

1.0

Potential Adverse Environmental Impacts and Mitigation



1. Potential Adverse Environmental Impacts and Mitigation

This section studies the potential significant adverse environmental impacts of the Project Refinements made to the Project since the 2013 SEIS, and identifies mitigation measures where necessary. This section also summarizes the analyses contained in the 2013 SEIS, and indicates where there have been no changes. Where applicable, impacts are discussed related to the two alternative layouts (*i.e.*, Center Road Alternative and West Road Alternative) for roadway improvements to North Water Street, which provides access to the Project.

1.1 Land Use, Zoning and Compliance with Comprehensive Plan and LWRP

The potential impacts relating to land use, zoning, and compliance with the Village's Comprehensive Plan and LWRP have not changed since the 2013 SEIS due to the Project Refinements.

Like the 2011 Alternative Site Plan studied in the 2013 SEIS, the Current Proposed Action conforms to the requirements of the Village's Zoning Law, and reflects the changes made to both the zoning map and text by the Village following its adoption of a new Comprehensive Plan in 2009. As described in FSEIS Section PD3.3, it is the Applicant's opinion that the Project would meet the goals and criteria outlined in Sections 270-23A and F of the Village's Zoning Law with respect to Planned Waterfront Districts. No changes to the Zoning Law are being requested. The Applicant seeks density bonuses as provided for in the Zoning Law and affordable housing requirements in Chapter 62 of the Village Code.



The Current Project would result in residential use of what had previously been an industrial site, meeting part of the Comprehensive Plan objective to encourage a mix of commercial, residential, and industrial uses in the Northern Waterfront District. Given the Project Site's location, which does not receive any pass-by traffic except from the two adjacent industrial uses, the Applicant does not believe that there is any market for commercial uses on the Site. Therefore, the Applicant has not proposed a mixed-use development.

The Applicant recognizes that the Village's Comprehensive Plan identifies preservation of the mill building as one objective. Before the Village adopted that Plan in 2009, the Applicant had proposed adaptive reuse of the mill building in the 2008 Proposed Project, along with new construction on the Plateau Properties. According to the Applicant, the Plateau's highly marketable river views would have potentially generated Project income that could have been utilized to pay for the required historic restoration. Upon further analysis, including the more frequent flooding of coastal areas which led to FEMA's recalculation of flood zones, and the findings of multiple structural assessments, the Applicant determined that it would not be viable to preserve the mill building. The mill building has already been demolished due to its deteriorating condition and exposure to flood risks.

1.1.1 Mitigation

No new mitigation is required with respect to land use and zoning as compared to the 2013 SEIS.

In order to mitigate the demolition of the mill building, and to help preserve some of the legacy of the Brandreth Pill Factory, the Applicant commissioned digital format, high-resolution photography of all of the buildings on the Site prior to their removal. The photographs (a disc with high-resolution images and 4" x 6" prints) would be provided to the Ossining Historical Society.

The Applicant is also proposing as part of the Project to build a Brandreth Pill Factory Open Air Pavilion on the Project Site. It would be located southwest of the proposed residential building, on the Hudson River side of North Water Street so that it can be readily accessed from the new proposed sidewalk. The Pavilion is not proposed as mitigation, nor is it offered in exchange for a density bonus. In the Applicant's opinion, the Pavilion would be a tribute to the Pill Factory, and serve as an inviting waterfront destination for the general public to enjoy and learn about the Site's history.



The proposed Pavilion would be available and accessible to the public. It is conceived as an open air display structure that would include information, images, materials and artifacts from the Site and the Ossining waterfront, and incorporate architectural elements of the buildings once existing on the Site. Its design includes heavy brick masonry, gable roof, sweeping canopy, exaggerated overhangs, brackets, lintels and articulation, all of which are reminiscent of and directly inspired by the architecture of this site and others in the region. The Applicant would preserve and adaptively re-use elements from the existing office building to the extent reasonably practicable, potentially including salvageable original bricks for display as described in the updated Structural Assessment by DeNardis Engineering (dated June 15, 2018) found in Appendix 5.1.A rendering of the Pavilion is included in this FSEIS at the end of this Chapter. While it is currently shown to be constructed on the Project Site, the Applicant would consider relocating it potentially to the Village's Lot 6 upon the Village's request.

1.2 Demographics and Community Facilities

The potential impacts relating to demographics and community facilities have only decreased as compared to the 2013 SEIS due to the Project Refinement to eliminate 3-bedroom units.

The Project includes the construction of one building with 137 units, similar to the 2013 SEIS. However, the Current Project has removed three-bedroom units because zoning changes in the Village in 2014 made bedroom mix discretionary. The Current Project includes a mix of 34 one-bedroom units and 103 two-bedroom units, which is expected to generate approximately 295 new residents. This is a reduction of 26 new residents as compared to the approximately 321 new residents estimated in the 2013 SEIS. There would not be any new potential significant adverse environmental impacts associated with this reduction in estimated residents.

Table 3 below shows the estimated population to be generated by the Proposed Action.



Table 3 Population Generated by the Proposed Project

Unit Type	# of Units	Multiplier	Total
1-Bedroom	34	1.67	57
2-Bedroom	103	2.31	238
<i>Total</i>	<i>137</i>		<i>295</i>

Source: Residential Demographic Multipliers – Estimates of the Occupants of New Housing by Rutgers University, Center for Urban Policy Research, June 2006.

The current population in the Village of Ossining is 25,299¹, therefore, the Proposed Action would increase population in the Village by approximately 1.17 percent.

Emergency Services

The Project would be served by the Village of Ossining Police Department, the Village of Ossining Fire Department, and the Ossining Volunteer Ambulance Corps. The Project would result in the generation of approximately 295 residents, which would represent an estimated 1.17 percent increase in Village population. Based on prior coordination with the Village of Ossining Police Department, the anticipated demand for services is minimal based on experiences with similar residential uses and additional calls for service could be handled adequately. The Applicant will employ a combination of on-Site security features, which may include a private security service company, building concierge, and/or gated or security card access to building entries.

