

A. INTRODUCTION

The French-American School of New York (FASNY or the “Applicant”) has submitted a modified application (the “Alternative Plan Application”) for Special Permit/Site Plan approval for a “secondary school” within only the Upper School to be accessed from Ridgeway and Hathaway Lane in accordance with a Stipulation of Settlement, which was “So Ordered” by Judge Joan Lefkowitz of the Westchester Supreme Court on September 12, 2016 (the “Settlement Stipulation”). The area of the site to be developed with the private secondary school, gymnasium, athletic fields, and parking areas is referred to in the Application as the “Upper School” or “Project Site.” The Upper School, along with ancillary athletic fields, tennis courts, and parking lots, is referred to herein as the “Proposed Project” or “Alternative Plan.”

The Common Council of the City of White Plains served as the Lead Agency for the Application under the New York State Environmental Quality Review Act (Article 8 of Environmental Conservation Law) and its implementing regulations (6 NYCRR Part 617) (together “SEQR”) for a previously proposed larger project, which envisioned an Upper School and Lower School for up to 950 students (the “Original Plan”). The Common Council continues to serve as Lead Agency for this Alternative Plan Application. On December 19, 2013, the Common Council issued, on a 6-1 vote, a SEQR Findings Statement in favor of that previously proposed larger project.

Subsequent to adoption of the SEQR Findings Statement, FASNY submitted a complete Special Permit/Site Plan Application that addressed each of the required criteria within the SEQR Findings Statement, as documented in the previously submitted Environmental Analysis. The Application was developed after consultation with the City of White Plains Departments of Law, Public Works, Public Safety, Buildings, and Parking and City consultants on traffic, air quality, noise, planning and outside Counsel to ensure consistency with City of White Plains design standards. Pursuant to the Stipulation of Settlement, the full administrative record developed in connection with the Original Plan is incorporated in this Environmental Analysis, including, but is not limited to: (i) the draft environmental impact statement, which the Council accepted as complete on August 6, 2012 (DEIS); (ii) the final environmental impact statement, which the Council accepted as complete on September 16, 2013, (FEIS), and; (iii) the SEQR Findings Statement, which the Council adopted on December 19, 2013 on a 6-1 vote.¹

¹ The term “EIS” in this memorandum is inclusive of the DEIS, the FEIS, and SEQR Findings Statement. All three documents are incorporated herein by reference, as required by the Stipulation of Settlement, which commits the City to exercising its authority under Section 7.3.6 of the City Zoning Ordinance to require that the full administrative record for the Application that was before the Common Council in August 2015 be part of the record of the Alternative Plan Application.

This submission is for an Alternative Plan, which incorporates major reductions in the scope of the Project, described in more detail below. The Alternative Plan is being submitted, once again, pursuant to the terms and conditions of the Settlement Stipulation. In the Settlement Stipulation, the City stated that, based upon its preliminary review, it “recognizes that the Alternative Plan presents a significantly reduced plan which does not require the closure of Hathaway Lane,” that this Alternative Plan “presents a potentially reasonable alternative for resolving and settling this matter,” and, accordingly, “the City encourage[d] FASNY to present the Alternative Plan for consideration as a formal application.”

Under the Alternative Plan Application, the Applicant is seeking Special Permit/Site Plan approval for the “Upper School” only – i.e., all development would be limited to Parcel A. This document evaluates the proposed modifications reflected in the Alternative Plan Application and both: a) compares the impacts of the Alternative Plan to the Original Plan analyzed in the EIS to assess whether it poses any new significant adverse environmental impacts that were not addressed or inadequately addressed in the EIS, and b) otherwise assesses the potential of the Alternative Plan to have any significant adverse environmental impacts.

As recognized by the Settlement Stipulation, the modifications to the Proposed Project constitute a significantly reduced plan compared to the Original Plan, which, to wit, significantly decreases the Project’s potential for significant adverse environmental impacts. As documented in the previously submitted Environmental Analysis, the Original Plan for both the Lower School and Upper School complied with the requirements of the Common Council’s SEQR Findings Statement, met City of White Plains design standards, and otherwise avoided, minimized, or mitigated potential environmental impacts to the maximum extent practicable. The modifications to the Proposed Project, which further reduce the Project’s impacts, do not constitute substantially new or important changes that would alter the conclusions of the Common Council as expressed in the SEQR Findings, or require a supplemental EIS under SEQR. In fact, the modifications would diminish the Project’s impacts. The aforementioned modifications to the Site Plan as demonstrated herein would not result in any new significant adverse impacts that were not previously examined during the extensive environmental review conducted by the Common Council regarding the original, larger Project, or otherwise pose any significant adverse environmental impacts. Any potential significant adverse impacts associated with the Project were comprehensively addressed in the EIS.

B. PROJECT DESCRIPTION

For the purpose of this environmental analysis, the proposed modifications to the Site Plan are grouped into the following categories, which will be analyzed in subsequent sections:

- Modifications to the Site Plan;
- Deferred phasing of Project elements.

MODIFICATIONS TO THE SITE PLAN

As cited above, this modified Alternative Plan is submitted pursuant to the Court Ordered Settlement Stipulation between FASNY and the City of White Plains. The primary modification to the Original Plan is that the Applicant is only seeking approval for development of Parcel A, which would be used as an Upper School. Up to 640 students in Grades 6-12 would use the site. In addition, Hathaway Lane would be maintained as a public roadway. Therefore, access to the Upper School would be from Hathaway Lane via Ridgeway, and not North Street. Finally, the

layout of Parcel A has been modified to accommodate the necessary parking and vehicular circulation entirely within that Parcel. As will be demonstrated below, these changes do not result in any new significant adverse impact that was not previously analyzed in the EIS or otherwise pose any significant adverse environmental impact.

The layout of the primary elements of the Proposed Project in this submission is substantially consistent with the Upper School elements of the Original Plan submission and the project considered in the EIS and Findings Statement. The school buildings for the Upper School, the athletic fields, and parking areas are in substantially the same location and substantially similar sizes to what was previously analyzed in the EIS. The principal differences between the current Alternative Plan and the previously considered Original Plan are:

- Development is **limited to Parcel A, and only includes the Upper School.**
- Hathaway Lane **will be maintained as a public roadway.**
- **Main access** to the Upper School will be from Hathaway Lane via Ridgeway.
- Proposed **enrollment at FASNY's Upper School is capped at 640 students**, and is limited to Grades 6 to 12 to avoid potential impacts associated with traffic (reduced from 950 students in grades N-12);
- Total proposed building **square footage has been reduced from 243,000 square feet to approximately 148,000 square feet** (39% reduction).
 - The Black Box Theater building (6,000 square feet) has been removed from Parcel A.
 - The Lower School building (79,000 square feet), Conservancy greenhouse and accessory structures, and 557 North Street have been removed from the Alternative Plan.
- The number of **parking spaces has been reduced** from 348 parking spaces to 248 spaces in connection with the lower cap on student enrollment
 - Two main parking areas are proposed, rather than three in the Original Plan
 - Approximately 75 parking spaces are proposed to be land-banked to be constructed only if necessary. The spaces to be land-banked include the western-most row and the middle bay in the Northern parking lot;
- The **bus pick-up and drop-off area will be to the north of the Upper School**, rather than the east. The **vehicular pick-up and drop-off area will be to the east of the Upper School** rather than the north.
- Reflecting the financial constraints imposed by the student cap and the expense of the many mitigation measures imposed by the Findings, certain elements of the Upper School would be deferred. The elements of the Upper School originally planned to be constructed during Phase II (i.e., with the Lower School), would now be constructed as part of **Phase IB**. These elements include: the multi-purpose playing field in the northwest corner of Parcel A, the softball/baseball field, the Performing Arts Center, athletic field shed, and the third basketball court and squash courts in an expanded gymnasium building. All other elements of the Proposed Project (i.e., the Upper School and Gymnasium on Parcel A and associated sports fields, driveways and parking areas) would be considered Phase IA. As with the Original Plan, **the commencement of Phase IB would be deferred to seven years or less after the completion of Phase IA.**

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- As a result of these modifications, the maximum number of Project-generated trips on Ridgeway between 7:00 AM and 9:00 AM, has been reduced from 715 trips to 413 trips (42% reduction). The total number of vehicle trips permitted during any peak hour from the proposed Project has also been reduced from 530 trips under the Original Plan to 415 trips under the Alternative Plan.

