, forested, and mostly undeveloped property (tax parcel 118.02-1-3) located immediately to the west and south of the Project Site is owned by DEP and zoned R-2A, single-family residential. However, this property is New York City watershed land that is vacant and unoccupied with the exception of Shaft 17, a DEP-owned facility on the Delaware Aqueduct water supply system, which controls water flow into Kensico Reservoir. Shaft 17 is accessed through a secure gated entry from Cooney Hill Road, just beyond the northwest corner of the Project Site.

2.D.6. NEARBY RESIDENTIAL USES

There is one single-family home directly adjacent to the Project Site's northern boundary, along the south side of Cooney Hill Road. This property is included in the DOB-20A zoning district and is discussed further below. Due to the presence of the Kensico Reservoir watershed lands (owned by DEP) to the west and the Westchester County Airport to the south, residential neighborhoods closest to the Project Site are to the north and east. The residential uses to the east (east of I-684) are located within neighboring Greenwich, Connecticut, including the neighborhoods surrounding the Tamarack Country Club. Additional single-family homes are located approximately 1.5 miles to the north of the Project Site where King Street/NYS Route 120 intersects with NYS Route 22. Approximately two miles to the northeast, where Old Route 22 intersects with Main Street in the Armonk Hamlet, the Whippoorwill Hills (150 units), Whippoorwill Ridge (55 units), and Cider Mill (27 units) developments provide a combined total of 232 residential units. The Betsy Sluder Nature Preserve is located to the south of these neighborhoods.

2.D.7. REGIONAL AND LOCAL ROADWAY NETWORK

The Project Site benefits from convenient access to the local and regional roadway network. The signalized driveway intersection with King Street/NYS Route 120 provides primary access to the Project Site. NYS Route 120 generally runs north/south between Rye and Chappaqua. Further north of the Project Site, King Street/NYS Route 120 intersects with NYS Route 22 and provides access to North White Plains and the Armonk Hamlet through two separate interchanges. NYS Route 22 is a major arterial that runs for 337 miles from the New York City borough of the Bronx to the Canadian border. NYS Route 128 is a 5.53-mile minor arterial that extends through the Armonk Hamlet (via Main Street) from NYS Route 22 to Route 117 in Mount Kisco. The Project Site is located west of I-684, an interstate highway that runs from I-287 in Harrison and terminates at I-84 near Brewster. The Project Site is easily accessible from I-684 through interchanges with NYS Routes 120 and 22.

2.D.8. ARMONK HAMLET

The Armonk Hamlet, which is located approximately two miles northeast of the Project Site (Main Street at NYS Route 22), is the Town of North Castle's primary central business district. The hamlet is located along Bedford Road, Maple Avenue and Main Street/NYS Route 128 and includes the Town Hall governmental complex, post office, and various retail, restaurant and office uses.

2.D.9. NYSDEC CRITICAL ENVIRONMENTAL AREAS

As depicted in **Figure 2-4**, the Project Site is located within the Westchester County Airport 60 L_{dn} Noise Contour Critical Environmental Area (CEA) as defined by NYSDEC. Refer to Chapter 16, "Noise," for more information on this feature.

2.E. DETAILED DESCRIPTION OF PROPOSED PROJECT

While a specific PDCP is being proposed, and is described in detail below, the Applicant notes that market conditions will necessarily dictate the precise composition of an eventual site plan. Accordingly, the Applicant has prepared analyses for several different project alternatives, in accordance with the approved Scoping Document. It is the purpose of these alternatives to identify and analyze the potential environmental impacts of a range of zoning-compliant site plans, such that if the Town Board approves the Proposed Zoning, the environmental impacts of a range of reasonably anticipated potential site plans will have been analyzed through the SEQRA process.

2.E.1. PROPOSED PRELIMINARY DEVELOPMENT CONCEPT PLAN (DEIS)

In connection with the Special Permit requested as part of the Proposed Action, the Applicant has developed a PDCP for the Project Site. Approval of the PDCP by the Town Board would allow for the subsequent preparation of a detailed site plan and subdivision application to construct the Proposed Project (subject to approval by the North Castle Planning Board and other Involved Agencies).

2.E.1.a. Buildings and Uses

The PDCP, or Proposed Project, which is the primary subject of the DEIS component of this document, proposes the redevelopment of the Project Site as follows (see **Figure 2-5** and **Table 2-1**):

- Re-occupancy of the southernmost existing, approximately 100,000-sf office building for office uses. Other than the possibility of additional rooftop equipment, the addition of patios or terraces, etc. there would be no significant changes to the building's footprint or height.
- Conversion of the northernmost existing, approximately 161,000-sf office building to an approximately 125-key hotel with accessory spa, fitness, and restaurant space. Other than the possibility of additional rooftop equipment, the addition of patios or terraces, etc. there would be no significant changes to the building's footprint or height.
- Construction of additional surface parking to the south of the existing office buildings to support their proposed re-use.
- Construction of an approximately 149-unit multifamily residential building to the north of the hotel. The proposed multifamily building would consist of five floors of residential space (with amenities) over two above-grade concrete parking garage floors, with another level of parking proposed below-grade. The three levels of parking would provide for approximately 331 parking spaces.

  The proposed multifamily building would be approximately 78 feet in height (above average grade) and would contain approximately 225,465 gross square feet (gsf) of residential floor area, including lobby and amenity space.

Of the total 149 units, approximately 49 would be one-bedroom units (average unit size of 930 sf) and approximately 100 would be two-bedroom units (average unit size of 1,183 sf).

- Construction of 22 new two-story townhomes in the Cooney Hill (northern) portion of the Project Site. Three separate townhouse models are envisioned, and the total aggregate floor area of the townhouse development would be approximately 67,760 gsf. The townhomes would be approximately 32 feet in height (above average grade).

If approved, the Proposed Project (aka the proposed PDCP) would supplant the currently approved project (aka the current PDCP).

Figures 2-6a through 2-6h and 2-7a through 2-7c provide conceptual floor plans for the proposed multifamily building and townhomes. A conceptual rendering of the proposed multifamily building from a location within the Project Site is shown on **Figures 2-8a through 2-8c**.

Accessory uses and amenities for the Proposed Project are subject to change and future site plan approvals, but may include:

- Restaurant within the proposed hotel;
- Outdoor swimming pool and landscaped amenity terrace for the multifamily building; and
- Landscaped outdoor recreation spaces with playground equipment for the multifamily building and townhouse community.

Table 2-1
PDCP Gross Floor Area and Building Footprint Summary

Building ID	Existing Total Floor Area (gsf)	Proposed Total Floor Area (gsf)	Existing/Proposed Building Footprints (gsf)	Proposed Floor Area Breakdown (gsf)			Dwelling Units
				Residential	Hotel	Office	
Existing Northern Office Building	161,000	161,000	51,384	--	161,000	--	0
Existing Southern Office Building	100,000	100,000	25,921	--	--	100,000	0
Proposed Multifamily Building	N/A	225,465*	67,094	225,465*	--	--	149
Proposed Cooney Hill Townhomes	N/A	67,760*	36,025	67,760*	N/A	N/A	22
Total	261,000	**554,225**	**180,424**	**293,225***	**161,000**	**100,000**	**171 units**

Notes: gsf = gross square feet
* Calculated based on the definition of gross floor area from the Town Code
Sources: Airport Campus; Perkins Eastman Architects; JMC Engineering; and AKRF, Inc.

2.E.1.b. Zoning Conformance

As described in Section 2.F.1, "Proposed Zoning," as well as **Appendix A-2**, the Proposed Zoning would allow the Town Board, by special permit, to modify certain physical dimensional requirements in the DOB-20A district for applications seeking conversions from existing and/or fully approved but unbuilt office and related amenity space to residential uses. **Table 2-2** summarizes the Proposed Project's conformance with the proposed DOB-20A regulations.

Table 2-2
Dimensional Regulations – Existing and Proposed DOB-20A

DOB-20A Dimensional Regulations	Existing DOB-20A Zoning	Existing Condition	Proposed DOB-20A Zoning	Provided
Area				
Minimum Lot Area	20 acres	37.8 acres	No change	No change
Minimum Frontage	500 feet	2,215 feet	No change	No change
Minimum Depth	500 feet	857 feet (avg)	No change	No change
Minimum Front Yard Setbacks				
Currently Permitted Uses (§ 355-23)	150 feet	61 feet(7)	No change	No change
Multifamily Residential Buildings	N/A	N/A	65 feet(1)	65 feet
Residential Townhomes	N/A	N/A	200 feet(1)	244 feet
Minimum Rear Yard Setbacks				
Currently Permitted Uses (§ 355-23)	300 feet / 10 feet(2)	14 feet	No change	No change
Multifamily Residential Buildings	N/A	N/A	50 feet(1)	61 feet
Minimum Side Yard Setbacks				
Residential Townhomes	N/A	N/A	60 feet(1)	64 feet
Maximum Building Coverage				
Currently Permitted Uses (§ 355-23)	10 percent	6.86 percent	15 percent(1)	3.69 percent
Multifamily Residential Buildings	N/A	N/A	15 percent(1)	4.08 percent
Residential Townhomes	N/A	N/A	15 percent(1)	2.19 percent
Maximum Building Height				
Currently Permitted Uses (§ 355-23)	As in § 355-30J(3)(c)	<45 feet	As in § 355-30J(3)(c)	No change
Multifamily Residential Buildings	N/A	N/A	85 feet(1)	Approx. 78 feet
Residential Townhomes	N/A	N/A	35 feet(1)	Approx. 32 feet
Floor Area Ratio				
Currently Permitted Uses (§ 355-23)	0.15	0.16(4)	No change	0.06-0.10
Multifamily Residential Buildings	N/A	N/A	N/A(3)	0.14(3)
Residential Townhomes	N/A	N/A	N/A(3)	0.04(3)
Parking				
Currently Permitted Uses (§ 355-23)	As in § 355-30J	473	As in § 355-30J	Shared with Hotel
Multifamily Residential Buildings	N/A	N/A	TBD(5)	347
Residential Townhomes	N/A	N/A	TBD(5)	4 per unit(6)
Hotel	N/A	N/A	TBD(5)	Shared with Office

Notes:
(1) Subject to Special Permit approval by the Town Board
(2) 10 feet for building adjacent to NYCDEP watershed lands by Special Permit
(3) Subject to other density limitations
(4) Increased floor area ratio permitted due to previous transfer of development rights
(5) Parking requirements for multifamily and townhouse uses shall be determined by the Planning Board in connection with site plan approval
(6) Parking for each residential townhome includes 2 driveway and 2 garage spaces (4 total)
(7) Previously approved by Special Permit from Town Board
Sources: Zoning Petition prepared by the Applicant; Town Code of the Town of North Castle

2.E.1.c. Site Access and Circulation

The PDCP includes two primary, ungated vehicular access points to the Project Site to efficiently provide for passenger, emergency, sanitation, and delivery vehicle access to the Project Site. A third access point is contemplated along the King Street frontage of the Project Site between the existing signalized King Street access and Cooney Hill Road, in the form of a right-in, right-out driveway.

For the southern portion of the Project Site, including the proposed office, hotel, and multifamily uses, no change is proposed to the existing east/west-oriented access drive from King Street at the existing signalized intersection. As shown on **Figures 2-9a through 2-9c**, two new north/south-oriented access drives would serve the proposed multifamily building and parking structure, as well as the rear of the hotel to provide adequate circulation for hotel guests, multifamily building residents/guests, and emergency/service vehicles.

As shown on **Figures 2-10a and 2-10b**, access to the proposed townhomes would be provided through a new entrance drive extending south into the site from Cooney Hill Road. The access drive would serve individual driveways for the townhomes, and would terminate at a hammerhead turnaround which has been designed to accommodate emergency, sanitation, and delivery vehicles.

Additional emergency-only, gravel-surfaced access roads would internally connect the northern and southern portions of the Site, as shown on the PDCP.

2.E.1.d. Signage

Existing signage on the Project Site consists of ornamental address identification signage flanking the signalized main entrance to the site from King Street, which reads "113 King Street." The Proposed Project would modify these signs but likely retain the locations. An additional signage program is proposed at the right-in, right-out driveway described above, as well as the intersection of King Street and Cooney Hill Road as wayfinding for the entrance to the townhouse development. Detailed signage plans for entrances to the Project Site would be subject to review by the Town as part of future site plan approvals.

2.E.1.e. Lighting, Open Space, and Landscaping

The Project Site currently has exterior lighting on its driveways, walkways, and parking areas. Similar to the existing condition, the Proposed Project would incorporate Site lighting along proposed driveways, parking areas, and certain walking paths. The lighting design would be compliant with Section 355-45(M) of the Town Code, which requires that the source of light not be visible from adjoining streets or residential properties and would not provide objectionable glare. The exact lighting fixtures that would be used for the Proposed Project have not been finalized; however, **Figures 2-11a and 2-11b** includes preliminary information on the quantity, wattage, and height of fixtures to be considered for each lighting zone on the Project Site.

Regarding open space, as shown in **Figure 2-12**, following construction of the Proposed Project approximately 74 percent of the Project Site's total area (which equates to approximately 28 acres) would consist of either undisturbed (wetland area, steep slopes, forest, conservation easement area) or landscaped open space.

The plans included as **Figures 2-13a and 2-13b** depict the preliminary landscaping plan for the Proposed Project, including the location, size, and quantity of proposed trees, shrubs, and ground cover. As noted on the plans, approximately 451 new trees (a mix of deciduous and evergreen) would be planted on the Project Site. Methods of installation would conform to the American Nursery and Landscape Association, American Standard for Nursery Stock (latest edition). All areas of the Project Site not occupied by buildings or pavement and not specified as being planted with trees, shrubs, or manicured lawn would remain in its current natural state (e.g., meadow). According to the Applicant, the integrated pest management plan (IPM) currently in place for the Project Site's existing office uses would be expected to remain in the Future with the Proposed Project.

2.E.1.f. Grading, Limits of Disturbance, and Tree Removal

Grading would be limited to the proposed limits of disturbance on the Project Site, i.e., those areas where new buildings, internal circulation driveways/parking lots, and stormwater management facilities are proposed. No mass grading of the Project Site would occur to facilitate the Proposed Project. Therefore, the existing grades associated with the main entrance to the Project Site from King Street, the existing office buildings / water feature, identified wetland area, and conservation easement areas will remain undisturbed. In total, the Proposed Project would involve approximately 17.5 acres of disturbance (approximately 46 percent of the Project Site's total acreage) (see **Figures 2-14a and 2-14b**).

A tree survey was completed for the Project Site, which included the location, species, size, and health condition of individual trees within the Proposed Project's approximate limit of disturbance. The tree survey was conducted in accordance with Chapter 308 (Tree Preservation) of the Town Code of the Town of North Castle. The tree protection plans and tree survey show that there are approximately 744 trees with a diameter at breast height (DBH) of 8 inches or greater within the area surveyed. Of the 744 trees surveyed, approximately 368 have been marked for removal (see **Figures 2-15a through 2-15d**). Additional details on the Project Site's vegetation, including the measures to mitigate the proposed tree removal, can be found in Chapter 6, "Vegetation and Wildlife."

2.E.1.g. Stormwater Management and Erosion Control

As discussed in Chapter 8, "Stormwater Management," two new stormwater management areas have been designed to manage the Proposed Project's stormwater. Stormwater Management Area 1 (SMA 1) would consist of a pocket pond that would have a water surface elevation of 405.50 and provide approximately 23,500 cubic feet of wet storage. SMA 1 is proposed in the southern portion of the Project Site, between the northernmost office building

(proposed hotel) and the proposed multifamily building. Stormwater Management Area 2 (SMA 2) would consist of a micropool and forebay connected by a riprap pilot channel. SMA 2 is proposed in the northern portion of the Project Site, southwest of the proposed townhomes.

The Applicant's engineer has also developed an Erosion and Sediment Control Plan (ESCP) that depicts the measures that would be implemented to control erosion during construction and reduce the potential for sediment to leave the Site. These measures include stabilized construction accesses (SCAs), the limit of disturbance beyond which no soil disturbance is to occur, the installation of silt fencing, temporary sediment basins, inlet protection and other measures, which would be used throughout the construction period to minimize the potential for erosion and sedimentation impacts from construction of the Proposed Project.

2.E.1.h. On- and Off-Site Utilities

The Project Site is not located within any Town of North Castle water district. As discussed in Chapter 9, "Utilities," the Project Site contains six existing wells referred to as Wells 3, 4, 5, 6, 7, and 8. However, water for the existing development on the Project Site is currently supplied by four of these wells (Wells 3, 4, 5, and 6). Well 5 is not proposed for use as a water supply well in the Future with the Proposed Project because of its location near a proposed stormwater management area. Wells 7 and 8 were drilled in 2018 at locations approved by the Westchester County Department of Health (WCDH) but are not currently part of the existing onsite water system.

A 72-hour pumping test was conducted on Wells 3, 6, 7, and 8 in March 2021. The test was conducted in accordance with the NYSDEC Recommended Pumping Test Procedures document and the NYSDOH Sanitary Code Part 5, subpart-5-1 Appendix 5-D. The planned well testing program was reviewed by both the NYSDEC and WCDH prior to conducting the test. The combined yield capacity of Wells 3, 6, 7, and 8 demonstrated during the 72-hour pumping test was 108.5 gpm or 156,240 gpd. Well 8 performed the best with a yield of 40 gpm. Excluding Well 8, the combined yield of the remaining Wells 3, 6, and 7 was 68.5 gpm or 98,640 gpd.

As discussed in Chapter 9, "Utilities," the closest off-Site well within the DOB-20A district is on the residential property at 3 Cooney Hill Road adjacent to the northeast corner of the Project Site. Other nearby DOB-20A district properties including Swiss Re and Citigroup also utilize private wells. These properties (in addition to others outside of the DOB-20A district) were solicited for inclusion in an off-Site well monitoring program conducted as part of the 72-hour pumping test program assessed for potential pumping-related effects on off-Site wells located near the Project Site. Authorization from Swiss Re, Citigroup and Greenwich American was received for inclusion of their wells in the off-Site well monitoring program.

As discussed in Chapter 9, "Utilities," the Project Site is located within Town of North Castle Sewer District 3, which is an extension of the Westchester County Blind Brook Sewer District. Westchester County operates the Blind Brook Wastewater Treatment Facility which experiences an average daily

flow of 2.9 million gallons per day (MGD) as recorded in 2017. The treatment facility has a permitted discharge flow capacity of 5.0 MGD.

The collection system consists of Town-owned gravity sanitary sewer mains and low-pressure force mains located between Cooney Hill Road and Airport Road to the North Castle Town line. Sections of the gravity sewers are connected to three (3) sanitary sewer pump stations which are located at low points along the route of the collection system. Pump Station 1 is located at the end of Cooney Hill Road. Pump Station 2 is located on the shoulder of southbound King Street (NYS Route 120), approximately 1,000 feet north of the bridge crossing at I-684. Pump Station 3 is located on the western shoulder of New King Street opposite the parking lot for Safe Flight Instrument Corporation at 13 New King Street.

As summarized in Chapter 9, "Utilities," the pump stations would be able to accommodate the proposed cumulative flows of the Proposed Project as well as full occupancy of the existing development within the District. Minor modifications to correct an existing deficiency (irrespective of the Proposed Project) to the wet wells of Pump Stations 2 and 3 would be required, as further explained in Chapter 9, "Utilities." Pump Stations 2 and 3 would continue to provide sufficient pumping and storage capacity to accommodate anticipated flows. No modifications to either the Town or County collection system piping will be required to accommodate the projected flows summarized in Chapter 9, "Utilities."

2.E.1.i. Other Off-Site Improvements

As noted above and in Chapter 9, "Utilities," no off-Site utility conveyance infrastructure improvements are necessary to mitigate the impacts of the Proposed Project's water and wastewater demand, with the exception of the minor improvements identified to correct an existing deficiency in the wet wells of sanitary sewer Pump Stations 2 and 3 Furthermore, in the Applicant's opinion, the analyses included as part of the DEIS component of this document do not identify a need for other off-site improvements to mitigate potential impacts of the Proposed Project.

Should subsequent analyses indicate the need for off-site improvements resulting from impacts related to the Proposed Project and/or other projects, the Applicant would contribute its fair share to those improvements.

2.E.1.j. Construction Phasing

As explained in more detail in Chapter 17, "Construction," the duration and timing of the construction phases are estimates, and development program overlaps would occur among the various construction phases. The sequencing is also subject to change and is dependent on market demand. Regardless, the method for performing each activity would meet industry standards for construction and comply with all regulations for projects in the Town of North Castle. The construction program for the PDCP is anticipated to occur in four phases, as shown in **Figure 2-16**. These phases may occur consecutively or completely or partially concurrently. Similarly, they may occur in a different order.

The Hotel Phase of construction envisioned for the PDCP involves the conversion of the existing northern office building to a 125-room hotel and related infrastructure improvements. This phase is estimated to take 8 to 12 months.

The Townhouse Phase would involve the construction of the 22 townhomes on the northern portion of the property, along with the access driveway from Cooney Hill Road and installation of related infrastructure and utilities. This phase would include the construction of a temporary stormwater sediment basin on the southwest side of the proposed townhomes for erosion and sediment control purposes. The temporary basin would be converted to a permanent stormwater pond for stormwater management. This phase is estimated to last between 18 and 24 months.

The Multifamily Phase involves the construction of the 149-unit multifamily building with associated parking structure. This phase would include the construction of access drives on the east and west sides of this building. This phase would also include the construction of a temporary stormwater sediment basin on the east side of the proposed building for erosion and sediment control purposes. The temporary basin would be converted to a permanent stormwater pond upon completion of the building for stormwater management. This phase is estimated to last between 18 and 24 months.

The Parking Lot Expansion Phase involves implementation of the previously approved expansion of the existing 43-space parking area located adjacent to the farmhouse in the southern portion of the Project Site. The site plan and SWPPP approvals currently in place with the Town, which have not been constructed, allow for a parking expansion of 94 spaces in this area (for a total of 137 spaces), with associated curbing, utility, and stormwater management improvements. This phase is estimated to last between 3 to 4 months.

Construction of the Proposed Project would generate trips from workers traveling to and from the Project Site, as well as the movement of goods and equipment. The estimated average number of construction workers on-site at any one time would vary depending on the phase of construction. Over the life of the project, it is estimated that a total of approximately 200 workers would be utilized.

Truck movements would be spread throughout the day and would generally occur between the hours of 6:30 AM and 4:30 PM, depending on the period of construction. It is anticipated that most traffic would access the Project Site from the south via Interstate 684 and King Street, while some may access the site from the north via NYS Route 22 and King Street.

2.E.1.k. Site Limitations and Constraints

The PDCP has been designed to complement the currently developed portion of the Project Site while avoiding certain site limitations and constraints, including the aforementioned Conservation Easement area and regulated wetland buffer. The Town of North Castle also regulates steep slopes. Chapter 355 of the Town Code defines a steep slope as “A natural geographical area, whether on one or more lots, which has a slope equal to 25 percent or greater

over a horizontal area measuring at least 25 feet in all directions." Refer to Chapter 5, "Topography and Slopes," for a map depicting the areas of the Project Site which meet the Town's definition of a steep slope. There are no Town-defined steep slopes within the Proposed Project's limits of disturbance.

2.E.2. CURRENTLY APPROVED DEVELOPMENT PLAN

MBIA originally acquired an approximately 93,000-sf office building developed on the Project Site in the early 1980s. As part of that acquisition, MBIA secured and transferred 60,000 sf of additional development rights from what is now the Swiss Re parcel and constructed a 60,000-sf expansion. After approvals were issued by the Town of North Castle, construction of the expansion commenced in 1991 and occupancy commenced in 1993. Following a period of rapid corporate growth, MBIA recognized the need to expand its headquarters. Toward that end, and following completion of a review under SEQRA, MBIA received approval to construct an additional 101,000 sf of office and related amenity space in 1996. This brought the total development to approximately 261,000 sf of office and related amenity space, which is the current development found on the Project Site.

In 2002, MBIA determined that it needed additional space to accommodate its growing business. Accordingly, a Petition was submitted to the Town Board seeking certain zoning amendments which would permit an additional expansion of MBIA's corporate headquarters.

On October 8, 2003, the Town Board adopted a SEQRA Findings Statement and approved the necessary zoning amendments, including an amended PDCP, to permit an additional office expansion on the Project Site. Subsequently, the Town Board granted special permit approval and the Planning Board granted amended site plan approval to permit the Site's previous owner, MBIA, to develop an additional 238,000 sf of office and related amenity space, including a 20,000-sf meeting house. These approvals allow for an increase of office space on the Project Site from approximately 261,000 sf of office and related amenity space that exists today to approximately 499,000 sf of office and related amenity space, including the proposed meeting house. This approval also provided for the construction of a five-story parking structure containing approximately 1,000 parking spaces.

A site plan delineating the currently approved development plan is shown in **Figure 2-17**. While the most recent approvals for the additional expansion have been granted extensions by the Town and remain in full force and effect today, no new structures contemplated by those approvals have been built.

Prior to the environmental review, site plan approval process, and issuance of other related permits and approvals for the expansion plan, MBIA acquired 16 of the 17 single-family residential lots in the Cooney Hill area. Subsequent to receiving site plan approval, and as part of implementing the first phase of that approval, all of the homes, associated septic systems, fuel oil tanks, and paved surfaces (including driveways and Weber Place) were demolished/removed and replaced with a system of mulched walking/exercise trails, tennis courts and a sand volleyball court. The remnants of this initial phase are visible in the northern portion of the Project Site today.

In addition, subsequent site plan and Stormwater Pollution Prevention Plan (SWPPP) approvals were granted by the Town for the expansion of the existing 43-space parking

area located adjacent to the farmhouse in the southern portion of the Project Site. The site plan and SWPPP approvals currently in place with the Town, which have not been constructed, allow for a parking expansion of 94 spaces (for a total of 137 spaces), with associated curbing, utility, and stormwater management improvements. The potential environmental impacts of this office expansion were documented in the 2004 Statement of Findings (see **Appendix A-4**) and are considered as a baseline, or No Action, alternative to the Proposed Project, as described more fully in Chapter 18, "Alternatives."

2.F. DESCRIPTION OF THE PROPOSED ZONING

2.F.1. PROPOSED ZONING (GEIS)

To redevelop the Project Site as proposed, the Applicant has petitioned the Town Board for text amendments to the DOB-20A provisions of the Town's Zoning Ordinance in order to permit residential (multifamily buildings, townhomes, single-family dwellings, two-family dwellings, senior citizen housing, and assisted living facilities) and hotel uses on the Project Site as special permit uses; to permit medical offices as a principal permitted use (considered as a clarification to the code); and to provide bulk and density requirements for those uses. Specifically, a new local law would amend several sections of Chapter 355 of the Town Code with respect to the DOB-20A Zoning District (see **Appendix A-2**). The proposed text amendments would:

- Implement the recommendations of the Town's 2018 Comprehensive Plan by allowing additional uses and permitting a mix of uses in the DOB-20A district (including office, medical office, hotel, multifamily, townhouse, single-family, and two-family dwellings, senior citizen housing, and assisted living facilities);
- Allow for the conversion of existing office and related amenity space and/or fully approved but unbuilt office and related amenity space to hotel use, including typical accessory uses such as a spa, fitness facility, and restaurant. Such conversion would be subject to Town Board approval and the following special conditions and requirements:
  - The conversion of existing office and related amenity space to hotel use can be accomplished either by repurposing existing building(s) or by demolishing existing building(s) and constructing new hotel space;
  - Hotel use shall be permitted on a single site in addition to office; medical office; multifamily, townhouse, single-family, and two-family dwellings; senior citizen housing; and assisted living facilities;
  - Parking requirements for hotel use shall be determined by the Planning Board in connection with site plan approval.
- Allow for the conversion of existing office and related amenity space and/or fully approved but unbuilt office and related amenity space to multifamily, townhouse, single-family, and two-family dwellings; senior citizen housing; and/or assisted living facilities. Such conversion would be subject to Town Board approval and the following special conditions and requirements:
  - Residential conversion shall only be permitted for office and related space that has received all necessary approvals from the Town of North Castle, including

zoning, subdivision, special permit, and/or site plan approvals, but not including building permit approval;

- Each square foot of approved but unbuilt office and related amenity space, up to a maximum of 250,000 sf, may be converted into one and one-quarter (1.25) sf of residential and amenity space, with a maximum of 250 residential units (with density bonuses permitted for assisted living facilities and/or senior housing);
- Each square foot of existing office and related amenity space, up to a maximum of 250,000 sf but not less than 50,000 sf, may be converted into one (1.00) sf of residential and amenity space, provided that at least 75 percent of the building(s) to be converted have been vacant and unleased for two (2) years prior to applying for the conversion;
- Notwithstanding the provisions outlined above, the maximum residential unit count for any overall site shall not exceed 500; and
- Notwithstanding any other provisions of Chapter 355, the Town Board, by special permit, may modify certain physical dimensional requirements, as follows:
- Minimum front yard setback for multifamily buildings: 65 feet.
- Minimum front yard setback for townhomes: 200 feet.
- Minimum side yard setback for townhomes: 60 feet.
- Minimum rear yard setback for multifamily buildings: 50 feet.
- Maximum building coverage: 15 percent.
- Maximum building height for multifamily buildings: 85 feet.
- Maximum building height for townhomes: 35 feet.
- Floor Area Ratio: Not applicable (subject to other density limitations set forth above).
- Parking requirements for multifamily and townhouse uses shall be determined by the Planning Board in connection with site plan approval.

2.F.2. DESCRIPTION OF OTHER POTENTIAL DEVELOPMENT RESULTING FROM THE PROPOSED ZONING (GEIS)

The proposed zoning amendments would apply to the entirety of the DOB-20A district. As a result, in addition to the Project Site there are several other parcels that could be entitled to apply for a special permit for additional uses should the Proposed Zoning be approved. It should be noted at this time that there are no known development plans or active applications for these other parcels. In coordination with the Town, reasonable and theoretical assumptions related to the future potential build-out of the DOB-20A parcels with the Proposed Zoning have been developed in order to analyze (in a generic fashion) the potential environmental impacts of the district-wide DOB-20A zoning text amendments. Additionally, since the Proposed Project does not maximize on-site development that would be permitted by the Proposed Zoning, assumptions for the Project Site's maximum buildout (in excess of the PDCP) were also developed.

The additional DOB-20A parcels subject to the Proposed Zoning are defined as follows:

- 127-acre Swiss Re Parcel (175 King Street / tax parcel 113.04-1-2)
- 27-acre Citigroup Parcel (188 King Street / tax parcel 113.04-1-3)

- 1-acre residential parcel at 3 Cooney Hill Road (tax parcel 113.04-1-20)
- 1-acre vacant parcel at 32 King Street (tax parcel 118.02-1-2)

The reasonably anticipated maximum development assumptions to be analyzed on these parcels and the Project Site through the Generic Environmental Impact Statement (GEIS) component of this document are described below.

Based on the rationale described below, only the Project Site and the Swiss Re parcel are considered to have the potential for additional development opportunities as a result of the Proposed Zoning (see **Figure 2-18** and **Table 2-3**). No specific proposal is being made at this time to effectuate the maximum hypothetical development of these two sites and any future plans would be subject to review by the Town, including a full environmental review.

Table 2-3
Maximum Development Potential (Proposed Zoning) Project Site / Swiss Re Parcel

Property	Existing/Approved Floor Area	Conversion Ratio(s) Applied (Proposed Zoning)	Maximum Allowable Floor Area Assumed (Proposed Zoning)
Project Site (113 King Street)	261,000 sf office (existing) + 238,000 sf office (approved/unbuilt)	1:1 existing office to residential + 1:1.25 approved/unbuilt office to residential	558,500 sf residential (~500 units)
Swiss Re Parcel (175 King Street)	360,000 sf office (existing)	1:1 existing office to hotel/residential	110,000 sf hotel (~80 rooms); 250,000 sf residential (~250 units)
Sources: Town of North Castle, Airport Campus I-V LLC, Swiss Re Life and Health America			

2.F.2.a. Swiss Re Parcel

The Swiss Re parcel is currently developed with approximately 360,000 sf of existing office space, together with a parking structure. As discussed above, MBIA acquired 60,000 sf of development rights from this parcel in connection with their acquisition of the Project Site in the 1980s, in order to facilitate an expansion completed shortly thereafter. As a result of this transfer, what can be developed on the Swiss Re parcel under the Proposed Zoning is based on the existing floor area only.

Given market conditions, it is reasonable to assume that the maximum potential development scenario for the Swiss Re parcel under the Proposed Zoning would be similar in nature to the Applicant's PDCP for the Project Site (i.e., conversion of the existing office buildings to residential and hotel uses).

Based on the Proposed Zoning, the GEIS component of this document assumes that the existing 360,000 sf of office space on the Swiss Re parcel would be converted (in a 1:1 fashion) to a combination of hotel and multifamily residential floor area. Specifically, the GEIS analyses the potential environmental impacts of up to 250,000 sf of residential space (approximately 250 residential units), and an approximately 110,000-sf, 80-key hotel on the Swiss Re parcel.

2.F.2.b. Citigroup Parcel

The GEIS component of this document assumes no new development potential for the Citigroup parcel under the Proposed Zoning.

The Citigroup parcel is currently improved with conference uses. Although the Proposed Zoning would add hotel, multifamily, senior housing, and assisted living as special permit uses in the DOB-20A district, these uses are only permitted as conversions of existing or approved office space. Since the Citigroup parcel contains no existing or approved office uses, development of the aforementioned special permit uses would not be allowed. Furthermore, the addition of "medical office" as a permitted use in the DOB-20A district is considered to be a clarification to the Town Code and not the permission of a new use.

2.F.2.c. 3 Cooney Hill Road and 32 King Street

The GEIS component of this document assumes no new development potential for either of these sites under the Proposed Zoning.

Without seeking an area variance, which would be a separate discretionary approval by the Town's Zoning Board of Appeals (ZBA) subject to a separate environmental review process, these sites are not large enough to meet the minimum lot size requirement of the DOB-20A district (20 acres) and be redeveloped on their own. The minimum lot size requirement remains unchanged in the Proposed Zoning. The most likely scenario for potential development on these properties would be for these small lots to be included within an assemblage of neighboring larger properties, which is not currently proposed and would not materially change the allowable density of a future development on these lots.

2.F.2.d. Potential for Development in Excess of the PDCP on the Project Site

The Proposed Zoning would allow for the development of several programs on the Project Site that are different from the proposed PDCP. However, for the purpose of providing a conservative environmental review, as well as based on market conditions and recent development trends in the Town, the Applicant believes it is most appropriate for the GEIS to study a full residential conversion as the "theoretical maximum build out" for the Project Site under the Proposed Zoning. While other configurations are possible, the alternatives studied in this EIS, as approved by the Town, cover many of them (e.g., senior housing).

The Proposed Zoning allows for a conversion of existing and approved but unbuilt office floor area to hotel/residential floor area at a ratio of 1:1 and 1:1.25, respectively, and conversion of existing office floor area to residential floor area at a ratio of 1:1. The Project Site currently has 261,000 sf of existing office and related amenity space and has received approvals to construct an additional 238,000 sf of office and related amenity space (which has not been built). Therefore, the GEIS analyzes the potential environmental impacts of the maximum allowable existing as well as approved/unbuilt office to residential conversion, which equates to up to 558,500 sf of multifamily

residential space (approximately 500 residential units) on the Project Site (see **Table 2-2**).

The potential environmental impacts of this hypothetical worse-case development scenario are analyzed in the GEIS portion of this document.

2.G. PURPOSE AND NEED

As described in the Applicant's Petition, the downturn in the economy precluded MBIA from undertaking the approved office expansion. Ultimately, MBIA moved out of its corporate headquarters and sold the property to the Applicant. Changing market conditions have put significant pressure on large office campus parcels. Since its acquisition of the property in 2015, the Applicant has been marketing the property to potential tenants, to date without success. The purpose of the Proposed Action is to provide a solution to these challenges with respect to the Project Site, consistent with the Town's recently updated Comprehensive Plan. At the same time, the Applicant recognizes that there is a Town-approved site plan that permits the expansion of the Site's current office uses. This plan was approved by the Town after consideration of the environmental impacts of that expansion. As such, the uses and densities included in the Proposed Zoning were calibrated to allow redevelopment of the Project Site in a manner that generally fits within the window of environmental impacts of the currently approved project, but that also provides the Applicant flexibility with respect to an ultimate redevelopment scenario.

The Town of North Castle recently completed the process of updating and revising its 1996 Comprehensive Plan. The new Comprehensive Plan was adopted on April 25, 2018. As part of that process, the Town considered, among numerous other matters, current market conditions with respect to office campuses such as the Project Site. The Project Site is specifically referenced in several places in the updated Comprehensive Plan with respect to both its locational importance and the need to expand its development potential to accommodate a mix of infill development including, but not limited to, residential, office and hotel uses. Specific references from the Comprehensive Plan that are applicable to the Project Site and the Proposed Project are described in the following paragraphs.

Section 4.4 of the Comprehensive Plan (page 34) recommends that the Town should "undertake a comprehensive analysis of the office and commercial zones, with the goal of streamlining and clarifying their regulations so that they function effectively in a contemporary context." Additionally, this Section specifically mentions the Project Site as an appropriate site for the introduction of residential and hotel uses:

> *"For the PLI, OB-H and DOB-20A zones, in particular (business park, portion of IBM property, Swiss Re and former MBIA campus), the Town should explore allowing for an introduction of residential uses, at a scale comparable to surrounding land use patterns. In the PLI and DOB-20A zones, retail, hotel, personal-service, entertainment and ancillary education uses may also be permitted for these districts, but any retail should be limited to accessory uses to avoid competition with established shopping areas, especially downtown Armonk."*

Section 8.6 of the Comprehensive Plan (page 99) notes the following opportunity related to the promotion of infill development to facilitate a variety of housing options:

> *"While North Castle today is mostly defined by its attractive low-density residential neighborhoods, offering a greater variety of housing types could help the Town to retain Baby Boomers in retirement and attract younger people who wish to stay but cannot afford a single-*

family home. An efficient approach to greater variety of housing would prioritize attractive multifamily options in locations that maximize access to the community assets that make the Town so attractive, with a focus on targeted infill development in appropriate locations."

Section 8.7 of the Comprehensive Plan (page 100) sets forth a series of specific growth, development and housing recommendations. Most notably, this Section specifically targets office parks such as the Project Site as an appropriate opportunity for the introduction of an infill mixed-use development:

"Explore options to rezone business and office parks in order to create opportunities for infill mixed use residential development where office uses have become, or could become, obsolete. These locations could include the business park, the former MBIA site, Old Route 22, and Mariani Gardens, areas where affordable housing for smaller households will minimize traffic and parking impacts. Additional residential uses in these areas can also help to support Armonk businesses."

Section 9.3 of the Comprehensive Plan (page 119) speaks to hotel uses as a long-term vision for the community by stating:

"Thus sufficient demand appears to exist for at least two small hotels or one large hotel in North Castle."

In addressing the potential for an additional hotel, page 121 of the Comprehensive Plan also addresses combining hotel and residential uses in proximity, stating:

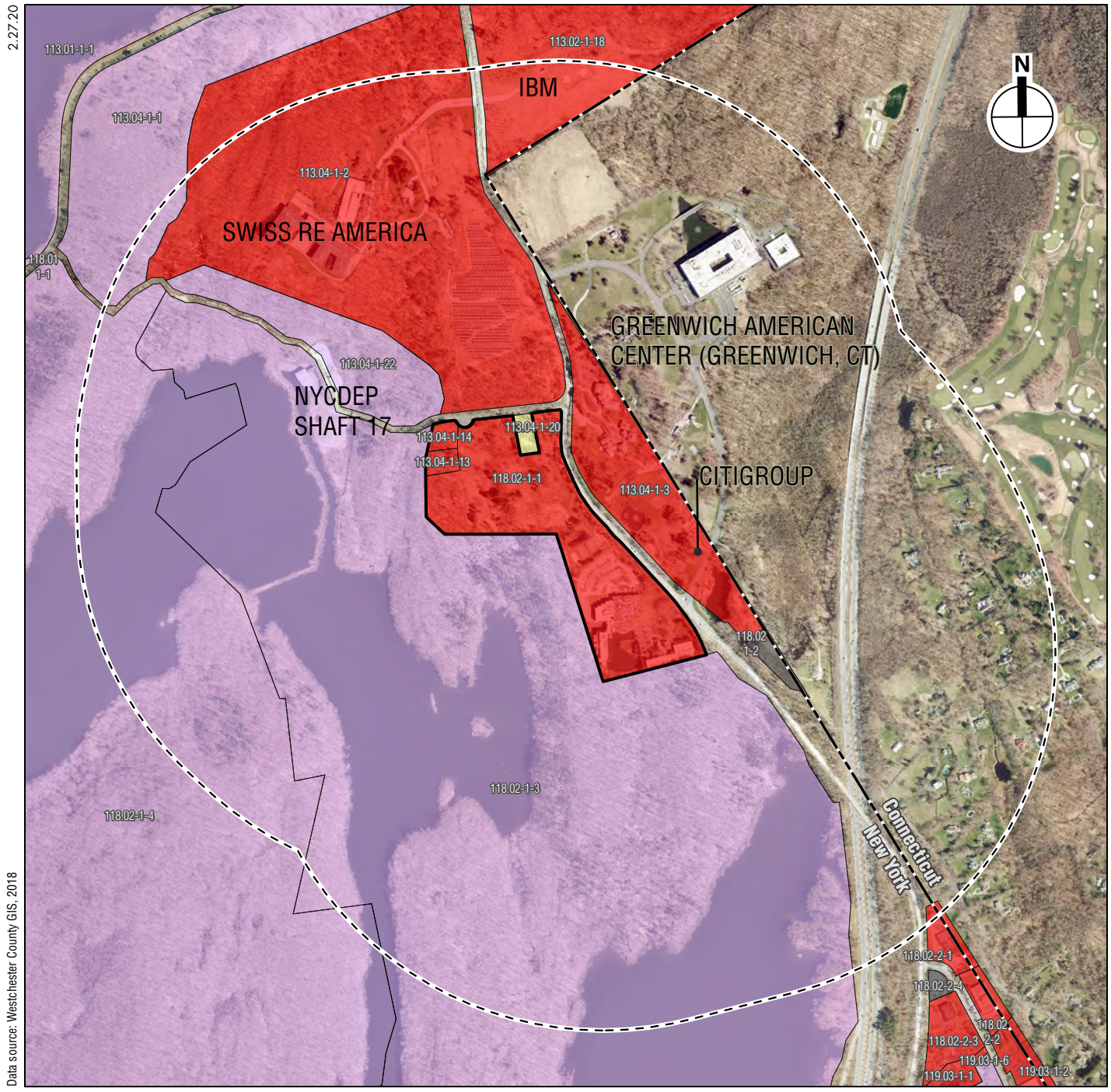
"Adding a hotel together with limited new residential uses would increase downtown Armonk's potential customer base."

With regard to marketability and economic benefits of the Proposed Project, as discussed in more detail in Chapter 13, "Fiscal and Market Impacts," there is a strong market demand for residential uses in the Town and the region. The market analysis included in Chapter 13 also indicates there is a demand for another hotel in the Town. As such, permitting these uses in the DOB-20A zoning district is likely to increase the economic viability of the Project Site. Data obtained to support the preparation of the analyses included in Chapter 13 can be found in **Appendix I-1 through I-3**. ✷

Project Site Location, Tax Parcels, and Existing Conditions

AIRPORT CAMPUS

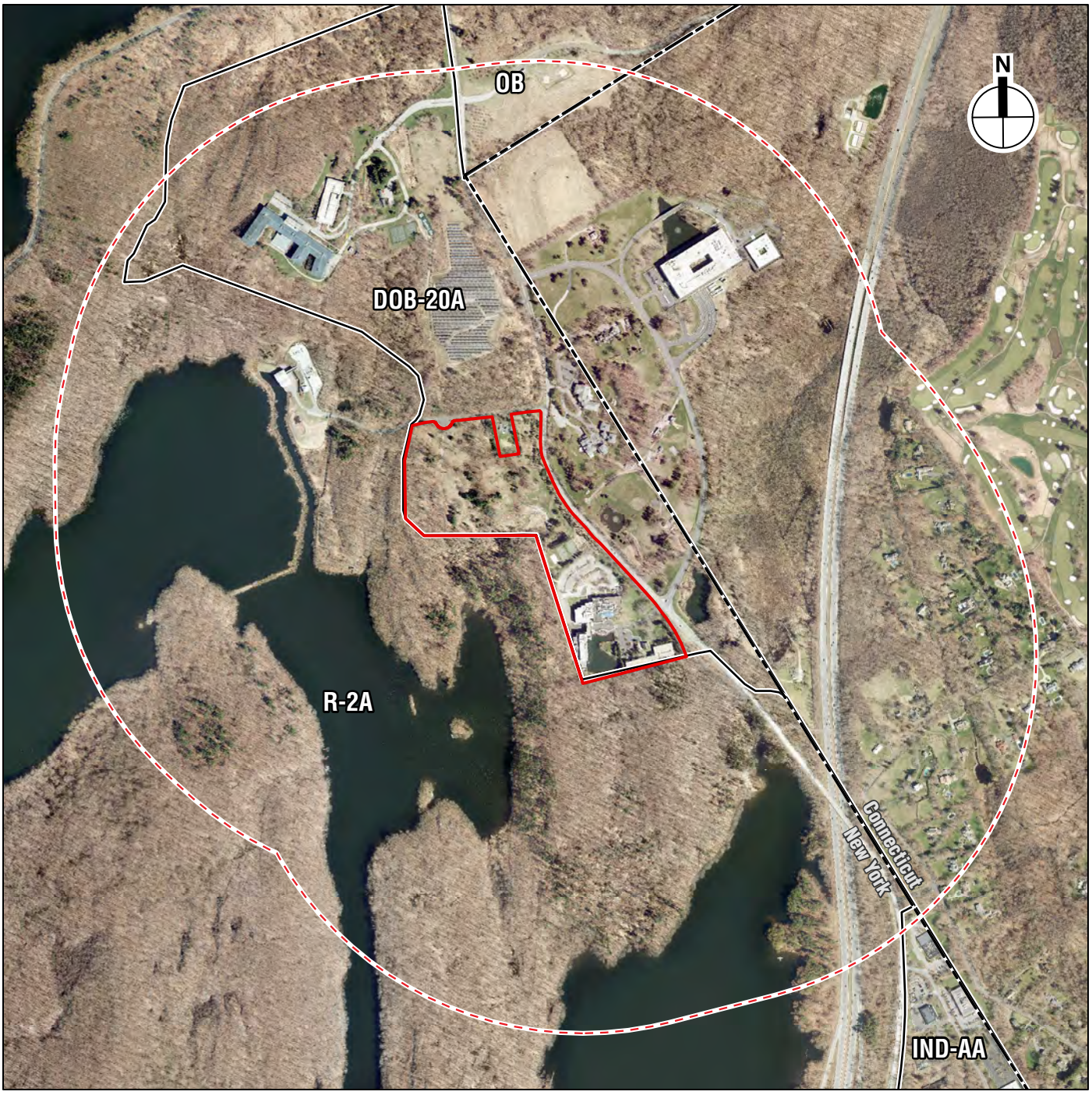
Figure 2-1



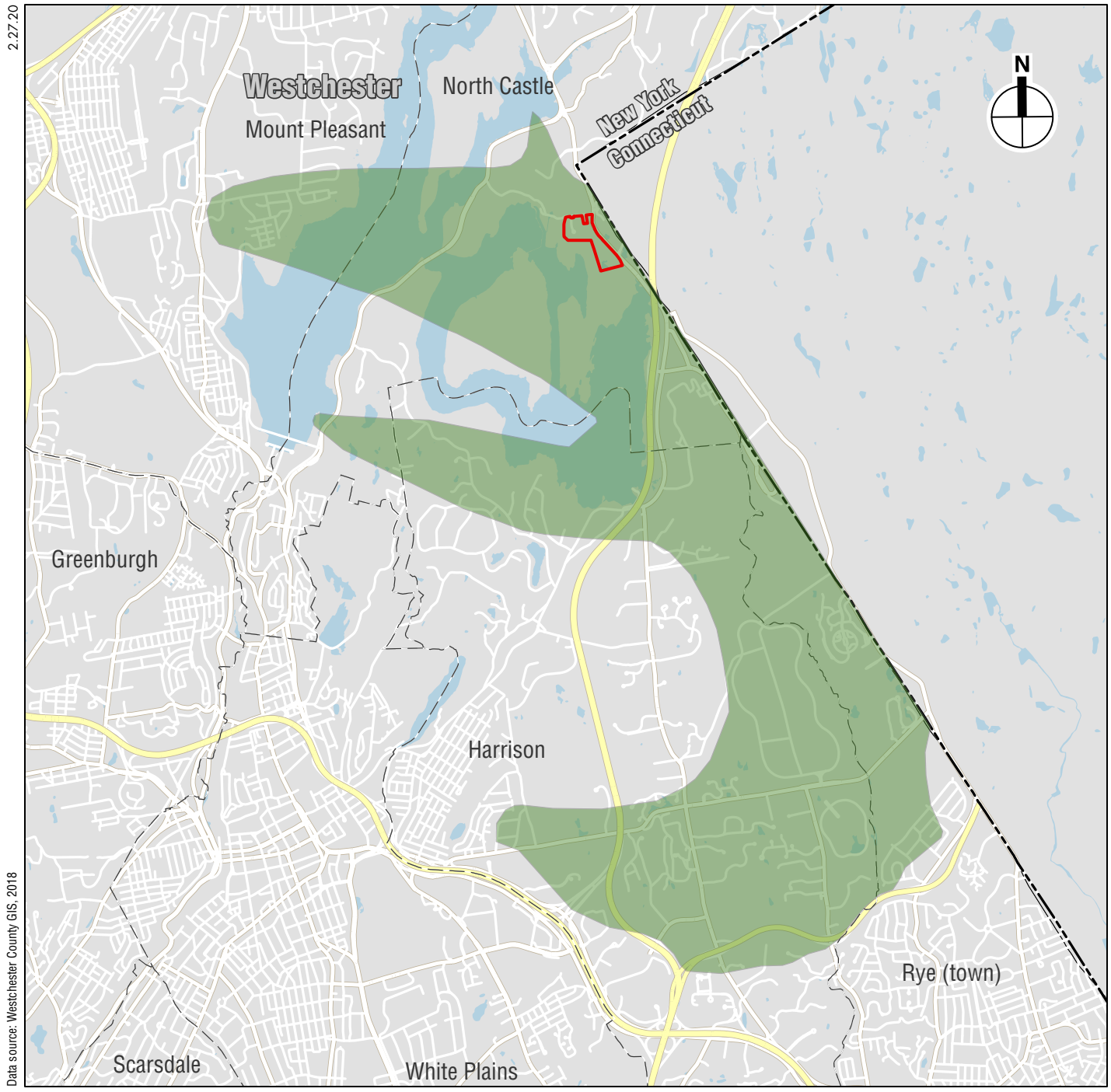
Existing Land Use - Project Site and 1/2 Mile

AIRPORT CAMPUS

Figure 2-2



Existing Zoning - Project Site and 1/2 Mile



Westchester County Airport CEA

AIRPORT CAMPUS

Figure 2-4

9.17.20

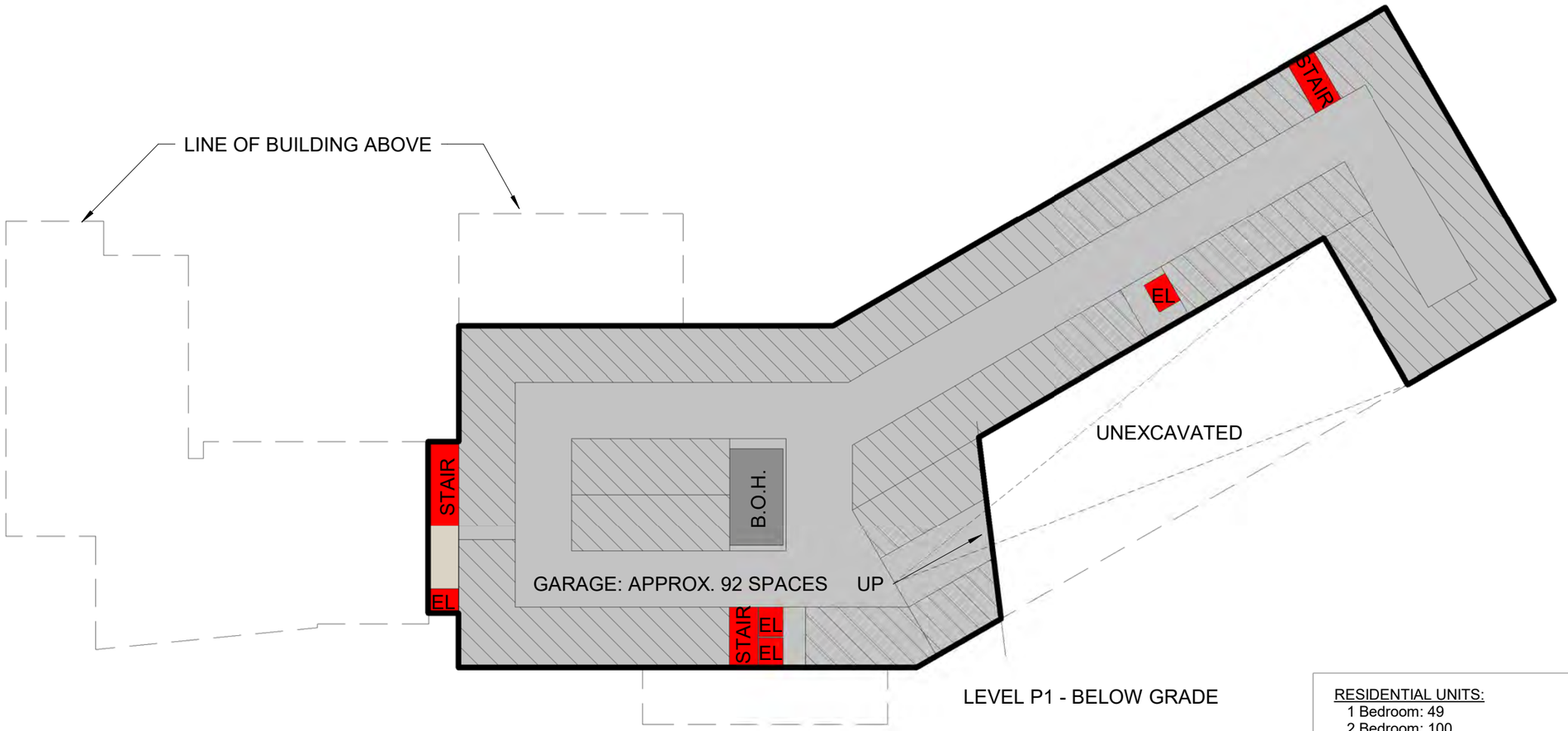
Source: JMC, 2020

Project Site - Proposed PDCP Layout

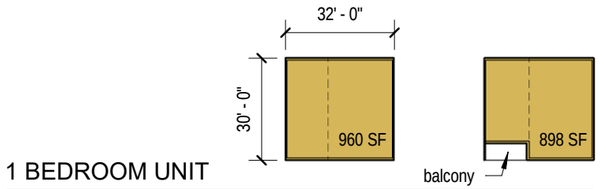
AIRPORT CAMPUS

Figure 2-5

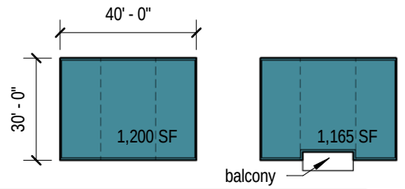
1.7.20



LEVEL P1 - BELOW GRADE



1 BEDROOM UNIT



2 BEDROOM UNIT

RESIDENTIAL UNITS:
1 Bedroom: 49
2 Bedroom: 100
TOTAL: 149

LOBBY: 3,000 SF

AMENITY: 12,000 SF

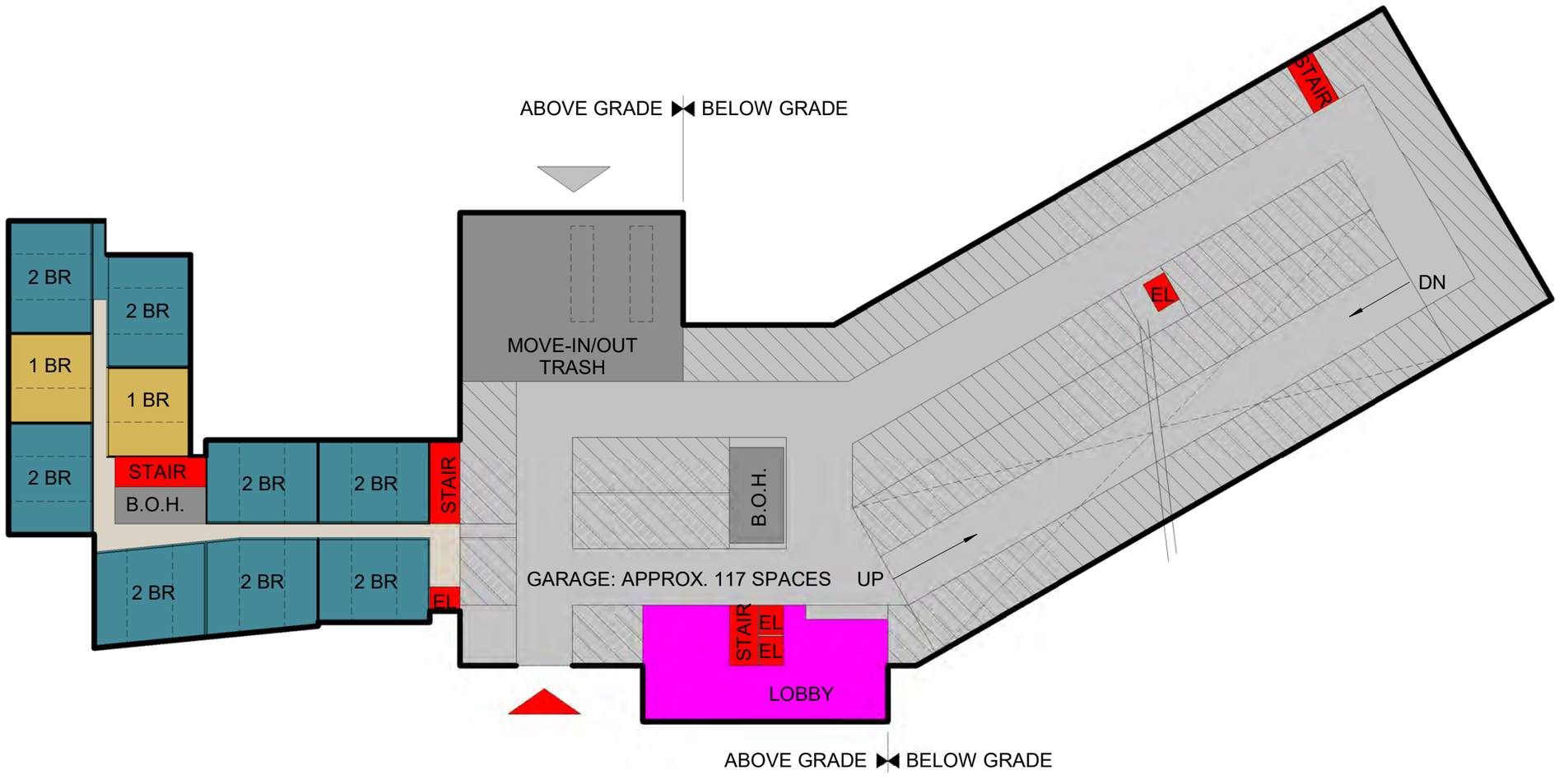
PARKING REQUIRED:
149 units x 2 per unit = 298 + 10% (30)
TOTAL: 328