The Applicant's civil engineers have met with representatives from the Fire Department, and incorporated the recommendations from those meetings into the Current Site Plans. The proposed residential building, for example, will be fully sprinklered, and meet all State and local fire code requirements. In addition, as discussed in section 1.2 of this FSEIS, the Applicant maintains that its proposed realignment and improvements to North Water Street will provide safe circulation and site access, including for emergency services, in accordance with all Fire Department requirements. The Applicant will arrange for the Fire Department to conduct a final review of the Current Site Plans.

Schools

Public school students residing at the proposed residential building would attend schools in the Ossining Union Free School District. The 2017-2018 district enrollment was projected to be 5,151 in the Ossining Union Free School District 2017-2018



¹ Source: American Community Survey 5-Year Estimates 2016.



Budget, including an increase of 86 students from the previous year.² The Current Project is estimated to generate approximately 19 school children.³ In contrast, under the 2013 SEIS, the Project was estimated to generate approximately 27 school children. The estimated 19 new students would represent a 0.37 percent increase in enrollment with less than two new students per grade. The Project would generate substantial new taxes for the School District and is not expected to create any significant adverse impacts.

Costs to the School District

As discussed above, the Current Project is anticipated to generate approximately 19 public school children. With the students spread out over 13 grade levels, K-12, the Current Project would result in approximately one or two additional students per grade. Based on a total 2017-2018 school district enrollment of 5,151 students, the Current Project would result in a 0.36 percent increase in school district enrollment.

The total Ossining School District budget for 2017/2018 is \$125,675,900 – a 0.36% increase from the prior year. Based on a total school district enrollment of 5,151 students, the average cost per pupil for 2017/2018 would be approximately \$24,398.

Table 4 Average Cost Per Pupil (2017/2018)		
A	B	C
2017/18 Budget	2017/18 Enrollment	Cost Per Pupil (A ÷ B)
\$125,675,900	5,151	\$24,398

According to information provided by the Ossining School District, approximately 83% of the per pupil cost is paid by local tax levy; the remainder of the budget comes from the State or other sources.



² Source: <https://ossiningufsd.org/district/2017-2018-budget.html>, accessed 1/19/18.

³ Source: Multipliers of 0.07 students per 1-bedroom unit and 0.16 per 2-bedroom unit from Residential Demographic Multipliers – Estimates of the Occupants of New Housing by Rutgers University, Center for Urban Policy Research, June 2006.



Table 5 Tax Levy Per Pupil (2017/2018)		
A	B	C
Cost per Pupil	% of Per Pupil Cost Paid by Local Tax Levy	Tax Levy Per Pupil (A x B)
\$24,398	83%	\$20,250

While analysis of the per pupil tax levy assists in determining the allocation of tax levies based on projected enrollment, it is the marginal expense for new students that must be analyzed when calculating the true impact of the development. Simply using the per pupil tax levy as a basis for estimating the total cost of additional students generated overestimates the marginal cost of educating an additional student. The marginal cost is defined as all of the actual costs of educating these students. There are many items in the school budget that are fixed and would not be affected by a modest increase of additional students. These fixed items include administrative services such as district clerk; district meetings; central administration, business administration, auditing and treasurer, public information, data processing, curriculum development and supervision.

The budget includes costs for administrative, program and capital costs. Approximately 50.67% of the total budget, or \$63.67 million is allocated for instructional costs. Based on a student population of 5,151, the instruction costs per pupil are approximately \$12,360, of which 83% or \$10,259 is paid by local tax levy.

Table 6 Program Costs and Tax Levy per Pupil				
A	B	C	D	E
Instructional Costs (50.67% of total budget)	2017/18 Enrollment	Instructional Costs Per Pupil (A ÷ B)	% Paid by Local Tax Levy	Per Pupil Instructional Costs Paid by Local Tax Levy (C x D)
\$63,670,000	5,151	\$12,360	83%	\$10,259

Utilizing this estimate of 19 public school children, this total would have a minimal impact. With a \$10,259 average cost per child, 19 new students would cost approximately \$194,921. As detailed in the section below, the Current Project would generate an estimated \$617,580 in total taxes to the Ossining Union Free School District, which would result in a net fiscal benefit of \$422,659.



Expanded Analysis - Schools

Based on the analysis above, which utilizes Rutgers generation rates, the Project would generate approximately 19 public school students. While the use of the Rutgers Study generation rates to project the increase in school district enrollment is a standard methodology utilized in development impact assessments, the Applicant has expanded the analysis to include actual local data from similar developments.

To accomplish this expanded analysis, the Applicant considered recently constructed developments most directly comparable to Hidden Cove – i.e., multi-family residential developments with comparable location, rents, and amenities. Accordingly, the following analysis incorporates data from Harbor Square – the one truly comparable development that has been built and fully occupied in the Village.

Harbor Square is a recently constructed multi-family rental project offering views of the Hudson River, and comparable building amenities to those to be offered at Hidden Cove. In order to evaluate how the projected number of school children might vary based on more localized experience, data from Harbor Square was requested from Harbor Square's Property Management. Harbor Square is a 188-unit rental apartment building (including 10% affordable), consisting of 11-studio apartments, 26 1-BR apartments, 52 1-BR + den apartments, and 97 2-BR + den apartments. It generated 15 school-age children.⁴

Harbor Square resulted in 0.079 school-age children per unit. This figure is substantially below (i.e., 42% below) the CUPR multipliers noted above.

Also analyzed herein are several multi-family rental projects located in other school districts in Westchester County. This data is from developments with similar bedroom count mixes (i.e., 1 and 2-bedrooms). The Hidden Cove project was revised in 2017 to eliminate all 3-bedroom units, resulting in 30% fewer school-age children (8 fewer students) attending the public schools based on standard demographic multipliers. Thus, other developments that included a significant number of 3-bedroom units (or larger) would not be a reasonable comparable development because units larger than 2-bedrooms typically generate significantly more school-age children. For this reason, Avalon Ossining is not a reasonable comparable development as it contains significant number of 3-bedroom units.