The proposed parking plan has been reduced to reflect the decrease in student enrollment and to implement various provisions of the SEQR Findings requiring the mitigation and avoidance of noise and air quality impacts. In total, the Site will have the ability to provide 248 striped parking spaces (see **Table 1**), 120 parking spaces less than what was proposed in the FEIS and 100 less than the Original Plan. The 248 spaces would be spread across three parking lots; one to the north of the buildings, one to the east of the buildings, and a service parking lot to the south of the buildings. These lots would be able to meet the projected parking demand of 248 vehicles, as calculated in **Table 2**. Additional parking for special events would be available on the grass area along the northwestern edge of the Northern lot, which will be graded, as well as the area of the multi-purpose playing field in the northwest corner of Parcel A. Combined, these areas could accommodate approximately 200 vehicles, an amount similar to what was included in the Original Plan.

**Table 1
Parking Supply**

Parking Lot	Number of Spaces	Use
Northern Lot	176	Staff and visitors
Eastern Lot	63	Students and visitors
Service Area	9	Maintenance, kitchen, and security staff
TOTAL	248	

**Table 2
Parking Demand**

	Spaces
Faculty & Staff	83
Administrative Staff	22
Maintenance/Kitchen Staff	10
Technology Staff	3
Security Staff	3
Total FASNY Employee Parking	121
Student Parking	50
Visitors	77
Total Parking Demand	248
Note: Parking for special events could be accommodated because most FASNY staff do not attend special events. A special event attracting 350 people would require approximately 233 vehicles assuming an occupancy rate of 1.5 persons per vehicle.	

As with the Project proposed in the DEIS, FASNY intends to allow use of its athletic fields by outside organizations during times when FASNY is not using them with the Alternative Plan¹. The fields would not be lit and would contain no amplification systems. The potential impacts of this shared use are discussed in the relevant sections below, specifically land use and noise.

DEFERRED PHASING OF PROJECT ELEMENTS

As a result of the cap in student enrollment and the imposition by the Common Council of various mitigation measures, FASNY was required to reconfigure certain programmatic elements (e.g., classroom space, athletic facilities), and to defer certain improvements to a later date to allow for replenishment of capital resources. Phase IA includes the Upper School and gymnasium buildings, greenhouse classroom, driveways, parking areas, western and eastern athletic fields, running track, tennis courts, gate house, and all stormwater management practices. Phase IA construction would begin as soon as reasonably possible after approval. Phase IB elements (see Construction Management and Phasing Plan), are the third gym court; squash courts; Performing Arts Center; northern grass athletic field; softball/baseball field; athletic field shed; and, land banked parking spots (if needed). Previously, under the Original Plan, FASNY had proposed constructing the Phase IB improvements at the same time as Phase II construction (i.e., the Lower School). Since the Lower School has been eliminated, there is no Phase II. FASNY will, however, commence construction of the Phase IB improvements within seven years after the completion of Phase IA, which is the same duration between these construction elements as the Original Plan. Additionally, the duration of active construction for Phase IB under the Alternative Plan will be approximately 16 months, 2-8 months less than was contemplated for Phase II under the Original Plan.

C. LAND USE, ZONING, AND PUBLIC POLICY

MODIFICATIONS TO THE SITE PLAN

The proposed modifications contained in the Alternative Plan would continue to be in compliance with the City's Zoning Ordinance. As noted in the FEIS, FASNY agreed to increase minimum setbacks to adjoining residential properties to a minimum of 75 feet, beyond the required setback of the Zoning Ordinance.

In the SEQR Findings, the Council found that the layout of the Upper School as proposed with the MPP/North Street Access was consistent with Comprehensive Plan. The layout of the Alternate Plan is generally consistent with the layout on Parcel A of the MPP/North Street and the previously submitted Original Plan, with the exception of the access location on Hathaway Lane via Ridgeway, which is discussed in more detail below. This finding was reiterated in the Resolution prepared in 2015 for the Common Council to approve the original special permit/site plan application in several places, including Number 26 on page 162, which states, "The Common Council finds that, the FINAL FASNY PROJECT sets forth the use of the FASNY Project site and the nature of the operations involved therein which are consistent with the surrounding residential area which includes several private and public schools, and is consistent with the 1997 Comprehensive Plan, as amended by the July 11, 2006 amendments."

¹ In the Modified Proposed Projects presented in the FEIS and in the Original Plan, FASNY stated that it did not intend to allow use of its athletic fields by outside organizations.

The modifications contained in the Alternative Plan propose a layout for the Upper School that is similar to what was previously proposed. The access for the Alternate Plan, however, is proposed off of Hathaway Lane via Ridgeway as opposed to North Street. SEQR Finding A-2.11 lists four reasons why the Project with a Ridgeway access would not be consistent with the City's Comprehensive Plan. All four of those reasons have been addressed by the Alternative Plan. As such, the Alternative Plan remains consistent with the Comprehensive Plan. The four reasons listed in SEQR Finding A-2.11 and Finding H-12, and how the Alternative Plan addresses each, are listed below:

- (1) While the Applicant has, and continues to, disagree with the Council's Finding that the Original Application would not "preserve the Comprehensive Plan designated role of Ridgeway as a Collector Street,"¹ the Alternative Plan significantly reduces the amount of traffic on Ridgeway from the Project analyzed in the FEIS. As discussed in more detail below, the maximum number of trips on Ridgeway between 7:00 AM and 9:00 AM, has been reduced from 715 trips to 413 trips (42% reduction). Therefore, the Alternative Plan, which reduces the number of trips on Ridgeway by almost half as compared to the original Project, preserves the role of Ridgeway as a Collector Street.
- (2) The Alternative Plan does not include a roundabout at the intersection of Ridgeway and Hathaway Lane, which roundabout was the basis of the Council's finding that the original Project with Ridgeway access would not "protect the safety of Ridgeway and the delivery of emergency services." Owing to the reduction in trips from the Project studied in the FEIS, the intersection of Hathaway Lane and Ridgeway, as discussed below, would continue to operate with acceptable levels of service with Project-generated traffic without any modifications to the intersection. Therefore, the Alternative Plan would continue to be protective of the safety of Ridgeway.
- (3) The limitation of development to Parcel A in this reduced Alternative Application, eliminates the Council's previous concern that the original project with Ridgeway access would not "provide adequate protection of local pedestrian and vehicular movements on Hathaway Lane between Ridgeway and Gedney Esplanade to traffic...and to FASNY students and staff crossing Hathaway Lane between Parcels A and D." FASNY students and staff would not cross between parcels A and D, and no new driveway would be