PARKING PROVIDED
331

Source: Perkins-Eastman, 2019

Conceptual Floor Plans - Multifamily Building

Figure 2-6a

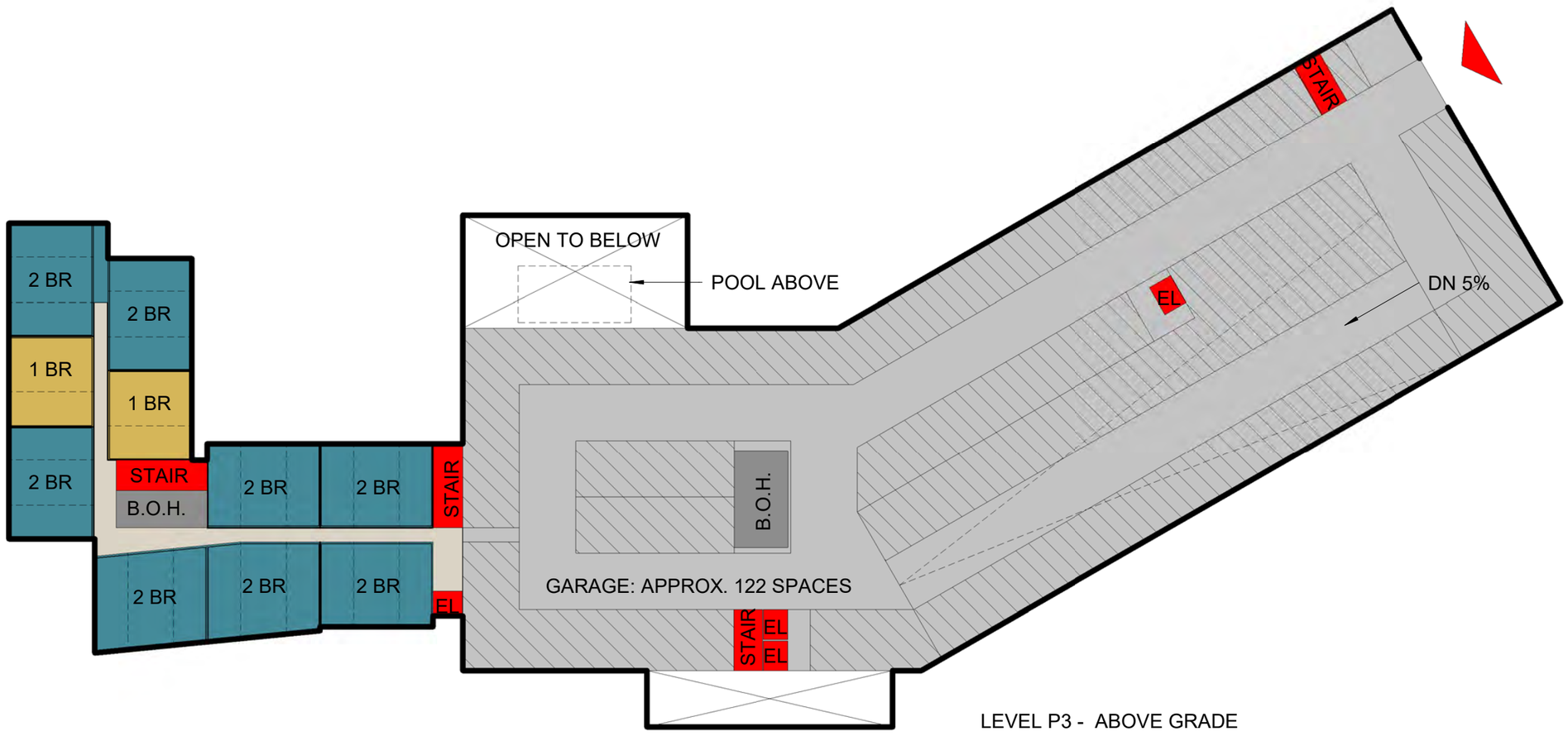


Source: Perkins-Eastman, 2019

Conceptual Floor Plans - Multifamily Building

Figure 2-6b

1.7.20



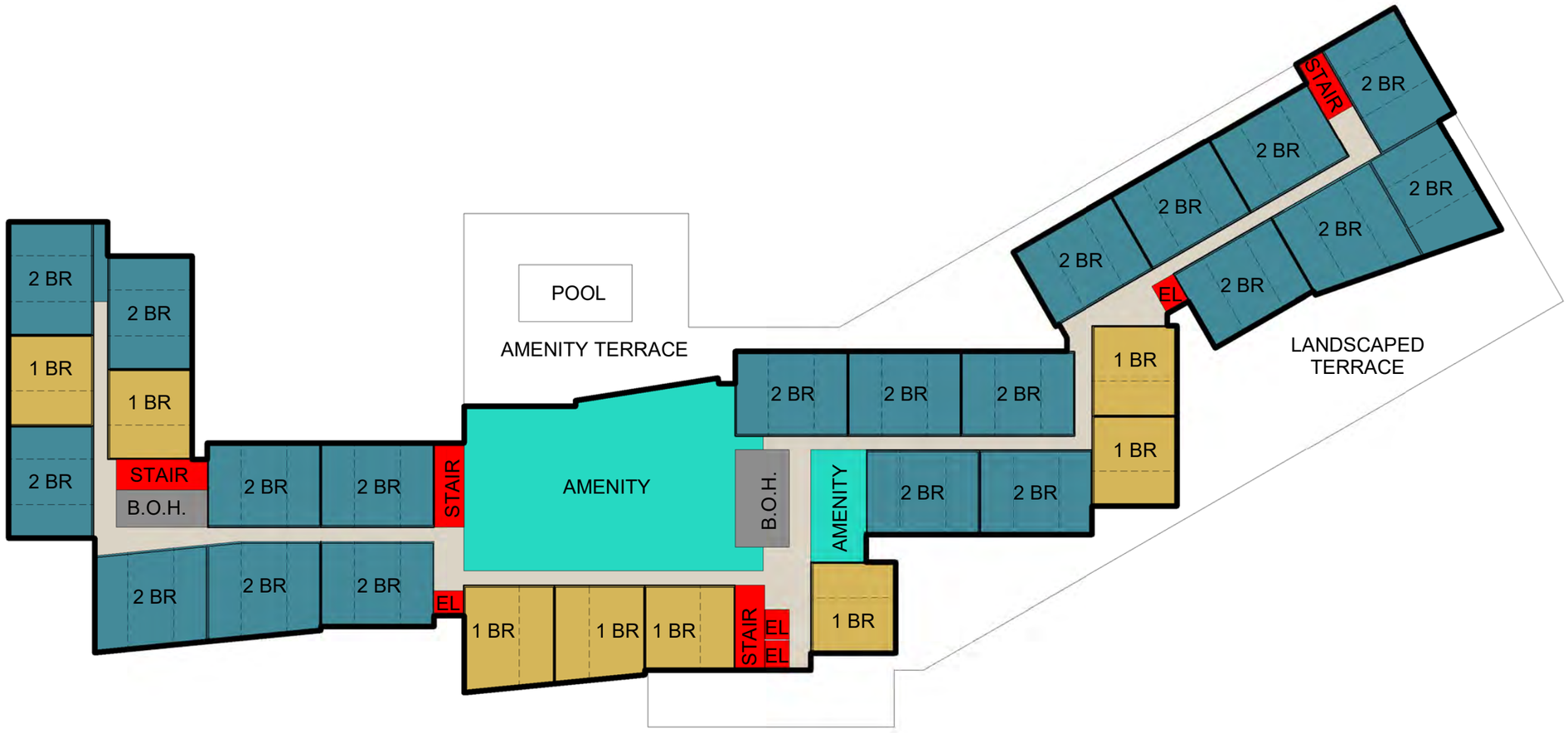
LEVEL P3 - ABOVE GRADE

Source: Perkins-Eastman, 2019

Conceptual Floor Plans - Multifamily Building

Figure 2-6c

1.7.20

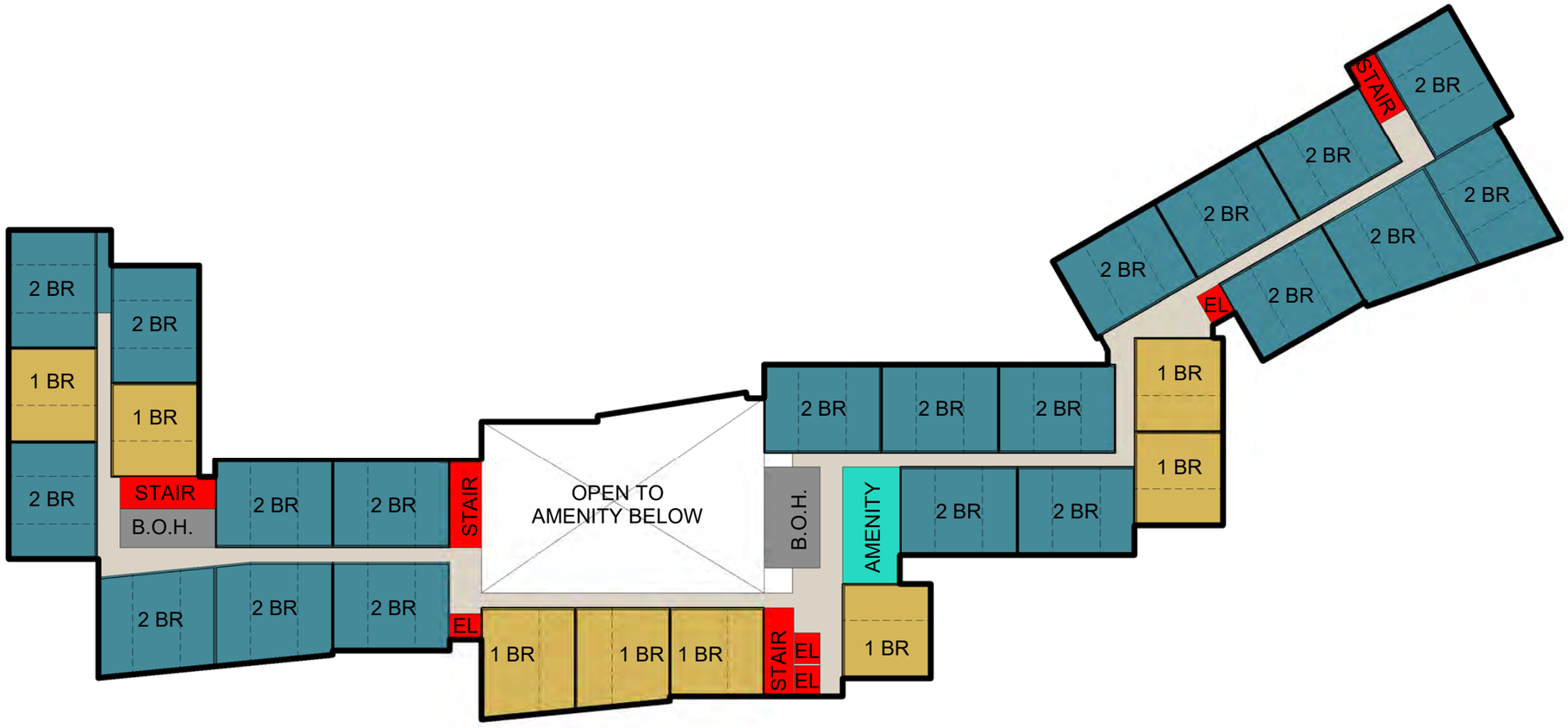


Source: Perkins-Eastman, 2019

Conceptual Floor Plans - Multifamily Building

Figure 2-6d

1.7.20

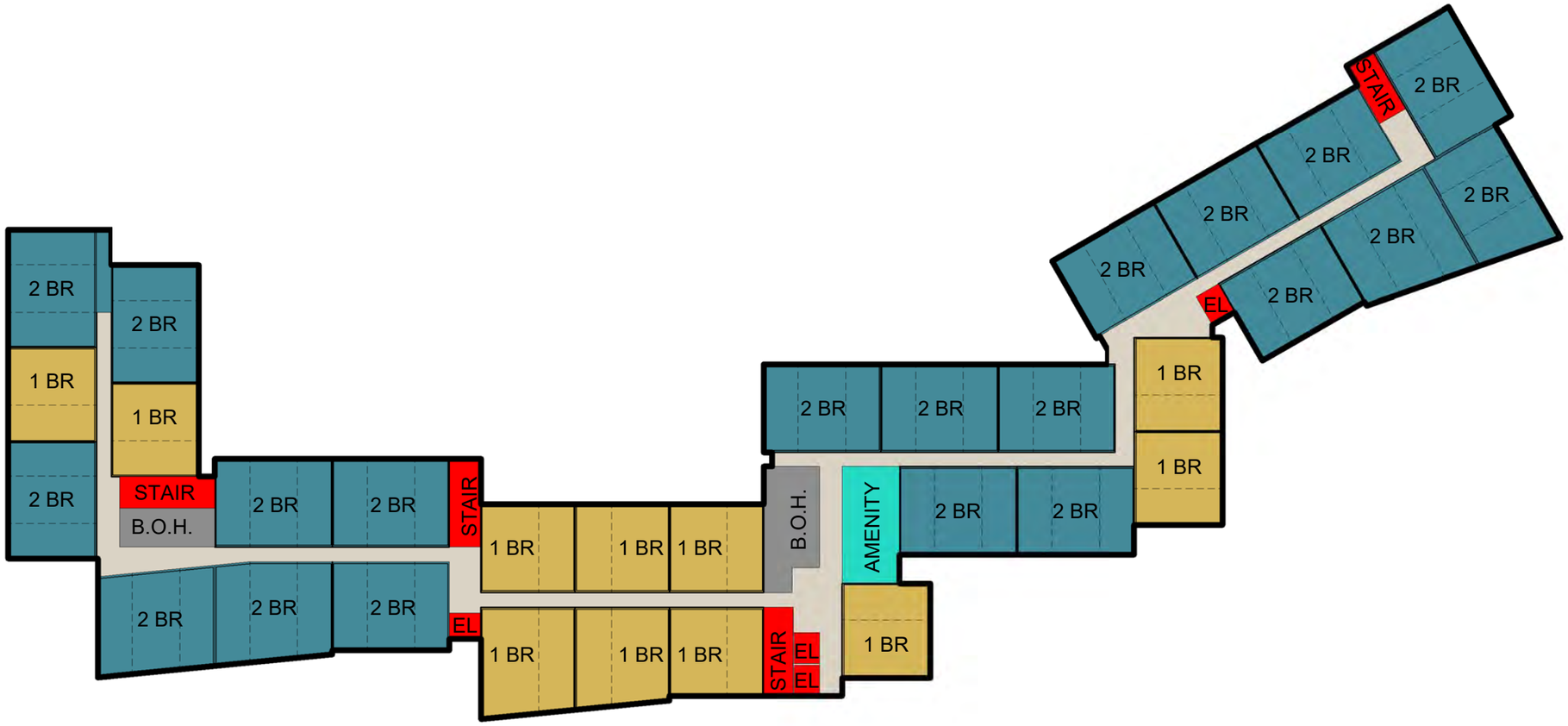


Source: Perkins-Eastman, 2019

Conceptual Floor Plans - Multifamily Building

Figure 2-6e

1.7.20

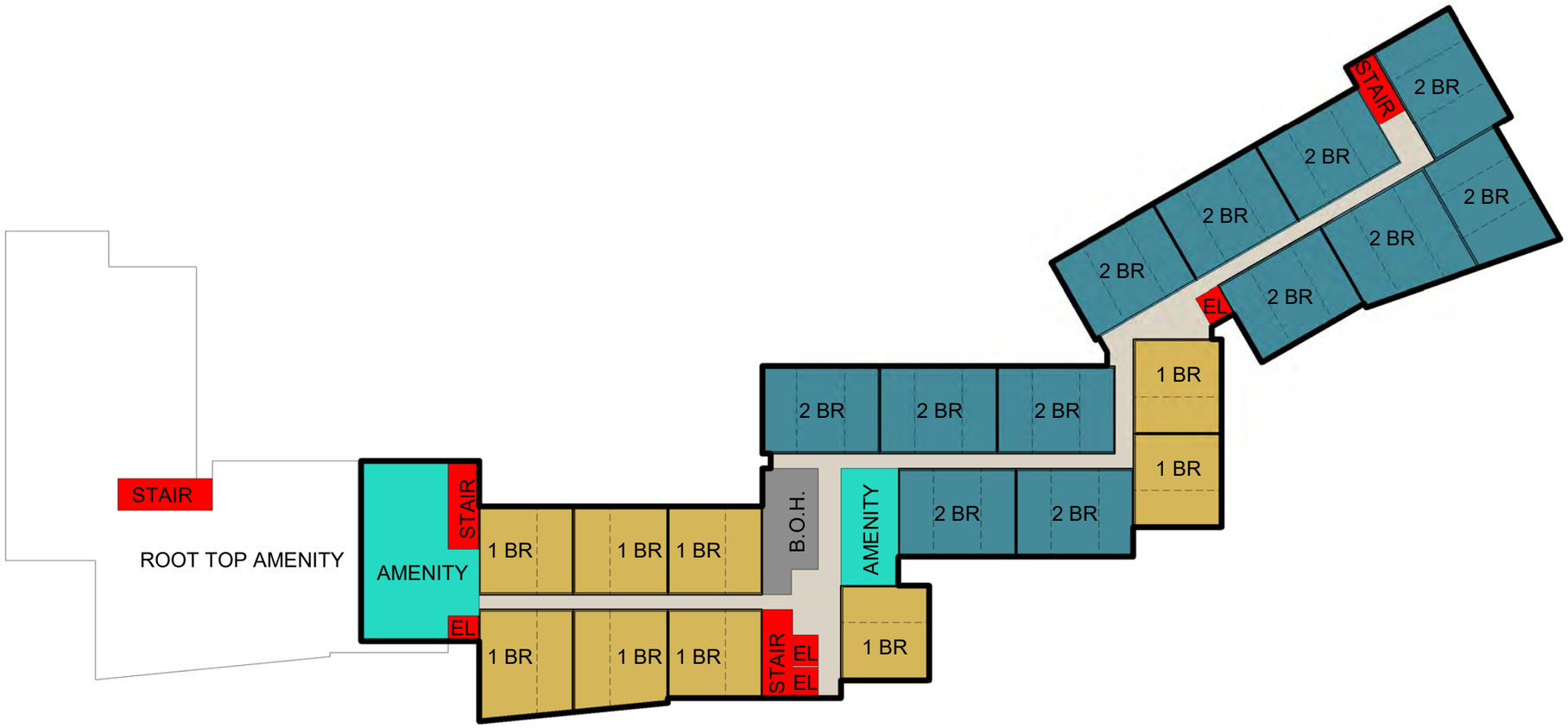


Source: Perkins-Eastman, 2019

Conceptual Floor Plans - Multifamily Building

Figure 2-6f

1.7.20



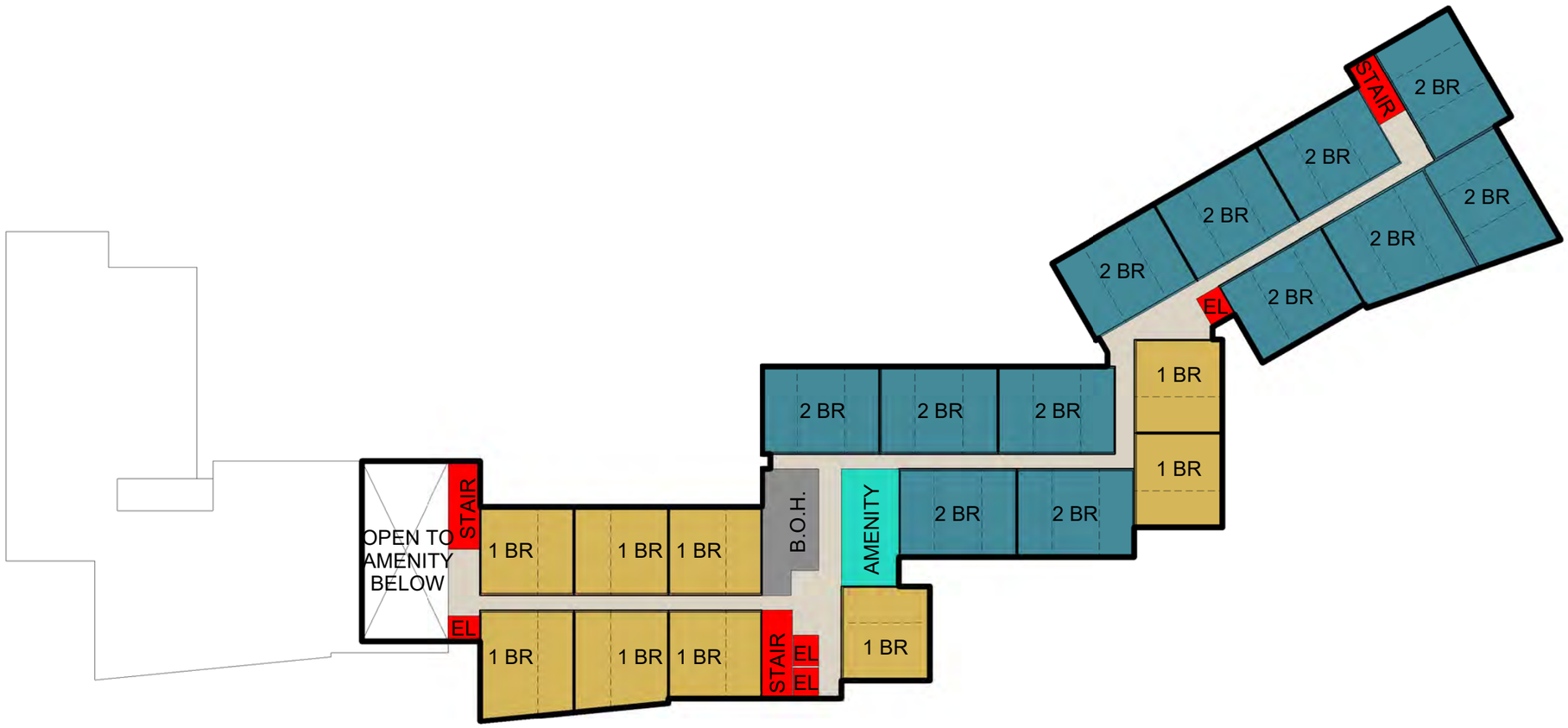
Source: Perkins-Eastman, 2019

AIRPORT CAMPUS

Conceptual Floor Plans - Multifamily Building

Figure 2-6g

1.7.20

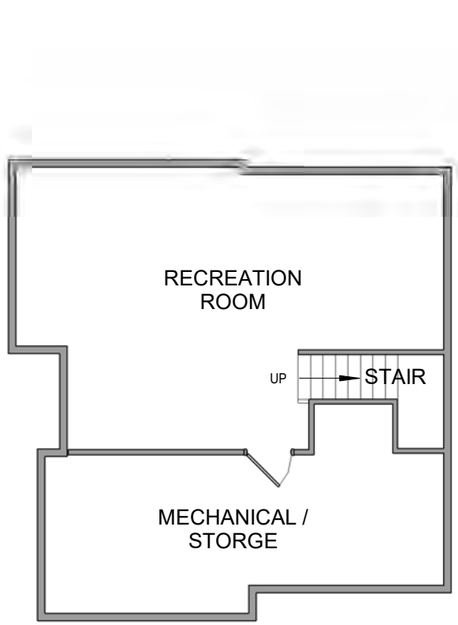


Source: Perkins-Eastman, 2019

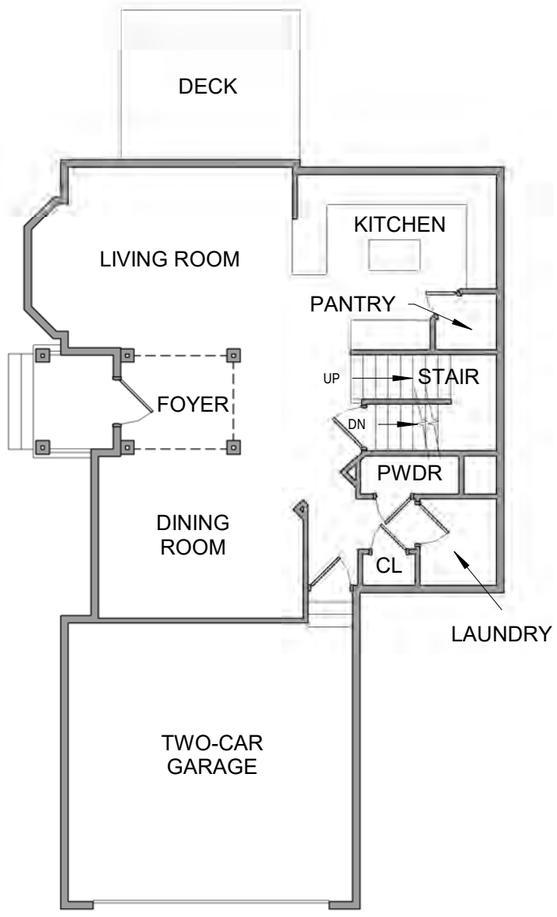
AIRPORT CAMPUS

Conceptual Floor Plans - Multifamily Building

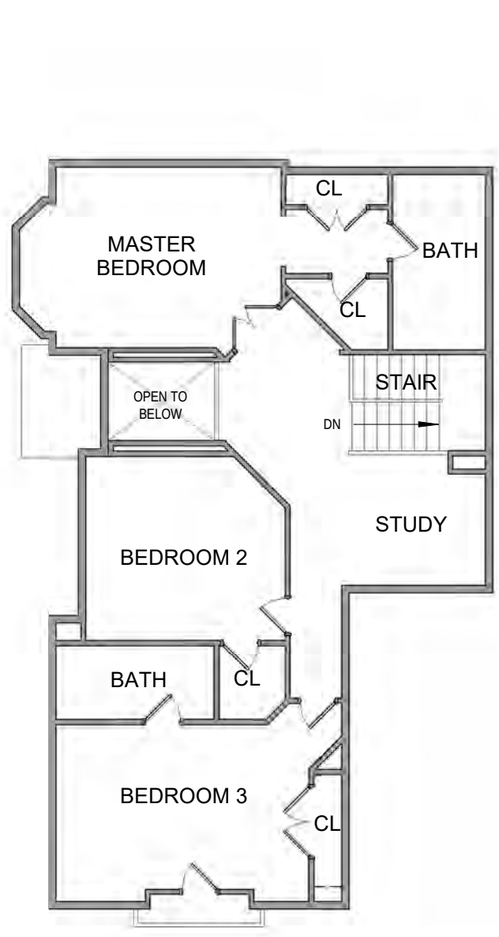
Figure 2-6h



BASEMENT LEVEL PLAN



MAIN LEVEL PLAN



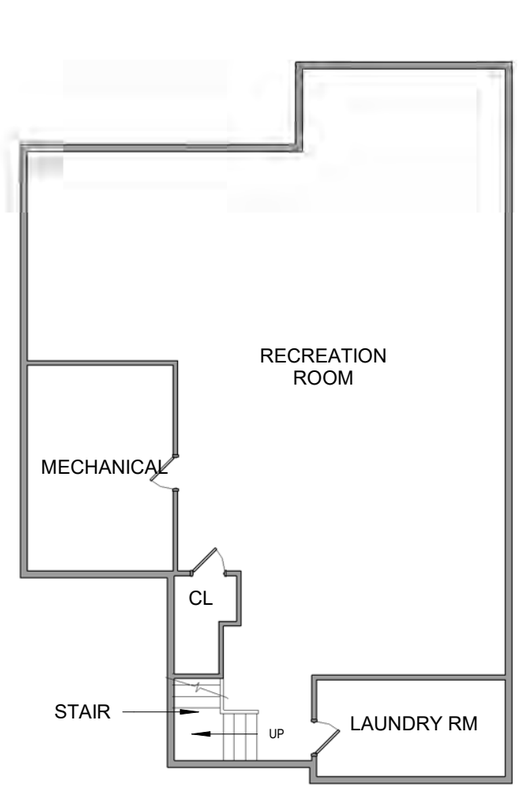
UPPER LEVEL PLAN

Source: Perkins-Eastman, 2019

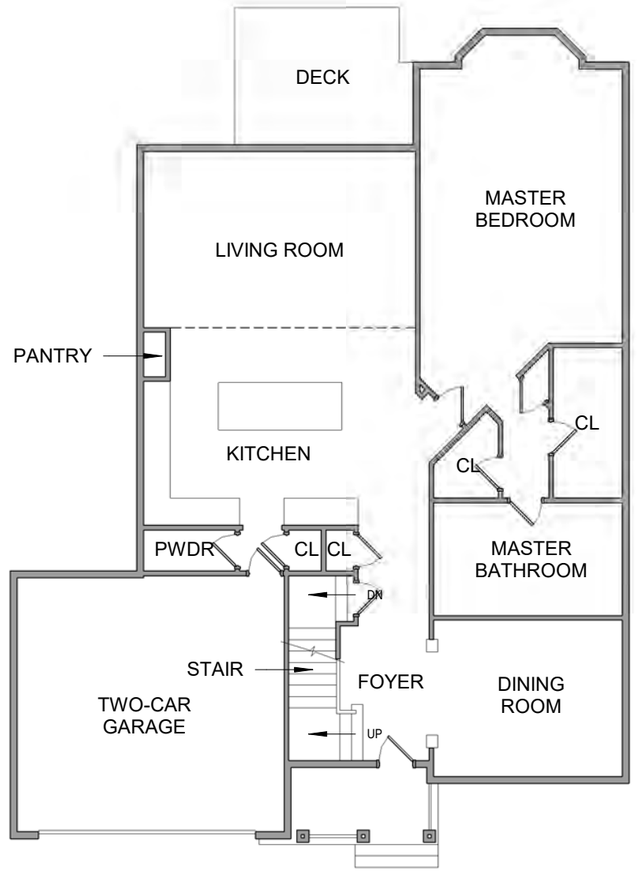
Conceptual Floor Plans - Townhomes

Figure 2-7a

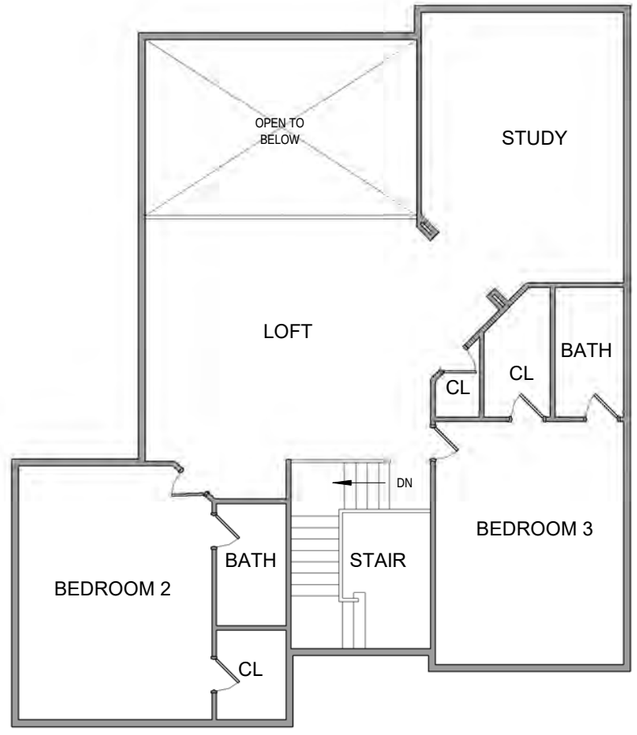
1.7.20



BASEMENT LEVEL PLAN



MAIN LEVEL PLAN



UPPER LEVEL PLAN

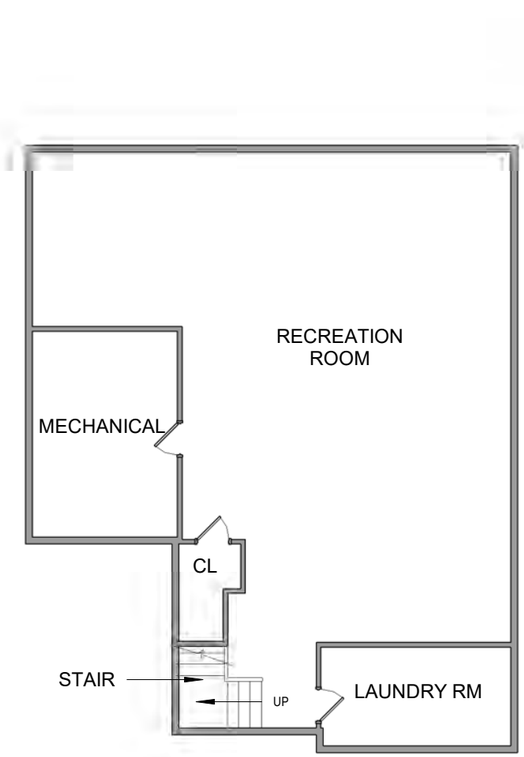
Source: Perkins-Eastman, 2019

AIRPORT CAMPUS

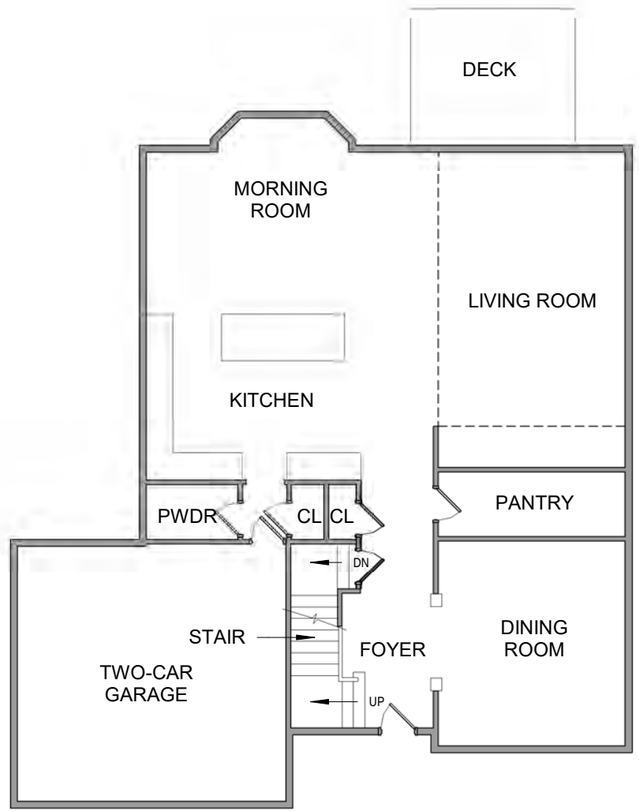
Conceptual Floor Plans - Townhomes

Figure 2-7b

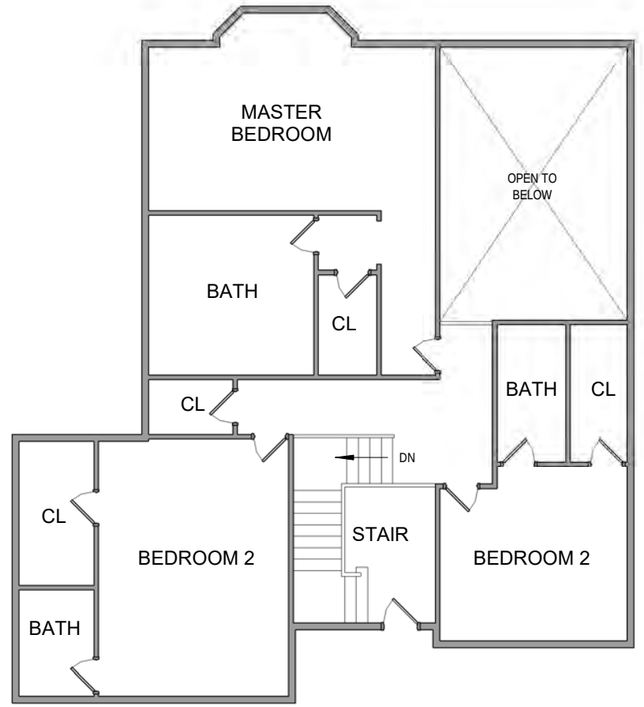
1.7.20



BASEMENT LEVEL PLAN



MAIN LEVEL PLAN



UPPER LEVEL PLAN

Source: Perkins-Eastman, 2019

AIRPORT CAMPUS

Conceptual Floor Plans - Townhomes

Figure 2-7c

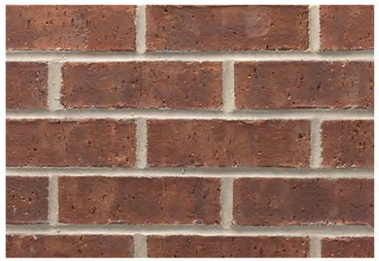
1.7.20

a

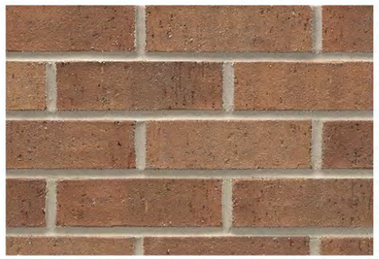
MATERIAL 1: BRICK

OPTIONS:

ACME BRICK - SLATE GRAY



ACME BRICK - BURGUNDY



ACME BRICK - ROSEBUD

Source: Perkins Eastman, 2019

Conceptual Facade Renderings - Multifamily Building

Figure 2-8a

MATERIAL 2:
FIBER CEMENT SIDING

OPTIONS:

ALLURA - FLAG STONE

NICHIHA - VINTAGE WOOD - ASH

JAMES HARDIE - COBBLE STONE

Source: Perkins Eastman, 2019

Conceptual Facade Renderings - Multifamily Building

Figure 2-8b

MATERIAL 3:
FIBER CEMENT SIDING

OPTIONS:

NICHIHA - VINTAGE WOOD - SPRUCE

ALLURA - CEDAR

JAMES HARDIE - HEATHERED MOSS

Source: Perkins Eastman, 2019

Conceptual Facade Renderings - Multifamily Building

9.18.20

N/F LANDS OF THE CITY OF NEW YORK

SANITATION TRUCK
ACCESS ROUTE

N

EXISTING
THREE STORY
OFFICE BUILDING

CONC

POND

CONVERT
EXISTING
OFFICE
BUILDING
TO HOTEL

PROPOSED 5 LEVEL
APARTMENT BUILDING
OVER
3 LEVEL PARKING
STRUCTURE

FLAGPOLE

FRAME
DWELLING

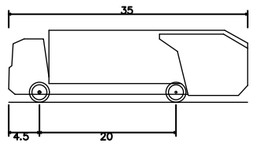
EXISTING
THREE STORY
PARKING STRUCTURE

SANITATION TRUCK
ACCESS ROUTE

KING STREET (ROUTE 120)

SANITATION TRUCK
ACCESS ROUTE

AMERICAN LANE



Rear–Load Garbage Truck	
Overall Length	35.000ft
Overall Width	8.375ft
Overall Body Height	10.546ft
Min Body Ground Clearance	1.000ft
Track Width	8.375ft
Lock–to–lock time	6.00s
Curb to Curb Turning Radius	29.300ft

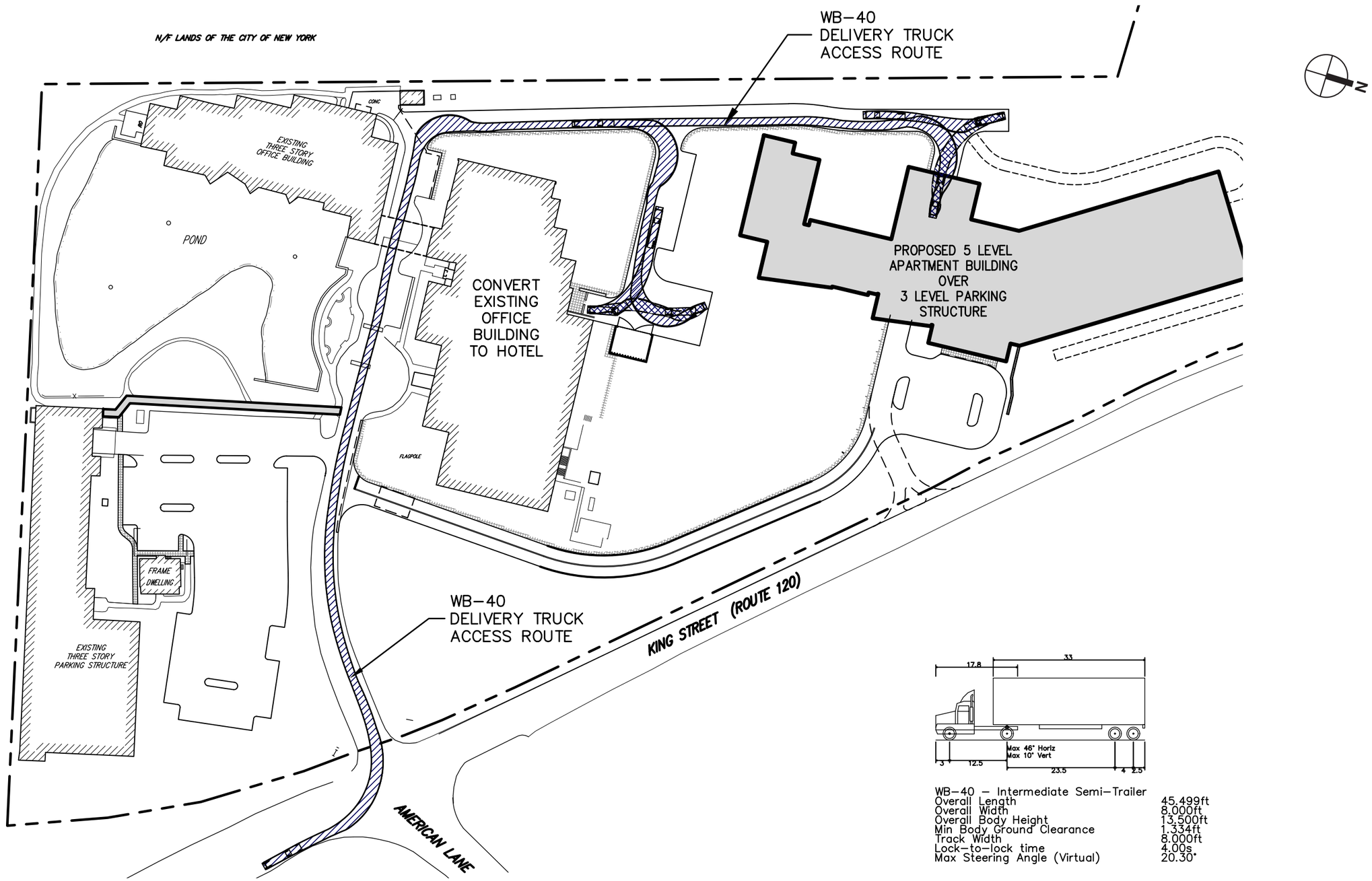
Source: JMC, 2020

Site Access and Circulation Plans - Multifamily Building

AIRPORT CAMPUS

Figure 2-9a

9.18.20



WB–40 – Intermediate Semi–Trailer	
Overall Length	45.499ft
Overall Width	8.000ft
Overall Body Height	13.500ft
Min Body Ground Clearance	1.334ft
Track Width	8.000ft
Lock–to–lock time	4.00s
Max Steering Angle (Virtual)	20.30°

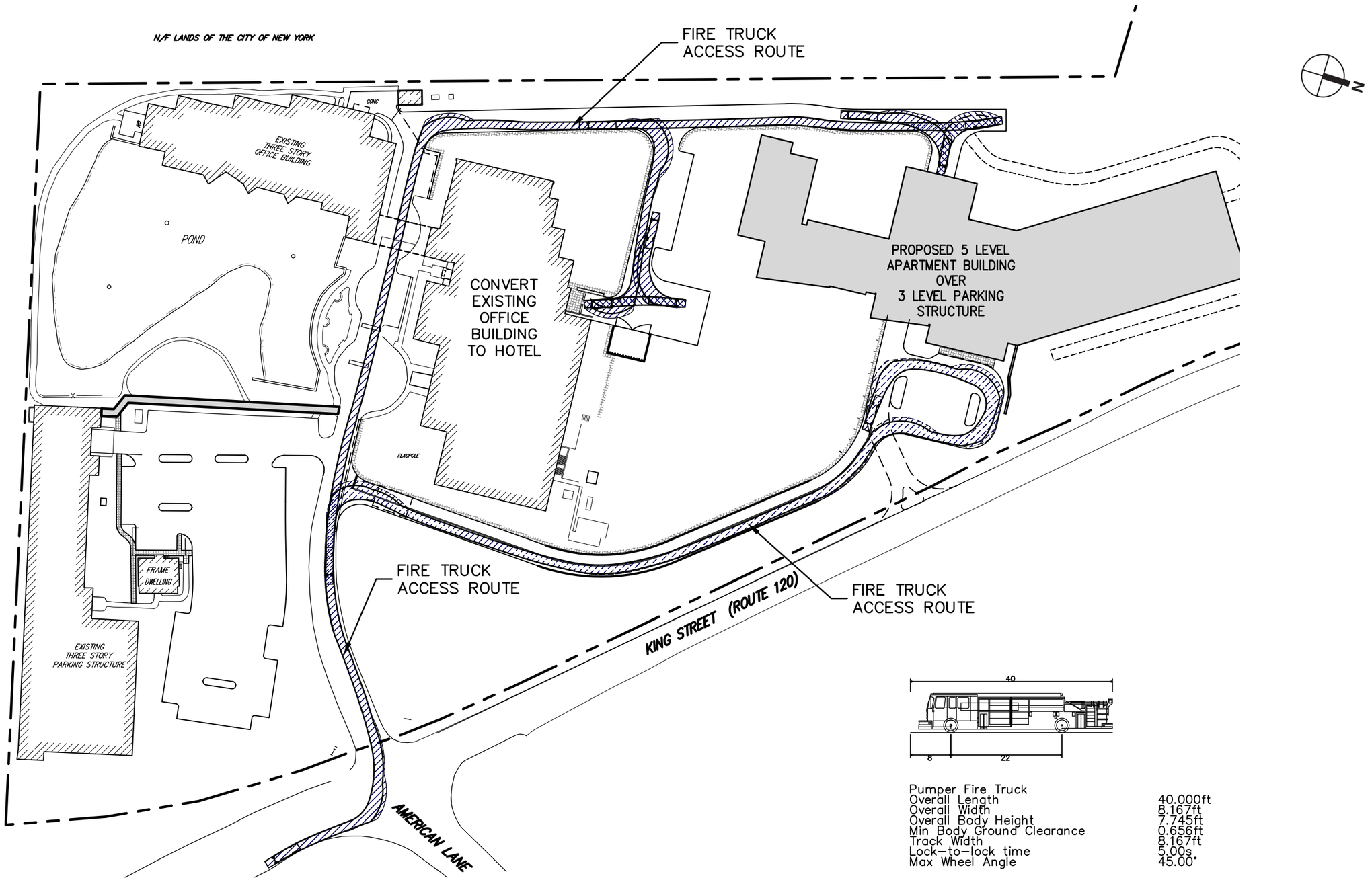
Source: JMC, 2020

Site Access and Circulation Plans - Multifamily Building

AIRPORT CAMPUS

Figure 2-9b

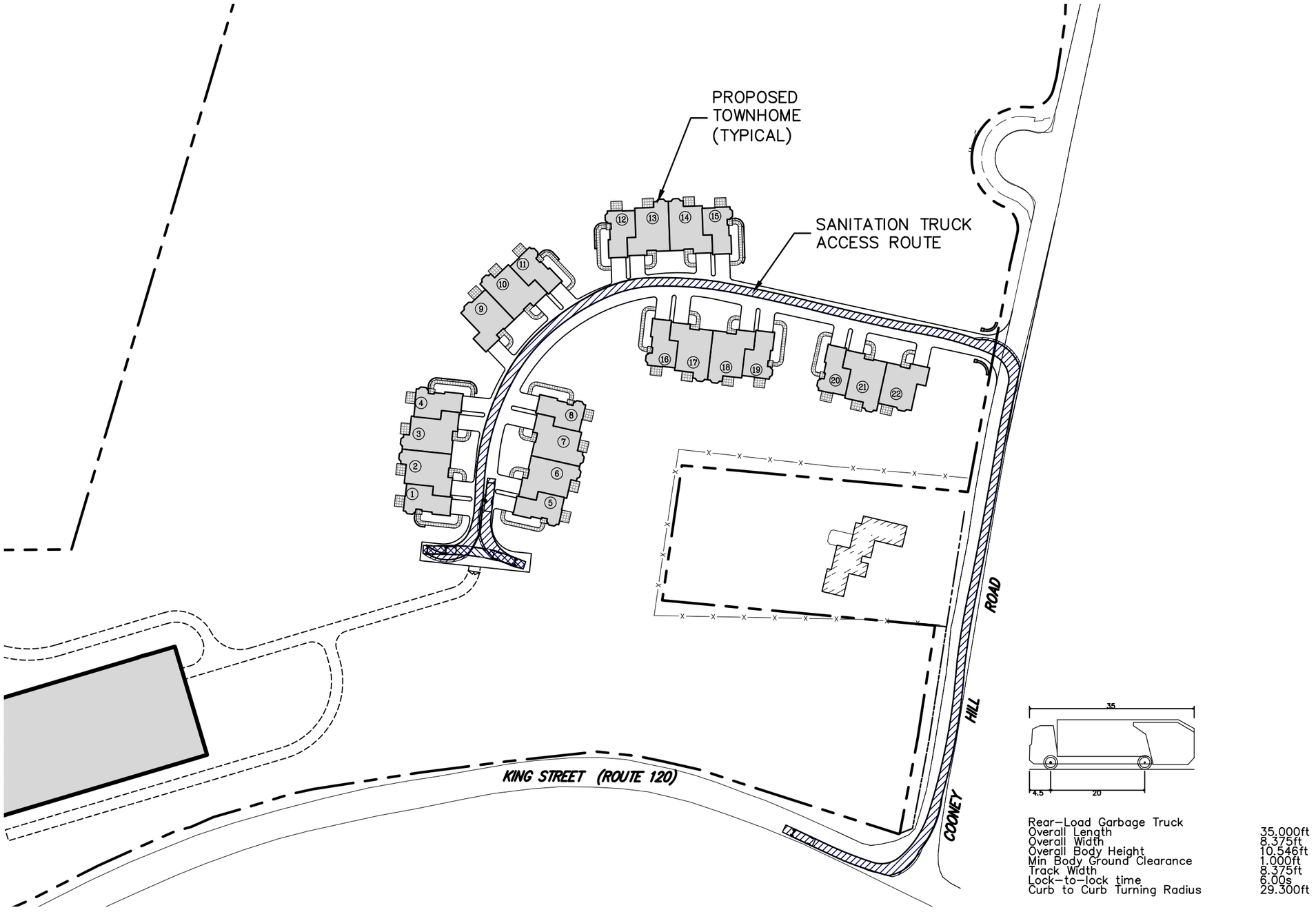
9.18.20



Source: JMC, 2020

Site Access and Circulation Plans - Multifamily Building

9.18.20



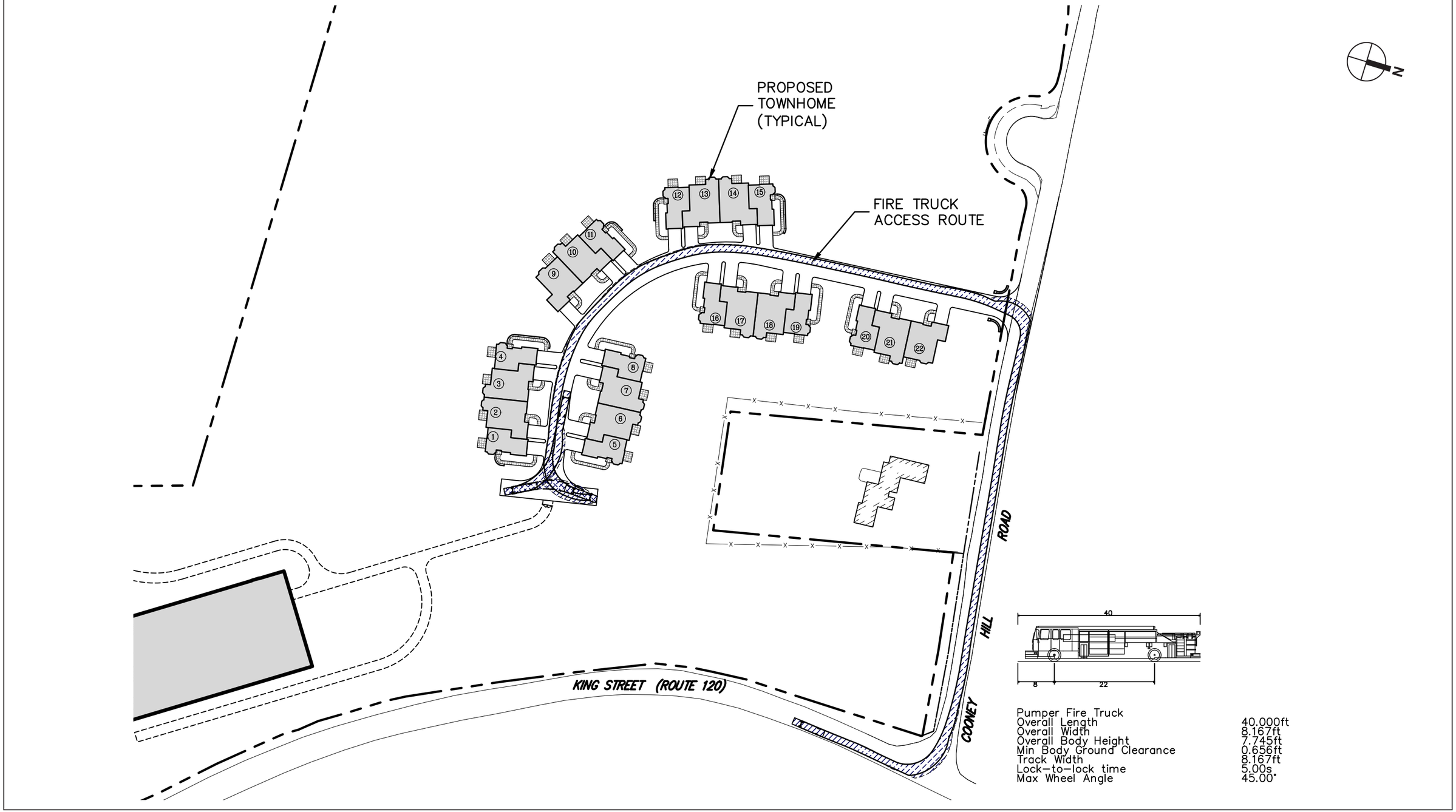
Source: JMC, 2020

Site Access and Circulation Plans - Townhomes

AIRPORT CAMPUS

Figure 2-10a

9.18.20



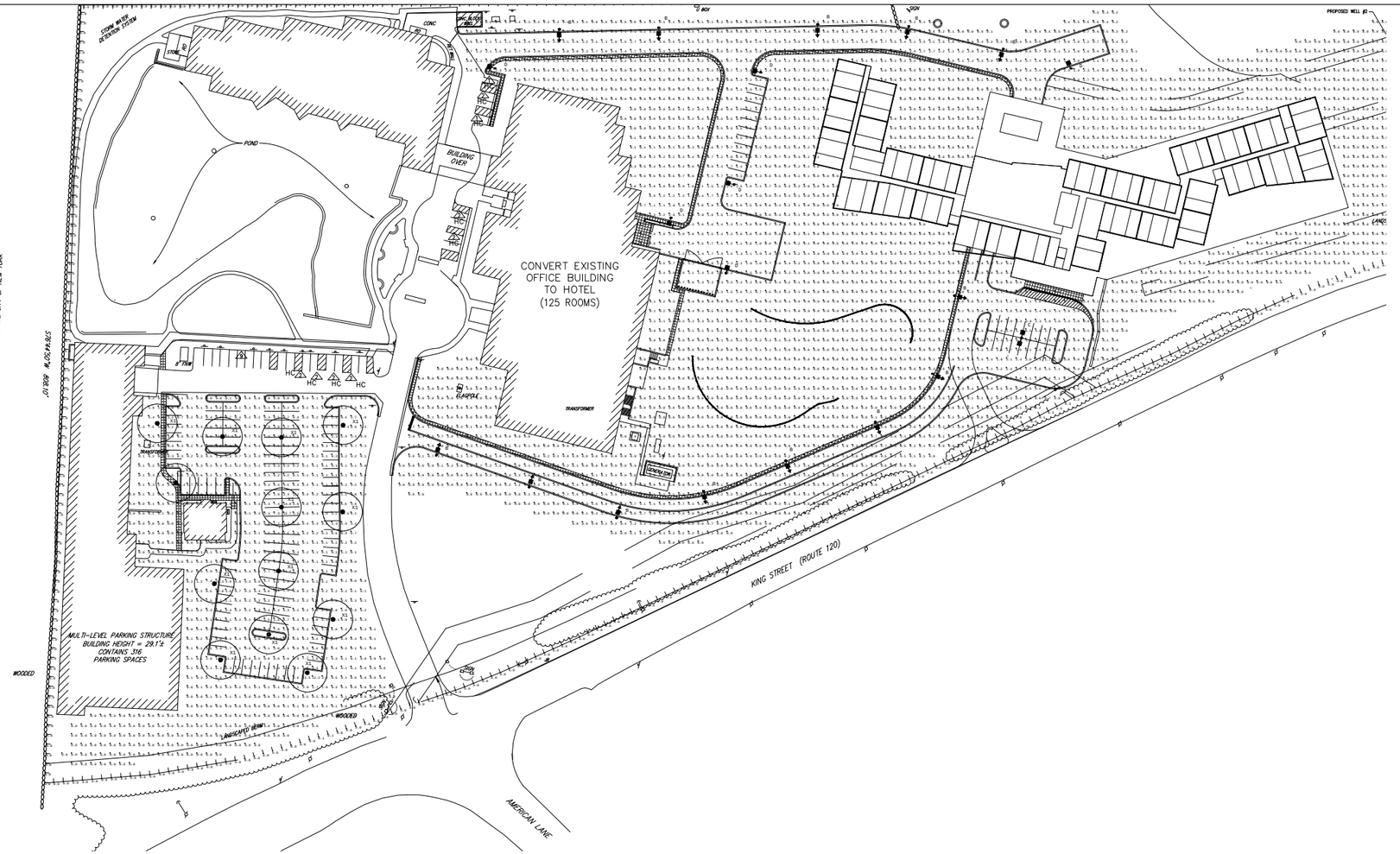
Source: JMC, 2020

AIRPORT CAMPUS

Site Access and Circulation Plans - Townhomes

Figure 2-10b

1.7.20



Calculation Summary								
Label	Units	Avg	Max	Min	Avg/Min	Max/Min	PtSpcLr	PtSpcTb
APARTMENT PARKING AND DRIVES	Fc	2.03	5.2	0.2	10.15	26.00	10	10
PARKING EXTENSION SUMMARY	Fc	1.35	18.1	0.0	N.A.	N.A.		
TOWN HOMES PARKING AND DRIVES	Fc	1.44	5.7	0.1	14.40	57.00		
PROPERTY LINE VERTICAL 5' AG	Fc	0.01	0.5	0.0	N.A.	N.A.	10	N.A.

Luminaire Schedule						
WLS11919 AIRPORT CAMPUS NORTH CASTLE, NY PM: HOLLY PLEASE EMAIL US FOR PRICING AT HOLLY@WLSLIGHTING.COM						
Symbol	Qty	Label	Lum. Lumens	LLF	Description	Lum. Watts
	13	X1	8073	0.950	WLS-288-100W-LED-4K-V-AE-CL TEAR 12' MOUNTING HEIGHT	109.81
	14	A	6894	0.950	WLS-LXL-PT-5-LED-HO-NW 12' MOUNTING HEIGHT	108
	13	B	7840	0.980	WLS-CLXM-LED-12L-SIL-2-40-70CRI-IL 20' MOUNTING HEIGHT	93.1
	1	C	11735	0.950	WLS-CLXM-LED-12L-SIL-5W-40-70CRI 20' MOUNTING HEIGHT	93.1
	6	D	11735	0.950	WLS-CLXM-LED-12L-SIL-5W-40-70CRI 20' MOUNTING HEIGHT	93.1

Based on the information provided, all dimensions and luminaire locations shown represent recommended positions. The engineer and/or architect must determine applicability of the layout to existing or future field conditions.

This lighting pattern represents illumination levels calculated from laboratory data taken under controlled conditions utilizing current industry standard lamp ratings in accordance with Illuminating Engineering Society approved methods. Actual performance of any manufacturer's luminaire may vary due to variation in electrical voltage, tolerance in lamps and other variable field conditions.

Source: WLS Lighting, 2019

AIRPORT CAMPUS

Proposed Project - Lighting Plans

Figure 2-11a

1.7.20

Calculation Summary								
Label	Units	Avg	Max	Min	Avg/Min	Max/Min	PtSpcLr	PtSpcTb
APARTMENT PARKING AND DRIVES	Fc	2.03	5.2	0.2	10.15	26.00	10	10
PARKING EXTENSION SUMMARY	Fc	1.35	18.1	0.0	N.A.	N.A.		
TOWN HOMES PARKING AND DRIVES	Fc	1.44	5.7	0.1	14.40	57.00		
PROPERTY LINE VERTICAL 5' AG	Fc	0.01	0.5	0.0	N.A.	N.A.	10	N.A.

Luminaire Schedule						
WLS11919 AIRPORT CAMPUS NORTH CASTLE, NY PM: HOLLY PLEASE EMAIL US FOR PRICING AT HOLLY@WLSLIGHTING.COM						
Symbol	Qty	Label	Lum. Lumens	LLF	Description	Lum. Watts
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	14	A	6894	0.950	WLS-LXL-PT-5-LED-HO-NW 12' MOUNTING HEIGHT	108
	13	B	7840	0.980	WLS-CLXM-LED-12L-SIL-2-40-70CRI-IL 20' MOUNTING HEIGHT	93.1
	1	C	11735	0.950	WLS-CLXM-LED-12L-SIL-5W-40-70CRI 20' MOUNTING HEIGHT	93.1
	6	D	11735	0.950	WLS-CLXM-LED-12L-SIL-5W-40-70CRI 20' MOUNTING HEIGHT	93.1

Based on the information provided, all dimensions and luminaire locations shown represent recommended positions. The engineer and/or architect must determine applicability of the layout to existing or future field conditions.

This lighting pattern represents illumination levels calculated from laboratory data taken under controlled conditions utilizing current industry standard lamp ratings in accordance with Illuminating Engineering Society approved methods. Actual performance of any manufacturer's luminaire may vary due to variation in electrical voltage, tolerance in lamps and other variable field conditions.

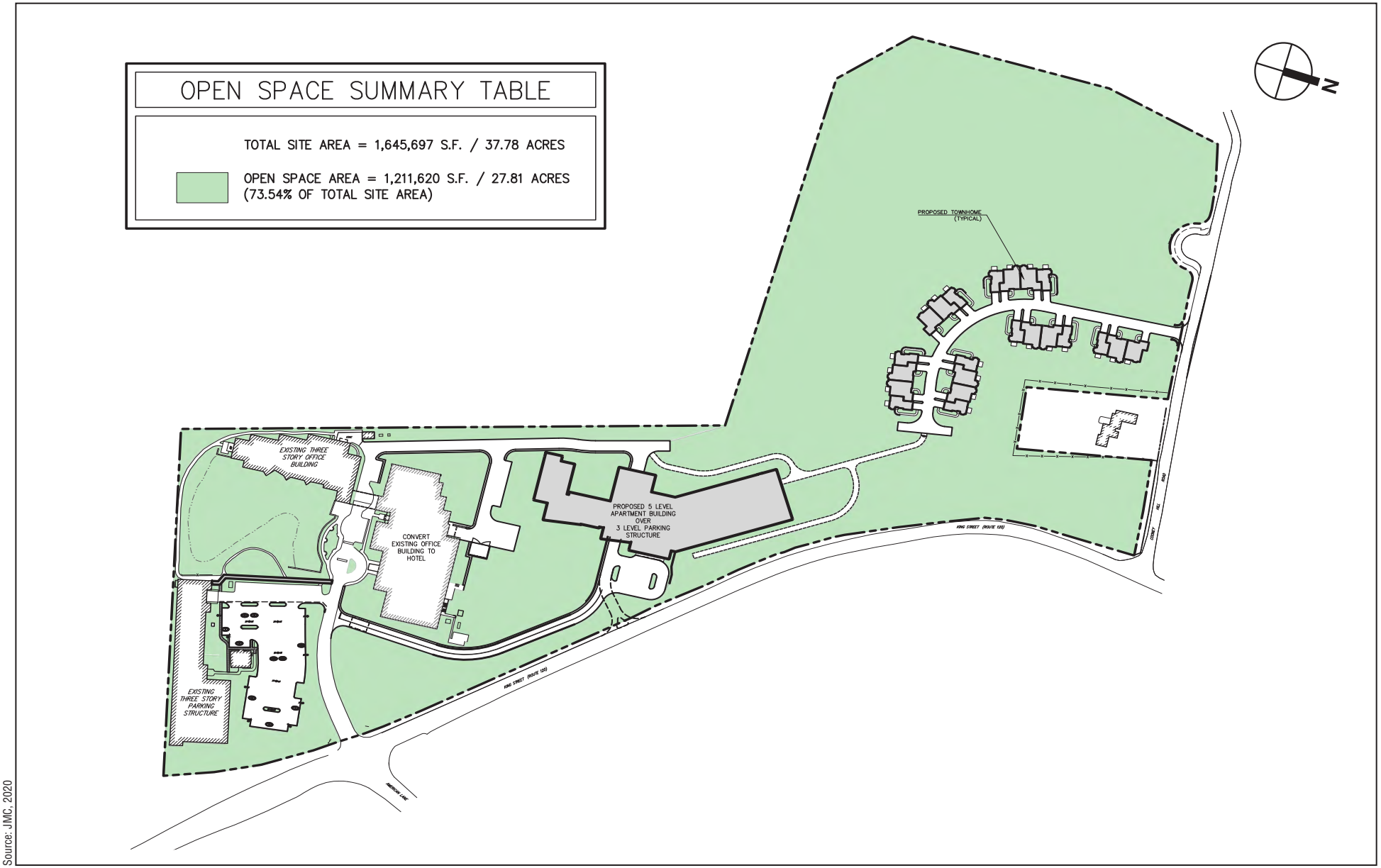
Source: WLS Lighting, 2019

AIRPORT CAMPUS

Proposed Project - Lighting Plans

Figure 2-11b

9.17.20



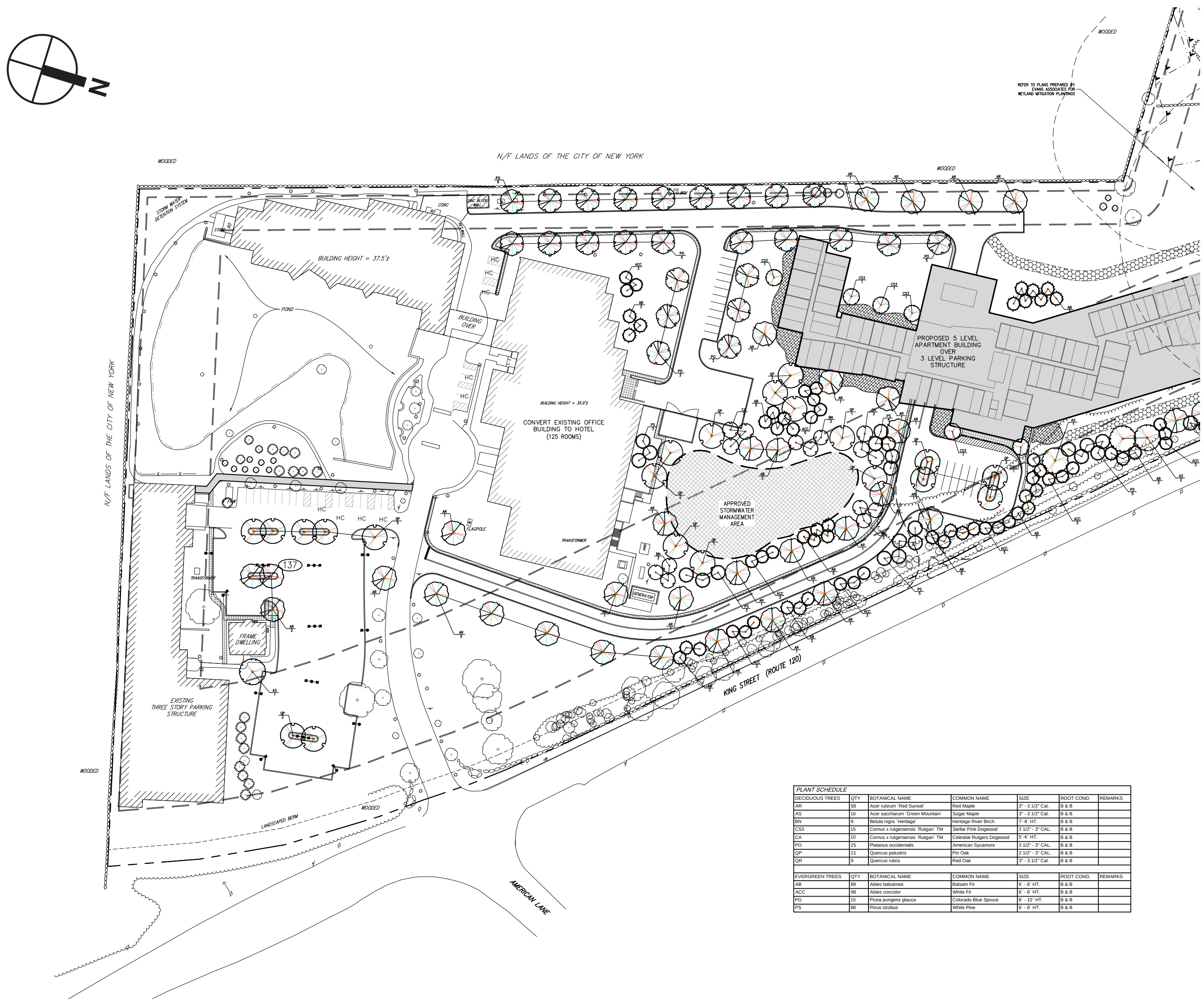
Source: JMC, 2020

Proposed Project - Open Space Plan

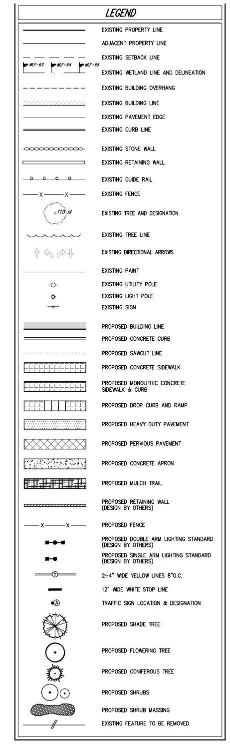
AIRPORT CAMPUS

Figure 2-12

9.21.20



PLANT SCHEDULE						
DECIDUOUS TREES	QTY	BOTANICAL NAME	COMMON NAME	SIZE	ROOT COND.	REMARKS
AR	58	Acer rubrum `Red Sunset`	Red Maple	3" - 3 1/2" Cal.	B & B	
AS	16	Acer saccharum `Green Mountain`	Sugar Maple	3" - 3 1/2" Cal.	B & B	
BN	9	Betula nigra `Heritage`	Heritage River Birch	7`-8` HT.	B & B	
CS3	15	Cornus x rutgersensis `Rutgan` TM	Stellar Pink Dogwood	2 1/2" - 3" CAL.	B & B	
CA	10	Cornus x rutgersensis `Rutgan` TM	Celestial Rutgers Dogwood	5`-6` HT.	B & B	
PO	25	Platanus occidentalis	American Sycamore	2 1/2" - 3" CAL.	B & B	
QP	21	Quercus palustris	Pin Oak	2 1/2" - 3" CAL.	B & B	
QR	9	Quercus rubra	Red Oak	3" - 3 1/2" Cal.	B & B	
EVERGREEN TREES	QTY	BOTANICAL NAME	COMMON NAME	SIZE	ROOT COND.	REMARKS
AB	89	Abies balsamea	Balsam Fir	6` - 8` HT.	B & B	
ACC	98	Abies concolor	White Fir	6` - 8` HT.	B & B	
PG	15	Picea pungens glauca	Colorado Blue Spruce	8` - 10` HT.	B & B	
PS	86	Pinus strobus	White Pine	6` - 8` HT.	B & B	



NOTES:

1. ALL PLANT MATERIAL SHALL BE FIRST QUALITY STOCK. PLANTED MATERIAL AND METHODS OF INSTALLATION SHALL CONFORM TO THE AMERICAN NURSERY AND LANDSCAPE ASSOCIATION, AMERICAN STANDARD FOR NURSERY STOCK, LATEST EDITION.
2. ALL AREAS OF THE SITE NOT OCCUPIED BY BUILDING OR PAVEMENT AND NOT SPECIFIED AS BEING PLANTED WITH TREES, SHRUBS OR GROUND COVER SHALL BE LAWN.
3. ALL PLANTING BEDS SHALL BE MULCHED WITH 3" OF BROWN MULCH. MULCH SHALL BE CLEAN, NON-DYED, TOXIC FREE, SHREDDED HARDWOOD.
4. PLANT MATERIALS AS SPECIFIED ON THE DRAWINGS AND DELIVERED TO THE SITE SHALL BE NURSERY GROWN AND CERTIFIED TRUE TO THEIR GENUS, SPECIES AND VARIETY. SUBSTITUTIONS ARE NOT PERMITTED WITHOUT THE PROJECT LANDSCAPE ARCHITECTS WRITTEN APPROVAL.
5. ALL LANDSCAPING SHALL CONTINUE TO BE MAINTAINED IN A HEALTHY GROWING CONDITION THROUGHOUT THE DURATION OF THE PROJECT. ANY PLANTING NOT SO MAINTAINED SHALL BE REPLACED WITH NEW PLANTS AT THE BEGINNING OF THE NEXT, IMMEDIATELY FOLLOWING, GROWING SEASON.
6. ALL TREES AND SHRUBS SHALL BE PRUNED AND SHAPED AND BE SUBJECT TO THE APPROVAL OF THE PROJECT LANDSCAPE ARCHITECT AND GOVERNMENTAL AUTHORITIES HAVING JURISDICTION.
7. PLANTING STOCK SHALL BE WELL-BRANCHED AND WELL-FORMED, SOUND, VIGOROUS, HEALTHY, FREE FROM DISEASE, SUN-SCALE, WINDBURN, ABRASION, AND HARMFUL INSECTS OR INSECTS EGGS; AND SHALL HAVE HEALTHY, NORMAL UNBROKEN ROOT SYSTEMS. DECIDUOUS TREES AND SHRUBS SHALL BE SYMMETRICALLY DEVELOPED, OF UNIFORM HABIT OF GROWTH, WITH STRAIGHT TRUNKS OR STEMS, AND FREE FROM OBJECTIONABLE DISFIGUREMENTS. EVERGREEN TREES AND SHRUBS SHALL HAVE WELL-DEVELOPED SYMMETRICAL TOPS WITH TYPICAL SPREAD OF BRANCHES FOR EACH PARTICULAR SPECIES OR VARIETY. ONLY VINES AND GROUND COVER PLANTS WELL ESTABLISHED IN REMOVAL CONTAINERS, INTEGRAL CONTAINERS, OR FORMED HOMOGENEOUS SOIL SECTIONS SHALL BE USED. PLANTS SHALL BE GROWN UNDER CLIMATIC CONDITIONS SIMILAR TO THOSE IN THE LOCALITY OF THE PROJECT.
8. ALL STOCK SHALL BE BALLED AND BURLAPPED OR CONTAINER GROWN STOCK, UNLESS OTHERWISE SPECIFIED. BAREROOT STOCK OF ANY KIND IS UNACCEPTABLE UNLESS SPECIFIED.
9. ALL PLANTING BEDS, LAWNS AND LANDSCAPED AREAS SHALL RECEIVE A MINIMUM 4" THICK LAYER OF TOPSOIL, UNLESS OTHERWISE SPECIFIED.

Source: JMC, 2020

Proposed Project - Landscaping Plans

Figure 2-13a

9.21.20

PLANT SCHEDULE						
DECIDUOUS TREES	QTY	BOTANICAL NAME	COMMON NAME	SIZE	ROOT COND.	REMARKS
AR	58	Acer rubrum `Red Sunset`	Red Maple	3" - 3 1/2" Cal.	B & B	
AS	16	Acer saccharum `Green Mountain`	Sugar Maple	3" - 3 1/2" Cal.	B & B	
BN	9	Betula nigra `Heritage`	Heritage River Birch	7`-8` HT.	B & B	
CS3	15	Cornus x rutgersensis `Rutgan` TM	Stellar Pink Dogwood	2 1/2" - 3" CAL.	B & B	
CA	10	Cornus x rutgersensis `Rutgan` TM	Celestial Rutgers Dogwood	5`-6` HT.	B & B	
PO	25	Platanus occidentalis	American Sycamore	2 1/2" - 3" CAL.	B & B	
QP	21	Quercus palustris	Pin Oak	2 1/2" - 3" CAL.	B & B	
QR	9	Quercus rubra	Red Oak	3" - 3 1/2" Cal.	B & B	
EVERGREEN TREES	QTY	BOTANICAL NAME	COMMON NAME	SIZE	ROOT COND.	REMARKS
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ACC	98	Abies concolor	White Fir	6` - 8` HT.	B & B	
PG	15	Picea pungens glauca	Colorado Blue Spruce	8` - 10` HT.	B & B	
PS	86	Pinus strobus	White Pine	6` - 8` HT.	B & B	

LEGEND

- EXISTING PROPERTY LINE
- ADJACENT PROPERTY LINE
- EXISTING SETBACK LINE
- EXISTING WETLAND LINE AND DELINEATION
- EXISTING BUILDING OVERHANG
- EXISTING BUILDING LINE
- EXISTING PAVEMENT EDGE
- EXISTING CURB LINE
- EXISTING STONE WALL
- EXISTING RETAINING WALL
- EXISTING GUIDE RAIL
- EXISTING FENCE
- EXISTING TREE AND DESIGNATION
- EXISTING TREE LINE
- EXISTING DIRECTIONAL ARROWS
- EXISTING PAINT
- EXISTING UTILITY POLE
- EXISTING LIGHT POLE
- EXISTING SIGN
- PROPOSED BUILDING LINE
- PROPOSED CONCRETE CURB
- PROPOSED SAWCUT LINE
- PROPOSED CONCRETE SIDEWALK
- PROPOSED MONOLITHIC CONCRETE SIDEWALK & CURB
- PROPOSED DROP CURB AND RAMP
- PROPOSED HEAVY DUTY PAVEMENT
- PROPOSED PERVIOUS PAVEMENT
- PROPOSED CONCRETE APRON
- PROPOSED MULCH TRAIL
- PROPOSED RETAINING WALL (DESIGN BY OTHERS)
- PROPOSED FENCE
- PROPOSED DOUBLE ARM LIGHTING STANDARD (DESIGN BY OTHERS)
- PROPOSED SINGLE ARM LIGHTING STANDARD (DESIGN BY OTHERS)
- 2-4" WIDE YELLOW LINES 8"O.C.
- 12" WIDE WHITE STOP LINE
- TRAFFIC SIGN LOCATION & DESIGNATION
- PROPOSED SHADE TREE
- PROPOSED FLOWERING TREE
- PROPOSED CONIFEROUS TREE
- PROPOSED SHRUBS
- PROPOSED SHRUB MASSING
- EXISTING FEATURE TO BE REMOVED

NOTES:

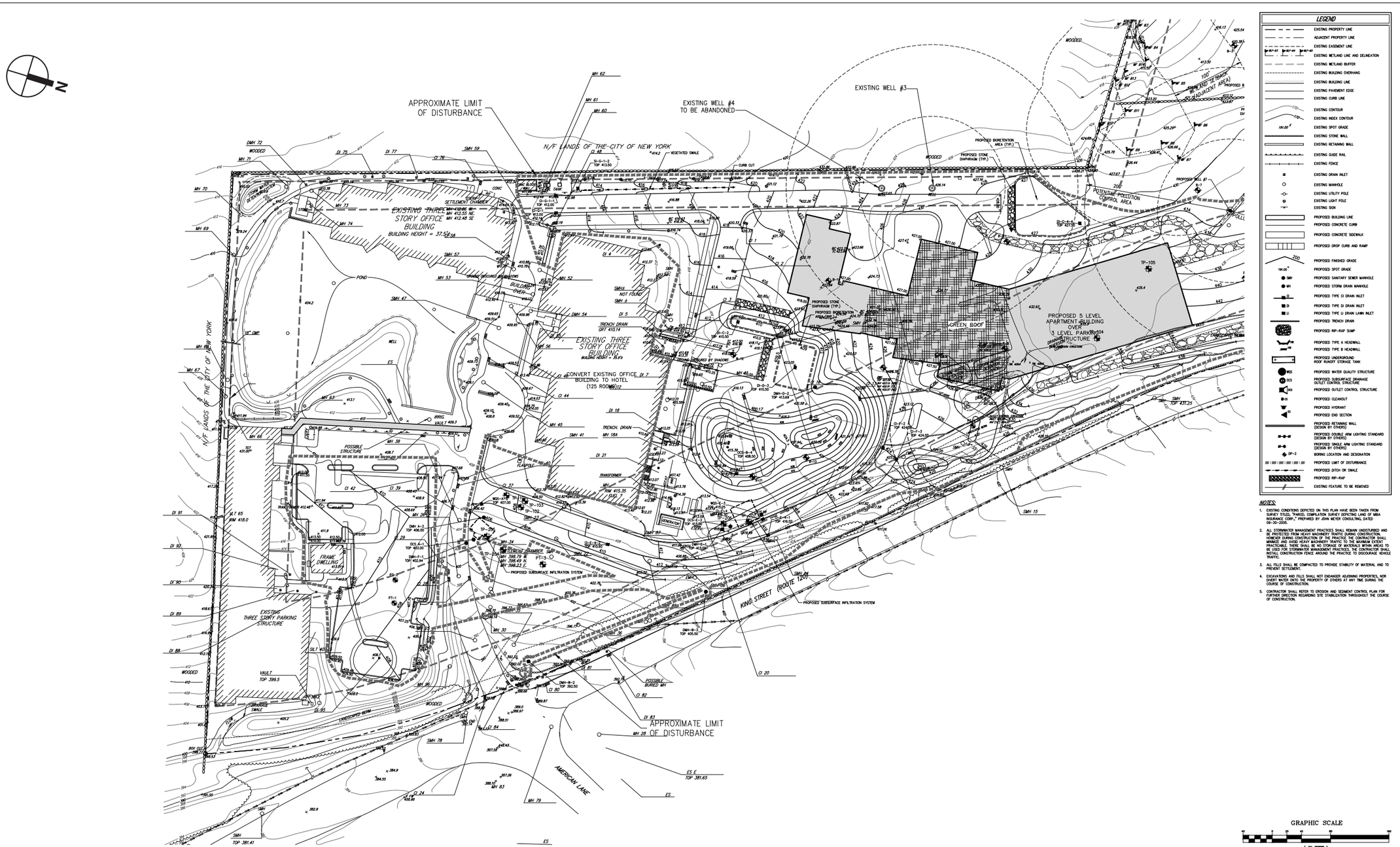
1. ALL PLANT MATERIAL SHALL BE FIRST QUALITY STOCK. PLANTED MATERIAL AND METHODS OF INSTALLATION SHALL CONFORM TO THE AMERICAN NURSERY AND LANDSCAPE ASSOCIATION, AMERICAN STANDARD FOR NURSERY STOCK, LATEST EDITION.
2. ALL AREAS OF THE SITE NOT OCCUPIED BY BUILDING OR PAVEMENT AND NOT SPECIFIED AS BEING PLANTED WITH TREES, SHRUBS OR GROUND COVER SHALL BE LAWN.
3. ALL PLANTING BEDS SHALL BE MULCHED WITH 3" OF BROWN MULCH. MULCH SHALL BE CLEAN, NON-DYED, TOXIC FREE, SHREDDED HARDWOOD.
4. PLANT MATERIALS AS SPECIFIED ON THE DRAWINGS AND DELIVERED TO THE SITE SHALL BE NURSERY GROWN AND CERTIFIED TRUE TO THEIR GENUS, SPECIES AND VARIETY. SUBSTITUTIONS ARE NOT PERMITTED WITHOUT THE PROJECT LANDSCAPE ARCHITECTS WRITTEN APPROVAL.
5. ALL LANDSCAPING SHALL CONTINUE TO BE MAINTAINED IN A HEALTHY GROWING CONDITION THROUGHOUT THE DURATION OF THE PROJECT. ANY PLANTING NOT SO MAINTAINED SHALL BE REPLACED WITH NEW PLANTS AT THE BEGINNING OF THE NEXT, IMMEDIATELY FOLLOWING, GROWING SEASON.
6. ALL TREES AND SHRUBS SHALL BE PRUNED AND SHAPED AND BE SUBJECT TO THE APPROVAL OF THE PROJECT LANDSCAPE ARCHITECT AND GOVERNMENTAL AUTHORITIES HAVING JURISDICTION.
7. PLANTING STOCK SHALL BE WELL-BRANCHED AND WELL-FORMED, SOUND, VIGOROUS, HEALTHY, FREE FROM DISEASE, SUN-SCALE, WINDBURN, ABRASION, AND HARMFUL INSECTS OR INSECTS EGGS; AND SHALL HAVE HEALTHY, NORMAL UNBROKEN ROOT SYSTEMS. DECIDUOUS TREES AND SHRUBS SHALL BE SYMMETRICALLY DEVELOPED, OF UNIFORM HABIT OF GROWTH, WITH STRAIGHT TRUNKS OR STEMS, AND FREE FROM OBJECTIONABLE DISFIGUREMENTS. EVERGREEN TREES AND SHRUBS SHALL HAVE WELL-DEVELOPED SYMMETRICAL TOPS WITH TYPICAL SPREAD OF BRANCHES FOR EACH PARTICULAR SPECIES OR VARIETY. ONLY VINES AND GROUND COVER PLANTS WELL ESTABLISHED IN REMOVAL CONTAINERS, INTEGRAL CONTAINERS, OR FORMED HOMOGENEOUS SOIL SECTIONS SHALL BE USED. PLANTS SHALL BE GROWN UNDER CLIMATIC CONDITIONS SIMILAR TO THOSE IN THE LOCALITY OF THE PROJECT.
8. ALL STOCK SHALL BE BALLED AND BURLAPPED OR CONTAINER GROWN STOCK, UNLESS OTHERWISE SPECIFIED. BAREROOT STOCK OF ANY KIND IS UNACCEPTABLE UNLESS SPECIFIED.
9. ALL PLANTING BEDS, LAWNS AND LANDSCAPED AREAS SHALL RECEIVE A MINIMUM 4" THICK LAYER OF TOPSOIL, UNLESS OTHERWISE SPECIFIED.

Source: JMC, 2020

Proposed Project - Landscaping Plans

Figure 2-13b

4.27.21



LEGEND

- EXISTING PROPERTY LINE
- ADJACENT PROPERTY LINE
- EXISTING EASEMENT LINE
- EXISTING WETLAND LINE AND DELINEATION
- EXISTING WETLAND BUFFER
- EXISTING BUILDING OVERHANG
- EXISTING BUILDING LINE
- EXISTING PAVEMENT EDGE
- EXISTING CURB LINE
- EXISTING CONTOUR
- EXISTING INDEX CONTOUR
- EXISTING SPOT GRADE
- EXISTING STONE WALL
- EXISTING RETAINING WALL
- EXISTING GUIDE RAIL
- EXISTING FENCE
- EXISTING DRAIN INLET
- EXISTING MANHOLE
- EXISTING UTILITY POLE
- EXISTING LIGHT POLE
- EXISTING SIGN
- PROPOSED BUILDING LINE
- PROPOSED CONCRETE CURB
- PROPOSED CONCRETE SIDEWALK
- PROPOSED DROP CURB AND RAMP
- PROPOSED FINISHED GRADE
- PROPOSED SPOT GRADE
- PROPOSED SANITARY SEWER MANHOLE
- PROPOSED STORM DRAIN MANHOLE
- PROPOSED TYPE CI DRAIN INLET
- PROPOSED TYPE DI DRAIN INLET
- PROPOSED TYPE LI DRAIN LAWN INLET
- PROPOSED TRENCH DRAIN
- PROPOSED RIP-RAP SUMP
- PROPOSED TYPE A HEADWALL
- PROPOSED TYPE B HEADWALL
- PROPOSED UNDERGROUND ROOF RUNOFF STORAGE TANK
- PROPOSED WATER QUALITY STRUCTURE
- PROPOSED SUBSURFACE DRAINAGE OUTLET CONTROL STRUCTURE
- PROPOSED OUTLET CONTROL STRUCTURE
- PROPOSED CLEANOUT
- PROPOSED HYDRANT
- PROPOSED END SECTION
- PROPOSED RETAINING WALL (DESIGN BY OTHERS)
- PROPOSED DOUBLE ARM LIGHTING STANDARD (DESIGN BY OTHERS)
- PROPOSED SINGLE ARM LIGHTING STANDARD (DESIGN BY OTHERS)
- BORING LOCATION AND DESIGNATION
- PROPOSED LIMIT OF DISTURBANCE
- PROPOSED DITCH OR SWALE
- PROPOSED RIP-RAP
- EXISTING FEATURE TO BE REMOVED

NOTES:

1. EXISTING CONDITIONS DEPICTED ON THIS PLAN HAVE BEEN TAKEN FROM SURVEY TITLED, "PARCEL COMPILATION SURVEY DEPICTING LAND OF MBIA INSURANCE CORP." PREPARED BY JOHN MEYER CONSULTING, DATED 09-30-2005.
2. ALL STORMWATER MANAGEMENT PRACTICES SHALL REMAIN UNDISTURBED AND BE PROTECTED FROM HEAVY MACHINERY TRAFFIC DURING CONSTRUCTION. HOWEVER DURING CONSTRUCTION OF THE PRACTICE THE CONTRACTOR SHALL MINIMIZE AND AVOID HEAVY MACHINERY TRAFFIC TO THE MAXIMUM EXTENT PRACTICABLE. THERE SHALL BE NO STORAGE OF MATERIALS WITHIN AREAS TO BE USED FOR STORMWATER MANAGEMENT PRACTICES. THE CONTRACTOR SHALL INSTALL CONSTRUCTION FENCE AROUND THE PRACTICE TO DISCOURAGE VEHICLE TRAFFIC.
3. ALL FILLS SHALL BE COMPACTED TO PROVIDE STABILITY OF MATERIAL AND TO PREVENT SETTLEMENT.
4. EXCAVATIONS AND FILLS SHALL NOT ENDANGER ADJOINING PROPERTIES, NOR DIVERT WATER ONTO THE PROPERTY OF OTHERS AT ANY TIME DURING THE COURSE OF CONSTRUCTION.
5. CONTRACTOR SHALL REFER TO EROSION AND SEDIMENT CONTROL PLAN FOR FURTHER DIRECTION REGARDING SITE STABILIZATION THROUGHOUT THE COURSE OF CONSTRUCTION.

GRAPHIC SCALE

(IN FEET)
1 inch = 40 ft.

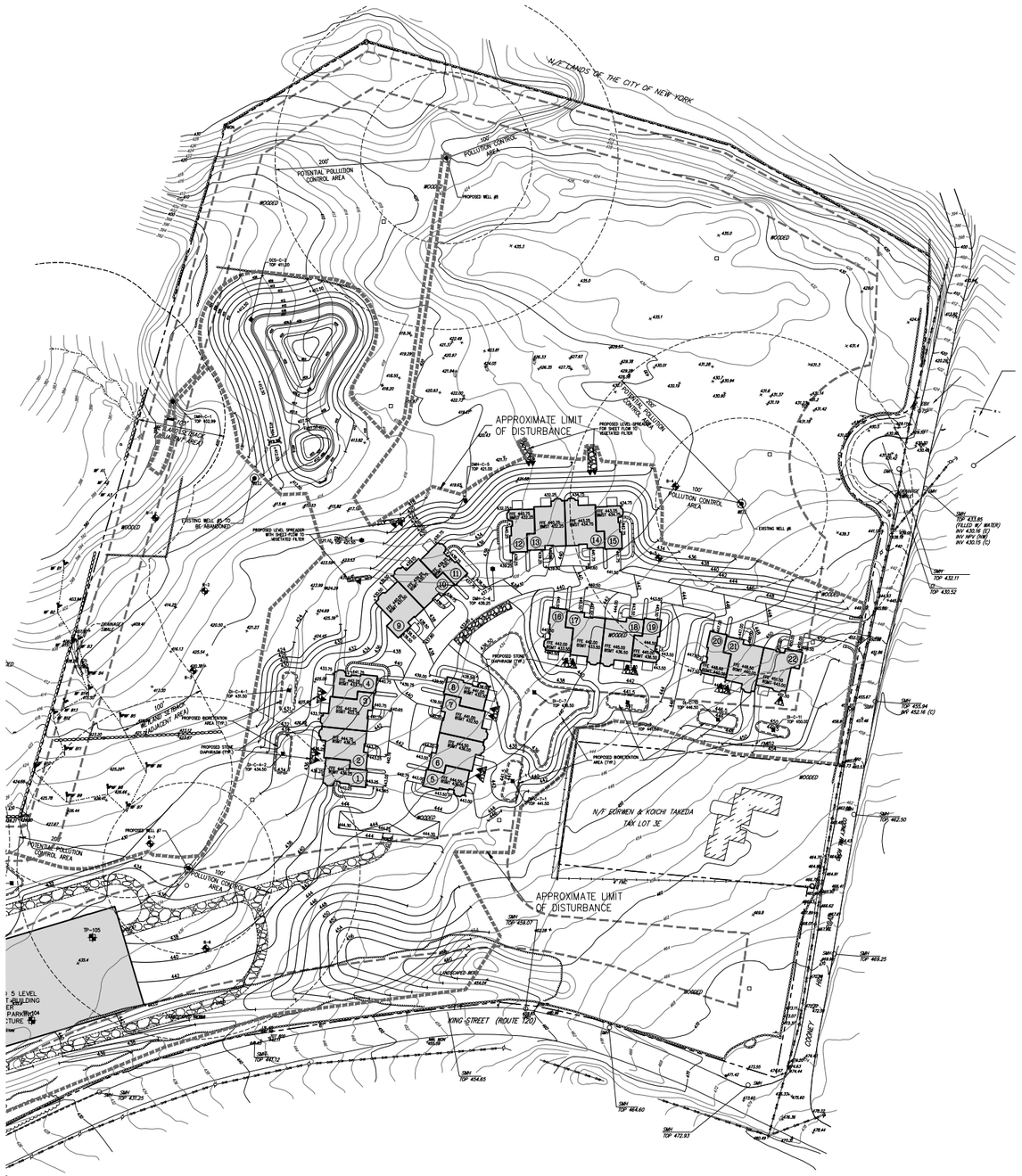
Source: JMC, 2020

AIRPORT CAMPUS

Proposed Project - Preliminary Grading Plan

Figure 2-14a

4.27.21



EXISTING DRAINAGE STRUCTURE SCHEDULE

STRUCTURE DESIGNATION	TOP	INVERT	INVERT	INVERT	INVERT	INVERT
O 1	419.65	417.0 NW	416.5 E	----	----	----
O 2	419.38	415.5 W	415.8 E	415.6 E	----	----
O 3	415.43	410.63 NW	407.58 24" E	410.35 6" E	407.7 48" E	407.65 8" SE
DI 4	411.02	408.44 E	407.8 E	407.0 NE	406.9 S	408.1 WATER
DI 5	410.12	408.06	----	----	----	----
DI 6	412.80	411.8	----	----	----	----
DI 7	412.60	411.66	----	----	----	----
MH 10	414.69	406.77	----	----	----	----
MH 11	415.88	408.0 NE	407.9 E	407.95 W	----	----
MH 12	415.67	406.43 W	404.5 E	407.8 SE	----	----
O 13	422.49	419.62	----	----	----	----
O 16	420.91	416.98 N	416.77 SW	----	----	----
O 17	416.47	412.76 NE	412.67 SW	----	----	----
DI 18	412.88	406.3	----	----	----	----
MH 18A	412.72	405.55± E-W	405.8 SW	----	----	----
O 19	411.82	408.3 N	409.2 WATER	408.94 S	----	----
O 20	413.06	410.28 W	410.36 E	409.9 SILT	----	----
DI 21	412.65	410.33 S	409.95 SILT	409.45 N	----	----
O 24	387.79	384.86 N	385.4 SW	----	----	----
MH 25	391.44	386.17 S	385.96 W	387.69 NW	385.61 E	----
MH 26	393.69	388.85 W-E	388.1 SW	----	----	----
O 27	398.24	393.69 S	393.81 N	----	----	----
O 28	398.18	394.51	----	----	----	----
MH 28	388.28	379.00 (IN)	379.00 (OUT)	----	----	----
O 29	398.82	397.0± NE	397.2 SILT	----	----	----
MH 30	390.8	383.1	----	----	----	----
MH 34	399.69	394.18 S	394.18 W	394.46 N	394.26 E	----
O 37	405.22	403.12 S	402.62 SW	402.80 E	403.76 4" PVC	----
MH 38	404.73	399.30 NW	391.9 W	392.0 E	----	----
O 39	405.53	403.66	----	----	----	----
O 40	406.87	400.7 W	400.9 S	----	----	----
O 42	408.41	----	----	----	----	----
O 43	407.63	----	----	----	----	----
O 44	408.70	406.5 12" S	406.4 NE	407.65± 4" S	----	----
MH 45	409.00	403.46 E	403.56 W	----	----	----
O 46	408.96	405.16 30" S	407.36 4" S	----	----	----
O 48	412.12	407.00 (IN)	405.86 (OUT)	----	----	----
MH 52	411.48	407.31 15" S	406.83 4" SE	405.7 30"	----	----
MH 53	410.21	406.18 NE	405.6 30"	405.6 30"	----	----
DMH 54	410.48	407.65 S	407.45 W	----	----	----
DI 55	410.33	----	----	----	----	----
MH 56	409.79	405.2 NE	405.96 N	405.2 SE	----	----
O 58	410.53	408.35	----	----	----	----
MH 60	413.28	----	----	----	----	----
MH 61	412.55	----	----	----	----	----
MH 62	413.05	410.2 NW	406.0 S	406.0 E	----	----
MH 63	410.49	----	----	----	----	----
MH 66	412.64	410.24	----	----	----	----
MH 67	411.80	----	----	----	----	----
MH 68	2409.25	409.05	----	----	----	----
MH 69	410.48	----	----	----	----	----
MH 70	412.44	----	----	----	----	----
MH 71	411.57	----	----	----	----	----
DMH 72	409.74	----	----	----	----	----
MH 73	410.13	----	----	----	----	----
MH 74	410.67	----	----	----	----	----
DI 75	409.47	----	----	----	----	----
O 76	410.04	407.25	----	----	----	----
DI 77	409.71	----	----	----	----	----
MH 79	388.22	380.85 (IN)	380.85 (OUT)	----	----	----
O 80	389.84	386.0	----	----	----	----
DI 81	389.31	385.84 E	385.43 N	385.31 S	----	----
O 82	392.83	389.23	----	----	----	----
DI 83	392.24	388.30	----	----	----	----
MH 83	390.00	365.00 (IN)	382.00 (OUT)	----	----	----
O 84	387.85	383.99	----	----	----	----
DMH 87	410.60	----	----	----	----	----
DI 88	412.85	408.23 S	408.29 E	----	----	----
DI 89	410.43	408.68 S	408.66 SW	408.64 N	----	----
DI 90	410.27	408.80	----	----	----	----
DI 91	410.57	408.87 S	409.03 N	409.80 E	----	----
DI 92	410.25	406.96 SW	408.80 N	----	----	----
DI 95	406.10	404.50 S	403.95 N	----	----	----
MH 96	398.29	394.26 S	394.86 N	----	----	----

EXISTING SANITARY SEWER STRUCTURES

STRUCTURE DESIGNATION	TOP	INVERT	INVERT	INVERT	INVERT	INVERT
SMH 9	418.61	405.28	----	----	----	----
SMH 14	415.63	409.87	----	----	----	----
SMH 15	419.91	415.74	----	----	----	----
SMH 22	405.78	400.156 N	399.96 E-W	----	----	----
SMH 23	409.88	404.35	----	----	----	----
SMH 35	393.47	384.75	----	----	----	----
SMH 36	396.80	392.4 W	391.9 N	391.8 S	----	----
SMH 41	407.18	400.74	----	----	----	----
SMH 47	409.24	403.05±	----	----	----	----
SMH 57	410.55	405.74 SW	404.64 E-W	----	----	----
SMH 59	411.76	----	----	----	----	----
SMH 78	388.00	380.56	----	----	----	----
SMH 85	406.98	402.3 N	399.4 S	----	----	----
SMH 86	407.38	402.05	404.15 W	403.9 S	----	----

GRAPHIC SCALE
(IN FEET)
1 inch = 40 ft.