▼
⁴ Information for Harbor Square was provided by Brian Dashnaw, Vice President of Property Management for GDC, on May 24, 2018, and reflects data as of that date.



In contrast, Avalon Green in Elmsford, for example, had 4 total school children in 105 units (consisting of 1 and 2-bedroom units). Avalon Willow in Mamaroneck had 15 total children in 227 units (consisting of 1 and 2-bedroom units). The Avalon in Bronxville had seven total children in 100 units (consisting of 1, 2 and 3-bedroom units). These three projects gave very consistent results, ranging from 0.06 to 0.079 school children per unit.

Table 7 Projected School-Age Children Based on Comparable Developments (2018 Data)

Number of Units Proposed at Hidden Cove	Generation Rate (child/per unit)	Potential School Children in Hidden Cove
137	0.079 (Harbor Square) ¹	11
137	0.070 (Avalon Willow)	10
137	0.070 (Avalon Green)	10
137	0.060 (The Avalon)	8

Information for Harbor Square provided by Brian Dashnaw, Vice President of Property Management for GDC.

Information for Avalon Willow, Avalon Green and The Avalon provided by AvalonBay Communities on June 9, 2018.

The four projects above resulted in projections for the generation of school-age children at the proposed Hidden Cove ranging from 8 to 11 children. This is less than the 19 school-age children projected by using the Rutgers multipliers. Given that the majority of units in the four residential developments were similar to those of the Hidden Cove, it could be anticipated that the proposed Project would also result in a similar generation rate.

Fiscal Impacts

Existing Conditions

The assessed value of the Project Site known as tax parcel 89.14-1-11 is \$1,331,200 and total annual taxes are \$55,901.50. The taxes are distributed to Village, the Town of Ossining, Westchester County and the School District. The village tax rate covers police and fire services among other village services. The county tax rate covers general county services, county sewer and county solid waste. The following table outlines the tax rates for each taxing jurisdiction, and based on these rates, the current tax distribution to the individual taxing districts is outlined:



Table 8 Current Property Tax Distribution

Taxing Jurisdiction	Tax Rate	Taxes
County	\$ 3.219583	\$ 4,285.91
General	\$ 0.753713	\$ 1,003.34
Ambulance District	\$ 0.209801	\$ 279.29
County Solid Waste	\$ 0.282812	\$ 376.48
County Sewer Ossining	\$ 0.847056	\$ 1,127.60
Village Tax	\$ 10.849240	\$ 14,442.51
Ossining School Tax	\$ 24.830668	\$ 33,054.59
Library Tax	\$ 1.000438	\$ 1,331.78
Total	\$ 41.993311	\$ 55,901.50

Anticipated Impacts

The following table outlines the estimated taxes to be generated by the proposed Current Project. Based on this analysis, the Current Proposed Action will generate an estimated \$1,044,445 in annual tax revenue to all taxing jurisdictions. These estimates are based on the current taxes paid by AvalonBay Communities for the Avalon Ossining project ("Avalon"), a recent rental project in the Village of Ossining. Avalon comprises two tax parcels with a combined assessed value of \$30,499,600. Based on the current tax rates, Avalon's property taxes are approximately \$1,280,779. Avalon has 168 units averaging \$7,624 in annual property taxes per unit. Assuming a similar assessment for Hidden Cove, and assuming the Hidden Cove Project would likely pay approximately \$7,624 per unit similar to Avalon, the 137 proposed units at Hidden Cove would generate approximately \$1,044,445 in total annual property taxes. The following table outlines the current tax rate for each taxing jurisdiction, and based on these rates, the projected property taxes to be generated to each individual taxing district:

Table 9 Projected Property Taxes

Taxing Jurisdiction	Tax Rate	Taxes
County	\$ 3.219583	\$ 80,076.50
General	\$ 0.753713	\$ 18,746.12
Ambulance District	\$ 0.209801	\$ 5,218.11
County Solid Waste	\$ 0.282812	\$ 7,034.02
County Sewer Ossining	\$ 0.847056	\$ 21,067.72
Village Tax	\$ 10.849240	\$ 269,839.04
Ossining School Tax	\$ 24.830668	\$ 617,580.93
Library Tax	\$ 1.000438	\$ 24,882.59
Total	\$ 41.993311	\$ 1,044,445.03



Project Costs and Impacts to Taxing Jurisdictions

As discussed above, the Current Project could result in the generation of approximately 19 public school-age children based on the Rutgers multipliers, or 8-11 public school-age children based on data from comparable developments in the County. Based on the marginal cost analysis (see discussion above), the cost to the local tax payers to educate 19 school-age children generated by the Project would be approximately \$194,921. The property tax generation analysis provided above indicates that approximately \$617,580 in school district taxes would be generated by the proposed development, which would result in a net benefit of approximately \$422,659. The School would realize an even higher net benefit of approximately \$535,508 to \$504,731, if the Project generates 8-11 public school-age children, respectively.

Potential Impacts Based on NYS Education Department Budget

Based on a letter from the Ossining Union Free School District dated May 22, 2018, the School District has suggested the use of the NY State Education Department budget rather than the local Ossining School District Budget for the purpose of calculating the per pupil cost to educate the additional students. The School District also suggests using the separate NY State Education Department figures for general education students and special education students. Typically, the State data is not used in SEQRA analysis and the accepted SEQRA methodology is to use the local School District's budget and enrollment data and compare this information to the project generated taxes to determine the impact of an individual project.

However, in an effort to be responsive to the concerns expressed on behalf of the School District, the following analysis uses NYS Education Department Fiscal Accountability Summary (2016-2017) for the Ossining School District to determine the impact to the School District.

As shown below, based on the NYS Fiscal Accountability Summary, instructional expenditures are \$13,203 for general education students and \$42,950 for special education students. According to Westchester Putnam School Boards Association Facts & Figures for 2018, information provided by the Ossining School District, approximately 83% of the per pupil cost is paid by local tax levy; the remainder of the budget comes from the State or other sources. Since the purpose of this analysis is to determine the direct impact of this project on the local School District, the portion of the educational costs to be paid by local tax levy would be 83% of \$13,203 or \$10,958 for general education students and 83% of \$42,950 or \$35,649 for special education students.