¹ The City's designation of Ridgeway as a "collector street" in its Comprehensive Plan (page 1-II-4) establishes that Ridgeway is a "significant major street" linking regional roadways and the entrance corridors to the City's Core Area. As stated in the DEIS at page 11-5, "[t]he City's Comprehensive Plan [Figure 1-II-3] identifies Ridgeway as a 'collector or secondary street' as opposed to a 'minor or local street.'" The American Association of State Highway and Transportation Officials (AASHTO) standard reference, "A Policy on Geometric Design of Highways and Streets," (the "AASHTO Policy") establishes that collector streets carry traffic from residential neighborhoods to arterial streets (i.e., streets that carry the highest traffic volumes) and from arterial streets to other destinations. The AASHTO Policy specifically recognizes that collector streets may also carry local bus routes, and also establishes that collector streets may have one or two travel lanes in each direction. The detailed and extensive traffic analysis in the DEIS and FEIS demonstrated that, with the proposed mitigations, there would be no significant impacts to Ridgeway's role as a "significant major street" linking regional roadways and the entrance corridors to the City's Core Area, as contemplated by the City's Comprehensive Plan. (See Comprehensive Plan at 1-II-4.) Ridgeway can accept additional traffic volume from the School with minimal impacts on travel time or delay along the Ridgeway corridor between Mamaroneck Avenue and North Street. (See DEIS, at 11-53.)

created on the east side of Hathaway Lane. In addition, Project-generated traffic on Hathaway Lane would be significantly reduced from the project studied in the FEIS as discussed above. Therefore, the Alternative Plan would provide adequate protection of pedestrian and vehicular movements.

- (4) The Project, both as conceived in the FEIS and in the Alternative Plan, would not in any way decrease open space linkages within the City. The Alternative Plan does, however, continue to include a bike-path within the western portion of Parcel A. As such, the Applicant disagrees with the Council’s finding that the original Project with Ridgeway access would not, “address...open space linkage objectives to provide connectivity between Ridgeway..., the High School and YWCA, and Bryant Avenue.” In any event, the Alternative Plan would provide enhanced open space linkages.
- (Finding H-12) The Alternative Plan does not require the addition of a right turn lane at the intersection of Ridgeway and Mamaroneck Avenue owing to the reduction in traffic associated with the Alternative Plan. Therefore, while the Applicant disagrees with the Council’s Finding that that addition of the “right turn lane within the existing paved right-of-way will have an unmitigated significant adverse impact on pedestrians crossing Mamaroneck Avenue,” the Alternative Plan would avoid any impact to pedestrians at this intersection.

For these reasons, the Applicant believes that the modifications to the Site Plan make the Project even more consistent with the Comprehensive Plan.

The shared use of the athletic fields by organizations other than FASNY at times when FASNY is not using them is an allowed use under the zoning. The Applicant strongly disagrees with the Finding A-1(2)(i), which states that such use “is not permitted as an accessory use under the Zoning Ordinance.” It is common practice for schools in the City of White Plains (public and private) to allow outside organizations the ability to use their playing fields when not in use. The Applicant is unaware of any situation where such use has been the subject of a violation based on zoning code compliance. Therefore, to restrict FASNY’s ability to avail itself of the same zoning rights as other schools would be arbitrary.

DEFERRED PHASING OF PROJECT ELEMENTS

Phasing of the Proposed Project would not alter the conclusions of the FEIS or the SEQR Findings with respect to land use, zoning, and public policy. The overall Proposed Project remains consistent with land use, zoning, and the City’s Comprehensive Plan, and each Project element, in both Phase IA and IB, would also be consistent.

D. GEOLOGY, SOILS, AND TOPOGRAPHY

MODIFICATIONS TO THE SITE PLAN

The soils within Parcel A are suitable for development. The only steep slopes present on Parcel A are in relation to the existing sand traps. The area of steep slopes associated with the sand traps and tee boxes is less than 10% of the area of Parcel A. Therefore, pursuant to Section 3-5-3 of the Municipal Code, the steep slopes are not considered an environmentally sensitive feature. This was recognized in the Proposed Resolution for approval of the Original Site Plan/special permit submission, which Resolution was not adopted due to the previous negative vote on Hathaway Lane. Specifically, on page 161, the proposed Resolution states that “FASNY has

located the principal FASNY school facilities...on Parcel A and the lower portion of Expanded Parcel D, which areas do not contain, or are outside of the applicable buffer areas of environmentally sensitive features on the overall FASNY property.” As such, there are no environmentally sensitive features on Parcel A in accordance with Section 4.4.25 of the White Plains City Code (See Table 3).

Table 3
Summary of Environmentally Sensitive Features on Parcel A

Feature	Area
Wetlands	0
Ponds	0
Watercourses/Intermittent Streams	0
Steep Slopes (20% or Greater)	9,877 sf / 0.23 acres (<1% of Site Area)
Rock Outcroppings	0
Highly Erodible Soils	0
Floodplains (100 Year Flood Hazard Zone)	0
Aquifer Recharge Areas	0

Sources: JMC; NRCS, FEMA, Westchester County GIS

DEFERRED PHASING OF PROJECT ELEMENTS

Deferred phasing of project elements would have no impacts on geology, soils, or topography. After construction of Phase IA is completed, Parcel A would be stabilized and landscaped with extensive plantings. There would be no exposed soil. All sediment and erosion control measures would be removed as they would not be needed to protect against soil erosion. The same process would be completed after Phase IB. Parcel A would be stabilized and there would be no exposed soil. Sediment and erosion control measures would be removed upon site stabilization.

E. WETLANDS, HYDROLOGY AND STORMWATER

MODIFICATIONS TO THE SITE PLAN

As documented in the EIS, there are no wetlands or surface water features on Parcel A.

An updated Stormwater Pollution Prevention Plan (SWPPP) has been prepared for the Alternative Plan and is submitted as part of this application. The updated SWPPP is consistent with the previously approved SWPPP for the improvements proposed on Parcel A. Stormwater improvements proposed on Parcel A consist of vegetative swales, green roofs, pervious walkways and a stormwater detention basin. An additional stormwater management system, consisting of underground infiltration chambers under the proposed athletic fields, has been incorporated into the Alternative Plan. The SWPPP continues to demonstrate compliance with both the City of White Plains and the New York State Department of Environmental Conservations requirements.

Accordingly, the Alternative Plan would have no significant adverse impacts on wetlands or hydrology.

DEFERRED PHASING OF PROJECT ELEMENTS

Stormwater management features, including vegetated swales, green roofs, pervious walkways, stormwater detention basin, and underground infiltration chambers would be constructed during Phase IA and would be sized to accommodate the stormwater from the full build out under the Alternative Plan.

As such, deferred phasing of certain Project elements would not change the conclusion that the Alternative Plan would have no significant adverse impacts on wetlands or hydrology.

F. VEGETATION AND WILDLIFE

MODIFICATIONS TO THE SITE PLAN

The layout of the Upper School is substantially similar to what was presented in the FEIS and the Original Plan considered in 2014 and 2015 for Parcel A. All buildings, driveways, and parking areas have been sited to preserve significant mature trees where possible. As studied with the Original Plan, mature vegetation along the periphery of the Project Site would be retained and supplemented with newly planted landscaping to increase screening of the Proposed Project and to diversify the overall mix of vegetation on the Project Site with the Alternative Plan. The Alternative Plan would require the removal of eight fewer trees on Parcel A than the Original Plan (273 vs. 281). The Project Site does not contain any areas of habitat for threatened or endangered species and it is considered unlikely that the Alternative Plan would result in any modifications to how urban wildlife species currently present would use the Site.