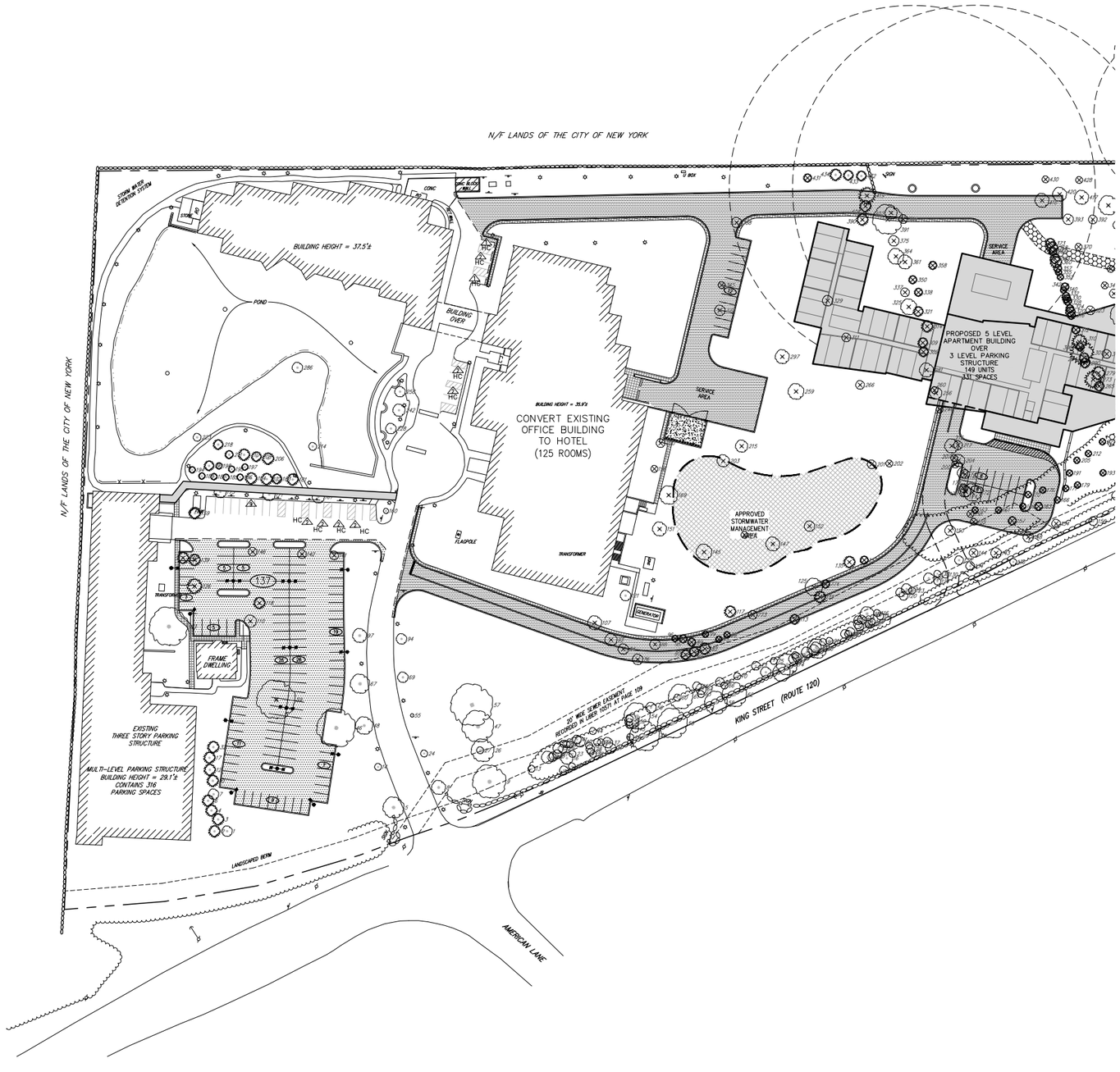
Source: JMC, 2020

Proposed Project - Preliminary Grading Plan

AIRPORT CAMPUS

Figure 2-14b

9.17.20



Source: JMC, 2019

AIRPORT CAMPUS

Proposed Project - Tree Inventory and Protection Plan
Figure 2-15a

9.17.20

Source: JMC, 2019

AIRPORT CAMPUS

Proposed Project - Tree Inventory and Protection Plan
Figure 2-15b

9.17.20

TREE TABLE – PART A

744 TREES DEPICTED HAVING A DIAMETER AT DBH OF 8" OR GREATER

TREE NO.	COMMON NAME	DIAMETER	CONDITION	REMAIN OR REMOVE
1	CHERRY	12"	POOR	REMAIN
2	SPRUCE	14"	FAIR	REMAIN
3	SPRUCE	14"	FAIR	REMAIN
4	SPRUCE	14"	FAIR	REMAIN
5	MAPLE	24"	GOOD	REMAIN
6	SPRUCE	14"	FAIR	REMAIN
7	CHERRY	12"	FAIR	REMAIN
8	MAPLE	16"	GOOD	REMAIN
9	MAPLE	38"	GOOD	REMAIN
10	SPRUCE	14"	FAIR	REMAIN
11	MAPLE	10"	GOOD	REMAIN
12	SPRUCE	14"	FAIR	REMAIN
13	ASH	8"	GOOD	REMAIN
14	MAPLE	8"	GOOD	REMAIN
15	MAPLE	8"	GOOD	REMAIN
16	ASH	14"	GOOD	REMAIN
17	SPRUCE	14"	FAIR	REMAIN
18	ASH	10"	GOOD	REMAIN
19	ASH	14"	GOOD	REMAIN
20	ASH	10"	GOOD	REMAIN
21	ASH	10"	GOOD	REMAIN
22	MAPLE	8"	GOOD	REMAIN
23	MAPLE	8"	GOOD	REMAIN
24	MAPLE	8"	GOOD	REMAIN
25	MAPLE	8"	GOOD	REMAIN
26	MAPLE	26"	GOOD	REMAIN
27	MAPLE	8"	GOOD	REMAIN
28	MAPLE	10"	GOOD	REMAIN
29	MAPLE	10" 6"	GOOD	REMAIN
30	ASH	12"	GOOD	REMAIN
31	MAPLE	12"	GOOD	REMAIN
32	SPRUCE	14"	FAIR	REMAIN
33	ASH	8"	GOOD	REMAIN
34	ASH	8"	GOOD	REMAIN
35	MAPLE	8"	GOOD	REMAIN
36	ASH	8"	FAIR	REMAIN
37	CHERRY	12"	GOOD	REMAIN
38	CHERRY	8"	POOR	REMAIN
39	MAPLE	8"	POOR	REMAIN
40	ASH	12" TW	FAIR	REMAIN
41	MAPLE	10"	GOOD	REMAIN
42	CHERRY	8"	POOR	REMAIN
43	MAPLE	34"	GOOD	REMAIN
44	ASH	8"	GOOD	REMAIN
45	MAPLE	8"	GOOD	REMAIN
46	MAPLE	44"	FAIR	REMAIN
47	MAPLE	36"	GOOD	REMAIN
48	MAPLE	20"	FAIR	REMAIN
49	MAPLE	8"	GOOD	REMAIN
50	MAPLE	34"	GOOD	REMAIN
51	MAPLE	8"	GOOD	REMAIN
52	MAPLE	16"	GOOD	REMAIN
53	MAPLE	8"	GOOD	REMAIN
54	OAK	30"	GOOD	REMAIN
55	MAPLE	4"	GOOD	REMAIN
56	MAPLE	12"	GOOD	REMAIN
57	MAPLE	48"	GOOD	REMAIN
58	MAPLE	26"	FAIR	REMAIN
59	MAPLE	44"	POOR	REMOVE
60	MAPLE	8"	GOOD	REMAIN
61	OAK	28"	GOOD	REMAIN
62	CHERRY	28"	GOOD	REMAIN
63	CHERRY	8"	FAIR	REMAIN
64	MAPLE	12"	GOOD	REMAIN
65	CHERRY	10"	FAIR	REMAIN
66	MAPLE	8"	GOOD	REMAIN
67	MAPLE	22"	FAIR	REMAIN
68	CHERRY	10"	GOOD	REMAIN
69	MAPLE	12"	GOOD	REMAIN
70	MAPLE	8"	GOOD	REMAIN
71	MAPLE	20" 12"	FAIR	REMAIN
72	MAPLE	12"	GOOD	REMAIN
73	MAPLE	10"	GOOD	REMAIN
74	ASH	24"	FAIR	REMAIN
75	MAPLE	8"	GOOD	REMAIN
76	MAPLE	12"	GOOD	REMOVE
77	MAPLE	12"	GOOD	REMAIN
78	MAPLE	10"	GOOD	REMAIN
79	MAPLE	8" 6"	GOOD	REMAIN
80	SPRUCE	12"	FAIR	REMOVE
81	MAPLE	12"	GOOD	REMAIN
82	SPRUCE	12"	FAIR	REMOVE
83	MAPLE	12"	GOOD	REMAIN
84	MAPLE	12"	GOOD	REMOVE
85	SPRUCE	14"	GOOD	REMOVE
86	ASH	22"	POOR	REMAIN
87	MAPLE	12"	GOOD	REMAIN
88	DECIDUOUS	12"	FAIR	REMOVE
89	SPRUCE	10"	FAIR	REMOVE
90	MAPLE	8"	FAIR	REMAIN
91	MAPLE	8"	FAIR	REMAIN
92	BIRCH	14" TR	GOOD	REMOVE
93	SPRUCE	8"	FAIR	REMOVE
94	MAPLE	12"	POOR	REMAIN
95	PINE	10"	GOOD	REMOVE
96	PINE	8"	GOOD	REMOVE
97	MAPLE	16"	GOOD	REMAIN
98	SPRUCE	8"	FAIR	REMOVE
99	SPRUCE	8"	POOR	REMOVE
100	MAPLE	10"	GOOD	REMAIN
101	HICKORY	8"	GOOD	REMAIN
102	MAPLE	10"	GOOD	REMAIN
103	MAPLE	44"	GOOD	REMAIN
104	MAPLE	10"	GOOD	REMAIN
105	MAPLE	10"	GOOD	REMAIN
106	MAPLE	8"	GOOD	REMAIN
107	BIRCH	16" TR	GOOD	REMOVE
108	ASH	8"	FAIR	REMAIN
110	MAGNOLIA	14"	GOOD	REMOVE
111	MAPLE	10"	GOOD	REMAIN
112	MAPLE	10"	GOOD	REMAIN
113	PINE	12"	GOOD	REMOVE
114	MAPLE	8"	GOOD	REMAIN
115	MAPLE	16"	GOOD	REMAIN
116	MAPLE	8"	GOOD	REMAIN
117	PINE	14" 8"	GOOD	REMOVE
118	SPRUCE	14"	POOR	REMOVE
119	PINE	14"	FAIR	REMOVE
120	MAPLE	10"	GOOD	REMAIN
121	BIRCH	12" MU	GOOD	REMAIN
122	MAPLE	10"	GOOD	REMAIN
123	MAPLE	8"	FAIR	REMAIN
124	MAPLE	12" 8"	FAIR	REMAIN
125	OAK	20"	FAIR	REMOVE
126	SPRUCE	18" TW	POOR	REMOVE
127	MAPLE	8"	GOOD	REMAIN
129	MAPLE	12"	GOOD	REMAIN
130	MAPLE	8"	GOOD	REMAIN
132	MAPLE	8"	GOOD	REMAIN
134	MAPLE	10"	GOOD	REMAIN
135	PINE	14"	GOOD	REMOVE
136	MAPLE	8"	GOOD	REMAIN
137	PINE	10"	POOR	REMOVE
138	MAPLE	10"	GOOD	REMAIN
139	SPRUCE	14"	FAIR	REMOVE
140	SPRUCE	14"	FAIR	REMOVE
141	OAK	10"	GOOD	REMOVE
142	OAK	10"	FAIR	REMOVE
143	MAPLE	12"	GOOD	REMOVE
144	HICKORY	10"	GOOD	REMOVE
145	OAK	18"	GOOD	REMOVE
146	OAK	10"	GOOD	REMOVE
147	ASH	16"	FAIR	REMOVE
148	MAPLE	12"	GOOD	REMOVE
149	BIRCH	8"	GOOD	REMOVE
150	OAK	12"	GOOD	REMOVE
151	PEAR	16"	FAIR	REMOVE
152	OAK	12"	GOOD	REMOVE
154	MAPLE	10"	GOOD	REMOVE
155	OAK	8"	GOOD	REMOVE
156	ASH	10"	GOOD	REMAIN
157	PINE	10"	GOOD	REMOVE
158	OAK	8"	GOOD	REMOVE
159	SPRUCE	14"	GOOD	REMAIN
160	LOCUST	6"	GOOD	REMAIN
161	PINE	8"	POOR	REMOVE
162	PINE	8"	FAIR	REMOVE
163	SPRUCE	10"	GOOD	REMOVE
164	PINE	8"	FAIR	REMOVE
166	SPRUCE	8"	FAIR	REMOVE
167	OAK	14"	GOOD	REMAIN
168	MAPLE	10"	GOOD	REMAIN
169	PEAR	21"	FAIR	REMOVE
170	SPRUCE	8"	GOOD	REMOVE
171	OAK	14"	FAIR	REMAIN
172	OAK	20"	GOOD	REMOVE
173	OAK	14"	GOOD	REMAIN
174	MAPLE	12"	GOOD	REMOVE
175	MAPLE	14"	GOOD	REMOVE
176	SPRUCE	8"	GOOD	REMOVE
177	SPRUCE	8"	FAIR	REMOVE
178	MAPLE	10"	GOOD	REMOVE
179	SPRUCE	8"	FAIR	REMOVE
180	MAPLE	8"	GOOD	REMAIN
181	SPRUCE	14"	GOOD	REMAIN
182	SPRUCE	14"	FAIR	REMAIN
183	SPRUCE	12"	GOOD	REMAIN
184	SPRUCE	14"	FAIR	REMAIN
185	SPRUCE	8"	FAIR	REMAIN
186	SPRUCE	8"	FAIR	REMAIN
187	SPRUCE	8"	FAIR	REMAIN
188	SPRUCE	8"	FAIR	REMAIN
189	MAPLE	10"	GOOD	REMOVE
190	MAPLE	10"	GOOD	REMAIN
191	SPRUCE	8"	GOOD	REMOVE
192	MAPLE	12"	GOOD	REMOVE
193	SPRUCE	8"	GOOD	REMOVE
194	SPRUCE	8"	FAIR	REMAIN
195	SPRUCE	8"	FAIR	REMAIN
196	SPRUCE	8"	GOOD	REMOVE
197	SPRUCE	8"	FAIR	REMAIN
198	SPRUCE	8"	GOOD	REMAIN
199	SPRUCE	12"	FAIR	REMAIN
200	MAPLE	8"	GOOD	REMOVE
201	ASH	10"	GOOD	REMOVE
202	ASH	8"	GOOD	REMOVE
203	OAK	14"	FAIR	REMOVE
204	MAPLE	14"	GOOD	REMOVE
205	SPRUCE	8"	GOOD	REMOVE
206	PINE	14"	GOOD	REMAIN
207	MAPLE	8"	GOOD	REMOVE
208	PINE	12"	FAIR	REMAIN
209	MAPLE	10"	GOOD	REMOVE
210	PINE	14"	FAIR	REMAIN
211	PINE	10"	FAIR	REMAIN
212	SPRUCE	8"	GOOD	REMAIN
213	SPRUCE	8"	FAIR	REMOVE
214	CHERRY	9"	FAIR	REMAIN
215	OAK	14"	FAIR	REMOVE
216	MAPLE	16"	FAIR	REMOVE
217	MAPLE	10"	FAIR	REMOVE
218	SPRUCE	12"	GOOD	REMAIN
219	MAPLE	8"	GOOD	REMAIN
220	PEAR	10"	GOOD	REMOVE
221	SPRUCE	8"	GOOD	REMOVE
222	SPRUCE	8"	FAIR	REMOVE
223	MAPLE	9" TW	GOOD	REMAIN
224	MAPLE	8"	GOOD	REMOVE
225	SPRUCE	8"	FAIR	REMOVE
226	MAPLE	10"	GOOD	REMAIN
227	PINE	8"	FAIR	REMOVE
228	LOCUST	12"	GOOD	REMAIN
229	PINE	10"	GOOD	REMOVE
230	PINE	10"	FAIR	REMOVE
231	PINE	10"	FAIR	REMOVE
232	MAPLE	10"	GOOD	REMAIN
233	MAPLE	10"	GOOD	REMOVE
234	PINE	10"	POOR	REMOVE
235	PINE	10"	FAIR	REMOVE
236	MAPLE	12" TR	FAIR	REMAIN
237	SPRUCE	12"	GOOD	REMAIN
238	SPRUCE	12"	GOOD	REMAIN
239	SPRUCE	8"	FAIR	REMOVE
240	SPRUCE	8"	GOOD	REMOVE
242	LOCUST	14"	GOOD	REMAIN
243	SPRUCE	8"	FAIR	REMOVE
244	MAPLE	8"	FAIR	REMOVE
245	SPRUCE	12"	GOOD	REMAIN
246	MAPLE	8"	FAIR	REMAIN
247	SPRUCE	8"	FAIR	REMOVE
248	SPRUCE	8"	GOOD	REMOVE
249	MAPLE	12"	FAIR	REMAIN
250	MAPLE	12" 8" 6"	FAIR	REMAIN
251	MAPLE	10"	FAIR	REMAIN
252	SPRUCE	8"	GOOD	REMOVE
253	MAPLE	8"	GOOD	REMAIN
254	OAK	36"	GOOD	REMAIN
255	SPRUCE	8"	GOOD	REMOVE
256	MAPLE	14"	FAIR	REMOVE
257	MAPLE	12" 8" 6"	FAIR	REMAIN
258	LOCUST	12"	GOOD	REMAIN
259	ASH	18"	GOOD	REMOVE
260	MAPLE	8"	GOOD	REMOVE
261	SPRUCE	8"	FAIR	REMOVE
263	OAK	12"	GOOD	REMOVE
264	SPRUCE	8"	GOOD	REMOVE
265	PINE	12"	FAIR	REMOVE
266	ASH	10"	GOOD	REMOVE
268	SPRUCE	8"	FAIR	REMOVE
269	SPRUCE	8"	GOOD	REMOVE
270	SPRUCE	8"	FAIR	REMOVE
271	SPRUCE	12"	POOR	REMAIN
272	DOGWOOD	10"	POOR	REMOVE
273	PINE	20"	FAIR	REMOVE
274	OAK	10"	GOOD	REMOVE
275	SPRUCE	14"	POOR	REMAIN
276	SPRUCE	8"	FAIR	REMOVE
277	SWEET GUM	24"	GOOD	REMAIN
278	SPRUCE	16"	GOOD	REMAIN
279	PINE	16"	FAIR	REMOVE
280	CEDAR	12"	GOOD	REMAIN
281	MAPLE	16"	GOOD	REMOVE
282	PINE	10"	FAIR	REMOVE
283	SPRUCE	14"	POOR	REMAIN
284	OAK	14"	GOOD	REMAIN
285	SPRUCE	8"	GOOD	REMOVE
286	BIRCH	12"	GOOD	REMAIN
287	BIRCH	8"	POOR	REMAIN
288	SPRUCE	10"	POOR	REMAIN
289	MAPLE	12"	GOOD	REMAIN
290	PINE	12"	FAIR	REMOVE
291	PINE	8"	FAIR	REMOVE
293	SPRUCE	12" TW	GOOD	REMAIN
294	PINE	12"	FAIR	REMOVE
295	PINE	10"	FAIR	REMOVE
296	CEDAR	24" TW	FAIR	REMOVE
297	ASH	16"	GOOD	REMOVE
298	MAPLE	10"	GOOD	REMOVE
299	PINE	10"	FAIR	REMOVE
300	BIRCH	10"	POOR	REMOVE
301	PINE	28"	FAIR	REMOVE
302	SPRUCE	12"	GOOD	REMOVE
303	MAPLE	8"	GOOD	REMOVE
304	SPRUCE	12"	POOR	REMAIN
305	SPRUCE	8"	GOOD	REMOVE
306	PINE	10"	POOR	REMOVE
307	SPRUCE	14"	POOR	REMAIN
308	SPRUCE	8"	GOOD	REMOVE
309	SPRUCE	12"	GOOD	REMOVE
310	PINE	18"	FAIR	REMOVE
311	ASH	10"	FAIR	REMOVE
312	CEDAR	10"	GOOD	REMOVE
313	MAPLE	22"	GOOD	REMAIN
314	SPRUCE	14"	GOOD	REMOVE
315	PINE	26"	GOOD	REMOVE
316	CEDAR	10"	FAIR	REMOVE
317	MAPLE	30"	POOR	REMOVE
318	PINE	24"	FAIR	REMAIN
319	PINE	14"	FAIR	REMOVE
320	CEDAR	12"	FAIR	REMOVE
321	SPRUCE	12"	GOOD	REMOVE
322	OAK	12"	GOOD	REMOVE
323	DECIDUOUS	10"	POOR	REMOVE
324	CEDAR	10"	FAIR	REMOVE
325	MAPLE	18"	GOOD	REMOVE
326	PINE	14"	FAIR	REMAIN
327	PINE	28"	GOOD	REMOVE
328	CEDAR	10"	FAIR	REMOVE
329	ASH	12"	FAIR	REMOVE
330	CEDAR	10"	FAIR	REMOVE
331	MAPLE	20"	GOOD	REMAIN
332	CEDAR	10"	FAIR	REMOVE
333	PINE	14"	FAIR	REMAIN
334	DECIDUOUS	12"	GOOD	REMOVE
335	CHERRY	10"	GOOD	REMOVE
336	MAPLE	14"	FAIR	REMOVE
337	MAPLE	10"	GOOD	REMOVE
338	SPRUCE	10"	GOOD	REMOVE
339	MAPLE	14"	GOOD	REMAIN
340	CEDAR	8" TW	FAIR	REMOVE
341	PEAR	22"	GOOD	REMOVE
342	CEDAR	10" TW	FAIR	REMOVE
343	PINE	36"	GOOD	REMOVE
344	APPLE	8"	GOOD	REMOVE
345	OAK	8"	FAIR	REMOVE
346	CEDAR	10"	GOOD	REMAIN
347	OAK	34"	GOOD	REMAIN
348	MAGNOLIA	8"	FAIR	REMOVE
349	MAGNOLIA	12"	FAIR	REMOVE
350	SPRUCE	10"	FAIR	REMOVE
351	CEDAR	12" TW	GOOD	REMAIN
352	CEDAR	8"	FAIR	REMOVE
353	MAPLE	24"	POOR	REMOVE
354	SPRUCE	16"	GOOD	REMOVE
355	CEDAR	8"	FAIR	REMOVE
356	APPLE	8"	FAIR	REMOVE
357	CEDAR	10"	GOOD	REMOVE
358	SPRUCE	10"	GOOD	REMOVE
359	DECIDUOUS	16"	GOOD	REMOVE
360	CEDAR	14"	FAIR	REMOVE
361	MAPLE	16"	GOOD	REMOVE
362	OAK	40"	GOOD	REMAIN
363	CEDAR	12"	FAIR	REMOVE
364	MAPLE	18"	GOOD	REMOVE
366	CEDAR	10"	FAIR	REMOVE
367	HEMLOCK	18"	POOR	REMAIN
368	CEDAR	14"	FAIR	REMOVE
369	APPLE	8"	FAIR	REMOVE
370	APPLE	8"	GOOD	REMOVE
371	SPRUCE	14"	GOOD	REMOVE
372	SYCAMORE	16"	FAIR	REMOVE
373	CEDAR	12"	FAIR	REMOVE
374	HEMLOCK	8"	POOR	REMAIN
375	MAPLE	12"	GOOD	REMOVE
376	HEMLOCK	8"	POOR	REMAIN
377	MAPLE	12"	POOR	REMAIN
378	SPRUCE	14"	FAIR	REMOVE
380	MAPLE	12"	GOOD	REMAIN
381	BIRCH	14"	GOOD	REMOVE
382	BIRCH	14"	GOOD	REMOVE
383	PINE	28"	FAIR	REMAIN
384	SPRUCE	20"	GOOD	REMAIN
385	APPLE	10"	GOOD	REMOVE
386	OAK	30"	GOOD	REMAIN
387	HEMLOCK	8" TW	FAIR	REMAIN
388	OAK	12"	FAIR	REMOVE
389	APPLE	12" TR	POOR	REMOVE
390	SPRUCE	14"	FAIR	REMOVE
391	MAPLE	34"	GOOD	REMOVE
392	APPLE	10"	GOOD	REMOVE
393	APPLE	12"	GOOD	REMOVE
394	CHERRY	10"	POOR	REMOVE
395	ASH	16"	FAIR	REMAIN
396	CHERRY	10"	POOR	REMAIN
397	OAK	22"	FAIR	REMAIN
398	MAPLE	14"	FAIR	REMAIN
399	OAK	28"	GOOD	REMOVE

Source: JMC, 2019

AIRPORT CAMPUS

Proposed Project - Tree Inventory and Protection Plan

Figure 2-15c

9.17.20

TREE TABLE – PART B

744 TREES DEPICTED HAVING A DIAMETER AT DBH OF 8" OR GREATER

TREE NO.	COMMON NAME	DIAMETER	CONDITION	REMAIN OR REMOVE
400	SPRUCE	12"	POOR	REMOVE
401	CHERRY	22"	POOR	REMAIN
402	MAPLE	14"	GOOD	REMOVE
403	MAPLE	24"	FAIR	REMAIN
404	OAK	16"	FAIR	REMAIN
405	MAPLE	12"	GOOD	REMOVE
406	MAPLE	22"	FAIR	REMOVE
407	CHERRY	10"	POOR	REMOVE
408	SPRUCE	14"	FAIR	REMOVE
409	SPRUCE	10"	POOR	REMOVE
410	OAK	22"	GOOD	REMOVE
411	OAK	24"	FAIR	REMAIN
412	CHERRY	18"	FAIR	REMAIN
413	OAK	20"	GOOD	REMOVE
414	SPRUCE	10"	POOR	REMOVE
415	SPRUCE	12"	FAIR	REMOVE
416	DECIDUOUS	16"	GOOD	REMOVE
417	DECIDUOUS	16"	GOOD	REMOVE
419	SPRUCE	20"	FAIR	REMOVE
420	LINDEN	16"	GOOD	REMOVE
421	SPRUCE	8"	FAIR	REMAIN
422	HEMLOCK	8"	FAIR	REMOVE
423	APPLE	12"	GOOD	REMOVE
424	SPRUCE	10"	POOR	REMAIN
425	OAK	8"	GOOD	REMOVE
426	SPRUCE	12"	FAIR	REMOVE
427	SPRUCE	8"	FAIR	REMAIN
428	APPLE	8"	FAIR	REMOVE
429	OAK	12"	GOOD	REMOVE
430	APPLE	8"	POOR	REMOVE
431	SPRUCE	10"	GOOD	REMOVE
432	SPRUCE	12"	POOR	REMAIN
433	SPRUCE	12"	FAIR	REMAIN
434	SPRUCE	14"	FAIR	REMAIN
435	OAK	22"	FAIR	REMAIN
436	MAPLE	26"	GOOD	REMAIN
437	SPRUCE	12"	POOR	REMOVE
438	BIRCH	12" MU	FAIR	REMOVE
439	SPRUCE	12"	POOR	REMOVE
440	BIRCH	12" MU	FAIR	REMOVE
441	BIRCH	18" TR	FAIR	REMOVE
442	SPRUCE	10"	POOR	REMOVE
443	SPRUCE	10"	POOR	REMOVE
444	MAPLE	14"	GOOD	REMOVE
445	SPRUCE	8"	POOR	REMOVE
446	HEMLOCK	8"	FAIR	REMOVE
447	LOCUST	10"	FAIR	REMAIN
448	CEDAR	10"	FAIR	REMOVE
449	HEMLOCK	10"	POOR	REMOVE
451	HEMLOCK	12"	FAIR	REMOVE
452	SPRUCE	20"	POOR	REMOVE
454	CEDAR	10"	FAIR	REMOVE
455	MAPLE	18"	FAIR	REMOVE
456	LOCUST	12"	DEAD	REMOVE
457	CHERRY	20"	GOOD	REMOVE
458	MAPLE	10" MU	POOR	REMOVE
460	CEDAR	20"	POOR	REMOVE
461	CHERRY	16"	FAIR	REMOVE
465	MAPLE	8"	FAIR	REMAIN
466	MAPLE	18"	GOOD	REMOVE
467	MAPLE	12"	FAIR	REMOVE
470	OAK	24"	FAIR	REMAIN
471	MAPLE	12"	GOOD	REMAIN
472	PINE	16"	FAIR	REMAIN
473	PINE	24"	FAIR	REMAIN
474	MAPLE	16"	FAIR	REMAIN
475	OAK	14"	FAIR	REMAIN
476	PINE	24"	FAIR	REMAIN
477	PINE	16"	FAIR	REMAIN
478	MAPLE	30"	POOR	REMAIN
479	PINE	16"	FAIR	REMAIN
480	PINE	8"	DEAD	REMAIN
481	MAPLE	10"	POOR	REMAIN
482	MAPLE	10"	GOOD	REMAIN
483	PINE	28"	FAIR	REMAIN
484	MAPLE	12"	POOR	REMAIN
485	MAPLE	18"	GOOD	REMAIN
486	PINE	28"	FAIR	REMAIN
487	PINE	8"	DEAD	REMAIN
488	PINE	16"	FAIR	REMAIN
489	LOCUST	26"	POOR	REMAIN
490	PINE	16"	FAIR	REMAIN
491	ASH	14"	POOR	REMAIN
492	CHERRY	12"	POOR	REMAIN
493	ASH	12"	POOR	REMAIN
494	CHERRY	10"	POOR	REMAIN
495	CHERRY	10"	POOR	REMAIN
496	CHERRY	8"	FAIR	REMAIN
497	LOCUST	14"	POOR	REMAIN
498	ELM	16"	GOOD	REMAIN
499	MAPLE	10" TW	GOOD	REMAIN

TREE NO.	COMMON NAME	DIAMETER	CONDITION	REMAIN OR REMOVE
500	CHERRY	20"	POOR	REMOVE
501	DECIDUOUS	16"	FAIR	REMAIN
502	TREE OF HEAVEN	18"	FAIR	REMOVE
503	MAPLE	18"	GOOD	REMOVE
504	ASH	16"	FAIR	REMAIN
505	SYCAMORE	16"	GOOD	REMAIN
506	MAPLE	16"	FAIR	REMAIN
507	BIRCH	8"	POOR	REMAIN
508	CHERRY	8"	GOOD	REMAIN
509	MAPLE	16"	GOOD	REMAIN
510	ASH	40"	POOR	REMAIN
511	CHERRY	10"	DEAD	REMOVE
512	APPLE	12"	DEAD	REMAIN
513	CHERRY	10"	FAIR	REMOVE
514	APPLE	16"	DEAD	REMOVE
515	LOCUST	14"	POOR	REMOVE
516	CHERRY	16"	FAIR	REMOVE
517	ASH	14"	POOR	REMOVE
518	LOCUST	12"	DEAD	REMOVE
519	SPRUCE	24"	FAIR	REMAIN
520	CHERRY	14"	DEAD	REMOVE
521	CHERRY	12"	FAIR	REMOVE
523	MAPLE	22" TW	FAIR	REMOVE
524	ASH	16"	POOR	REMOVE
525	CHERRY	10"	FAIR	REMOVE
527	CHERRY	10"	FAIR	REMOVE
528	CEDAR	10"	GOOD	REMOVE
529	CEDAR	10" 8"	GOOD	REMOVE
530	MAPLE	28"	GOOD	REMOVE
531	PINE	18"	POOR	REMOVE
532	MAPLE	20"	FAIR	REMAIN
533	ASH	12"	FAIR	REMOVE
535	PINE	16"	FAIR	REMOVE
536	CHERRY	12"	POOR	REMOVE
537	CHERRY	10"	POOR	REMOVE
538	MAPLE	48"	POOR	REMOVE
539	MAPLE	26"	FAIR	REMOVE
540	CHERRY	12"	POOR	REMOVE
541	CHERRY	12"	FAIR	REMOVE
544	CHERRY	8"	FAIR	REMOVE
545	LOCUST	22"	POOR	REMOVE
546	MAPLE	18"	FAIR	REMOVE
547	ASH	10" TW	POOR	REMOVE
548	PINE	12"	POOR	REMOVE
549	ASH	14"	POOR	REMOVE
550	BIRCH	8"	GOOD	REMAIN
551	CHERRY	8"	DEAD	REMOVE
552	SYCAMORE	8"	GOOD	REMOVE
553	PINE	16"	FAIR	REMOVE
554	CHERRY	18"	POOR	REMOVE
555	APPLE	18"	DEAD	REMOVE
556	WALNUT	16"	POOR	REMAIN
557	MAPLE	20"	FAIR	REMOVE
558	ASH	12"	DEAD	REMOVE
560	LOCUST	20"	FAIR	REMOVE
561	DOGWOOD	8"	FAIR	REMAIN
562	CHERRY	10"	FAIR	REMOVE
563	PINE	16"	DEAD	REMOVE
564	ASH	10"	FAIR	REMAIN
565	LOCUST	18"	FAIR	REMOVE
566	CHERRY	10"	FAIR	REMOVE
567	LOCUST	18"	FAIR	REMOVE
568	MAPLE	22" TW	FAIR	REMOVE
569	PINE	16"	POOR	REMOVE
570	PINE	14"	POOR	REMOVE
571	SPRUCE	18"	GOOD	REMAIN
572	LOCUST	14"	FAIR	REMOVE
573	MAPLE	12"	FAIR	REMOVE
574	TREE OF HEAVEN	14"	FAIR	REMOVE
575	CHERRY	10"	FAIR	REMOVE
576	CHERRY	14"	FAIR	REMOVE
577	MAPLE	18"	FAIR	REMOVE
578	CHERRY	14"	POOR	REMOVE
579	CHERRY	16"	FAIR	REMOVE
580	HEMLOCK	8"	FAIR	REMOVE
581	PINE	16"	DEAD	REMOVE
582	ASH	20"	POOR	REMOVE
583	LOCUST	30"	FAIR	REMAIN
584	ASH	16"	FAIR	REMOVE
585	LOCUST	14"	FAIR	REMOVE
586	BIRCH	12"	POOR	REMAIN
587	LOCUST	10"	FAIR	REMOVE
588	BIRCH	26"	POOR	REMAIN
589	TREE OF HEAVEN	20"	GOOD	REMOVE
591	PINE	16"	POOR	REMOVE
592	MAPLE	30"	GOOD	REMOVE
593	CHERRY	14"	POOR	REMOVE
594	OAK	28"	FAIR	REMOVE
595	CHERRY	12"	POOR	REMOVE
596	CHERRY	8"	GOOD	REMOVE
598	ASH	18"	POOR	REMOVE
599	WALNUT	16"	FAIR	REMAIN

TREE NO.	COMMON NAME	DIAMETER	CONDITION	REMAIN OR REMOVE
600	CHERRY	14"	POOR	REMOVE
602	ASH	18"	POOR	REMOVE
603	CHERRY	12"	POOR	REMOVE
604	CHERRY	12"	DEAD	REMOVE
605	TREE OF HEAVEN	24" TW	FAIR	REMAIN
606	CHERRY	14"	POOR	REMOVE
607	MAPLE	16"	DEAD	REMOVE
608	CHERRY	14"	POOR	REMOVE
609	TREE OF HEAVEN	8" MU	FAIR	REMOVE
610	OAK	38"	GOOD	REMOVE
611	ASH	12" TW	DEAD	REMOVE
612	ASH	20"	POOR	REMOVE
614	LOCUST	20"	POOR	REMAIN
616	PINE	10"	DEAD	REMAIN
617	WILLOW	60"	POOR	REMAIN
618	OAK	12"	FAIR	REMOVE
619	CHERRY	8"	POOR	REMOVE
620	CHESTNUT	18" 6"	GOOD	REMAIN
621	PINE	20"	GOOD	REMAIN
622	PINE	10"	POOR	REMAIN
623	PINE	24"	FAIR	REMAIN
624	CHESTNUT	32"	GOOD	REMAIN
625	PINE	18"	FAIR	REMAIN
626	SPRUCE	14"	POOR	REMAIN
627	CHESTNUT	20"	FAIR	REMAIN
628	PINE	16"	FAIR	REMAIN
629	OAK	26"	GOOD	REMAIN
630	APPLE	18" TR	POOR	REMAIN
631	OAK	22"	FAIR	REMOVE
632	OAK	20"	FAIR	REMOVE
633	PINE	22"	POOR	REMAIN
634	CHERRY	18"	FAIR	REMAIN
635	MAPLE	16"	FAIR	REMAIN
636	OAK	16"	GOOD	REMAIN
637	CHERRY	12"	FAIR	REMAIN
638	PINE	18"	POOR	REMAIN
639	ASH	12"	POOR	REMOVE
641	ASH	24"	POOR	REMAIN
642	OAK	28"	FAIR	REMOVE
643	OAK	30"	FAIR	REMOVE
644	ASH	12"	POOR	REMAIN
645	ASH	12"	POOR	REMAIN
646	PINE	16" MU	POOR	REMAIN
647	APPLE	20"	DEAD	REMAIN
648	PINE	16"	GOOD	REMAIN
649	OAK	24"	FAIR	REMOVE
650	ASH	10"	POOR	REMOVE
651	ASH	8"	POOR	REMOVE
652	OAK	16" TW	POOR	REMOVE
653	OAK	26"	GOOD	REMAIN
654	SPRUCE	24"	FAIR	REMOVE
655	MAPLE	24"	FAIR	REMAIN
656	PINE	30" MU	FAIR	REMOVE
657	SPRUCE	10" MU	FAIR	REMAIN
658	PINE	22"	FAIR	REMOVE
659	MAPLE	8"	FAIR	REMAIN
660	SPRUCE	28"	FAIR	REMOVE
661	CHERRY	22"	POOR	REMAIN
662	CHERRY	14"	POOR	REMAIN
663	PINE	20"	FAIR	REMOVE
664	ASH	12"	POOR	REMAIN
665	MAPLE	14"	GOOD	REMAIN
667	PINE	18"	FAIR	REMOVE
668	SPRUCE	18"	GOOD	REMOVE
669	BIRCH	12"	FAIR	REMAIN
671	MAPLE	10"	FAIR	REMAIN
672	PINE	20"	FAIR	REMOVE
673	ASH	8"	FAIR	REMAIN
674	ASH	10"	POOR	REMAIN
675	MAPLE	50"	FAIR	REMAIN
676	HICKORY	10"	GOOD	REMAIN
677	APPLE	12"	GOOD	REMAIN
678	MAPLE	24"	GOOD	REMOVE
679	MAPLE	12"	GOOD	REMAIN
680	ASH	10"	FAIR	REMAIN
681	ASH	10"	FAIR	REMAIN
682	PINE	18"	GOOD	REMAIN
683	DECIDOUS	8"	FAIR	REMAIN
684	ASH	8"	POOR	REMAIN
685	TREE OF HEAVEN	16"	GOOD	REMAIN
690	MAPLE	10"	FAIR	REMAIN
691	CEDAR	16"	FAIR	REMAIN
692	PINE	16"	FAIR	REMAIN
693	CEDAR	14" MU	FAIR	REMAIN
697	ASH	16"	DEAD	REMAIN
698	WILLOW	50"	POOR	REMAIN
699	BIRCH	16"	POOR	REMOVE

TREE NO.	COMMON NAME	DIAMETER	CONDITION	REMAIN OR REMOVE
700	APPLE	12"	DEAD	REMOVE
702	ASH	14"	POOR	REMAIN
703	SASSAFRAS	18"	FAIR	REMAIN
704	ASH	10"	FAIR	REMAIN
705	APPLE	28"	POOR	REMAIN
707	PINE	48"	GOOD	REMAIN
709	MAPLE	50"	GOOD	REMAIN
710	MAPLE	18"	FAIR	REMAIN
712	CHERRY	18"	FAIR	REMAIN
713	CHERRY	18"	FAIR	REMAIN
715	MAPLE	48"	GOOD	REMAIN
716	SASSAFRAS	18"	FAIR	REMAIN
717	ASH	18"	POOR	REMAIN
718	MAPLE	10"	FAIR	REMAIN
719	MAPLE	10" TW	FAIR	REMAIN
720	MAPLE	12" TW	FAIR	REMAIN
721	BIRCH	14" TR	FAIR	REMAIN
722	TREE OF HEAVEN	16"	GOOD	REMAIN
723	OAK	18"	FAIR	REMAIN
724	SASSAFRAS	18"	FAIR	REMAIN
725	APPLE	16"	POOR	REMAIN
726	OAK	20"	FAIR	REMAIN
728	MAPLE	20"	FAIR	REMOVE
729	CHERRY	8"	DEAD	REMAIN
730	FIR	16"	POOR	REMOVE
731	OAK	28"	FAIR	REMAIN
732	MAPLE	32"	GOOD	REMAIN
733	CHERRY	16" TW	FAIR	REMAIN
735	SPRUCE	16"	GOOD	REMOVE
736	MULBERRY	16"	GOOD	REMOVE
737	SPRUCE	16"	GOOD	REMOVE
739	WALNUT	12"	GOOD	REMOVE
740	HEMLOCK	12" 10"	GOOD	REMOVE
741	MAPLE	8" TR	POOR	REMOVE
742	HEMLOCK	14"	GOOD	REMOVE
743	APPLE	24"	POOR	REMOVE
744	PINE	22"	GOOD	REMOVE
745	PINE	22"	GOOD	REMOVE
746	BIRCH	22"	GOOD	REMAIN
748	MAPLE	24" 8"	FAIR	REMAIN
752	BIRCH	10" 4"	GOOD	REMAIN
753	SASSAFRAS	10"	GOOD	REMOVE
754	MAPLE	22" 14"	GOOD	REMAIN
755	SASSAFRAS	8"	GOOD	REMAIN
756	OAK	28"	GOOD	REMAIN
757	MAPLE	10"	GOOD	REMAIN
758	DECIDUOUS	8"	POOR	REMOVE
759	HICKORY	16"	GOOD	REMAIN
760	CHERRY	8"	POOR	REMAIN
761	CHERRY	8"	POOR	REMAIN
762	MAPLE	8"	GOOD	REMAIN
763	MAPLE	10" 6"	POOR	REMAIN
764	MAPLE	12"	GOOD	REMAIN
765	MAPLE	8"	GOOD	REMAIN
766	ASH	22"	GOOD	REMAIN
767	MAPLE	12"	GOOD	REMAIN
768	MAPLE	10"	GOOD	REMAIN
770	HICKORY	26"	GOOD	REMAIN
771	CHERRY	8"	POOR	REMOVE
772	LOCUST	10"	POOR	REMOVE
773	BIRCH	10"	POOR	REMOVE
774	SPRUCE	10"	FAIR	REMOVE
775	MAPLE	10"	FAIR	REMAIN
776	MAPLE	8"	FAIR	REMAIN
777	SPRUCE	10"	POOR	REMAIN
778	SPRUCE	10"	POOR	REMAIN
779	DECIDUOUS	10"	DEAD	REMAIN
780	PINE	14"	DEAD	REMOVE
781	HEMLOCK	14"	POOR	REMAIN
782	OAK	38"	GOOD	REMAIN
783	DECIDUOUS	18"	DEAD	REMAIN
784	DECIDUOUS	12"	POOR	REMAIN
785	MAPLE	10"	FAIR	REMAIN
786	MAPLE	10"	FAIR	REMAIN
787	DECIDUOUS	14"	POOR	REMAIN
788	DECIDUOUS	14"	FAIR	REMAIN
789	DECIDUOUS	22"	POOR	REMAIN
790	OAK	24"	GOOD	REMAIN
791	OAK	20"	GOOD	REMAIN
792	OAK	20"	FAIR	REMAIN
793	DECIDUOUS	12"	DEAD	REMAIN
794	DECIDUOUS	8"	POOR	REMAIN
795	DECIDUOUS	10"	POOR	REMAIN
796	DECIDUOUS	10"	DEAD	REMAIN
797	DECIDUOUS	12" 10"	POOR	REMAIN
798	DECIDUOUS	10"	POOR	REMAIN
799	OAK	12"	GOOD	REMAIN

Source: JMC, 2019

AIRPORT CAMPUS

Proposed Project - Tree Inventory and Protection Plan

Figure 2-15d

9.18.20

CONSTRUCTION STAGING AREA

CONSTRUCTION WORKER PARKING IN PARKING STRUCTURE

PARKING EXPANSION PHASE (PREVIOUSLY APPROVED)

HOTEL PHASE

CONSTRUCTION WORKER PARKING

CONSTRUCTION WORKER PARKING

MULTIFAMILY PHASE

CONSTRUCTION WORKER PARKING AND STAGING AREA

CONSTRUCTION STAGING AREA

TOWNHOMES PHASE

CONSTRUCTION WORKER PARKING

CONSTRUCTION STAGING AREA

CONSTRUCTION WORKER PARKING AND STAGING AREA

CONSTRUCTION WORKER PARKING IN PARKING STRUCTURE WHEN AVAILABLE

CONSTRUCTION WORKER PARKING AND STAGING AREA

CONSTRUCTION STAGING AREA

PROPOSED TOWNHOME (TYPICAL)

EXISTING THREE STORY OFFICE BUILDING

CONVERT EXISTING OFFICE BUILDING TO HOTEL

PROPOSED 5 LEVEL APARTMENT BUILDING OVER 3 LEVEL PARKING STRUCTURE

EXISTING THREE STORY PARKING STRUCTURE

KING STREET (ROUTE 120)

AMERICAN LANE

COBBY HILL ROAD

N

Source: JMC, 2020

AIRPORT CAMPUS

Proposed Project - Conceptual Construction Phasing

Figure 2-16

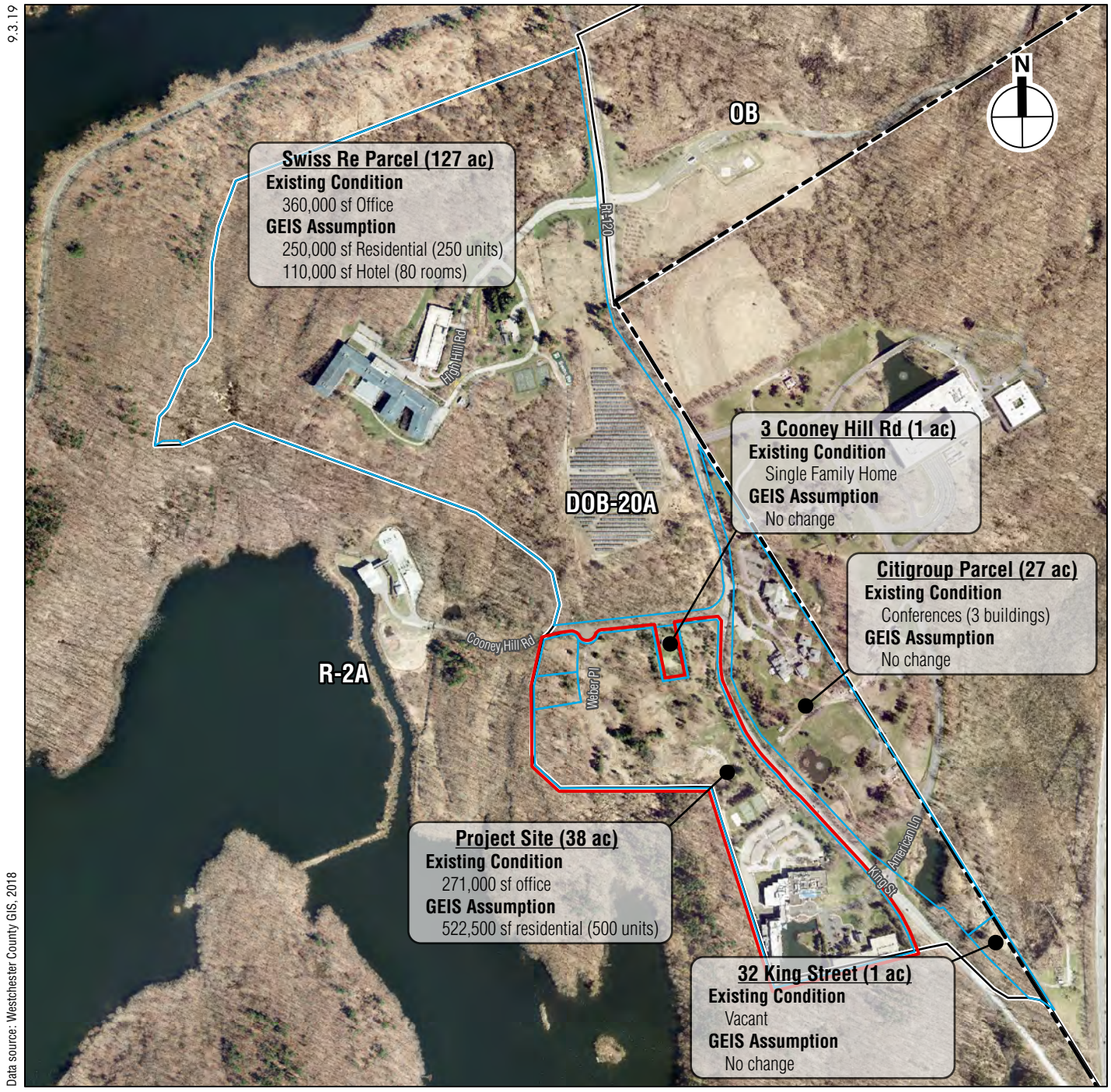
9.17.20

Source: JMC, 2019

Project Site - Currently Approved Development Plan

AIRPORT CAMPUS

Figure 2-17



DOB-20A District - GEIS Development Assumptions

Chapter 3: Land Use, Zoning, and Public Policy

3.A. INTRODUCTION

This chapter analyzes the consistency of the Proposed Action, inclusive of the Proposed Zoning and the Proposed Project, with the land uses and zoning currently on the Project Site and within ½-mile of the Project Site, as well as the consistency of the Proposed Action with applicable public policies.

As described in this chapter, it is the Applicant's opinion that the Proposed Action would not introduce land uses that are inconsistent with the land uses surrounding the Project Site. Similarly, it is the Applicant's opinion that the proposed text changes to the DOB-20A zoning district are consistent with the recommendations found in the land use plans governing the area, including the Town's Comprehensive Plan.

3.B. EXISTING CONDITIONS

3.B.1. LAND USE

3.B.1.a. Existing Land Uses – Project Site and ½-Mile Radius

The southern portion of the Project Site is improved with what was previously MBIA's corporate headquarters and contains a vacant, three-story, approximately 100,000-square-foot (sf) office building in the southwest corner; another vacant, three-story, approximately 161,000-sf office building immediately north of the 100,000-sf building; approximately 328 surface parking spaces (two surface lots); a three-story parking structure containing approximately 316 parking spaces; a circa 1820s farmhouse and accessory shed/barn (used for storage and maintenance purposes); a water feature/stormwater pond; and landscaping. The northern portion of the Project Site contains meadows, landscaping, and outdoor amenities for the uses described above, including paved tennis courts, a volleyball court, and walking paths.

Land uses within ½-mile of the Project Site generally consist of corporate office and conference centers, a single-family house, and New York City water supply lands adjacent to the Kensico Reservoir (under the jurisdiction of the New York City Department of Environmental Protection [NYCDEP]) (see **Figure 3-1**). The notable proximate uses are described below.

- **Swiss Re America (175 King Street):** The approximately 127-acre parcel (tax parcel 113.04-1-2) directly north of the Project Site (across Cooney Hill Road) serves as the North American headquarters of Swiss Re America. The Swiss Re property is located in the DOB-20A zoning district and has the capacity to accommodate approximately 1,000

employees. The property is developed with approximately 360,000 sf of office space and a parking structure completed in 1999 and expanded in 2004. Included as part of the Swiss Re property is the largest solar installation in Westchester County, located on the west side of King Street between the Swiss Re access drive and Cooney Hill Road. The Swiss Re solar field, which includes approximately 7,700 individual solar panels across ten acres of the Swiss Re parcel, has been in this location since 2016.

- **Citigroup Armonk Conference Center (188 King Street):** The approximately 27-acre parcel, directly across King Street from the Project Site (tax parcel 113.04-1-3), is owned by Citigroup and used for conferences and corporate retreats. Similar to the Project Site, the Citigroup property is located in the DOB-20A zoning district. The complex consists of three groups of buildings serving as conference/meeting halls with associated surface parking lots, as well as landscaping and outdoor amenities that include walking paths.
- **IBM World Headquarters (1 New Orchard Road):** IBM purchased the 432-acre former apple orchard located approximately one mile to the northeast of the Project Site in the mid-1950s, and relocated its headquarters from New York City to Armonk in 1964. The principal building on the campus is approximately 283,000 sf on a 25-acre parcel with associated surface parking and landscaping (tax parcel 113.02-1-18). There are two other IBM buildings (with parking) on the campus within walking distance of the principal building: the North Castle office (which previously served as IBM's headquarters after relocating from New York City) and the IBM Learning Center, a resort hotel and training center that has approximately 182 guest rooms, 31 meeting rooms, and various amenities. The IBM World Headquarters site is located within the Town's OB zoning district. In 2017, IBM sold approximately 32.5 acres of land located at North Castle Drive and Route 22 to MADDD Madonna Armonk, LLC, the applicant for the proposed Eagle Ridge development. As discussed further below, the Eagle Ridge proposal involves a zoning petition to allow the development of new townhomes and a hotel (with apartments above) on this 32.5-acre site.
- **Greenwich American Center (1 American Lane, Greenwich, CT):** The approximately 155-acre property, which is located entirely within Greenwich, Connecticut (east of the Citigroup Armonk Conference Center) contains a total of approximately 690,000 sf of leasable office space within two buildings ranging in height from one to four stories. The larger of the two buildings includes covered parking for approximately 1,600 vehicles.

The large, forested, and mostly undeveloped property (tax parcel 118.02-1-3) located immediately to the west and south of the Project Site is owned by DEP and zoned R-2A, single-family residential. This property is New York City watershed land that is vacant and unoccupied with the exception of Shaft 17, a DEP-owned facility on the Delaware Aqueduct water supply system, which controls water flow into Kensico Reservoir. Shaft 17 is accessed

through a secure gated entry from Cooney Hill Road, just beyond the northwest corner of the Project Site.

There is one single- family home (3 Cooney Hill Road) directly adjacent to the Project Site's northern boundary, on the south side of Cooney Hill Road. This property is included in the DOB-20A zoning district. Due to the physical constraints present as a result of the Kensico Reservoir to the west and the Westchester County Airport to the south, the closest residential neighborhood to the Project Site is to the north and east. The residential uses to the east (east of I-684) are located within neighboring Greenwich, Connecticut, including the neighborhoods surrounding the Tamarack Country Club.

Additional single-family homes are located approximately 1.5 miles to the north of the Project Site where King Street/NYS Route 120 intersects with NYS Route 22. Approximately two miles to the northeast, where Old Route 22 intersects with Main Street in the Armonk Hamlet, the Whippoorwill Hills (150 units), Whippoorwill Ridge (55 units), and Cider Mill (27 units) developments provide a combined total of 232 residential units. The Betsy Sluder Nature Preserve is located along the southern edge of these neighborhoods.

3.B.1.b. Project Site Land Use History

The earliest map-documented structure on the Project Site was located at its southern end and may be the same farmhouse that is currently integrated into the Project Site's existing office campus. Several outbuildings (identified on the 1911 Bromley atlas as garages, sheds, or barns) are known to have been situated in the vicinity of the house in the late 19th and early 20th centuries. Other farm-related structures were located along the western side of King Street in the northern portion of the Project Site. This area of the Project Site was occupied almost entirely by farmland and orchards until the 1950s and 1960s, when a single-family residential subdivision of approximately 16 lots was developed in what became known as the Cooney Hill area.

In 1989, MBIA acquired an approximately 93,000-sf office building developed on the Project Site in the early 1980's. As part of that acquisition, MBIA secured and transferred 60,000 sf of additional development rights from what is now the Swiss Re parcel to the north and constructed a 60,000-sf expansion. After the Town of North Castle issued approvals, construction of the expansion commenced in 1991, and occupancy in 1993. Following a period of rapid corporate growth, MBIA recognized the need to expand its headquarters. Toward that end, and following completion of a review under SEQRA, MBIA received approval to construct an additional 101,000 sf of office and related amenity space in 1996. This brought the total development to approximately 261,000 sf of office and related amenity space, which is the current development found on the Project Site.

The residential subdivision in the Cooney Hill area of the Project Site was acquired and then demolished, but for 3 Cooney Hill Road, in the early 2000's by MBIA to facilitate a planned expansion that received approvals from the Town but was never constructed. The currently approved but unbuilt project is described further below. As described in detail below and in Chapter 2,

"Project Description," a conservation easement was established on the Project Site as a part of the current approvals.

3.B.1.c. Project Site Conservation Easement

During the approval process for MBIA's prior expansion plans, MBIA was contacted by the Natural Resources Defense Council (NRDC) and Riverkeeper, Inc. (Riverkeeper). MBIA, NRDC, and Riverkeeper entered into discussions with the goal of protecting and enhancing the environment by incorporating innovative design characteristics and maximizing the use of existing impervious surfaces. As a result of those discussions, the development plan provided for a decrease of impervious surface on the Project Site of approximately 11,700 sf below the then existing conditions.

On October 8, 2003, MBIA, NRDC, and Riverkeeper entered into an agreement (the "Agreement") memorializing the mitigation measures and design components agreed to among the parties with respect to expansion of MBIA's corporate headquarters. A copy of the Agreement is attached as **Appendix B-1**.

Pursuant to paragraph 2.5 of the Agreement, MBIA agreed to forego any future right to develop a portion of the Cooney Hill area adjacent to the DEP property. Paragraph 2.5 also provided that the restriction on development was to be memorialized in a conservation easement to an appropriate entity to be mutually agreed upon among the parties. A portion of the conservation easement area was to be irrevocable in the form of a 50-foot-deep, approximately 1.95-acre strip of property immediately adjacent to the DEP property. The balance of the conservation easement area (approximately 6 acres) was to be revocable if two conditions were met, as follows: (i) MBIA has not constructed both the proposed office building and the associated parking structure; and (ii) MBIA sells the Cooney Hill lots to a third party for a standalone development.

Pursuant to paragraph 2.5 of the Agreement, a conservation easement (the "Conservation Easement") between MBIA as grantor and the Westchester Land Trust, Inc. as grantee was executed on January 11, 2006. The Conservation Easement was recorded in the Westchester County Clerk's Office, Division of Land Records, on May 1, 2006 at Control No. 461140461. The Conservation Easement granted to the Westchester Land Trust mirrors the language in the Agreement with NRDC and Riverkeeper, i.e., a portion of the Conservation Easement donation was irrevocable and a separate portion was revocable, as established in the original Agreement. A copy of the Conservation Easement is attached as **Appendix B-2**.

MBIA never constructed the previously approved office expansion project. MBIA eventually sold the Cooney Hill lots (and the remainder of MBIA's property) to the Applicant, thereby satisfying the requirements for the revocation of that portion of the conservation easement area deemed to be revocable and permitting the Applicant, as successor in interest to MBIA, to revoke that portion of the easement area. The irrevocable easement area remains, with no development permitted therein. The current development proposal by the Applicant utilizes the approximately 6-acre revocable portion

of the conservation easement area but respects the approximately 1.95-acre irrevocable portion.

3.B.2. ZONING

3.B.2.a. Existing Zoning – Project Site and ½-Mile Radius

The Project Site is located within the Town's Designated Office Business 20A ("DOB-20A") zoning district, an area of the Town designated for large campuses (minimum of 20 acres) providing mostly office and research parks. As noted in Section 355-30(J)(1)(a) of the Town Code, the DOB-20A district is designed to "provide for low-density, high quality non-residential development, provided that, requisite highway access and proximity to the interstate highway system was available." The DOB-20A district is located on the King Street corridor between the Westchester County Airport to the south and Route 22 to the north (see **Figure 3-2**).

As noted in Section 355-30(J)(1)(b) of the Town Code:

> *"It is the policy of the Town of North Castle that 'Designed Office Business Districts,' will be mapped by the Town Board on a site-by-site basis after taking into consideration the positive benefits to the orderly and economic development of the Town which it offers, the suitability of the location and its consistency with the goals and policies expressed in the Town Development Plan."*

Permitted principal uses in the DOB-20A district include office buildings for business and professional use (including administrative, executive, engineering, accounting, scientific, research and development, educational, statistical, and financial purposes), as well as conference/planning facilities for use by corporate officers, employees, visitors and guests associated with the business purpose of the owner or lessee of the property. Professional and business conference facilities are permitted principal uses subject to conformance to additional standards as set forth in Article VII of the Town Code. The DOB-20A district has a minimum lot area of 20 acres and a permitted floor area ratio (FAR) of 0.15. Maximum allowable building heights in the DOB-20A district on lots containing 20 or more acres is three stories or 45 feet. Where the Town Board has, in conjunction with its approval of the rezoning application, approved a lot area of less than 20 acres, the maximum permitted building height shall be reduced by one foot for each 20,000 square feet that the parcel is less than the 20 acres in area.

Within ½-mile of the Project Site there are three other zoning districts in the Town: Single-Family Residence (R-2A), Office Business (OB), and Industrial AA (IND-AA) (see **Figure 3-3**).

The Town's R-2A zoning district is a single-family residential district that permits one single-family dwelling per lot, with a minimum lot size of two acres. This district is mapped to the west and south of the Project Site where it includes large areas of densely forested DEP watershed lands. The minimum dwelling unit size in the R-2A district is 1,400 sf and the maximum building height permitted is 30 feet. Municipal uses (parks, playgrounds,

police and fire stations, etc.) and agricultural uses are also permitted principal uses in the R-2A district. Permitted principal uses that are subject to conformance to additional standards include houses of worship, schools, libraries, membership clubs, nurseries or greenhouses, utility transmission lines, watershed, or water supply facilities not part of the Town's water system, nursing homes, scientific research centers, and private stables. All uses in the R-2A district are subject to site plan approval.

The OB zoning district, mapped to the northeast of the Project Site, is an office business district that permits office buildings for business and professional use (including administrative, executive, engineering, accounting, scientific, research and development, educational, statistical, and financial purposes). The IBM campus is the predominant land use in the OB district within ½-mile of the Project Site. Other permitted principal uses include research, development, and sales development laboratories (provided that there shall be no manufacturing or fabrication of products for sale); municipal uses (parks, playgrounds, police and fire stations, etc.); agricultural uses; houses of worship; schools; libraries; membership clubs; nurseries or greenhouses; utility transmission lines; watershed or water supply facilities not part of the Town's water system; nursing homes; scientific research centers; and private stables. Professional and business conference facilities are permitted principal uses subject to conformance to additional standards. The OB district has a minimum lot area of 20 acres and a permitted FAR of 0.12. The maximum allowable building height in the OB district is three stories or 45 feet.

A small portion of the Town's IND-AA district is within ½ mile of the Project Site, generally between I-684 and the Westchester County Airport. The northern portion of the airport (within the Town's boundaries) and associated industrial/office uses adjacent to it, are zoned IND-AA. The IND-AA district is an industrial district that permits business and light industrial uses. At the Westchester County Airport, such uses include the storage and repair of aircraft, the storage and distribution of aviation gasoline, and warehouses (excluding truck storage or truck terminal facilities). Professional offices and studios; motels; taxi and limousine dispatch facilities; fine arts instruction schools; personal training facilities; long term parking structures; municipal uses (parks, playgrounds, police and fire stations, etc.); agricultural uses; houses of worship; schools; libraries; membership clubs; nurseries or greenhouses; utility transmission lines; watershed or water supply facilities not part of the Town's water system; nursing homes; scientific research centers; and private stables are also permitted principal uses. The IND-AA district has a minimum lot area of two acres and a permitted FAR of 0.30. The maximum allowable building height in the IND-AA district is two stories or 30 feet.

3.B.2.b. DOB-20A Preliminary Development Concept Plan (PDCP) Requirements

Pursuant to Town Code Section 355-30(J), the procedure for the establishment (or modification) of a DOB-20A district involves a two-stage review and approval process. The first stage involves the Town Board's

review and approval of a Preliminary Development Concept Plan (PDCP) and any proposed zoning amendments. After the Town Board approves the PDCP and zoning, the Planning Board can review a site plan that is in substantial conformity with the PDCP.

The requirements of a PDCP in the DOB-20A zone, as outlined in the Town Code, generally include the following: the proposed nature, scope, and location of the planned land uses; provisions for access to those land uses; location of buffer areas; and provided means of sewage disposal, water supply, stormwater drainage/retention, and other similar types of information.

The Applicant has prepared and submitted a PDCP in connection with the Proposed Action, and it is described further below.

3.B.2.c. Currently Approved Project

On October 8, 2003, the Town Board adopted a SEQRA Findings Statement and approved the necessary zoning amendments, including an amended PDCP to permit an additional office expansion on the Project Site. Subsequently, the Town Board granted special permit approval and the Planning Board granted amended site plan approval to permit the Site's previous owner, MBIA, to develop an additional 238,000 sf of office and related amenity space, including a 20,000-sf meeting house. These approvals allow for an increase of office space on the Project Site from approximately 261,000 sf of office and related amenity space that exists today to approximately 499,000 sf of office and related amenity space, including the proposed meeting house. This approval also provided for the construction of a parking structure containing approximately 1,000 parking spaces (see Figure 2-17).

While the most recent approvals for the additional expansion have been granted extensions by the Town and remain in full force and effect today, no new structures contemplated by those approvals have been built.

Prior to the environmental review, site plan approval process, and issuance of other related permits and approvals for the expansion plan, MBIA acquired 16 of the 17 single-family residential lots in the Cooney Hill area. All of the homes, associated septic systems, and paved surfaces (including driveways and Weber Place) were demolished/removed and replaced with a system of mulched walking/exercise trails, tennis courts, and a sand volleyball court. The remnants of this initial phase are visible in the northern portion of the Project Site today.

In addition, subsequent site plan and Stormwater Pollution Prevention Plan (SWPPP) approvals were granted by the Town for the expansion of the existing 43-space parking area located adjacent to the farmhouse in the southern portion of the Project Site. The site plan and SWPPP approvals currently in place with the Town, which have not been constructed, allow for a parking expansion of 94 spaces (for a total of 137 spaces), with associated curbing, utility, and stormwater management improvements.

3.B.2.d. DOB-20A Proposed PDCP (Proposed Project)

As described in Chapter 2, "Project Description," to redevelop the Project Site as proposed, the Applicant has petitioned the Town Board for text amendments to the DOB-20A zoning district to permit residential (multifamily buildings, townhomes, single-family dwellings, two-family dwellings, senior citizen housing, and assisted living facilities) and hotel uses on the Project Site as special permit uses; to permit medical offices as a principal permitted use (considered as a clarification to the code); and to provide bulk and density requirements for those uses. The Applicant has developed a PDCP for the Project Site (i.e., the Proposed Project), which would allow for the subsequent preparation of a detailed site plan.

The PDCP, which is the primary subject of the DEIS component of this document, proposes the redevelopment of the Project Site as follows (see Figure 2-5 of Chapter 2, "Project Description"):

1. Reoccupation of the southernmost existing approximately 100,000-sf office building for office uses. Other than the possibility of additional rooftop equipment, the addition of patios or terraces, etc. there would be no significant changes to the building's footprint or height;
2. Conversion of the northernmost existing approximately 161,000-sf office building to an approximately 125-key hotel with accessory spa, fitness, and restaurant space. Other than the possibility of additional rooftop equipment, the addition of patios or terraces, etc. there would be no significant changes to the building's footprint or height;
3. Construction of additional surface parking to the south of the existing office buildings to support their proposed re-use;
4. Construction of an approximately 149-unit multifamily residential building to the north of the hotel. The proposed multifamily building would consist of five floors of residential space (with amenities) over two above-grade concrete parking garage floors, with another level of parking proposed below-grade. The three levels of parking would provide for approximately 331 parking spaces.

   The proposed multifamily building would be approximately 78 feet in height (above average grade) and would contain approximately 225,465 gross square feet (gsf) of residential floor area, including lobby and amenity space.

   Of the total 149 units, approximately 49 would be one-bedroom units (average unit size of 930 gsf) and approximately 100 would be two-bedroom units (average unit size of 1,183 gsf).
5. Construction of 22 new two-story townhomes in the Cooney Hill (northern) portion of the Project Site. Three separate townhouse models are envisioned, and the total aggregate floor area of the townhouse development would be approximately 67,760 gsf. The townhomes would be approximately 32 feet in height (above average grade).

If approved, the Proposed Project (aka the proposed PDCP) would supplant the currently approved project (i.e., the current PDCP).

3.B.3. PUBLIC POLICY

As discussed further below, existing public policies applicable to the Project Site and the Proposed Project include the Town of North Castle Comprehensive Plan (2018) and the 1996 and 2010 Westchester County Master Plans.

3.C. FUTURE WITHOUT THE PROPOSED ACTION

In the Future without the Proposed Action, no changes to the DOB-20A zoning would occur and the two existing office buildings on the Project Site could be reoccupied for office use. Alternatively, the currently approved PDCP (described above), which has full special permit, site plan, and SWPPP approvals from the Town, approvals which have been granted extensions by the Town and remain in full force and effect today, could also be developed on the Project Site.

The Swiss Re parcel to the north of the Project Site has been granted approvals from the Town for a PDCP depicting the development of up to 720,000 sf of office space, of which 360,000 sf has already been built (i.e., the existing condition on the site). Therefore, in the Future without the Proposed Action, Swiss Re could apply to the Town for site plan approval for the remaining 360,000 sf of office space. Such development would be subject to a full environmental review and site plan approval process through the Town. It should be noted that in their October 25, 2018 letter sent to the Town Board during the public scoping process for this D/GEIS, Swiss Re stated that they have no intention to build that space.

In addition, there are six off-site development projects expected to be completed in the future irrespective of the Proposed Project. In total, these projects could introduce approximately 280 residential units and 97 hotel rooms to the surrounding area. With the exception of the Wampus Mills subdivision, these projects demonstrate an emerging trend of new attached and semi-attached multifamily residential and hotel uses in the Town, uses which are consistent with the uses included in the Proposed Project (see **Figure 3-4** and **Table 3-1**).

Table 3-1
Approved and Pending Off-Site Development Projects

Map ID (Figure 3–4)	Project Name / Location	Status	Development Program
1	Madonna / 125 Mount Kisco Road	Under Construction	16-unit senior housing
2	Wampus Mills / Shoemaker Lane and Armonk-Mount Kisco Road	Under Construction	Six lot single-family residential subdivision
3	470 Main Street	Approved	16-unit multifamily residential
4	162 Bedford Road (former Armonk Lumber Yard)	Approved	36-unit multifamily residential
5	Eagle Ridge / North Castle Drive at Route 22	Proposed	97-room hotel w/ 69 apartments; 94 townhomes
6	Mariani Gardens / 45 Bedford Road	Proposed	43-unit multifamily residential
		Total	**280 residential units; 97 hotel rooms**

Source: Town of North Castle Planning Department (list current as of August 2019)

3.D. POTENTIAL IMPACTS OF THE PROPOSED PROJECT (DEIS)

3.D.1. LAND USE

Approval of the Proposed Action would allow the Project Site to be redeveloped with a mix of land uses, as opposed to the existing office campus setting and the currently approved office/conference expansion plan. Specifically, the Proposed Project would re-occupy an existing three-story office building, repurpose another three-story office building for use as a 125-room hotel with related amenities, and reintroduce residential uses to the Project Site in the form of a five-story, 149-unit multifamily apartment building and 22 two-story, single-family townhomes. As discussed below, introduction of residential uses to the Project Site is consistent with the Town's recently adopted Comprehensive Plan.

While the northern portion of the Project Site was formerly zoned for single-family residential uses and contained a residential subdivision (approximately 17 lots), there is no precedent for multifamily or clustered townhouse-style residential construction on the Project Site or within ½ mile of the Project Site. As described above, the land uses within ½ mile of the Project Site in the Town are predominately commercial (office parks and conference centers) and the nature of these uses, coupled with large parcel sizes, building setbacks, and watershed land buffers has resulted in development that is spread out and less dense and diverse than those areas of the Town further to the northeast. The same can be said when comparing the area of the Project Site and the King Street corridor to the more established single-family residential neighborhoods of Greenwich, Connecticut to the east.

It is the Applicant's opinion that the Proposed Project (office, hotel, residential) would not introduce land uses that are inconsistent with the land uses surrounding the Project Site. The Applicant's opinion is supported by the results of the traffic impact study and visual impact assessment prepared for the PDCP (see Chapter 10, "Traffic and Transportation," and Chapter 11, "Visual Resources and Community Character," respectively). The Proposed Project would activate an area of the Town that was historically a mix of office and single-family residential uses which, over the last 15 years, has seen limited interest from corporate office tenants and has been lacking a traditional neighborhood identity. The Project Site's former subdivision south of Cooney Hill Road was acquired and removed (but for one house) to facilitate MBIA's expansion plan. Currently, with the exception of the single-family house near the northeast corner of the Project Site, the character of this neighborhood is primarily defined as a commuter area consisting of workers traveling to and from corporate campuses during weekdays. King Street also serves as a means for through-traffic among destinations including but not limited to North White Plains, Westchester County Airport, I-684, Greenwich, Connecticut, and the hamlet of Armonk.

In terms of the Proposed Project's compatibility with the Westchester County Airport and the appropriateness of the Project Site for residential use, considering that the site is predominately located within the airport's 60 Day-Night Average Sound Level (DNL) noise contour, it is the Applicant's opinion that no land use impacts are anticipated. It should be noted that a portion of the southwest corner of the Project Site, where the southern office building is proposed to remain, is within the 65 DNL noise contour. The reintroduction of residential uses to the portion of the Project Site within the 60 DNL noise contour, while at a higher density than the previous 17-lot subdivision, would not represent a unique condition when compared to historic and existing land uses

surrounding the airport. While airport flyovers are common, as detailed in Chapter 16, "Noise," no significant adverse noise impacts are anticipated on the future residential uses. The existing noise levels from the airport in the vicinity of the Project Site do not reach a level requiring a degree of window-wall attenuation above what can be achieved through standard multifamily residential construction practices. Furthermore, the proposed residential uses on the Project Site would be located approximately one mile from the airport's runways, which is farther from the airport than other existing residential development in adjacent municipalities, including the Golf Club of Purchase development (Purchase, New York), the Bellfaire subdivision (Rye Brook, New York), and scattered neighborhoods within Greenwich Connecticut to the east of I-684.

The Proposed Zoning would allow the Town Board, by special permit, to increase the maximum allowable building height in the DOB-20A district from 45 feet to 85 feet for multifamily residential buildings. As more fully documented in Chapter 11, "Visual Resources and Community Character," the modified height requirement could permit the construction of multifamily apartment buildings in the DOB-20A district that could be as much as 40 feet taller than currently allowed. In terms of the Proposed Project, it is the Applicant's opinion that this increase in height would result in a multifamily building that would only be discernable from certain locations off-site, most notably from vehicular traffic along King Street. However, mitigation measures to reduce the potential for visual and community character impacts are described further in Chapter 11, "Visual Resources and Community Character."

3.D.2. ZONING

To redevelop the Project Site as proposed, the Applicant has petitioned the Town Board for text amendments to the DOB-20A provisions of the Town Code in order to permit residential (multifamily buildings, townhomes, single-family dwellings, two-family dwellings, senior citizen housing and assisted living facilities) and hotel uses on the Project Site as special permit uses; to permit medical offices as a principal permitted use (considered as a clarification to the code); and to provide bulk and density requirements for those uses. Specifically, a new local law would amend several sections of Chapter 355 of the Town Code with respect to the DOB-20A Zoning District (see **Appendix A-2**). In summary, the proposed text amendments would:

- Implement the recommendations of the Town's 2018 Comprehensive Plan by allowing additional uses in the DOB-20A district, including office; medical office; hotel; multifamily, townhouse, single-family, and two-family dwellings; senior citizen housing; and assisted living facilities;
- Permit more than one use on a lot;
- Allow for the conversion of existing office and related amenity space and/or fully approved but unbuilt office and related amenity space to hotel use, including typical accessory uses such as a spa, fitness facility, and restaurant, subject to Town Board approval.
- Allow for the conversion of existing office and related amenity space and/or fully approved but unbuilt office and related amenity space to multifamily, townhouse, single-family, and two-family dwellings; senior citizen housing; and/or assisted living facilities. Such conversion would be subject to Town Board approval and the following special conditions and requirements:

1. Each square foot of approved but unbuilt office and related amenity space, up to a maximum of 250,000 sf, may be converted into one and one-quarter (1.25) sf of residential and amenity space, with a maximum of 250 residential units, provided, however, that (i) the unit count for assisted living facilities may be increased by 25 percent, even if said increase would result in more than 250 total residential units; and (ii) if the residential space consists entirely of assisted living and/or senior citizen housing, the unit count may be increased by 50 percent, even if said increase would result in more than 250 total residential units.
2. Each square foot of existing office and related amenity space, up to a maximum of 250,000 sf but not less than 50,000 sf, may be converted into one (1.00) sf of residential and amenity space, provided that at least 75 percent of the building(s) to be converted have been vacant and unleased for two (2) years prior to applying for the conversion; and
3. The maximum residential unit count for any overall site shall not exceed 500.

The Proposed Zoning would allow the Town Board, by special permit, to increase the maximum allowable building height in the DOB-20A district from 45 feet to 85 feet for multifamily residential buildings proposed under the office to residential conversion parameters. This increase in allowable height would permit the construction of taller buildings than would otherwise be permitted under the existing height provisions. As more fully documented in Chapter 11, "Visual Resources and Community Character," the modified height requirement could permit the construction of multifamily apartment buildings in the DOB-20A district that could be as much as 40 feet taller than currently allowed. In terms of the Proposed Project, it is the Applicant's opinion that this increase in height would result in a multifamily building that would only be discernable from certain off-site locations, most notably from vehicular traffic along King Street. However, mitigation measures to reduce the potential for visual and community character impacts are described further in Chapter 11, "Visual Resources and Community Character."

Through the proposed office to residential conversion parameters, the Proposed Zoning would increase the density permitted at the Project Site (each square foot of approved but unbuilt office and related space may be converted into one-and-one-quarter (1.25) square feet of residential space). As shown below in **Table 3-2**, while permitted density would increase under the provisions of the Proposed Zoning, the Applicant's PDCP would not maximize allowable density for each proposed use.

Table 3-2
Development Potential Analysis (GSF) – Existing vs. Proposed DOB-20A Zoning

Land Use Category	Maximum Floor Area Permitted on Project Site (gsf)			Maximum Residential Unit Count Permitted on Project Site (Proposed DOB-20A)	Proposed Development Program (PDCP)
	Existing DOB-20A				
	Existing Floor Area	Approved But Unbuilt Floor Area	Proposed DOB-20A		
Office or Hotel Alone	261,000 (office only)	238,000 (office only)	499,000 office or hotel (1:1 existing/approved but unbuilt)	N/A	100,000 gsf (office) 161,000 gsf (hotel) (Total 261,000 gsf)
Residential (when combined with office/hotel)	N/A	N/A	297,500 (1:1.25 approved but unbuilt office to residential)	250 units	293,225 gsf*(171 units)
Residential Alone	N/A	N/A	558,500 (1:1 existing office to residential)+ (1:1.25 approved but unbuilt office to residential)	500 units	293,225 gsf*(171 units)
Assisted Living and/or Senior Housing (when combined with office/hotel)	N/A	N/A	297,500(1:1.25 approved but unbuilt office to senior living)	375 units (50 percent senior housing bonus)	N/A

Note: * Calculated based on the definition of gross floor area from the Town Code
Sources: Currently Approved PDCP for the Project Site (2003); D/FEIS for MBIA Expansion (2002/2003); Applicant's Proposed Zoning Petition (2019); Applicant's Proposed PDCP (2019; JMC Consultants; Perkins Eastman Architects; AKRF, Inc.

As noted above and fully described in **Appendix A-2**, the Proposed Zoning would allow the Town Board, by special permit, to modify certain physical dimensional requirements in the DOB-20A district for applications seeking conversions from existing and/or fully approved but unbuilt office and related amenity space to residential uses (see **Table 3-3** below). These dimensional requirements include all required setbacks, buildings heights, lot coverages, and parking requirements for multifamily and townhouse-style residential development.