FISCAL ACCOUNTABILITY SUMMARY (2016 - 17)

INFORMATION ABOUT EXPENDITURE RATIOS (2015 - 16)

(Data are lagged a year.)

Commissioner's Regulations require that certain expenditure ratios for general-education and special-education students be reported and compared with ratios for similar districts and all public schools. The required ratios for this district are reported below.

The numbers used to compute the statistics on this page were collected on the State Aid Form A, the State Aid Form F, the School District Annual Financial Report (ST-3), and from the Student Information Repository System (SIRS).

THIS SCHOOL DISTRICT

GENERAL EDUCATION	SPECIAL EDUCATION
INSTRUCTIONAL EXPENDITURES	INSTRUCTIONAL EXPENDITURES
\$61,778,293	\$23,794,398
PUPILS	PUPILS
4,679	554
EXPENDITURES PER PUPIL	EXPENDITURES PER PUPIL
\$13,203	\$42,950

<https://data.nysed.gov/fiscal.php?year=2017&instid=800000035059>

Based on the NYS Education Department data shown above, the District has a general education enrollment of 4,679 students and a special education enrollment of 554 students, or 10.6% of the total district enrollment.

Utilizing the Rutgers generation rates, the project would result in a total of 19 school children including 17 general education students at a cost of \$186,286 (17 x \$10,958) plus two special education students at a cost of \$71,298 (2 x \$35,649). As a result, based on the NYS Education Department data and the very conservative Rutgers generation rates, the cost to educate the additional students, which will be paid by local tax levy is \$257,584 (\$186,286 + \$71,298). As detailed in the FSEIS, the Current Project would generate an estimated \$617,580 in total taxes to the Ossining Union Free School District. This tax revenue would result in a net fiscal benefit of \$359,996 based on 19 new students (including two special education students) when utilizing NYS Education Department data.



Utilizing an estimated range of 8-11 public school children based on the actual data provided by comparable developments in the Village and elsewhere in the County, there would be even less of an impact.

With a cost to educate paid by local tax levy of \$10,958 for general education students and \$35,649 for special education students, the addition of eight students (including seven general education students and one special education student) would be \$112,355 ($7 \times \$10,958 + \$35,649$). With a cost of \$112,355 to educate eight new students paid by local tax levy, the **net benefit to the school district would be \$505,225** (\$617,580 generated in property taxes minus the cost of \$112,355).

If the project results in 11 new school children, based on the actual data and generation rates provided by Harbor Square, the addition of 11 students (including ten general education students and one special education student) would be \$145,229 ($10 \times \$10,958 + \$35,649$). With a cost of \$145,229 to educate 11 new students paid by local tax levy, the net **benefit to the school district would be \$472,351** (\$617,580 generated in property taxes minus the cost of \$145,229).

A technical memorandum providing a complete response to the letter from the Ossining Union Free School District, together with the School District's letter, can be found in Appendix 5.16.

1.2.1 Mitigation

No new mitigation is required with respect to demographics and community facilities as compared to the 2013 SEIS.

The elimination of 3-bedroom units from the Current Project results in a decrease in projected new residents and school children. There would continue to be an insignificant increase in population (1.17%) and housing units as a result of the proposed development. The Current Project is expected to have a net positive impact for the taxing jurisdictions, as shown in the table below, which would off-set any increase in demand for services from the new residents. Mitigation has been built into the site design for the Current Project with review and input from emergency service providers. With implementation of these mitigation design measures, there are no anticipated significant adverse impacts associated with the increase in population and housing units from the proposed Project and, therefore, no further mitigation is necessary.



The proposed Project will generate over \$988,543 in total new taxes. The table below outlines the net increase in tax generation for the proposed Project as compared with the existing unoccupied Site. As compared to the current tax generation the Village will receive an additional \$255,396 in annual taxes; the town/county will receive an additional \$93,533.37; and the school district will receive over \$584,526 in new taxes.

Table 10 Estimated Changes in Tax Generation

Taxing Jurisdiction	Current Taxes	Projected Taxes	Changes
County	\$ 4,285.91	\$ 80,076.50	\$ 75,790.59
General	\$ 1,003.34	\$ 18,746.12	\$ 17,742.78
Ambulance District	\$ 279.29	\$ 5,218.11	\$ 4,938.82
County Solid Waste	\$ 376.48	\$ 7,034.02	\$ 6,657.54
County Sewer Ossining	\$ 1,127.60	\$ 21,067.72	\$ 19,940.12
Village Tax	\$ 14,442.51	\$ 269,839.04	\$ 255,396.53
Ossining School Tax	\$ 33,054.59	\$ 617,580.93	\$ 584,526.34
Library Tax	\$ 1,331.78	\$ 24,882.59	\$ 23,550.81
Total	\$ 55,901.50	\$ 1,044,445.03	\$ 988,543.53

The Current Project would not include the creation of new dedicated public roads. Municipal water would be metered and all other taxing jurisdictions have been included in the estimates above. Overall, the Current Project would likely result in marginal increases in demand for Village services, the costs of which would be covered by the generated property tax revenue. Therefore, no mitigation is required.

1.3 Visual Resources and Community Character

The potential impacts relating to visual resources and community character have not changed significantly since the 2013 SEIS due to the Project Refinements.

In the Applicant's opinion, the Project Refinement relating to the revised building footprint would only improve the aesthetics of the proposed building by eliminating the bump out on the north side of the building. This aligns the northern face of the building, reducing the overall profile and allowing enhanced fire access.

In addition, the Applicant also believes that the Project Refinement of removing the proposed secondary access road in the Current Proposed Action will also eliminate potential visual impacts associated with this secondary road.



As explained in the 2013 SEIS, the Project Site is gently sloping towards the Hudson River. At the far eastern end of the Site, the slope increases significantly and there is substantial vegetation and trees. The proposed building and garage will occupy most of the previously developed, flat area and push slightly into the hillside to the east and to the south.