DEFERRED PHASING OF PROJECT ELEMENTS

Deferred phasing of project elements would have no impacts on vegetation and wildlife. During the period when construction is not active, there would be no disturbance to the Project Site from construction activity, especially the wooded wetland on Parcel D. All clearing required for construction of both Phase IA and Phase 1B, with the exception of clearing in the area of the multi-purpose field in the northwest corner of Parcel A, would be completed during Phase IA. The clearing required for that multi-purpose field would be done at the time of construction of that field.

G. HISTORIC AND CULTURAL RESOURCES

MODIFICATIONS TO THE SITE PLAN

Consistent with the SEQR Findings at E-4, the Alternative Plan would not have any impacts on historic and cultural resources.

DEFERRED PHASING OF PROJECT ELEMENTS

Deferred phasing of project elements would not pose any impacts on historic and cultural resources.

H. VISUAL IMPACTS AND COMMUNITY CHARACTER

MODIFICATIONS TO THE SITE PLAN

Modifications contained in the Alternative Plan would not result in any new significant adverse impacts that were not already comprehensively analyzed and mitigated as documented in the Council's SEQR Findings. Integration of a minimum 75-foot landscaped buffer, as required in Finding F-2, between project elements (including athletic fields and parking lots) and adjoining residential properties, would ensure that no significant adverse visual impacts would result from the Project. As noted in the Project Description, the Black Box Theater building (6,000 square feet) has been removed from Parcel A, further reducing visual impacts. Finally, the total proposed building square footage has been reduced from 243,000 square feet to approximately 148,000 square feet (39% reduction), further reducing any impacts to visual or community character.

Renderings of the Proposed Project with the Alternative Plan are provided to demonstrate how the proposed Upper School, driveways, and parking lots would appear from vantage points along public streets surrounding the Project Site (see **Figures 1 – 1f.**)

Since all development is being limited to Parcel A, no changes to the current visual character of Parcels B, C, or D would occur as a result of the Alternative Plan.

As with the Original Plan, relocation of the proposed greenhouse from the southern end of the Middle School building (as considered in the EIS) to a location south of the proposed High School (but respecting the 75-foot front yard setback) would cause this structure to become more visible from Ridgeway. However, the structure would be of a scale and design that would be consistent with the other buildings on the Site, and is being specifically designed to be in harmony with the neighborhood. Additional proposed landscaping between Ridgeway and the proposed greenhouse and Upper School would complement the greenhouse at this location, as was the case with the Original Plan. Therefore, the proposed location of the greenhouse would not have a significant adverse environmental impact with respect to visual resources.

As with the Original Plan, the Alternative Plan includes proposed cooling towers for the Upper School located adjacent to the service area on the south side of the Upper School building. These cooling towers, which are approximately 16 feet high, would be shielded by a noise-attenuation barrier approximately 18 to 19 feet high. The noise-attenuation barrier would be no closer than 75 feet from the property line, and would be screened by additional evergreen landscaping. While the noise-attenuation barrier would be visible from Ridgeway, it would be screened by landscaping and would not adversely affect the overall character of Ridgeway. It should be noted that the proposed cooling towers are located opposite a service area for the Westchester Hills Golf Club on the south side of Ridgeway, which contains several solid waste containers and a kitchen entrance that are generally not screened from views from Ridgeway.

Finally, the overall reduction in the number of trips on Ridgeway from the project proposed in the FEIS to the Alternative Plan (44% reduction between 7:00 A.M. and 9:00 A.M.) addresses the Council's previous concern regarding the potential impact to community character based on the increase in traffic along Ridgeway. In several places in the Council's Findings, it was stated that the Project conceived in the FEIS with a Ridgeway access would not "preserve the Comprehensive Plan designated role of Ridgeway as a Collector Street." While the Alternative Plan Applicant has, and continues to, disagree with the basis for this Finding, nevertheless, this Alternative Application significantly reduces the amount of traffic on Ridgeway from the Project

proposed in the FEIS to levels that even more clearly would not affect the role of Ridgeway as a Collector Street. As discussed in more detail below, the maximum number of trips on Ridgeway between 7:00 AM and 9:00 AM, has been reduced from an aggregate of 715 trips to 413 trips (42% reduction).

DEFERRED PHASING OF PROJECT ELEMENTS

Deferred phasing of project elements would have no impacts on the visual or community character of the Site. During the period between the completion of Phase IA and the initiation of construction of Phase IB, the entire Project Site would be stabilized and no open construction activity or storage of construction materials or equipment would be allowed.

I. COMMUNITY SERVICES AND FACILITIES

MODIFICATIONS TO THE SITE PLAN

The Alternative Plan would not create new or unstudied significant adverse impacts related to community facilities and services. The Site Plan for the Proposed Project is consistent with Department of Public Safety standards for emergency access. Access to the Upper School for emergency service vehicles will be provided in compliance with New York State Fire Code regulations at Chapter 5, Section 503 and Section 8 of the City of White Plains Zoning Ordinance. Emergency access must be approved by the Commissioner of the Department of Public Safety as part of Site Plan review. A minimum 20-foot clear drive aisle, combined with a minimum 30-foot curb radius, will be provided within the site driveways, and all designated fire-lanes (including those portions of the parking lots designated as emergency access routes). All designated fire lanes will be posted with “No Parking Fire Lane” signs.

The main driveway on Hathaway Lane and the service driveway on Ridgeway will operate as primary emergency access routes. The access control gates at these locations will be wired to the emergency alarm system such that activation of an emergency alarm within the Upper School will automatically cause all of the gates to open and remain open until reset.

The proposed service area accessed off Ridgeway has been designed to accommodate a standard front-end collection garbage truck. (See the garbage truck turning template provided as part of the Coordinated Review Sustainability Checklist).

DEFERRED PHASING OF PROJECT ELEMENTS

Deferred phasing of project elements would not have any significant adverse effects on community services or facilities. During the period between the completion of Phase IA and initiation of construction of Phase IB, the entire Upper School would be accessible to emergency service vehicles. Following completion of the Proposed Project, all portions of the Upper School would be considered safe for the use by FASNY staff and students and the general public.

J. INFRASTRUCTURE

MODIFICATIONS TO THE SITE PLAN

Modifications to the Alternative Plan would not change the location, size, or design of any of the utility connections described in the DEIS or FEIS associated with the development on Parcel A (i.e., the Upper School). The only change from what was described in the EIS and the Original

Plan is that no utility connections would be made to Parcels B, C, or D as no development is proposed on those parcels. Off-site improvements to the sanitary sewer system proposed as part of the Original Plan would be constructed with the Alternative Plan.

DEFERRED PHASING OF PROJECT ELEMENTS

All proposed infrastructure improvements associated with the Upper School must be completed prior to issuance of Certificates of Occupancy for the Upper School. These improvements would be sized and located to accommodate Phase IB elements.

K. SOCIOECONOMIC CHARACTER AND FISCAL IMPACTS

MODIFICATIONS TO THE SITE PLAN

The proposed School, though reduced in size, is still considered to be a significant positive influence on the White Plains and Westchester economies. Modifications to the size of the School with the Alternative Plan would likely generate fewer economic benefits than the Original Plan due to a smaller overall construction program. Offsetting the reduction in construction scope, however, is a general increase in construction costs since the Project's economic benefits were estimated in the EIS. Therefore, any reduction in economic benefits from the school's construction as compared to the Original Plan would not be directly proportional to the reduction in building square footage in the Alternative Plan.

DEFERRED PHASING OF PROJECT ELEMENTS

Deferred phasing of project elements would not result in any significant change to socioeconomic or fiscal impacts. Deferred construction would simply defer when money spent on construction and the associated direct and indirect benefits would occur.