The setbacks in the DOB-20A and OB districts are the most restrictive of the Town's 32 zoning districts. These office districts were created to accommodate large corporate business park uses (IBM, Swiss Re, and MBIA). In the Applicant's opinion, the dimensional regulations created to accommodate these corporate facilities do not translate to, and are not functionally applicable to, the repurposing of these properties for mixed-use developments. In the Applicant's opinion, the setback distances proposed between new residential uses on the Project Site and existing uses in the vicinity, including single-family residential use near the northeast corner of the Project Site and the Swiss Re solar installation to the north (which would not be impacted by any project-generated shadows), are adequate and comparable to other existing and proposed mixed-use developments in the Town. Larger setbacks on the Project Site are therefore not appropriate.

Table 3-3
Dimensional Regulations – Existing and Proposed DOB-20A

DOB-20A Dimensional Regulations	Existing DOB-20A Zoning	Existing Condition	Proposed DOB-20A Zoning	Provided
Area				
Minimum Lot Area	20 acres	37.8 acres	No change	No change
Minimum Frontage	500 feet	2,215 feet	No change	No change
Minimum Depth	500 feet	857 feet (avg)	No change	No change
Minimum Front Yard Setbacks				
Currently Permitted Uses (§ 355-23)	150 feet	61 feet(7)	No change	No change
Multifamily Residential Buildings	N/A	N/A	65 feet(1)	65 feet
Residential Townhomes	N/A	N/A	200 feet(1)	244 feet
Minimum Rear Yard Setbacks				
Currently Permitted Uses (§ 355-23)	300 feet / 10 feet(2)	14 feet	No change	No change
Multifamily Residential Buildings	N/A	N/A	50 feet(1)	61 feet
Minimum Side Yard Setbacks				
Residential Townhomes	N/A	N/A	60 feet(1)	64 feet
Maximum Building Coverage				
Currently Permitted Uses (§ 355-23)	10 percent	6.86 percent	15 percent(1)	3.69 percent
Multifamily Residential Buildings	N/A	N/A	15 percent(1)	4.08 percent
Residential Townhomes	N/A	N/A	15 percent(1)	2.19 percent
Maximum Building Height				
Currently Permitted Uses (§ 355-23)	As in § 355-30J(3)(c)	<45 feet	As in § 355-30J(3)(c)	No change
Multifamily Residential Buildings	N/A	N/A	85 feet(1)	Approx. 78 feet
Residential Townhomes	N/A	N/A	35 feet(1)	Approx. 32 feet
Floor Area Ratio				
Currently Permitted Uses (§ 355-23)	0.15	0.16(4)	No change	0.06-0.10
Multifamily Residential Buildings	N/A	N/A	N/A(3)	0.14(3)
Residential Townhomes	N/A	N/A	N/A(3)	0.04(3)
Parking				
Currently Permitted Uses (§ 355-23)	As in § 355-30J	473	As in § 355-30J	Shared with Hotel
Multifamily Residential Buildings	N/A	N/A	TBD(5)	347
Residential Townhomes	N/A	N/A	TBD(5)	4 per unit(6)
Hotel	N/A	N/A	TBD(5)	Shared with Office

Notes:
(1) Subject to Special Permit approval by the Town Board
(2) 10 feet for building adjacent to NYCDEP watershed lands by Special Permit
(3) Subject to other density limitations
(4) Increased floor area ratio permitted due to previous transfer of development rights
(5) Parking requirements for multifamily and townhouse uses shall be determined by the Planning Board in connection with site plan approval
(6) Parking for each residential townhome includes 2 driveway and 2 garage spaces (4 total)
(7) Previously approved by Special Permit from Town Board
Sources: Zoning Petition prepared by the Applicant; Town Code of the Town of North Castle

3.D.3. PUBLIC POLICY

It is the Applicant's opinion that the Proposed Project is consistent with relevant public policies, as described below.

3.D.3.a. Town of North Castle Comprehensive Plan (2018)

The Town of North Castle recently completed the process of updating and revising its 1996 Comprehensive Plan. The updated Comprehensive Plan was adopted on April 25, 2018. As part of that process, the Town considered, among numerous other matters, current market conditions with respect to office campuses, including the Project Site. The Project Site is specifically referenced in several places in the updated Comprehensive Plan with respect to both its locational importance and the need to expand its development potential to accommodate a mix of infill development including, but not limited to, residential, office and hotel uses. Given the fact that efforts to market the existing office buildings on the Project Site have thus far been unsuccessful, the Proposed Zoning and the Applicant's PDCP further the Comprehensive Plan's long term goals for the Project Site and neighboring parcels within the DOB-20A district.

Specific references from the Comprehensive Plan that are applicable to the Project Site are described in the following paragraphs in italicized text, with an analysis of the Proposed Project's consistency with these policies following each in plain text.

> ***Policy 1:*** *Section 4.4 of the Comprehensive Plan (page 34) recommends that the Town should "undertake a comprehensive analysis of the office and commercial zones, with the goal of streamlining and clarifying their regulations so that they function effectively in a contemporary context." Additionally, this Section specifically mentions the Project Site as an appropriate site for the introduction of residential and hotel uses:*
>
> "*For the PLI, OB-H and DOB-20A zones, in particular (business park, portion of IBM property, Swiss Re and former MBIA campus), the Town should explore allowing for an introduction of residential uses, at a scale comparable to surrounding land use patterns. In the PLI and DOB-20A zones, retail, hotel, personal-service, entertainment and ancillary education uses may also be permitted for these districts, but any retail should be limited to accessory uses to avoid competition with established shopping areas, especially downtown Armonk*."

The Project Site and the DOB-20A zoning district are specifically referenced within the above policy. It is the Applicant's opinion that the proposed mix of uses on the Project Site (office, hotel, and residential) is consistent with surrounding land use patterns. These uses would include on-site amenities for office workers, hotel guests, and residents, but no retail would be included. In the Applicant's opinion, the Proposed Project is consistent with the above policy.

> ***Policy 2:*** *Section 8.6 of the Comprehensive Plan (page 99) notes the following opportunity related to the promotion of infill development to facilitate a variety of housing options:*

> *"While North Castle today is mostly defined by its attractive low-density residential neighborhoods, offering a greater variety of housing types could help the Town to retain Baby Boomers in retirement and attract younger people who wish to stay but cannot afford a single-family home. An efficient approach to greater variety of housing would prioritize attractive multifamily options in locations that maximize access to the community assets that make the Town so attractive, with a focus on targeted infill development in appropriate locations."*

By proposing infill development that would provide mix of multifamily housing and townhomes (with amenities) within close proximity to the Westchester County Airport, I-684, and the Armonk hamlet, it is the Applicant's opinion that the Proposed Project is consistent with the above policy.

> ***Policy 3:*** *Section 8.7 of the Comprehensive Plan (page 100) sets forth a series of specific growth, development and housing recommendations. Most notably, this Section specifically targets office parks such as the Project Site as an appropriate opportunity for the introduction of an infill mixed-use development:*
>
> *"Explore options to rezone business and office parks in order to create opportunities for infill mixed use residential development where office uses have become, or could become, obsolete. These locations could include the business park, the former MBIA site, Old Route 22 and Mariani Gardens, areas where affordable housing for smaller households will minimize traffic and parking impacts. Additional residential uses in these areas can also help to support Armonk businesses."*

A specific reference to the Project Site is within the above policy, and the Applicant is proposing changes to the DOB-20A zoning district that would allow residential uses on a site where office uses have become less attractive, as evidenced by several years of unsuccessful marketing. A diverse mix of housing types and unit sizes are proposed to serve different demographics. As noted in Section 355-24(I)(1) of the Town Code, "within all residential developments of 10 or more units created by subdivision or site plan approval, no less than 10 percent of the total number of units shall be created as affordable affirmatively further fair housing (AFFH) units." It is expected that when site plan approvals are sought for the Project Site in the future, the Proposed Project would comply with these requirements. It is therefore the Applicant's opinion that the Proposed Project is consistent with the above policy.

> ***Policy 4****: Section 9.3 of the Comprehensive Plan (page 119) speaks to hotel uses as a long-term vision for the community by stating:*
>
> *"Thus sufficient demand appears to exist for at least two small hotels or one large hotel in North Castle."*

In addressing the potential for an additional hotel, page 121 of the Comprehensive Plan also addresses combining hotel and residential uses in proximity, stating:

"Adding a hotel together with limited new residential uses, would increase downtown Armonk's potential customer base."

The Proposed Project would repurpose an existing three-story, underutilized office building for hotel use. Other than the possibility of additional rooftop equipment, the addition of patios or terraces, etc. there would be no significant changes to the building's footprint or height. The hotel would total approximately 161,000 gsf with 125 rooms. A mix of multifamily housing and townhomes (with amenities) would share the same site as the proposed hotel. In the Applicant's opinion, the Project Site's proximity to neighboring conference centers, the Westchester County Airport, I-684, and the Armonk hamlet make it an appropriate location for a small hotel. Therefore, it is the Applicant's opinion that the Proposed Project is consistent with the above policy.

3.D.3.b. Westchester County Master Plans

Within the County's 1996 regional plan entitled "Patterns for Westchester: The Land and The People ("Patterns")," the King Street/Route 120 corridor in the vicinity of the Project Site is depicted within a "Medium Density Suburban" recommended land use category, with a residential density range of two to seven dwelling units per acre and FAR range between 0.05 and 0.2. This area includes the Project Site as well as neighboring properties owned by Swiss Re, IBM, and Citigroup.

The Applicant's PDCP proposes a total of approximately 171 dwelling units (149 apartments and 22 townhomes), approximately 161,000 sf of hotel space, and approximately 100,000 sf of office space. Based on the Project Site's total area of approximately 38 acres, the proposed gross residential density would be approximately 4.5 dwelling units per acre. The proposed FAR for the office and hotel would be 0.06 and 0.10 respectively. The residential density and FAR for office and hotel uses would fall within these recommended parameters.

"Patterns" is still an adopted plan of the Westchester County Planning Board. However, the "Assumptions and Policies" section has since been replaced by the context and policy document that emerged from the "Westchester 2025" planning efforts, known as "2025 Context for County and Municipal Planning and Policies to Guide County Planning." This policy document was adopted by the Westchester County Planning Board on May 6, 2008 (amended January 5, 2010) and recommends 15 policies to county municipalities as guidance for their own decision-making. Of these 15 policies, seven of them have applicability to the Proposed Project. The seven applicable policies (and the Proposed Project's consistency with each) are summarized as follows:

- **Enhance transportation corridors** – King Street/NYS Route 120 is an important transportation corridor that generally runs north/south between Rye and Chappaqua. The Project Site's King Street frontage is marked

with a stone wall, ornamental lawn and landscaping, and berms which provide an aesthetically pleasing parkway-like setting for motorists and a visual screening from development on the Project Site, a condition which would remain as part of the Proposed Project.

- **Nurture economic climate / track and respond to trends** – While these two policies are separated in the County's plan, they are both applicable to the Proposed Project in similar ways. Both Westchester County and the Town of North Castle have recognized that there has been a decreased demand for corporate office park development and increased demand for mixed-use infill development, including a diverse housing stock. This is evident from the Applicant's unsuccessful attempts to market the Project Site for continued office use. The Proposed Zoning and PDCP for the Project Site represent the Applicant's attempt to respond to this trend.
- **Preserve natural resources** – As described above, there is a conservation easement and a delineated wetland on the Project Site, and both would remain undisturbed with the Proposed Project. Grading will be limited to the proposed limits of disturbance on the Project Site, i.e. those areas where new buildings, internal circulation driveways/parking lots, and stormwater management facilities are proposed. No mass grading of the Project Site would occur to facilitate the PDCP. In addition, the Applicant has designed the PDCP to not result in any increases in impervious services when compared to the previously approved MBIA office expansion plans. Implementation of the Town and DEP-approved SWPPP would protect the Project Site and neighboring New York City water supply lands and the Kensico Reservoir from any impacts during both construction and operation of the Proposed Project.
- **Support development and preservation of permanently affordable housing** – As noted in Section 355-24(I)(1) of the Town Code, "within all residential developments of 10 or more units created by subdivision or site plan approval, no less than 10 percent of the total number of units shall be created as affordable affirmatively further fair housing (AFFH) units." It is expected that when site plan approvals are sought for the Project Site in the future, the Proposed Project would comply with these requirements.
- **Provide recreational opportunities to serve residents –** While the PDCP does not propose any public parks, the PDCP provides for open space and recreational opportunities to on-site residents, office employees, and hotel guests. The amenities envisioned are described further in Chapter 2, "Project Description."
- **Promote sustainable technology** – It is expected that when site plan approvals are sought for the Project Site in the future, the Proposed Project would incorporate sustainable building practices and green technologies, to the extent practicable.

3.E. MITIGATION MEASURES FOR THE PROPOSED PROJECT (DEIS)

While the Proposed Action would result in physical changes to portions of the Project Site, it is, in the Applicant's opinion, consistent with the land use plans governing the area, including the Town's Comprehensive Plan. The most notable impact would be a relatively minor change in views of the Project Site from King Street and Cooney Hill Road due to the presence of new structures on land that is currently landscaped lawn/wooded meadow (see Chapter 11, "Visual Resources and Community Character"). The new multifamily building and townhomes will be architecturally distinctive and, in the Applicant's opinion, designed to appropriately relate to the character of the area surrounding the Project Site, and reflective of other residential development in the Town. A new comprehensive landscaping plan is proposed to provide a visually attractive site as well as a transitional buffer between the Project Site and King Street/Cooney Hill Road. Several mitigation measures have been incorporated into the Proposed Project, including:

- The PDCP has been developed to ensure there would be no net increase to impervious surfaces when compared to the currently approved site plans or the condition when the Cooney Hill area of the Project Site was developed with a residential subdivision. This design consideration includes the use of structured parking on the multifamily building's lower floors (as well as below grade), providing minimal access road widths, and proposing porous gravel alternatives for those circulation elements meant to provide emergency access between the northern and southern portions of the Project Site;
- The proposed multifamily building and townhomes have been sited and configured to take advantage of the site's topography, thereby avoiding excessive cuts and fills or the necessity for large retaining walls.
- The proposed building placement allows for the preservation of the existing visual screenings and buffers found along the perimeter of the Project Site, which include landscaped berms, stone walls, and evergreen trees to remain undisturbed. As discussed in Chapter 11, "Visual Resources and Community Character," in the Applicant's opinion, the proposed enhancement of the existing perimeter screening along King Street and Cooney Hill Road is an important visual and community benefit of the Proposed Project;
- The townhouse portion of the PDCP has been designed as an aesthetically pleasing, pedestrian friendly residential neighborhood in a natural setting, set back from and consistent with the scale of surrounding uses;
- The Proposed Project does not include development within the Site's irrevocable conservation easement adjacent to the DEP property; and,
- As discussed in Section 2.C.5, "Conservation Easement," the Applicant has satisfied the requirements for the revocation of that portion of the conservation easement deemed to be revocable. However, the Proposed Project does not include any structures, roads, or drives within the revocable portion of the easement.

3.F. POTENTIAL IMPACTS OF, AND MITIGATION FOR, THE PROPOSED ZONING (GEIS)

3.F.1. INTRODUCTION

The Proposed Zoning would be applicable to the entirety of the DOB-20A district. As a result, in addition to the Project Site there are several other parcels that would be entitled to apply for a special permit for additional uses should the Proposed Zoning be approved.

It should be noted at this time that there are no known development plans or active applications for these additional parcels. In coordination with the Town, reasonable and theoretical assumptions related to the future potential build-out of the DOB-20A with the Proposed Zoning have been developed in order to analyze (in a generic fashion) the potential environmental impacts of the district-wide DOB-20A zoning text amendments. Additionally, since the Proposed Project does not maximize on-Site development that would be permitted by the Proposed Zoning, assumptions for the Project Site's maximum build-out (in excess of the PDCP) were also developed.

The additional DOB-20A parcels subject to the Proposed Zoning are defined as follows:

- 127-acre Swiss Re Parcel (175 King Street / tax parcel 113.04-1-2)
- 27-acre Citigroup Parcel (188 King Street / tax parcel 113.04-1-3)
- 1-acre residential parcel at 3 Cooney Hill Road (tax parcel 113.04-1-20)
- 1-acre vacant parcel at 32 King Street (tax parcel 118.02-1-2)

As described in Chapter 2, "Project Description," and illustrated in Figure 2-18, several assumptions were developed in coordination with the Town for the above-listed, off-site adjacent DOB-20A parcels subject to the Proposed Zoning. In developing these assumptions, it was concluded that no new development potential exists for the Citigroup parcel (188 King Street), 3 Cooney Hill Road, or 32 King Street. Therefore, those three sites are excluded from the following qualitative analyses.

The following qualitative discussions on potential land use, zoning, and public policy impacts and mitigation focus on the Swiss Re parcel as well as the assumptions for the Project Site's maximum buildout in excess of the Applicant's proposed PDCP. As described in Chapter 2, "Project Description," and summarized below, the theoretical worst-case development scenario under the Proposed Zoning, when accounting for the maximum buildout potential of both the Project Site and the adjacent Swiss Re parcel, is 750 residential units and an 80-room hotel.

No specific proposal is being made at this time to effectuate the maximum hypothetical development of these two sites and any future plans would be subject to review by the Town, including a full environmental review.

3.F.2. GEIS ASSUMPTIONS – SWISS RE PARCEL AND PROJECT SITE

The Swiss Re parcel is currently developed with approximately 360,000 sf of existing office space together with a parking structure. Given market conditions, it is reasonable to assume that the maximum potential development scenario for the Swiss Re parcel under the Proposed Zoning would be similar in nature to the Applicant's PDCP for the Project Site (i.e., conversion of the existing office buildings to residential and hotel uses). Although no specific development plans are available for the Swiss Re parcel at this time, under the office to residential/hotel conversion parameters outlined in the Proposed Zoning, the Swiss Re parcel has the potential to be redeveloped with up to 250 residential units and an 80-room hotel (see **Table 3-4**). Due to their proximity and similar existing condition, the introduction of mixed-use office, hotel, and residential development on the Swiss Re parcel is a potential future trend supported by the Town, as evidenced through the recommendations within the recently updated and adopted Comprehensive Plan. These recommendations are rooted in the understanding that over time, there will likely continue to be decreased demand for corporate office park development and increased

demand for hotels as well as a diverse housing stock, including affordable and senior housing. These new uses would also be supported by existing infrastructure and the convenience offered by proximity to I-684, the Westchester County Airport, and the Armonk Hamlet.

For the purpose of providing a conservative environmental review, as well as based on market conditions and recent development trends in the Town, the Applicant believes it is most appropriate for the GEIS to study a full residential conversion as the theoretical "maximum build out" for the Project Site under the Proposed Zoning. While other configurations are possible, the alternatives studied in this D/GEIS, as approved by the Town, cover many of them (e.g., senior housing). The Proposed Zoning allows for a conversion of approved but unbuilt office floor area to hotel/residential floor area at a ratio of 1:1.25 and conversion of existing office floor area to residential floor area at a ratio of 1:1. The Project Site currently has 261,000 sf of existing office space, and has received approvals to construct an additional 238,000 sf of office space (which has not been built). Therefore, the GEIS analyzes the potential environmental impacts of the maximum allowable existing as well as approved/unbuilt office to residential conversion, which equates to up to 558,500 sf of multifamily residential space (approximately 500 residential units) on the Project Site (see **Table 3-4**).

Table 3-4
Maximum Development Potential (Proposed Zoning) Project Site / Swiss Re Parcel

Property	Existing/Approved Floor Area	Conversion Ratio(s) Applied (Proposed Zoning)	Maximum Allowable Floor Area Assumed (Proposed Zoning)
Project Site (113 King Street)	261,000 sf office (existing) 238,000 sf office (approved/unbuilt)	1:1 existing office to residential + 1:1.25 approved/unbuilt office to residential	558,500 sf residential (~500 units)
Swiss Re Parcel (175 King Street)	360,000 sf office (existing)	1:1 existing office to hotel/residential	110,000 sf hotel (~80 rooms);250,000 sf residential (~250 units)
Sources: Town of North Castle, Airport Campus I-V LLC, Swiss Re Life and Health America			

3.F.3. LAND USE AND ZONING – POTENTIAL IMPACTS AND MITIGATION (GEIS)

Redevelopment of the Swiss Re parcel in a manner similar to the Applicant's current proposal for the Project Site would not, in the Applicant's opinion, introduce land uses that are inconsistent with the existing land uses surrounding these sites, including the Westchester County Airport. Similar to the Proposed Project, potential redevelopment of the Swiss Re parcel would serve to activate an area of the Town that, over the last 15 years, has seen limited interest from corporate office tenants and has been lacking a traditional neighborhood identity.

The similarities of both sites, being large parcels with substantial frontage along King Street as well as opportunities for large setbacks and visual screenings, make these parcels suitable for larger multifamily buildings that can be screened from public rights of way, and support the Applicant's rationale for a district-wide zoning text amendment.

The Proposed Zoning would allow the Town Board, by special permit, to increase the maximum allowable building height in the DOB-20A district from 45 feet to 85 feet for multifamily apartment buildings proposed under the office to residential conversion parameters. The modified height requirement could permit the construction of multifamily apartment buildings on the Project Site and the Swiss Re parcel that could be as much as 40 feet taller than currently allowed. While there are no detailed redevelopment plans available for the GEIS development assumptions, it is reasonable to assume that, similar to the Proposed Project, a new 85-foot-tall multifamily building on the Swiss Re parcel and the potential for multiple 85-foot-tall multifamily buildings on the Project Site would be visible from vehicular traffic along King Street. However, mitigation for any potential impacts to visual resources would be consistent with those identified for the Proposed Project and discussed in Chapter 11, "Visual Resources and Community Character."

3.F.4. PUBLIC POLICY – POTENTIAL IMPACTS AND MITIGATION (GEIS)

The introduction of hotel and residential development to the area of the Project Site and Swiss Re parcel is a potential future trend supported by the Town, as evidenced through the recommendations within the recently updated and adopted Comprehensive Plan (2018). These recommendations are rooted in the understanding that over time, there will likely continue to be decreased demand for corporate office park development and increased demand for hotels as well as a diverse housing stock, including affordable and senior housing. These new uses would also be supported by existing infrastructure and the convenience offered by proximity to I-684, the Westchester County Airport, and the Armonk Hamlet.

The following excerpts from Sections 8.6 and 8.7 of the Comprehensive Plan, respectively, support these conclusions:

> *"While North Castle today is mostly defined by its attractive low-density residential neighborhoods, offering a greater variety of housing types could help the Town to retain Baby Boomers in retirement and attract younger people who wish to stay but cannot afford a single-family home. An efficient approach to greater variety of housing would prioritize attractive multifamily options in locations that maximize access to the community assets that make the Town so attractive, with a focus on targeted infill development in appropriate locations."*

> *"Explore options to rezone business and office parks in order to create opportunities for infill mixed use residential development where office uses have become, or could become, obsolete. These locations could include the business park, the former MBIA site, Old Route 22 and Mariani Gardens, areas where affordable housing for smaller households will minimize traffic and parking impacts. Additional residential uses in these areas can also help to support Armonk businesses."*

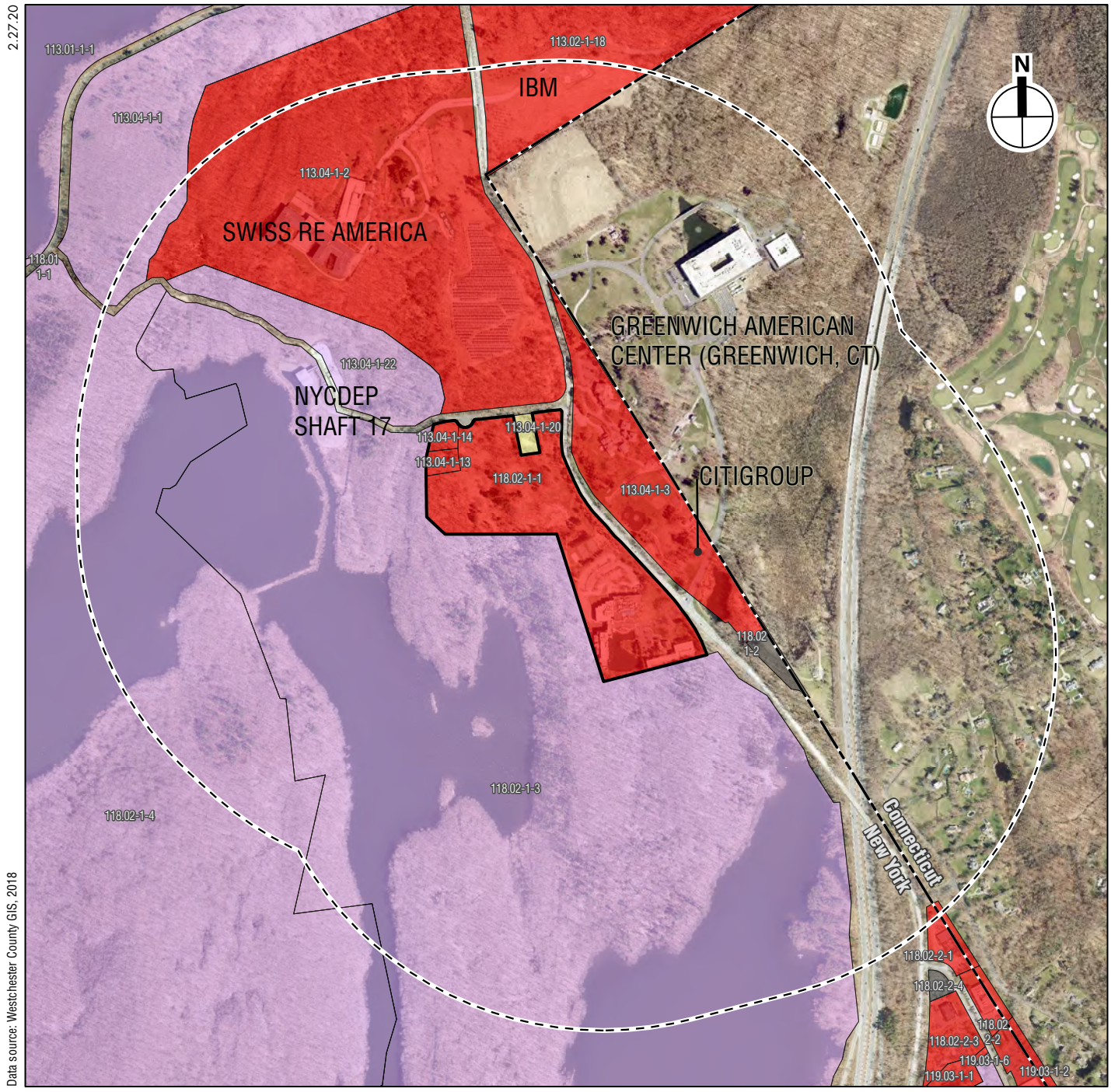
Eliminating office and the proposed hotel uses and introducing approximately 500 residential units to the Project Site would not advance the PDCP's goal of providing a mix of uses. This could be mitigated by providing a mix of residential housing types on the Project Site (e.g., multifamily, affordable, senior) and by having other uses remain on the Swiss Re and Citigroup parcels.

The 1996 regional plan entitled "Patterns for Westchester: The Land and The People," is still an adopted plan of the Westchester County Planning Board. However, the

"Assumptions and Policies" sections have since been replaced by the context and policy document that emerged from the "Westchester 2025" planning efforts, known as "2025 Context for County and Municipal Planning and Policies to Guide County Planning." This policy document was adopted by the Westchester County Planning Board on May 6, 2008 (amended January 5, 2010) and recommends 15 policies to county municipalities as guidance for their own decision-making. Similar to the Proposed Project, of these 15 policies, seven of them have potential applicability to the GEIS development assumptions for the Project Site and the Swiss Re parcel:

- **Enhance transportation corridors** – While no detailed plans are available for either site under the GEIS development assumptions, it is expected that efforts would be made to preserve the existing enhanced conditions of the King Street/NYS Route 120 frontages of both the Project Site and the Swiss Re parcel. These existing improvements currently provide an aesthetically pleasing parkway-like setting for motorists and a visual screening from development on both sites.
- **Nurture economic climate / track and respond to trends** – While these two policies are separated in the County's plan, they are both applicable to the GEIS development assumptions in similar ways. Both Westchester County and the Town of North Castle have recognized that there has been a decreased demand for corporate office park development and increased demand for mixed-use infill development, including a diverse housing stock. The Proposed Zoning represents the Applicant's attempt to respond to this trend for the Project Site, and Swiss Re representatives have been receptive to the Proposed Zoning's applicability to the Swiss Re parcel.
- **Preserve natural resources** – While no detailed plans are available for either site under the GEIS development assumptions, the large size of the Project Site and Swiss Re parcel and proximity to natural resources, including the Kensico Reservoir, provide opportunities for the preservation of natural resources. In addition, it is expected that implementation of a Town-approved and DEP-approved SWPPP would protect the neighboring New York City water supply lands and the Kensico Reservoir from any impacts during both construction and operation.
- **Support development and preservation of permanently affordable housing** – As noted in Section 355-24(I)(1) of the Town Code, "within all residential developments of 10 or more units created by subdivision or site plan approval, no less than 10 percent of the total number of units shall be created as affordable affirmatively further fair housing (AFFH) units." It is expected that any site plan approvals sought for the Project Site or Swiss Re parcel in the future would comply with these requirements.
- **Provide recreational opportunities to serve residents** – Due to the size and natural setting offered by both parcels, similar to the Proposed Project, redevelopment of the Project Site and Swiss Re parcel pursuant to the GEIS assumptions would be expected to include recreational amenities for new residential and hotel uses.
- **Promote sustainable technology** – It is expected that if site plan approvals are sought for these sites in the future, any redevelopment proposed would incorporate sustainable building practices and green technologies, to the extent practicable. The Swiss Re parcel is currently served by the largest solar installation in Westchester County, and any redevelopment of this parcel in the future pursuant to the Proposed Zoning would be expected to utilize this existing utility infrastructure.

Similar to the Proposed Project, no significant adverse impacts to public policy are anticipated from the theoretical maximum build-out under the DOB-20A, and no further mitigation measures are necessary. ✷



Existing Land Use - Project Site and 1/2 Mile

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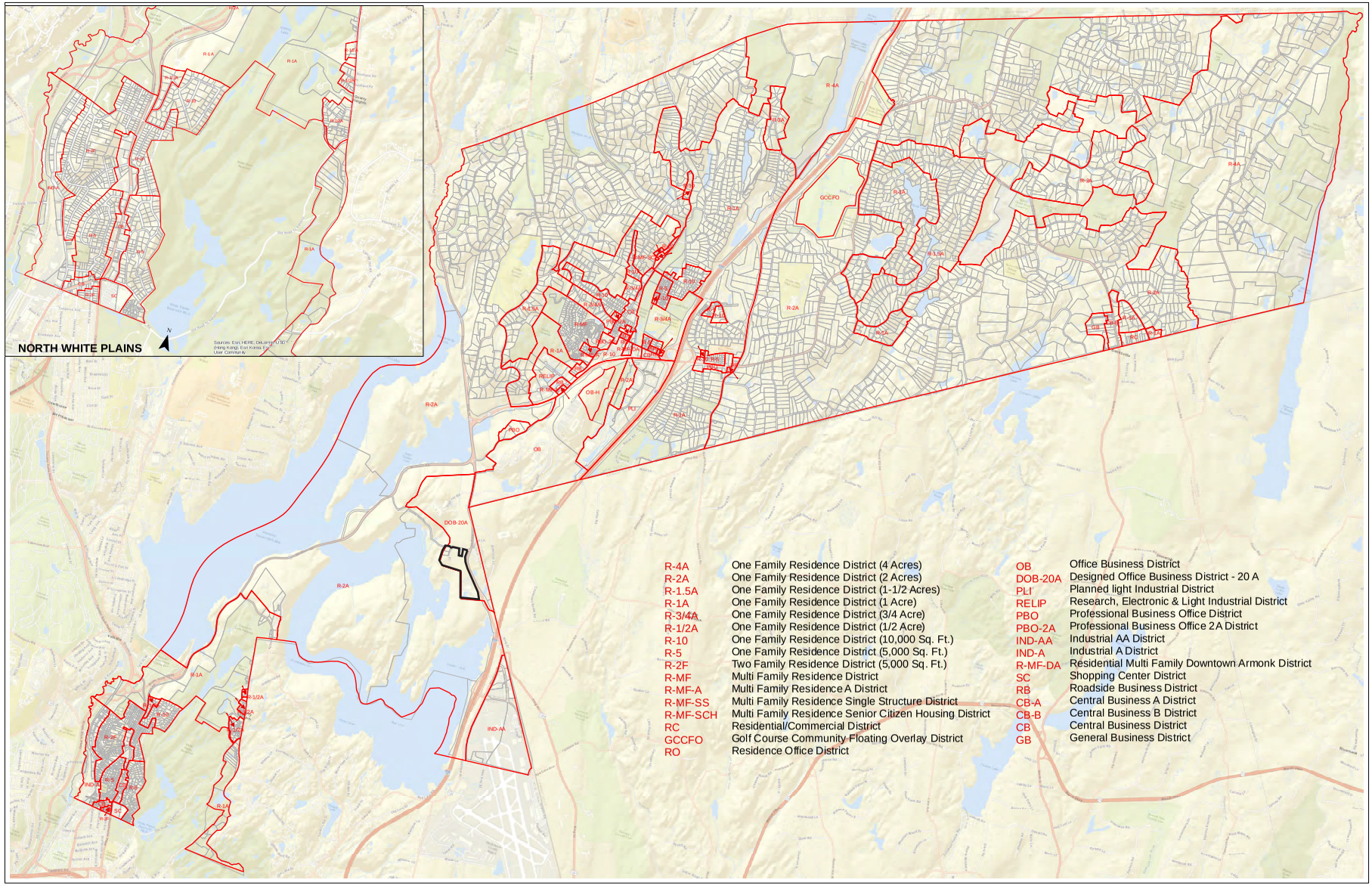
Figure 3-1

2.27.20



Source: Town of North Castle, 2019

Project Site

Town of North Castle Zoning Map (2019)

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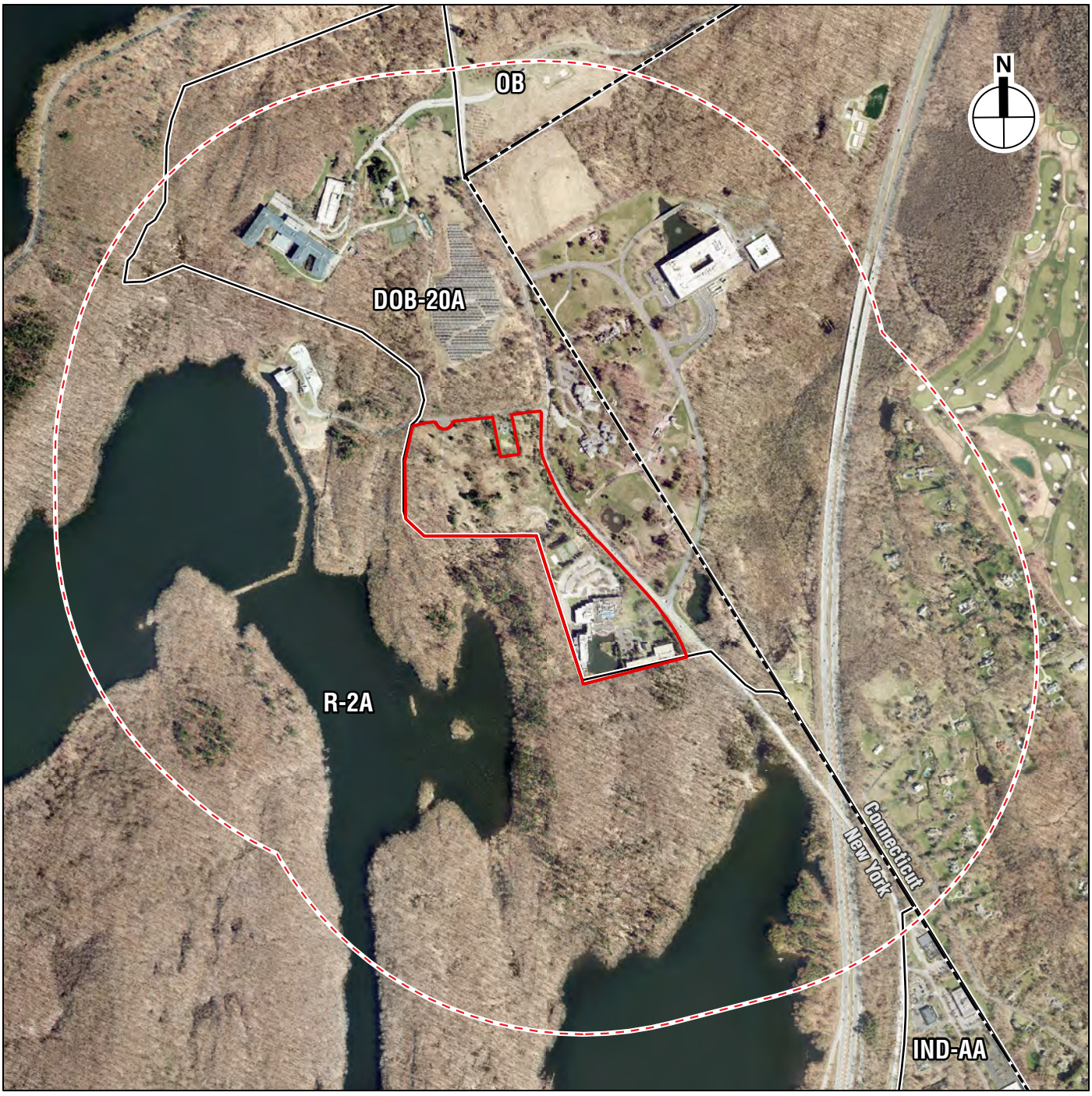
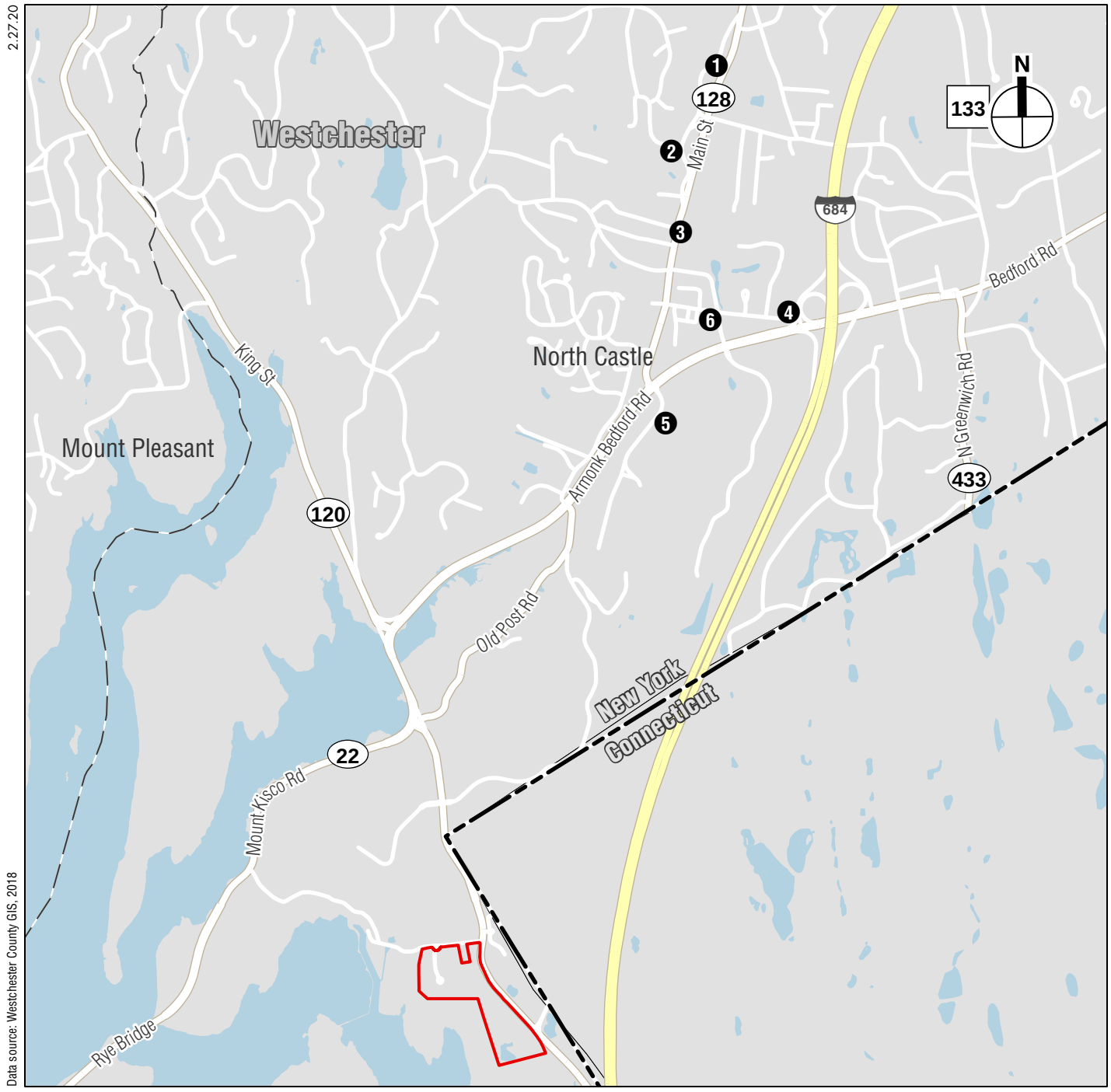
Figure 3-2



Existing Zoning - Project Site and 1/2 Mile



Approved and Pending Development Projects

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Figure 3-4

4.A. INTRODUCTION

This chapter describes the Project Site's existing geology and soils, and addresses potential impacts to on-Site surface and subsurface geologic resources as a result of the Proposed Action. Bedrock geology and surface soils are described based on data included within the "Soil Survey of Putnam and Westchester Counties, New York" prepared by the Soil Conservation Service/U.S. Department of Agriculture, issued September 1994. In addition, a "Report on Subsurface Soil and Foundation Investigation" was prepared for the Project Site by Carlin-Simpson and Associates on January 17, 2020 and revised on September 17, 2020 (see **Appendix C-1**). Potential impacts to these resources are based on the potential for the Proposed Project to cause soil erosion or to impact geologic resources or groundwater resources as a result of cut-and-fill activities during construction. Construction of the Proposed Project would be in accordance with the recommendations of the Preliminary Geotechnical Engineering Report.

4.B. EXISTING CONDITIONS

4.B.1. REGIONAL AND BEDROCK GEOLOGY

The Project Site's underlying bedrock geology is characterized by rocks formed during the Precambrian Era, over 500 million years ago. Bedrock formations underlying the Project Site consists of Fordham gneiss and Yonkers gneiss, which are metamorphic rocks of sedimentary or volcanic origin.[1] Gneiss is a medium to coarse-grained, well foliated, regionally metamorphosed clay rock. Common minerals in gneiss are quartz, feldspar, biotite, hornblende, kyanite, and sillmanite.

4.B.2. PROJECT SITE SPECIAL GEOLOGIC FEATURES

As confirmed on a site visit conducted in May 2020, the closest geological feature to the Proposed Project's limits of disturbance is a bedrock outcrop (Precambrian-age gneiss) observed in the northern area of the Project Site, southeast of the former Weber Place. Construction of the proposed townhomes and stormwater infrastructure in this area of the Site would avoid this feature. As shown in **Figure 4-1**, three additional outcroppings were observed further west. These features would also remain undisturbed.

[1] University of the State of New York, State Education Department, "Geologic Map of New York, Lower Hudson Street," Map and Chart Seies No. 15, compiled by Fisher, Isachsen and Rickard, March 1970.

4.B.3. PROJECT SITE SOILS

Soil types on the Project Site have been mapped per the "Soil Survey of Putnam and Westchester Counties, New York" prepared by the Soil Conservation Service/U.S. Department of Agriculture, issued September 1994.

The five soils present within the Project Site are summarized in **Table 4-1** below, and are depicted in **Figure 4-2**.

Table 4-1
Project Site Soil Types

Soil Unit Symbol	Soil Unit Name	Area within Proposed Project's Limits of Disturbance (sf/ac)	Percent of Proposed Project's Limits of Disturbance
ChC	Charlton loam, 8 to 15 percent slopes	37,171 sf 0.85 ac	4.9%
CrC	Charlton-Chatfield complex, 0 to 15 percent slopes, very rocky	27,776 sf 0.64 ac	3.7%
CsD	Chatfield-Charlton complex, 15 to 35 percent slopes, very rocky	0	0
PnB	Paxton fine sandy loam, 2 to 8 percent slopes	695,678 sf 16.0 ac	91.4%
PnC	Paxton fine sandy loam, 8 to 15 percent slopes	0	0

Note: All areas shown are approximate.
Sources: "Soil Survey of Putnam and Westchester Counties, New York," prepared by the Soil Conservation Service/U.S. Department of Agriculture, issued September 1994; JMC Engineering

Table 4-2 below summarizes the soil characteristics (e.g., construction-related and long-term erosion potential, runoff, permeability), limitations, and suitability of each soil type found on the Project Site.

Table 4-2
Project Site Soil Type Characteristics

Soil Unit	Soil Name and (Slope)	Erosion Hazard	Hydrologic Group	Surface Runoff Potential	Permeability	Depth to Bedrock (in)	Depth to Seasonal Water Table (ft)	Drainage Class
ChC	Charlton loam, 8 to 15 percent slopes	Moderate	B	Medium	Moderate or moderately rapid (0.6–6.0 in/hr)	>60	>6	Well drained
CrC	Charlton-Chatfield complex, 0 to 15 percent slopes, very rocky	Moderate	B	Medium	Moderate or moderately rapid (0.6–6.0 in/hr)	>60	>6	Well drained
CsD*	Chatfield-Charlton complex, 15 to 35 percent slopes, very rocky	Severe	B	Rapid	Moderate or moderately rapid (0.6–6.0 in/hr)	20–40	>6	Well drained
PnB	Paxton fine sandy loam, 2 to 8 percent slopes	Slight	C	Medium	Moderate (0.6–2.0 in/hr) in the surface layer and subsoil and slow (<0.2 in/hr) in the substratum	>60	Perched above the dense substratum at depth of 1.5 to 2.5 feet from February through April	Well drained
PnC*	Paxton fine sandy loam, 8 to 15 percent slopes	Moderate	C	Medium	Moderate (0.6–2.0 in/hr) in the surface layer and subsoil and slow (<0.2 in/hr) in the substratum	>60	Perched above the dense substratum at depth of 1.5 to 2.5 feet from February through April	Well drained

Note: * CsD and PnC soils are not found within Proposed Project's limits of disturbance.
Sources: "Soil Survey of Putnam and Westchester Counties, New York," prepared by the Soil Conservation Service/U.S. Department of Agriculture, issued September 1994; Geotechnical Engineering Report prepared by Carlin-Simpson and Associates, January 29, 2020 (**Appendix C-1**)

Table 4-3 summarizes additional soil characteristics for the five soil types present on the Project Site, including limitations and suitability of each soil type for particular land uses (roads, driveways, sewage disposal areas, underground utility installation, and building construction).

Table 4-3
Project Site Soils – Additional Characteristics

Symbol	Soil Name and (Slope)	Suitability: Limitations								
		Shallow Excavations	Dwellings w/o Basement	Dwellings w/Basement	Small Commercial Buildings	Local Roads and Streets	Lawns and Landscaping	Sewage Disposal Fields	Ponds	Utilities
ChC	Charlton loam, 8 to 15 percent slopes	Moderate: Slope	Moderate: Slope	Moderate: Slope	Severe: Slope	Moderate: Slope	Moderate: Slope	Moderate: Slope	Severe: Slope, Seepage	None
CrC	Charlton-Chatfield complex, 0 to 15 percent slopes, very rocky	Moderate: Slope	Moderate: Slope	Moderate: Slope	Severe: Slope	Moderate: Slope	Moderate: Slope	Moderate: Slope	Severe: Slope, Seepage	None
CsD*	Chatfield-Charlton complex, 15 to 35 percent slopes, very rocky	Severe: Depth to Rock, Slope	Severe: Slope	Severe: Depth to Rock, Slope	Severe: Slope	Severe: Slope	Severe: Slope	Severe: Depth to Bedrock, Slope	Severe: Slope, Seepage	Potential Shallow Bedrock
PnB	Paxton fine sandy loam, 2 to 8 percent slopes	Moderate: Dense Layer, Wetness	Moderate: Wetness	Moderate: Wetness	Moderate: Wetness, Slope	Moderate: Wetness, Frost Action	Slight	Severe: Slow Perc.	Moderate: Slope	None
PnC*	Paxton fine sandy loam, 8 to 15 percent slopes	Moderate: Dense Layer, Wetness, Slope	Moderate: Wetness, Slope	Moderate: Wetness, Slope	Severe: Slope	Moderate: Wetness, Slope, Frost Action	Moderate: Slope	Severe: Slow Perc.	Severe: Slope	None

Note: * CsD and PnC soil types are not found within Proposed Project's limits of disturbance.
Sources: "Soil Survey of Putnam and Westchester Counties, New York," prepared by the Soil Conservation Service/U.S. Department of Agriculture, issued September 1994; Geotechnical Engineering Report prepared by Carlin-Simpson and Associates, January 29, 2020 (**Appendix C-1**)

4.B.4. GEOLOGY / SOILS CONDITIONS IN THE DOB-20A DISTRICT (GEIS)

Similar to the Project Site, the underlying bedrock geology of the DOB-20A district is characterized by rocks formed during the Precambrian Era, over 500 million years ago. Bedrock formations consist of Fordham gneiss and Yonkers gneiss, which are metamorphic rocks of sedimentary or volcanic origin. Based on the mapping available through the NRCS Web Soil Survey,[2] the geology of the Swiss Re Parcel is comprised of soil types similar to those found on the Project Site, along with one additional soil type noted—"WdB"—Woodbridge loam, 3 to 8 percent slopes.

[2] https://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx

4.C. POTENTIAL IMPACTS OF THE PROPOSED PROJECT (DEIS)

4.C.1. POTENTIAL IMPACTS ON GEOLOGY

As noted above, the surface rock outcrop features identified on the Project Site are outside of the Proposed Project's limits of disturbance and would not be impacted by construction of the Proposed Project.

Based on the preliminary evaluation by the Applicant's Engineer, construction of the Proposed Project may require limited rock removal by blasting or hammering activities for development of the northern portion of the proposed multifamily building's parking structure, which may extend several feet into bedrock. There is no other potential rock removal anticipated as part of construction. Final determination of whether blasting needs to occur and, if so, to what extent would be made by the Applicant's contractor, in coordination with the Applicant's Engineer.

Should blasting be performed during the construction of the Proposed Project, it would be done in accordance with the Town of North Castle's Blasting Protocol (Town Code Chapter 122, "Blasting and Explosives"). The site-specific blasting protocol, which would be finalized during Site Plan Review based on the final site design and updated geotechnical investigations, would ensure that blasting activities would be protective of public health and safety to the maximum extent practicable. The specific measures to be taken in the event blasting is required are discussed in detail in Chapter 17, "Construction."

4.C.2. POTENTIAL IMPACTS TO SOILS

Approximately 46.3 percent (17.5 acres or 760,707 sf) of the Project Site would be affected by site development activities, building construction and infrastructure installation. **Table 4-4** summarizes Project disturbance by soil unit area. Most disturbance (approximately 42.2 percent) would occur within the PnB – Paxton Fine Sandy Loam soil unit (approximately 694,655 sf or 16 acres) (see **Figure 4-2**). According to the "Soil Survey of Putnam and Westchester Counties, New York" prepared by the Soil Conservation Service/U.S. Department of Agriculture (1994), many areas with PnB soils are used for community development purposes. The main limitation on sites for dwellings with basements is seasonal wetness, which can be overcome by installing drains around footings, sealing foundations, and grading to divert surface water away from the buildings. The main limitations for the construction of roadways and other paved surfaces are wetness and frost action. Constructing roadways on raised fill of coarse-grained materials helps to overcome these limitations. The Applicant's Engineer has developed a preliminary grading plan for the Proposed Project which incorporates these design controls (see **Figures 4-3a and 4-3b**).

Table 4-4
Proposed Disturbance by Soil Type

Soil Type	Proposed Disturbance (sf/acres)	Percent of Site Disturbed
ChC	37,171 sf 0.85 acres	2.3
CrC	28,875 sf 0.66 acres	1.8
CsD	0	0
PnB	694,655sf 16.0 acres	42.2
PnC	0	0
Total	**760,701 sf 17.5 acres**	**46.3**

Sources: JMC Engineering; "Soil Survey of Putnam and Westchester Counties, New York," prepared by the Soil Conservation Service/U.S. Department of Agriculture, issued September 1994

Based on the topography of the Project Site, and in order to create generally level development pads and perimeter berms in select locations, the Proposed Project would result in a net cut of approximately 13,324 cubic yards of material. Preliminary earthwork calculations have been provided by the Applicant's Engineer and are summarized in **Table 4-5** below. A map depicting a preliminary cut and fill analysis can be found in **Figure 4-4**.

Table 4-5
Preliminary Cut-and-Fill Analysis

Total Cut Volume (cubic yards)	Total Fill Volume (cubic yards)*	Net Cut-and-Fill (cubic yards)**
62,606	49,282	13,324

Notes:
* Assumes 10 percent compaction factor and 1-foot thickness for proposed building floor slabs and subbase.
** Includes 20 percent expansion factor for cut to be exported.
Source: JMC Engineering

As documented in **Table 4-5**, approximately 79 percent of the material to be excavated would be re-used on the Project Site as fill, and the balance of the excavated material would be exported. As recommended by the Applicant's Geotechnical Engineer, an expansion factor of 20 percent was applied to the excavated material to be exported off site. Utilizing haul trucks with a 20 cubic yard capacity, approximately 666 truck trips would be required to remove the excess material, which would be exported in accordance with all applicable regulations to appropriate location(s). These trips would be spread over several months during the construction period such that the number of truck trips during a single day would be a small fraction of the total number of trips. See Chapter 17, "Construction," for additional detail regarding these truck trips.

As indicated in the Geotechnical Engineering Report (**Appendix C-1**) an isolated pocket of existing fill material was identified at boring B-14, which occurs in the southern portion of the proposed multifamily building. This material will be excavated and replaced with appropriately compacted suitable material from elsewhere on the Project Site. The excavated fill material will be placed in a non-structural fill location elsewhere on the

Project Site, such as the landscaped berm. Accordingly, excavation and relocation of the fill material is accounted for in the overall cut-and-fill calculation.

A temporary on-site rock crushing process may be established during construction. The need for, location, and schedule of operation of potential rock crushing activities would be determined during Site Plan review and approval. If rock crushing is established, the appropriate permit would be obtained from the Westchester County Department of Health and any crushing activities would be located at least 200 feet from any property line. Any rock crushing activities would only occur during permitted hours of construction as required by Chapter 210 of the North Castle Town Code.

Preliminary soil testing was conducted as part of the Preliminary Geotechnical Engineering Report. This testing revealed acceptable permeability rates. These parameters have been incorporated into the applicable calculations in the Proposed Project's Stormwater Pollution Prevention Plan (SWPPP).

Based on the Preliminary Geotechnical Engineering Report, groundwater was encountered in a number of the borings performed at the site at depths ranging from 1'-6" to 23-'0". Additional test pits, TP-104 and TP-105, were performed in the footprint of the proposed multifamily building (including the parking garage). Groundwater was encountered in both test pits at depths of 8'6" and 11'0" below the existing ground surface, respectively (elevations +425.5 and +424.0). The lower level of the proposed building will extend 7 to 9 feet below the groundwater table. It is anticipated that stabilization of wet subgrades with geotextile filter fabric and clean crushed stone may be necessary.

The Preliminary Geotechnical Engineering Report recommends that additional borings and supplemental groundwater study should be performed within the footprint of the proposed multifamily building to better evaluate the soil, rock and groundwater conditions and finalize design recommendations. The Applicant would undertake these additional investigations at the time of site plan approval, prior to preparing construction documents for the building.

4.D. MITIGATION MEASURES FOR THE PROPOSED PROJECT (DEIS)

In the Applicant's opinion, and based on the foregoing analyses, the Proposed Project is not anticipated to have a significant adverse impact on geology or soils. According to the Preliminary Geotechnical Engineering Report, the Project Site's geology and soils are suitable for development of the Proposed Project.

As described in detail in Chapter 17, "Construction," a construction phasing plan has been developed, and proper sequencing of construction activities will serve to mitigate various impacts. The Proposed Project includes an Erosion and Sediment Control Plan (ESCP) and SWPPP to avoid and/or mitigate impacts associated with the disturbance of on-Site soils during construction. The layout and configuration of the Proposed Project has been designed to take advantage of the Project Site's topography and contours, thereby minimizing the potential for erosion hazards. As discussed in Chapter 5, "Topography," and Chapter 17, "Construction," the Proposed Project's ESCP will provide mitigation for areas disturbed during construction.

In accordance with the ESCP, the installation of erosion and sediment control measures for the Hotel, Townhome, Multifamily, and Parking Lot Expansion phases would include stabilized construction access, silt fence, storm drain inlet protection, soil stockpile, dust control, and

temporary seeding and stabilization. In addition, the Townhome and Multifamily phases would include the construction of temporary stormwater sediment basins for erosion and sediment control purposes. The temporary basins would be converted to permanent stormwater ponds at the end of these phases for ongoing stormwater management.

The Applicant shall be responsible for maintaining the temporary sediment and erosion control measures throughout construction. This maintenance will include, but not be limited to, the following:

- For dust control purposes, all exposed graded areas would be moistened with water at least twice a day in those areas where soil is exposed and cannot be planted with a temporary cover due to construction operations or the season (December through March).
- Inspection of erosion and sediment control measures shall be performed at the end of each construction day and immediately following each rainfall event. Required repairs shall be immediately executed by the contractor.
- Sediment deposits shall be removed when they reach approximately one-third the height of the silt fence. Such sediment shall be properly disposed of in fill areas on the site, as directed by the Applicant's field representative. Fill shall be protected following disposal with mulch, temporary and/or permanent vegetation and be completely circumscribed on the downhill side by silt fence.
- Exposed areas parallel to the slope would be raked during earthwork operations.
- In areas where soil disturbance activity has temporarily or permanently ceased, the application of soil stabilization measures would be initiated by the end of the next business day and completed within seven days.
- Following final grading, the disturbed area would be stabilized with a permanent surface treatment (i.e., turf grass, pavement, or sidewalk). During rough grading, areas which are not to be disturbed for fourteen or more days shall be stabilized with the temporary seed mixture, as defined on the final approved Site Plans. Exposed soil areas that will not receive a permanent surface treatment will be seeded.

The ESCP would also include maintenance requirements, contingency and emergency measures, notification procedures in the event of failure of sediment and erosion control measures, and timing of removal. These measures, which would be finalized based on the final Site Plan, would at a minimum include the following:

- The Applicant shall have a qualified professional conduct an assessment of the Site prior to the commencement of construction and certify that the appropriate erosion and sediment controls, as shown on the final ESCP approved as part of the Site Plan, have been adequately installed to ensure overall preparedness of the Site for the commencement of construction. The Applicant shall have a qualified professional conduct a site inspection twice every seven calendar days separated by a minimum of two (2) full calendar days.
- Prior to the commencement of construction activity, the Applicant would identify the contractor(s) and subcontractor(s) that will be responsible for installing, constructing, repairing, replacing, inspecting, and maintaining the erosion and sediment control practices included in the final SWPPP approved as part of the Site Plan; and the contractor(s) and subcontractor(s) that will be responsible for constructing the post-construction stormwater management practices included in the SWPPP. The Applicant shall have the contractors and subcontractors identify at least one person from their company that will be responsible for

implementation of the SWPPP. This person shall be known as the "trained contractor." The Applicant shall ensure that at least one trained contractor is on site on a daily basis when soil disturbance activities are being performed.

- Within one business day of the completion of an inspection, the qualified inspector shall notify the Applicant and appropriate contractor or subcontract of corrective actions that need to be taken. The contractor or subcontractor shall begin implementing the corrective actions within one business day of this notification and shall complete the corrective actions in a reasonable time frame.

The Applicant would utilize Best Management Practices for rock crushing operations, if implemented, including wet suppression to avoid and minimize impacts associated with airborne dust to the maximum extent practicable. As mentioned above, any crushing activities would be located at least 200 feet from any property line. To further mitigate adverse impacts, rock and other material stockpiles will be covered with tarps and properly maintained in a wet condition. The rock crusher will be operated in accordance with the applicable permits and will be kept full to avoid air gaps and help mitigate dust impacts. Any potential crushing activities and the resulting stockpiles would be located as far from the single off-Site sensitive receptor at 3 Cooney Hill Road as practicable.

In addition, if blasting is determined to be necessary during the construction of the Proposed Project, it would be performed in accordance with the Town of North Castle's regulations and protocols on blasting and explosives (Town Code Chapter 122, "Blasting and Explosives") and would be subject to a site-specific blasting protocol. The details of the Town's general blasting protocol process are described in detail in Chapter 17, "Construction." As discussed in Chapter 6, "Vegetation and Wildlife," any required rock blasting activities would be confined to the period of October 1 through December 1 in order to avoid adverse impacts to protected species if, during Site Plan review, such restrictions are deemed necessary by the NYSDEC based on current guidance.

These mitigation measures, an ESCP, rock crushing protocol, and blasting protocol, would be detailed in a Construction Management Plan (CMP) that would be reviewed and approved as part of the final Site Plan approval and be made a condition thereof. The Town would, therefore, be able to enforce the provisions of the CMP throughout the construction process. A draft CMP has been included as **Appendix L**.

The above measures represent the best available technologies and practices to minimize potential impacts to the Project Site's soils or geological features to the maximum extent practicable. Subject to the implementation of these mitigation measures, no significant adverse impacts are anticipated.

4.E. POTENTIAL IMPACTS OF, AND MITIGATION FOR, THE PROPOSED ZONING (GEIS)

As described in Chapter 2, "Project Description," the theoretical maximum development scenario under the Proposed Zoning, when accounting for the maximum buildout potential of both the Project Site and the adjacent Swiss Re parcel, is a total of 750 residential units and an 80-room hotel.

It is important to note that no specific proposal is being made at this time to effectuate the maximum hypothetical development of these two sites and any future plans would be subject to review by the Town, including a full environmental review.

Detailed site plans, geotechnical engineering reports, grading plans, and cut/fill analyses for the scenario assumed in the GEIS are not available, and the phasing/duration of construction, including the extent of concurrent/overlapping activities and the number of workers, is also unknown at this time. However, based on the land use history and geographic characteristics of the two parcels, and assuming the type of new construction practices anticipated to effectuate a mixed-use residential/hotel development, the potential exists for impacts similar to those anticipated with the Proposed Project related to erosion and sediment control and blasting. Measures to mitigate these potential impacts would also be similar to those identified for the Proposed Project.

Future plans on either parcel would be subject to site plan review as well as a full environmental review by the Town. In addition, since concurrent construction activities at both parcels cannot be ruled out, cumulative impacts may need to be considered and appropriately coordinated among the developers, the Town, and other interested/involved agencies. Cumulative impacts on the surrounding area related to erosion and sediment control and blasting are of particular importance if concurrent construction were to take place and would be evaluated at the time of site plan approval. ✷

4.27.21

Project Site - Unique Geologic Features

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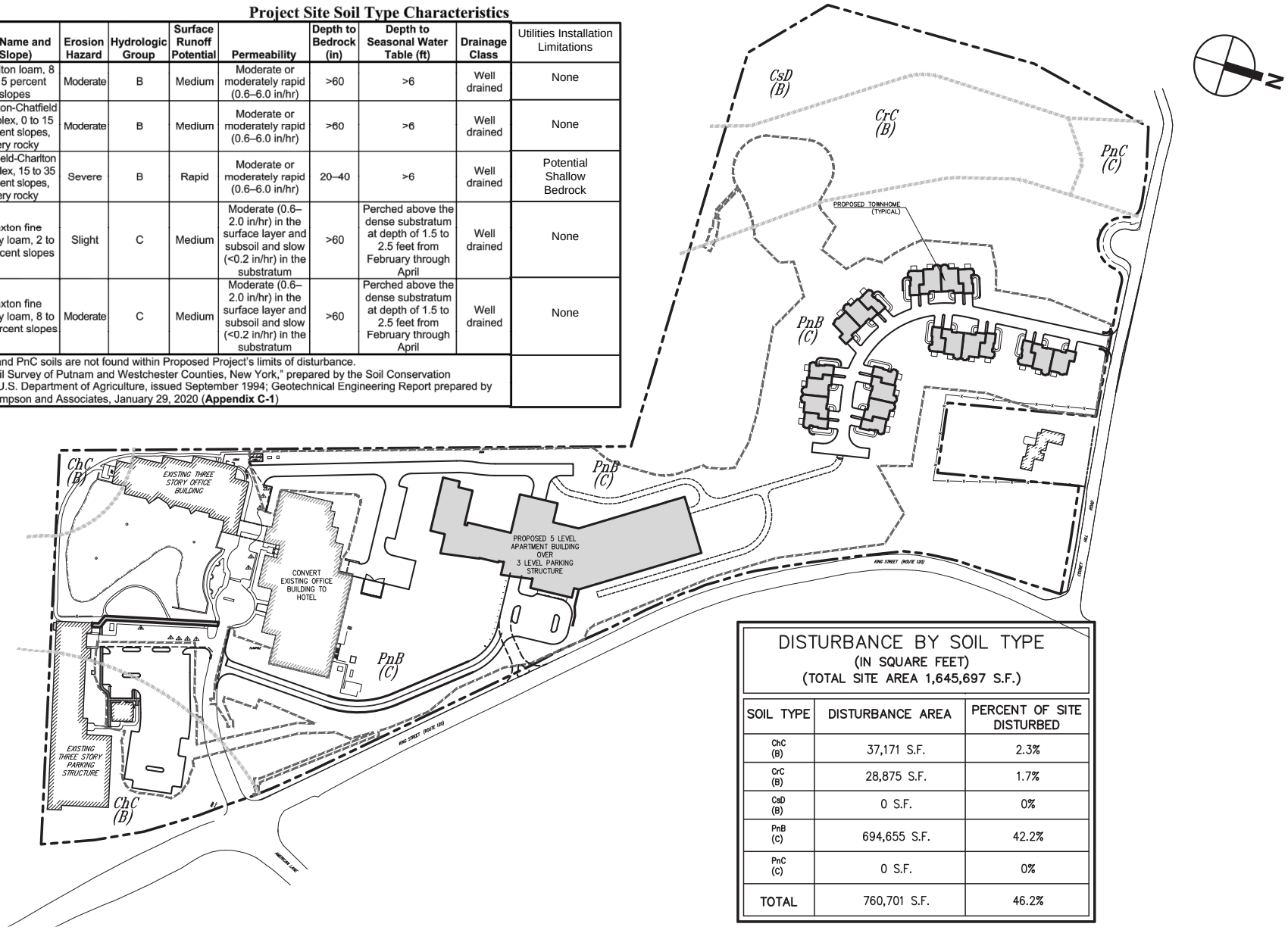
Figure 4-1

Project Site Soil Type Characteristics

Soil Unit	Soil Name and (Slope)	Erosion Hazard	Hydrologic Group	Surface Runoff Potential	Permeability	Depth to Bedrock (in)	Depth to Seasonal Water Table (ft)	Drainage Class	Utilities Installation Limitations
ChC	Charlton loam, 8 to 15 percent slopes	Moderate	B	Medium	Moderate or moderately rapid (0.6–6.0 in/hr)	>60	>6	Well drained	None
CrC	Charlton-Chatfield complex, 0 to 15 percent slopes, very rocky	Moderate	B	Medium	Moderate or moderately rapid (0.6–6.0 in/hr)	>60	>6	Well drained	None
CsD*	Chatfield-Charlton complex, 15 to 35 percent slopes, very rocky	Severe	B	Rapid	Moderate or moderately rapid (0.6–6.0 in/hr)	20–40	>6	Well drained	Potential Shallow Bedrock
PnB	Paxton fine sandy loam, 2 to 8 percent slopes	Slight	C	Medium	Moderate (0.6–2.0 in/hr) in the surface layer and subsoil and slow (<0.2 in/hr) in the substratum	>60	Perched above the dense substratum at depth of 1.5 to 2.5 feet from February through April	Well drained	None
PnC*	Paxton fine sandy loam, 8 to 15 percent slopes	Moderate	C	Medium	Moderate (0.6–2.0 in/hr) in the surface layer and subsoil and slow (<0.2 in/hr) in the substratum	>60	Perched above the dense substratum at depth of 1.5 to 2.5 feet from February through April	Well drained	None

Note: * CsD and PnC soils are not found within Proposed Project's limits of disturbance.
Sources: "Soil Survey of Putnam and Westchester Counties, New York," prepared by the Soil Conservation Service/U.S. Department of Agriculture, issued September 1994; Geotechnical Engineering Report prepared by Carlin-Simpson and Associates, January 29, 2020 (**Appendix C-1**)



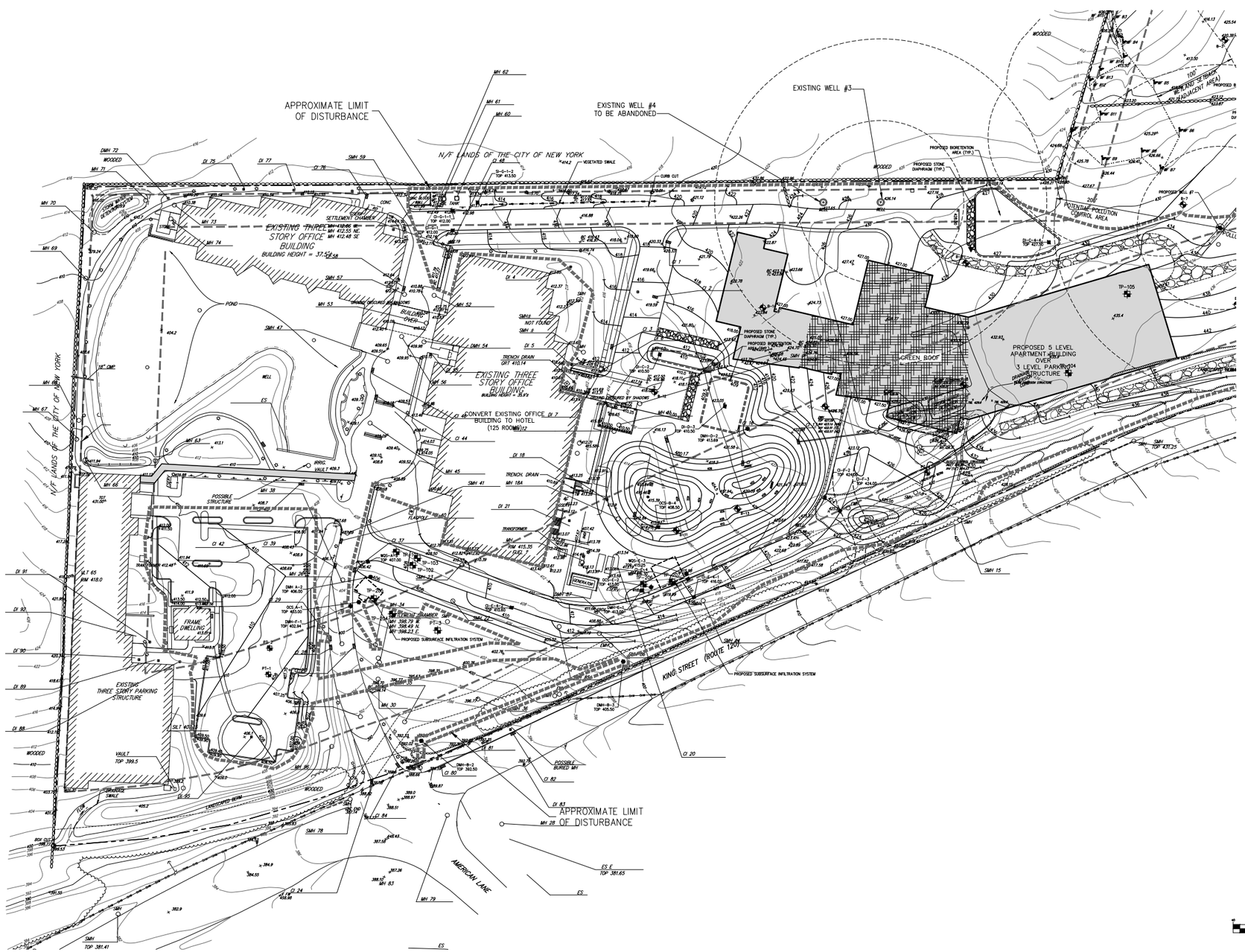
DISTURBANCE BY SOIL TYPE
(IN SQUARE FEET)
(TOTAL SITE AREA 1,645,697 S.F.)

SOIL TYPE	DISTURBANCE AREA	PERCENT OF SITE DISTURBED
ChC (B)	37,171 S.F.	2.3%
CrC (B)	28,875 S.F.	1.7%
CsD (B)	0 S.F.	0%
PnB (C)	694,655 S.F.	42.2%
PnC (C)	0 S.F.	0%
TOTAL	760,701 S.F.	46.2%

Source: JMC, 2020

Proposed Project - Disturbance by Soil Type

4.27.21



LEGEND

- EXISTING PROPERTY LINE
- ADJACENT PROPERTY LINE
- EXISTING EASEMENT LINE
- EXISTING WETLAND LINE AND DELINEATION
- EXISTING WETLAND BUFFER
- EXISTING BUILDING OVERHANG
- EXISTING BUILDING LINE
- EXISTING PAVEMENT EDGE
- EXISTING CURB LINE
- EXISTING CONTOUR
- EXISTING INDEX CONTOUR
- EXISTING SPOT GRADE
- EXISTING STONE WALL
- EXISTING RETAINING WALL
- EXISTING GUIDE RAIL
- EXISTING FENCE
- EXISTING DRAIN INLET
- EXISTING MANHOLE
- EXISTING UTILITY POLE
- EXISTING LIGHT POLE
- EXISTING SIGN
- PROPOSED BUILDING LINE
- PROPOSED CONCRETE CURB
- PROPOSED CONCRETE SIDEWALK
- PROPOSED DROP CURB AND RAMP
- PROPOSED FINISHED GRADE
- PROPOSED SPOT GRADE
- PROPOSED SANITARY SEWER MANHOLE
- PROPOSED STORM DRAIN MANHOLE
- PROPOSED TYPE CI DRAIN INLET
- PROPOSED TYPE DI DRAIN INLET
- PROPOSED TYPE LI DRAIN LAWN INLET
- PROPOSED TRENCH DRAIN
- PROPOSED RIP-RAP SUMP
- PROPOSED TYPE A HEADWALL
- PROPOSED TYPE B HEADWALL
- PROPOSED UNDERGROUND ROOF RUNOFF STORAGE TANK
- PROPOSED WATER QUALITY STRUCTURE
- PROPOSED SUBSURFACE DRAINAGE OUTLET CONTROL STRUCTURE
- PROPOSED OUTLET CONTROL STRUCTURE
- PROPOSED CLEANOUT
- PROPOSED HYDRANT
- PROPOSED END SECTION
- PROPOSED RETAINING WALL (DESIGN BY OTHERS)
- PROPOSED DOUBLE ARM LIGHTING STANDARD (DESIGN BY OTHERS)
- PROPOSED SINGLE ARM LIGHTING STANDARD (DESIGN BY OTHERS)
- BORING LOCATION AND DESIGNATION
- PROPOSED LIMIT OF DISTURBANCE
- PROPOSED DITCH OR SWALE
- PROPOSED RIP-RAP
- EXISTING FEATURE TO BE REMOVED

NOTES:

1. EXISTING CONDITIONS DEPICTED ON THIS PLAN HAVE BEEN TAKEN FROM SURVEY TITLED, "PARCEL COMPILATION SURVEY DEPICTING LAND OF MBIA INSURANCE CORP." PREPARED BY JOHN MEYER CONSULTING, DATED 09-30-2005.
2. ALL STORMWATER MANAGEMENT PRACTICES SHALL REMAIN UNDISTURBED AND BE PROTECTED FROM HEAVY MACHINERY TRAFFIC DURING CONSTRUCTION. HOWEVER DURING CONSTRUCTION OF THE PRACTICE, THE CONTRACTOR SHALL MINIMIZE AND AVOID HEAVY MACHINERY TRAFFIC TO THE MAXIMUM EXTENT PRACTICABLE. THERE SHALL BE NO STORAGE OF MATERIALS WITHIN AREAS TO BE USED FOR STORMWATER MANAGEMENT PRACTICES. THE CONTRACTOR SHALL INSTALL CONSTRUCTION FENCE AROUND THE PRACTICE TO DISCOURAGE VEHICLE TRAFFIC.
3. ALL FILLS SHALL BE COMPACTED TO PROVIDE STABILITY OF MATERIAL AND TO PREVENT SETTLEMENT.
4. EXCAVATIONS AND FILLS SHALL NOT ENDANGER ADJOINING PROPERTIES, NOR DIVERT WATER ONTO THE PROPERTY OF OTHERS AT ANY TIME DURING THE COURSE OF CONSTRUCTION.
5. CONTRACTOR SHALL REFER TO EROSION AND SEDIMENT CONTROL PLAN FOR FURTHER DIRECTION REGARDING SITE STABILIZATION THROUGHOUT THE COURSE OF CONSTRUCTION.

GRAPHIC SCALE

(IN FEET)
1 inch = 40 ft.