The height and location of the proposed building are such that no upland areas will have their views of the River blocked. From the existing residence located at 10 North Water Street, the new building will be located to the north of the house, while the Hudson River is located to the west of the house. The existing residence has a first floor elevation just below the sixth floor elevation of the proposed residential building. Views to and from the east, south and west sides of the house will not be impacted from the proposed residential building. Only from the northerly side of the house would the proposed building be visible. It is the Applicant's opinion that from the Hudson River, the proposed residential building will appear much smaller than its actual size because it is situated perpendicular to the River, thereby preserving view corridors and minimizing any potential visual impacts. As requested by the Planning Board, colored renderings of the proposed building from various vantage points are included at the end of this chapter.

The existing elevation of the demolished pad slopes gently from east (elevation 14) to the west (elevation 8) at North Water Street. The property rises sharply to the southerly property line adjacent to the sanitary sewer line at elevation ± 58 . The sanitary sewer follows the southerly property line where the elevation drops from elevation ± 58 to elevation ± 18 until the sewer transitions away from the property line and travels west towards North Water Street. At this location, the slope from the adjacent Plateau parcel extends into the Project lot and the slope rises steeply up to elevation ± 32 and then back down to elevation ± 10 at North Water Street. There is an existing residence to the south of the Project where the grade elevation around the house is approximately 68. The properties to the north including Clear Cast Technologies, Inc. and Diamond Dairy, Inc. have buildings sited at a slightly lower grade plane at approximate elevation 8.

The easterly portion of the building shall be excavated into the slope. At the southeasterly corner, where the grade transition is the steepest, the parapet wall of the building is proposed as a 12 feet high retaining wall. A second wall parallel to the southerly property line ranges from 8 feet high to 16 feet high behind the proposed pool.



In the southeast corner, only the top 3 floors (floors 4, 5 and 6) are above the grade elevation at the property (± 58). The top of the roof is designed to be approximately elevation 88.

The Applicant also believes that the building's architecture will provide a visual and aesthetic enhancement for the Site and surrounding area. As described in the Project Description Chapter (section PD.3), the architecture is intended to reflect the light industrial, manufacturing architecture existing historically up and down the Hudson Riverfront, and in particular in Lower Hudson Valley communities such as the Village of Ossining. Refer to the Project Description for a full discussion of the proposed architecture.

At this stage of the project the mechanical systems (heating, ventilation, air conditioning) are not yet designed. Conceptually, however, the intent is that the HVAC will take a unitized approach, such that each apartment HVAC will be self-contained. With such an approach each apartment would have its own internal independent system. The elevation drawings being part of this submission show subtle grilles at windows. This is meant to anticipate the possibility of systems located at exterior walls.

The improved Road would also improve the views in the surrounding area. Currently, the Road consists of broken asphalt in various states of disrepair, with no curbing, sidewalks or other modern features. The proposed improvements to North Water Street would enhance views by providing a defined roadway section for vehicular and pedestrian traffic with street lighting designed to illuminate the road and sidewalk with minimal spill beyond the right of way.

Two grading alternatives within Tax Lot 5 have been considered with this application. The Plan discussed in the 2013 SEIS included the grading of a 2:1 slope to meet existing grade resulting in approximately 13,300 cubic feet of cut material, disturbing an area of approximately 27,000 square feet. This alternative will modify the existing nearly vertical rock face obstruction along the east side of the road and provide a more open viewshed traveling along the improved North Water Street.

An alternative grading plan has been considered to minimize impacts to existing trees and minimize the impact of earth moving activities. This alternative consists of utilizing a proposed rock face cut graded at a 5:1 slope. The rock face would be partially screened by the existing Castle Plumbing building. The grading and tree removal impacts for both alternatives is included in section PD.2 Table 1 of Chapter PD.



Renderings for both alternative grading/rock cut scenarios can be found at the end of this chapter.

1.3.1 Mitigation

The Current Project has been designed in a manner that mitigates potential adverse visual impacts from the Hudson River and from nearby properties. Renderings of the proposed building from multiple vantage points, including the Hudson River, are provided at the end of this chapter. No further mitigation is necessary.

1.4 Site Disturbance and Grading

Construction for the Proposed Action will consist of the new residential building with 137 apartment units, the surface parking areas, an underground parking structure, the proposed stormwater management facilities, and off-Site Road improvements along North Water Street.

The potential impacts relating to site disturbance and grading have not changed significantly since the 2013 SEIS due to the Project Refinements. The Project Refinement to eliminate the secondary emergency access road has resulted in less site disturbance.

The potential site disturbance and grading impacts associated with the Project Refinement to include the West Road Alternative are described below, together with proposed mitigation measures.

1.4.1 Project

The total cut and fill associated with the various grading scenarios for each road alternative is detailed below and in section 1.4.4. This analysis does not include an expansion factor for the cut materials, however, to the maximum extent possible, material is proposed to be reutilized on site to minimize off site truck trips. This includes fill to raise North Water Street to final proposed elevation for flood access. (See Current Site Plans). Retaining walls around the reconstructed road and around the proposed building will be reinforced



concrete and will be fully designed at the time a building permit is applied for. These walls mainly occur near the property lines.

1.4.2 Center Road Alternative

As described in the 2013 SEIS, horizontal alignment improvements were proposed to improve the site distance along the existing road, specifically within the Castle Plumbing Parcel just south of the proposed building. The horizontal alignment of the roadway is proposed to be straightened starting at approximate station $\pm 8+00$, and running north through the Castle Property to station $\pm 11+60$. This requires an excavation within the adjacent Tax Lot 5, also owned by the Applicant and otherwise known as the Plateau parcel. Currently, the easterly edge of the roadway in this location is confined in part by a rock face ranging up to 40 feet in height.

The improved Road alignment in this location is shifted approximately 30 feet to the east into the rock face. The Plan discussed in the 2013 SEIS included the grading of a 2:1 slope to meet existing grade, resulting in approximately 13,300 cubic feet of cut material, disturbing an area of approximately 27,000 square feet.