L. TRAFFIC AND TRANSPORTATION

MODIFICATIONS TO THE SITE PLAN

As a result of the lower enrollment (640 students as opposed to 950 students), the number of vehicle trips estimated during the Peak AM and PM one hour has been reduced from 530 trips to 402 trips (24% reduction). In addition, the maximum number of trips on Ridgeway between 7:00 AM and 9:00 AM, has been reduced from 715 trips to 413 trips (42% reduction). As demonstrated below, the Proposed Project would not have any significant adverse impacts to the traffic network. The intersections of Ridgeway with Mamaroneck Avenue, Hathaway Lane, and North Street would continue to operate at or above Level of Service D at all approaches, including the Hathaway/Ridgeway intersection level as well. As such, the Applicant proposes a cap on the number of peak-hour vehicular trips of 415 for the Alternative Plan, as described in more detail in the Amended Transportation Management Plan.

The traffic analysis was undertaken using the same methodology as in the EIS for the Original Plan. Specifically, the same trip distribution and trip generation rates were applied; the same vehicle occupancy was assumed; and, the same number of High School students driving and parking at the site was assumed. The only changes to the assumptions used in the FEIS traffic study were:

- The number of students and faculty utilizing the Site (as only the Upper School is being proposed);
- Bus occupancy: Average bus occupancy assumed was decreased from 20 students per bus (as analyzed in the FEIS) to 15 students per bus based on concerns expressed by the Common Council that the higher occupancy could not be achieved; and,
- Bus utilization: To make the analysis more conservative, the analysis assumed a bus utilization rate among FASNY students of 60%, as opposed to 75% that was assumed in the FEIS.

Traffic Network Analysis

Traffic Analysis Assumptions

Project Trip Generation and Distribution Assumptions

Table 4 presents the trip generation assumptions utilized for this assessment. **Table 5** presents the trip generation estimates during the 7:00 – 8:00 AM peak hour. This peak hour was analyzed as FASNY is proposing an 8:00 AM start time for the Upper School and therefore almost all traffic would arrive prior to 8:00 AM. The trips generated were assigned to the network based on the same trip distribution patterns used in the DEIS and FEIS.

Intersection Analysis and Volume Development Assumptions

The following presents the intersection analysis and methodology assumptions utilized for assessing the impact of FASNY’s modified Alternative Plan on local intersections:

- AM peak hour¹ operations on Ridgeway at Mamaroneck Avenue, Hathaway Lane, and North Street and at the Hathaway Lane at the FASNY Driveway were analyzed.
- Updated counts collected in June 2016 were utilized. Traffic volumes coinciding with FASNY’s peak hour (between 7:00 AM and 8:00 AM) were analyzed.
- No Build volumes were developed, as previously, by growing the updated June 2016 counts by three percent, to represent pre-recession conditions, and then by 0.5 percent per year between 2016 and 2019 (FASNY Build year).

Existing and No Build Conditions

As described above, the 2016 Existing traffic volumes for the AM peak hour (7:00 – 8:00 AM) were established based on updated counts collected in June 2016². (The counts are provided in the attachments.) The 2019 No Build traffic volumes were developed by growing the 2016 Existing traffic volumes by 0.5 percent per year from 2016 (existing year) to 2019 (build year) for background growth and adding a pre-recession three percent growth rate.

¹ The PM peak hour was not analyzed as the AM peak hour is the more critical peak hour for two reasons. The first is that the AM trip generation of the Project is greater than the PM, as almost all users of the School arrive by 8:00 AM. In contrast, Project users will not all leave at the same time in the PM. In addition, the AM peak hour for the School corresponds with the AM peak hour on the traffic network, whereas the PM peak hour for the School does not correspond to the PM peak hour on the traffic network. As such, the AM peak hour analysis can be considered to encompass the ‘worst-case’ of maximum Project trips on top of maximum background traffic.

² Traffic counts were collected on June 2, 2016, while White Plains Schools were in session.

**Table 4
Trip Generation Assumptions**

Parameter	Assumption
Driveway Location	Hathaway via Ridgeway
School Start Time	8:00 AM
Number of Students	640
Grades 6-8	243
Grade 9-12	397
Absentee Rates	2%
Number of Faculty	125
Modal Splits Grades 6-12	
Auto	40%
Bus/Shuttle	60%
Modal Splits Staff	
Auto	93%
Bus/Shuttle	7%
Parent/Student Auto Occupancy	1.65
Faculty Auto Occupancy	1.0
Bus Occupancy	15.0
High School Drivers	40 ¹
Notes:	
* An 8:00 AM start time would result in students and faculty arriving to the site between 7:00 AM and 8:00 AM.	

**Table 5
Peak Hour Trip Generation Estimates
7:00-8:00 AM**

Grade/ Staff	Start Time	In / Out	Auto	Bus	Total
Grades 9-12	8:00 AM	In	90	16	106
		Out	50 ¹	16	66
Grades 6-8	8:00 AM	In	55	10	65
		Out	55	10	65
Staff	-	In	100	0	100
		Out	0	0	0
Total		In	245	26	271
		Out	105	26	131
Notes: Assumes 40 students would drive and park on site. ¹					

Table 6 presents both the 2016 Existing and 2019 No Build LOS conditions for the intersections examined for the AM peak hour. (Synchro 8 outputs for the Existing and No Build conditions are provided in the attachments.) Significant impacts, for the purpose of this study, were defined in the same manner as the EIS, specifically: (1) any change in mid-level LOS D or better to LOS E or F; or (2) any change from LOS E to LOS F. These significant impact criteria are applied to

¹ As stated in the Amended TMP, all students in Grades 6-12 that are eligible for busing from the school district in which they reside must register for and use the bus, with limited exceptions. Consistent with the previous traffic studies for the Project, the traffic study for the Alternative Plan assumes 40 High School students will drive and park on-site. However, FASNY now expects that 50 High School students will drive and park on-site. Changing the number of students that park on-site does not affect the trip generation figures, which is driven solely by the bus/car modal split. Students that park on-site are simply a subset of those students that are assumed to arrive by car.

the approach/lane group LOS for signalized intersections and approach/movement group LOS for unsignalized intersections. As shown in **Table 6**, all of the study area intersection lane groups/approaches operate at LOS D or better under both 2016 Existing and 2019 No Build LOS conditions. There would also be no notable changes in LOS from 2016 Existing to 2019 No Build LOS conditions.

Build Conditions

The project-generated traffic volumes were developed and assigned to the traffic network based on the trip generation and distribution assumptions described above. The project-generated traffic volumes were added to the No Build traffic volumes to estimate the 2019 Build traffic volumes. **Table 7** presents a comparison of the 2019 No Build and 2019 Build conditions for the intersections examined for the AM peak hour. (Synchro 8 outputs for the Build conditions are provided in the Attachments.)

Under the 2019 Build conditions, all study area intersections and lane groups/approaches would continue to operate at acceptable levels of service (i.e., LOS D or better). Therefore, the Alternative Plan would not result in significant adverse traffic impacts based on the intersection analysis and the previously established criteria for identifying significant adverse impacts. It is noted that the southbound movement from Hathaway Lane onto Ridgeway (left or right turn) would operate at an LOS D in the future with the Project. This is a 'lower' level of service than in the future without the Project (LOS A). However, as stated previously, LOS D is considered to be an acceptable level of service. In addition, a change in level of service from LOS A to D was not determined by the City to meet the standard for a significant adverse impact in the EIS. Finally, the movement would continue to operate with a volume to capacity ratio of 0.67 with Project-generated traffic. For all of these reasons, the change in level of service from A to D for this movement is not considered a significant adverse impact to the traffic network.