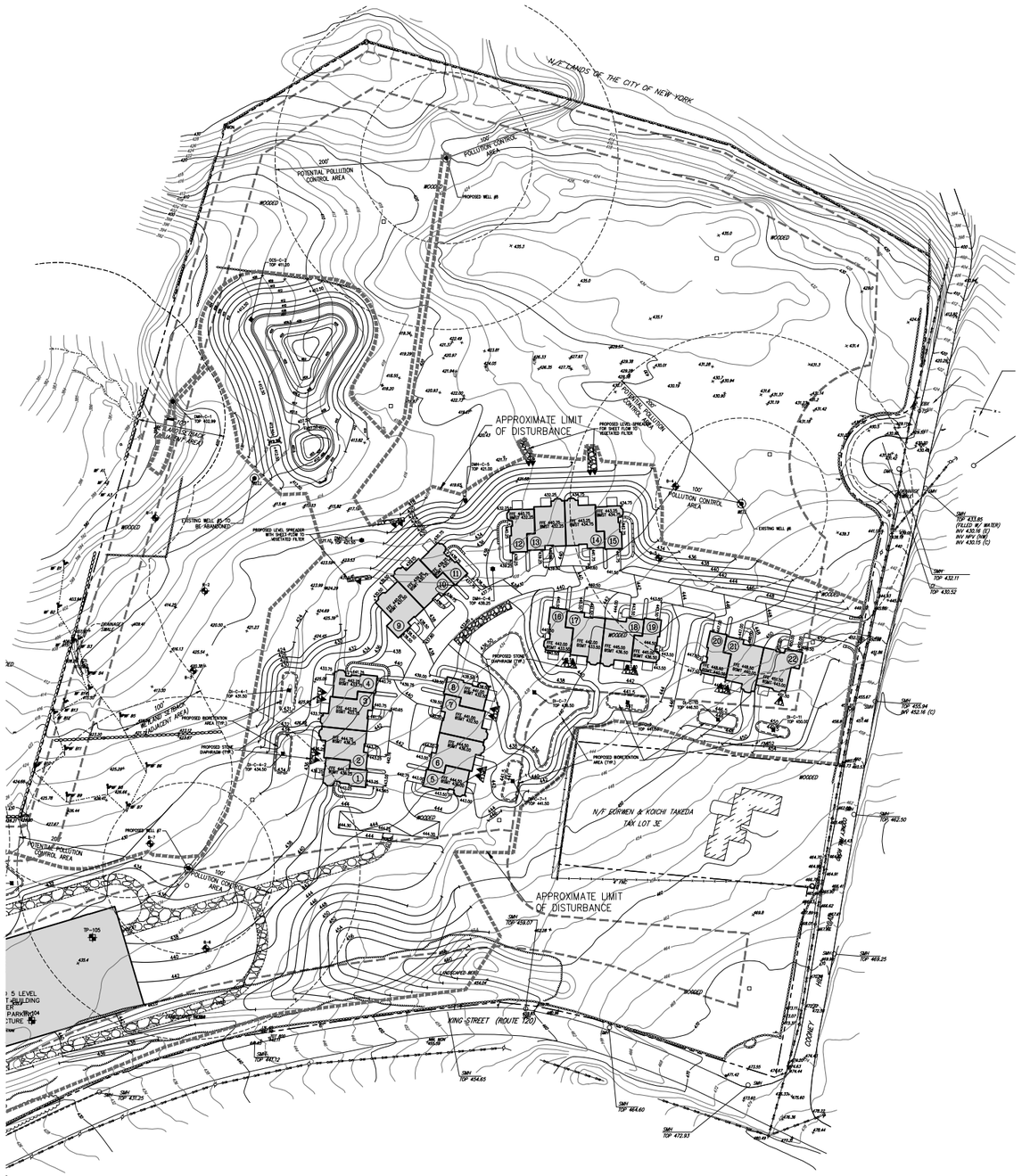
Source: JMC, 2020

AIRPORT CAMPUS

Proposed Project - Preliminary Grading Plan

Figure 4-3a

4.27.21



EXISTING DRAINAGE STRUCTURE SCHEDULE

STRUCTURE DESIGNATION	TOP	INVERT	INVERT	INVERT	INVERT	INVERT
O 1	419.65	417.0 NW	416.5 E	----	----	----
O 2	419.38	415.5 W	415.8 E	415.6 E	----	----
O 3	415.43	410.63 NW	407.58 24" E	410.35 6" E	407.7 6" E	407.65 8" SE
DI 4	411.02	408.44 E	407.8 E	407.0 NE	406.9 S	408.1 WATER
DI 5	410.12	408.06	----	----	----	----
DI 6	412.80	411.8	----	----	----	----
DI 7	412.60	411.66	----	----	----	----
MH 10	414.69	406.77	----	----	----	----
MH 11	415.88	408.0 NE	407.9 E	407.95 W	----	----
MH 12	415.67	406.43 W	404.5 E	407.8 SE	----	----
O 13	422.49	419.62	----	----	----	----
O 16	420.91	416.98 N	416.77 SW	----	----	----
O 17	416.47	412.76 NE	412.67 SW	----	----	----
DI 18	412.88	406.3	----	----	----	----
MH 18A	412.72	405.55± E-W	405.8 SW	----	----	----
O 19	411.82	408.3 N	409.2 WATER	408.94 S	----	----
O 20	413.06	410.28 W	410.36 E	409.9 SILT	----	----
DI 21	412.65	410.33 S	409.95 SILT	409.45 N	----	----
O 24	387.79	384.86 N	385.4 SW	----	----	----
MH 25	391.44	386.17 S	385.96 W	387.69 NW	385.61 E	----
MH 26	393.69	388.85 W-E	388.1 SW	----	----	----
O 27	398.24	393.69 S	393.81 N	----	----	----
O 28	398.18	394.51	----	----	----	----
MH 28	388.28	379.00 (IN)	379.00 (OUT)	----	----	----
O 29	398.82	397.0± NE	397.2 SILT	----	----	----
MH 30	390.8	383.1	----	----	----	----
MH 34	399.69	394.18 S	394.18 W	394.46 N	394.26 E	----
O 37	405.22	403.12 S	402.62 SW	402.80 E	403.76 4" PVC	----
MH 38	404.73	399.30 NW	391.9 W	392.0 E	----	----
O 39	405.53	403.66	----	----	----	----
O 40	406.87	400.7 W	400.9 S	----	----	----
O 42	408.41	----	----	----	----	----
O 43	407.63	----	----	----	----	----
O 44	408.70	406.5 12" S	406.4 NE	407.65± 4" S	----	----
MH 45	409.00	403.46 E	403.56 W	----	----	----
O 46	408.96	405.16 30" S	407.36 4" S	----	----	----
O 48	412.12	407.00 (IN)	405.86 (OUT)	----	----	----
MH 52	411.48	407.31 15" S	406.83 4" SE	405.7 30"	----	----
MH 53	411.21	406.18 NE	405.6 SE	405.6 30"	----	----
DMH 54	410.48	407.65 S	407.45 W	----	----	----
DI 55	410.33	----	----	----	----	----
MH 56	409.79	405.2 NE	405.96 N	405.2 SE	----	----
O 58	410.53	408.35	----	----	----	----
MH 60	413.28	----	----	----	----	----
MH 61	412.55	----	----	----	----	----
MH 62	413.05	410.2 NW	408.0 S	408.0 E	----	----
MH 63	410.49	----	----	----	----	----
MH 66	412.64	410.24	----	----	----	----
MH 67	411.80	----	----	----	----	----
MH 68	2409.25	409.05	----	----	----	----
MH 69	410.48	----	----	----	----	----
MH 70	412.44	----	----	----	----	----
MH 71	411.57	----	----	----	----	----
DMH 72	409.74	----	----	----	----	----
MH 73	410.13	----	----	----	----	----
MH 74	410.67	----	----	----	----	----
DI 75	409.47	----	----	----	----	----
O 76	410.04	407.25	----	----	----	----
DI 77	409.71	----	----	----	----	----
MH 79	388.22	380.85 (IN)	380.85 (OUT)	----	----	----
O 80	389.84	386.0	----	----	----	----
DI 81	389.31	385.84 E	385.43 N	385.31 S	----	----
O 82	392.83	389.23	----	----	----	----
DI 83	392.24	388.30	----	----	----	----
MH 83	390.00	365.00 (IN)	382.00 (OUT)	----	----	----
O 84	387.85	383.99	----	----	----	----
DMH 87	410.60	----	----	----	----	----
DI 88	412.85	408.23 S	408.29 E	----	----	----
DI 89	410.43	408.68 S	408.66 SW	408.64 N	----	----
DI 90	410.27	408.80	----	----	----	----
DI 91	410.57	408.87 S	409.03 N	409.80 E	----	----
DI 92	410.25	408.96 SW	408.80 N	----	----	----
DI 95	406.10	404.50 S	403.95 N	----	----	----
MH 96	398.20	394.26 S	394.86 N	----	----	----

EXISTING SANITARY SEWER STRUCTURES

STRUCTURE DESIGNATION	TOP	INVERT	INVERT	INVERT	INVERT	INVERT
SMH 9	418.61	405.28	----	----	----	----
SMH 14	415.63	409.87	----	----	----	----
SMH 15	419.91	415.74	----	----	----	----
SMH 22	405.78	400.156 N	399.86 E-W	----	----	----
SMH 23	409.88	404.35	----	----	----	----
SMH 35	393.47	384.75	----	----	----	----
SMH 36	396.80	392.4 W	391.9 N	391.8 S	----	----
SMH 41	407.18	400.74	----	----	----	----
SMH 47	409.24	403.05±	----	----	----	----
SMH 57	410.55	405.74 SW	404.64 E-W	----	----	----
SMH 59	411.76	----	----	----	----	----
SMH 78	388.00	380.56	----	----	----	----
SMH 85	406.98	402.3 N	399.4 S	----	----	----
SMH 86	407.38	402.05	404.15 W	403.9 S	----	----

GRAPHIC SCALE
(IN FEET)
1 inch = 40 ft.

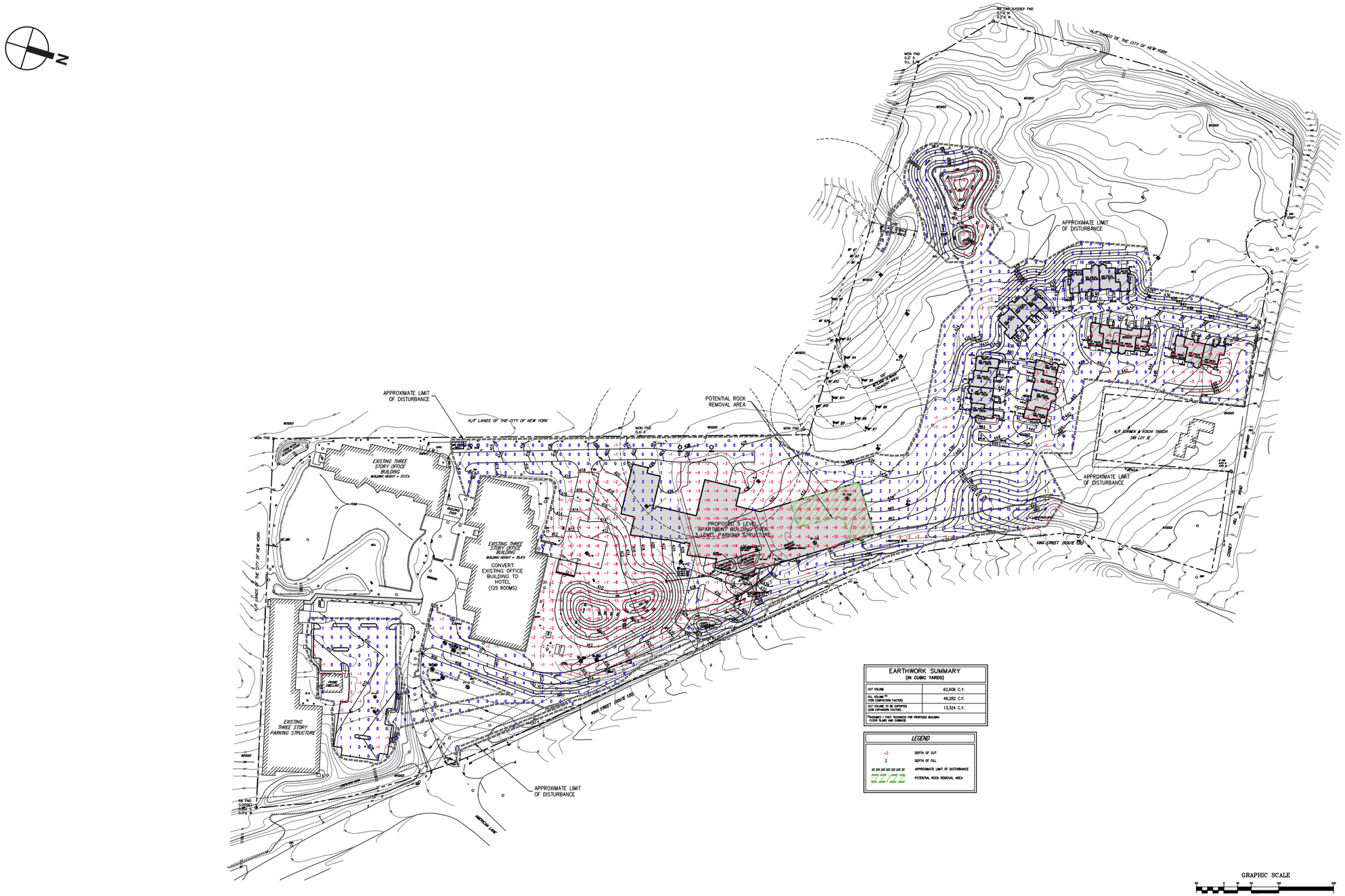
Source: JMC, 2020

Proposed Project - Preliminary Grading Plan

AIRPORT CAMPUS

Figure 4-3b

4.27.21



Source: JMC, 2020

AIRPORT CAMPUS

Proposed Project - Preliminary Cut and Fill Summary

Figure 4-4

Chapter 5: Topography and Slopes

5.A. INTRODUCTION

This chapter describes the Project Site's existing topography and slope conditions. Steep slopes are categorized based on the guidelines found within the Town Code, the adopted D/GEIS scope, site-specific topographic surveys, and data reviewed from the United States Geological Survey (USGS) and Westchester County. The analysis of potential impacts is based on the potential for the Proposed Actions to cause soil erosion or to impact geologic resources or groundwater resources as a result of cut-and-fill activities during construction of the Proposed Project. As discussed below, the Project Site's topography is suitable for development of the Proposed Project, and no significant adverse impacts are anticipated.

5.B. EXISTING CONDITIONS

5.B.1. TOPOGRAPHY AND SLOPE CONDITIONS OF THE PROJECT SITE (DEIS)

5.B.1.a. Project Site Topography

The majority of the Project Site has been previously developed for commercial office or residential use. The southern portion of the Site contains the corporate office complex that consists of buildings, parking lots, a parking structure, and a man-made storm water pond that are surrounded by lawn and landscaped areas. The northern portion of the Site, which consisted of a residential subdivision that has been previously removed (with the exception of one remaining off-site single-family residence), currently consists of young forest and a field area that is routinely mowed.

The topography of the currently developed (southern) portion of the Project Site ranges from a low of approximately 390 feet above mean sea level at the King Street entrance, to a high of approximately 430 feet in the northerly portion. This currently developed portion of the Project Site generally slopes up from King Street to the northwest.

The Cooney Hill area (northern extent) of the Project Site ranges in elevation from a high of approximately 470 feet above mean sea level at the Cooney Hill Road/King Street intersection, and generally slopes downward in a southwesterly direction to a low of approximately 390 feet.

5.B.1.b. Project Site Slope Analysis

A slope analysis of the overall Project Site has been prepared by the Applicant's Engineer (see **Figure 5-1**). The total area of each slope category for the entirety of the Project Site, as well as the proposed limits of disturbance for the Proposed Project, are displayed in **Table 5-1**.

Table 5-1
Slopes Analysis

Slope Category	Total Project Site Area (sf/acres)	Percent of Site Area	Total Limit of Disturbance Area (sf/acres)	Percent of Disturbed Area
0–15 percent	1,446,145 sf 33.36 acres	87.88	714,973 sf 16.41 acres	94.01
15–25 percent	125,106 sf 2.87 acres	7.60	33,633 sf 0.77 acres	4.42
25–35 percent	42,576 sf 0.98 acres	2.59	9,243 sf 0.21 acres	1.22
35 percent and above	31,870 sf 0.73 acres	1.93	2,682 sf 0.06 acres	0.35
Source: JMC Engineering				

Unlike the steep slopes regulated by the Town, this analysis includes all areas of steep slopes, regardless of their dimensions. As shown in **Table 5-1**, the majority of slopes within the Proposed Project's limits of disturbance fall within the 0–15 percent category.

5.B.1.c. Steep Slopes Regulated by the Town of North Castle

The Town of North Castle also regulates steep slopes. Chapter 355 of the Town Code defines a steep slope as "A natural geographical area, whether on one or more lots, which has a slope equal to 25 percent or greater over a horizontal area measuring at least 25 feet in all directions." A map depicting the areas of the Project Site which meet the Town's definition of a steep slope is included as **Figure 5-2**. As shown in this figure, there are no Town-defined steep slopes within the Proposed Project's limits of disturbance. The total area of the Project Site which meets the Town's definition of a steep slope is approximately 14,132 square feet (0.86 percent of the Site), and these areas are generally found along the southern and western extents of the northern (Cooney Hill) portion of the Project Site, within the existing Conservation Easement and are not proposed to be disturbed.

5.B.2. TOPOGRAPHY AND SLOPE CONDITIONS OF THE DOB-20A (GEIS)

As stated in Section 355-18 of the Town Code, there are approximately 2,470 acres of steep slopes (25 percent or greater) in the Town of North Castle. For the most part, these slopes are vegetated and have been stabilized by nature over a period of time. The verticality of some of these areas of steep slopes, and the elevation and visibility of certain hilltops and ridgelines, contribute to North Castle's attractive semi-rural character.

In the absence of a detailed topographic survey, topography and slope conditions on the Swiss Re parcel were reviewed through mapping applications available online, including the United States Geological Survey (USGS)[1] and Westchester County GIS.[2] These applications indicate that the Swiss Re parcel has a larger topographic range than the Project Site, with elevations ranging from 400 to 500 feet above mean sea level, and a

[1] https://ngmdb.usgs.gov/topoview/viewer/#15/41.0977/-73.7293

[2] https://giswww.westchestergov.com/taxmaps/default.aspx?sMun=NorthCastle

larger area of steep slopes. The existing Swiss Re office building appears to be located on the highest portion of the property, surrounded by gradual to steep slopes in all directions.

5.C. POTENTIAL IMPACTS OF THE PROPOSED PROJECT (DEIS)

5.C.1. CUT AND FILL SUMMARY

Based on the topography of the Project Site, and in order to create generally level development pads for the various proposed buildings, the Proposed Project would result in a net cut of approximately 13,324 cubic yards of material. Preliminary earthwork calculations, a cut and fill map, and preliminary grading plan for the Proposed Project have been provided by the Applicant's Engineer and are summarized in Chapter 4, "Geology and Soils."

As documented in Chapter 4, "Geology and Soils," approximately 79 percent of the material to be excavated would be reused on the Project Site as fill, and the balance of the excavated material would be exported. Approximately 666 truck trips would be required to remove the excess material from the Site, which would then be exported in accordance with all applicable regulations to appropriate locations. These trips would be spread over several months during the construction period such that the number of truck trips during any single day would be a small fraction of the total number of trips. See Chapter 17, "Construction," for additional detail regarding these truck trips.

5.C.2. APPLICABILITY OF TOWN PERMITS FOR STEEP SLOPES

Section 355-18 of the Town Code requires that disturbance to steep slopes associated with approval of a site plan be approved by the Planning Board. As discussed above and illustrated in **Figure 5-2**, no areas of Town-regulated steep slopes are present on the Site within the Proposed Project's limits of disturbance. Therefore, the Proposed Project would not have an impact on Town-regulated steep slopes.

5.C.3. LONG TERM IMPACTS FROM CHANGES IN SURFACE COVERAGE

In the Applicant's opinion, and based on the foregoing analyses, the Proposed Project is not anticipated to have significant long-term post-development adverse impact due to changes in surface coverage and topography.

As shown in **Table 5-1**, the majority of slopes within the Proposed Project's limits of disturbance fall within the 0–15 percent category. In the Applicant's opinion, the layout and configuration of the Proposed Project has been designed to take advantage of the Project Site's topography and contours, thereby minimizing the potential for erosion hazards, sedimentation, and slope failure. It is also the Applicant's opinion that following construction of the Proposed Project, potential adverse impacts across the entire site related to soil coverage and topography would be avoided and minimized through the implementation of the Erosion and Sediment Control Plan (ESCP) and Stormwater Pollution Prevention Plan (SWPPP).

5.D. MITIGATION MEASURES FOR THE PROPOSED PROJECT (DEIS)

In the Applicant's opinion, and based on the foregoing analyses, the Proposed Project is not anticipated to have a significant adverse impact on topography. As discussed in

Chapter 4, "Geology and Soils," the Project Site's geology and soils are suitable for development of the Proposed Project.

The Proposed Project includes an ESCP and SWPPP to avoid and/or mitigate impacts associated with the disturbance of the Site's topography and on-Site soils during both construction and operation. The Proposed Project's grading plan incorporates appropriate design controls for disturbed slopes in excess of 15 percent, including the installation of retaining walls (as needed) and proposed revegetation and landscaping. Overall, the layout and configuration of the Proposed Project has been designed to take advantage of the Project Site's topography and contours, thereby minimizing the potential for erosion hazards.

The above measures represent the best available technologies and practices that will ensure that any impacts to the Project Site's topographical features are minimized to the maximum extent practicable. Through the implementation of these measures, no significant adverse impacts are anticipated.

5.E. POTENTIAL IMPACTS OF, AND MITIGATION FOR, THE PROPOSED ZONING (GEIS)

It is important to note that no specific proposal is being made at this time to effectuate the maximum hypothetical development of these two sites and any future plans would be subject to review by the Town, including a full environmental review.

Detailed site plans, topographic surveys, geotechnical engineering reports, grading plans, and cut/fill analyses for the scenario assumed in the GEIS are not available. However, based on the land use history and geographic characteristics of the two parcels, and assuming the type of new construction practices anticipated to effectuate a mixed-use residential/hotel development, the potential exists for impacts similar to those anticipated with the Proposed Project related to erosion and sediment control and blasting. Based on the presence of Town-regulated steep slopes on the Swiss Re parcel, it is possible that disturbance to those slopes may be required in a future build-out of that Site, which would require approval of the Planning Board and the development of appropriate mitigation measures. Measures to mitigate these potential impacts would also be similar to those identified for the Proposed Project.

Future plans on either parcel would be subject to site plan review as well as a full environmental review by the Town. In addition, since concurrent construction activities at both parcels cannot be ruled out, cumulative impacts may need to be considered and appropriately coordinated among the developers, the Town, and other interested/involved agencies. ✷

SLOPES AREA							
CATEGORY	MINIMUM SLOPE	MAXIMUM SLOPE	PROJECT SITE AREA	PERCENT OF SITE AREA	DISTURBANCE AREA	PERCENT OF DISTURBED AREA	COLOR
1	0.00%	15.00%	1,446,145 S.F.	87.88%	714,904 S.F.	93.98%	
2	15.00%	25.00%	125,106 S.F.	7.60%	33,715 S.F.	4.43%	
3	25.00%	35.00%	42,576 S.F.	2.59%	9,281 S.F.	1.22%	
4	35.00%	100.00%	31,870 S.F.	1.93%	2,801 S.F.	0.37%	
TOTAL	0.00%	100.00%	1,645,697 S.F.	100.00%	760,701 S.F.	100.00%	

Source: JMC, 2020

Project Site Slopes Analysis

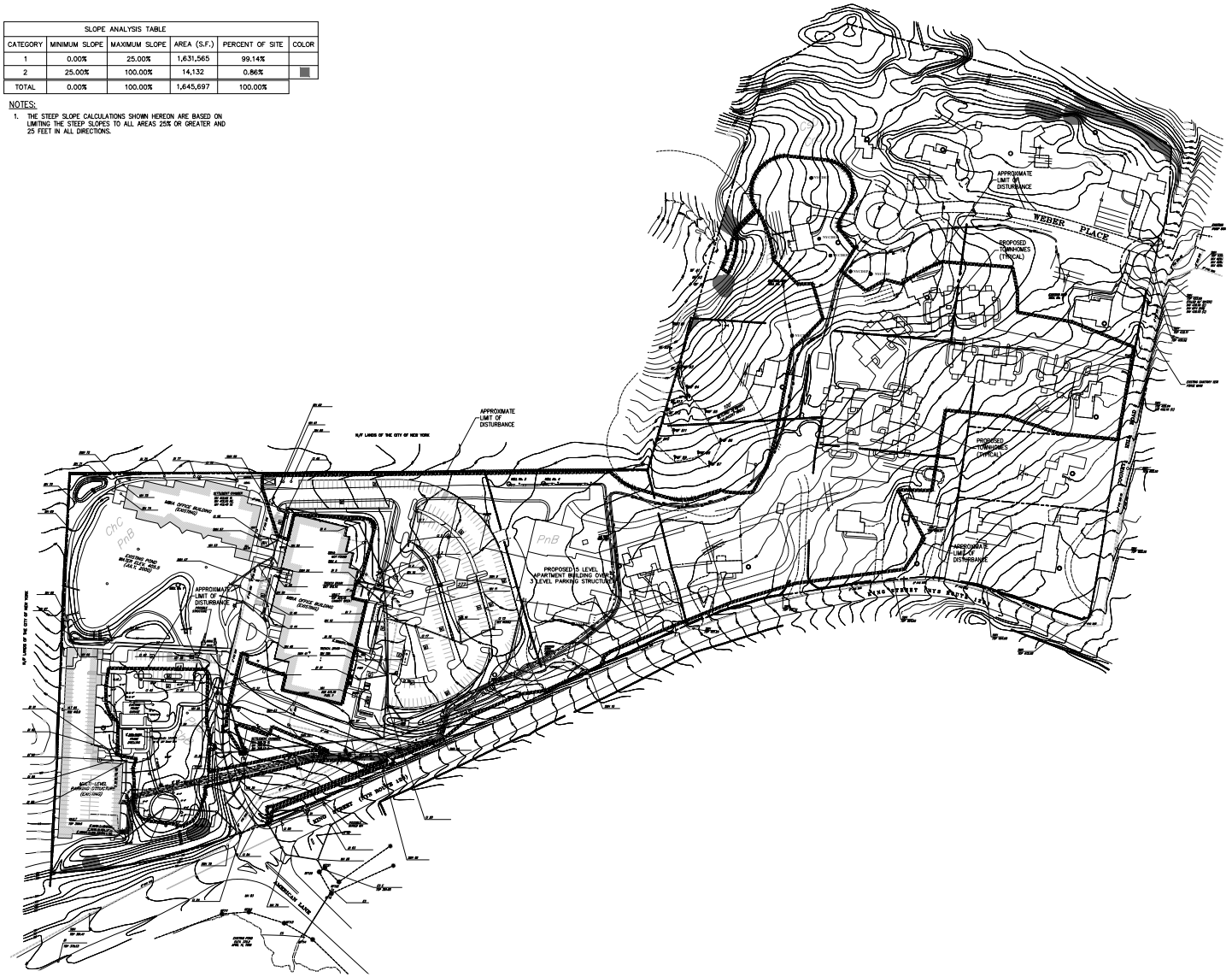
AIRPORT CAMPUS

Figure 5-1

SLOPE ANALYSIS TABLE					
CATEGORY	MINIMUM SLOPE	MAXIMUM SLOPE	AREA (S.F.)	PERCENT OF SITE	COLOR
1	0.00%	25.00%	1,631,565	99.14%	
2	25.00%	100.00%	14,132	0.86%	
TOTAL	0.00%	100.00%	1,645,697	100.00%	

NOTES:

1. THE STEEP SLOPE CALCULATIONS SHOWN HEREON ARE BASED ON LIMITING THE STEEP SLOPES TO ALL AREAS 25% OR GREATER AND 25 FEET IN ALL DIRECTIONS.



Source: JMC, 2020

Project Site Steep Slopes (Town of North Castle)

Chapter 6: Vegetation and Wildlife

6.A. INTRODUCTION

This chapter addresses the potential for the Proposed Action to result in impacts to the Project Site's vegetation and wildlife. The analysis is based on the Natural Resources Assessment Report prepared for the Project Site by Michael Nowicki of Ecological Solutions, LLC, dated August 27, 2019 (the "Natural Resources Report") (see **Appendix D-1**), as well as correspondence with relevant government agencies, as described below. As demonstrated by the analysis below, it is the Applicant's opinion that the Proposed Action and Proposed Project would not have an adverse impact on rare, threatened, or endangered species, or species of special concern, nor would they have an adverse impact on significant natural communities.

6.B. EXISTING CONDITIONS

The Project Site consists of office buildings and an associated manmade pond feature, a parking structure, parking lot, athletic courts, and trail system through the northern vacant section of the site. The vacant land within the northern Cooney Hill area of the site consists of mixed upland forest that was previously developed as part of a residential subdivision and is now young forest and field area that is routinely mowed. There are no rare or critical habitats on or adjacent to the Project Site that may be expected to provide habitat for protected species.

6.B.1. PROJECT SITE VEGETATION (DEIS)

The vegetation inventory on the Project Site included identification of previous ecological communities or habitat cover types that existed on the site prior to existing site activities as well as current conditions (see **Figure 6-1**). Cover types were accounted for by reviewing aerial photographs of the site and adjacent properties and subsequently by investigating the habitats on the site to identify and classify each. Within each cover type, visual searches for herbaceous and woody plant species or parts thereof, including leaves, bark, twigs, seeds, flowers, fruits, or other identifiable plant structures were conducted to identify and document vegetation on the site. Trees, shrubs, and fall flowering plants were identified to species levels where possible. A list of dominant or representative species observed in each habitat cover type is included below.

6.B.1.a. Distribution of Vegetative Cover Types

Table 6-1 below identifies the three habitat cover types documented for the Project Site. Characteristics of each habitat type are described in the paragraphs that follow**.**

Table 6-1
Project Site – Habitat Cover Types

Habitat Cover Type	Acres Identified
Mixed Upland Forest/Field/Previously Developed	21.75
Developed Area	16
Wet Meadow/Wetland	0.25
Source: Ecological Solutions, 2019 (**Appendix D-1**)	

The mixed upland forest area is located mainly in the northern part of the site, where dense foliage occupies the area of the former residential subdivision. This forest type also occurs on moist, well-drained areas of the site and can be differentiated by the species observed. The dominant trees species include a mixture of tulip tree (*Liriodendron tulipifera*), sugar maple (*Acer saccharum*), red oak (*Quercus rubra*), black birch (*Betula lenta*), beech (*Fagus grandifolia*), sassafras (*Sassafras albidum*), American basswood (*Tilia cordata*), red maple (*Acer rubrum*), white pine (Pinus strobus), and white oak (*Quercus alba*). The shrub layer includes flowering dogwood (*Cornus florida*), witch-hazel (*Hamamelis virginiana*), black cherry (*Prunus serotina*), maple leafed viburnum (*Viburnum acerifolium*).

The field/meadow areas interspersed among the upland forest habitat in the northern area of the Project Site are dominated by forbs and grasses. Characteristic herbs include goldenrods (*Solidago altissima, S. nemoralis, S. rugosa, S. juncea, S. canadensis*, and *Euthamia graminifolia*), bluegrasses (*Poa pratensis, P. compressa*), timothy (*Phleum pratense*), quackgrass (*Agropyron repens*), smooth brome (*Bromus inermis*), sweet vernal grass (*Anthoxanthum odoreatum*), orchard grass (*Dactylis glomerata*), common chickweed (*Cerastium arvense*), common evening primrose (*Oenothera biennis*), oldfield cinquefoil (*Potentilla simplex*), calico aster (*Aster lateriflorus*), wild strawberry (*Fragaria virginiana*), Queen-Anne's lace (*Daucus carota*), ragweed (*Ambrosia artemisiifolia*), hawkweeds (*Hieracium* spp.), dandelion (*Taraxacum officinale*), and ox-tongue (*Picris hieracioides*). Shrubs are present, but collectively they have less than 50 percent cover in the community. Characteristic shrubs include gray dogwood (*Cornus foemina* ssp. *racemosa*), silky dogwood (*Cornus amomum*), arrowwood (*Viburnum recognitum*), raspberries (*Rubus* spp.), and sumac (*Rhus typhina, R. glabra*). This is a relatively short-lived community that will succeed to a shrubland, woodland, or forest community if not maintained.

The portion of the Project Site characterized as a wet meadow habitat consists of the on-site delineated wetland area described in Chapter 7, "Wetlands." This habitat is located at what can be described as the western corner of the Project Site, abutting the east/west-oriented site boundary to the south of the former Weber Place and the area of the currently proposed townhomes. This community occurs on mineral soils or fine-grained organic soils (muck or well-decomposed peat); the substrate is saturated; water levels fluctuate seasonally, but the substrate is rarely dry, and there is usually standing water in the swale that drains the wet meadow. The most abundant emergent aquatic plants are cattails (*Typha angustifolia*), bulrush (*Scirpus americanus*), purple

loosestrife (*Lythrum salicaria*), rice cutgrass (*Leersia oryzoides*), and soft rush (*Juncus effusus*).

6.B.1.b. Tree Survey

As previously noted in Chapter 2, "Project Description," a tree survey was completed for the Project Site, which includes the location, species, size, and health condition of individual trees within the PDCP's approximate limit of disturbance. The tree survey was conducted in accordance with Chapter 308 (Tree Preservation) of the Town Code of the Town of North Castle. The tree protection plans and tree survey included as Figure 2-15 in Chapter 2, "Project Description," show that there are approximately 744 trees with a diameter at breast height (DBH) of 8 inches or greater within the area surveyed. Of the 744 trees surveyed, approximately 368 would be removed by the Proposed Project. The trees located on the Project Site are estimated to be 40-50 years old.

According to the Natural Resources Report, there are no unique trees on the Project Site that are not regulated by the Town of North Castle. However, based on the tree survey, there are seven *Tree of Heaven* species located on the Project Site. According to the Cornell Cooperative Extension Westchester County, the *Tree of Heaven* tree is an invasive species that crowds out native species, and damages pavement and building foundations in urban areas.

6.B.2. PROJECT SITE WILDLIFE (DEIS)

Nearly the entire Project Site has been developed for commercial or residential use. The southern portion of the site contains the corporate office complex that consists of buildings, parking lots, a parking structure, and a man-made storm water pond that are surrounded by lawn and landscaped areas. The northern portion of the site, which consisted of a residential subdivision that is now removed, consists of young forest and field area that is routinely mowed. Wildlife expected to occur within the habitats on the property include species typical to suburban settings that are relatively tolerant of humans.

The biological assessment of the Project Site includes a list of species expected to potentially utilize the habitats present on the site. Field surveys were conducted by Ecological Solutions, LLC for wildlife species including mammals, birds, and herpetiles (reptiles and amphibians). The mammals, birds, reptiles, and amphibians that may potentially utilize the site are discussed in the following sections. The data for the assessment was gathered on August 21 and 23, 2018, and April 16, May 16, May 22, June 6, and August 15, 2019. The times of the surveys generally were from 9:00am to 11:00am and 4:30pm to 7:00pm. The entire site was reviewed during each of the field visits including surveys for amphibians and reptiles, which occurred during the April, May, and June surveys.

6.B.2.a. Breeding Birds

Field methods used to survey for avian species included walking transects where the observer records all species encountered (seen/heard) along a trail; opportunistic bird sighting, where the observer records birds encountered randomly; and sign search, where the observer records signs (feathers, nests, droppings, tracks, etc.) of birds encountered in the field. Birds were detected

and identified by visual encounter with individuals, vocalizations, tracks, feathers, bones, droppings, castings, nests, drillings, or other recognizable signs. The following is a list of breeding birds identified on the site during the field work: Turkey (*Meleagris gallopavo*), mourning dove (*Zenaida macroura*), Ruby throated hummingbird (*Archilochus colubris*), northern flicker (*Colaptes auratus*), blue jay (*Cyanocitta cristata*), American crow (*Corvus brachyrhynchos*), house wren (*Troglodytes aedon*), veery (*Catharus fuscescens*), American robin (*Turdus migratorius*), gray catbird (*Dumetella carolinensis*), northern mockingbird (*Mimus polyglottos*), Eastern Phoebe (*Sayornis phoebe*), Downy Woodpecker (*Picoides pubescens*), northern cardinal (*Cardinalis cardinalis*), common grackle (*Quiscalus quiscula*), house finch (*Carpodacus mexicanus*), and brown thrasher (*Toxostoma rufum*). A complete list of breeding bird species is attached in the Natural Resources Survey/Assessment (see Figure 3 of Breeding Bird Atlas, pages 23–26).

6.B.2.b. Mammals

Mammals were identified based on visual encounters, vocalizations, tracks, fur, bones, rubs, scrapes, droppings, and other recognizable signs in habitats throughout the Project Site. Mammals observed on-site include urban tolerant mammal species such as deer mouse (*Peromyscus maniculatus*), gray squirrel (*Sciurus carolinensis*), eastern chipmunk (*Tamias striatus*), raccoon (*Procyon lotor*), red fox (*vulpes vulpes*), and white-tailed deer (*Odocoileus virginiana*).

6.B.2.c. Herptiles (Amphibians/Reptiles)

Field methods used to survey for herptile species included log rolling (overturning logs, large stones, and other debris to reveal herptiles underneath), and aural surveys for vocal herptiles. Herptiles were detected and identified by visual encounter, vocalizations, spermatophores, egg masses, and remains. There were no amphibians or reptiles identified on the Project Site during the fieldwork.

6.B.3. THREATENED AND ENDANGERED SPECIES

The New York State Department of Environmental Conservation's (NYSDEC) EAF Mapper and the Information for Planning and consultations (IPaC) report from the U.S. Fish and Wildlife Service (USFWS) were consulted. These sources indicated that there potentially may be known rare, threatened, and endangered species, or species of special concern located within or adjacent to the Project Site. These potentially threatened and endangered species include the endangered Indiana bat (*Myotis sodalist*), the threatened Northern long-eared bat (*Myotis septentionalis*), and the threatened bald eagle (*Haliaeetus eucacephlus*).

The following sections describe the types of habitats each of the above-referenced species typically use for breeding, feeding and/or roosting; and whether or not suitable habitat or individuals were observed on the Project Site during the fieldwork. The field work for the bats and bald eagle focused on tree species that occur on the Project Site.

6.B.3.a. Indiana bat

The Indiana bat typically hibernates in caves/mines in the winter and roosts under bark or in tree crevices in the spring, summer, and fall. Its suitable potential summer roosting habitat is characterized by trees (dead, dying, or alive), snags (dead trees) with exfoliating or defoliating bark, or those containing cracks or crevices. Shaded roosts may be preferred in very hot conditions, while larger trees afford a greater thermal mass for heat retention, and are highly preferred over smaller trees.

Streams associated with floodplain forests and impounded water bodies (ponds, wetlands, reservoirs, etc.) where abundant supplies of flying insects are likely found provide preferred foraging habitat for Indiana bats, some of which may fly up to 2–5 miles from upland roosts on a regular basis. Indiana bats also forage within the canopy of upland forests, over clearings with early successional vegetation, along the borders of croplands, along wooded fencerows, and over farm ponds in pastures. While this species appear to forage in a wide variety of habitats, they seem to stay fairly close to tree cover.

Although no Indiana bats were observed on the Project Site during the fieldwork, Sections 6.C and 6.E describe several mitigation measures to be undertaken as part of the Proposed Project to avoid potential impacts to these bats.

6.B.3.b. Northern long-eared bat

The Northern long-eared bat's winter habitat mimics that of the Indiana bat, as they spend winters hibernating in caves and mines, called hibernacula. They typically use large caves or mines with large passages and entrances; constant temperatures; and high humidity with no air currents. Within hibernacula, surveyors find the northern long-eared bats in small crevices or cracks, similar to the Indiana bat. During the summer, northern long-eared bats roost singly or in colonies underneath bark, in cavities, or in crevices of both live and dead trees. Both males and non-reproductive females may also roost in cooler places like caves and mines.

Similar to the Indiana bat in terms of feeding habits, the northern long-eared bat emerges at dusk to fly though the understory of forested hillsides and ridges feeding on moths, flies, leafhoppers, caddisflies, and beetles, which they catch while in flight using echolocation.

Overall, the northern long-eared bat requires and occupies practically the same habitat niche as the Indiana bat. Although no northern long-eared bats were observed on the Project Site during the fieldwork, Sections 6.C and 6.E describe several mitigation measures to be undertaken as part of the Proposed Project to avoid potential impacts to these bats. Such measures would be consistent with the recommendations for the Indiana bat.

6.B.3.c. Bald eagle

Bald eagles generally nest near coastlines, rivers, large lakes, or streams that support an adequate food supply. They often nest in mature or old growth trees; snags (dead trees); and, with increasing frequency, on human-made structures such as power poles and communication towers. In forested areas,

bald eagles often select the tallest trees with limbs strong enough to support a nest that can weigh more than 1,000 pounds. Nest sites typically include shoreline trees or snags located adjacent to reservoirs, which provide the visibility and accessibility needed to locate aquatic prey.

Correspondence received from NYSDEC and included in the Natural Resources Report (see **Appendix D-1**) indicates that an active nest is located about 0.5 miles from the Project Site boundary on the Kensico Reservoir shoreline. There was no nesting or breeding activity observed on or within approximately 660 feet of the Project Site.

The adjacent New York City Department of Environmental Protection (DEP) property (approximately 40 acres in size) buffers the nest location from the Project Site. The nest is not visible from the Project Site, and no proposed development activity on the Project Site is within 0.5 miles of the known nest location.

The known bald eagle nest is located on the Kensico Reservoir. The nest is 0.5 miles from the edge of the developed area on the Site and therefore proposed work area on the site is more than 0.5 miles from the known nest location. Bald eagles are sensitive to a variety of human activities during various stages of the breeding season including courtship and nest building, which is the most sensitive period for eagles and in New York occurs from January 1 through September 30.

Limited blasting may be required for development of the northeast corner of the proposed parking structure, which may be about 10 feet into a rocky area of the site. There is no other potential rock removal anticipated.

The construction activity that will generate more than ambient noise levels on the site is limited to excavation/grading activities. All other noise expected to be generated at the site will be in conformance with the current site use. The existing buildings on the site buffer any potential noise emanating from normal use of the site.

As per the Northeast Bald Eagle Project Screening Form (https://www.fws.gov/northeast/ecologicalservices/pdf/eagle/NE_Bald-Eagle_Project-Screening-Form_rev20200416.pdf), the Applicant meets all of the requested guidelines since the project site is over 0.5 miles from the known bald eagle nest and no other mitigation is required.

6.B.4. EXISTING VEGETATION/WILDLIFE CONDITIONS IN THE DOB-20A DISTRICT (GEIS)

Similar to the habitat on the Project Site, the surrounding DOB-20A zoning district was previously impacted by prior development, and functions ecologically as many suburban properties that were previously impacted, by serving as a refuge for common urban wildlife species typically found in close proximity to human habitation. Species that utilize the Project Site will most likely utilize neighboring properties, including the Swiss Re site, as part of their foraging and breeding territory.

Similar to the Project Site, the vegetative cover on the Swiss Re parcel consists of upland habitats and previously developed area, some of which remains and some of which has

been allowed to revert back to more natural conditions. The habitat would have well-drained soils and the vegetative species on the Swiss Re parcel are similar, if not the same, as those identified for the Project Site. Based on the NYSDEC Environmental Resource Mapper, the southwest corner of the Swiss Re parcel contains a NYSDEC regulated wetland area. This wetland area appears to drain to the south/southwest toward the Kensico Reservoir.

In terms of wildlife, the Swiss Re site does not appear to provide high-quality habitat for wildlife due to existing development on and adjacent to this site (including the recently constructed solar field) and the lack of any sizeable areas of undeveloped wooded land. Similar to the Project Site, the Indiana bat (*Myotis sodalist*), Northern long-eared bat (*Myotis septentrionalis*), and bald eagle (*Haliaeetus leucocephalus*) are listed as the threatened or endangered species that could occur on or in the vicinity of the Swiss Re parcel.

6.C. POTENTIAL IMPACTS OF THE PROPOSED PROJECT (DEIS)

6.C.1. POTENTIAL IMPACTS ON VEGETATION (DEIS)

During construction of the Proposed Project, there would be a temporary loss of habitat for species that use mixed upland/forest field as the dominant habitat. Based on the limits of disturbance depicted on the preliminary grading plan for the PDCP, proposed new construction activities will require the removal of approximately six acres, or 28 percent, of mixed upland forest/field cover type from the Project Site. The majority of the disturbed forest/field cover type is located in the northern portion of the Project Site where previous disturbance has already occurred. More heavily forested areas of the Project Site, including those areas along the western perimeter of the Project Site and the previously established conservation easement area, will be preserved, providing protection for forest interior species. As noted in Chapter 7, "Wetlands," there will be no impacts or loss to the wet meadow (aka wetland) habitat found on the Project Site.

In addition to the introduction of native landscaping as part of future construction, the Applicant is proposing to preserve a substantial number of existing trees within the proposed limits of site disturbance, to the maximum extent practicable. A list of the trees to be preserved and removed from areas to be disturbed is included as an attachment within the Natural Resources Report as well as Figure 2-15 in Chapter 2, "Project Description." The tree protection/removal plans and tree survey that have been prepared by the Applicant in accordance with Chapter 308 of the Town Code indicate that there are 799 existing trees within the proposed limits of disturbance. Of this total, 744 trees have a diameter at DBH of 8 inches or greater. Of the 744 trees regulated by Chapter 308 of the Town Code, the Applicant proposes to remove approximately 368 trees in connection with construction. Removal of existing trees along the roadway frontages of the Project Site would be required due to several landscaped berms proposed, as well as the right-in, right-out driveway along King Street. The existing trees found along the northern boundary of the Project Site as and the perimeter of the 3 Cooney Hill Road residential property would remain intact. Before trees on the Project Site are to be removed, a permit from the Town's Building Inspector would be obtained in accordance with Chapter 308 of the Town Code. According to the Applicant's preliminary landscaping plans (Figure 2-13 in Chapter 2, "Project Description"), approximately 451 new trees (deciduous and evergreen) would be planted on the Project Site.

As shown on the tree protection plans and tree survey, there are no unique trees on the Project Site that are regulated by the Town of North Castle. However, the Tree of Heaven (*Ailanthus altissima*) species is located on the Project Site. According to the Cornell Cooperative Extension Westchester County, this species of tree is an invasive species that crowds out native species, and damages pavement and building foundations in urban areas. According to the tree survey and tree preservation plan, seven Tree of Heaven trees are located on the Project Site, of which four are proposed for removal.

As stated in the Natural Resources Report, there is very low potential for erosion due to the removal of vegetation on the Project Site. Based on the findings in Chapter 5, "Topography and Slopes," the topography of the currently developed portion of the Project Site ranges from a low of approximately 390 feet above mean sea level at the King Street entrance to a high of approximately 430 feet along the northerly portion. The majority of the Project Site is fairly level with a gradual slope. The Project Site has been previously developed with commercial office buildings, single-family residential dwellings, and landscaped areas. The single-family residential subdivision was removed from the northern portion of the Project Site several years ago, and the area that contained landscaping and lawns was allowed to revert to scrub/shrub and mixed forest, creating a meadow-like environment with interspersed upland forest vegetation in these areas. As stated in the Natural Resources Report, due to previous disturbance on the Project Site, as well the nature of topography in the area, the likelihood of erosion from removal of vegetation is minimal. The steepest slopes on the Project Site are located on the western portions, which begin to slope downward toward the reservoir. No future disturbance is proposed in these areas, a portion of which includes a conservation easement. To ensure minimal impacts related to storm water runoff and erosion both on- and off-site, including the reservoir, erosion and sediment controls have been incorporated into the Stormwater Pollution Prevention Plan (SWPPP) prepared for the PDCP (see Chapter 8, "Stormwater Management").

6.C.2. POTENTIAL IMPACTS ON WILDLIFE (DEIS)

6.C.2.a. Threatened and Endangered Species

The proposed work area on the Project Site is more than 0.5 miles from the known bald eagle nest location described above under "Existing Conditions." Bald eagle nesting season in New York occurs from January 1 to September 30. Bald eagles are sensitive to a variety of human activities during various stages of the breeding season including courtship and nest building, which are the most sensitive period for eagles and in New York occur from December through the beginning of March. Egg laying, incubation, and early nesting are very sensitive periods in New York and occur from February through early May. The nestling period (4–8 weeks old) is a moderately sensitive period in New York that typically occurs from March to July. Nestlings from 8 weeks old through fledging are in a very sensitive period that occurs in New York from mid-May to September.

The construction activity that generally creates the highest levels of construction period noise is excavation/grading activities. Limited blasting may be necessary for development of the northeast corner of the proposed multifamily building's parking structure, which may extend approximately ten feet into a rocky area of the site. There is no other potential rock removal

or rock crushing anticipated as part of construction. If blasting is required, it would occur more than 0.5 miles from the known nesting site and would be performed in accordance with a blasting protocol prepared pursuant to Town Code requirements. As discussed further in Section 6.D below, temporal restrictions on blasting may be required based on guidance received from NYSDEC during Site Plan review. However, as per the Northeast Bald Eagle Project Screening Form (https://www.fws.gov/northeast/ecologicalservices/pdf/eagle/NE_Bald-Eagle Project-Screening-Form_rev20200416.pdf), the Applicant meets all of the requested guidelines since the project site is over 0.5 miles from the known bald eagle nest and no other mitigation is required.

Following construction activities, the structures on the Project Site, in addition to the wooded buffer that already exists between the Project Site and the reservoir, would serve to adequately buffer operational noise from the Proposed Project. Operational noise would predominately consist of noise related to vehicular traffic and building mechanical systems—and as documented in Chapter 16, "Noise"—would not rise to a level of significant adverse impact.

With regard to the Indiana bat and northern long-eared bat, as described above neither of these species and associated hibernacula were observed on the Project Site during fieldwork. As a precautionary measure, the Applicant would only conduct tree-clearing activities between October 1 and March 31, to avoid impacts to these bats during construction. In addition, as recommended by the USFWS, the Applicant will ensure that no artificial dyes, coloring, insecticide, or algaecide such as copper sulfate, will be placed in stormwater control structures on the site.

6.C.2.b. Habitat Displacement/Fragmentation and Migration Patterns

Direct impacts to wildlife biodiversity from the Proposed Project will primarily be displacement and some direct loss, especially to species that spend a large percentage of their life cycle underground. Most species found on the Project Site are typically found in suburban settings, especially in North Castle and may have already adapted to proximal human habitation. These species will remain on the developed portion of the site, though possibly in fewer numbers, as availability of basic habitat features (food, cover, and space) may be decreased in the developed areas. These suburban wildlife species may also reside on neighboring properties surrounding the Project Site, due to the similarities in vegetation and cover types. Habitat fragmentation is defined as the separation and isolation of habitats and wildlife populations by placing impenetrable barriers between habitats that prevent mixing formerly connected or adjacent wildlife populations creating "habitat islands." As stated above, the northern portion of the Project Site contains open canopy mixed forest/field areas resulting from previous disturbance, which would be partially cleared to facilitate the Proposed Project. The majority of the forest/field will be preserved, including densely forested areas within the Project Site's conservation easement, leaving protection for forest interior species. In the Applicant's opinion, potential additional fragmentation of forest habitat on the Project Site is not anticipated

to alter site biodiversity since the forest area is already fragmented from previous site disturbance.

The Proposed Project, in the Applicant's opinion, will not significantly affect large mammal or migratory bird species movements since these species are highly mobile and not typically confined to small corridors. The Proposed Project will affect about six acres of the Project Site, with the largest impact associated with the mixed forest/field habitat in the northern portion. Regulated wetlands on the Project Site will be left intact and are considered the most likely migratory corridors for wildlife species on the site, especially the more sensitive species of amphibians and reptiles (although none were observed during the field work). The prime migratory corridors and wildlife destinations for breeding found in the regulated wetland will remain.

6.C.2.c. Impacts of Chemical Use on Site

Fertilizer and pesticide use, when applied in accordance with the manufacturer's guidelines, is not anticipated to have an impact on wildlife beyond that of the Project Site's existing conditions. According to the Applicant, the integrated pest management plan (IPM) currently in place for the Project Site's existing office uses would be expected to remain in the Future with the Proposed Project. Fertilizer, pesticides, and other lawn care or landscaping products must be handled, stored, and applied in strict conformance with the manufacturer's guidelines. Only reputable professionals, licensed and certified by the NYSDEC for the storage and application of these chemicals, will be contracted for landscaping services.

6.D. MITIGATION MEASURES FOR THE PROPOSED PROJECT (DEIS)

The following mitigation measures are proposed to minimize the potential for impacts to vegetation and wildlife in connection with the Proposed Project:

- Proposed site disturbance would occur in areas of the Project Site that have been previously disturbed for office and single-family residential uses;
- The Applicant will minimize impacts by establishing undisturbed, naturally vegetated zones demarcated in the field by orange construction fencing and by clearing only necessary areas within the limit of disturbance area or within building envelopes;
- The Applicant's schematic landscaping plan includes retaining and revegetating areas within the development with native plant species. The landscaping plans propose trees and other plantings along the perimeter of the development, parking lots, walking paths, and undisturbed wetland area, to buffer any potential noise emanating from normal use of the site;
- Select trees would be removed only within the proposed limits of site disturbance. Prior to removal of the approximately 368 trees identified for removal in the Applicant's tree survey, a permit from the Town's Building Inspector would be obtained in accordance with Chapter 308 of the Town Code. No unique trees were observed on the Project Site;
- As discussed above, no Indiana bats or northern long-eared bats were observed on the Project Site during the fieldwork. However, to avoid any direct impacts to these bats potentially utilizing the site, to the maximum extent practicable, tree clearing activities would be limited to the October 1 to March 31 time period; unless the Applicant receives approval during Site

Plan review from NYSDEC and the Planning Board that tree clearing can occur outside this time period.

- Any required blasting during construction would occur more than 0.5 miles from the known Bald Eagle nesting site described above. However, any required rock blasting activities would be confined to the period of October 1 through December 1 in order to avoid adverse impacts to protected species if, during Site Plan review, such restrictions are deemed necessary by the NYSDEC based on current guidance;
- A Town-approved SWPPP would be implemented to mitigate erosion potential into the regulated on-site wetland area;
- Elimination and minimization of fertilizer, pesticide, herbicide, fungicide and other chemical concentrations through avoidance and containment, respectively; and
- Once final grading and proposed clearing/grading limit lines have been established for the Proposed Project, these boundaries would be surveyed and accurately demarcated in the field prior to any tree clearing or site disturbance of any kind. The clearing/grading limit lines would be identified by metes and bounds and documented on the final plans.

6.E. POTENTIAL IMPACTS OF, AND MITIGATION FOR, THE PROPOSED ZONING (GEIS)

As described in Chapter 2, "Project Description," the theoretical maximum development scenario under the Proposed Zoning, when accounting for the maximum buildout potential of both the Project Site and the adjacent Swiss Re parcel, is a total of 750 residential units and an 80-room hotel.

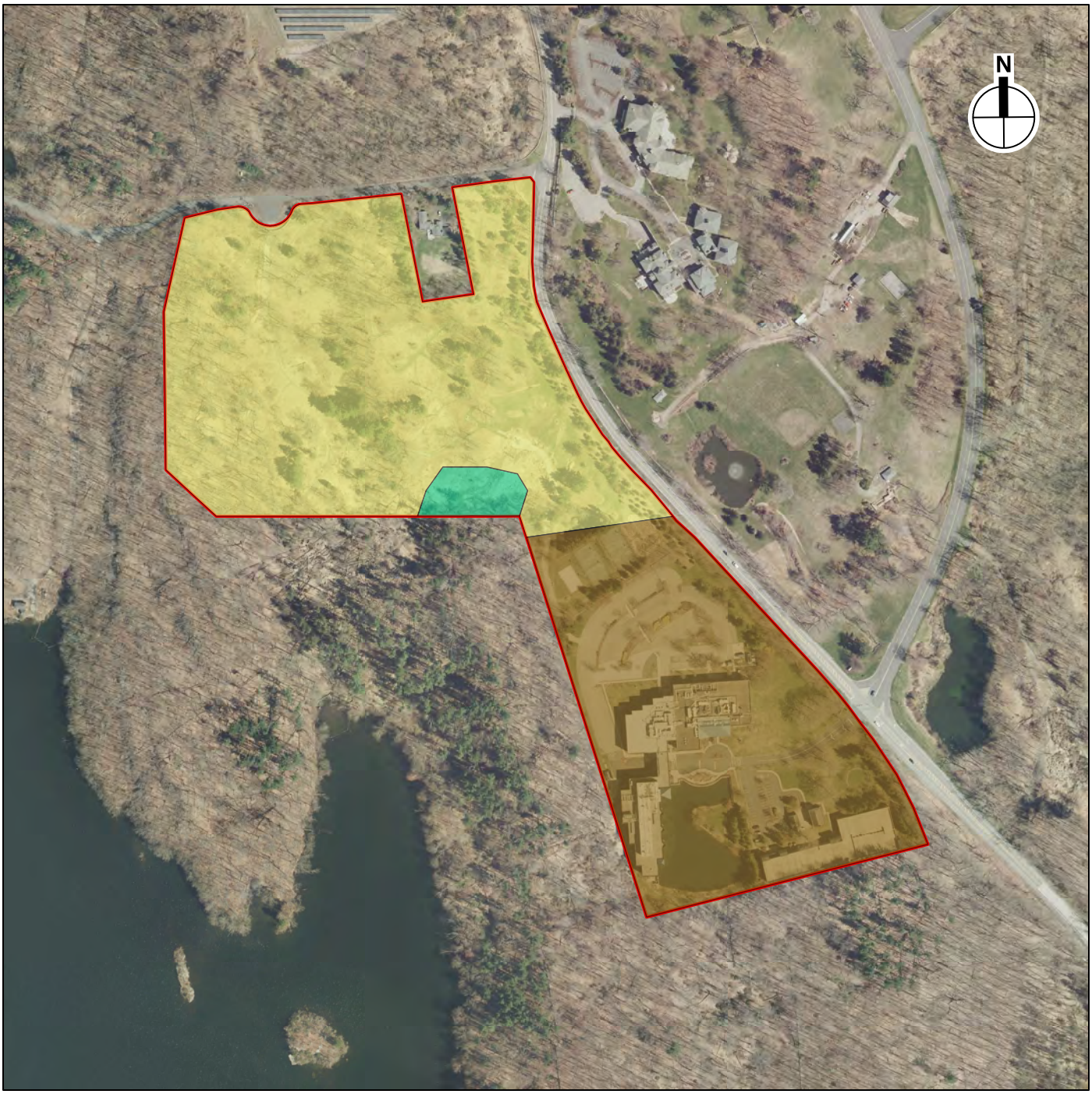
It is important to note that no specific proposal is being made at this time to effectuate the maximum hypothetical development of these two sites and any future plans would be subject to review by the Town, including a full environmental review.

In the absence of detailed site plans for the scenarios assumed in the GEIS, as well as a site-specific natural resources survey for the Swiss Re parcel, quantified site disturbance and associated direct and indirect impacts to vegetation and wildlife from the GEIS assumptions are unknown. Based on the NYSDEC Environmental Resource Mapper, the southwest corner of the Swiss Re parcel appears to contain a NYSDEC regulated wetland area. This wetland area appears to drain to the south/southwest toward the Kensico Reservoir. The Swiss Re site does not appear to provide a high-quality habitat for wildlife due to previously existing development on and adjacent to this site (including the recently constructed solar field) and the lack of any sizeable areas of undeveloped wooded land. However, similar to the Project Site, the Indiana bat, Northern long-eared bat, and bald eagle are listed as the threatened or endangered species that could occur on or in the vicinity of the Swiss Re parcel.

With regard to potential impacts from site clearing activities, including tree removal, the maximum residential buildout for the Project Site would likely result in a similar layout of buildings as the Proposed Project, and would focus on areas of previous disturbance, and respect buffers to neighboring properties and the on-site wetland and conservation easement area. For the Swiss Re parcel, impacts from site clearing and tree removal would depend on the location of future development. If future development would occur in areas of the parcel currently developed with the existing office building, parking, and the solar installation, minimal impacts would be

anticipated. If future development on the Swiss Re parcel would occur in areas other than those identified above, more potential impacts related to tree removal and site clearing could occur.

Any future plans on either parcel would be subject to a full environmental review by the Town, at which point the appropriate hard look at vegetation and wildlife impacts would take place. If, at a future date, it is determined that the potential exists for direct or indirect impacts to vegetation and wildlife, mitigation measures similar to those identified above for the Proposed Project would address those impacts. ✷



6.1.20

Data source: Westchester County GIS, 2018

Project Site - Habitat Cover Types

AIRPORT CAMPUS

Figure 6-1

Chapter 7: Wetlands

7.A. INTRODUCTION

This chapter describes the Project Site's existing surface water and wetland features and analyzes potential impacts to those resources as a result of the Proposed Actions and Proposed Project. This chapter summarizes a Wetlands Report prepared for the Project Site by Michael Nowicki of Ecological Solutions, LLC, dated and last revised on September 8, 2020 (the "Wetlands Report") (see **Appendix D-2**), as well as correspondence with relevant government agencies. As described below, one wetland segment of approximately 0.247 acres is located at the western corner of the Project Site, abutting the east/west-oriented site boundary to the south of the former Weber Place. The Proposed Project would have no direct impacts to the on-site delineated wetland.

7.B. EXISTING CONDITIONS

7.B.1. PROJECT SITE WETLANDS (DEIS)

The Project Site consists of office buildings and an associated man-made pond feature, a parking structure, parking lot, athletic courts, and trail system through the northern vacant section of the site. The vacant land within the northern Cooney Hill area of the site consists of mixed upland forest that was previously developed as part of a residential subdivision and is now young forest and field area that is routinely mowed.

As shown in **Figure 7-1**, one wetland segment of approximately 0.247 acres is located at the western corner of the Project Site, abutting the east/west-oriented site boundary to the south of the former Weber Place.

The wetland delineation was completed in accordance with the Army Corps of Engineers (USACE) Wetlands Delineation Manual (January 1987), Routine Determination Method and Northcentral/Northeast supplement and Town of North Castle – Chapter 137.

Wetlands were delineated based upon the identification of the three mandatory criteria for wetland determination as outlined in the 1987 Federal Manual and supplement: Dominant hydrophytic vegetation, hydric soils, and evidence of wetland hydrology. The Routine Methodology procedure for wetland determination was used. Transects consisting of several sample points were walked. Dominant vegetation around each sample point was identified and the percentage of cover was quantified. The areas were checked in detail for the presence of wetland hydrologic indicators. Soil profiles were then observed and characterized at each point. The detailed field investigation included:

- Identification of vegetation species to determine whether there was a dominance of hydrophytic plants and areas containing transitional but primarily wetland-oriented species.
- Determination of soil features for hydric (poorly and very poorly drained) natural soils.

- Observation of site features displaying evidence of wetland hydrology based on the presence of inundated areas, apparent high seasonal water tables, and evidence of saturation within 12 inches of the surface (considered the root zone) during sufficient periods during the growing season to provide for anaerobic/hydric soil conditions.

The identified wetland on the Project Site is best characterized as a wet meadow community that occurs on mineral soils or fine-grained organic soils (muck or well-decomposed peat) known as Ridgebury loam with a matrix of 10YR4/2 with mottles as per the Munsell Soil Color Chart; the substrate is saturated; water levels fluctuate seasonally, but the substrate is rarely dry, and there is usually standing water in the swale that drains the wet meadow. The most abundant emergent aquatic plants in the wetland are cattails (*Typha angustifolia*), bulrush (*Scirpus americanus*), purple loosestrife (*Lythrum salicaria*), rice cutgrass (*Leersia oryzoides*), and soft rush (*Juncus effuses*). The Wetlands Report contained in **Appendix D-2** includes photographs of the Project Site's delineated wetland area.

The wetland on the Project Site described above is regulated by the U.S. Army Corps of Engineers (USACE) and the Town of North Castle via Chapter 137 of the Town Code. This wetland was delineated on July 10, 2018 in accordance with the Town of North Castle Code and the USACE Wetland Delineation manual and Northeast supplement. The Town of North Castle regulates a 100-foot wetland adjacent area buffer resulting in approximately 1.81 acres of Town-regulated buffer on the Project Site.[1] The total wetland and buffer area on the Project Site is 2.06 acres (5.4 percent of the site). The wetland delineation is subject to review and concurrence by the Town of North Castle[2].

As noted in the Wetlands Report, a separate wetland area (swale) was observed off-site to the west on New York City Department of Environmental Protection (DEP) property draining toward open water (Weber's Cove area of the Kensico Reservoir). In addition to the observed off-site swale to the west, other wetlands and watercourses within 1,000 feet of the Project Site's boundaries, based on a review of the New York State Department of Environmental Conservation (NYSDEC) Environmental Resource Mapper, include the following (see **Figure 7-2**):

- Two unregulated pond areas and connecting tributary on the Citigroup parcel to the east of the Project Site, which drain to the south;
- NYSDEC wetlands in the southwest corner of the Swiss Re parcel to the north of the Project Site, which drain to the south/southwest toward the Kensico Reservoir and away from the Project Site; and
- NYSDEC wetlands located southwest of the Project Site adjacent to the Kensico Reservoir (Weber's Cove).

[1] The Town may expand the 100-foot wetland buffer if areas within that 100-foot buffer contain slopes in excess of 25-percent and if those slopes continue beyond 100 feet from the wetland. The limited areas within the on-Site wetland buffer that include slopes in excess of 25 percent are contained within the 100-foot buffer. Therefore, the Town-regulated 100-foot buffer is not expanded on the Project Site.

[2] The Applicant's wetland consultant (Ecological Solutions) walked the site with the Town's wetland consultant on October 7, 2020. No changes to the flagged wetland boundary (as analyzed in this DEIS) were determined necessary following the site visit.

According to the Wetlands Report, a field walk with Josh Fisher (Biologist with the NYSDEC) indicated that there was no NYSDEC-regulated wetland or 100-foot Adjacent Area on the Project Site.

7.B.2. EXISTING CONDITIONS OF THE DOB-20A (GEIS)

As noted above, based on the NYSDEC Environmental Resource Mapper, the southwest corner of the Swiss Re parcel contains a NYSDEC regulated wetland area. This wetland area appears to drain to the south/southwest toward the Kensico Reservoir.

7.C. POTENTIAL IMPACTS OF THE PROPOSED PROJECT (DEIS)

7.C.1. WETLAND DISTURBANCE

The Proposed Project would have no direct impacts to the on-site delineated wetland. As depicted in **Figure 7-1**, the closest component of the Proposed Project to the wetland is an emergency gravel access drive and some stormwater management features, which together will impact approximately 0.19 acres of the 100-foot Town regulated buffer. The proposed emergency gravel access drive is generally in an area of previous disturbance on the Project Site associated with the former MBIA outdoor recreation exercise stations and connecting drive/walkway.

7.C.2. SEDIMENTATION

Disturbance within the 100-foot buffer area described above would occur in a previously disturbed area approximately 70 feet from the delineated wetland boundary. This area was previously disturbed and is currently maintained by mowing. The proposed construction activities have the potential for increased sedimentation during the construction period. Chapter 8, "Stormwater Management," discusses the erosion and sediment controls to be in place to minimize/avoid sedimentation impacts to the wetland. As discussed below, sediment trapping can also be mitigated by planting native shrubs and trees between the gravel access drive and the wetland.

7.C.3. INCREASED CHEMICAL CONCENTRATIONS

Fertilizer and pesticide use, when applied in accordance with the manufacturer's guidelines, is not anticipated to have an impact on the on-site wetland beyond that of the Project Site's existing conditions. According to the Applicant, the integrated pest management plan (IPM) currently in place for the Project Site's existing office uses would be expected to remain in the Future with the Proposed Project. Fertilizer, pesticides, and other lawn care or landscaping products must be handled, stored, and applied in strict conformance with the manufacturer's guidelines. Only reputable professionals, licensed and certified by the NYSDEC for the storage and application of these chemicals, will be used for landscaping services.

As discussed below and in Chapter 8, "Stormwater Management," pollutant loading has been analyzed as part of the project-specific Stormwater Pollution Prevention Plan (SWPPP) for the Project Site. The SWPPP pollutant loading analysis model accounts for pollutants sourcing from fertilizer usage on areas such as managed turf/lawn. Therefore, these impacts are accounted for within the SWPPP analysis. With regard to the limited pesticide usage anticipated for limited areas of the Project Site, the proposed biofiltration

of the on-site stormwater management ponds would serve to mitigate any potential impacts.

7.C.4. ALTERATION OF DRAINAGE PATTERNS

According to the Wetlands Report, the northern portion of the Project Site appears to drain to the delineated on-site wetland, where drainage enters a swale in the wetland and discharges west of the Project Site toward the Kensico Reservoir (Weber's Cove). Off-site drainage swales also appear to collect overland runoff from precipitation that falls on the Project Site, which also drains to Weber's Cove. No alteration to this existing drainage pattern is proposed. Drainage introduced by new impervious surfaces on the Project Site will, similar to the currently approved project, be handled through permanent on-site stormwater retention ponds in accordance with a project-specific SWPPP. The wetland area is not anticipated to be impacted by the construction of these retention ponds or their function throughout the life of the project.

7.C.5. REQUIRED PERMITS

The Proposed Project's impact on the on-site wetland area identified above will require approval from the Town Board of the Town of North Castle. No USACE or NYSDEC wetland permits are required.

7.C.6. FUNCTIONAL ANALYSIS FOR ON-SITE DELINEATED WETLAND

An assessment of the wetland functions and values was conducted for the delineated wetland found on the Project Site, utilizing the Hollands and Magee Functional Evaluation Methodology.[3]

The Hollands and Magee Functional Evaluation Methodology is a semi-quantitative model that was developed to analyze wetland systems in the Northeast. Data obtained from the pre-development assessment was compared to data obtained from a theoretical post-development dry run of the methodology after considering the proposed wetland impacts on the Project Site. Six wetland functions are evaluated with this methodology:

- Biological functions;
- Hydrologic support functions;
- Groundwater protection functions;
- Storm and floodwater storage functions;
- Water quality maintenance functions; and
- Aesthetic functions.

The assessment revealed that there is no direct wetland impact, and therefore, there will be no decrease in wetland function. The existing site area where residential dwellings are proposed seems to drain to the delineated on-Site wetland where drainage enters a swale in the wetland and discharges off the Site toward Weber's Cove. Offsite drainage swales also appear to collect overland runoff from precipitation that falls on the Site and drains to Weber's Cove. Major functions and values provided by this linear ditch/wetland meadow are sediment trapping and some minor wildlife habitat. Impact to the 100-foot buffer area will occur in previously impacted area approximately 70 feet from the wetland

[3] Hollands, G.G., and D.W. Magee. 1985. A Method for Assessing the Functions of Wetlands.

boundary, which is now maintained by mowing and can be mitigated by planting native shrubs and trees between the proposed disturbance and the wetland. A summary of the results of functional assessment is provided in **Table 7-1**. As shown, there is no change in the wetland functions as a result of the project because there is no direct wetland impact proposed.

Table 7-1
Wetlands Functional Model Values: Pre- and Post-Disturbance

Function	Range	Mean	Value
Biological	29–158	93	110
Hydrologic Support	6–70	36	55
Groundwater	20–68	44	56
Floodwater Storage	31–123	77	95
Water Quality Maintenance	18–98	58	75
Aesthetic	9–66	37	55
Source: Wetlands Report prepared by Ecological Solutions, LLC, September 8, 2020 (Appendix G-2)			

7.C.7. CUMULATIVE IMPACTS

The Proposed Project is currently the only development planned or proposed in the immediate area of the Project Site. Other proposed developments within the Town that have been considered within other technical analyses in the D/GEIS are located at a distance that is too far from the on-site identified wetland to influence function or pose any direct or indirect impacts. However, potential impacts and mitigation for theoretical development that could occur on the Swiss Re parcel as a result of the Proposed Zoning are expected to be similar to the Proposed Project, and in the absence of any detailed plans, are qualitatively noted below.

7.D. MITIGATION MEASURES FOR THE PROPOSED PROJECT (DEIS)

As described above, the proposed impact area (gravel emergency access drive) of the 100-foot wetland buffer is a previously disturbed area approximately 70 feet from the wetland boundary, which slopes down toward the west. The following mitigation measures are proposed to minimize the potential for impacts to the wetland area:

- The Proposed Project's impact on the on-site wetland area identified above will require a permit from the Town Board of the Town of North Castle. Mitigation measures may be required following the Town Engineer's review of the Proposed Project. Such measures include, but are not limited to, remediating activities that limit environmental damage, wetlands construction, mitigation plantings, wetland maintenance, establishment of no-mow zones, removal of invasive species, and wetland buffer enhancement;
- Implementation of a Town-approved SWPPP will mitigate erosion potential into the regulated area;
- The addition of native plantings along the proposed gravel emergency access, between the road and the wetland, will increase the functional capacity of the buffer and better protect the wetland over current conditions;
- The Proposed Project does not include development within the Site's irrevocable conservation easement adjacent to the DEP property;

- As discussed in Chapter 2, "Project Description," the Applicant has satisfied the requirements for the revocation of that portion of the conservation easement deemed to be revocable. However, the Proposed Project does not include any structures, roads, or drives within the revocable portion of the easement; and
- The Applicant would prohibit the use of any chemicals (fertilizers, pesticides, herbicides, fungicides, etc.) within the Project Site's identified wetland/watercourse proper and within 100 feet of this wetland/watercourse. In addition, no chemicals would be applied within 100 feet of any existing or proposed stormwater management pond or basin which permanently or periodically retains/detains stormwater.

7.E. POTENTIAL IMPACTS OF, AND MITIGATION FOR, THE PROPOSED ZONING (GEIS)

As described in Chapter 2, "Project Description," the theoretical worst-case development scenario under the Proposed Zoning, when accounting for the maximum buildout potential of both the Project Site and the adjacent Swiss Re parcel, is a total of 750 residential units and an 80-room hotel.

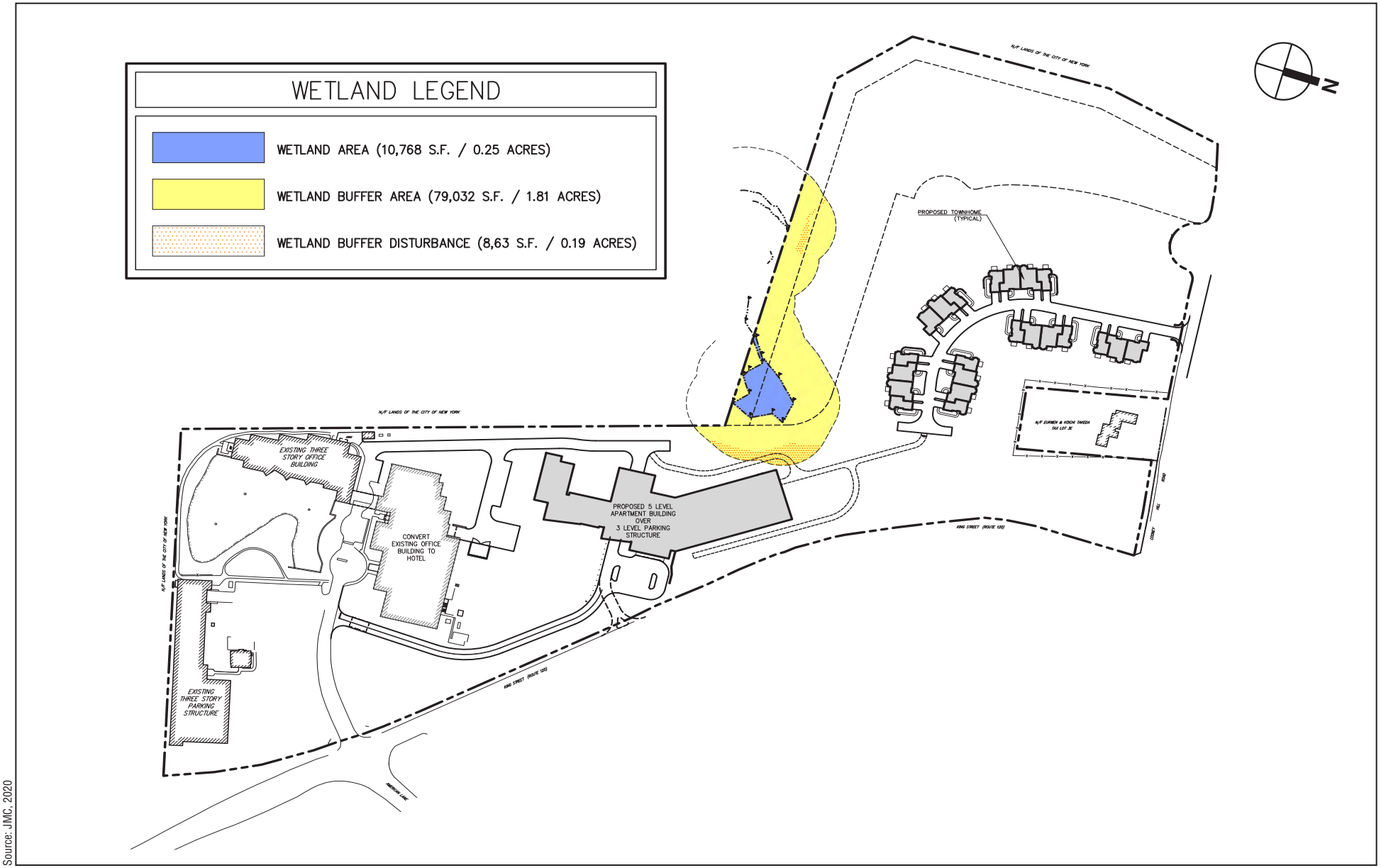
It is important to note that no specific proposal is being made at this time to effectuate the maximum hypothetical development of these two sites and any future plans would be subject to review by the Town, including a full environmental review.

As part of any maximum residential build-out of the Project Site under the Proposed Zoning, it is assumed that efforts would be made to continue to avoid direct impacts to the on-site wetland and associated buffer area.

In the absence of detailed site plans for the scenarios assumed in the GEIS, as well as a field delineation for the Swiss Re parcel's wetlands, quantified direct and indirect impacts to wetlands from the GEIS assumptions are unknown. Based on the NYSDEC Environmental Resource Mapper, the southwest corner of the Swiss Re parcel appears to contain a NYSDEC regulated wetland area. This wetland area appears to drain to the south/southwest toward the Kensico Reservoir. Any future plans on either parcel would be subject to a full environmental review by the Town, at which point the appropriate hard look at wetland impacts would take place. If, at a future date, it is determined that the potential exists for direct or indirect impacts to wetland areas, mitigation measures similar to those identified above for the Proposed Project would address those impacts.

Based on the size of the Swiss Re parcel, future development would presumably have opportunities to minimize impacts to wetlands and associated buffers. Any impacts to wetlands or associated buffers identified during a future review by the Town would require permits and mitigation at the discretion of the Town Engineer and any other agencies with jurisdiction. ✷

9.17.20

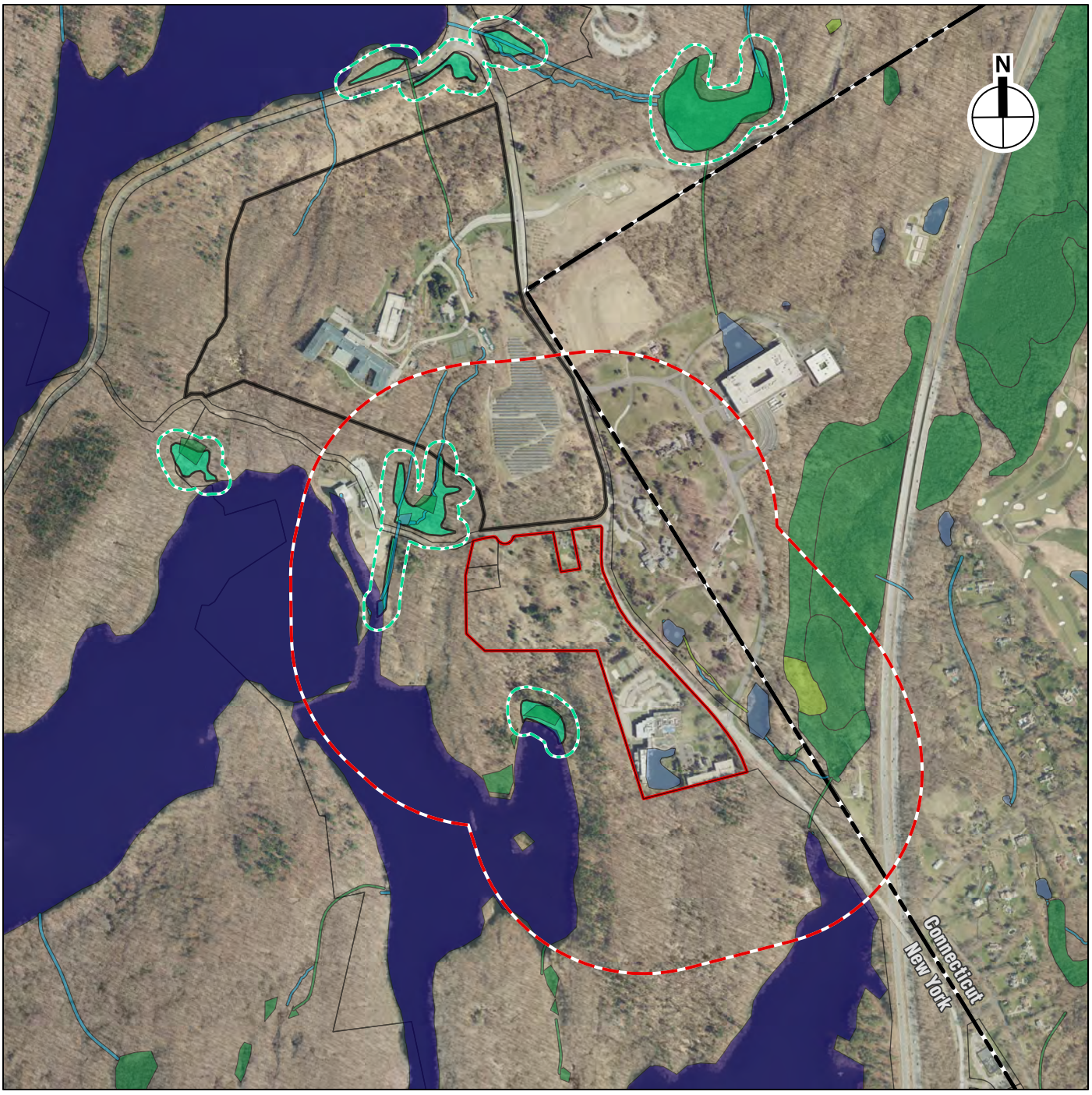


Source: JMC, 2020

Project Site Delineated Wetlands and Buffers

AIRPORT CAMPUS

Figure 7-1



6.1.20

Data source: Westchester County GIS, 2018; NYSDEC, 2014

- Project Site
- 1/4-mile Radius
- Swiss Re Parcel
- Tax Parcel Boundary
- State Line
- NYSDEC Freshwater Wetland
- 100-foot Buffer

NWI Wetlands

- Freshwater Emergent Wetland (PEM)
- Freshwater Forested/Shrub Wetland (PFO, PSS)
- Freshwater Pond (PUB, PAB)
- Lake (L)
- Riverine (R)

Regional NYSDEC and NWI Wetlands

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Figure 7-2

8.A. INTRODUCTION

This chapter describes the current drainage patterns on the Project Site and analyzes potential impacts related to stormwater flow and infrastructure as a result of the Proposed Action and Proposed Project. Existing and proposed stormwater conditions and calculations have been summarized based on data included within the "Preliminary Stormwater Pollution Prevention Plan" (the "2021 SWPPP") prepared by the Applicant's engineer (JMC Engineering) and dated April 22, 2021 (see **Appendix E-1**).