Upon further study, the cut section is generally within the existing area of rock ledge and the plan has been modified to reflect the area to be excavated as a rock slope at 5:1 slope (5 feet vertical rise: 1 feet horizontal distance). This would result in a total of approximately 3,830 cubic feet of cut material, and disturb an area of approximately 9,000 square feet. No blasting would occur. Chipping with a hydraulic hammer or similar tool will be utilized. Rock slope stabilization methods such as rock pinning are available, if necessary, to reinforce the rock slope to prevent over excavation and minimize disturbance.

The proposed cut sections will be staged such that vehicular access will not be interrupted during normal working hours. Excavation will be staged from the north and work in a southerly direction to provide ample construction staging for chipping and removing the rock while minimizing interference with the traveled way. Precautionary maintenance and protection of traffic will be employed during critical excavation to ensure safety for residents, adjacent businesses and vehicular and pedestrian traffic.



The excavated rock and soil from this cut section will be utilized for the Project to reconstruct North Water Street to the minimum elevation 8, as specified by the Village for emergency vehicle access during the 100-year flood event. All cut material is proposed to be used for the Project, and is not expected to generate any truck trips off-Site, with the exception to remove organics and fallen trees. It is anticipated that the removal of approximately 32 trees will be required for this cut, many of the trees growing within the existing rock face. These existing trees range in size from 6" to 20", according to the tree survey prepared for this Project. The species are generally limited to Maple, Hickory Oak, Pine and Locust varieties.

On the Conga Property, vertical alignment improvements require approximately 1450 cubic yards of structural fill within the proposed right of way to comply with access requirements during extreme flood events. Retaining walls are proposed from station 3+00 to station 8+50 to contain the raised roadway at the new elevation. Regrading outside the 30-foot right-of-way is generally confined to approximately 11,000 square feet in area and approximately 445 cubic yards of fill to provide access to existing buildings on both the east and west side of the new roadway.

On the Castle Property, vertical alignment improvements require approximately 80 cubic yards of structural fill within the proposed right-of-way. Regrading outside the 30-foot right-of-way is limited to the area south of building and is generally confined to approximately 3,200 square feet in area and approximately 50 cy of fill to maintain access to the building. The existing parking lot north of the building is above elevation 8 and will only require transitional grading between the existing and proposed curb cut.

1.4.3 West Road Alternative

The West Road Alternative is proposed to straighten the alignment of North Water street. This alternative eliminates the bifurcation of the Conga Property placing the roadway along Metro North property. This alternative only modifies the proposed alignment from station 3+50 to station 8+50, within the Conga Property, shifting the existing traveled way approximately 30 feet to the west. Within the Castle property, the roadway alignment and grading required outside the 30 feet right of way is the same as in the Center Road alternative.

In order to re-construct the road in this location, the building known as 29



North Water Street, which is currently west of the existing road will be relocated to the east side of the road within the Conga Property.

Within this area, all of the surfaces outside the right of way for North Water Street are paved as existing parking lots or storage areas, no change in runoff patterns will result from this alignment.

As with the Center Road alternative, similar grading and fill is required outside the roadway easement to maintain access to The Conga Property as the elevation of this alignment is the same in both alternatives.

This alignment will require the same amount of fill to construct the road to the minimum elevation 8 ($\pm 1,530$ cubic yards) as the existing grade is generally consistent from the existing traveled way to the westerly property line. The proposed curb cuts within the Conga Property and the Castle property would require a similar area of disturbance and amount of fill outside the 30-foot right of way to meet existing grade from the raised roadway elevation.

This alternative will require no retaining walls along the westerly right of way.



1.4.4 Summary of Potential Impacts for Road Grading Scenarios

The following table illustrates the site disturbance and grading of the various grading scenarios for each road alternative, including earthwork totals, tree removal, and disturbance area.

Project with Center Road Rock Cut Scenario	• ±22,529 cy of cut • ±18,365 cy of fill ±4,163 cy removed from site ±5.4 Acres Site Disturbance ±1.0 acre Steep Slope Disturbance ±97 Trees to be removed
Project with Grading Scenario	• ±38,072 cy of cut • ±26,116 cy of fill ±19,710 cy removed from site ±6.2 acres Site Disturbance ±1.4 acre Steep Slope Disturbance ±184 Trees to be removed
Project with West Road Rock Cut Scenario	• ±18,024 cy of cut • ±19,575 cy of fill ±1,551 cy imported to site (including ±1800cy to fill Santucci Parcel to elevation 8) ±5.4 Acres Site Disturbance ±1.0 acre Steep Slope Disturbance ±97 Trees to be removed
Project with West Road Grading Scenario	• ±38,269 cy of cut • ±19,505 cy of fill ±18,764 cy removed from site (including ±1800cy to fill Santucci Parcel to elevation 8) ±6.2 acres Site Disturbance ±1.4 acre Steep Slope Disturbance ±184 Trees to be removed

1.4.5 Mitigation

No new mitigation is required with respect to site disturbance and grading as compared to the 2013 SEIS.



As described in the 2013 SEIS, proposed mitigation measures include temporary soil erosion and sediment control devices, including protective earthmoving procedures and grading practices, vegetated cover, silt fencing, stabilized construction entrance, dust control, construction road stabilization, silt traps, inlet protections and sediment basins. The methodology of the Erosion and Sediment Control Plan is to control erosion & sedimentation, and to re-establish vegetation as soon as possible. These temporary controls will be installed prior to commencement of earthmoving activities where possible.

In addition, to mitigate the loss of trees, the Applicant is showing comprehensive tree plantings and other landscaping along the northeast and southeast corners of the proposed residential building, and near the Site's entry. The Current Site Plans include a Streetscape Plan that shows various deciduous, evergreen and ornamental plantings listed in a table.

The improvements to the North Water Street access road have been designed to improve conditions for all users of the roadway. The design meets requisite Village and State specifications. In addition, North Water Street will be improved to bring the entirety of the roadway into compliance with current codes and best practices and provide access to emergency vehicles during the 100 year flood event.