As no significant adverse impacts to the traffic network were identified from the Alternative Plan, the Applicant is proposing no traffic mitigation measures. Specifically, the following traffic mitigation measures that were previously proposed for the Original Plan are no longer required and will not be pursued¹:

- Signal Timing adjustment at the intersection of Mamaroneck Avenue and Bryant Avenue
- Signal Timing adjustment at the intersection of Mamaroneck Avenue and Ridgeway
- Signal Timing adjustment and new Eastbound left turn lane at the intersection of North Street and Bryant Avenue
- Signal Timing adjustment at the intersection of North Street and Ridgeway
- Signal Timing adjustment at the intersection of North Street and Hutchinson River Parkway Ramps (both Northbound and Southbound ramps).

¹ Note that adaptive signal controls on Mamaroneck Avenue were not included in the MPP/North Street or the Original Plan. Adaptive signal controls are not included in the current Alternative Plan.

Table 6
2016 Existing (2016) and No Build (2019) Conditions LOS Analysis
AM Peak Hour (7:00 - 8:00 AM)

Intersection	Approach	2016 Existing				2019 No Build			
		Movement	V/C Ratio	Delay (SPV)	LOS	Movement	V/C Ratio	Delay (SPV)	LOS
Mamaroneck Avenue (N-S) & Ridgeway	EB	L	0.37	36.3	D	L	0.39	36.9	D
		T	0.32	34.0	C	T	0.33	34.2	C
	WB	R	0.34	34.8	C	R	0.36	35.2	D
		L	0.30	32.9	C	L	0.32	33.3	C
	NB	TR	0.47	35.7	D	TR	0.49	36.1	D
		L	0.26	17.2	B	L	0.28	17.4	B
	SB	TR	0.74	30.5	C	TR	0.77	31.8	C
		L	0.36	19.1	B	L	0.40	19.7	B
	INT	T	0.52	25.5	C	T	0.55	25.9	C
		R	0.15	21.0	C	R	0.16	21.1	C
Hathaway Lane (N-S) & Ridgeway	EB	LT	0.01	0.3	A	LT	0.01	0.3	A
		TR	0.12	0.0	A	TR	0.13	0.0	A
	SB	LR	0.11	11.3	B	LR	0.12	11.5	B
		INT		1.6	A			1.6	A
North Street (N-S) & Ridgeway	EB	LT	0.51	20.9	C	LT	0.54	21.5	C
		R	0.07	32.2	C	R	0.07	32.3	C
	WB	LTR	0.22	12.7	B	LTR	0.23	12.8	B
		L	0.28	10.3	B	L	0.30	10.8	B
	NB	TR	0.24	8.5	A	TR	0.25	8.6	A
		L	0.09	8.1	A	L	0.10	8.1	A
	SB	TR	0.37	9.5	A	TR	0.33	9.6	A
INT			12.4	B			12.5	B	

Notes:
 EB = Eastbound; WB = Westbound; NB = Northbound; SB = Southbound; INT = Intersection.
 L = Left-Turn; T = Through; R = Right-Turn.
 V/C = Volume to Capacity; SPV = Seconds per Vehicle; LOS = Level of Service.

Table 7
No Build (2019) Conditions and Build (2019) Conditions LOS Analysis
AM Peak Hour (7:00 - 8:00 AM)

Intersection	Approach	2019 No Build				2019 Build			
		Movement	V/C Ratio	Delay (SPV)	LOS	Movement	V/C Ratio	Delay (SPV)	LOS
Mamaroneck Avenue (N-S) & Ridgeway	EB	L	0.39	36.9	D	L	0.40	37.3	D
		T	0.33	34.2	C	T	0.45	36.6	D
	WB	R	0.36	35.2	D	R	0.36	35.2	D
		L	0.32	33.3	C	L	0.63	44.5	D
	NB	TR	0.49	36.1	D	TR	0.58	38.3	D
		L	0.28	17.4	B	L	0.28	18.7	B
	SB	TR	0.77	31.8	C	TR	0.94	46.5	D
		L	0.40	19.7	B	L	0.50	21.3	C
	INT	T	0.55	25.9	C	T	0.55	25.9	C
		R	0.16	21.1	C	R	0.16	21.1	C
Hathaway Lane (N-S) & Ridgeway	EB	LT	0.01	0.3	A	LT	0.20	5.0	A
		TR	0.13	0.0	A	TR	0.19	0.0	A
	SB	LR	0.12	11.5	B	LR	0.67	32.6	D
		INT		1.6	A			9.6	B
North Street (N-S) & Ridgeway	EB	LT	0.54	21.5	C	LT	0.62	22.6	C
		R	0.07	32.3	C	R	0.10	24.1	C
	WB	LTR	0.23	12.8	B	LTR	0.24	12.9	B
		L	0.30	10.8	B	L	0.53	16.3	B
	NB	TR	0.25	8.6	A	TR	0.25	8.6	A
		L	0.10	8.1	A	L	0.10	8.1	A
	SB	TR	0.33	9.6	A	TR	0.41	9.8	A
INT			12.5	B			13.0	B	
Hathaway Lane (N-S) & Project Driveway	INT	Does not exist under No Build Conditions				R	0.14	9.2	A
		LT	0.19	7.3	A				
		T	0.04	0.0	A				
				6.9	A				

Notes:
 EB = Eastbound; WB = Westbound; NB = Northbound; SB = Southbound; INT = Intersection.
 L = Left-Turn; T = Through; R = Right-Turn.
 V/C = Volume to Capacity; SPV = Seconds per Vehicle; LOS = Level of Service.

Internal Site Circulation

The Upper School would be accessed from a driveway off of Hathaway Lane. The overall vehicular circulation of the Site would remain consistent with both the EIS and the initial site plan, with the exception that the bus and parent pick-up and drop-off locations would be switched. Originally, the bus queuing area was proposed for the driveway surrounding the central parking area, to the east of the Upper School buildings, as it would serve both the Upper and Lower Schools. However, with that parking area and drive loop now reconfigured to fit entirely on Parcel A, and with the Lower School eliminated, the circulation around that Eastern parking lot is now more circuitous. While buses could still easily navigate the drive, as it will be designed to service emergency vehicles, from an operational standpoint, it is preferable to have the buses queue on the north side of the Upper School and the parents queue on the east side. The vehicle queuing area would provide a storage length of approximately 780 feet, or 39 vehicles. FASNY anticipates a maximum peak vehicular queue of 44 cars during the PM pick-up. Vehicles that arrive to queue when the vehicle queuing area is full would instead access the Eastern parking lot from its northern entrance and wait in an available space. The bus queuing area would be approximately 580 feet of dedicated queuing lane and an additional approximately 80 feet in the Northern parking lot if needed, which is sufficient storage for the anticipated number of buses the PM dismissal. Additional detail is provided in the Amended Transportation Management Plan.

To better understand how traffic would flow within the network and to develop an accurate real-time picture of traffic movements and impacts at the Project Site, a traffic micro-simulation model was developed using the VISSIM software. The VISSIM software provides the capability to simulate vehicle arrivals and departures that reflect actual arrival rates within 5 minute intervals in the peak hour based on scheduled school dismissal times for each school division. In addition, VISSIM has the ability to simulate parking activities, curb-side drop-offs, and simulate and capture the interaction of different travel modes (transit/school buses and vehicles) within one model. The VISSIM micro-simulation model also provides a three-dimensional representation of these interactions. The VISSIM model assisted in the design of the site plan and was used to identify any potential impacts within and adjacent to the Project Site.