The 2021 SWPPP is serving as an amendment to the SWPPP prepared for the Project Site's currently approved development plan (MBIA office expansion), which was approved by the Town of North Castle and NYCDEP on August 22, 2005 and amended on July 14, 2006.

As described below, with the implementation of the SWPPP and proposed stormwater management facilities, runoff rates would be reduced in all the analyzed storms from the existing condition, and no significant adverse impacts are anticipated.

8.B. EXISTING CONDITIONS

8.B.1. EXISTING STORMWATER CONDITIONS – PROJECT SITE (DEIS)

8.B.1.a. Existing Drainage Areas

The Project Site is located within the drainage basin of the adjacent Kensico Reservoir, which is under the jurisdiction of the New York City Department of Environmental Protection (NYCDEP). The major function of Kensico Reservoir is to receive water from all six Catskill and Delaware system reservoirs, and to make those waters available for the fluctuating daily consumption demands of New York City. The Kensico watershed's drainage basin is 13 square miles and includes portions of the Towns of Harrison, Mount Pleasant, North Castle and a small part of Fairfield County, Connecticut. This watershed contributes two percent, or less, of the total water volume of the existing reservoir. As the final reservoir in the Catskill/Delaware system before water enters the distribution network, the Kensico Reservoir is subject to federal water quality standards for coliforms and turbidity.[1]

The topography of the Project Site is generally moderately sloped and soils are predominately hydrologic groups B and C, which are well drained soils as classified by the United States Department of Agriculture (USDA) Soil

[1] https://www1.nyc.gov/site/dep/water/kensico-reservoir.page

Conservation Service. As discussed in detail within the 2021 SWPPP, based on the topography of the Site, the Project Site was divided into seven Existing Drainage Areas (EDA's) draining to a total of four Design Points/Design Lines (see **Figure 8-1**).

Design Point 1A (DP-1A) is located at the existing pond outlet in the southern portion of the Project Site. Design Point 1B (DP-1B) is located at the existing curb inlet (CI-84) along the King Street entrance drive. Design Line 2 (DL-2) is located south of the Project Site on the adjacent NYCDEP property. Design Line 3 (DL-3) is located along the Project Site's northeast property line.

There are numerous storm drainage facilities on the Project Site. Within EDA-1A, there are five major storm pipe systems. The first flush runoff from the parking structure is diverted to a water quality basin to the east of the existing pond, and the excess flows bypass to the existing pond. There is also a water quality basin to the west of the existing pond which treats the first-flush runoff from the southerly office building and then conveys the excess flows to the existing pond. A storm pipe system collects the runoff from the parking area to the north of the parking structure and conveys it to the existing pond. There is a large storm pipe system which collects the runoff from the parking area to the north of the northern office building and the westerly half of the northern office building roof and conveys it to the existing pond. The existing pond has a water surface area of approximately 1.2 acres and has a storage capacity of approximately 200,000 cubic feet. Discharge from the pond is controlled by one 12-inch culvert at elevation 405.40 and three 12-inch culverts at elevation 406.75. Outflow from the pond is conveyed by a 24-inch storm pipe.

Within EDA-1B, there is one major storm drainage pipe which collects the roof-top runoff from the easterly half of the northerly office building and the driveway runoff. This pipe system connects to the outflow pipe from the existing pond. Two catch basins along the west side of King Street collect the majority of the overland flow from the eastern portion of drainage area EDA-1B.

Runoff from Cooney Hill Road is directed to swales on each side of roadway. A drain inlet conveys the runoff from the south side of Cooney Hill Road under the former Weber Place through a 15-inch culvert which discharges to another swale.

8.B.1.b. On-Site and Surrounding Regulated Surface Waters

As discussed in Chapter 7, "Wetlands," there is one U.S. Army Corps of Engineers (USACE) and Town of North Castle-regulated wetland segment of approximately 0.247 acres located at the western corner of the Project Site, abutting the east/west-oriented site boundary to the south of the former Weber Place. According to the Wetlands Report (**Appendix D-2**), the northern portion of the Project Site appears to drain to the on-site wetland, where drainage enters a swale in the wetland and discharges west of the Project Site toward the Kensico Reservoir (Weber's Cove).

The Kensico Reservoir, located to the west and south of the Project Site, is the largest regulated surface waterbody within 1,000 feet of the Project Site. The reservoir is separated from the Project Site by lands under the control of NYCDEP. In addition to the observed off-site swale to the west (described above), other wetlands, watercourses, and surface waters within 1,000 feet of the Project Site's boundaries, based on a review of the New York State Department of Environmental Conservation (NYSDEC) Environmental Resource Mapper and Westchester County GIS, include the following:

- Two unregulated ponds with connecting unregulated stream on the Citigroup parcel to the east of the Project Site, which drain to the south;
- NYSDEC wetlands and associated stream in the southwestern portion of the Swiss Re parcel to the north of the Project Site, which drain to the south/southwest toward the Kensico Reservoir and away from the Project Site; and
- NYSDEC wetlands located southwest of the Project Site adjacent to the Kensico Reservoir (Weber's Cove).

A 100-year floodplain area is also located within 1,000 feet of the Project Site. The boundaries of the floodplain generally follow the perimeter of the Kensico Reservoir, which is at a lower elevation than the Project Site.

8.B.1.c. Stormwater Runoff Quantities Under Existing Conditions

The existing peak rates of runoff for the 1-, 2-, 5-, 10-, 25-, 50-, and 100-year recurrence interval storms were analyzed for the Project Site. Data from the Natural Resource Conservation Service (NRCS) and the Northeast Regional Climate Center (NRCC) was used to determine the amount of rainfall for each design storm (see **Table 8-1**).

The peak rates of runoff to each Design Point for each modeled storm event are shown in **Table 8-2**. The volume of runoff to each Design Point from each modeled storm event is shown in **Table 8-3**.

Table 8-1
24-Hour Rainfall Amounts

Design Storm Recurrence Interval	Inches of Rainfall
1 Year	2.80
2 Year	3.43
5 Year	4.31
10 Year	5.13
25 Year	6.46
50 Year	7.69
100 Year	9.17
Source: JMC; NRCS and NRCC data	

Table 8-2
Summary of Existing Peak Rates of Runoff

Storm Recurrence Interval	DP-1A (cfs)	DP-1B (cfs)	DL-2 (cfs)	DL-3 (cfs)
1 Year	1.36	6.26	10.94	1.00
2 Year	2.02	8.91	17.32	1.89
5 Year	3.25	13.26	28.25	3.56
10 Year	5.48	17.26	38.73	5.23
25 Year	11.98	24.21	57.53	8.34
50 Year	17.27	30.32	74.45	11.22
100 Year	20.56	37.96	96.44	14.96

Note: cfs = cubic feet per second
Source: JMC

Table 8-3
Summary of Existing Peak Volumes of Runoff

Storm Recurrence Interval	DP-1A and DP-1B (cf)	DL-2 (cf)	DL-3 (cf)
1 Year	99,348	51,473	5,806
2 Year	137,378	77,302	9,487
5 Year	208,121	122,148	16,210
10 Year	276,282	165,731	22,997
25 Year	400,368	245,356	35,790
50 Year	514,012	318,368	47,814
100 Year	640,254	412,928	63,661

Note: cf = cubic feet
Source: JMC

8.B.1.d. Pollutant Loading Analysis Under Existing Conditions

A stormwater pollutant loading analysis was performed for each drainage area under existing conditions. The pollutants analyzed were Total Suspended Solids (TSS) total phosphorus (TP), total nitrogen (TN), Biochemical Oxygen Demand (BOD), and Fecal Coliform (FC). Pollutant loading rates from Table 2.6 of the publication "Fundamentals of Urban Runoff Management," dated August 1994, were utilized to calculate the estimated loads in pounds per year. The Pollutant Loading Coefficient Method was utilized to calculate the estimated loads. The estimated annual load from each of the existing drainage areas is shown in **Table 8-4**.

Table 8-4
Stormwater Pollutant Summary (lbs/year) – Existing Conditions

	Pollutant				
Drainage Area	TSS	TP	TN	BOD	FC (no./yr.)
DP-1A	1,406	2.79	27.1	666	4.1 E+10
DP-1B	2,208	2.58	19.7	567	1.6 E+11
DL-2	4,730	3.92	56.2	802	5.0 E+11
DL-3	670	0.87	8.0	158	4.7 E+10

Source: JMC

8.B.2. EXISTING CONDITIONS OF THE DOB-20A DISTRICT (GEIS)

The remaining DOB-20A district parcels, including the adjacent Swiss Re parcel, have drainage characteristics similar to the Project Site. Due to existing topography, most runoff from these properties flows towards on-site stormwater management facilities, surrounding roadways (including King Street) or the Kensico Reservoir. Drainage from surrounding developed parcels within the DOB-20A district are not tributary to the Project Site. As described in Section 8.B.1.b above, there are a number of unregulated streams, swales, and storage ponds within 1,000 feet of the Project Site that are part of the surrounding DOB-20A stormwater management infrastructure. A site-specific drainage study for the adjacent Swiss Re parcel is not currently available. However, as noted above, and based on a review of available online mapping applications, there are wetland areas and a stream on the Swiss Re parcel which drain to the south/southwest toward the Kensico Reservoir and away from the Project Site.

8.C. POTENTIAL IMPACTS OF THE PROPOSED PROJECT (DEIS)

8.C.1. IMPERVIOUS AREA OF THE PROPOSED PROJECT

The Proposed Project would construct several new improvements, including a new multifamily residential building, new townhomes, and associated site infrastructure, including roads. To calculate the amount of new impervious land coverage that would result from the Proposed Project, it is important to briefly outline the Project Site's previous project and stormwater approvals history. As described in Chapter 2, "Project Description," the Project Site has received two separate but related SWPPP and site plan approvals from the Town since 2005, both of which remain in full effect. The first approval was granted for the Project Site's currently approved development plan (MBIA office expansion). Subsequent site plan and SWPPP approvals were granted by the Town for the expansion of the existing 43-space parking area located adjacent to the farmhouse in the southern portion of the Project Site. The Applicant's 2021 SWPPP for the Proposed Project is serving as an amendment to the SWPPP for the currently approved development plan, which was approved by the Town and NYCDEP on August 22, 2005 and amended on July 14, 2006. In addition to the Proposed Project, the 2021 SWPPP also accounts for the 43-space parking expansion in the southern portion of the Project Site, which has current site plan and SWPPP approvals.

As shown in **Table 8-5**, the currently approved site plans and SWPPPs allow for 10.51 acres of impervious surface on the Project Site. The Proposed Project, however, would result in only 9.96 acres of impervious surface on the Project Site. As such, the Proposed Project would not result in an increase in impervious surface when compared to the currently approved site plans.

Table 8-5
Gross Land Coverage Comparison

Project Site Condition	Total Gross Impervious Land Coverage (acres)
Currently Approved Development Plan (MBIA Expansion)	9.93*
Currently Approved Southern Surface Parking Lot Expansion	0.58*
Total Currently Approved Impervious Areas	**10.51**
Proposed Project with Southern Surface Parking Expansion	**9.96**

Notes:
Total Project Site area = 37.78 acres.
Total gross land coverage includes buildings (including parking structures), roads, parking lots, sidewalks, patios, and gravel driveways.
* Separate SWPPP and site plan approvals are currently in place with the Town of North Castle for the MBIA expansion and parking lot expansion.
Source: JMC Engineering

In a letter to the Applicant's engineer dated August 31, 2020, NYCDEP stated that the Proposed Project will be reviewed as an amendment to the currently approved development plan using the standards of the currently approved SWPPP (see **Appendix E-1)**. NYCDEP noted that all newly proposed impervious surfaces must be captured and treated and must receive runoff reduction. The 2021 SWPPP has been prepared to meet these requirements, as described below.

8.C.2. STORMWATER PERMITS REQUIRED

The 2021 SWPPP has been designed to ensure that the quantity and quality of stormwater runoff during and after development are not substantially altered from pre-development conditions. As a result of its implementation, and as discussed more thoroughly below, it is expected that there will be no significant adverse impact on downstream properties and watercourses, including the adjacent New York City watershed lands, the Kensico Reservoir, and its floodplain and related wetlands.

The following permits/approvals related to stormwater management would be required in connection with the Proposed Project:

- State Pollution Discharge Elimination System (SPDES) General Permit from NYSDEC;
- Water Withdrawal Permit from NYSDEC; and
- SWPPP approval from NYCDEP and the Town of North Castle.

8.C.3. RUNOFF RATES AND VOLUMES

As shown on **Figure 8-2**, two stormwater management areas have been designed to manage the Proposed Project's stormwater. Stormwater Management Area 1 (SMA 1) would consist of a pocket pond that would have a water surface elevation of 405.50 and provide approximately 23,500 cubic feet of wet storage. SMA 1 would be located in the southern portion of the Project Site, between the northernmost office building (proposed hotel) and the proposed multifamily building. The proposed storm pipes downstream of the pond have been sized to convey the 100-year flow. The required water quality volume for the area entering the pond, which is the runoff from the 1-year, 24-hour storm, is 18,283 cubic feet. The proposed pond in SMA 1 has been designed to provide

approximately 1.16 times the required water quality volume. The 1-year, 24-hour storm would be detained for 25.25 hours.

An additional stormwater management areas have been designed to manage the stormwater from the proposed easterly driveway for the multifamily residential building.

The stormwater runoff from the southern portion of the driveway would be collected by a grated top hydrodynamic structure WQS-A-3 (FD-4HC by HydroInternational) where pretreatment of 100 percent of the water quality flow is provided. The pretreated runoff is conveyed to the proposed subsurface infiltration system (SMA 1B-2) consisting of 9 MC-4500 StormTech chambers. The bottom of the stone will be at elevation 395.75 and the bottom of the chambers will be at 396.50. Based on deep hole test pits observed by JMC, this system meets the separation required between bedrock and groundwater. The runoff reduction volume will be retained within the chambers and infiltrated. Outlet control structure OCS-A-1 with a three-inch-long weir at elevation 399.25 would slowly release the detained runoff from the higher storm events into an outlet pipe that would connect to existing CI 40. An infiltration rate of >20 in/hr was observed during field testing, a conservative infiltration rate of 10 in/hr was used in this design.

The stormwater runoff from the northern portion of the driveway would be collected by a grated top hydrodynamic structure WQS-E-3 (FD-4HC by HydroInternational) where pretreatment of 100 percent of the water quality flow is provided. The pretreated runoff is conveyed to the proposed subsurface infiltration system (SMA 1B-3) consisting of 18 MC-4500 StormTech chambers. The bottom of the stone will be at elevation 404.75 and the bottom of the chambers will be at 405.50. Based on deep hole test pits observed by JMC, this system meets the separation required between bedrock and groundwater. The runoff reduction volume will be retained within the chambers and infiltrated. Outlet control structure OCS-E-2 with a three-inch-long weir at elevation 408.75 would slowly release the detained runoff from the higher storm events into an outlet pipe that would connect to existing DMH-E-1. An infiltration rate of >20 in/hr was observed during field testing, a conservative infiltration rate of 10 in/hr was used in this design. Stormwater Management Area 2 (SMA 2) would consist of a micropool and forebay connected by a riprap pilot channel. SMA 2 would be located in the northern portion of the Project Site, southwest of the proposed townhomes. The proposed forebay would provide 13 percent of the required water quality volume, the micropool would provide 35 percent, and the remaining volume would be provided by extended detention. The required water quality volume for the contributing drainage area is 35,671 cubic feet. The water quality volume provided by the forebay, micropool, and extended detention is 46,675 cubic feet. The 1 year, 24-hour storm would be detained for 35.17 hours. The proposed micropool would have a water surface elevation of 406.50 and a 12-foot wide, 18-inch-deep aquatic bench. SMA 2 would be planted with trees, shrubs, herbaceous plants, and wild flowers as described in the SWPPP. A 2-inch orifice at elevation 406.50 and two 2.25-foot vertical rectangular weirs at elevation 409.15 would control the outflow from the basin.

Additional stormwater practices being used to satisfy runoff reduction criteria include an extensive green roof, a vegetated swale, four level spreaders which sheet flow to a vegetated filter, and ten bioretention areas through the site which provide water quality treatment.

As demonstrated in the 2021 SWPPP, the stormwater design of the Proposed Project would result in a reduction the rate of stormwater exiting the Project Site for each modeled storm event when compared to the existing condition.

With the exception of DP-1B in the southern portion of the Project Site, there would also be reductions in the volume of stormwater exiting the Project Site for each modeled storm event when compared to the existing condition. However, when DP-1A and DP-1B are added together, there are reductions in the volume of stormwater for all modeled storm events.

Table 8-6 and Table 8-7 summarize the percent change between existing and proposed conditions for runoff rates and volumes.

Table 8-6
Proposed Peak Runoff Rates

Design Point	Storm Recurrence Interval	Existing Peak Runoff Rate (cfs)	Proposed Peak Runoff Rate (cfs)	Percent Change (%)
DP-1A	1-year	1.36	0.82	-40
	2-year	2.02	1.33	-34
	5-year	3.25	2.47	-24
	10-year	5.48	3.48	-36
	25-year	11.98	7.97	-33
	50-year	17.27	14.05	-19
	100-year	20.56	18.95	-8
DP-1B	1-year	6.26	4.41	-30
	2-year	8.91	6.66	-25
	5-year	13.26	10.26	-23
	10-year	17.26	13.97	-19
	25-year	24.21	21.29	-12
	50-year	30.32	27.64	-9
	100-year	37.96	35.32	-7
DL-2	1-year	10.94	3.23	-70
	2-year	17.32	5.26	-70
	5-year	28.25	9.03	-68
	10-year	38.73	15.67	-60
	25-year	57.53	33.41	-42
	50-year	74.45	49.68	-33
	100-year	96.44	71.90	-25
DL-3	1-year	1.00	0.58	-42
	2-year	1.89	1.29	-32
	5-year	3.56	2.74	-23
	10-year	5.23	4.27	-18
	25-year	8.34	7.20	-14
	50-year	11.22	9.97	-11
	100-year	14.96	13.62	-9

Note: cfs = cubic feet per second
Source: JMC

Table 8-7
Proposed Runoff Volumes

Design Point	Storm Recurrence Interval	Existing Peak Runoff Volume (cf)	Proposed Peak Runoff Volume (cf)	Percent Change (%)
DP-1A and 1B	1-year	99,348	81,088	-18
	2-year	137,378	117,539	-14
	5-year	208,121	178,819	-14
	10-year	276,282	238,217	-14
	25-year	400,368	352,524	-12
	50-year	514,102	461,970	-10
	100-year	640,254	601,893	-6
DL-2	1-year	51,473	51,382	0
	2-year	77,302	76,122	-2
	5-year	122,148	119,062	-3
	10-year	165,731	160,582	-3
	25-year	245,356	236,149	-4
	50-year	318,368	305,253	-4
	100-year	412,928	394,608	-4
DL-3	1-year	5,806	4,217	-27
	2-year	9,487	7,378	-22
	5-year	16,210	13,380	-17
	10-year	22,997	19,607	-15
	25-year	35,790	31,613	-12
	50-year	47,814	43,100	-10
	100-year	63,661	58,430	-8

Note: cf = cubic feet
Source: JMC

8.C.4. POLLUTANT LOADING ANALYSIS WITH PROPOSED PROJECT

Using the same methodology outlined above for the existing conditions, a stormwater pollutant loading analysis was performed for each drainage area with the Proposed Project. The percent change in estimated annual pollutant load between existing and proposed conditions for each drainage area is shown in **Table 8-8**.

Table 8-8
Annual Stormwater Pollutant Loading – Existing to Proposed

Design Point	Pollutant	Existing Conditions	Proposed Conditions	Percent Change (%)
DP-1A	TSS	1,406 lbs/year	1,089 lbs/year	-22
	TP	2.79 lbs/year	2.38 lbs/year	-14.7
	TN	27.1 lbs/year	20.0 lbs/year	-26.2
	BOD	666 lbs/year	530 lbs/year	-20.4
	FC	4.1 E+10 no/year	3.04 E+10	-26.8
DP-1B	TSS	2,208 lbs/year	1,906 lbs/year	-13.7
	TP	2.58 lbs/year	2.83 lbs/year	+9.7
	TN	19.7 lbs/year	21.8 lbs/year	+10.7
	BOD	567 lbs/year	543 lbs/year	-4.2
	FC	1.6 E+11 no/year	1.7 E+11 no/year	+6.3
DL-2	TSS	4,730 lbs/year	2,520 lbs/year	-46.7
	TP	3.92 lbs/year	2.90 lbs/year	-26.0
	TN	56.2 lbs/year	51.0 lbs/year	-9.3
	BOD	802 lbs/year	491 lbs/year	-38.8
	FC	5.0 E+11 no/year	3.2 E+11 no/year	-38.3
DL-3	TSS	670 lbs/year	637 lbs/year	-4.9
	TP	0.87 lbs/year	0.57 lbs/year	-34.5
	TN	8.0 lbs/year	8.7 lbs/year	+8.8
	BOD	158 lbs/year	99 lbs/year	-37.3
	FC	4.7 E+10 no/year	4.7 E+10 no/year	+48.9

Notes: lbs/year = pounds per year; no./year = number per year
Source: JMC Engineering

As shown above, for most pollutants in most of the PDAs, implementation of the 2021 SWPPP would reduce the pollutant loading in the Site's stormwater runoff. Increases in TP (9.7 percent), TN (10.7 percent), and FC (6.3 percent) are estimated to occur at DP-1B with the Proposed Project. Increases in TN (8.8 percent) and FC (48.9 percent) are also estimated to occur at DL-3 with the Proposed Project. However, when DP-1A and DP-1B are added together, there are reductions in pollutant loading.

The primary causes of this increase in pollutant loading are lawn fertilizers and pet/animal wastes, which are common in residential developments and not considered significant when properly handled and treated through on-site stormwater best management practices. The stormwater management infrastructure proposed in the 2021 SWPPP has been designed to address this predicted increase in pollutant loading, and in the Applicant's opinion, receiving surface water bodies would not be adversely affected.

The introduction of impervious surfaces and landscaping to the Project Site has the potential to result in short- and long-term impacts related to the use of fertilizers, pesticides, herbicides, fungicides, and other chemicals. As discussed in Chapter 6, "Vegetation and Wildlife," the integrated pest management plan (IPM) currently in place for the Project Site's existing office uses would be expected to remain in the Future with the Proposed Project and would be modified during a future site plan approval based on a final site design. Fertilizer, pesticides, and other lawn care or landscaping products would be handled, stored, and applied in strict conformance with the manufacturer's guidelines.

With regard to groundwater, as described in the SWPPP, potential impacts would be addressed through the use of infiltration systems to treat the runoff volume and provide additional water quality and runoff volume reduction.

8.C.5. POTENTIAL CONSTRUCTION PERIOD STORMWATER IMPACTS

As described in the SWPPP and Chapter 17, "Construction," potential impacts associated with construction activities include sediment deposition and erosion and the potential for causing turbidity within receiving waterbodies, specifically the Kensico Reservoir which is part of the New York City watershed and regulated by NYCDEP. To avoid an adverse impact from soil erosion, the Applicant's engineer has designed mitigation measures that would conform to the requirements of NYSDEC State Pollution Discharge Elimination System (SPDES) General Permit for Stormwater Discharges Associated with Construction Activity Permit No. GP-0-20-001, the "New York State Standards and Specifications for Erosion and Sediment Control," dated July 2016, and Chapter 267, "Stormwater Management," of the Town Code. The permit requires that projects disturbing more than 1 acre of land develop a SWPPP containing both temporary erosion control measures during construction and post-construction stormwater management practices to avoid flooding and water quality impacts in the long term.

The Applicant's engineer developed a Preliminary SWPPP (see **Appendix E-1**) and ESCP (see **Appendix E-2**) that depicts the measures that would be implemented to control erosion during construction and reduce the potential for sediment to leave the Site. These measures include stabilized construction accesses (SCAs); the limit of disturbance beyond which no soil disturbance is to occur; and the installation of silt fencing, temporary sediment basins, inlet protection, and other measures, which would be used throughout the construction period to minimize the potential for erosion and sedimentation impacts from construction of the Proposed Project. In addition, a continuing maintenance program will be implemented for the control of sediment transport and erosion control after construction and throughout the useful life of the project.

8.C.6. CONSIDERATION OF CUMULATIVE IMPACTS

As discussed in Chapter 3, "Land Use, Zoning, and Public Policy," the only planned development in the immediate area of the Project Site that has the potential to impact stormwater infrastructure proximate to the Project Site is the proposed Eagle Ridge project, which involves a zoning petition to allow the development of new townhomes and a hotel (with apartments above) on a 32.5-acre site at North Castle Drive and Route 22. The DEIS and SWPPP have been prepared for the Eagle Ridge project and both are currently undergoing review by the Town. Unlike the Project Site which is partially developed, the Eagle Ridge site is vacant and contains no existing stormwater infrastructure. Drainage from the Eagle Ridge site is not tributary to the Project Site, and implementation of the proposed SWPPP for Eagle Ridge would be expected to mitigate stormwater flows from the new impervious areas proposed for that project.

8.D. MITIGATION MEASURES FOR THE PROPOSED PROJECT (DEIS)

As summarized above and presented in more detail in the 2021 SWPPP in **Appendix E-1**, the Proposed Project utilizes a variety of practices to enhance stormwater quality and reduce peak rates of runoff associated with the Proposed Project. With the implementation of the 2021 SWPPP

and proposed stormwater management facilities described above, runoff rates would be reduced in all the analyzed storms from the existing condition.

As discussed above, the IPM currently in place for the Project Site's existing office uses would be expected to remain in the Future with the Proposed Project. Through the SWPPP, any increases in pollutant concentrations resulting from the use of fertilizers, pesticides, herbicides, fungicides, and other chemicals are not considered significant and would be appropriately handled on-site. Furthermore, the Applicant would prohibit the use of any chemicals (fertilizers, pesticides, herbicides, fungicides, etc.) within the Project Site's identified wetland watercourse proper and within 100 feet of this wetland/watercourse. In addition, no chemicals would be applied within 100 feet of any existing or proposed stormwater management pond or basin which permanently or periodically retains/detains stormwater.

To the extent feasible and practicable, enhanced treatment and green infrastructure practices would be employed at the Project Site in conjunction with the SWPPP. For example, the Applicant is considering green roof areas for the proposed multifamily building's parking structure.

The Applicant agrees to pay the customary Engineering Inspection Fee to cover the cost of the Town's Consulting Engineer's inspections. It should be noted that since the Proposed Project is within the New York City East of Hudson Watershed, NYCDEP approval of the SWPPP will be required, and as such, erosion and sediment control inspections will be required twice per week. This will ensure that potential erosion and sediment control issues are identified and addressed in a timely manner.

A construction bond will be posted by the Applicant to cover the cost of all stormwater infrastructure improvements including but not limited to drainage structures, water quality structures, piping, and stormwater management areas. The Applicant will be party to a maintenance agreement which will cover post construction stormwater management practices in perpetuity. It should also be noted that the oil tanks associated with the previously existing homes in the Cooney Hill area were removed in connection with demolition of the houses which provides an additional environmental benefit. The only remaining tank is at the 3 Cooney Hill Road residence, which is still occupied.

In the Applicant's opinion, implementation of the above measures would provide water quantity and quality enhancements that exceed the regulatory requirements, and therefore stormwater runoff from the Proposed Project is not anticipated to have a significant adverse impact to the Project Site or downstream areas.

8.E. POTENTIAL IMPACTS OF, AND MITIGATION FOR, THE PROPOSED ZONING (GEIS)

As described in Chapter 2, "Project Description," the theoretical maximum development scenario under the Proposed Zoning, when accounting for the maximum buildout potential of both the Project Site and the adjacent Swiss Re parcel, is a total of 750 residential units and an 80-room hotel.

It is important to note that no specific proposal is being made at this time to effectuate the maximum hypothetical development of these two sites and any future plans would be subject to review by the Town, including a full environmental and stormwater review.

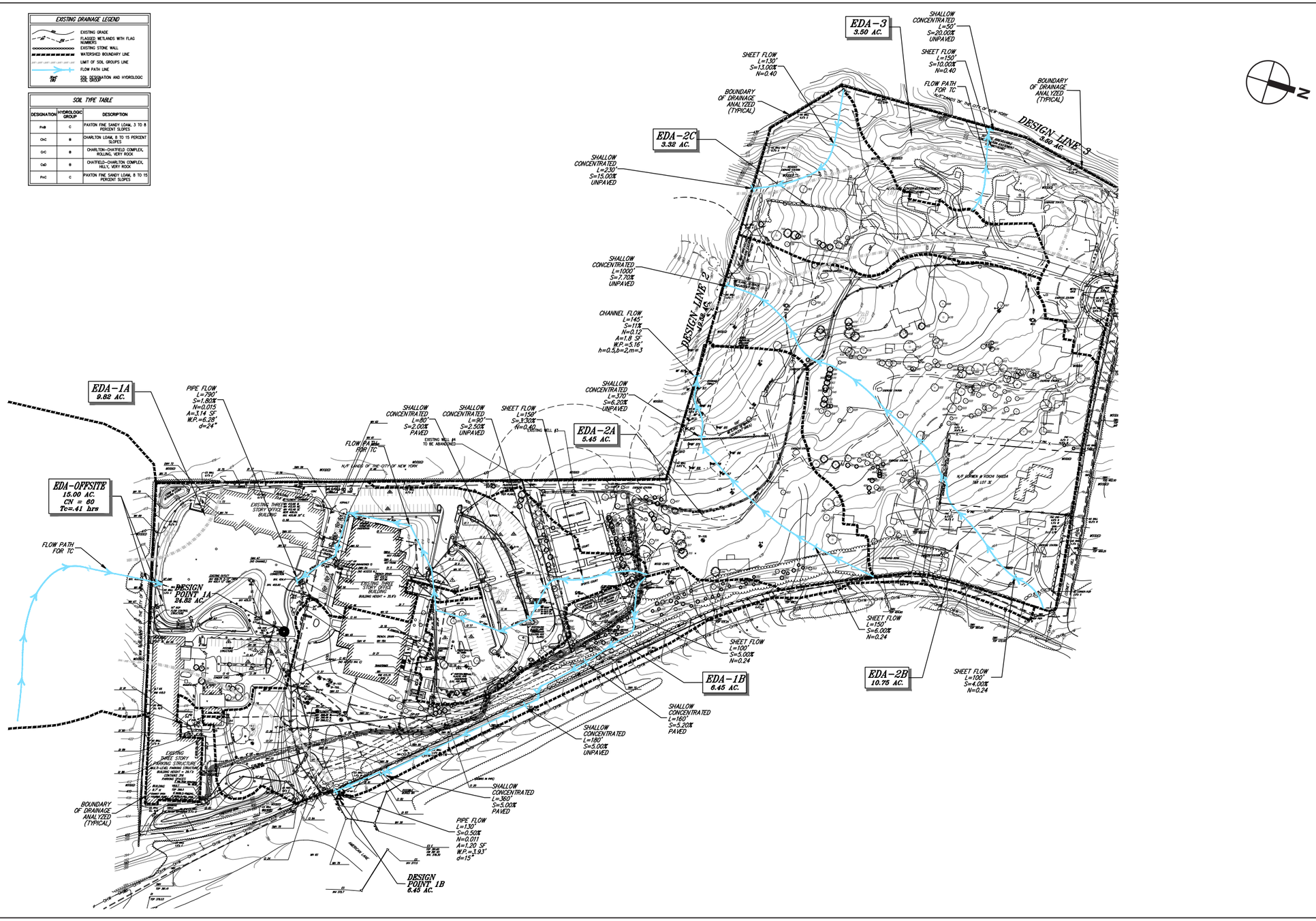
Detailed site plans and a SWPPP for the hypothetical program assumed in the GEIS are not available, and the phasing/duration of construction is also unknown at this time. However, due to

the type of new construction practices anticipated to effectuate a mixed-use residential/hotel development, and the distance to the Kensico Reservoir, the potential exists for impacts similar to those identified for the Proposed Project related to stormwater management and erosion/sediment control. Increases to impervious surfaces are likely and would be dependent on the siting and orientation of development. Measures to mitigate these potential impacts would be similar to those identified for the Proposed Project (i.e., a full SWPPP and ESCP), and would be based on the site plan(s) being proposed.

Any future plans on either parcel would be subject to site plan review as well as a full environmental/stormwater review by the Town. In addition, since concurrent construction activities at both parcels cannot be ruled out, cumulative impacts would need to be considered and appropriately coordinated among the developers, the Town, and other interested/involved agencies in the event of concurrent construction. Cumulative impacts on the surrounding area related to stormwater are of particular importance if such concurrent construction was to take place and would be evaluated at the time of site plan approvals based on detailed site plan applications. ✷

EXISTING DRAINAGE LEGEND	
	EXISTING GRADE
	FLAGGED WETLANDS WITH FLAG NUMBERS
	EXISTING STONE WALL
	WATERSHED BOUNDARY LINE
	LIMIT OF SOIL GROUPS LINE
	FLOW PATH LINE
	SOIL DESIGNATION AND HYDROLOGIC GROUP

SOIL TYPE TABLE		
DESIGNATION	HYDROLOGIC GROUP	DESCRIPTION
PnB	C	PAXTON FINE SANDY LOAM, 3 TO 8 PERCENT SLOPES
ChC	B	CHARLTON LOAM, B TO 15 PERCENT SLOPES
CrC	B	CHARLTON–CHATFIELD COMPLEX, ROLLING, VERY ROCK
CsD	B	CHATFIELD–CHARLTON COMPLEX, HILLY, VERY ROCK
PnC	C	PAXTON FINE SANDY LOAM, B TO 15 PERCENT SLOPES



Source: JMC, 2020

Project Site - Existing Drainage Area Map

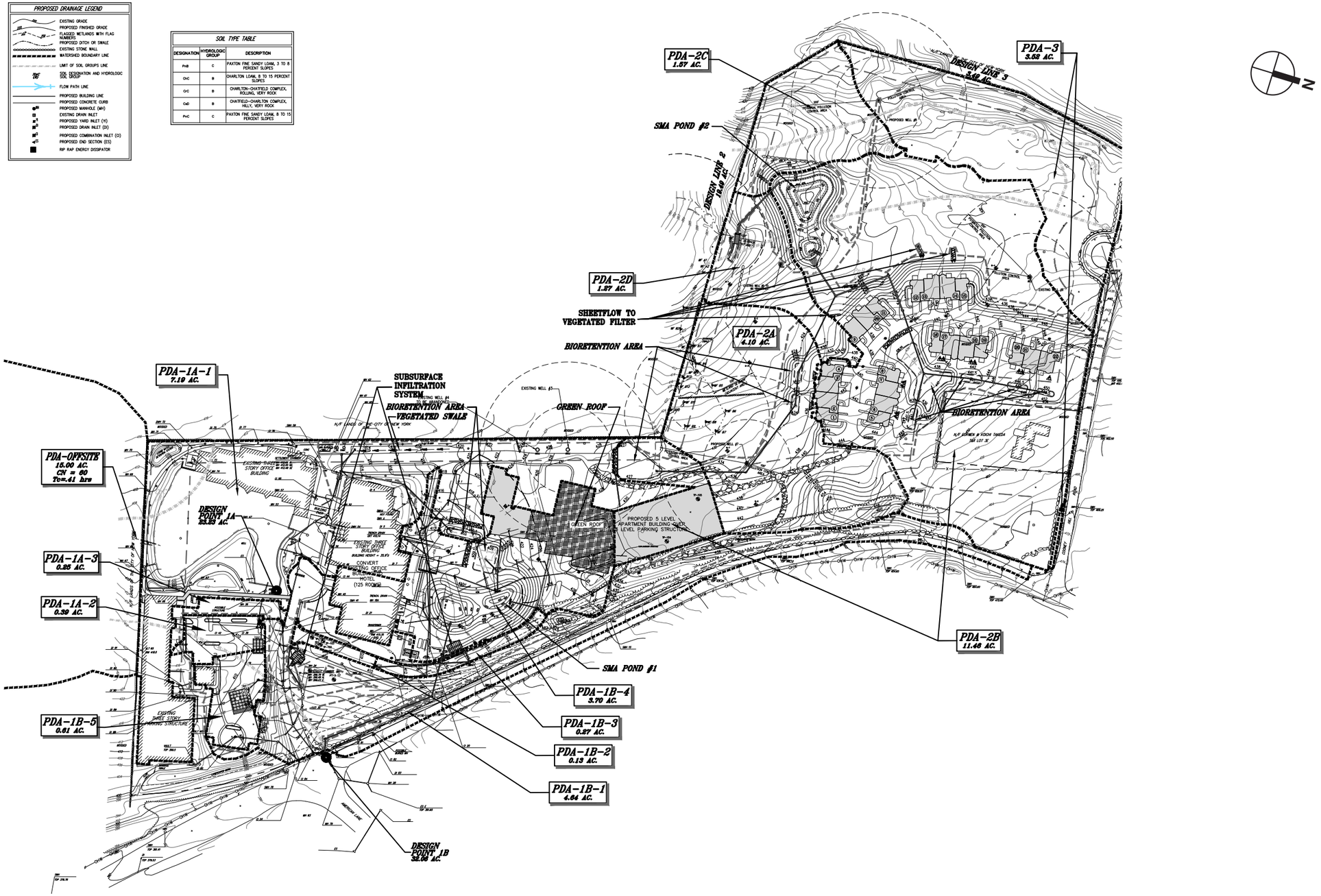
Figure 8-1

PROPOSED DRAINAGE LEGEND

- EXISTING GRADE
- PROPOSED FINISHED GRADE
- FLAGGED WETLANDS WITH FLAG NUMBERS
- PROPOSED DITCH OR SWALE
- EXISTING STONE WALL
- WATERSHED BOUNDARY LINE
- LIMIT OF SOIL GROUPS LINE
- 76F SOIL DESIGNATION AND HYDROLOGIC SOIL GROUP
- FLOW PATH LINE
- PROPOSED BUILDING LINE
- PROPOSED CONCRETE CURB
- PROPOSED MANHOLE (MH)
- EXISTING DRAIN INLET
- PROPOSED YARD INLET (YI)
- PROPOSED DRAIN INLET (DI)
- PROPOSED COMBINATION INLET (CI)
- PROPOSED END SECTION (ES)
- RIP RAP ENERGY DISSIPATOR

SOIL TYPE TABLE

DESIGNATION	HYDROLOGIC GROUP	DESCRIPTION
PnB	C	PAXTON FINE SANDY LOAM, 3 TO 8 PERCENT SLOPES
ChC	B	CHARLTON LOAM, 8 TO 15 PERCENT SLOPES
CrC	B	CHARLTON-CHATFIELD COMPLEX, ROLLING, VERY ROCK
CsD	B	CHATFIELD-CHARLTON COMPLEX, HILLY, VERY ROCK
PnC	C	PAXTON FINE SANDY LOAM, 8 TO 15 PERCENT SLOPES



Source: JMC, 2020

Project Site - Proposed Drainage Area Map

Figure 8-2

Chapter 9: Utilities

9.A. INTRODUCTION

This chapter assesses the potential impacts of the Proposed Action related to water supply and sanitary wastewater, including summaries of the 72-Hour Pumping Test Report prepared by WSP USA, Inc. (the WSP report) dated April 2021 (**Appendix F-1**) and sanitary sewer design calculations / flow rate analyses prepared by Provident Design Engineering (**Appendix F-2**).

The Proposed Project is anticipated to generate approximately 58,600 gallons per day (gpd) of potable water demand, approximately 32,500 gpd more than what would be generated by the full occupancy of the Project Site's existing office buildings (26,100 gpd), and approximately 12,300 less than what would be generated by the Project Site's currently approved development plan (70,900 gpd). The study completed by WSP demonstrated a combined well yield capacity of 156,240 gpd from onsite Wells 3, 6, 7, and 8. The preliminary utility plan for the Proposed Project is provided in **Figures 9-1a and 9-1b**. Water would be supplied by on-Site wells and sanitary sewage would connect to the existing 8-inch public sewer main on the Project Site, which drains to the southwest. The design of the water and sewer systems would be subject to the review and approval of the Town of North Castle Engineering Department and the Westchester County Department of Health (WCDH), and the New York City Department of Environmental Conservation (NYSDEC) for the proposed sanitary system improvements.

9.B. EXISTING CONDITIONS

9.B.1. WATER SUPPLY

9.B.1.a. Existing Water Withdrawal Infrastructure Serving the Project Site (DEIS and GEIS)

The Project Site is not located within any of the Town of North Castle's water districts. There are six wells on the Project Site, referred to as Wells 3, 4, 5, 6, 7, and 8 (see **Figure 9-2**). Water for the existing development on the Project Site is currently supplied by four of these wells (Wells 3, 4, 5, and 6). In 2018, Wells 3, 6, 7, and 8 underwent zone hydrofracks in order to clear and open the water-bearing fractures in the wells to improve the well yields.

A 72-hour pumping test was conducted on Wells 3, 6, 7, and 8 in March 2021. The test was conducted in accordance with the NYSDEC Recommended Pumping Test Procedures document and the NYSDOH Sanitary Code Part 5, subpart-5-1 Appendix 5-D. The planned well testing program was reviewed by both the NYSDEC and WCDH prior to conducting the test. The combined yield capacity of Wells 3, 6, 7, and 8 demonstrated during the 72-hour pumping test was 108.5 gpm or 156,240 gpd. Well 8 performed the best with

a yield of 40 gpm. As shown in **Table 9-1**, excluding Well 8, the combined yield of the remaining Wells 3, 6, and 7 was 68.5 gpm or 98,640 gpd.

Table 9-1
On-Site Well Yield

Well Name	Well Yield (gallons per minute)
Well 3	15.1
Well 6	14.5
Well 7	38.9
Well 8	40.0
Combined Yield	108.5
Combined Yield with Best Well Out of Service	**68.5**
Source: WSP (see **Appendix F-1**)	

9.B.1.b. Existing Water Demand (Full Occupancy of Office Buildings)

Full occupancy of both existing office buildings for office use would be expected to generate a combined water and wastewater demand of approximately 26,100 gpd (see **Table 9-2**).

Table 9-2
Water and Wastewater Demand – Current Conditions

Use	Units	Usage Rate (gpd / unit)	Overall Usage
Office	261,000 square feet	0.1	26,100
		Total	**26,100**
Source: Provided by JMC based on NYSDEC "Design Standards for Wastewater Treatment Works," 1998.			

9.B.1.c. Existing Conditions of the DOB-20A District

Figure 9-3 shows the aquifers located near the Project Site.. The Proposed Project will draw water from the underlying bedrock aquifer. Based on available information, the nearby Swiss Re property, Citigroup property and the residential home at 3 Cooney Hill Road also draw water from the bedrock aquifer. The Greenwich American property has two sand and gravel wells, which draw water from the sand and gravel aquifer on the Connecticut side of the property. Water withdrawal infrastructure and current system yields information is not currently available for the above-referenced wells. The information would need to be provided by those entities.

The closest off-Site well within the DOB-20A district is on the residential property at 3 Cooney Hill Road adjacent to the northeast corner of the Project Site. Other nearby DOB-20A district properties including Swiss Re and Citigroup also utilize private wells. These properties (in addition to others outside of the DOB-20A district) were solicited for inclusion in an off-Site well monitoring program conducted as part of the 72-hour pumping test program assessed for potential pumping-related effects on off-Site wells located near the Project Site. Authorization from Swiss Re, Citigroup and Greenwich American was received for inclusion of their wells in the off-Site well monitoring program.

9.B.2. SANITARY SEWER

9.B.2.a. Existing Sanitary Sewer Infrastructure Serving the Project Site (DEIS and GEIS)

The Project Site is located within Town of North Castle Sewer District 3, which is an extension of the Westchester County Blind Brook Sewer District. Westchester County operates the Blind Brook Wastewater Treatment Facility which experiences an average daily flow of 2.9 million gallons per day (MGD) as recorded in 2017. The treatment facility has a permitted discharge flow capacity of 5.0 MGD.

The collection system consists of Town-owned gravity sanitary sewer mains and low-pressure force mains located between Cooney Hill Road and Airport Road to the North Castle Town line (see **Figure 9-4)**. At the North Castle Town line, the sewer continues through the Westchester County Airport, terminating at the Blind Brook Trunk Main Sewer. This portion of the collection system is owned and maintained by Westchester County Department of Environmental Facilities (WCDEF).

The collection system consists of polyvinyl chloride (PVC) piping in all of the North Castle owned sections of the system with the exception of the bridge crossing at I-684, which consists of a thermo-coupled polyethylene pipe enclosed in a welded steel sleeve, supported with hangars to structural components of the bridge. The WCDEF sections of the collection system within the airport, outside the Town of North Castle, consist of ductile iron pipe.

The existing Town of North Castle collection system piping provides a total overall length of 5,755 lineal feet of 8-inch PVC pipe. Minimum slopes associated with the existing system is 0.50 percent, with flow (Qmin) of 1.23 cubic feet per second (cfs), and velocity (Vmin) of 3.53 feet per second (fps).

The Westchester County portion of the existing collection system provides overall length of 4,750 lineal feet of 12-inch ductile iron pipe. Minimum slopes associated with existing portion is 0.50 percent, with flow (Qmin) of 2.50 cfs and velocity (Vmin) of 3.20 fps.

The original design of the collection system was intended to replace individual, separate sewage disposal (i.e., septic) systems which served both commercial and residential properties along the King Street and New King Street corridors. The system was also designed with intentions to connect proposed new buildings along the King Street / NYS Route 120 corridor.

Sections of the gravity sewers are connected to three (3) sanitary sewer pump stations which are located at low points along the route of the collection system (**see Figure 9-4**). Pump Station 1 is located at the end of Cooney Hill Road. Pump Station 2 is located on the shoulder of southbound King Street (NYS Route 120), approximately 1,000 feet north of the bridge crossing at I-684. Pump Station 3 is located on the western shoulder of New King Street opposite the parking lot for Safe Flight Instrument Corporation at 13 New King Street. Each of the lift stations incorporate dual alternating dry pit suction sewage effluent pumps utilizing lead, lag and alarm controls. During

periods of peak flow demand, the lag controls allow both pumps in each station to turn on simultaneously to provide dual pumping capacity. Emergency backup power is provided to sufficiently operate both pumps at each lift station.

Wet well storage for each lift station was sized at the time of their design to provide sufficient storage to attenuate volumes associated with peak flows. The available volume varies at each station based on the number of connections and flow discharge rates tributary to each station.

9.B.2.b. Original Design Capacity – Pump Stations 1, 2, and 3 (DEIS and GEIS)

The original design of the collection system and the sizing of each of the three pump stations were determined based on the existing conditions as well as the full development potential of the properties within the expanded sewer district as set by zoning or approved development plans. Design flows were calculated using loading rates from the NYSDEC standards in effect at the time, which specified 0.1 gpd per square foot of office space and 400 gpd per residential unit.

The original design capacity calculation of average daily flow (ADF), average hourly flow (AHF) and peak hourly flow (PHF) for design at Pump Stations 1, 2, and 3 is summarized in **Table 9-3** below. Refer to the Hydraulic Flow Calculation data contained in **Appendix F-2** for additional information.

Table 9-3
Original Flow Calculations for Design at Pump Stations 1, 2, and 3

Flows	Pump Station 1	Pump Station 2	Pump Station 3
ADF	77,200 gpd (53.61 gpm)	108,100 gpd (75.07 gpm)	134,100 gpd (93.13 gpm)
AHF	115,800 gpd (80.42 gpm)	162,150 gpd (112.60 gpm)	201,150 gpd (139.69 gpm)
PHF	308,800 gpd (214.44 gpm)	432,400 gpd (300.27 gpm)	536,400 gpd (372.53 gpm)

Source: Provident Design Engineering, 2021

9.B.2.c. 2018 Flow Monitoring Study (DEIS and GEIS)

A flow monitoring study was performed in November and December 2018 to collect data using area velocity flow meters in manholes immediately upstream of each pump station. Refer to **Appendix F-2** for the full report.

The monitoring data shows the measured ADFs to Pump Stations 1, 2, and 3 are significantly below their design capacities. Specifically, measured flows are almost 90 percent lower than original design at Pump Station 1 and between 70 and 80 percent lower at Pump Stations 2 and 3. Since office use is the predominant use under current conditions, the reductions in ADF are likely due to corresponding significant reductions in the occupancy/use of office space that is currently tributary to the collection system.

9.C. POTENTIAL IMPACTS OF THE PROPOSED PROJECT (DEIS)

9.C.1. POTENTIAL IMPACTS - WATER SUPPLY

9.C.1.a. Average Daily Water Demand for the Proposed Project

The Proposed Project would be expected to generate an average potable water demand of approximately 58,600 gpd (see **Table 9-4**). Water for on-Site irrigation would continue to be sourced from the existing on-Site pond. It is conservatively estimated that 50,000 gpd would be used to irrigate the existing and proposed lawn and landscaped areas. Water for fire suppression would be sourced from on-site water storage, as discussed below. The on-Site pond would also be available for fire suppression if needed.

Table 9-4
Water and Wastewater Demand – Proposed Project

Use	Units	Usage Rate (gpd / unit)	Overall Usage
Office	500 employees	12	6,000
Hotel	125 rooms	110	13,750
Restaurant (Hotel)	150 seats	28	4,200
Multifamily	249 bedrooms	110	27,390
Townhome	66 bedrooms	110	7,260
		Total	**58,600**

Sources: Provided by JMC based on "New York State Design Standards for Intermediate Sized Wastewater Treatment Systems," 2014. Usage rate is reduced by 20 percent for use of water-saving plumbing fixtures.

9.C.1.b. Proposed Water Supply System

The potable water system for the Proposed Project would be comprised of Wells 3, 6, 7 and 8. As shown in **Figure 9-1a**, the wells would be connected as part of the new water supply system. No off-site construction or construction within any easements of adjacent property owners would be required. Regulatory requirements dictate that the on-Site wells must be able to provide at least twice the average daily water demand with the best well not in service.

The combined yield capacity of Wells 3, 6, 7, and 8 demonstrated during the March 2021 72-hour pumping test was 108.5 gpm or 156,240 gpd. Well 8 was the best well with a yield of 40 gpm. Therefore, excluding the yield of Well 8, the combined yield of the remaining Wells 3, 6, and 7 was 68.5 gpm or 98,640 gpd. This maximum daily demand of 98,640 gpd would support an average daily demand of 49,320 gpd, which is 9,280 gpd less than the calculated Project demand discussed above (58,600 gpd). In accordance with the guidelines of developing twice the average daily demand, this difference would facilitate the need for an additional 18,560 gpd (12.9 gpm) to meet the Proposed Project's water demand.

The yield testing results and individual well capacities observed on the Project Site strongly indicate that there is sufficient groundwater available to achieve this additional capacity. The individual well yields from the 72-hour pumping test on Wells 3, 6, 7 and 8 were 15.1 gpm, 14.5 gpm, 38.9 gpm and

40 gpm. There is also another existing well onsite, Well 5, that has a tested yield capacity of 40 gpm. However, Well 5 was not included in the recent pumping test because of its proximity to a proposed stormwater management practice.

As further explained in Section 9.D.1 below, on-site measures are available to mitigate the potential shortfall between the Proposed Project's projected water demand and the tested capacity from the March 2021 72-hour pumping test.

Construction and operation of the water supply system for the Proposed Project would require approvals from the Westchester County Department of Health and the New York State Department of Environmental Conservation. The Applicant would seek these approvals during the site plan and building permit phases of the Proposed Project. As discussed in Chapter 17, "Construction," on-Site soil disturbance would be required to install the on-Site water supply and distribution lines. There will be no visual impacts associated with the water system infrastructure, as the additional water storage tank is proposed on the lowest floor of the multifamily building.

9.C.1.c. Provisions for Fire Protection

The Proposed Project's buildings would include sprinkler systems for fire protection. Based on information provided by the Applicant's engineer and hydrogeological consultant, a fire flow of 1,063 gpm for a two hour duration was estimated for the Proposed Project. In accordance with WCDH requirements, the required additional storage would be 125,020 gallons.

Adequate water capacity for fire protection would be provided based on the final site plan and final building design. These features may include water storage and/or booster pumps and would be subject to the review and approval of the Town as part of a final site plan approval. It is anticipated that water storage would be provided within the proposed multifamily building.

9.C.1.d. Groundwater Supply

The groundwater supply for the Proposed Project would be comprised of Wells 3, 6, 7, and 8 which withdraw water from the bedrock aquifer underlying the Project Site.

The combined yield capacity of Wells 3, 6, 7, and 8 demonstrated during the March 2021 72-hour pumping test was 108.5 gpm or 156,240 gpd. The wells demonstrated stabilized drawdown pumping conditions and water-level recovery was good in all of the wells after the end of pumping. Water-level drawdown projections were also completed to assess long-term pumping in the wells and these 180-day pumping analyses support the long-term yield capacities of the wells. This post-test well recovery and drawdown projection data demonstrates that there is more than adequate recharge available to supply the on-Site groundwater withdrawal.

During the March 2021 72-hour pumping test, water-level measurements were collected from off-Site wells located at 175 King Street, 188 King Street and 1 American Lane. Three bedrock wells were measured at 175 King Street

during the pumping test, two potable wells and one irrigation well. No discernible water-level drawdown was measured in the wells at 175 King Street that was attributed to pumping of the wells on the Project Site. Four bedrock wells were measured at 188 King Street during the pumping test, two potable wells and two non-potable wells. No discernible water-level drawdown that was attributed to pumping on the Project Site was measured in the two potable wells or one of the non-potable wells that were measured. Drawdown of approximately 21 feet was observed in one of the non-potable wells (BOS-2) that was attributed to pumping the Proposed Project wells at a combined 108.5 gpm. The test on the Project Site wells was conducted with the wells pumping concurrently at their maximum combined capacity for 3+ days continuously. The actual system operating capacity 58,600 gpd (40.7 gpm) will be much less, and while it is likely some drawdown would occur in the well at 188 King Street, it would be much less than what was measured during the 72- hour pumping test period and would likely not affect the use of this well in the future.

Water-level measurements were also collected from two large-diameter overburden supply wells, Wells 14 and 39, at 1 American Lane during the March 2021 pumping test program. However, data was somewhat limited because a layer of ice at the top of both wells was encountered during the data collection period that interfered with water level access. Water-level measurements were collected from Well 14 starting on March 2. The water level in the well was very shallow and remained steady throughout the period of data collection. No recovery (rise) in the water level in Well 14 occurred when pumping in the Project Site wells ended on March 4 that would indicate potential pumping-related interference. Water-level data collection from Well 39 was very limited because of the ice layer present. However, since the Project Site wells are completed in different aquifers (the Project Site wells in the bedrock aquifer and Well 39 in the overburden aquifer), the wells are 1,800+ feet apart, and no pumping-related response was observed in overburden Well 14, it is unlikely that Well 39 would be significantly affected by pumping wells on the Project Site.

Water-level measurements were also collected from a nest-pair of piezometers installed in the onsite wetland near Well 7 during the March 2021 pumping test. No discernible pumping-related drawdown was measured in the piezometers during the test period. This data supports that there is no direct hydraulic connection between the Proposed Project's bedrock supply wells and the surface water at the site.

The results from the March 2021 72-hour pumping test demonstrated that the bedrock Wells 3, 6, 7, and 8 for the Proposed Project can support a withdrawal of 156,240 gpd (108.5 gpm), that the available groundwater recharge at the site is more than sufficient to supply the groundwater withdrawal, that offsite water-level interference was limited and was not likely to significantly impact nearby users in the future, and that there was no direct hydraulic interconnection between the Proposed Project's bedrock supply wells and the onsite wetland feature.

9.C.1.e. Consideration of Cumulative Impacts to Off-Site Wells and Aquifers

There are no approved or pending developments within 2,000 feet of the Project Site that would impact the Project Site's wells. Below is a list of known off-Site wells.

- Town Water District 4 – Two sand and gravel wells located approximately 9,500 feet northeast of the Project Site. These wells are used by the IBM property, as well as proposed for use by the Eagle Ridge project, described in Chapter 3, "Land Use, Zoning, and Public Policy."
- Greenwich American –Two high-yielding sand and gravel wells. The sand and gravel wells are approximately 1,800 feet from the closest proposed well at the Project Site.
- Citigroup – Several bedrock wells located between approximately 500 feet to 1,000 feet from the proposed supply wells on the Project Site.
- Swiss Re wells – Several bedrock wells located between approximately 800 feet to 2,000 feet from the proposed supply wells on the Project Site
- 3 Cooney Hill Road – located immediately north of the Project Site.

All property owners within 2,000 feet of the Project Site wells were contacted with a request for inclusion in the offsite well monitoring program that was conducted as part of the March 2021 72-hour pumping test. Swiss Re (175 King St.), Citigroup (188 King St.) and Greenwich American (1 American Lane) granted permission to access their wells and WSP collected water-level data from nine offsite wells during the pumping test period.

Water-level drawdown that was attributed to pumping in the Project Site wells was measured in one offsite well monitored during the pumping test. Water-level drawdown of approximately 21 feet was measured in BOS-2, a non-potable well on the Citigroup property. The pumping test on the Project Site wells was conducted with the wells pumping concurrently at their maximum combined capacity of 156,240 gpd for 3+ days continuously. The actual system operating capacity 58,600 gpd (40.7 gpm) will be much less and while it is likely some drawdown will occur in BOS-2, it would be much less than what was measured during the 72-hour pumping test period and would likely not affect the use of this well in the future. No discernible drawdown was measured in the other off-Site wells during the 72-hour pumping test that was attributed to pumping in the Project Site wells.

9.C.2. POTENTIAL IMPACTS – SANITARY SEWER (DEIS)

The Proposed Project would connect into the existing sanitary sewer mains located within King Street, and would be tributary to Pump Stations 2 and 3 located to the south of the Project Site. No easements or agreements with adjacent properties would be needed to connect into the system. As discussed in Chapter 17, "Construction," soil disturbance would be required to install the Proposed Project's sanitary sewer lines. No impacts are anticipated related to the construction of the proposed sanitary sewer infrastructure within the Project Site, including connections to the existing sanitary sewer mains.

The analysis of the Proposed Project's potential impacts to the off-site Town and County collection system, specifically Pump Stations 2 and 3, is provided in the following sections.

9.C.2.a. Methodology

As shown in **Table 9-4** above, the Proposed Project would be expected to generate a sanitary sewer flow of approximately 58,600 gpd. Since the Proposed Project would be tributary to Pump Stations 2 and 3, the analysis of the Proposed Project's potential impacts on the capacity and performance of the sanitary sewer system focuses on these two pump stations.

Although the collection system is currently experiencing reduced wastewater flows (as discussed in Section 9.B.2 above), the evaluation of the potential impacts from the Proposed Project also accounts for cumulative flows from existing development in the Sewer District 3 contributing area at full occupancy. The flow rate calculations for Pump Stations 2 and 3, accounting for existing development in the contributing area at full occupancy plus the Proposed Project, are provided in **Appendix F-2**. Projected wastewater flows were calculated using the applicable "Typical Per-Unit Hydraulic Loading Rates" contained in Table B-3 of the NYSDEC publication "New York State Design Standards for Intermediate-Sized Wastewater Treatment Systems" dated March 5, 2014.[1] This table provides updated loading rates for office and residential use that differ from the rates used for the original design of the pump stations. Specifically, the rate applied to office use is 15 gpd/employee, with a 20 percent reduction allowance for low-flow fixtures (compared to 0.1 gpd per square foot from the original design); and the rate applied for residential use is 110 gpd/bedroom for new construction, and 150 gpd/bedroom for homes with pre-1980 fixtures (compared to 400 gpd per 4-bedroom residential unit from the original design). Also included in the analysis were loading rates for the Swiss Re and Citigroup office-associated cafeteria uses, and the hotel and associated restaurant uses included in the Proposed Project.

As shown in **Appendix F-2**, ADFs were calculated using the updated loading rates cited above in conjunction with an office occupancy rate (square foot of building area per employee) from the Institute of Transportation Engineers (ITE) Land Use Code 714, and a Residential Demographic Multiplier (RDM) from the Rutgers University Center for Urban Policy Research. The office occupancy rate and RDM were also used to compute total design contributing population (DCP) to determine the peaking factor (PF) used to compute the projected peak hourly flow (PHF).

9.C.2.b. Evaluation of Pump Station 2 Capacity

Table 9-5 below includes a comparison of the cumulative projected flows to Pump Station 2 with the Proposed Project when compared to the original flow calculations for design. As shown, the projected ADF to Pump Station 2, when accounting for existing development in the contributing area at full

[1] https://www.dec.ny.gov/docs/water_pdf/2014designstd.pdf

occupancy plus the Proposed Project, will be 83,070 gpd (57.7 gpm); and the PHF, using a PF of 3.39, will be 281,607 gpd (195.6 gpm).

Table 9-5
Pump Station 2 – Flow Rate Analysis

Pump Station	Average Daily Flow (ADF)		Peak Hourly Flow (PHF)	
	Original Design Flow	Cumulative Flow (Proposed Project and Study Area)	Original Design Flow	Cumulative Flow (Proposed Project and Study Area)
Pump Station 2	108,100 gpd (75.07 gpm)	83,070 gpd (57.7 gpm)	432,400 gpd (300.27 gpm)	281,607 gpd (195.6 gpm)

Note: See **Appendix F-2**.
Source: Provident Design Engineering, 2021

When compared to the original design capacity, Pump Station 2 would be able to accommodate the proposed cumulative flows stated above, running at approximately 77 percent of design capacity based on ADF and approximately 65 percent of capacity based on PHF.

Dual raw sewage effluent pumps in Pump Station 2 are located in a dry well. The dry well is separate from wet well storage, and each pump has a separate entrance. Based on the original design of the station (calculations provided in **Appendix F-2**), each pump is rated at a capacity of 160 gpm, a rated head of 85 feet, and a computed head of 80 feet.

Pump Station 2 provides following wet well storage dimensions and volume to attenuate peak flows:

- Wet Well Dimensions: 10 feet wide by 33 feet long = 330 square feet (sf) per foot (ft) of depth
- Wet Well Volume: 330 sf/ft of depth = (330 cubic feet (cf)/ft) x (7.48 gal/cf) = 2,475 gal/ft of depth; 4 feet depth @ 2,475 gal/ft depth = 9,900 gallons of available storage capacity

As regulated by the NYSDEC, Westchester County Department of Health and local sewer districts including the Town of North Castle Sewer District 3, the design, construction, and operation of wastewater facilities shall conform to the latest editions of the following standards:

- "Recommended Standards for Wastewater Facilities," (aka the Ten State Standards), and
- NYSDEC publication "New York State Design Standards for Intermediate-Sized Wastewater Treatment Systems" dated March 5, 2014 ("NYSDEC Standards").

The evaluation of potential impacts on the Town of North Castle collection system included a numerical (i.e., computational) analysis of the performance of Pump Station 2 as originally designed, and its ability to meet or exceed the criteria in the above standards.

In addition to the parameters discussed above, Pump Station 2's wet well elevations, pump performance curves, pump control elevations, and pump cycle times were analyzed to determine impacts from the anticipated flows and what mitigation (if any) would be required (see **Appendix F-2**). The analysis determined that minor modifications to Pump Station 2 will be required, as further explained in Section 9.D.2.a below.

9.C.2.c. Evaluation of Pump Station 3

Table 9-6 below includes a comparison of the cumulative projected flows to Pump Station 3 with the Proposed Project when compared to the original flow calculations for design. As shown, the projected ADF to Pump Station 3, when accounting for existing development at full occupancy plus the Proposed Project, will be 88,672 gpd (61.57 gpm); and the PHF, using a PF of 3.39, will be 297,051 gpd (206.28 gpm).

Table 9-6
Pump Station 3 – Flow Rate Analysis

Pump Station	Average Daily Flow (ADF)		Peak Hourly Flow (PHF)	
Pump Station 3	**Original Design Flow**	**Cumulative Flow (Proposed Project and Study Area)**	**Original Design Flow**	**Cumulative Flow (Proposed Project and Study Area)**
	134,100 gpd (93.13 gpm)	88,672 gpd (61.57 gpm)	536,400 gpd (372.53 gpm	297,051 gpd (206.28 gpm)

Note: See **Appendix F-2**.
Source: Provident Design Engineering, 2021

When compared to the original design capacity, Pump Station 3 would be able to accommodate the proposed cumulative flows stated above, running at approximately 66 percent of design capacity based on ADF and approximately 55 percent of design capacity based on PHF.

Like Pump Station 2, dual raw sewage effluent pumps for Pump Station 3 are in a dry well. The dry well is separate from wet well storage, and each pump has a separate entrance. Based on the original design of the station (calculations provided in **Appendix F-2**), the pumps are rated with a capacity of 265 gpm, a rated head of 55 feet, and a computed head of 52 feet.

Pump Station 3 provides following wet well storage dimensions and volume to attenuate peak flows:

- Wet Well Dimensions: 10 feet wide by 28.5 feet long = 285 square feet (sf) per foot (ft) of depth
- Wet Well Volume: 285 sf/ft of depth = (285 cubic feet [cf]/ft) x (7.48 gal/cf) = 2,145 gal/ft of depth; 4 feet depth @ 2,145 gal/ft depth = 8,580 gallons of available storage capacity

The evaluation of potential impacts on the Town of North Castle collection system included a numerical (i.e., computational) analysis of the performance of Pump Station 3 as originally designed, and its ability to meet or exceed the

criteria found in the Ten State and NYSDEC Standards cited in the previous section.

In addition to the parameters discussed above, Pump Station 3's wet well elevations, pump performance curves, pump control elevations, and pump cycle times were analyzed to determine impacts from the anticipated flows and what mitigation (if any) would be required (see **Appendix F-2**). Similar to Pump Station 2, the analysis determined that minor modifications to Pump Station 3 will also be required, as further explained in Section 9.D.2.b below.

9.D. MITIGATION MEASURES FOR THE PROPOSED PROJECT (DEIS)

9.D.1. WATER SUPPLY MITIGATION (DEIS)

As discussed in Section 9.C.1.b above, when excluding the yield of Well 8 (the best performing well) from the results of the March 2021 72-hour pumping test, the combined yield of Wells 3, 6, and 7 was 68.5 gpm or 98,640 gpd. This maximum daily demand of 98,640 gpd would support an average daily demand of 49,320 gpd, which is 9,280 gpd less than the calculated Project demand discussed above (58,600 gpd). In accordance with the guidelines of developing twice the average daily demand, this difference would facilitate the need for an additional 18,560 gpd (12.9 gpm) to meet the Proposed Project's water demand. The Applicant has identified two measures that could be taken onsite to mitigate the potential shortfall between the Proposed Project's projected water demand and the tested capacity from the March 2021 72-hour pumping test.

The first possible mitigation measure would be the use of existing Well 5 in conjunction with the other onsite wells. The known yield capacity of Well 5 at 40 gpm would likely be more than adequate to provide the additional capacity of 12.9 gpm that is needed. However, the use of Well 5 would require revisiting the location of the planned stormwater management practice near the well site.

Another possible mitigation measure would be to drill an additional well on the Project Site. Adding another well has been preliminarily discussed with WCDH and the department is amenable to drilling a new well location assuming that it meets regulatory offset distance requirements for a community, public water-supply well. The most reasonable location to drill an additional well for the Proposed Project is on the northwest corner of the property off of Cooney Hill Road. This area affords sufficient space for a new well that can meet sanitary offset distance requirements. In addition, the yield capacities demonstrated in the other onsite wells support that achieving a yield of 12.9+ gpm in a new well is reasonable.

Pursuing either of these mitigation measures to develop the additional 12.9 gpm needed to meet the Proposed Project's water demand would require the completion of a supplemental 72-hour pumping test. The results from the March 2021 72-hour pumping test demonstrated a combined yield of 108.5 gpm from the onsite wells, that the available groundwater recharge was sufficient to support this withdrawal, and that water-level drawdown was observed in only one offsite well monitored during the test that was attributed to pumping in the Project Site wells. In the Applicant's opinion, similar results from a new 72-hour pumping test that includes either Well 5 or a new well on the Project Site are reasonable to expect. Upon verification of a final site plan, the supplemental 72-hour pumping test would be completed.

In addition to the above measures, and as part of standard construction practices, water saving fixtures would be installed throughout the Proposed Project, including in the renovations of the existing office buildings. During site plan approval, the Applicant would consider other water-saving measures, which may include harvesting rainwater for irrigation (including use of the existing pond), the use of less water-intensive plantings, and other systems as may be appropriate based on the final project design.

Lastly, the Applicant understands that the Town and the County are participating in a study to determine the viability of extending the County's water district north along King Street, adjacent to the Project Site. If such an expansion is determined feasible and is constructed, the Applicant may make use of this potential public water supply to meet some or all of the needs of the Proposed Project.

9.D.2. SANITARY SEWER MITIGATION (DEIS)

No modifications to either the Town or County collection system piping will be required to accommodate the projected flows summarized in Section 9.C.2 above. However, the pump station performance analyses determined that minor modifications to correct an existing deficiency (irrespective of the Proposed Project) in the wet wells of Pump Stations 2 and 3 will be required to meet current standards as cited above and explained further below.

9.D.2.a. Pump Station 2 Mitigation

Section 42.62 of the Ten State Standards requires that the design fill time along with minimum and maximum pump cycle times be considered and accounted for in sizing a station wet well. When providing the effective wet well volume based on the contributing ADF, both the fill and pump cycle times shall not exceed 30 minutes. In addition, Section C.3.c.7 of the NYSDEC Standards recommends that wet well size, configuration, and pump controls should be such that a holding period (i.e., pump cycle time) of between 10 and 30 minutes for the maximum design flow is provided to avoid heat buildup in the pump motor due to frequent starting and septic conditions due to excessive detention time.

The numerical (i.e., computational) analysis of the performance of Pump Station 2 as originally designed determined that the existing/current wet well dimensions and corresponding effective volume are too large, resulting in fill and pump cycle times that will greatly exceed the 30-minute maximum for the projected flows summarized in Section 9.C.2 above.

To correct the deficiency, which is an existing condition irrespective of the Proposed Project, it is recommended that a baffle wall 12 inches thick be constructed within and across the width of the Pump Station 2 wet well. The baffle wall shall be placed to reduce the "effective" length of the wet well from 33 feet down to 10 feet (10'-0"). With this modification in place, the updated effective wet well storage dimensions and volume would be:

- Wet Well Dimensions: 10 feet wide by 10 feet long = 100 square feet (sf) per foot (ft) of depth

- Wet Well Volume: 100 sf/ft of depth = (100 cubic feet (cf)/ft) x (7.48 gal/cf) = 748 gal/ft of depth; 4.85 feet depth @ 748 gal/ft depth = 3,628 gallons of effective storage capacity

The modified design calculations for Pump Station 2 in **Appendix F-2** show that the recommended modification to the wet well will result in pump cycle times of between 10 and 30 minutes for the projected flows. In addition, fill time will not exceed 30 minutes. The top of the recommended baffle wall shall be set no more than six (6) inches above the "alarm on" float elevation (365.90 from the calculations). This would allow excessive flows (i.e., peak hourly flows) to overflow into and temporarily be stored in the remaining available volume of the wet well chamber.

It was also determined through the numerical (i.e., computational) analysis of Pump Station 2 that the pumps were not operating at peak efficiency based on the flow rate used in the original design (160 gpm). Pump Station 2 discharges into twin force mains (i.e. one for each pump outlet) 1,410 feet long that is comprised of two different diameters. The first 360± feet of the force main downstream of the station is 4 inches in diameter, with the remaining 1,050± feet at 6 inches in diameter. A check of velocities for each section of the force main using the original design pump rate revealed that flow through the 6-inch section of the force main occurs at less than 2 feet per second (fps). Section 49.1 of the Ten State Standards and Section C.5 of the NYSDEC Standards require that a minimum flow velocity of 2 fps be maintained in the force main.

The modified design calculations for Pump Station 2 in **Appendix F-2** provide a more refined plotting of the system pump's flow and head curves. Optimum performance occurs at the point where the pump's flow and head curves intersect, yielding a flow rate of 190 gpm and a Total Dynamic Head (TDH) of 87 feet. As shown in the calculations, the modified design flow rate will provide flow velocities in the 4- and 6-inch diameter sections of the force main of 2.2 and 4.9 fps, respectively.

Upon implementation of the above mitigation measures, Pump Station 2 would not experience any adverse impacts from the anticipated wastewater flows due to either the Proposed Project and/or the cumulative impact of full occupancy of all existing development in the contributing area. Pump Station 2 would continue to provide sufficient pumping and storage capacity to accommodate all anticipated flows.

9.D.2.b. Pump Station 3 Mitigation

The numerical (i.e., computational) analysis of the performance of Pump Station 3 as originally designed also determined that the existing/current wet well dimensions and corresponding effective volume are too large, resulting in fill and pump cycle times that will greatly exceed the 30-minute maximum for the projected flows summarized in Section 9.C.2 above.

To correct the deficiency, which is also an existing condition irrespective of the Proposed Project, it is recommended that a baffle wall 12 inches thick be constructed within and across the width of the Pump Station 3 wet well. The

baffle wall shall be placed to reduce the "effective" length of the wet well from 28.5 feet down to 13 feet (13'-0"). With this modification in place, the updated effective wet well storage dimensions and volume would be:

- Wet Well Dimensions: 10 feet wide by 13 feet long = 130 square feet (sf) per foot (ft) of depth
- Wet Well Volume: 130 sf/ft of depth = (130 cubic feet (cf)/ft) x (7.48 gal/cf) = 972 gal/ft of depth; 5.09 feet depth @ 972 gal/ft depth = 4,950 gallons of effective storage capacity

The modified design calculations for Pump Station 3 in **Appendix F-2** show that the recommended modification to the wet well will result in pump cycle times of between 10 and 30 minutes for the projected flows. In addition, fill time will not exceed 30 minutes. The top of the recommended baffle wall shall be set no more than six (6) inches above the "alarm on" float elevation (390.91 from the calculations). This would allow excessive flows (i.e., peak hourly flows) to overflow into and temporarily be stored in the remaining available volume of the wet well chamber.

It was also determined through the numerical (i.e., computational) analysis of Pump Station 3 that the pumps were not operating at peak efficiency based on the flow rate used in the original design (265 gpm). The modified design calculations for Pump Station 3 in **Appendix F-2** provide a more refined plotting of the system pump's flow and head curves. Optimum performance occurs at the point where the pump's flow and head curves intersect, yielding a flow rate of 275 gpm and a Total Dynamic Head (TDH) of 54.4 feet. Pump Station 3 discharges into twin force mains (i.e., one for each pump outlet) 1,837 feet long that is comprised of 6" PVC CL 200 pipe. As shown in the calculations, the modified design flow rate will provide a flow velocity in the force main of 3.1 fps, conforming to Section 49.1 of the Ten State Standards and Section C.5 of the NYSDEC Standards requiring a minimum flow velocity of 2 fps be maintained in the force main.

Upon implementation of the above mitigation measures, Pump Station 3 would not experience any adverse impacts from the anticipated wastewater flows due to either the Proposed Project and/or the cumulative impact of full occupancy of all existing development in the contributing area. Pump Station 3 would continue to provide sufficient pumping and storage capacity to accommodate all anticipated flows.

9.E. POTENTIAL IMPACTS OF, AND MITIGATION FOR, THE PROPOSED ZONING (GEIS)

As described in Chapter 2, "Project Description," the theoretical maximum development scenario under the Proposed Zoning, when accounting for the maximum buildout potential of both the Project Site and the adjacent Swiss Re parcel, is a total of 750 residential units and an 80-room hotel.

It is important to note that no specific proposal is being made at this time to effectuate the maximum hypothetical development of these two sites and any future plans would be subject to review by the Town, including a full environmental review.

9.E.1. WATER SUPPLY (GEIS)

Based on a mix of one- and two-bedroom multifamily units similar to the Proposed Project, full build out of 750 residential units and an 80-room hotel would have an estimated water demand of 146,300 gpd. It is important to note that this demand would be spread over two sites (e.g., Project Site and Swiss Re site) and assumes complete discontinuation of the current office uses on both sites. The actual water demand for each site would be determined based on a site-specific environmental review of an eventual site plan. Each site plan would have to demonstrate sufficient water capacity to serve the proposed uses.

9.E.2. SANITARY SEWER (GEIS)

The analyses of flow rates to Pump Stations 2 and 3, as well as the numerical (i.e., computational) analyses of the performance of both pump stations in **Appendix F-2** also include a "Future Buildout" condition based on the theoretical maximum development on the Project Site and Swiss Re parcel discussed above and in Chapter 2.

As summarized in **Table 9-7** below, the theoretical maximum development scenario under the Proposed Zoning ("GEIS Scenario") would have an estimated ADF to Pump Station 2 of 147,530 gpd (102.5 gpm) and an estimated PHF of 506,028 gpd (351.4 gpm), using a computed PF of 3.43. At Pump Station 3, the estimated ADF under this scenario would be 153,132 gpd (106.34 gpm) and the estimated PHF would be 517,586 gpd (359.43 gpm), using a computed PF of 3.38.

Table 9-7
Pump Stations 2 and 3 – GEIS Scenario Flow Rate Analysis

Pump Station	Average Daily Flow (ADF)		Peak Hourly Flow (PHF)	
Pump Station 2	**Original Design Flow**	**Cumulative Flow (GEIS Scenario and Study Area)**	**Original Design Flow**	**Cumulative Flow (GEIS Scenario and Study Area)**
	108,100 gpd (75.07 gpm)	147,530 gpd (102.5 gpm)	432,400 gpd (300.27 gpm)	506,028 gpd (351.4 gpm)
Pump Station 3	**Original Design Flow**	**Cumulative Flow (GEIS Scenario and Study Area)**	**Original Design Flow**	**Cumulative Flow (GEIS Scenario and Study Area)**
	134,100 gpd (93.13 gpm)	153,132 gpd (106.34 gpm)	536,400 gpd (372.53 gpm	517,586 gpd (359.43 gpm)

Note: See **Appendix F-2**.
Source: Provident Design Engineering, 2021

It is important to note that the projected demand would be spread over two sites (e.g., Project Site and Swiss Re site) and assumes complete discontinuation of the current office uses on both sites. The actual sanitary sewer flows for each site would be determined based on a site-specific environmental review of an eventual site plan.

The proposed modifications to Pump Stations 2 and 3 discussed in Section 9.D.2 above would also provide sufficient pumping and storage capacity to accommodate these projected flows. The Town and County collection piping systems have adequate hydraulic capacity, and no modifications would be required to accommodate these projected flows.