The roadway improvements will be constructed in phases in such a manner to provide continuous access to all adjacent properties. Filling of the road section will be accomplished to maintain one lane of traffic during working hours. Flagmen will be present to direct the passage of vehicular and pedestrian traffic in both north south directions.

The re-construction of North Water Street may happen simultaneous with the construction of the proposed building. The fill required for the roadway construction will be excavated within the Project Site and Lot 5, east of the Castle Property.



1.5 Stormwater Management

The full Stormwater Pollution Prevention Plan (SWPPP) has been updated since the 2013 SEIS pursuant to the Phase II regulations under General Permit (GP 0-15-002) as required by the New York State Department of Environmental Conservation (NYSDEC). The potential impacts relating to stormwater management have not changed significantly since the 2013 SEIS due to the Project Refinements. The updated SWPPP reflects the Project Refinements relative to stormwater management, including the elimination of the secondary emergency access, and new West Road Alternative.

The Site discharges directly to the Hudson River which is a 7th order stream/tidal water and thus attenuation is not required for the CpV- Channel Protection Volume (1 year storm), the Qp- Overbank Flood Control (10 year storm) or Qf- Extreme Flood Control (100 year storm). Attenuation is required for the WQv- Water Quality / RRV- Runoff Reduction volume and is calculated in accordance with the NYSDEC Stormwater Design Manual.

1.5.1. Project Site Stormwater Management

In summary, the stormwater runoff from the new impervious surface created on the Project Site from the proposed residential building and related improvements will be directed to a series of stormwater management practices including isolated infiltration trenches and hydrodynamic separators to mitigate runoff from the improved road, an infiltration practice under a porous pavement parking area, a white roof designed to detain stormwater runoff and a green roofs which is integral to the 1st floor roof garden over the underground garage facility.. The complete Stormwater Pollution Prevention Plan (SWPPP) is included in this FSEIS as Appendix 5.7.

1.5.2 Rerouting of Existing Stream Through New Culvert

The Current Project includes rerouting the existing stream that flows through the Site within a man-made stream channel, consisting of a combination of open channels and underground culverts, which was integral to the prior use of the Site. The watercourse was channeled to provide hydrodynamic power to the mill building.

The Current Project includes reconstruction of the existing channel and culverts into a new underground culvert sized to manage 100-year off-Site stormwater flows. The alignment of the watercourse will be shifted slightly to the north under the proposed exterior parking lots in front of the proposed residential building. The existing stream



that currently channel flows through the Site is a receiving water body for an approximate drainage area of 26.6 acres with a peak storage for a 100-year storm event of 6,797 c.f. Runoff from the sub-basin is routed downstream until it reaches an existing brick culvert. This culvert continues underneath North Water Street and eventually discharges to an approximately 220' long open water course. The channel continues west before joining an existing drainage culvert that discharges into the Hudson River.

The proposed culvert will be an 8' wide x 4' deep precast reinforced concrete box culvert designed to an H-20 loading for its entire length, sufficient to support vehicular loads from vehicles traveling on North Water Street. A new drainage structure is designed with a weir inlet to direct the open channel stream into the new box culvert, sized to manage the offsite flows during the 100-year storm event.

The Applicant has been in contact with the U.S. Army Corps of Engineers and will follow U.S. Army Corps of Engineers guidance regarding permitting for the proposed Project. The Army Corps will determine whether a Nationwide Permit (NWP) or Standard Permit (SP) is required. The Applicant will be submitting relevant Site Plans to the U.S. Army Corps of Engineers for further review.

Impacts of construction of new culvert

The new culvert will be relocated during the first phase of construction to ensure minimal impact to the integrity of the off-Site runoff conveyed to the Hudson River. The new culvert will be constructed just north of the existing, deteriorating culvert such that the existing stream flow can be maintained with minimal impact from adjacent construction activities. The new culvert will be extended approximately 20 feet to the west to a new headwall under the newly constructed roadway section.

Construction will be phased in a manner to minimize disturbance to the existing watercourse by first installing the sections that do not interfere with the existing flow. Once the upstream and downstream sections are ready to be installed, a clean water diversion will be implemented in order to maintain the integrity of the off-site flow. The scope of this work will be coordinated in between rainfall events when flow is at a minimum. The diversion will consist of temporary piping or mechanical pumping from a point upstream of the work area to the existing culvert downstream. Pumping operations will be limited to the short duration required to transition the open channel into the new concrete structure at the upstream and downstream connection points. This work is expected to be completed within 5 working days. If



temporary power is not available on site, a generator will be installed to power the pump. The contractor must comply with Village noise ordinances throughout construction and closely monitor weather conditions to plan for increase flow in the watercourse.

The excavation required for the construction of the new culvert is part of the overall earthwork analysis. It is anticipated that the cut materials generated from this scope of work will be stockpiled on-Site until such time as they can be utilized to raise North Water Street to meet Fire Department requirements.

The Project would also require a variance from the Zoning Board of Appeals with respect to Village Code Section 270-28(F), which requires a 25' buffer along either side of a watercourse. The proposed rerouted stream would range from approximately 15 to 25 feet from the north side of the building, falling short of the 25' requirement, in limited areas.

1.5.3 Center Road Alternative Stormwater Management

A new stormwater collection system is also proposed to be located within the proposed Road improvements to North Water Street. Runoff will be collected within new catch basins in the improved roadway and direct stormwater to hydrodynamic separators and infiltration trenches sized to attenuate the required water quality volume (WQv) for the reconstructed road section. Since the new Road would generally be constructed within the existing traveled way, no new impervious area is proposed with this design. Therefore, the Project falls under the NYSDEC re-development guidelines, reducing the WQv to 25% of the standard. Additionally, attenuation of the Overbank Flood (Qp) and Extreme Flood (Qf) events is not required since the Project Site and Road are adjacent to a 7th order stream (Hudson River). Treated runoff from the improved Road will discharge to the Hudson River as it currently does, through the existing culvert under the MTA railroad at Station $\pm 6+75$ next to 29 North Water Street and the existing culvert within the Applicant's parcel to the north. A new catch basin is proposed on the east side of the reconstructed roadway within the Conga Property. This catch basin will tie into an existing catch basin located on the west side of North Water Street and discharge through an existing culvert under the MTA railroad to the Hudson River. No changes to the existing offsite drainage paths are proposed with this application. These and all other stormwater management practices for the building and road are described in



the updated SWPPP and prepared in accordance with NYSDEC Stormwater Design Manual requirements. See Appendix 5.7 for the full SWPPP.