Videos of the VISSIM simulation representing the Alternative Plan are included in the attachments. Vehicles shown in blue are FASNY parent vehicles picking-up students, vehicles in green are FASNY faculty or FASNY high school students that drove and parked on-site, FASNY school buses are shown in yellow, and background vehicles (those that would be on Ridgeway and Hathaway Lane independent of the Proposed Project) are shown in red.

Similar to site plans presented in the DEIS and FEIS, vehicle queuing is accommodated on-site and does not spill back onto the Hathaway Lane. Within the site, vehicle queuing does not inhibit on-site vehicle circulation. As such, there continue to be no adverse impacts with regard to vehicle queuing and circulation from the Alternative Plan.

Finally, circulation paths within the Site were modified in response to comments from the Department of Parking, Department of Planning, Department of Public Works, and Department of Public Safety. All modifications herein are intended to improve the overall efficiency and safety of vehicular and pedestrian users of the Site. Emergency access has been provided in consultation with the Department of Public Safety.

DEFERRED PHASING OF PROJECT ELEMENTS

All trips assumed in the traffic study would occur at the completion of Phase IA of the project. The construction of Phase IB would not generate any additional trips. Therefore, there will be no impacts to the traffic network from the deferred phasing of certain project elements.

M. AIR QUALITY

MODIFICATIONS TO THE SITE PLAN

No significant adverse air quality impacts would occur from the modified parking lot design. As with the previously submitted Original Plan, the parking lot on Parcel A was moved further away from the residence at 57 Hathaway Lane than the project analyzed in the FEIS, in keeping with Finding K-5. In addition, all driveways and parking lots continue to be 75' from the adjoining residential property lines. Finally, the closest parking space to the residence at 57 Hathaway Lane, the closest residential receptor, is about the same distance, if not slightly further, than the previously evaluated site plan.

DEFERRED PHASING OF PROJECT ELEMENTS

Deferred phasing of project elements would not have any different air quality impacts as previously analyzed in the FEIS.

N. NOISE

MODIFICATIONS TO THE SITE PLAN

As was the case with the Original Plan, the Alternative Plan would include two (2) cooling towers to be located within the service area to the west of the building. It is also proposed to locate one (1) emergency generator in the service area of the Upper School. The proposed cooling towers at the Upper School would be enclosed with a two-sided or three-sided acoustical barrier to attenuate the noise to comply with the City Noise Code. In addition, this location fronts on Ridgeway, is across from the Westchester Hills Golf Club service area, and is removed from adjoining neighboring properties by a significant distance. Therefore, no significant adverse noise impacts from the HVAC equipment are expected.

All driveways and parking lots continue to be 75' from the adjoining property lines. In addition, the closest parking space to the residence at 57 Hathaway Lane, the closest residential receptor, is about the same distance, if not slightly further, than the previously evaluated site plan. As such, the Project would continue to avoid any significant adverse impact with respect to noise from parking lots and driveways.

Athletic Fields

As stated in Finding L-4, the noise from the athletic fields in the MPP/Ridgeway would result in noise levels that were below the NYSDEC recommended level for residential areas of 65 dBA. However, the increment above the existing conditions at the locations along Murchison Place and Hotel Drive, would exceed 6 dBA, which would make the increase readily noticeable. As stated in Finding L-4, "While noise from athletic events, when they would occur during times with the lowest background noise levels would likely result in noticeable and, in the case of increases over 6 dBA, even intrusive noise level increases, the relative noise level including all

sources (traffic, parking lot noise, athletic events and mechanical equipment) would make the noise from athletic events less noticeable. (emphasis added)” Finding L-4 goes on to state that “the variable noise level for athletic activities and events at the identified locations during the identified time periods could have significant adverse impacts...(emphasis added)” To mitigate those *potential* adverse impacts associated with the MPP/Ridgeway, the Findings, at L-6, required the following measures:

- “1. No public address (PA) system be utilized at any athletic or other events to be held on the FASNY Project Site;
2. No outdoor concerts shall be held on the Project Site;
3. No outdoor events are to be permitted after sundown;
4. Daytime outdoor musical events, if not part of the regular School curriculum, shall be prohibited;
5. No backstops or spectator seating will be placed on the portions of the fields nearest to residences; and
6. No lighting of athletic fields or structures shall be permitted.”

In addition to those measures, Finding L-5 recognized that FASNY had proposed to limit use of its athletic fields to FASNY-sponsored organizations as an additional method by which *potential* significant adverse noise impacts could be avoided. As stated in the Project Description, the Applicant is no longer proposing to restrict use of its athletic fields to FASNY-sponsored organizations under the Alternative Plan. The potential noise impacts from athletic events on surrounding properties that was described above, principally on Murchison Place and Hotel Drive, was evaluated based on the MPP/Ridgeway site plan. The noise impacts from the athletic facilities included in the Alternative Plan would be less than those calculated for the MPP/Ridgeway site plan as the configuration of the fields with the Alternative Plan removes the most noise-intensive athletic uses from the western portion of Parcel A. Specifically, with the Alternative Plan, the track and turf field are located adjacent to the Upper School buildings and home plate of the softball/baseball field is located on the southern interior portion of Parcel A, rather than the western boundary of Parcel A. For these reasons, the noise impacts from the athletic fields in the Alternative Plan would be less noticeable at the residences along Murchison Place and Hotel Drive than the MPP/Ridgeway and the potential for significant adverse impacts to those residences is reduced by the physical changes to the Alternative Plan as compared to the MPP/Ridgeway. These noise impacts would be the same regardless of the user of the fields.

The Applicant continues to agree to all of the mitigation measures included in Finding L-6. These measures will reduce the *potential* for significant adverse impacts from the athletic facilities. However, based upon the changed layout of the athletic facilities from the MPP/Ridgeway, on which the quantified noise analysis was based, and the Alternative Plan, it is no longer necessary to restrict the use of the Project’s athletic fields to FASNY-sponsored organizations. The mitigation measures included in Finding L-6 are sufficient to avoid significant adverse noise impacts from the Alternative Plan.

DEFERRED PHASING OF PROJECT ELEMENTS

Deferred phasing of project elements would not change the overall pattern of vehicular trips accessing the Upper School.

O. HAZARDOUS MATERIALS

MODIFICATIONS TO THE SITE PLAN

None of the modifications included in the Alternative Plan would affect the analysis of potential impacts associated with hazardous materials. As such, there would continue to be no significant adverse impact with respect to hazardous materials from the Project.

DEFERRED PHASING OF PROJECT ELEMENTS

There would be no change to potential impacts associated with hazardous materials as a result of deferred phasing of project elements.

P. CONSTRUCTION

MODIFICATIONS TO THE SITE PLAN

Modifications to the Site Plan would not require any significant changes to the manner in which construction of Parcel A would proceed. All of the analysis of potential construction impacts, and all proposed measures and best practices to prevent construction impacts, described in the FEIS and SEQR Findings, would be applied to avoid any significant impacts.

DEFERRED PHASING OF PROJECT ELEMENTS

Deferred phasing of Project elements would have no impact on the construction period analysis performed in the EIS. After construction of Phase IA is completed, Parcel A would be stabilized and landscaped with extensive plantings. There would be no exposed soil. All sediment and erosion control measures would be removed as they would not be needed to protect against soil erosion. The same process would be completed after Phase IB. Parcel A would be stabilized and there would be no exposed soil. Sediment and erosion control measures would be removed upon site stabilization. There would be no prolonged storage of construction materials or equipment except for potential temporary storage of delivered materials (most of which would be stored indoors) for any minor construction activity that might occur within the buildings.