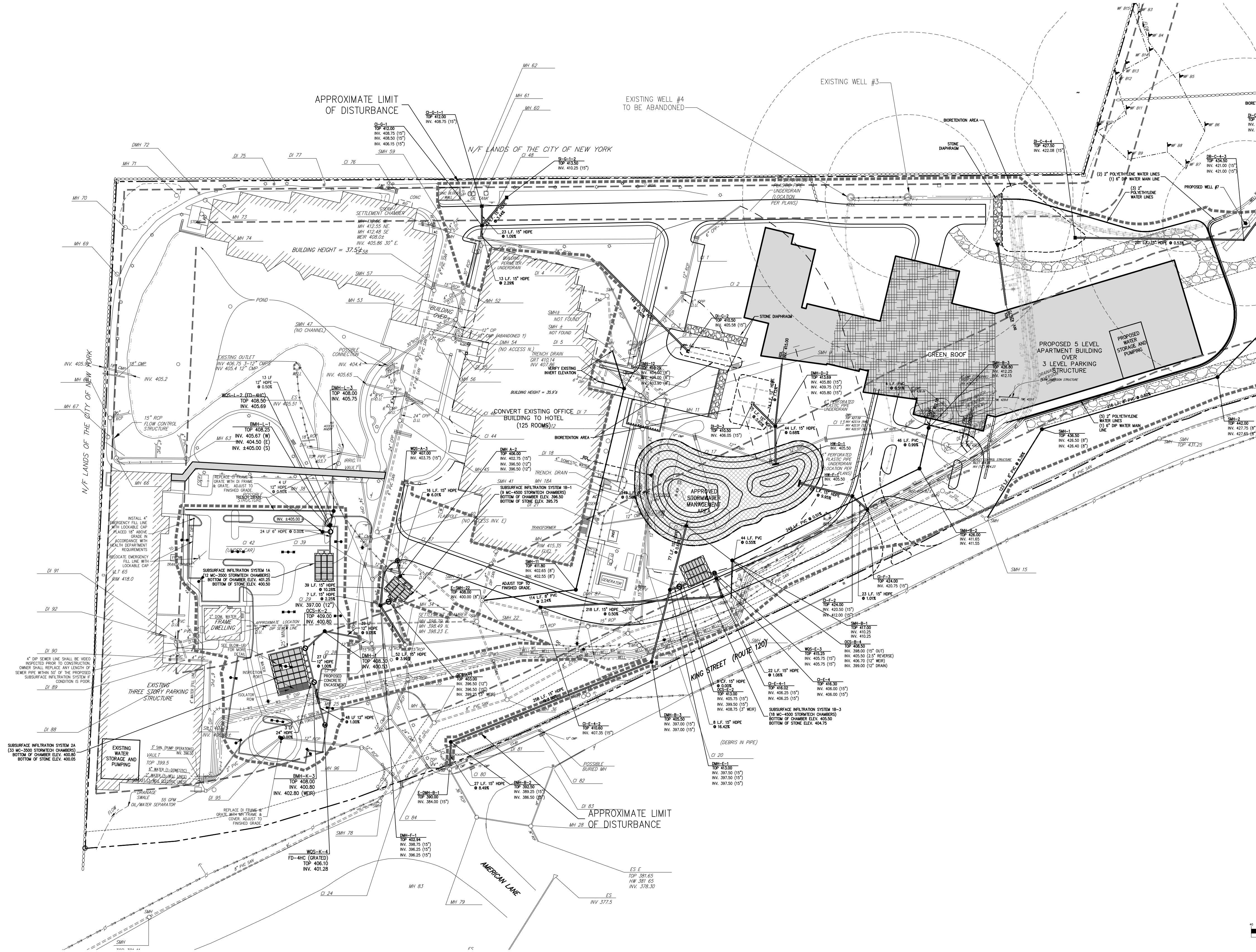
Although the single pump capacity (160 gpm) of Pump Station 2 as originally designed could easily accommodate the projected GEIS Scenario ADF (102.5 gpm), the proposed modifications optimize the single pump capacity at 190 gpm, which is important for accommodating the projected GEIS Scenario PHF. As stated in Section 9.B.2.a. above, the lag controls allow both pumps in each station to turn on simultaneously to provide dual pumping capacity during periods of peak flow demand. This results in a dual pumping capacity under peak flow conditions of 380 gpm, greater than the projected GEIS Scenario PHF of 351.4 gpm.

Both the single (265 gpm) and dual (530 gpm) pumping capacities of Pump Station 3 as originally designed could easily accommodate the projected GEIS Scenario ADF (106.34 gpm) and PHF (359.43 gpm). However, the proposed station modifications optimize single and dual pump outputs at 275 and 550 gpm, respectively.

For both pump stations, the setting of the recommended baffle walls at no more than six (6) inches above the "alarm on" float elevations will provide the following overflow volumes in the station's wet well chambers for temporary storage of excessive flows (i.e., peak hourly flows):

- Pump Station 2: (10 ft wide x 30 ft long x 4.85 ft depth = 1,455 cf x 7.48 gal/sf = 10,880 gal.
- Pump Station 3: (10 ft wide x 14.5 ft long x 5.1 ft depth = 740 cf x 7.48 gal/sf = 5,535 gal. ✷

4.27.21



LEGEND

- EXISTING PROPERTY LINE
- ADJACENT PROPERTY LINE
- EXISTING EASEMENT LINE
- EXISTING WETLAND LINE AND DELINEATION
- EXISTING WETLAND BUFFER
- EXISTING BUILDING OVERHANG
- EXISTING BUILDING LINE
- EXISTING PAVEMENT EDGE
- EXISTING CURB LINE
- EXISTING STONE WALL
- EXISTING RETAINING WALL
- EXISTING GUIDE RAIL
- EXISTING FENCE
- EXISTING STORM DRAIN LINE AND SIZE
- EXISTING SANITARY LINE AND SIZE
- EXISTING WATER LINE
- EXISTING DRAIN INLET
- EXISTING MANHOLE
- EXISTING FIRE HYDRANT
- EXISTING WATER VALVE
- EXISTING UTILITY POLE
- EXISTING LIGHT POLE
- EXISTING SIGN
- PROPOSED BUILDING LINE
- PROPOSED CONCRETE CURB
- PROPOSED CONCRETE SIDEWALK
- SMH PROPOSED SANITARY SEWER MANHOLE
- MH PROPOSED STORM DRAIN MANHOLE
- CI PROPOSED TYPE CI DRAIN INLET
- DI PROPOSED TYPE DI DRAIN INLET
- LI PROPOSED TYPE LI DRAIN LAWN INLET
- PROPOSED TRENCH DRAIN
- PROPOSED RIP-RAP SUMP
- HW PROPOSED TYPE A HEADWALL
- HW PROPOSED TYPE B HEADWALL
- WQS PROPOSED WATER QUALITY STRUCTURE
- OCS PROPOSED SUBSURFACE DRAINAGE OUTLET CONTROL STRUCTURE
- PROPOSED HYDRANT
- ES PROPOSED END SECTION
- 15" HDPE PROPOSED STORM DRAIN LINE & SIZE
- 8" PVC PROPOSED SANITARY SEWER LINE & SIZE
- 6" WATER PROPOSED WATER LINE & SIZE
- PROPOSED CONCRETE ENCASEMENT
- PROPOSED WATER VALVE
- PROPOSED RETAINING WALL (DESIGN BY OTHERS)
- PROPOSED TEMPORARY SWALE
- PROPOSED RIP-RAP
- EXISTING FEATURE TO BE REMOVED

NOTES:

1. EXISTING CONDITIONS DEPICTED ON THIS PLAN HAVE BEEN TAKEN FROM SURVEY TITLED, "PARCEL COMPILATION SURVEY DEPICTING LAND OF MBIA INSURANCE CORP.," PREPARED BY JOHN MEYER CONSULTING, DATED 09-30-2005.
2. ALL STORMWATER MANAGEMENT PRACTICES SHALL REMAIN UNDISTURBED AND BE PROTECTED FROM HEAVY MACHINERY TRAFFIC DURING CONSTRUCTION. HOWEVER DURING CONSTRUCTION OF THE PRACTICE THE CONTRACTOR SHALL MINIMIZE AND AVOID HEAVY MACHINERY TRAFFIC TO THE MAXIMUM EXTENT PRACTICABLE. THERE SHALL BE NO STORAGE OF MATERIALS WITHIN AREAS TO BE USED FOR STORMWATER MANAGEMENT PRACTICES. THE CONTRACTOR SHALL INSTALL CONSTRUCTION FENCE AROUND THE PRACTICE TO DISCOURAGE VEHICLE TRAFFIC.
3. UNLESS OTHERWISE SPECIFIED, PIPE FOR STORM DRAINS SHALL BE HIGH DENSITY POLYETHYLENE PIPE (HDPE) WITH A SMOOTH INTERIOR AND ANNULAR EXTERIOR CORRUGATIONS IN ACCORDANCE WITH ASTM F-2648. JOINTS SHALL BE WATERTIGHT IN ACCORDANCE WITH ASTM D-3212.
4. UNLESS OTHERWISE SPECIFIED, PIPE FOR SANITARY SEWER GRAVITY LINES SHALL BE POLYVINYL CHLORIDE PIPE (PVC), SDR-35, WITH PUSH-ON JOINTS IN ACCORDANCE WITH ASTM D-3034 AND D-3212.
5. UNLESS OTHERWISE SPECIFIED, PIPE FOR WELL SUPPLY LINES SHALL BE POLYETHYLENE TUBING (NSF APPROVED) IN ACCORDANCE WITH AWWA STANDARD C901-02. PLASTIC PIPE AND MATERIALS SHALL FOLLOW ASTM D2837, D3035, D3350 AND F412.
6. UNLESS OTHERWISE SPECIFIED, PIPE FOR WATER SERVICE LINES (3/4"AND 2") SHALL BE SEAMLESS COPPER TYPE 'K' MANUFACTURED IN ACCORDANCE WITH ASTM B-88.
7. UNLESS OTHERWISE SPECIFIED, PIPE FOR WATER LINES SHALL BE DOUBLE CEMENT-LINED DUCTILE IRON PIPE (DIP), CLASS 52, WITH PUSH-ON JOINT IN ACCORDANCE WITH AWWA C-150, C-151, C-104 AND C-111.
8. ELECTRIC, TELEPHONE, FIRE ALARM AND CABLE TELEVISION LINES SHALL BE INSTALLED UNDERGROUND IN CONDUIT IN ACCORDANCE WITH THE REQUIREMENTS OF THE UTILITY COMPANY HAVING JURISDICTION.

GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)
1 inch = 40 ft.

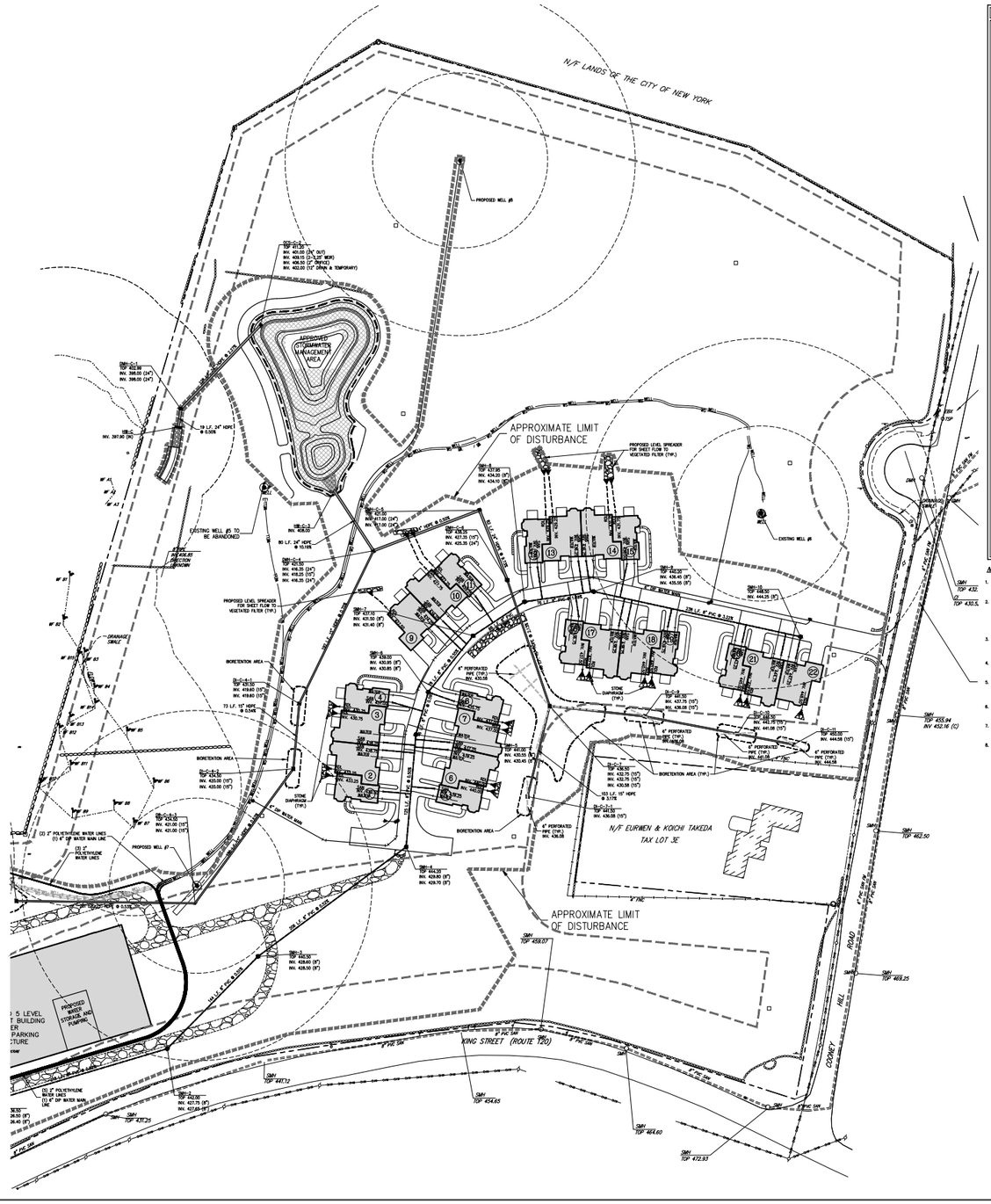
Source: JMC, 2020

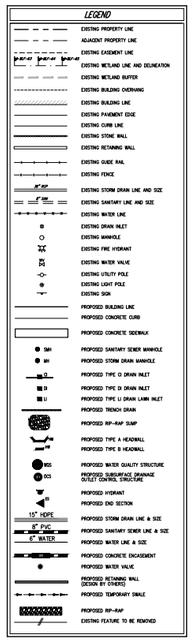
Proposed Project - Preliminary Utilities Plan

Figure 9-1a

AIRPORT CAMPUS

4.27.21





NOTES:

1. EXISTING CONDITIONS DEPICTED ON THIS PLAN HAVE BEEN TAKEN FROM SURVEY TITLED, "PARCEL COMPILATION SURVEY DEPICTING LAND OF WMA INSURANCE CORP.", PREPARED BY JOHN MEYER CONSULTING, DATED 09-30-2005.
2. ALL STORMWATER MANAGEMENT PRACTICES SHALL REMAIN UNDISTURBED AND BE PROTECTED FROM HEAVY MACHINERY TRAFFIC DURING CONSTRUCTION. HOWEVER DURING CONSTRUCTION OF THE PRACTICE, THE CONTRACTOR SHALL MINIMIZE AND AVOID ADVERSE IMPACTS TO THE PRACTICE. THE CONTRACTOR SHALL ENSURE THAT NO CONSTRUCTION OF BUILDINGS OR IMPERVIOUS AREAS TAKE PLACE FOR STORMWATER MANAGEMENT PRACTICES. THE CONTRACTOR SHALL INSTALL CONSTRUCTION FENCE AROUND THE PRACTICE TO DISCOURAGE VEHICLE TRAFFIC.
3. UNLESS OTHERWISE SPECIFIED, PIPE FOR STORM DRAINS SHALL BE HIGH DENSITY POLYETHYLENE PIPE (HDPE) WITH A SMOOTH INTERIOR AND ANNULAR EXTERIOR CORRUGATIONS IN ACCORDANCE WITH ASTM F-2648. JOINTS SHALL BE WATERTIGHT IN ACCORDANCE WITH ASTM D-3212.
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7. UNLESS OTHERWISE SPECIFIED, PIPE FOR WATER LINES SHALL BE DOUBLE CEMENT-LINED DUCTILE IRON PIPE (DIP), CLASS 52, WITH PUSH-ON JOINT IN ACCORDANCE WITH AWWA C-150, C-151, C-104 AND C-111.
8. ELECTRIC, TELEPHONE, FIRE ALARM AND CABLE TELEVISION LINES SHALL BE INSTALLED UNDERGROUND IN ACCORDANCE WITH THE REQUIREMENTS OF THE UTILITY COMPANY HAVING JURISDICTION.

EXISTING DRAINAGE STRUCTURE SCHEDULE

STRUCTURE DESIGNATION	TOP	INVERT	INVERT	INVERT	INVERT	INVERT
CI 1	419.65	417.0 NW	416.5 E	----	----	----
CI 2	419.38	415.5 W	415.8 E	415.6 E	----	----
CI 3	415.43	410.63 NW	407.58 24" E	410.35 6" E	407.7 6" E	407.65 8" SE
DI 4	411.02	408.46 E	407.8 E	407.0 NE	406.9 S	408.1 WATER
DI 5	410.12	408.06	----	----	----	----
DI 6	412.80	411.8	----	----	----	----
DI 7	412.60	411.61	----	----	----	----
MH 10	414.69	406.77	----	----	----	----
MH 11	415.88	408.0 NE	407.9 E	407.95 W	----	----
MH 12	415.67	406.43 W	404.5 E	407.8 SE	----	----
CI 13	422.49	419.62	----	----	----	----
CI 16	420.91	416.98 N	416.77 SW	----	----	----
CI 17	416.47	412.76 NE	412.67 SW	----	----	----
DI 18	412.88	406.3	----	----	----	----
MH 18A	412.72	405.35± E-W	405.8 SW	----	----	----
CI 19	411.82	408.3 N	409.2 WATER	408.94 S	----	----
CI 20	413.06	410.26 W	410.36 E	409.9 SLT	----	----
CI 21	412.65	410.53 S	409.85 SLT	409.45 N	----	----
CI 24	387.79	384.86 N	385.4 SW	----	----	----
MH 25	391.44	386.17 S	385.96 W	387.69 NW	385.61 E	----
MH 26	398.69	389.95 W-E	396.1 SW	----	----	----
CI 27	398.24	393.69 S	393.81 N	----	----	----
CI 28	398.18	394.51	----	----	----	----
MH 28	388.28	379.00 (IN)	379.00 (OUT)	----	----	----
CI 29	398.82	397.08 NE	397.2 SLT	----	----	----
MH 30	390.8	383.1	----	----	----	----
MH 34	399.69	394.16 S	394.16 W	394.46 N	394.26 E	----
CI 37	405.22	403.12 S	402.62 SW	402.80 E	403.74 4" PVC	----
MH 38	404.73	399.30 NW	391.9 W	392.0 E	----	----
CI 39	405.53	403.66	----	----	----	----
CI 40	406.87	400.7 W	400.9 S	----	----	----
CI 42	408.41	----	----	----	----	----
CI 43	407.63	----	----	----	----	----
CI 44	408.70	406.5 12" S	406.4 NE	407.65± 4" S	----	----
MH 45	409.00	403.46 E	403.56 W	----	----	----
CI 46	408.86	405.1± 30" S	407.3± 4" S	----	----	----
CI 48	412.12	407.00 (IN)	405.86 (OUT)	----	----	----
MH 52	411.48	407.31 15" S	406.83 4" SE	405.7 30"	----	----
MH 53	410.21	406.18 NE	406.05 E	405.6 30"	----	----
DMH 54	410.48	407.65 S	407.45 W	----	----	----
DI 55	410.33	----	----	----	----	----
MH 56	409.79	405.2 NE	405.9± N	405.2 SE	----	----
CI 58	410.53	408.35	----	----	----	----
MH 60	413.28	----	----	----	----	----
MH 61	412.55	----	----	----	----	----
MH 62	413.05	410.2 NW	406.0 S	406.0 E	----	----
MH 63	410.49	----	----	----	----	----
MH 66	412.64	410.24	----	----	----	----
MH 67	411.80	----	----	----	----	----
MH 68	409.25	409.05	----	----	----	----
MH 69	410.48	----	----	----	----	----
MH 70	412.44	----	----	----	----	----
MH 71	411.57	----	----	----	----	----
DMH 72	409.74	----	----	----	----	----
MH 73	410.13	----	----	----	----	----
MH 74	410.67	----	----	----	----	----
DI 75	409.47	----	----	----	----	----
CI 76	410.04	407.25	----	----	----	----
DI 77	409.71	----	----	----	----	----
MH 79	388.22	380.85 (IN)	380.85 (OUT)	----	----	----
CI 80	389.84	386.0	----	----	----	----
CI 81	389.31	385.84 E	385.43 N	385.31 S	----	----
CI 82	392.83	389.23	----	----	----	----
CI 83	392.24	388.30	----	----	----	----
MH 83	390.00	385.00 (IN)	382.00 (OUT)	----	----	----
CI 84	387.66	383.99	----	----	----	----
DMH 87	410.60	----	----	----	----	----
DI 88	412.85	408.23 S	408.29 E	----	----	----
DI 89	410.43	408.68 S	408.66 SW	408.64 N	----	----
DI 90	410.27	408.80	----	----	----	----
DI 91	410.57	408.87 S	409.03 N	409.80 E	----	----
DI 92	410.25	408.96 SW	408.80 N	----	----	----
DI 95	408.10	404.50 S	403.95 N	----	----	----
MH 96	398.29	394.7± S	394.8± N	----	----	----

EXISTING SANITARY SEWER STRUCTURES

STRUCTURE DESIGNATION	TOP	INVERT	INVERT	INVERT	INVERT	INVERT
SMH 9	416.61	405.28	----	----	----	----
SMH 14	415.63	409.87	----	----	----	----
SMH 15	419.91	415.74	----	----	----	----
SMH 22	405.78	400.15± N	399.86 E-W	----	----	----
SMH 23	409.88	404.35	----	----	----	----
SMH 35	393.47	384.75	----	----	----	----
SMH 36	396.80	392.4 W	391.9 N	391.8 S	----	----
SMH 41	407.18	400.74	----	----	----	----
SMH 47	409.24	403.05±	----	----	----	----
SMH 57	410.55	405.78 SW	404.64 E-W	----	----	----
SMH 59	411.76	----	----	----	----	----
SMH 78	388.00	380.5±	----	----	----	----
SMH 85	406.98	402.3 N	399.4 S	----	----	----
SMH 86	407.38	402.05	404.15 W	403.9 S	----	----

GRAPHIC SCALE
(IN FEET)
1 inch = 40 ft.

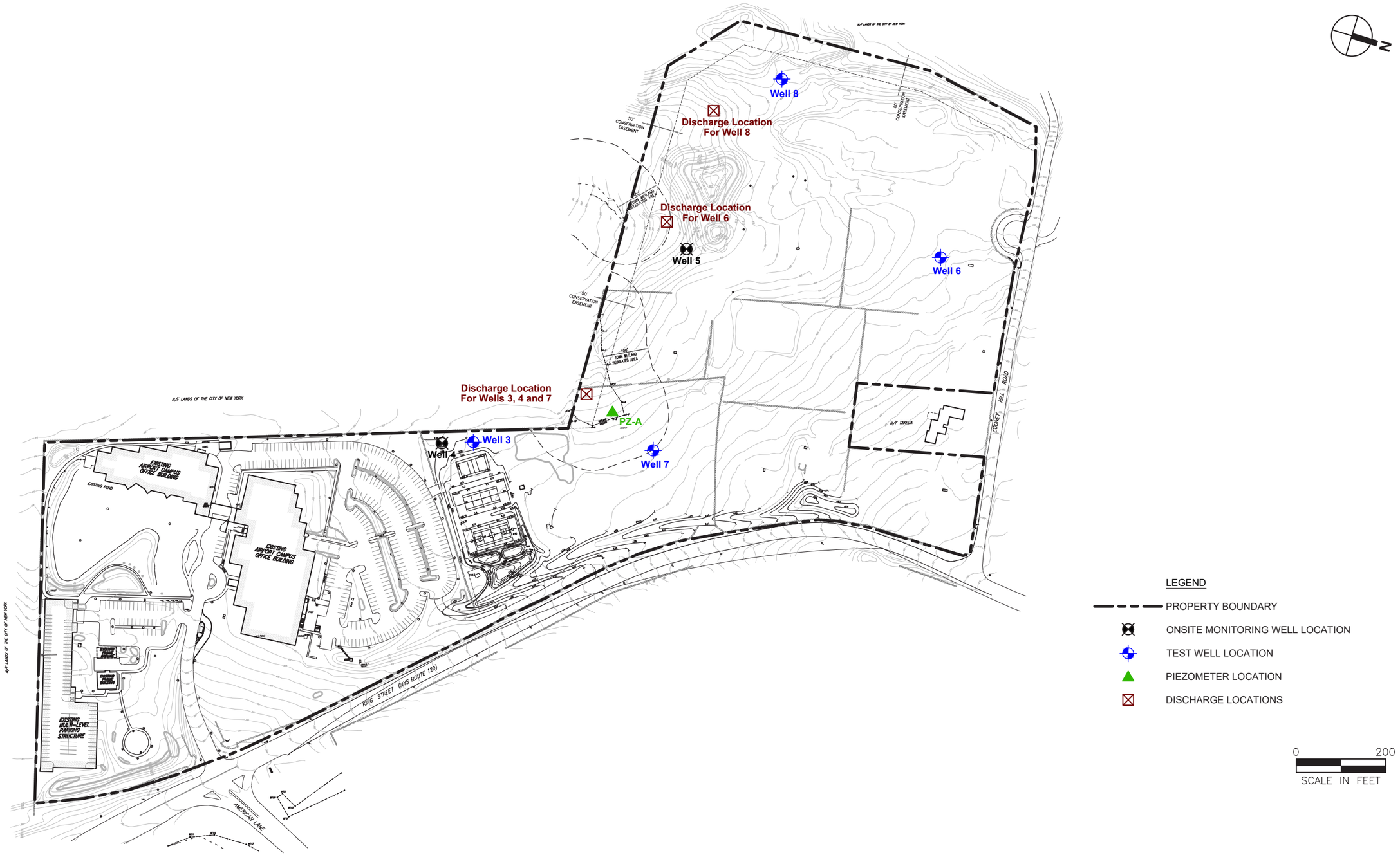
Source: JMC, 2020

Proposed Project - Preliminary Utilities Plan

AIRPORT CAMPUS

Figure 9-1b

4.27.21



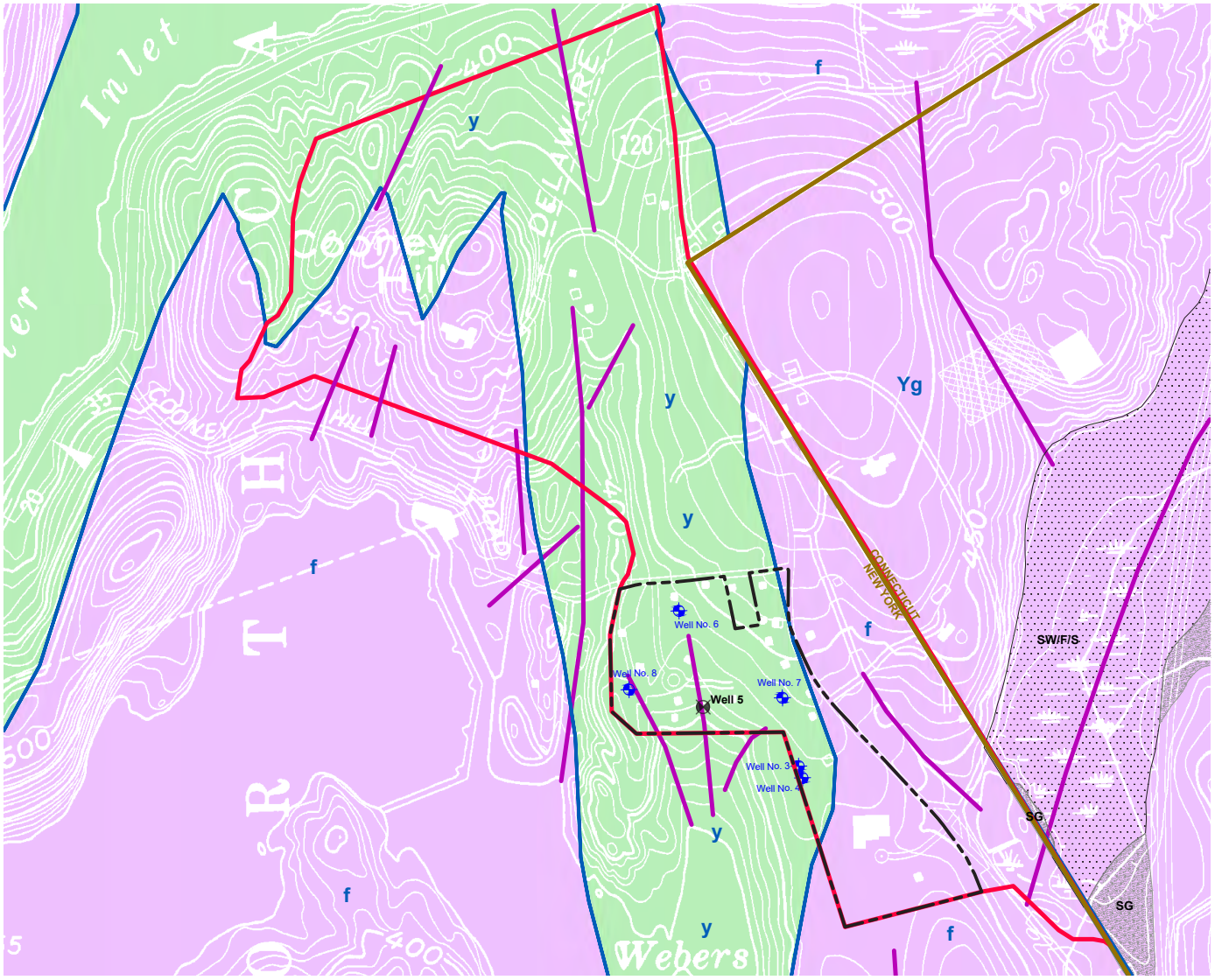
Source: WSP USA Inc.

AIRPORT CAMPUS

Project Site Existing Water Supply Wells

Figure 9-2

4.27.21



LEGEND

- PROPERTY BOUNDARY
- DOB-2A ZONING AREA
- ONSITE WELL LOCATION
- ONSITE MONITORING WELL LOCATION
- FRACTURE TRACE LINEATION
- BEDROCK CONTACT
- y — YONKERS GNEISS
- f — FORDHAM GNEISS
- Yg — GNEISS OF HIGHLANDS MASIFS (CONNECTICUT CLASSIFICATION)
- SG — STRATIFIED-DRIFT AQUIFER-SAND AND GRAVEL
- SW/F/S — STRATIFIED-DRIFT AQUIFER-SWAMP OVERLYING FINES OVERLYING SAND

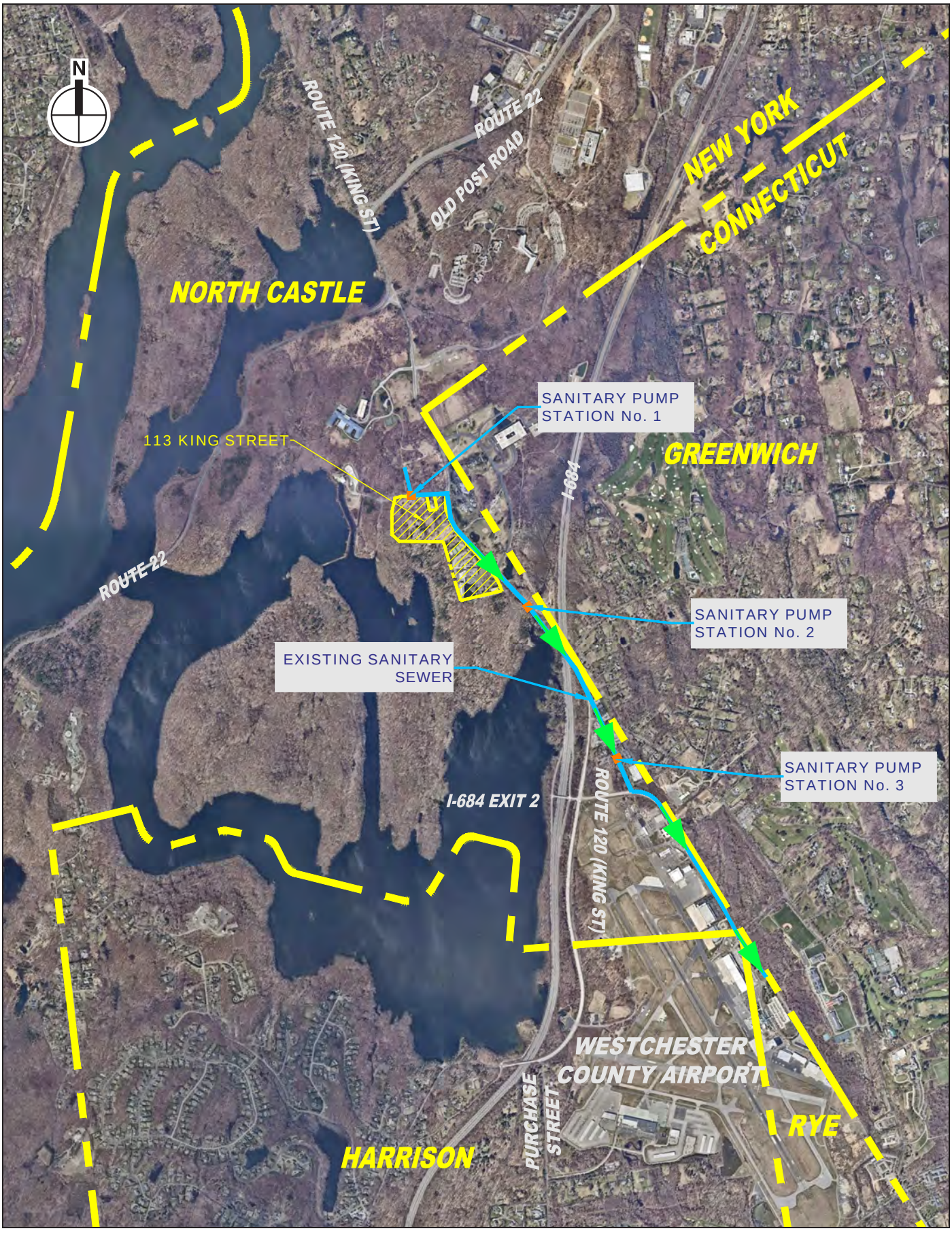
SOURCES:
1. USGS TOPOGRAPHIC QUADRANGLES WHITE PLAINS, NEW YORK (PHOTOREVISED 1979) AND GLENVILLE, CONNECTICUT-NEW YORK, (PHOTOREVISED 1971).
2. "SURFICIAL GEOLOGY-LOWER HUDSON SHEET", NEW YORK STATE MUSEUM MAP AND CHART SERIES NO. 40, 1997.

Source: WSP

AIRPORT CAMPUS

Area Aquifer Map

Figure 9-3



Existing Off-Site Sanitary Sewer Infrastructure

Chapter 10: Traffic and Transportation

10.A. INTRODUCTION

This chapter summarizes the Traffic Impact Study (TIS) completed by Maser Consulting P.A. (see **Appendix G-1**). The TIS assesses the potential traffic and transportation impacts of the Proposed Action and its potential effects on the Study Area's vehicular safety and circulation conditions. As demonstrated in the TIS, and summarized below, the Proposed Project would result in fewer vehicular trips than would be the case if the existing office buildings on-Site were reoccupied. Therefore, in the Applicant's opinion, the Proposed Project would not have a significant adverse impact on the Study Area intersections when compared to conditions with the re-occupancy of the existing office buildings including the full occupancy of the neighboring Swiss Re parcel's office building. Finally, while not necessary to mitigate a Project-related impact, the TIS recommends signal timing adjustments at four Study Area intersections, which, in the Applicant's opinion, would improve future traffic operation of area roadways in the Future with and without the Proposed Project.

10.B. EXISTING CONDITIONS

10.B.1. EXISTING SITE IMPROVEMENTS (DEIS)

The southern portion of the Project Site is currently improved with what was previously MBIA's corporate headquarters and contains a vacant, three-story, approximately 100,000-sf office building in the southwest corner; another vacant, three-story, approximately 161,000-sf office building immediately north of the 100,000-sf building; approximately 328 surface parking spaces (two surface lots); a three-story parking structure containing approximately 316 parking spaces; a circa 1820s farmhouse and accessory shed/barn (used for storage and maintenance purposes); a water feature/stormwater pond; and landscaping. The northern portion of the Project Site contains meadows, landscaping, and outdoor amenities for the uses described above, including paved tennis courts, a volleyball court, and walking paths.

10.B.2. EXISTING ROADWAY NETWORK (DEIS AND GEIS)

10.B.2.a. NYS Route 120 (King Street)

In the vicinity of the Project Site, NYS Route 120 (King Street) is a State roadway that travels in a generally north/south direction throughout southern Westchester County. North of the Site, NYS Route 120 (King Street) intersects with NYS Route 22 with its northerly leg providing access to the NYS Route 22 corridor and downtown Armonk hamlet area (to the east) and at a "Y" type signalized intersection and its southerly leg providing access to the NYS Route 22 corridor to the west. NYS Route 120 (King Street) continues in a southerly direction providing access to Swiss Re, IBM

Corporate Headquarters, Greenwich American Center, the Project Site and other roadways such as Cooney Hill Road, Gateway Lane, NYS Route 120A, New King Street, I-684 (approximately 1.0 miles from the Site) and Airport Road/Westchester County Airport. There are no sidewalks provided and NYS Route 120 has a posted speed limit of 55 mph with an advisory speed limit of 35 miles per hour (mph) in the vicinity of Cooney Hill Road due to the existing horizontal and vertical curves. Pavement condition along NYS Route 120 (King Street) are fair to good.

10.B.2.b. NYS Route 22

NYS Route 22 is a State roadway that travels throughout Westchester County. North of the Project Site, NYS Route 120 (King Street) intersects with NYS Route 22 with its southerly leg providing access to the NYS Route 22 corridor to the west at a "Y" type, signalized intersection and its northerly leg providing access to the NYS Route 22 corridor and downtown Armonk hamlet area (to the east) also at a "Y" type, signalized intersection. NYS Route 22 consists of two travel lanes with shoulders in each direction. To the east, NYS Route 22 provides access to the downtown Armonk hamlet area (NYS Route 128) at a signalized intersection opposite North Castle Drive (approximately 2.8 miles from the Project Site) and provides access to the I-684 southbound and northbound on/off ramps at signalized intersections (approximately 3.0 miles from the Site). No sidewalks are provided along NYS Route 22 within the study area. NYS Route 22 has a speed limit of 55 mph, and pavement conditions are generally good.

10.B.2.c. NYS Route 128 (Main Street)

NYS Route 128 (Main Street) is a two-lane, generally north/south State roadway that originates at NYS Route 22 opposite North Castle Drive at a signalized intersection and provides access to the downtown Armonk hamlet area. NYS Route 128 (Main Street) continues in a northerly direction with shoulders on both sides, intersecting with Old Route 22 at an unsignalized intersection. Continuing north, a sidewalk is provided on the west side of Route 128 with a sidewalk provided on the east side approaching the Kent Place/Bedford Road unsignalized intersection. Continuing north, there are sidewalks and crosswalks along NYS Route 128 (Main Street) with 1 hour parking provided along both sides of the street approaching the Whippoorwill Road/Maple Avenue signalized intersection. NYS Route 128 (Main Street) has a posted speed limit of 30 mph, and pavement conditions are generally good.

10.B.2.d. Cooney Hill Road

Cooney Hill Road intersects NYS Route 120 (King Street) north of the Project Site, at a "T" type, unsignalized intersection and is a "Dead End" road. Cooney Hill Road is a two-lane, Town road with no shoulders or sidewalks. Cooney Hill Road is a low volume road that provides access to one single family home (3 Cooney Hill Road) and has a gated access to the NYCDEP Shaft 17 facility (New York City water supply lands). Access to the Proposed Project's townhomes will be provided via a driveway connection to Cooney

Hill Road. Cooney Hill Road has a posted speed limit of 30 mph, and pavement conditions are fair.

10.B.2.e. Gateway Lane

Gateway Lane is a Town road that intersects NYS Route 120 (King Street) south of the Project Site at a "T" type, signalized intersection. Gateway Lane acts as a connector road intersecting NYS Route 120A at a "T" type, unsignalized intersection. Pavement conditions along Gateway Lane are generally good.

10.B.2.f. New King Street

New King Street is a one-way southbound Town road, which connects Airport Road and NYS Route 120 (King Street) south of the Project Site at a "T" type, signalized intersection. New King Street has shoulders, no sidewalks and a posted speed limit of 30 mph. New King Street provides access to various commercial uses and pavement conditions are generally good.

10.B.2.g. Airport Road (C.R. 135)

Airport Road (C.R. 135) is a County road that intersects NYS Route 120 (King Street) opposite the I-684 northbound and southbound on-off ramps, south of the Project Site at a signalized intersection. At NYS Route 120 (King Street), Airport Road continues as a one-way roadway eastbound until it intersects with New King Street and becomes a two-way roadway. Airport Road provides access to the Westchester County Airport and NYS Route 120A. Airport Road has shoulders, no sidewalk and has a posted speed limit of 35 mph. Pavement conditions along Airport Road are generally good.

10.B.3. PUBLIC TRANSPORTATION (DEIS AND GEIS)

The Westchester Bee-Line provides local bus service via the "Route 12" bus along the NYS Route 120 (King Street) corridor including the "Shuttle Loop H" bus. The Route 12 bus and Shuttle Loop H bus operates Monday–Friday between the White Plains Trans Center, Harrison, Purchase (including the Westchester County Airport) and Armonk. Bus stops are located at the intersection of NYS Route 120 (King Street) and American Lane, adjacent to the Project Site's existing access driveway. A copy of the Westchester Bee-Line Route 12 schedule and route map is contained in Appendix F of the TIS.

10.B.4. EXISTING TRAFFIC VOLUMES (DEIS AND GEIS)

In order to establish existing (i.e., Year 2019) traffic conditions in the vicinity of the Project Site, turning movement traffic counts were conducted on Tuesday, April 2, 2019 between the hours of 6:30 AM–9:30 AM to determine the weekday AM peak hour, 11:30 AM–1:30 PM to determine the weekday midday peak hour and 4:00 PM–6:30 PM to determine the weekday PM peak hour. The following 15 intersections were analyzed, in accordance with the DEIS Scoping Document (see **Appendix A-1**):

- NYS Route 22 (Armonk-Bedford Road) and NYS Route 120 (King Street)[1]
- NYS Route 22 (Mt Kisco Road)/Old Post Road and NYS Route 120 (King Street)[1]
- King Street and Old Post Road
- NYS Route 120 (King Street) and IBM/Swiss Re
- NYS Route 120 (King Street) and American Lane
- NYS Route 120 (King Street) and Cooney Hill Road
- NYS Route 120 (King Street) and American Lane/113 King Street Driveway
- NYS Route 120 (King Street/Purchase Street) and Gateway Lane
- NYS Route 120 (Purchase Street) and New King Street
- NYS Route 120 (Purchase Street) and Airport Road
- Airport Road and I-684 NB On/Off Ramps
- Airport Road and I-684 SB On/Off Ramps[2]
- NYS Route 22 and NYS Route 128/IBM Main Driveway
- NYS Route 22 and North Broadway and Sir John's Plaza
- NYS Route 22 and Central Westchester Parkway and Reservoir Road/Church Street

A copy of the traffic count data, including the NYSDOT historical traffic counts data, is contained in Appendix E of the TIS.

Based upon a review of turning movement traffic counts and a review of NYSDOT historical traffic count data, the peak hours were identified as follows:

- Weekday AM peak hour: 8:00 AM–9:00 AM
- Weekday midday peak hour: 12:30 PM–1:30 PM
- Weekday PM peak hour: 5:00 PM–6:00 PM

The resulting Year 2019 existing traffic volumes are shown on TIS Figures 2, 2A, 3, 3A, 4, and 4A, for each of the peak hours, respectively.

As required, the TIS describes traffic conditions within the Study Area in the existing condition, the Future without the Proposed Project (the "No Build" condition), and the Future with the Proposed Project (the "Build" condition). The analysis year for the No Build and the Build conditions is 2024.

10.C. FUTURE WITHOUT THE PROPOSED PROJECT (DEIS AND GEIS)

As noted above, an analysis year of 2024 was utilized. In order to account for normal background traffic growth in the area, the Year 2019 existing traffic volumes were increased by a growth factor of one percent per year for a total compounded background growth of five percent based on

[1] These traffic counts were compared with the existing traffic volumes used in the Eagle Ridge Traffic Impact Study. Based on a comparison of these traffic counts, the Eagle Ridge traffic counts were utilized at these three locations.

[2] Since the I-684 SB on/off ramps only consists of two movements, the I-684 SB on-ramp and SB off-ramp were able to be balanced with the I-684 NB Ramp Counts.

NYSDOT historical data. Traffic generated for other potential developments in the area was also added to the 2019 volumes. These developments include Brynwood (88 units), Mariani Gardens (50 units), Madonna Senior Housing (16 units). Wampus Mills (6 single family lots), 162 Bedford Road – Former Armonk Lumber Yard (36 units), 470 Main Street (16 units), and Eagle Ridge (91 room hotel, 70 apartments, and 94 townhomes). In addition, and in accordance with the DEIS Scoping Document, traffic resulting from the full occupancy of the Swiss Re parcel's existing office building (which is approximately 50 percent occupied), and re-occupancy of the Project Site's existing office buildings (for office use) was also included in the No Build condition. A table and associated figures for the above-referenced developments' trip generation are included in Appendix I of the TIS, which is included as **Appendix G** of this DGEIS.

The hourly trip rates and anticipated Site generated traffic volumes for the re-occupancy of the two office buildings were developed based on information contained in the Institute of Transportation Engineers (ITE) "Trip Generation Handbook," 10th Edition, 2017. Re-occupancy of the two existing on-Site office buildings would generate a total of 303 trips (261 entering trips and 42 exiting trips) during the weekday AM peak hour, a total of 152 trips (76 entering trips and 76 exiting trips) during the weekday midday peak hour and a total of 300 trips (47 entering trips and 253 exiting trips) during the weekday PM peak hour.

The other development traffic volumes and resulting 2024 No Build traffic volumes are shown on TIS Figures 5, 5A through 23 and 23A for each of the peak hours.

10.D. POTENTIAL IMPACTS OF THE PROPOSED PROJECT (DEIS)

10.D.1. ANALYSIS METHODOLOGY AND PROCEDURES

10.D.1.a. Trip Generation

The Proposed Project involves the re-occupy the southernmost existing office building on the Project Site for office uses, the adaptive re-use of the northernmost existing office building as a hotel, and construction new residential uses to the north of these existing buildings, in the form of a five-story, approximately 149-unit multifamily building (with structured parking underneath) and approximately 22 townhomes (each with a driveway and single car garage). The proposed multifamily building would consist of five floors of residential space (with amenities) over two above-grade concrete parking garage floors, with another level of parking proposed below-grade. The three levels of parking would provide for approximately 331 parking spaces.

To estimate the amount of traffic to be generated by the Proposed Project, the hourly trip generation rates and anticipated Site generated traffic volumes were developed based on information contained in the ITE "Trip Generation Handbook," 10th Edition, 2017. As noted in Section 10.C above, the No Build condition analysis in the TIS accounts for occupancy of the two existing office buildings (for office uses). To calculate the number of trips that would occur in the Future with the Proposed Project, the TIS:

- Added to the No Build Condition trips associated with the Proposed Project's hotel and residential uses (137 trips in the weekday AM peak

hour, 78 trips in the weekday midday peak hour, and 170 trips in the weekday PM peak hour);

- Retained the trips associated with the existing southern office building, which is proposed to remain an office use with the Proposed Project (116 trips in the weekday AM peak hour, 58 trips in the weekday midday peak hour, and 115 trips in the weekday PM peak hour); and
- Subtracted the trips associated with the existing northern office building's office use, as the Proposed Project proposes to re-use that building as a hotel use and includes the trips above (subtract 187 trips in the weekday AM peak hour, 94 trips in the weekday midday peak hour, and 185 trips in the weekday PM peak hour).

As shown in **Table 10-1**, the Proposed Project would result in fewer Site-generated traffic trips than would re-occupancy of both existing on-Site office buildings. This is due to the fact that the residential and hotel uses proposed generate fewer trips on a square-footage basis than the existing office uses.

Table 10-1
Site Generated Traffic Volume Comparison

	Future without the Proposed Project			Future with the Proposed Project		
Peak Hour	**Entry Volume**	**Exit Volume**	**Total Volume**	**Entry Volume**	**Exit Volume**	**Total Volume**
Weekday Peak AM	261	42	303	153	100	253
Weekday Peak Midday	76	76	152	68	68	136
Weekday Peak PM	47	253	300	117	168	285

Source: Maser Consulting, P.A.

As shown in **Table 10-1** above, the traffic generated by the Proposed Project's uses would not be "new" traffic to the roadway network. Rather, the Proposed Project would result in 50 fewer trips overall during the weekday AM peak hour (103 fewer trips entering trips and 58 additional exiting trips), a total of 16 fewer trips overall during the weekday midday peak hour, (8 fewer entering trips and 8 fewer exiting trips), and a total of 15 fewer trips overall during the weekday PM peak hour (70 additional entering trips and 85 exiting trips) than would be generated by the re-occupancy of both existing on-Site office buildings.

Arrival and departure distributions were developed to assign the Project Site generated traffic volumes to the Study Area intersections. The distributions were based on a review of existing traffic volumes and expected travel patterns. The new Project Site generated traffic volumes were assigned to the roadway network based on these arrival/departure distributions (see TIS Figures 24, 24A through 31, 31A).

The traffic associated with the remaining office building is shown on TIS Figures 15, 15A, 16, 16A, 17, 17A (as discussed in Section 10.D.1.a).

The "new" site generated traffic volumes were assigned to the roadway network based on arrival/departure distributions. The resulting "new" site generated traffic volumes are shown on TIS Figures 32, 32A, 33, 33A, 34, 34A

(hotel); Figures 35, 35A, 36, 36A, 37, 37A (multifamily residential); and Figures 38, 38A, 39, 39A, 40, 40A (townhomes) for each of the peak hours, respectively. The resulting 2024 Build traffic volumes are shown on TIS Figures 41, 41A, 42, 42A, 43, and 43A for each of the peak hours, respectively.

10.D.1.b. Signalized Intersection Capacity Analysis

In order to determine existing and future traffic operating conditions at the Study Area intersections, capacity analyses were performed. The capacity analyses for signalized intersections were performed in accordance with the procedures described in the in the 6th Edition Highway Capacity Manual published by the Transportation Research Board. The terminology used in identifying traffic flow conditions is Levels of Service (LOS). LOS "A" represents the best condition and LOS "F" represents the worst condition. LOS "C" is generally used as a design standard while LOS "D" is acceptable during peak periods. LOS "E" represents an operation near capacity. In order to identify an intersection's LOS, the average amount of vehicle delay is computed for each approach to the intersection as well as for the overall intersection.

10.D.1.c. Unsignalized Intersection Capacity Analysis

The unsignalized intersection capacity analysis method was also performed in accordance with the procedures described in the in the 6th Edition Highway Capacity Manual. The procedure is based on total elapsed time from when a vehicle stops at the end of the queue until the vehicle departs from the stop line. The average total delay for any particular critical movement is a function of the service rate or capacity of the approach and the degree of saturation. In order to identify the LOS, the average amount of vehicle delay is computed for each critical movement (major street left turns and minor street movements) to the intersection.

Additional information concerning signalized and unsignalized LOS can be found in Appendix C of the TIS.

10.D.2. RESULTS OF CAPACITY ANALYSIS

In order to evaluate current and future traffic operating conditions at each of the Study Area Intersections, a SYNCHRO analysis was conducted utilizing the procedures described above. Summarized below are descriptions of existing geometrics, traffic control, and the existing and future LOS.

Figures 10-1a through 10-1d incorporate Table 3 of the TIS, and summarizes the results of the capacity analysis, including LOS, delays, and volume-to-capacity (v/c) ratios for all intersections studied. Table 4 of the TIS summarizes the queues for the Year 2019 Existing, Year 2024 No Build and Year 2024 Build conditions. Copies of the full SYNCHRO analysis are contained in Appendix D of the TIS.[3] A copy of the NYSDOT Traffic Signal Timing Plans are contained in Appendix H of the TIS.

[3] The existing traffic signals evaluated in the TIS have detection, which permits the signal to operate under various phases and signal lengths depending on demand. For analysis purposes, all conditions use the same phasing/cycle lengths and maximum/minimums. As part of the permit process each signal may require minor signal timing changes.

10.D.2.a. NYS Route 22 and NYS Route 120 North (King Street)

NYS Route 22 and NYS Route 120 North (King Street) meet at a "Y" type, signalized intersection. The NYS Route 22 northbound approach consists of three lanes in the form of a separate left turn lane and two through lanes. The NYS Route 22 southbound approach consists of three lanes in the form of two through lanes and a channelized right turn lane. The NYS Route 120 North (King Street) eastbound approach consists of two lanes in the form of a separate left turn lane and a channelized right turn lane.

The storage for the existing Route 22 northbound left turns is exceeded during the weekday PM peak hour, therefore interfering with one of the northbound through lanes. It is recommended that a force-off detector be installed in the northbound left turn lane to reduce queuing into the mainline during the weekday PM peak hour.

- **Year 2019 Existing Traffic Volumes**: Capacity analysis conducted utilizing the 2019 existing traffic volumes indicates that this intersection is currently operating at an overall LOS "C" during the weekday AM peak hour, an overall LOS "B" during the weekday midday peak hour, and an overall LOS "D" during the weekday PM peak hour.
- **Year 2024 No Build Traffic Volumes**: Capacity analysis conducted utilizing the 2024 No Build traffic volumes indicates that this intersection is projected to operate at an overall LOS "C" during the weekday AM peak hour, an overall LOS "B" during the weekday midday peak hour, and an overall LOS "E" during the weekday PM peak hour.
- **Year 2024 Build Traffic Volumes**: Capacity analysis conducted utilizing the 2024 Build traffic volumes with the Proposed Project indicates that this intersection is projected to continue to operate at an overall LOS "C" during the weekday AM peak hour, an overall LOS "B" during the weekday midday peak hour, and an overall LOS "E" during the weekday PM peak hour.
- **With Traffic Signal Timing Changes**: As shown on Table 2 of the TIS, improved LOS can be achieved with minor traffic signal timing changes (weekday AM/PM peak hours) for both the No Build and Build Conditions.

10.D.2.b. NYS Route 22 and NYS Route 120 South (King Street)

NYS Route 22 and NYS Route 120 South (King Street) meet at a "Y" type, signalized intersection. The NYS Route 22 northbound approach consists of three lanes including two through lanes and a separate right turn lane. The NYS Route 22 southbound approach consists of four lanes including two left turn lanes and two through lanes. The NYS Route 120 South (King Street) westbound approach consists of one lane for left and right turning movements.

- **Year 2019 Existing Traffic Volumes:** Capacity analysis conducted utilizing the 2019 existing traffic volumes indicates that this intersection is currently operating at an overall LOS "B" during the weekday AM and

midday peak hours, and an overall LOS "C" during the weekday PM peak hour.

- **Year 2024 No Build Traffic Volumes:** Capacity analysis conducted utilizing the 2024 No Build traffic volumes indicates that this intersection is projected to operate at an overall LOS "C" during the weekday AM/PM peak hours, and an overall LOS "B" during the weekday midday peak hour.
- **Year 2024 Build Traffic Volumes:** Capacity analysis conducted utilizing the 2024 Build traffic volumes with the Proposed Project indicates that this intersection is projected to continue to operate at an overall LOS "C" during the weekday AM/PM peak hours, and an overall LOS "B" during the weekday midday peak hour.

10.D.2.c. NYS Route 120 (King Street) and Old Post Road

Old Post Road intersects NYS Route 120 (King Street) at an unsignalized intersection. The NYS Route 120 (King Street) northbound approach consists of one lane for left, through, and right turn movements. The Old Post Road westbound approach consist of one lane for through and right turn movements. Old Post Road provides access to Bright Horizons at TimberRidge and the IBM Learning Center.

- **Year 2019 Existing Traffic Volumes**: Capacity analysis conducted utilizing the 2019 existing traffic volumes indicates that this intersection is currently operating at LOS "A" during both the weekday AM and midday peak hours, and at LOS "C" during the weekday PM peak hour.
- **Year 2024 No Build Traffic Volumes**: Capacity analysis conducted utilizing the 2024 No Build traffic volumes indicates that this intersection is projected to operate at LOS "A" during both the weekday AM and midday peak hours and at LOS "C" during the weekday PM peak hour.
- **Year 2024 Build Traffic Volumes**: Capacity analysis conducted utilizing the 2024 Build traffic volumes with the Proposed Project indicates that this intersection is projected to continue to operate at LOS "A" during both the weekday AM and midday peak hours and at LOS "C" during the weekday PM peak hour.

10.D.2.d. NYS Route 120 (King Street) and Swiss Re Driveway/IBM Driveway

The Swiss Re Driveway intersects NYS Route 120 (King Street) opposite the IBM driveway at a full movement, signalized intersection. The NYS Route 120 (King Street) northbound approach consists of three lanes including a separate left turn lane, separate through lane, and separate right turn lane. The NYS Route 120 (King Street) southbound approach consists of three lanes including a separate left turn lane, separate through lane, and a channelized right turn lane. The Swiss Re driveway (eastbound approach) consists of two lanes in the form of a shared left/through lane and a separate right turn lane. The IBM driveway (westbound approach) consists of two lanes in the form of a shared left/through lane and a separate right turn lane.

- **Year 2019 Existing Traffic Volumes**: Capacity analysis conducted utilizing the 2019 existing traffic volumes indicates that this intersection is currently operating at an overall LOS "A" during the weekday AM peak hour, an overall LOS "A" during the weekday midday peak hour, and an overall LOS "C" during the weekday PM peak hour.
- **Year 2024 No Build Traffic Volumes**: Capacity analysis conducted utilizing the 2024 No Build traffic volumes indicates that this intersection is projected to operate at an overall LOS "B" during the weekday AM peak hour, an overall LOS "A" during the weekday midday peak hour, and an overall LOS "E" during the weekday PM peak hour.
- **Year 2024 Build Traffic Volumes**: Capacity analysis conducted utilizing the Year 2024 Build traffic volumes with the Proposed Project indicates that this intersection is projected to operate at an overall LOS "A" during the weekday AM peak hour, an overall LOS "A" during the weekday midday peak hour, and an overall LOS "E" during the weekday PM peak hour.
- **With Traffic Signal Timing Changes**: As shown on Table 2 of the TIS, improved LOS "D" can be achieved with minor traffic signal timing changes (weekday PM peak hour) for both the No Build and Build Conditions.

10.D.2.e. NYS Route 120 (King Street) and American Lane

The north leg of American Lane (Greenwich American Center) intersects NYS Route 120 (King Street) at a "T" type, unsignalized intersection. The NYS Route 120 (King Street) northbound approach consists of one lane for through and right turn movements and the NYS Route 120 (King Street) southbound approach consist of two lanes in the form of a separate left turn lane and a separate through lane. The American Lane westbound approach consist of two lanes including a separate left turn lane (under "stop" sign control) and a channelized right turn lane (under "yield" control).

- **Year 2019 Existing Traffic Volumes**: Capacity analysis conducted utilizing the 2019 existing traffic volumes indicates that all movements to the intersection are currently operating at LOS "C" or better during each of the peak hours.
- **Year 2024 No Build Traffic Volumes**: Capacity analysis conducted utilizing the 2024 No Build traffic volumes indicates that all movements to this intersection are projected to operate at LOS "D" or better during each of the peak hours.
- **Year 2024 Build Traffic Volumes**: Capacity analysis conducted utilizing the 2024 Build traffic volumes with the Proposed Project indicates that all movements to this intersection are projected to continue to operate at LOS "D" or better during each of the peak hours.

10.D.2.f. NYS Route 120 (King Street) and Cooney Hill Road

Cooney Hill Road intersects NYS Route 120 (King Street) at a "T" type, unsignalized intersection. The NYS Route 120 (King Street) northbound approach consists of one lane for left and through movements and the NYS

Route 120 (King Street) southbound approach consist of one lane for through and right turn movements. The Cooney Hill Road eastbound approach consists of one lane for left and right turn movements and is "stop" sign controlled.

- **Year 2019 Existing Traffic Volumes**: Capacity analysis conducted utilizing the 2019 existing traffic volumes indicates that the Cooney Hill Road eastbound approach (minor approach) is currently operating at LOS "C" during the weekday AM peak hour, LOS "B" during the weekday midday peak hour, and LOS "D" during the weekday PM peak hour.
- **Year 2024 No Build Traffic Volumes:** Capacity analysis conducted utilizing the 2024 No Build traffic volumes indicates that the Cooney Hill Road eastbound approach (minor approach) is projected to operate at LOS "D" during the weekday AM peak hour, LOS "B" during the weekday midday peak hour, and LOS "F" during the weekday PM peak hour.
- **Year 2024 Build Traffic Volumes**: Capacity analysis conducted utilizing the 2024 Build traffic volumes with the Proposed Project indicates that the Cooney Hill Road eastbound approach (minor approach) is projected to operate at an improved LOS "C" during the weekday AM peak hour, is projected to continue to operate at LOS "B" during the weekday midday peak hour, and is projected to operate at an improved LOS "D" during the weekday PM peak hour.

10.D.2.g. NYS Route 120 (King Street) and Project Site Driveway/American Lane (S)

The Project Site's driveway intersects NYS Route 120 (King Street) opposite the south leg of American Lane (Greenwich American Center) at a full movement, signalized intersection. The NYS Route 120 (King Street) northbound approach consists of three lanes including a separate left turn lane, separate through lane, and separate right turn lane. The NYS Route 120 (King Street) southbound approach consists of one lane for left, through and right turn movements. The Project Site's driveway (eastbound approach) consists of two lanes including a shared left/through lane and a separate right turn lane. The American Lane westbound approach consist of two lanes in the form of a separate left/through lane and a channelized right turn lane.

- **Year 2019 Existing Traffic Volumes**: Capacity analysis conducted utilizing the 2019 Existing traffic volumes indicates that this intersection is currently operating at an overall LOS "A" during the weekday AM peak hour, an overall LOS "A" during the weekday midday peak hour, and an overall LOS "B" during the weekday PM peak hour.
- **Year 2024 No Build Traffic Volumes**: Capacity analysis conducted utilizing the 2024 No Build traffic volumes indicates that this intersection is projected to operate at an overall LOS "B" during the weekday AM peak hour, an overall LOS "A" during the weekday midday peak hour, and an overall LOS "C" during the weekday PM peak hour.
- **Year 2024 Build Traffic Volumes**: Capacity analysis conducted utilizing the 2024 Build traffic volumes with the Proposed Project

indicates that this intersection is projected to operate at an overall LOS "B" during the weekday AM peak hour, an overall LOS "A" during the weekday midday peak hour, and an overall LOS "B" during the weekday PM peak hour.

10.D.2.h. NYS Route 120 North (King Street) and Gateway Lane

Gateway Lane intersects NYS Route 120 North (King Street) at a "T" type, signalized intersection. The NYS Route 120 (King Street) northbound approach consists of one lane for through/right turn movements and the NYS Route 120 (King Street) southbound approach consists of one lane for left/through movements. The Gateway Lane westbound approach consists of one lane for left/right turn movements.

- **Year 2019 Existing Traffic Volumes**: Capacity analysis conducted utilizing the 2019 existing traffic volumes indicates that this intersection is currently operating at an overall LOS "A" during the weekday AM peak hour, an overall LOS "A" during the weekday midday peak hour, and an overall LOS "B" during the weekday PM peak hour.
- **Year 2024 No Build Traffic Volumes**: Capacity analysis conducted utilizing the 2024 No Build traffic volumes indicates that this intersection is projected to operate at an overall LOS "B" during the weekday AM peak hour, an overall LOS "A" during the weekday midday peak hour, and an overall LOS "F" during the weekday PM peak hour.
- **Year 2024 Build Traffic Volumes**: Capacity analysis conducted utilizing the 2024 Build traffic volumes with the Proposed Project indicates that this intersection is projected to continue to operate at an overall LOS "B" during the weekday AM peak hour, an overall LOS "A" during the weekday midday peak hour, and an overall LOS "F" during the weekday PM peak hour.
- **With Traffic Signal Timing Changes**: As shown on Table 2 of the TIS, improved LOS "D" can be achieved with minor traffic signal timing changes (weekday PM peak hour) for both the No Build and Build Conditions.

To further improve the operation of this intersection, a separate southbound left turn lane would be beneficial under No Build and Build conditions. However, given the location of the reservoir, it is unlikely that this improvement could be made given the approvals required.

10.D.2.i. NYS Route 120 North (King Street) and New King Street

New King Street intersects NYS Route 120 North (King Street) at a "T" type, signalized intersection. The NYS Route 120 (King Street) northbound and southbound approaches consist of one lane for through movements. The New King Street westbound approach consists of two lanes in the form of a separate left turn lane and a separate right turn lane. New King Street is one-way for westbound traffic.

- **Year 2019 Existing Traffic Volumes**: Capacity analysis conducted utilizing the 2019 existing traffic volumes indicates that this intersection

is currently operating at an overall LOS "B" during the weekday AM peak hour, an overall LOS "B" during the weekday midday peak hour, and an overall LOS "C" during the weekday PM peak hour.

- **Year 2024 No Build Traffic Volumes**: Capacity analysis conducted utilizing the 2024 No Build traffic volumes indicates that this intersection is projected to continue to operate at an overall LOS "B" during the weekday AM peak hour, an overall LOS "B" during the weekday midday peak hour, and an overall LOS "C" during the weekday PM peak hour.
- **Year 2024 Build Traffic Volumes**: Capacity analysis conducted utilizing the 2024 Build traffic volumes with the Proposed Project indicates that this intersection is projected to continue to operate at an overall LOS "B" during the weekday AM peak hour, an overall LOS "B" during the weekday midday peak hour, and an overall LOS "C" during the weekday PM peak hour.

10.D.2.j. NYS Route 120 North (King Street) and Airport Road

Airport Road intersects NYS Route 120 North (King Street) at a signalized intersection. The NYS Route 120 (King Street) northbound approach consists of three lanes including a separate left turn lane, separate through lane and a shared through/right turn lane. The NYS Route 120 (King Street) southbound approach consists of three lanes including a separate left turn lane, separate through lane and a separate right turn lane. The Airport Road eastbound approach consists of two lanes in the form of a separate left turn lane and a shared left/through/right turn lane. Airport Road is one-way for eastbound traffic.

- **Year 2019 Existing Traffic Volumes**: Capacity analysis conducted utilizing the 2019 existing traffic volumes indicates that this intersection is currently operating at an overall LOS "C" during the weekday AM peak hour, an overall LOS "B" during the weekday midday peak hour, and an overall LOS "C" during the weekday PM peak hour.
- **Year 2024 No Build Traffic Volumes**: Capacity analysis conducted utilizing the 2024 No Build traffic volumes indicates that this intersection is projected to operate at an overall LOS "D" during the weekday AM peak hour, an overall LOS "B" during the weekday midday peak hour, and an overall LOS "C" during the weekday PM peak hour.
- **Year 2024 Build Traffic Volumes**: Capacity analysis conducted utilizing the 2024 Build traffic volumes with the Proposed Project indicates that the intersection is projected to operate at an overall LOS "D" during the weekday AM peak hour, an overall LOS "B" during the weekday midday peak hour, and an overall LOS "C" during the weekday PM peak hour.
- **With Traffic Signal Timing Changes**: As shown on TIS Table 2, improved LOS "C" can be achieved with minor traffic signal timing changes (weekday AM peak hour) for both the No Build and Build Conditions.

10.D.2.k. Airport Road and I-684 Northbound On/Off Ramp

The I-684 northbound on/off ramp intersects Airport Road at an unsignalized intersection. The Airport Road eastbound approach consists of one lane for left and through movements and the Airport Road westbound approach consist of one lane for through and right turn movements. The I-684 northbound off ramp approach consists of one lane for right turn movements and is "stop" sign controlled.

- **Year 2019 Existing Traffic Volumes**: Capacity analysis conducted utilizing the 2019 existing traffic volumes indicates that this intersection is currently operating at LOS "E" during the weekday AM peak hour, at LOS "B" during the weekday midday peak hour, and at LOS "C" during the weekday PM peak hour.
- **Year 2024 No Build Traffic Volumes**: Capacity analysis conducted utilizing the 2024 No Build traffic volumes indicates that this intersection is projected to operate at LOS "F" during the weekday AM peak hour, LOS "B" during the weekday midday peak hour, and LOS "C" during the weekday PM peak hour.
- **Year 2024 Build Traffic Volumes**: Capacity analysis conducted utilizing the 2024 Build traffic volumes with the Proposed Project indicates that this intersection is projected to continue to operate at LOS "F" during the weekday AM peak hour, LOS "B" during the weekday midday peak hour, and LOS "C" during the weekday PM peak hour.

It should be noted that for unsignalized intersections, it is not uncommon for the side road approach (minor approach) to operate with delays while the major road operates with better levels of service.

10.D.2.l. Airport Road and I-684 Southbound On/Off Ramp

The I-684 southbound on/off Ramp intersects Airport Road at an unsignalized intersection. The Airport Road westbound approach consists of one lane for left turn movements and the Airport Road westbound approach consists of one lane for through and right turn movements. The I-684 northbound off ramp approach consists of one lane for right turn movements and is "stop" sign controlled.

- **Year 2019 Existing Traffic Volumes**: Capacity analysis conducted utilizing the 2019 existing traffic volumes indicates that this intersection is currently operating at LOS "E" during the weekday AM peak hour, LOS "B" during the weekday midday peak hour, and LOS "C" during the weekday PM peak hour.
- **Year 2024 No Build Traffic Volumes**: Capacity analysis conducted utilizing the 2024 No Build traffic volumes indicates that this intersection is projected to operate at LOS "F" during the weekday AM peak hour, LOS "B" during the weekday midday peak hour, and LOS "C" during the weekday PM peak hour.
- **Year 2024 Build Traffic Volumes**: Capacity analysis conducted utilizing the 2024 Build traffic volumes with the Proposed Project

indicates that this intersection is projected to continue to operate at LOS "F" during the weekday AM peak hour, LOS "B" during the weekday midday peak hour, and LOS "C" during the weekday PM peak hour.

It should be noted that for unsignalized intersections, it is not uncommon for the side road approach (minor approach) to operate with delays while the major road operates at better levels of service.

10.D.2.m. NYS Route 22 and NYS Route 128/North Castle Drive (IBM)

NYS Route 128 intersects NYS Route 22 opposite North Castle Drive at a full movement, signalized intersection. The NYS Route 22 northbound approach consists of four lanes including a separate left turn lane, two through lanes and a channelized right turn lane. The NYS Route 22 southbound approach consists of four lanes including a separate left turn lane, two through lanes, and a separate right turn lane. The NYS Route 128 eastbound approach consists of two lanes including a shared left/through lane and a channelized right turn lane. The North Castle Drive (IBM) westbound approach consists of three lanes including a separate left turn lane, separate through lane and a channelized right turn lane.

- **Year 2019 Existing Traffic Volumes**: Capacity analysis conducted utilizing the 2019 existing traffic volumes indicates that this intersection is currently operating at an overall LOS "C" during the weekday AM peak hour, an overall LOS "B" during the weekday midday peak hour, and an overall LOS "C" during the weekday PM peak hour.
- **Year 2024 No Build Traffic Volumes**: Capacity analysis conducted utilizing the 2024 No Build traffic volumes indicates that this intersection is projected to operate at an overall LOS "C" during the weekday AM peak hour, an overall LOS "C" during the weekday midday peak hour, and an overall LOS "C" during the weekday PM peak hour.
- **Year 2024 Build Traffic Volumes:** Capacity analysis conducted utilizing the 2024 Build traffic volumes with the Proposed Project indicates that this intersection is projected to continue to operate at an overall LOS "C" during the weekday AM peak hour, an overall LOS "C" during the weekday midday peak hour, and an overall LOS "C" during the weekday PM peak hour.

10.D.2.n. NYS Route 22/North Broadway/Sir John's Plaza

NYS Route 22, North Broadway and Sir Johns Plaza intersects at a signalized intersection. The NYS Route 22 northbound approach consists of two lanes including a shared left/through lane and a separate through lane. The NYS Route 22 southbound approach consists of two lanes including a separate through lane and a shared through/right turn lane. The North Broadway southbound approach consist of one lane for through/right turn movements. The Sir John's Plaza eastbound approach consists of two lanes including separate left and right turn lanes. The New York City Department of Environmental Protection (NYCDEP) is currently improving the intersection of NYS Route 22 and North Broadway/Sir Johns Plaza to include an additional southbound through lane to North Broadway, improved striping,

roadway signs, and an upgraded traffic signal. The NYCDEP is currently updating these plans to address NYSDOT comments. The future No Build and Build analyses contained in the TIS (summarized below) have been analyzed with the proposed lane improvements, improved signing and upgraded traffic signal. The signal timings used in the analysis were optimized based on the projected future traffic volumes.

- **Year 2019 Existing Traffic Volumes**: Capacity analysis conducted utilizing the 2019 existing traffic volumes indicates that this intersection is currently operating at an overall LOS "C" during the weekday AM peak hour, an overall LOS "A" during the weekday midday peak hour, and an overall LOS "C" during the weekday PM peak hour.
- **Year 2024 No Build Traffic Volumes**: Capacity analysis conducted utilizing the 2024 No Build traffic volumes indicates that this intersection is projected to operate at an overall LOS "C" during the weekday AM peak hour, an overall LOS "B" during the weekday midday peak hour, and an overall LOS "C" during the weekday PM peak hour.
- **Year 2024 Build Traffic Volumes:** Capacity analysis conducted utilizing the 2024 Build traffic volumes with the Proposed Project indicates that this intersection is projected to operate at an overall LOS "C" during the weekday AM peak hour, an overall LOS "B" during the weekday midday peak hour, and an overall LOS "C" during the weekday PM peak hour.

10.D.2.o. NYS Route 22/Central Westchester Expressway/Reservoir Road/Church Street

NYS Route 22, Central Westchester Expressway, Reservoir Road, and Church Street intersect at a signalized intersection. The NYS Route 22 northbound approach consists of two lanes including a separate left turn lane and a shared through/right turn lane. The NYS Route 22 southbound approach consists of three lanes including a separate left turn lane, separate through lane and a shared through/right turn lane. The Westchester Expressway northbound approach consist of three lanes including two through lanes and a separate right turn lane. The Reservoir Road westbound approach consists of two lanes in the form of a shared left/through lane and a separate right turn lane. The Church Street approach is one-way westbound.

- **Year 2019 Existing Traffic Volumes**: Capacity analysis conducted utilizing the 2019 existing traffic volumes indicates that this intersection is currently operating at an overall LOS "F" during the weekday AM peak hour, an overall LOS "D" during the weekday midday peak hour, and an overall LOS "F" during the weekday PM peak hour.
- **Year 2024 No Build Traffic Volumes**: Capacity analysis conducted utilizing the 2024 No Build traffic volumes indicates that this intersection is projected to operate at an overall LOS "F" during the weekday AM peak hour, an overall LOS "E" during the weekday midday peak hour, and an overall LOS "F" during the weekday PM peak hour.

- **Year 2024 Build Traffic Volumes**: Capacity analysis conducted utilizing the 2024 Build traffic volumes with the Proposed Project indicates that this intersection is projected to continue to operate at an overall LOS "F" during the weekday AM peak hour, an overall LOS "E" during the weekday midday peak hour, and an overall LOS "F" during the weekday PM peak hour.
- **With Traffic Signal Timing Changes**: As shown on Table 2 of the TIS, improved LOS "E" can be achieved with minor traffic signal timing changes (weekday AM/PM peak hours) for both the No Build and Build conditions. It should be noted that this intersection is currently operating at an unusually high cycle length due to its configuration and phasing.

10.D.3. ACCIDENT PATTERNS

Accident information within the Study Area for a four-year period (January 1, 2015 to December 31, 2018) was obtained from the NYSDOT Records Access Office. As summarized in the TIS, there were zero reportable accidents in 2015, two reportable accidents in 2016, three reportable accidents in 2017, and two reportable accidents in 2018 at the intersection of NYS Route 120, American Lane, and the Project Site's driveway. There were a total of zero reportable accidents in 2015, one reportable accident in 2016, one reportable accident in 2017 and zero reportable accidents in 2018 at the intersection of NYS Route 120 (King Street) and Cooney Hill Road.

A review of the accident data indicates typical types of accidents which include rear-end accidents with apparent contributing factors such as failure to yield right of way, following too closely, and driver inattention. Appendix G of the TIS also contains a copy of the NYSDOT Accident Severity Summary and verbal description reports.

Based on a review of the accident data and the anticipated traffic generation for the Proposed Project, it is expected that the Proposed Project will not have a significant impact on the accident rates on the area roadways.

10.D.4. PARKING IN DOWNTOWN ARMONK

The Town has completed a parking study of the downtown area, titled "Armonk Parking Study – Town of North Castle – Final Report – April 2020," which was prepared by Nelson\Nygaard Consulting Associates, Inc. This study included "four upcoming and potential developments within or near to central Armonk". These developments included Marini Gardens, 162 Bedford Road (Armonk Lumber Yard), 470 Main Street and Eagle Ridge, which is located approximately one-quarter mile south of downtown Armonk along North Castle Road. The study noted that "a senior housing development with 16 units, is also under construction, but far outside of the downtown Armonk area, and is unlikely to have any substantive impact on typical parking demand and patterns, and was therefore excluded from the analysis." It is the Applicant's opinion that this would also be true for both the Proposed Project and the Brynwood Site, which are 2.8 miles and 3.3 miles, respectively from the downtown Armonk area and would, therefore, also not be expected to not have a substantive impact on typical parking demand and patterns.

The Proposed Action, along with other proposed projects near the Hamlet, may create unacceptable traffic, parking and congestion impacts within the Hamlet. The Town's recently accepted Armonk Parking Study indicates that if additional development is to be

approved in the vicinity of the Armonk Hamlet, the Town should explore opportunities to expand the supply of public parking in the Hamlet. The Lead Agency anticipates that a Community Benefit Agreement, or some other mechanism, will be established to financially assist the Town in implementing long-term parking solutions.

10.D.5. PUBLIC TRANSPORTATION

As discussed in the TIS, it is anticipated that the Proposed Project will not have a significant adverse impact on the existing ridership of the Bee-Line Bus service.

10.D.6. SENSITIVITY ANALYSIS

As outlined in the DEIS Scoping Document and based on conversations with the Town's Traffic Consultant, a Sensitivity Analysis by Maser Consulting P.A. to accompany the TIS (as contained in the "Other Analysis Required by Scope" Study revised September 4, 2020), was conducted to take into consideration if the proposed uses would generate at a higher trip generation rate and the future use of autonomous vehicles with the Proposed Action during the Weekday Peak AM, Weekday Peak Midday, and Weekday Peak PM Hours (see **Appendix G-2**). Under the 2024 No Build condition, the anticipated site generated traffic volumes assume the entry and exit volumes are equal for the re-occupancy of the two office buildings thereby essentially doubling the traffic volumes to account for surcharge of autonomous vehicles (see Table 1-S of **Appendix G2**). Under the 2024 Build condition, the ITE rates/anticipated site generated traffic volumes were doubled (see Table 2-S of **Appendix G2**). The resulting Sensitivity Analysis 2024 No Build, site generated, and 2024 Build traffic volumes are shown on TIS (**Appendix G-1**) Figures No. 44, 44A through 45, 45A and the resulting LOS/queue summary tables are shown on Tables 3-S and 4-S of **Appendix G2**, respectively. As shown on Level of Service Summary Table 2-S, similar levels of service and delays will also be experienced under future No Build and Build conditions for the Sensitivity Analysis and the Proposed Project, when compared to the No Build conditions in the future, would not have a significant adverse impact on the area roadways. However as discussed in Section 10.D.2, signal timing adjustments could be implemented to improve future No Build and Build operating conditions, if required by NYSDOT. See Section 10.E for Mitigation Measures for the Proposed Project.

10.D.7. STOPPING SIGHT DISTANCE (SSD) ANALYSIS

Since Cooney Hill Road is a low volume road and access to the Project Site's townhomes will only be provided to Cooney Hill Road, a stopping sight distance plan with profiles for the posted speed limit of 30 mph was prepared and is included as **Figure 10-2**. Based on AASHTO Standards as contained in "A Policy on Geometric Design of Highways and Streets – 2018, 7th Edition" the recommended Stopping Sight Distance (SSD) is 200 feet for the posted speed limit of 30 mph. As depicted on this figure, with the modifications proposed as part of the project, including removal of select trees and relocation of portions of the existing stone wall, the required SSD of 200 feet will be provided, and adequate sight distance would be achieved along Cooney Hill Road.