1.5.4 West Road Alternative Stormwater Management

The stormwater collection system for the West Road Alternative follows the same design standards as those for the Center Road Alternative. Runoff will be directed to catch basins and hydrodynamic separators sized to attenuate the required water quality volume (WQv). The stormwater conveyance system has been designed to receive runoff from the Conga and Castle Properties such that the existing drainage patterns will be maintained in the proposed condition, with discharge to the Hudson River.

1.5.5 Floodplain

The location and elevation of the floodplain boundary line shown on the Plans was taken from the FEMA Flood Insurance Rate Map #36119CO136G revised (preliminary) 2014. Elevation 10 has been established for the 100-year flood event; elevation 15 has been established for the 500-year flood event.

The first floor of the existing Mill Building was entirely within the 100-year flood zone and was subject to flooding event, which, in the Applicant's opinion, contributed to the deterioration of the structure. The proposed building has been designed with its lowest floor (interior parking garage) at elevation 15 and the first (residence) floor at elevation 25. The proposed building will not be subject to flooding based on the latest FEMA flood maps, and North Water Street has been designed to provide access to the project during the 100-year flood event.

Although the floodplain line will be altered as a result of the proposed grading plan, no downstream properties will be adversely affected by filling the flood plain as the site is adjacent to the Hudson River which is a 7th order stream. Refer to Appendix 5.7 for the full SWPPP, which complies with NYSDEC Stormwater Design Manual requirements.

1.5.6. Mitigation

No new mitigation is required with respect to stormwater management as compared to the 2013 SEIS. With the implementation of the proposed SWPPP



for the Project, water quality and runoff reduction volumes have been adequately mitigated from all developed surfaces within the Project.

The incorporation of the Best Management Practices will significantly reduce the pollutant loadings in the post-construction condition by capturing and treating the runoff from the new and existing impervious surfaces and disturbed areas to the greatest extent possible. The SWPPP meets the requirements of the NYSDEC for Water Quality and Quantity, providing minimal impact to downstream waters.

No downstream properties will be adversely affected by filling the flood plain as the site is adjacent to the Hudson River which is a 7th order stream. Therefore, no mitigation is required.

1.6 Traffic and Transportation

The Project Refinements would not result in any new traffic-related impacts as compared to the 2013 SEIS.

As described in the 2013 SEIS, a Traffic Impact Study was previously prepared to evaluate the existing and future traffic conditions at the Site access and adjacent intersections. The Traffic Impact Study originally prepared for the DEIS was revised and included in the 2013 SEIS to incorporate updated traffic counts and traffic projections. Based on the results of the updated analysis, the following findings and recommendations were determined:

- a. The intersections of North Water Street and Snowden Avenue, and Water Street and Broadway, can accommodate the anticipated additional traffic at acceptable Levels of Service. Additional pavement markings will be installed at the intersection, as shown on the Current Site Plans. No fill is required within this section of North Water Street as the roadway elevation is above the 100 year flood event.
- b. North Water Street currently serves several businesses and peak hour volumes range from 25 to 35 vehicles per hour. The developed Site would add approximately 70 additional vehicles during the peak hour. In order to accommodate the existing and future traffic a minimum roadway clear width of 22 feet would be required. However, based on input from the Village and its Engineering Consultant, a width of 24 feet was identified to better accommodate emergency vehicle traffic for the area. At a minimum, all final



road widths will comply with all applicable State laws. As discussed above, a certain amount of removal of a portion of existing rock out cropping will be required to provide this width.

- c. Emergency vehicle access to this area of North Water Street will be improved with the completion of the above improvements. This will also result in providing adequate emergency vehicle access to the site as well as to all other properties along North Water Street.

With the completion of the proposed roadway improvements as shown on the Current Site Plans, the capacity analysis results indicated that the proposed Project will not result in a significant negative traffic impact on the area roadways, and safe and efficient operation will exist.

As also described in the 2013 SEIS, the Applicant is also proposing the creation of sidewalk on the Project Site, as well road improvements along North Water Street. The Applicant is not seeking a density bonus for the proposed Road and sidewalk improvements because they are required for the Project. The Applicant believes, however, that these improvements will also benefit the public and other property owners along North Water Street, not just the Project.

The Applicant has offered to continue that sidewalk at its expense over a portion of Village-owned Lot 6 with authorization from the Board of Trustees. As shown on the Current Site Plans, the proposed sidewalk and ADA curb ramps would extend over Lot 6 to the intersection of North Water Street and Snowden Avenue. In the Applicant's opinion, this aspect of the Proposed Action will significantly improve the safety of pedestrians using North Water Street, supporting one of the Village's goals to enable more of its residents to access and enjoy the Crawbuckie Nature Preserve as set forth in the Comprehensive Plan.⁵ Establishing specific curbing and lane controls will also enhance the safety for vehicular traffic along North Water Street. The Applicant believes that transforming North Water Street into a safe and code compliant roadway, with its new sidewalk, will facilitate another Village goal of expanding the RiverWalk along a significant length of Village waterfront.

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⁵ Village of Ossining Comprehensive Plan July 2009), pg. 20 Sidebar: RiverWalk.



1.6.1 Mitigation

No new mitigation is required with respect to traffic and transportation as compared to the 2013 SEIS. The capacity analysis results indicate that the proposed Current Project will not result in a significant negative traffic impact on the area roadways. With the proposed roadway improvements to North Water Street shown on the Site Plans, safe and efficient operation will exist. No further mitigation is required.