10.E. MITIGATION MEASURES FOR THE PROPOSED PROJECT (DEIS)

As summarized above and described in further detail in the TIS (see **Appendix G-1**), similar levels of service and delays will be experienced under future No Build and Build conditions. In the Applicant's opinion, the Proposed Project, when compared to the conditions in the Future without the Proposed Project, would not have a significant adverse impact on area roadways. Therefore, no additional mitigation measures are required. However, as discussed above, signal timing adjustments with certain signal modifications could be implemented at four Study Area intersections to improve future No Build and Build operating conditions, if required by NYSDOT.

10.F. POTENTIAL IMPACTS OF, AND MITIGATION FOR, THE PROPOSED ZONING (GEIS)

As described in Chapter 2, "Project Description," the theoretical maximum development scenario under the Proposed Zoning, when accounting for the maximum build-out potential of both the Project Site and the adjacent Swiss Re parcel, is a total of 750 residential units and an 80-room hotel (see **Table 10-2**).

It is important to note that no specific proposal is being made at this time to effectuate the maximum hypothetical development of these two sites and any future plans would be subject to review by the Town, including a full environmental review.

Table 10-2
Maximum Development Potential (Proposed Zoning) Project Site / Swiss Re Parcel

Property	Existing/Approved Floor Area	Conversion Ratio(s) Applied (Proposed Zoning)	Maximum Allowable Floor Area Assumed (Proposed Zoning)
Project Site (113 King Street)	261,000 sf office (existing) + 238,000 sf office (approved/unbuilt)	1:1 existing office to residential + 1:1.25 approved/unbuilt office to residential	558,500 sf residential (~500 units)
Swiss Re Parcel (175 King Street)	360,000 sf office (existing)	1:1 existing office to hotel/residential	110,000 sf hotel (~80 rooms); 250,000 sf residential (~250 units)
Sources: Town of North Castle, Airport Campus I-V LLC, Swiss Re Life and Health America			

10.F.1. TRIP GENERATION (GEIS)

An analysis was completed to estimate the number of weekday AM and PM peak hour trips for a hypothetical maximum buildout of 750 residential units and an 80-room hotel on the Project Site and Swiss Re parcel.

As shown in **Table 10-3**, the conversion to residential/hotel from office under the Proposed Zoning would generate fewer trips than the full occupancy of each site's existing office uses. Therefore, it could be assumed that the Proposed Zoning would not have an adverse impact on Study Area intersections when compared to the Future without the Proposed Zoning.

Table 10-3
GEIS Scenario – Trip Generation

Site / Peak Hour	Trip Generation by Land Use		
	Office (Full Occupancy of Existing Buildings)	**GEIS Residential (750 units)**	**GEIS Hotel (80 rooms)**
Project Site			
Weekday Peak AM Hour	303	230	N/A
Weekday Peak PM Hour	300	280	N/A
Swiss Re Parcel			
Weekday Peak AM Hour	418	115	38
Weekday Peak PM Hour	414	140	48

Source: Maser Consulting P.A.

✷

Table 1-10
Alternatives Impact Comparison

	Proposed Project	No Action – Currently Approved Plan (18.B)*	No Action – Existing Site Conditions (18.C)	Reduced Height Multifamily Option 1 (18.D)	Reduced Height Multifamily Option 2 (18.D)	Static Density (18.E)	Multifamily in Cooney Hill Area (18.F)	Senior Housing (18.G)	Increased Townhome Density (18.H)	Combined (18.I)
Land Use, Zoning, and Public Policy	• Change use of Site from vacant office buildings to a mixed-use development containing office, hotel, and residential uses. • Requires zoning amendment to permit residential and hotel uses. • Proposed 171 dwelling units in multifamily building (149 units) and townhouses (22 units). • Increases allowable height for new buildings that are set back from King Street and screened with vegetation. • Consistent with the 2018 Comprehensive Plan's recommendations that encouraged mixed-use development in office park properties that have become obsolete. Residential and hotel uses were specifically recommended for these properties.	• Construct expansion of office use on Project Site. • No zoning amendment required. • Office expansion not economically viable and does not meet purpose and need of Applicant. • Office expansion is inconsistent with Comprehensive Plan, which encourages developing a mix of uses, including residential and hotel uses, within business park properties.	• Hypothetical scenario where existing office buildings are re-occupied. • Not economically viable and does not meet purpose and need of Applicant. • No zoning amendment required. • Inconsistent with Comprehensive Plan, which encourages developing a mix of uses, including residential and hotel uses, within business park properties.	• Similar mix of uses as Proposed Project. (More townhouses and fewer multifamily units). • Multifamily building limited to 45-feet in height, which in Applicant's opinion is not economically viable for a multifamily building on this Site. • Requires zoning amendment to permit residential and hotel uses. • Consistent with the 2018 Comprehensive Plan's recommendations that encouraged mixed-use development in office park properties. • May require different townhouse setbacks than Proposed Project.	• Similar mix of uses as Proposed Project. (More townhouses and fewer multifamily units). • Multifamily building limited to 4-stories (approximately 67 feet). • Requires zoning amendment to permit residential and hotel uses. • Consistent with the 2018 Comprehensive Plan's recommendations that encouraged mixed-use development in office park properties. • May require different townhouse setbacks than Proposed Project.	• Similar mix of uses as Proposed Project. • Fewer overall units, less residential density permitted. • Requires zoning amendment to permit residential and hotel uses. • Increases allowable height for new buildings that are set back from King Street and screened with vegetation. • Consistent with the 2018 Comprehensive Plan's recommendations that encouraged mixed-use development in office park properties. • May require different townhouse setbacks than Proposed Project.	• Similar program as Proposed Project. • Requires zoning amendment to permit residential and hotel uses. • Increases allowable height for new buildings • Consistent with 2018 Comprehensive Plan. • Townhouses and multifamily building would 'switch' locations on Project Site, requiring a change to townhouse setbacks in Proposed Zoning.	• Multifamily & townhouse units replaced with up to 350 senior housing units in one or more buildings. • Requires zoning amendment to permit residential and hotel uses. • Increases allowable height for new buildings that are set back from King Street and screened with vegetation. • Consistent with the 2018 Comprehensive Plan. • May require different townhouses setbacks than Proposed Project.	• Residential component reduced to 78 townhouse units (no multifamily). • Overall number of residential units would decrease by 93 units. • Requires zoning amendment to permit residential and hotel uses. • Consistent with the 2018 Comprehensive Plan. • May require different townhouses setbacks than Proposed Project.	• Reduced residential density within buildings limited to 45 feet in height. • Limited height of multifamily building is not economically viable, in Applicant's opinion. • Requires zoning amendment to permit residential and hotel uses. • Consistent with the 2018 Comprehensive Plan.
Geology, Soils, and Topography	• 760,625 sf of Site disturbance. • Majority of disturbance within PnB soil type, "Paxton fine sandy loam, 2 to 8 percent slopes," which is appropriate for proposed development. • No impacts to Town-regulated steep slopes. • Limited blasting may be required for excavation of portion of multifamily parking structure. Code-compliant blasting protocol would be implemented. • Implementation of Town approved Stormwater Pollution Prevention Plan (SWPPP) and Erosion and Sediment Control Plan (ESCP) during construction. • No significant adverse impacts to on-Site geology, soils, topography.	• Majority of disturbance within PnB soil type, "Paxton fine sandy loam, 2 to 8 percent slopes," which is appropriate for proposed development. • No impacts to Town-regulated steep slopes. • Blasting may be required for office expansion, parking structure, service building. Code-compliant blasting protocol would be implemented. • SWPPP and ESCP implementation during construction.	• No impacts to geology, soils and topography.	• Similar to Proposed Project • Additional site grading and disturbance due to increased number of townhomes in northern portion of the Project Site.	• Similar to Proposed Project • Additional site grading and disturbance due to increased number of townhomes in northern portion of the Project Site.	• Similar to Proposed Project	• Similar to Proposed Project • Additional site grading and disturbance due to additional paved surfaces necessary to provide adequate circulation between uses.	• Similar to Proposed Project • Additional site grading and disturbance possible due to increased residential density.	• Similar to Proposed Project • Additional site grading and disturbance to accommodate more townhomes than Proposed Project.	• Similar to Proposed Project
Wetlands	• No direct impacts to the on-site wetlands. • 0.19 acre impact to Town-regulated wetland buffer by emergency access drive (gravel) • No significant impact to wetland hydrology from regrading. • Mitigation includes wetland buffer enhancement through proposed landscaping plan.	• No direct impacts to the on-site wetlands. • 1.0 acre impact to Town-regulated wetland buffer by driveway, parking structure, stormwater basin, and mulched walking trail. • No significant impact to wetland hydrology from regrading. • Mitigation includes wetland buffer enhancement through proposed landscaping plan.	• No new impacts to wetlands or wetland buffers. • No enhanced wetland buffer plantings.	• Similar to Proposed Project	• Similar to Proposed Project	• Similar to Proposed Project	• Potential for more wetland buffer impacts from wider access drives necessary to provide adequate circulation between uses.	• Dependent on potential site plan.	• Potential for more wetland buffer impacts from wider access drives necessary to provide adequate circulation between uses.	• Similar to Proposed Project
Vegetation and Wildlife	• Habitat and wildlife on-Site is typical of suburban environments, consisting of species relatively tolerant to humans. • No evidence of threatened or endangered species (TES) on-Site. • Temporary construction impacts to low-quality habitat. • Seasonally-defined limits on certain activities to avoid potential impacts to TES with a potential to occur on-Site. • Removal of 368 Town-regulated trees. • Landscaping program includes planting of 422 new native trees. • Project Site's existing Integrated Pest Management (IPM) plan would be expanded to cover new project.	• Similar impacts to vegetation and wildlife as Proposed Project. • Landscaping plan proposed, some of which has already been implemented (e.g., vegetated berm along King Street). • Project Site's existing IPM plan would be expanded to cover new project.	• No tree removal or new tree planting. • Existing low quality habitat to remain. • Existing IPM to remain.	• Similar to Proposed Project • Encroachment of additional townhomes into revocable Conservation Easement area, but may not be significant impact	• Similar to Proposed Project and Reduced Height Multifamily Option 1 • Encroachment of additional townhomes into revocable Conservation Easement area, but may not be significant impact	• Similar to Proposed Project	• Similar to Proposed Project • Encroachment of relocated multifamily building into revocable Conservation Easement area, but may not be significant impact	• Similar to Proposed Project	• Similar to Proposed Project • Encroachment of additional townhomes into irrevocable Conservation Easement area, but may not be significant impact	• Similar to Proposed Project, Option 1 of Reduced Height Multifamily alternative and Static Density alternative.

Table 1-10 (cont'd)
Alternatives Impact Comparison

	Proposed Project	No Action – Currently Approved Plan (18.B)*	No Action – Existing Site Conditions (18.C)	Reduced Height Multifamily Option 1 (18.D)	Reduced Height Multifamily Option 2 (18.D)	Static Density (18.E)	Multifamily in Cooney Hill Area (18.F)	Senior Housing (18.G)	Increased Townhome Density (18.H)	Combined (18.I)
Stormwater Management	• 9.96 acres of impervious coverage. • Stormwater management program to reduce rate and volume of runoff for all modeled storms. • Modifications to currently approved development plan's SWPPP subject to Town and NYCDEP approval.	• 10.51 of impervious coverage • 0.55 acres more than Proposed Project • Stormwater management program to reduce rate and volume of runoff for all modeled storms. • Town and NYCDEP-approved SWPPPs remain in full effect.	• No changes to existing condition.	• 12.76 of impervious coverage, 2.8 acres more than Proposed Project • A larger area of disturbance due to the increased footprint of the townhome development area, resulting in additional stormwater management systems.	• 10.42 of impervious coverage, 0.46 acres more than Proposed Project • Increase in driveway length in the northern portion of the Project Site to accommodate the seven additional townhomes • A larger area of disturbance due to the increased footprint of the townhome development area.	• Similar to Proposed Project	• 10.48 acres of impervious coverage, 0.52 acres more than Proposed Project. • Increased disturbance and new impervious surfaces closer to NYCDEP-owned reservoir lands in the northern portion of the Project Site.	• Increase in site disturbance and overall impervious land coverage likely when compared to the Proposed Project	• 11.70 acres of impervious coverage, 1.74 acres more than Proposed Project • Increased disturbance and new impervious surfaces closer to NYCDEP-owned reservoir lands in the northern portion of the Project Site	• Similar to Proposed Project, Option 1 of Reduced Height Multifamily alternative and Static Density alternative.
Utilities	• Water/sewer demand of 58,600 gallons per day (gpd) • On-Site wells can provide adequate water capacity for Proposed Project. • North Castle Sewer District 3 infrastructure currently designed to handle cumulative flows from existing development and the Proposed Project. • Minor improvements to North Castle Sewer District 3 Pump Station Nos. 2 and 3 to correct existing deficiency.	• Water/sewer demand of 70,900 gpd, which is 12,300gpd more than Proposed Project. • SEQRA Statement of Findings notes up to three or more additional wells may be required to meet demand.	• Water/sewer demand of 26,100 gpd, which is 32,500 gpd less than Proposed Project. • Existing water and sewer system are adequate to meet demand.	• Water/sewer demand of approximately 58,710 gpd, 110 gpd more than Proposed Project. • Measures similar to those identified for the Proposed Project would meet demand.	Similar to Proposed Project	• Water/Sewer demand of approximately 53,320 gpd, which is 5,280 gpd less than Proposed Project. • Measures similar to those identified for the Proposed Project would meet demand.	• Similar to Proposed Project	• Water/sewer demand of approximately 84,180 gpd, which is 25,580 gpd more than Proposed Project. • Additional on-Site water capacity required to meet need.	• Water/sewer demand of approximately 49,690 gpd, which is 8,910 gpd less than Proposed Project. • Measures similar to those identified for the Proposed Project would meet demand.	• Water/sewer demand between 53,320 and 58,710 gpd. • Measures similar to those identified for the Proposed Project would meet demand.

Traffic and Transportation	• 253 AM Peak Hour Trips
	• 136 Midday Peak Hour Trips
	• 285 PM Peak Hour Trips
	• Similar levels of service and delays experienced at study area intersections as No-Build condition.
	• Signal re-timings with certain signal modifications at certain intersections could improve current and future operating conditions.
	• No significant impacts to public transportation.
		• 441 Peak AM Hour Trips
		  • 222 at Cooney Hill Road
		  • 219 at Main Site Driveway
		• 401 Peak PM Hour Trips
		  • 165 at Cooney Hill Road
		• 236 at Main Site Driveway
			• 303 AM peak hour trips
			• 152 midday peak hour trips
			• 300 PM peak hour trips
			• No changes to existing roadway conditions or Site access.
			• No significant impacts to public transportation.
				• 239 AM peak hour trips
				• 128 midday peak hour trips
				• 268 PM peak hour trips
				• Similar impacts as Proposed Project.
					• 250 AM peak hour trips
					• 136 midday peak hour trips
					• 281 PM peak hour trips
					• Similar impacts as Proposed Project.
						• Similar to Option 1 of Reduced Height Multifamily alternative.
						• 239 AM peak hour trips
						• 128 midday peak hour trips
						• 267 PM peak hour trips
							• Similar to Proposed Project
							• 253 AM peak hour trips
							• 136 midday peak hour trips
							• 285 PM peak hour trips
							• More trips likely accessing Site via Cooney Hill Road than Proposed Project.
								• 245 AM peak hour trips
								• 172 midday peak hour trips
								• 281 PM peak hour trips
								• More trips in midday than Proposed Project (36)
								• Similar impacts as Proposed Project.
									• 211 AM peak hour trips
									• 112 midday peak hour trips
									• 234 PM peak hour trips
									• Fewer trips than Proposed Project in AM (42), midday (24) and PM (51)
										• Similar to Option 1 of Reduced Height Multifamily alternative and Static Density alternative.
										• 239 AM peak hour trips
										• 128 midday peak hour trips
										• 268 PM peak hour trips

Visual and Community Character	• Proposed uses (office, hotel, residential) consistent with surrounding land uses, zoning, and 2018 Comprehensive Plan. • Approximately 78-foot tall multifamily building visible through intervening vegetation in leaf-off conditions. • Visibility limited to motorists driving on King Street. • Existing vegetated berm screens view of townhomes and other site improvements • No off-Site impacts from lighting plan • Landscape plan includes retaining and enhancing vegetated berm along Site's King Street frontage.	• Proposed uses consistent with existing use. • Inconsistent with Comprehensive Plan. • Approved 5-story parking structure visible to motorists driving on King Street. Located in similar area of Site as proposed multifamily building. • Landscape plan proposed plantings around 3 Cooney Hill Road and landscaped berms along King Street. This plan was implemented and is reflected in the Site's existing condition.	• No changes to existing condition.	• Proposed uses consistent with surrounding uses and Comprehensive Plan. • Views of 45-foot tall multifamily building similar to Proposed Project during leaf-off conditions. Visibility limited to motorists along certain areas of King Street. • Townhomes, set back more than 65 feet but less than the 200 feet contemplated by the Proposed Zoning are visible through intervening vegetation during leaf-off condition. Visibility is limited and would not cause a significant adverse impact. • Landscape plan similar in scope and impacts to Proposed Project.	• Proposed uses consistent with surrounding uses and Comprehensive Plan. • View of 67-foot tall multifamily building Similar to Proposed Project The minor reduction in height is not significant. • Townhomes, set back between 65 feet and 200 are visible through intervening vegetation during leaf-off condition. Visibility is limited and would not cause a significant adverse impact. • Landscape plan similar in scope and impacts to Proposed Project.	• Similar to Option 2 of Reduced Height Multifamily alternative.	• Multifamily building townhomes switch locations on the Site • Townhomes, set back between 65 feet and 200 are visible through intervening vegetation during leaf-off condition. Visibility is limited and would not cause a significant adverse impact. • Small portion of multifamily building roofline would be visible from Vantage Point 1 during leaf-off conditions • Landscape plan similar in scope and impacts to Proposed Project.	• Similar to Option 1 and 2 of Reduced Height Multifamily alternative.	• Townhomes, set back between 65 feet and 200 are visible through intervening vegetation during leaf-off condition. Visibility is limited and would not cause a significant adverse impact. • No multifamily building proposed. • Landscape plan similar in scope and impacts to Proposed Project.	• Similar to Option 1 of Reduced Height Multifamily alternative.
Community Facilities	• 27 public school-age children (PSAC) anticipated with Proposed Project; 1-2 per grade. Additional staff not anticipated to meet need. Additional cost would be offset by property tax revenue. • Increased police services likely to be offset by additional property and hotel tax revenue. • Up to 55 new fire and EMS calls predicted by Armonk Fire Department (AFD). Additional tax revenue expected to offset increased demand. Potential need for a ladder truck to serve Project identified by AFD.	• No PSAC. • Additional demand for emergency services generated by office expansion. Emergency service providers indicated additional demand could be accommodated. • On-Site amenities for office workers.	• No changes to existing condition.	• Similar to Proposed Project	• 26 PSAC. • Similar impacts and mitigation to Proposed Project.	• 22 PSAC. • Similar impacts and mitigation to Proposed Project.	• Similar to Proposed Project	• No PSAC. • Additional EMS calls likely with senior living alternative. • Operational policies of senior living facility likely to mitigate unnecessary EMS calls. • Property tax revenue expected to offset cost of increased demand for community services.	• 22 PSAC • Similar impacts and mitigation to Proposed Project.	• Same as Static Density alternative.

Table 1-7 (cont'd)
Alternatives Impact Comparison

	Proposed Project	No Action – Currently Approved Plan (18.B)*	No Action – Existing Site Conditions (18.C)	Reduced Height Multifamily Option 1 (18.D)	Reduced Height Multifamily Option 2 (18.D)	Static Density (18.E)	Multifamily in Cooney Hill Area (18.F)	Senior Housing (18.G)	Increased Townhome Density (18.H)	Combined (18.I)

Fiscal and Market Impacts	• Assessed value of, and property taxes generate by, Project Site expected to decline without redevelopment.
	• Market demand for residential and hotel uses in the Town.
	• Construction would generate $170.65 mm in total economic output and 821 person-years of employment.
	• Annual property and hotel taxes estimated at $1.97mm, increase of $755,728 from current condition.
	  • $1.09mm to School District ($0.29mm increase)
	  • $352k to Town ($229k increase)
	  • $22.6k to fire & ambulance district ($8.2k increase)
		• It is noted that construction of this alternative is not economically viable.
		• Additional demand for police, fire, and ambulance services
		• No additional demand for school services
			• Likelihood of decreased property tax revenue owing to continued vacancy of Project Site.	• Similar to Proposed Project
				• Likely fewer construction- and operational-period economic benefits owing to reduced program.
					• Similar to Proposed Project
					• Likely fewer construction- and operational-period economic benefits owing to reduced program.
						• Similar to Proposed Project
						• Likely fewer construction- and operational-period economic benefits owing to reduced program.
							• Similar to Proposed Project	• Similar to Proposed Project	• Similar to Proposed Project
									• Likely fewer construction- and operational-period economic benefits owing to reduced program.
										• Similar to Option 1 of Reduced Height Multifamily alternative and Static Density alternative.

Historic Resources	• No impacts to historic (architectural) resources. • Phase 1B archaeological testing in previously undisturbed areas and consultation with State based on final site plan.	• Same as Proposed Project	• Same as Proposed Project	• Same as Proposed Project	• Same as Proposed Project	• Same as Proposed Project	• Same as Proposed Project	• Same as Proposed Project	• Same as Proposed Project	• Same as Proposed Project
Air Quality	• No significant adverse impact from mobile or stationary sources.	• Similar to Proposed Project	• No changes to existing condition.	• Similar to Proposed Project	• Similar to Proposed Project	• Similar to Proposed Project	• Similar to Proposed Project	• Similar to Proposed Project	• Similar to Proposed Project	• Similar to Proposed Project
Noise	• No significant adverse impact from mobile or stationary sources.	• Similar to Proposed Project	• No changes to existing condition.	• Similar to Proposed Project	• Similar to Proposed Project	• Similar to Proposed Project	• Similar to Proposed Project	• Similar to Proposed Project	• Similar to Proposed Project	• Similar to Proposed Project

Construction Impacts	• Four phases of construction proposed: Hotel phase (8-12 months), Townhome phase (12-15 months), Multifamily phase (18-24 months), Parking lot expansion phase (3-4 months).
	• Estimated 200 construction workers utilized over the life of the project (no more than 35 on-site at any one time).
	• Parking and staging provided on-Site for construction workers and equipment. No parking, queuing, or staging on King Street or Cooney Hill Road.
	• No impacts to study area intersections from construction traffic.
	• Construction limited to days and hours permitted by Town Code: 7:30 AM–7:00 PM during the week and from 9:00 AM–5:00 PM on weekends and legal holidays.
	• Construction Management Plan (CMP) prepared during Site Plan to codify construction-period coordination and mitigation, including:
	  • Town-approved Erosion and Sediment Control Plan (ESCP) to prevent off-Site stormwater impacts.
	  • Fugitive dust and construction vehicle emission reduction measures.
	  • Construction sequencing plan.
	  • Construction period traffic management plan.
	  • Blasting protocol and mitigation measures, if blasting is necessary.
	  • Plan to address unforeseen subsurface conditions (e.g., tanks)
	• To extent practicable, would locate noisy equipment away from 3 Cooney Hill Road. Potential exists for temporary, unavoidable construction-period noise impact to this residence. Proposed Project contemplates townhouses in this area, which requires less intensive construction than other project components.
		• Similar to Proposed Project
		• Potential for additional blasting for parking structure.
		• Meeting House construction in similar location as Proposed Project's townhouses, resulting in similar impacts to 3 Cooney Hill Road.
			• No changes to existing condition.
			• Construction possible with renovation of existing office buildings.
				• Similar to Proposed Project
				• Potential for slightly shorter construction duration for multifamily building.
					• Similar to Proposed Project
					• Potential for slightly shorter construction duration for multifamily building.
						• Similar to Proposed Project
						• Potential for slightly shorter construction duration for multifamily building.
							• Similar nature and duration of impacts to Proposed Project.
							• More intensive construction (i.e., multifamily) closer to 3 Cooney Hill Road.
								• Dependent on Site Plan and final program.
								• Likely similar in nature and duration of potential impacts to Proposed Project.
									• More construction proximate to 3 Cooney Hill Road.
									• Blasting would not be anticipated.
										• Similar to Proposed Project, Option 1 of Reduced Height Multifamily alternative and Static Density alternative.

Note: The summary of impacts for the Project Site's currently approved development plan have been based on what was disclosed within the previously completed and approved Draft Environmental Impact Statement (2002), Final Environmental Impact Statement (2003), and Statement of Findings (2004), which analyzed the potential impacts of redeveloping the Project Site with expanded office uses (see **Appendix A-4**).

TABLE NO. 3

LEVEL OF SERVICE SUMMARY TABLE

	LOCATION		YEAR 2019 EXISTING									YEAR 2024 NO-BUILD									YEAR 2024 BUILD								
			WEEKDAY AM			WEEKDAY MIDDAY			WEEKDAY PM			WEEKDAY AM			WEEKDAY MIDDAY			WEEKDAY PM			WEEKDAY AM			WEEKDAY MIDDAY			WEEKDAY PM		
			LOS	DELAY	V/C	LOS	DELAY	V/C	LOS	DELAY	V/C	LOS	DELAY	V/C	LOS	DELAY	V/C	LOS	DELAY	V/C	LOS	DELAY	V/C	LOS	DELAY	V/C	LOS	DELAY	V/C
1	NYS ROUTE 22 & NYS ROUTE 120 (NORTH)																											
	SIGNALIZED																											
	NYS ROUTE 22	NB L	D	48.1	0.60	C	27.4	0.40	F	146.1	1.21	D	51.1	0.64	C	30.9	0.46	F	270.4	1.51	D	51.0	0.65	C	30.8	0.46	F	250.4	1.46
		NB T	B	13.3	0.28	A	7.6	0.17	A	9.2	0.29	B	12.8	0.29	A	8.1	0.20	B	10.7	0.37	B	12.9	0.29	A	8.1	0.20	B	10.5	0.36
		NB APPROACH	**C**	**22.4**	**----**	**B**	**13.9**	**----**	**E**	**79.4**	**----**	**C**	**23.0**	**----**	**B**	**15.2**	**----**	**F**	**139.1**	**----**	**C**	**23.1**	**----**	**B**	**15.2**	**----**	**F**	**129.4**	**----**
	NYS ROUTE 22	SB T	D	39.0	0.70	C	25.3	0.39	D	41.4	0.71	D	45.9	0.84	C	27.5	0.46	D	44.3	0.76	D	44.6	0.82	C	27.4	0.46	D	44.5	0.77
		SB R	A	0.2	0.14	A	0.2	0.15	A	0.8	0.40	A	0.2	0.16	A	0.3	0.17	A	0.9	0.43	A	0.2	0.16	A	0.3	0.17	A	0.9	0.43
		SB APPROACH	**C**	**29.7**	**----**	**B**	**14.4**	**----**	**C**	**21.6**	**----**	**D**	**36.0**	**----**	**B**	**16.3**	**----**	**C**	**23.4**	**----**	**C**	**34.7**	**----**	**B**	**16.3**	**----**	**C**	**23.6**	**----**
	NYS ROUTE 120	SEB L	E	60.0	0.92	C	27.6	0.46	D	48.1	0.69	F	91.7	1.05	C	31.0	0.51	D	50.7	0.73	F	91.0	1.05	C	30.9	0.51	D	50.9	0.73
		SEB R	A	1.1	0.47	A	0.2	0.12	A	0.2	0.15	A	1.7	0.57	A	0.2	0.14	A	0.2	0.17	A	1.5	0.55	A	0.2	0.14	A	0.2	0.17
		SEB APPROACH	**C**	**26.1**	**----**	**B**	**13.6**	**----**	**C**	**25.8**	**----**	**D**	**37.1**	**----**	**B**	**15.0**	**----**	**C**	**27.5**	**----**	**D**	**37.5**	**----**	**B**	**15.0**	**----**	**C**	**27.3**	**----**
		OVERALL	**C**	**26.3**	**----**	**B**	**14.0**	**----**	**D**	**46.8**	**----**	**C**	**33.5**	**----**	**B**	**15.6**	**----**	**E**	**76.8**	**----**	**C**	**33.2**	**----**	**B**	**15.6**	**----**	**E**	**71.3**	**----**
	W/ SIGNAL TIMING CHANGES																											
	NYS ROUTE 22	NB L	--	----	----	--	----	----	--	----	----	D	51.5	0.65	--	----	----	F	188.0	1.32	D	51.6	0.65	--	----	----	F	170.8	1.28
		NB T	--	----	----	--	----	----	--	----	----	B	15.0	0.31	--	----	----	B	10.3	0.36	B	15.0	0.31	--	----	----	B	10.1	0.35
		NB APPROACH	--	----	----	--	----	----	--	----	----	**C**	**24.7**	**----**	--	----	----	**F**	**98.2**	**----**	**C**	**24.8**	**----**	--	----	----	**F**	**89.8**	**----**
	NYS ROUTE 22	SB T	--	----	----	--	----	----	--	----	----	E	58.9	0.94	--	----	----	D	54.0	0.85	D	54.5	0.90	--	----	----	D	54.6	0.86
		SB R	--	----	----	--	----	----	--	----	----	A	0.2	0.16	--	----	----	A	0.9	0.43	A	0.2	0.16	--	----	----	A	0.9	0.43
		SB APPROACH	--	----	----	--	----	----	--	----	----	**D**	**46.2**	**----**	--	----	----	**C**	**28.4**	**----**	**D**	**42.4**	**----**	--	----	----	**C**	**28.9**	**----**
	NYS ROUTE 120	SEB L	--	----	----	--	----	----	--	----	----	E	64.3	0.95	--	----	----	D	54.9	0.76	E	64.9	0.95	--	----	----	D	54.9	0.76
		SEB R	--	----	----	--	----	----	--	----	----	A	1.7	0.57	--	----	----	A	0.2	0.17	A	1.5	0.55	--	----	----	A	0.2	0.17
		SEB APPROACH	--	----	----	--	----	----	--	----	----	**C**	**26.4**	**----**	--	----	----	**C**	**29.8**	**----**	**C**	**27.0**	**----**	--	----	----	**C**	**29.5**	**----**
		OVERALL	--	----	----	--	----	----	--	----	----	**C**	**32.7**	**----**	--	----	----	**E**	**60.4**	**----**	**C**	**31.6**	**----**	--	----	----	**E**	**56.1**	**----**
2	NYS ROUTE 22 & NYS ROUTE 120 (SOUTH)																											
	SIGNALIZED																											
	NYS ROUTE 22	NB T	C	26.4	0.59	B	17.6	0.32	C	28.0	0.65	D	35.8	0.70	B	19.2	0.37	C	30.9	0.68	D	35.6	0.70	B	19.2	0.37	C	31.0	0.68
		NB R	A	9.1	0.21	A	2.5	0.05	A	1.9	0.03	B	16.7	0.31	A	2.4	0.07	A	1.8	0.04	B	16.2	0.30	A	2.4	0.07	A	1.8	0.04
		NB APPROACH	**C**	**22.1**	**----**	**B**	**15.2**	**----**	**C**	**26.7**	**----**	**C**	**30.5**	**----**	**B**	**16.4**	**----**	**C**	**29.3**	**----**	**C**	**30.3**	**----**	**B**	**16.4**	**----**	**C**	**29.3**	**----**
	NYS ROUTE 22	SB L	C	24.9	0.70	B	17.1	0.23	C	30.8	0.40	C	24.2	0.72	B	19.1	0.35	C	34.7	0.48	C	23.3	0.68	B	19.1	0.35	C	34.7	0.50
		SB T	A	5.1	0.29	A	4.5	0.11	B	10.6	0.37	A	4.3	0.28	A	5.2	0.14	B	12.0	0.40	A	4.4	0.28	A	5.2	0.14	B	11.9	0.40
		SB APPROACH	**B**	**15.6**	**----**	**A**	**9.7**	**----**	**B**	**15.8**	**----**	**B**	**16.2**	**----**	**B**	**11.8**	**----**	**B**	**18.3**	**----**	**B**	**15.4**	**----**	**B**	**11.7**	**----**	**B**	**18.4**	**----**
	NYS ROUTE 120	WB L-R	C	30.3	0.16	B	19.0	0.11	C	31.7	0.68	D	37.4	0.23	B	19.9	0.13	C	34.5	0.72	D	37.5	0.24	B	19.9	0.13	C	34.8	0.72
		WB APPROACH	**C**	**30.3**	**----**	**B**	**19.0**	**----**	**C**	**31.7**	**----**	**D**	**37.4**	**----**	**B**	**19.9**	**----**	**C**	**34.5**	**----**	**D**	**37.5**	**----**	**B**	**19.9**	**----**	**C**	**34.8**	**----**
		OVERALL	**B**	**17.9**	**----**	**B**	**12.3**	**----**	**C**	**22.2**	**----**	**C**	**20.7**	**----**	**B**	**13.8**	**----**	**C**	**24.8**	**----**	**C**	**20.2**	**----**	**B**	**13.8**	**----**	**C**	**24.8**	**----**
3	KING STREET & OLD POST ROAD																											
	UNSIGNALIZED																											
	OLD POST ROAD	WB T-R	A	9.4	0.040	A	9.3	0.018	C	15.6	0.167	A	9.7	0.044	A	9.7	0.021	C	22.0	0.250	A	9.8	0.044	A	9.7	0.021	C	20.4	0.231
4	NYS ROUTE 120 & SWISS RE DRIVEWAY / IBM DRIVEWAY																											
	SIGNALIZED																											
	SWISS RE DRIVEWAY	EB L-T	C	28.2	0.07	C	25.4	0.05	D	38.2	0.52	C	29.8	0.12	C	26.3	0.09	D	44.6	0.74	C	29.8	0.12	C	26.3	0.09	D	44.6	0.74
		EB R	A	1.2	0.06	A	0.3	0.04	A	6.1	0.19	A	4.8	0.11	A	4.5	0.09	A	4.0	0.26	A	4.8	0.11	A	4.5	0.09	A	4.0	0.26
		EB APPROACH	**B**	**14.7**	**----**	**B**	**12.9**	**----**	**C**	**24.8**	**----**	**B**	**16.7**	**----**	**B**	**15.4**	**----**	**C**	**27.7**	**----**	**B**	**16.7**	**----**	**B**	**15.4**	**----**	**C**	**27.7**	**----**
	IBM DRIVEWAY	WB L-T	C	27.5	0.02	C	25.3	0.03	C	29.3	0.16	C	28.5	0.02	C	26.2	0.03	C	25.7	0.11	C	28.5	0.02	C	26.2	0.03	C	25.7	0.11
		WB R	A	0.0	0.01	A	0.2	0.02	A	5.2	0.06	A	0.0	0.01	A	0.2	0.02	A	4.3	0.04	A	0.0	0.01	A	0.2	0.02	A	4.3	0.04
		WB APPROACH	**B**	**15.7**	**----**	**B**	**15.3**	**----**	**B**	**18.4**	**----**	**B**	**16.3**	**----**	**B**	**15.8**	**----**	**B**	**16.0**	**----**	**B**	**16.3**	**----**	**B**	**15.8**	**----**	**B**	**16.0**	**----**
	NYS ROUTE 120	NB L	A	2.3	0.15	A	1.8	0.01	A	4.9	0.03	A	5.3	0.42	A	1.9	0.02	A	8.1	0.08	A	4.1	0.37	A	1.9	0.02	A	8.1	0.08
		NB T	A	4.2	0.19	A	2.9	0.15	C	22.6	0.81	A	4.3	0.22	A	3.1	0.19	F	108.8	1.17	A	4.4	0.23	A	3.1	0.18	F	84.7	1.11
		NB R	A	0.0	0.02	A	0.0	0.00	A	0.0	0.00	A	0.0	0.02	A	0.0	0.00	A	0.0	0.00	A	0.0	0.02	A	0.0	0.00	A	0.0	0.00
		NB APPROACH	**A**	**3.5**	**----**	**A**	**2.8**	**----**	**C**	**22.2**	**----**	**A**	**4.4**	**----**	**A**	**3.0**	**----**	**F**	**105.6**	**----**	**A**	**4.0**	**----**	**A**	**3.0**	**----**	**F**	**82.1**	**----**
	NYS ROUTE 120	SB L	A	2.0	0.03	A	2.0	0.00	A	5.0	0.00	A	2.4	0.03	A	2.2	0.00	A	8.0	0.01	A	2.4	0.03	A	2.2	0.00	A	8.0	0.01
		SB T	A	8.6	0.54	A	2.9	0.13	B	10.8	0.22	B	15.8	0.75	A	4.1	0.18	B	16.7	0.34	B	13.9	0.70	A	4.1	0.18	B	16.9	0.36
		SB R	A	2.4	0.13	A	0.0	0.01	A	0.0	0.01	A	3.7	0.28	A	0.6	0.03	A	0.0	0.01	A	3.4	0.28	A	0.6	0.03	A	0.0	0.01
		SB APPROACH	**A**	**7.3**	**----**	**A**	**2.6**	**----**	**B**	**10.5**	**----**	**B**	**12.5**	**----**	**A**	**3.6**	**----**	**B**	**16.0**	**----**	**B**	**10.8**	**----**	**A**	**3.6**	**----**	**B**	**16.3**	**----**
		OVERALL	**A**	**6.4**	**----**	**A**	**3.3**	**----**	**C**	**20.4**	**----**	**B**	**10.3**	**----**	**A**	**4.2**	**----**	**E**	**73.8**	**----**	**A**	**9.0**	**----**	**A**	**4.2**	**----**	**E**	**58.1**	**----**
	W/ SIGNAL TIMING CHANGES																											
	SWISS RE DRIVEWAY	EB L-T	--	----	----	--	----	----	--	----	----	--	----	----	--	----	----	D	48.2	0.75	--	----	----	--	----	----	D	48.2	0.75
		EB R	--	----	----	--	----	----	--	----	----	--	----	----	--	----	----	A	4.3	0.27	--	----	----	--	----	----	A	4.3	0.27
		EB APPROACH	--	----	----	--	----	----	--	----	----	--	----	----	--	----	----	**C**	**29.9**	**----**	--	----	----	--	----	----	**C**	**29.9**	**----**
	IBM DRIVEWAY	WB L-T	--	----	----	--	----	----	--	----	----	--	----	----	--	----	----	C	27.9	0.11	--	----	----	--	----	----	C	27.9	0.11
		WB R	--	----	----	--	----	----	--	----	----	--	----	----	--	----	----	A	4.7	0.05	--	----	----	--	----	----	A	4.7	0.05
		WB APPROACH	--	----	----	--	----	----	--	----	----	--	----	----	--	----	----	**B**	**17.3**	**----**	--	----	----	--	----	----	**B**	**17.3**	**----**
	NYS ROUTE 120	NB L	--	----	----	--	----	----	--	----	----	--	----	----	--	----	----	A	8.1	0.08	--	----	----	--	----	----	A	8.1	0.08
		NB T	--	----	----	--	----	----	--	----	----	--	----	----	--	----	----	F	95.1	1.14	--	----	----	--	----	----	E	72.7	1.08
		NB R	--	----	----	--	----	----	--	----	----	--	----	----	--	----	----	A	0.0	0.00	--	----	----	--	----	----	A	0.0	0.00
		NB APPROACH	--	----	----	--	----	----	--	----	----	--	----	----	--	----	----	**F**	**92.3**	**----**	--	----	----	--	----	----	**E**	**70.5**	**----**
	NYS ROUTE 120	SB L	--	----	----	--	----	----	--	----	----	--	----	----	--	----	----	A	9.0	0.01	--	----	----	--	----	----	A	9.0	0.01
		SB T	--	----	----	--	----	----	--	----	----	--	----	----	--	----	----	B	16.2	0.32	--	----	----	--	----	----	B	16.5	0.34
		SB R	--	----	----	--	----	----	--	----	----	--	----	----	--	----	----	A	0.0	0.01	--	----	----	--	----	----	A	0.0	0.01
		SB APPROACH	--	----	----	--	----	----	--	----	----	--	----	----	--	----	----	**B**	**15.6**	**----**	--	----	----	--	----	----	**B**	**15.9**	**----**
		OVERALL	--	----	----	--	----	----	--	----	----	--	----	----	--	----	----	**E**	**65.9**	**----**	--	----	----	--	----	----	**D**	**51.6**	**----**

TABLE NO. 3

LEVEL OF SERVICE SUMMARY TABLE

	LOCATION		YEAR 2019 EXISTING									YEAR 2024 NO-BUILD									YEAR 2024 BUILD								
			WEEKDAY AM			WEEKDAY MIDDAY			WEEKDAY PM			WEEKDAY AM			WEEKDAY MIDDAY			WEEKDAY PM			WEEKDAY AM			WEEKDAY MIDDAY			WEEKDAY PM		
			LOS	DELAY	V/C	LOS	DELAY	V/C	LOS	DELAY	V/C	LOS	DELAY	V/C	LOS	DELAY	V/C	LOS	DELAY	V/C	LOS	DELAY	V/C	LOS	DELAY	V/C	LOS	DELAY	V/C
5	NYS ROUTE 120 & AMERICAN LANE (N)																											
	UNSIGNALIZED																											
	NYS ROUTE 120	SB L-T	A	8.5	0.141	A	7.7	0.025	A	10.0	0.012	A	9.0	0.163	A	7.9	0.029	B	11.1	0.015	A	9.0	0.165	A	7.9	0.029	B	10.7	0.014
	AMERICA LANE (N)	WB L	C	23.6	0.052	B	11.2	0.018	C	20.7	0.029	D	34.7	0.088	B	12.5	0.024	D	29.6	0.045	D	32.4	0.082	B	12.4	0.023	D	28.0	0.042
	AMERICA LANE (N)	WB R	B	10.5	0.016	A	9.5	0.061	C	20.6	0.390	B	11.4	0.020	A	9.9	0.071	D	31.5	0.540	B	11.5	0.021	A	9.9	0.070	D	27.6	0.499
6	NYS ROUTE 120 & COONEY HILL ROAD																											
	UNSIGNALIZED																											
	NYS ROUTE 120	NB L-T	A	0.0	0.000	A	0.0	0.000	A	0.0	0.000	A	0.0	0.000	A	0.0	0.000	A	0.0	0.000	A	8.9	0.001	A	7.8	0.001	A	8.5	0.007
	COONEY HILL ROAD	EB L-R	C	18.8	0.008	B	11.4	0.004	D	30.4	0.008	D	27.0	0.013	B	13.0	0.005	F	50.7	0.015	C	20.8	0.044	B	12.3	0.011	D	27.1	0.036
7	NYS ROUTE 120 & 113 KING STREET DRIVEWAY / AMERICAN LANE (S)																											
	SIGNALIZED																											
	NYS ROUTE 120	NWB L	A	4.5	0.00	A	0.0	0.00	A	0.0	0.00	A	6.9	0.34	A	4.5	0.05	A	4.6	0.05	A	5.6	0.21	A	4.5	0.04	A	5.2	0.16
		NWB T	A	6.4	0.32	A	5.2	0.16	B	13.0	0.73	A	7.2	0.41	A	5.3	0.18	B	15.6	0.79	A	7.2	0.41	A	5.4	0.19	B	15.9	0.80
		NWB R	A	1.1	0.15	A	1.7	0.02	A	1.6	0.02	A	1.1	0.16	A	1.7	0.02	A	1.7	0.02	A	1.1	0.16	A	1.7	0.02	A	1.7	0.02
		NWB APPROACH	**A**	**4.8**	**----**	**A**	**4.9**	**----**	**B**	**12.8**	**----**	**A**	**5.8**	**----**	**A**	**4.9**	**----**	**B**	**15.0**	**----**	**A**	**5.6**	**----**	**A**	**5.0**	**----**	**B**	**14.7**	**----**
	NYS ROUTE 120	SEB L-T-R	B	10.1	0.48	A	5.3	0.17	A	6.1	0.30	C	23.7	0.80	A	9.8	0.27	B	11.1	0.45	B	18.7	0.69	A	8.7	0.25	B	14.5	0.52
		SEB APPROACH	**B**	**10.1**	**----**	**A**	**5.3**	**----**	**A**	**6.1**	**----**	**C**	**23.7**	**----**	**A**	**9.8**	**----**	**B**	**11.1**	**----**	**B**	**18.7**	**----**	**A**	**8.7**	**----**	**B**	**14.5**	**----**
	113 KING STREET DRIVEWAY	NEB L-T	C	29.0	0.00	A	0.0	0.00	A	0.0	0.00	C	30.7	0.10	C	32.5	0.21	E	61.1	0.77	C	31.4	0.14	C	31.9	0.17	D	38.3	0.41
		NEB R	A	0.0	0.00	A	0.0	0.00	A	0.0	0.00	A	0.3	0.06	A	0.4	0.08	A	8.6	0.38	A	1.0	0.17	A	0.3	0.07	A	5.2	0.28
		NEB APPROACH	**B**	**14.5**	**----**	**A**	**0.0**	**----**	**A**	**0.0**	**----**	**B**	**15.5**	**----**	**B**	**19.8**	**----**	**C**	**34.9**	**----**	**B**	**11.2**	**----**	**B**	**19.1**	**----**	**B**	**19.1**	**----**
	AMERICAN LANE (S)	SWB L-T	C	31.2	0.12	C	30.4	0.08	D	42.6	0.57	C	31.4	0.13	C	30.6	0.09	E	62.3	0.77	C	31.5	0.13	C	30.6	0.09	D	47.9	0.65
		SWB APPROACH	**C**	**31.2**	**----**	**C**	**30.4**	**----**	**D**	**42.6**	**----**	**C**	**31.4**	**----**	**B**	**30.6**	**----**	**E**	**62.3**	**----**	**C**	**31.5**	**----**	**C**	**30.6**	**----**	**D**	**47.9**	**----**
		OVERALL	**A**	**8.1**	**----**	**A**	**6.1**	**----**	**B**	**13.9**	**----**	**B**	**15.0**	**----**	**A**	**9.6**	**----**	**C**	**20.5**	**----**	**B**	**12.3**	**----**	**A**	**8.9**	**----**	**B**	**17.6**	**----**
8	NYS ROUTE 120 & GATEWAY LANE																											
	SIGNALIZED																											
	NYS ROUTE 120	NB T-R	A	2.5	0.32	A	2.1	0.14	A	5.3	0.54	A	3.2	0.49	A	2.2	0.17	A	7.6	0.65	A	3.1	0.46	A	2.2	0.17	B	10.5	0.71
		NB APPROACH	**A**	**2.5**	**----**	**A**	**2.1**	**----**	**A**	**5.3**	**----**	**A**	**3.2**	**----**	**A**	**2.2**	**----**	**A**	**7.6**	**----**	**A**	**3.1**	**----**	**A**	**2.2**	**----**	**B**	**10.5**	**----**
	NYS ROUTE 120	SB L-T	A	9.5	0.61	A	3.7	0.19	C	25.3	0.80	B	19.3	0.81	A	4.1	0.24	F	246.4	1.48	C	20.1	0.83	A	4.1	0.24	F	349.8	1.71
		SB APPROACH	**A**	**9.5**	**----**	**A**	**3.7**	**----**	**C**	**25.3**	**----**	**B**	**19.3**	**----**	**A**	**4.1**	**----**	**F**	**246.4**	**----**	**C**	**20.1**	**----**	**A**	**4.1**	**----**	**F**	**349.8**	**----**
	GATEWAY LANE	WB L-R	B	18.4	0.67	C	24.1	0.49	C	25.0	0.80	B	17.9	0.71	C	23.0	0.53	C	28.1	0.81	B	18.0	0.71	C	23.1	0.52	C	29.5	0.81
		WB APPROACH	**B**	**18.4**	**----**	**C**	**24.1**	**----**	**C**	**25.0**	**----**	**B**	**17.9**	**----**	**C**	**23.0**	**----**	**C**	**28.1**	**----**	**B**	**18.0**	**----**	**C**	**23.1**	**----**	**C**	**29.5**	**----**
		OVERALL	**A**	**9.1**	**----**	**A**	**7.5**	**----**	**B**	**17.0**	**----**	**B**	**12.9**	**----**	**A**	**7.2**	**----**	**F**	**106.8**	**----**	**B**	**13.7**	**----**	**A**	**7.2**	**----**	**F**	**141.6**	**----**
	W/ SIGNAL TIMING CHANGES																		W/ OPTIMIZATION									W/ OPTIMIZATION	
	NYS ROUTE 120	NB T-R	--	----	----	--	----	----	--	----	----	--	----	----	--	----	----	A	8.7	0.55	--	----	----	--	----	----	A	10.0	0.59
		NB APPROACH	--	----	----	--	----	----	--	----	----	--	----	----	--	----	----	**A**	**8.7**	**----**	--	----	----	--	----	----	**A**	**10.0**	**----**
	NYS ROUTE 120	SB L-T	--	----	----	--	----	----	--	----	----	--	----	----	--	----	----	E	67.1	1.06	--	----	----	--	----	----	E	79.1	1.09
		SB APPROACH	--	----	----	--	----	----	--	----	----	--	----	----	--	----	----	**E**	**67.1**	**----**	--	----	----	--	----	----	**E**	**79.1**	**----**
	GATEWAY LANE	WB L-R	--	----	----	--	----	----	--	----	----	--	----	----	--	----	----	E	58.6	0.99	--	----	----	--	----	----	E	59.6	1.00
		WB APPROACH	--	----	----	--	----	----	--	----	----	--	----	----	--	----	----	**E**	**58.6**	**----**	--	----	----	--	----	----	**E**	**59.6**	**----**
		OVERALL	--	----	----	--	----	----	--	----	----	--	----	----	--	----	----	**D**	**43.3**	**----**	--	----	----	--	----	----	**D**	**47.3**	**----**
9	NYS ROUTE 120 & NEW KING STREET																											
	SIGNALIZED																											
	NYS ROUTE 120	NB T	A	6.5	0.32	A	7.1	0.13	B	16.2	0.53	A	8.6	0.49	A	7.5	0.17	B	18.4	0.61	A	8.1	0.45	A	7.5	0.17	B	19.9	0.66
		NB APPROACH	**A**	**6.5**	**----**	**A**	**7.1**	**----**	**B**	**16.2**	**----**	**A**	**8.6**	**----**	**A**	**7.5**	**----**	**B**	**18.4**	**----**	**A**	**8.1**	**----**	**A**	**7.5**	**----**	**B**	**19.9**	**----**
	NYS ROUTE 120	SB T	A	3.2	0.36	A	6.5	0.20	A	9.1	0.40	A	3.5	0.41	A	6.5	0.24	A	9.1	0.62	A	3.9	0.44	A	6.5	0.24	A	8.9	0.59
		SB APPROACH	**A**	**3.2**	**----**	**A**	**6.5**	**----**	**A**	**9.1**	**----**	**A**	**3.5**	**----**	**A**	**6.5**	**----**	**A**	**9.1**	**----**	**A**	**3.9**	**----**	**A**	**6.5**	**----**	**A**	**8.9**	**----**
	NEW KING STREET	WB L	D	38.8	0.58	D	37.7	0.67	D	38.7	0.84	D	38.9	0.59	D	37.6	0.68	D	40.1	0.86	D	38.9	0.59	D	37.6	0.68	D	40.1	0.86
		WB R	B	11.5	0.09	A	7.9	0.12	A	4.6	0.16	B	11.3	0.09	A	7.7	0.12	A	4.5	0.16	B	11.3	0.09	A	7.7	0.12	A	4.5	0.16
		WB APPROACH	**D**	**35.2**	**----**	**C**	**33.0**	**----**	**C**	**33.2**	**----**	**D**	**35.2**	**----**	**C**	**32.9**	**----**	**C**	**34.3**	**----**	**D**	**35.2**	**----**	**C**	**32.9**	**----**	**C**	**34.3**	**----**
		OVERALL	**B**	**10.3**	**----**	**B**	**18.7**	**----**	**C**	**21.4**	**----**	**B**	**10.7**	**----**	**B**	**17.6**	**----**	**C**	**21.1**	**----**	**B**	**10.5**	**----**	**B**	**17.7**	**----**	**C**	**21.7**	**----**

TABLE NO. 3

LEVEL OF SERVICE SUMMARY TABLE

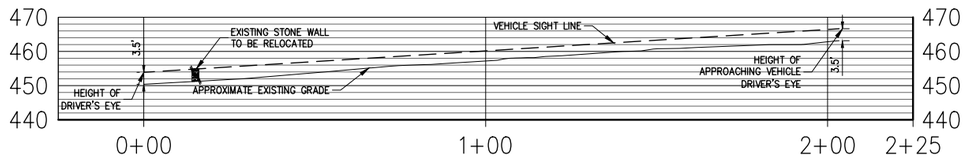
	LOCATION		YEAR 2019 EXISTING									YEAR 2024 NO-BUILD									YEAR 2024 BUILD								
			WEEKDAY AM			WEEKDAY MIDDAY			WEEKDAY PM			WEEKDAY AM			WEEKDAY MIDDAY			WEEKDAY PM			WEEKDAY AM			WEEKDAY MIDDAY			WEEKDAY PM		
			LOS	DELAY	V/C	LOS	DELAY	V/C	LOS	DELAY	V/C	LOS	DELAY	V/C	LOS	DELAY	V/C	LOS	DELAY	V/C	LOS	DELAY	V/C	LOS	DELAY	V/C	LOS	DELAY	V/C
10	NYS ROUTE 120 & AIRPORT ROAD																											
	SIGNALIZED																											
	NYS ROUTE 120	NB L	B	16.5	0.19	B	12.5	0.15	C	20.9	0.55	B	16.6	0.20	B	13.5	0.16	C	28.8	0.67	B	16.6	0.20	B	13.5	0.16	C	28.8	0.67
		NB T T-R	B	15.0	0.13	B	11.3	0.07	C	20.3	0.11	B	17.3	0.19	B	12.4	0.08	C	23.6	0.13	B	16.9	0.18	B	12.4	0.08	C	24.0	0.14
		NB APPROACH	**B**	**15.6**	**----**	**B**	**11.9**	**----**	**C**	**20.7**	**----**	**B**	**17.1**	**----**	**B**	**12.9**	**----**	**C**	**26.9**	**----**	**B**	**16.8**	**----**	**B**	**12.9**	**----**	**C**	**27.1**	**----**
	NYS ROUTE 120	SB L	B	16.1	0.11	B	12.8	0.07	B	17.5	0.09	B	16.2	0.12	B	13.8	0.08	C	20.6	0.10	B	16.2	0.12	B	13.8	0.08	C	20.7	0.10
		SB T	C	29.2	0.29	C	23.7	0.17	D	38.7	0.58	C	29.8	0.33	C	25.5	0.21	D	50.2	0.75	C	30.1	0.33	C	25.4	0.20	D	49.7	0.74
		SB R	A	1.0	0.31	A	1.0	0.27	A	5.8	0.50	A	1.0	0.34	A	1.0	0.30	A	8.6	0.64	A	1.0	0.36	A	1.0	0.30	A	8.1	0.62
		SB APPROACH	**A**	**8.8**	**----**	**A**	**6.3**	**----**	**B**	**15.7**	**----**	**A**	**9.0**	**----**	**A**	**6.9**	**----**	**C**	**20.6**	**----**	**A**	**9.1**	**----**	**A**	**6.8**	**----**	**C**	**20.2**	**----**
	AIRPORT ROAD	EB L	B	19.5	0.35	B	17.0	0.16	C	23.3	0.51	C	23.0	0.53	B	17.2	0.20	C	22.9	0.54	C	22.2	0.50	B	17.2	0.20	C	23.8	0.58
		EB L-T-R	E	66.0	1.02	C	26.0	0.69	C	26.2	0.68	F	89.0	1.10	C	26.0	0.70	C	24.7	0.66	F	87.0	1.09	C	26.0	0.70	C	24.7	0.66
		EB APPROACH	**D**	**54.6**	**----**	**C**	**24.4**	**----**	**C**	**25.0**	**----**	**E**	**68.1**	**----**	**C**	**24.1**	**----**	**C**	**23.9**	**----**	**E**	**67.4**	**----**	**C**	**24.1**	**----**	**C**	**24.3**	**----**
		OVERALL	**C**	**34.6**	**----**	**B**	**14.9**	**----**	**C**	**20.2**	**----**	**D**	**42.8**	**----**	**B**	**15.1**	**----**	**C**	**23.0**	**----**	**D**	**41.6**	**----**	**B**	**15.1**	**----**	**C**	**23.1**	**----**
	W/ SIGNAL TIMING CHANGES																											
	NYS ROUTE 120	NB L	--	----	----	--	----	----	--	----	----	B	18.8	0.21	--	----	----	--	----	----	B	18.9	0.21	--	----	----	--	----	----
		NB T T-R	--	----	----	--	----	----	--	----	----	B	19.0	0.20	--	----	----	--	----	----	B	18.6	0.19	--	----	----	--	----	----
		NB APPROACH	--	----	----	--	----	----	--	----	----	**B**	**19.0**	**----**	--	----	----	--	----	----	**B**	**18.7**	**----**	--	----	----	--	----	----
	NYS ROUTE 120	SB L	--	----	----	--	----	----	--	----	----	B	18,3	0.13	--	----	----	--	----	----	B	18,3	0.13	--	----	----	--	----	----
		SB T	--	----	----	--	----	----	--	----	----	C	32.8	0.34	--	----	----	--	----	----	C	33.2	0.37	--	----	----	--	----	----
		SB R	--	----	----	--	----	----	--	----	----	A	1.0	0.34	--	----	----	--	----	----	A	1.0	0.36	--	----	----	--	----	----
		SB APPROACH	--	----	----	--	----	----	--	----	----	**A**	**9.9**	**----**	--	----	----	--	----	----	**B**	**10.0**	**----**	--	----	----	--	----	----
	AIRPORT ROAD	EB L	--	----	----	--	----	----	--	----	----	C	21.6	0.50	--	----	----	--	----	----	C	20.9	0.47	--	----	----	--	----	----
		EB L-T-R	--	----	----	--	----	----	--	----	----	E	67.7	1.03	--	----	----	--	----	----	E	65.9	1.03	--	----	----	--	----	----
		EB APPROACH	--	----	----	--	----	----	--	----	----	**D**	**53.1**	**----**	--	----	----	--	----	----	**D**	**52.3**	**----**	--	----	----	--	----	----
		OVERALL	--	----	----	--	----	----	--	----	----	**D**	**35.0**	**----**	--	----	----	--	----	----	**C**	**34.0**	**----**	--	----	----	--	----	----
11	AIRPORT ROAD & I-684 NB ON/OFF RAMP																											
	UNSIGNALIZED																											
	I-684 NB ON-RAMP	EB L-T	A	8.4	0.001	A	8.2	0.006	A	9.6	0.004	A	8.6	0.001	A	8.3	0.006	B	10.4	0.005	A	8.7	0.001	A	8.3	0.006	B	10.3	0.005
	I-684 NB OFF-RAMP	NB R	E	49.9	0.894	B	11.6	0.358	C	17.7	0.647	F	175.3	1.295	B	12.3	0.411	C	21.4	0.732	F	148.7	1.227	B	12.3	0.410	C	23.9	0.775
12	AIRPORT ROAD & I-684 SB ON/OFF RAMP																											
	UNSIGNALIZED																											
	I-684 NB ON-RAMP	WB L	A	0.0	0.000	A	0.0	0.000	A	0.0	0.000	A	0.0	0.000	A	0.0	0.000	A	0.0	0.000	A	0.0	0.000	A	0.0	0.000	A	0.0	0.000
	I-684 NB OFF-RAMP	SB L	F	439.9	1.897	C	15.0	0.335	C	22.0	0.562	F	608.2	2.269	C	17.1	0.392	F	64.6	0.893	F	701.3	2.472	C	17.0	0.389	F	54.6	0.846

TABLE NO. 3

LEVEL OF SERVICE SUMMARY TABLE

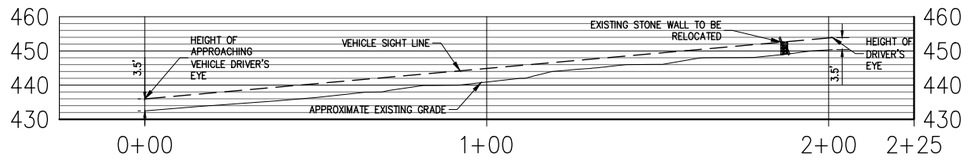
	LOCATION		YEAR 2019 EXISTING									YEAR 2024 NO-BUILD									YEAR 2024 BUILD								
			WEEKDAY AM			WEEKDAY MIDDAY			WEEKDAY PM			WEEKDAY AM			WEEKDAY MIDDAY			WEEKDAY PM			WEEKDAY AM			WEEKDAY MIDDAY			WEEKDAY PM		
			LOS	DELAY	V/C	LOS	DELAY	V/C	LOS	DELAY	V/C	LOS	DELAY	V/C	LOS	DELAY	V/C	LOS	DELAY	V/C	LOS	DELAY	V/C	LOS	DELAY	V/C	LOS	DELAY	V/C
13	NYS ROUTE 22 NYS ROUTE 128 / NORTH CASTLE DRIVE (IBM)																											
	SIGNALIZED																											
	NYS ROUTE 22	NEB L	E	56.2	0.71	D	45.5	0.63	D	53.9	0.78	E	59.8	0.75	D	47.6	0.68	E	58.9	0.83	E	59.6	0.75	D	47.6	0.68	E	59.2	0.83
		NEB T	C	26.1	0.39	A	7.7	0.14	B	10.6	0.29	C	28.8	0.45	B	13.0	0.19	B	18.5	0.42	C	28.8	0.45	B	13.0	0.19	B	18.5	0.41
		NEB R	A	5.5	0.21	A	0.0	0.01	A	0.0	0.01	A	5.3	0.25	A	0.1	0.03	A	0.1	0.05	A	5.3	0.25	A	0.1	0.03	A	0.1	0.05
		NEB APPROACH	**C**	**29.4**	**----**	**C**	**20.6**	**----**	**C**	**23.3**	**----**	**C**	**31.4**	**----**	**C**	**23.9**	**----**	**C**	**29.3**	**----**	**C**	**31.5**	**----**	**C**	**23.9**	**----**	**C**	**29.6**	**----**
	NYS ROUTE 22	SWB L	D	51.5	0.83	D	42.0	0.13	D	52.0	0.07	D	52.6	0.84	D	46.5	0.38	E	58.8	0.44	D	52.6	0.84	D	46.3	0.38	E	59.0	0.44
		SWB T	C	20.3	0.45	B	16.2	0.21	C	28.0	0.52	C	22.9	0.54	B	18.3	0.25	C	32.3	0.59	C	22.7	0.53	B	18.2	0.25	C	32.7	0.59
		SWB R	A	3.9	0.21	A	4.9	0.12	A	5.9	0.17	A	4.7	0.22	A	5.3	0.13	A	6.2	0.19	A	4.4	0.22	A	5.3	0.13	A	6.2	0.20
		SWB APPROACH	**C**	**27.3**	**----**	**B**	**14.9**	**----**	**C**	**25.1**	**----**	**C**	**29.1**	**----**	**B**	**19.3**	**----**	**C**	**30.6**	**----**	**C**	**29.1**	**----**	**B**	**19.2**	**----**	**C**	**30.9**	**----**
	NYS ROUTE 128	SB L-T	D	43.7	0.53	D	35.6	0.44	D	38.1	0.48	D	45.4	0.56	D	36.1	0.46	D	38.6	0.49	D	45.4	0.56	D	36.1	0.46	D	38.4	0.49
		SB R	A	8.3	0.44	A	7.8	0.37	A	6.8	0.37	A	8.2	0.49	A	7.4	0.39	A	6.4	0.38	A	8.2	0.48	A	7.4	0.39	A	6.3	0.38
		SB APPROACH	**C**	**24.0**	**----**	**B**	**19.9**	**----**	**C**	**21.2**	**----**	**C**	**23.6**	**----**	**B**	**19.6**	**----**	**C**	**21.3**	**----**	**C**	**23.8**	**----**	**B**	**19.6**	**----**	**C**	**21.0**	**----**
	NORTH CASTLE DRIVE (IBM)	NB L	C	34.3	0.07	C	28.0	0.03	D	39.7	0.48	D	38.4	0.23	C	30.0	0.12	D	42.8	0.55	D	38.4	0.23	C	30.0	0.12	D	42.5	0.55
		NB T	C	32.7	0.01	C	28.0	0.04	C	30.2	0.06	C	32.9	0.03	C	28.4	0.05	C	30.5	0.07	C	32.9	0.03	C	28.3	0.05	C	30.4	0.07
		NB R	A	0.1	0.03	A	0.3	0.06	A	6.7	0.49	A	5.4	0.17	A	7.3	0.18	A	6.5	0.53	A	5.4	0.17	A	7.3	0.18	A	6.4	0.53
		NB APPROACH	**C**	**21.3**	**----**	**B**	**13.6**	**----**	**B**	**17.3**	**----**	**B**	**18.9**	**----**	**B**	**16.1**	**----**	**B**	**18.0**	**----**	**B**	**18.9**	**----**	**B**	**16.1**	**----**	**B**	**17.8**	**----**
		OVERALL	**C**	**27.5**	**----**	**B**	**18.2**	**----**	**C**	**22.5**	**----**	**C**	**28.7**	**----**	**C**	**20.8**	**----**	**C**	**26.6**	**----**	**C**	**28.8**	**----**	**C**	**20.8**	**----**	**C**	**26.7**	**----**
14	NYS ROUTE 22 & N. BROADWAY / SIR JOHN'S PLAZA																											
	SIGNALIZED																											
	SIR JOHN'S PLAZA	EB LL	E	62.5	0.03	C	30.3	0.02	E	65.7	0.09	--	----	----	--	----	----	--	----	----	--	----	----	--	----	----	--	----	----
		EB R	A	0.5	0.03	A	0.3	0.02	A	1.3	0.06	--	----	----	--	----	----	--	----	----	--	----	----	--	----	----	--	----	----
		EB APPROACH	**C**	**21.2**	**----**	**B**	**10.3**	**----**	**C**	**26.1**	**----**	--	----	----	--	----	----	--	----	----	--	----	----	--	----	----	--	----	----
	NYS ROUTE 22	SWB L L-R	E	74.5	0.81	C	31.1	0.39	E	66.5	0.63	--	----	----	--	----	----	--	----	----	--	----	----	--	----	----	--	----	----
		SWB APPROACH	**E**	**74.5**	**----**	**C**	**31.1**	**----**	**E**	**66.5**	**----**	--	----	----	--	----	----	--	----	----	--	----	----	--	----	----	--	----	----
	NYS ROUTE 22	NB L-T	A	5.8	0.37	A	7.3	0.35	C	30.0	0.93	--	----	----	--	----	----	--	----	----	--	----	----	--	----	----	--	----	----
		NB R	A	0.3	0.16	A	0.5	0.12	A	0.5	0.19	--	----	----	--	----	----	--	----	----	--	----	----	--	----	----	--	----	----
		NB APPROACH	**A**	**4.2**	**----**	**A**	**5.4**	**----**	**C**	**24.7**	**----**	--	----	----	--	----	----	--	----	----	--	----	----	--	----	----	--	----	----
	N. BROADWAY	SB L-T-R	B	16.4	0.83	A	7.0	0.32	A	8.8	0.41	--	----	----	--	----	----	--	----	----	--	----	----	--	----	----	--	----	----
		SB APPROACH	**B**	**16.4**	**----**	**A**	**7.0**	**----**	**A**	**8.8**	**----**	--	----	----	--	----	----	--	----	----	--	----	----	--	----	----	--	----	----
		OVERALL	**C**	**20.1**	**----**	**A**	**9.7**	**----**	**C**	**24.9**	**----**	--	----	----	--	----	----	--	----	----	--	----	----	--	----	----	--	----	----
	W/ DEP IMPROVEMENTS																											
	SIR JOHN'S PLAZA	EB LL	--	----	----	--	----	----	--	----	----	E	62.5	0.03	C	30.7	0.02	E	67.1	0.10	E	62.5	0.03	C	30.7	0.02	E	67.0	0.10
		EB R	--	----	----	--	----	----	--	----	----	A	0.5	0.03	A	0.3	0.03	A	1.5	0.11	A	0.5	0.03	A	0.3	0.03	A	1.5	0.11
		EB APPROACH	--	----	----	--	----	----	--	----	----	**C**	**21.2**	**----**	**B**	**10.4**	**----**	**C**	**25.8**	**----**	**C**	**21.2**	**----**	**B**	**10.4**	**----**	**C**	**25.8**	**----**
	NYS ROUTE 22	SWB L L-R	--	----	----	--	----	----	--	----	----	E	64.5	0.75	C	31.4	0.43	E	66.7	0.67	E	64.6	0.75	C	31.4	0.43	E	66.7	0.66
		SWB APPROACH	--	----	----	--	----	----	--	----	----	**E**	**64.5**	**----**	**C**	**31.4**	**----**	**E**	**66.7**	**----**	**E**	**64.6**	**----**	**C**	**31.4**	**----**	**E**	**66.7**	**----**
	NYS ROUTE 22	NB L-T	--	----	----	--	----	----	--	----	----	A	7.4	0.41	A	7.8	0.37	D	42.8	0.99	A	7.5	0.41	A	7.8	0.37	D	42.4	0.99
		NB R	--	----	----	--	----	----	--	----	----	A	0.4	0.19	A	0.5	0.14	A	0.5	0.21	A	0.4	0.19	A	0.5	0.14	A	0.5	0.22
		NB APPROACH	--	----	----	--	----	----	--	----	----	**A**	**5.1**	**----**	**A**	**5.6**	**----**	**C**	**34.8**	**----**	**A**	**5.2**	**----**	**A**	**5.6**	**----**	**C**	**34.4**	**----**
	N. BROADWAY	SB L-T T-R	--	----	----	--	----	----	--	----	----	B	12.5	0.72	A	6.7	0.27	A	8.6	0.35	B	12.5	0.72	A	6.7	0.34	A	8.6	0.35
		SB APPROACH	--	----	----	--	----	----	--	----	----	**B**	**12.5**	**----**	**A**	**6.7**	**----**	**A**	**8.6**	**----**	**B**	**12.5**	**----**	**A**	**6.7**	**----**	**A**	**8.6**	**----**
		OVERALL	--	----	----	--	----	----	--	----	----	**B**	**17.1**	**----**	**B**	**10.0**	**----**	**C**	**32.0**	**----**	**C**	**17.2**	**----**	**A**	**10.0**	**----**	**C**	**31.6**	**----**
15	NYS ROUTE 22 & CENTRAL WESTCHESTER EXPRESSWAY & RESERVOIR ROAD / CHURCH STREET																											
	SIGNALIZED																											
	NYS ROUTE 22	EB L	F	89.1	0.81	E	64,4	0.70	F	93.8	0.87	F	90.1	0.83	E	66.7	0.72	F	96.0	0.89	F	90.1	0.83	E	66.7	0.72	F	96.0	0.89
		EB T-R	F	99.7	0.89	E	67.7	0.75	F	77.5	0.69	F	101.8	0.91	E	70.0	0.77	E	78.6	0.70	F	101.8	0.91	E	70.0	0.77	E	78.6	0.70
		EB APPROACH	**F**	**94.6**	**----**	**E**	**66.1**	**----**	**F**	**86.7**	**----**	**F**	**96.1**	**----**	**E**	**68.4**	**----**	**E**	**88.4**	**----**	**F**	**96.1**	**----**	**E**	**68.4**	**----**	**E**	**88.5**	**----**
	RESERVOIR ROAD	WB L-T	F	102.2	0.73	E	70.5	0.67	F	102.6	0.84	F	103.4	0.74	E	73.2	0.69	F	105.2	0.86	F	103.4	0.74	E	73.2	0.69	F	105.3	0.86
		WB R	A	0.8	0.12	A	6.1	0.19	A	9.1	0.27	A	0.9	0.12	A	6.7	0.20	A	10.0	0.29	A	0.9	0.12	A	6.7	0.20	A	10.0	0.29
		WB APPROACH	**F**	**82.2**	**----**	**D**	**51.6**	**----**	**E**	**71.0**	**----**	**F**	**83.1**	**----**	**D**	**53.6**	**----**	**E**	**72.8**	**----**	**F**	**83.1**	**----**	**D**	**53.6**	**----**	**E**	**72.8**	**----**
	CENTRAL WESTCHESTER	NB TT	D	53.9	0.46	E	63.9	0.68	F	202.3	1.33	E	56.8	0.53	E	66.0	0.71	F	250.7	1.44	E	56.7	0.52	E	66.0	0.71	F	252.2	1.44
	EXPRESSWAY	NB R	A	1.0	0.07	A	3.9	0.15	A	8.7	0.20	A	1.2	0.08	A	4.2	0.15	A	9.1	0.21	A	1.2	0.08	A	4.2	0.15	A	9.1	0.21
		NB APPROACH	**D**	**49.1**	**----**	**D**	**53.5**	**----**	**F**	**183.8**	**----**	**D**	**52.0**	**----**	**E**	**55.8**	**----**	**F**	**226.9**	**----**	**D**	**51.9**	**----**	**E**	**55.8**	**----**	**F**	**228.4**	**----**
	NYS ROUTE 22	SB L	D	40.1	0.12	D	43.7	0.21	D	51.7	0.46	D	41.3	0.14	D	45.0	0.23	D	53.5	0.48	D	41.3	0.14	D	45.0	0.23	D	53.4	0.48
		SB T T-R	F	102.8	1.09	D	51.5	0.69	D	52.2	0.61	F	134.2	1.17	D	54.2	0.74	E	55.5	0.67	F	135.3	1.17	D	54.1	0.73	E	55.4	1.00
		SB APPROACH	**F**	**101.4**	**----**	**D**	**50.9**	**----**	**D**	**52.1**	**----**	**F**	**132.1**	**----**	**D**	**53.5**	**----**	**E**	**55.3**	**----**	**F**	**133.2**	**----**	**D**	**53.5**	**----**	**E**	**55.2**	**----**
		OVERALL	**F**	**88.6**	**----**	**D**	**55.7**	**----**	**F**	**117.0**	**----**	**F**	**105.6**	**----**	**E**	**58.0**	**----**	**F**	**136.5**	**----**	**F**	**106.3**	**----**	**E**	**58.0**	**----**	**F**	**137.3**	**----**
	W/ SIGNAL TIMING CHANGES											W/ OPTIMIZATION						W/ OPTIMIZATION			W/ OPTIMIZATION						W/ OPTIMIZATION		
	NYS ROUTE 22	EB L	--	----	----	--	----	----	--	----	----	F	110.4	0.91	--	----	----	F	131.2	1.02	F	110.4	0.91	--	----	----	F	131.3	1.02
		EB T-R	--	----	----	--	----	----	--	----	----	F	130.3	1.01	--	----	----	F	97.3	0.80	F	130.3	1.01	--	----	----	F	97.4	0.80
		EB APPROACH	--	----	----	--	----	----	--	----	----	**F**	**120.7**	**----**	--	----	----	**F**	**116.4**	**----**	**F**	**120.7**	**----**	--	----	----	**F**	**116.5**	**----**
	RESERVOIR ROAD	WB L-T	--	----	----	--	----	----	--	----	----	F	170.9	1.04	--	----	----	F	146.4	1.02	F	170.9	1.04	--	----	----	F	146.6	1.02
		WB R	--	----	----	--	----	----	--	----	----	A	1.5	0.16	--	----	----	B	17.4	0.38	A	1.5	0.16	--	----	----	B	17.3	0.38
		WB APPROACH	--	----	----	--	----	----	--	----	----	**F**	**137.4**	**----**	--	----	----	**F**	**102.4**	**----**	**F**	**137.4**	**----**	--	----	----	**F**	**102.5**	**----**
	CENTRAL WESTCHESTER	NB TT	--	----	----	--	----	----	--	----	----	D	43.4	0.41	--	----	----	F	82.6	0.98	D	43.3	0.41	--	----	----	F	82.9	0.98
	EXPRESSWAY	NB R	--	----	----	--	----	----	--	----	----	A	1.0	0.07	--	----	----	A	6.5	0.17	A	1.0	0.07	--	----	----	A	6.5	0.17
		NB APPROACH	--	----	----	--	----	----	--	----	----	**D**	**39.8**	**----**	--	----	----	**E**	**75.1**	**----**	**D**	**39.6**	**----**	--	----	----	**E**	**75.4**	**----**
	NYS ROUTE 22	SB L	--	----	----	--	----	----	--	----	----	C	31.3	0.11	--	----	----	F	113.4	0.91	C	31.3	0.11	--	----	----	F	113.4	0.91
		SB T T-R	--	----	----	--	----	----	--	----	----	E	71.5	0.98	--	----	----	D	45.5	0.55	E	71.9	0.98	--	----	----	D	45.4	0.55
		SB APPROACH	--	----	----	--	----	----	--	----	----	**E**	**70.6**	**----**	--	----	----	**D**	**51.4**	**----**	**E**	**71.0**	**----**	--	----	----	**D**	**51.3**	**----**
		OVERALL	--	----	----	--	----	----	--	----	----	**E**	**78.4**	**----**	--	----	----	**E**	**79.0**	**----**	**E**	**78.6**	**----**	--	----	----	**E**	**79.2**	**----**

THE ABOVE REPRESENTS THE LEVELS OF SERVICE, VEHICLE DELAY IN SECONDS AND VOLUME-TO-CAPACITY (V/C) RATIO FOR THE ABOVE INTERSECTIONS.



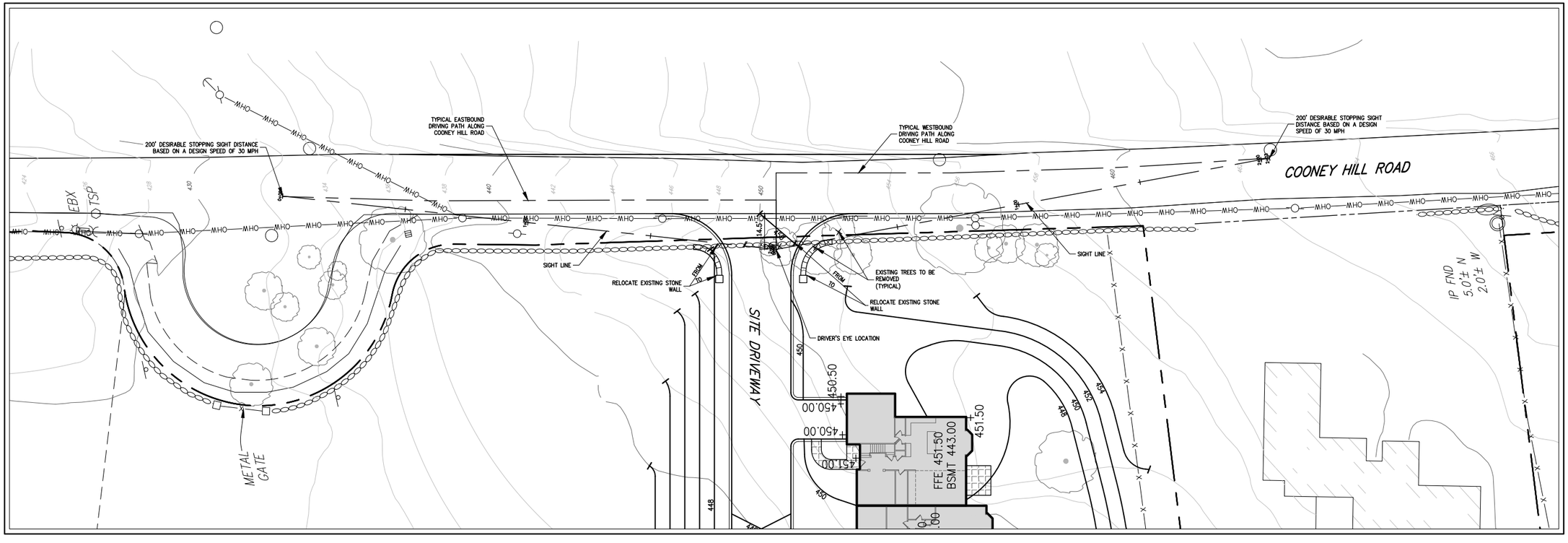
LEFT TURN FROM STOP (LOOKING RIGHT) PROFILE

SCALE: 1"=20' HORIZ. & 1"=20' VERT.
200' DESIRABLE STOPPING SIGHT DISTANCE BASED ON A SPEED OF 30 MPH



RIGHT TURN FROM STOP (LOOKING LEFT) PROFILE

SCALE: 1"=20' HORIZ. & 1"=20' VERT.
200' DESIRABLE STOPPING SIGHT DISTANCE BASED ON A SPEED OF 30 MPH



Source: JMC, 2020

Sight Distance Analysis - Cooney Hill Road
Figure 10-2