Within Parcel A, the Upper School and Gymnasium, greenhouse classroom, driveways, parking areas, bike path, and majority of the athletic facilities would be completed in Phase IA. The northwest corner of Parcel A, where a multi-purpose playing field would be constructed as part of Phase IB, would remain in its natural condition with existing trees and perimeter landscaping unaffected. Thus, views from homes fronting on Murchison Place at the completion of Phase IA would be of an Upper School with athletic fields, open areas and landscaping, and distant views of the buildings and parking lots. With the exception of the addition of the northwestern playing field, this view would remain unchanged with the implementation of Phase IB.

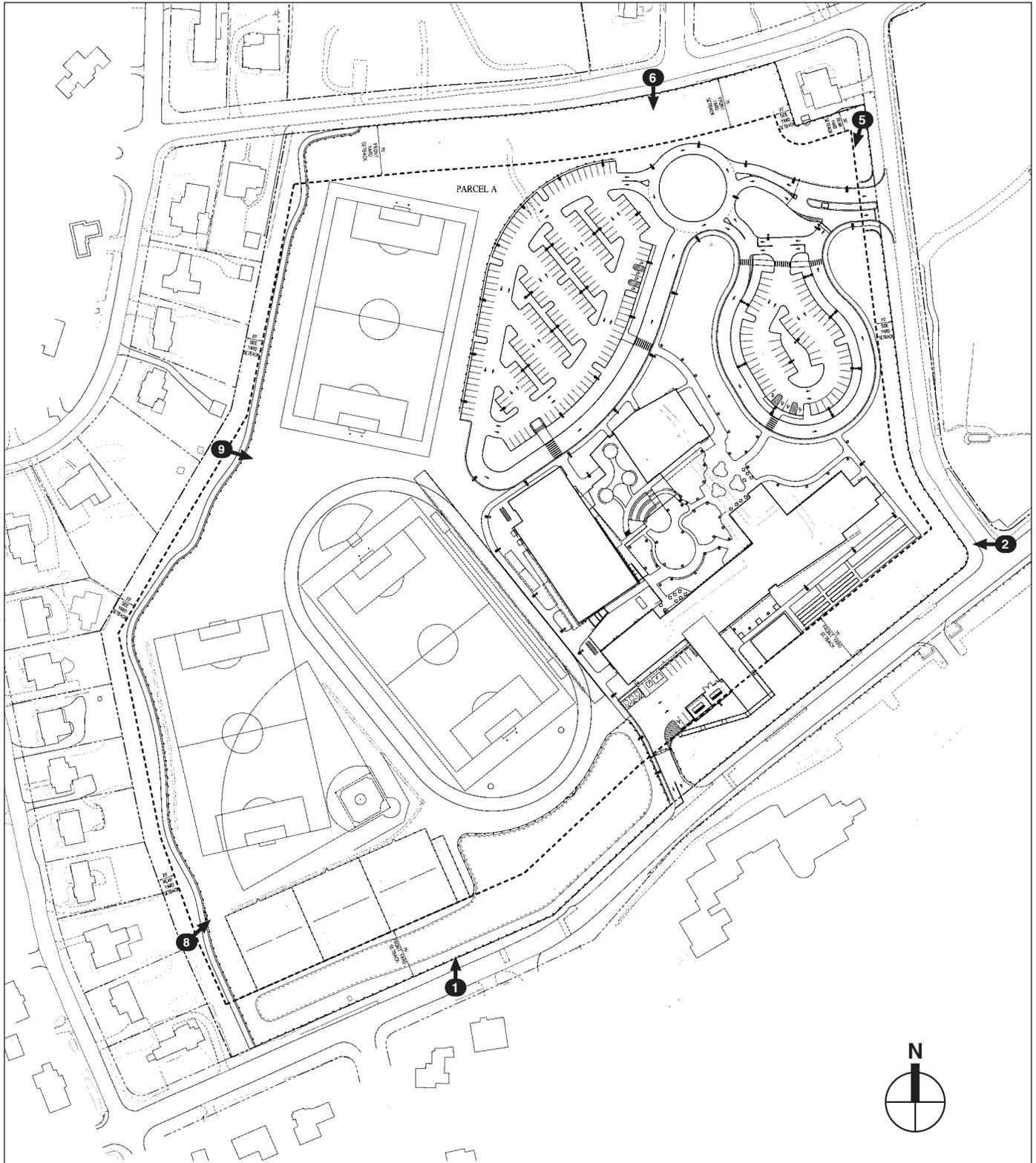
Construction of the multi-purpose playing field in the northwest corner of Parcel A could be accomplished during the summer months when FASNYS School is not in operation. Construction worker parking and/or construction equipment staging could be accommodated within any of the parking areas during the time that these fields are constructed.

Deferred phasing of Project elements would not result in construction-period traffic impacts different from those already analyzed in the EIS. The same number of construction period trips associated with the construction of Parcel A would occur and any additional No Build

(background growth) trips that could occur during that time period would be unlikely to result in any impact not already identified in the analysis of the total project trips at full build-out.

Finally, the duration of construction for Phase IA with the Alternative Plan is the same as the Original Plan and the duration of Phase IB is 2-8 months less than Phase II in the Original Plan. In addition, the interval between the completion of Phase IA and the commencement of the Phase IB elements with the Alternative Plan – 7 years – is the same as the Original Plan. Therefore, there are no adverse changes to the impacts of construction duration or phasing with the Alternative Plan. *

Figures













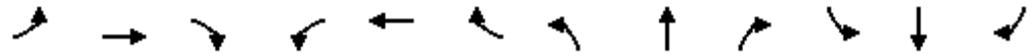


Attachment A
2016 Traffic Counts

Attachment B
Synchro Outputs

HCM Signalized Intersection Capacity Analysis
1: Mamaroneck Avenue & Ridgeway

EXISTING
7-8 AM



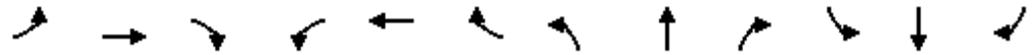
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	86	110	102	70	107	68	65	759	64	66	594	74
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	11	12	12	10	12	12	10	12	11
Total Lost time (s)	5.0	5.0	5.0	4.0	5.0		5.0	5.0		5.0	5.0	5.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00		1.00	0.95		1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	0.94		1.00	0.99		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1711	1801	1531	1711	1754		1604	3398		1652	3539	1531
Flt Permitted	0.63	1.00	1.00	0.49	1.00		0.27	1.00		0.15	1.00	1.00
Satd. Flow (perm)	1132	1801	1531	890	1754		463	3398		266	3539	1531
Peak-hour factor, PHF	0.84	0.84	0.84	0.85	0.85	0.85	0.87	0.87	0.87	0.85	0.85	0.85
Adj. Flow (vph)	102	131	121	82	126	80	75	872	74	78	699	87
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	102	131	121	82	206	0	75	946	0	78	699	87
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	5%	5%	5%	2%	2%	2%
Turn Type	pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8			2			6		6
Actuated Green, G (s)	23.0	23.0	23.0	25.0	25.0		44.8	37.9		44.8	37.9	37.9
Effective Green, g (s)	23.0	23.0	23.0	25.0	25.0		44.8	37.9		44.8	37.9	37.9
Actuated g/C Ratio	0.23	0.23	0.23	0.25	0.25		0.45	0.38		0.45	0.38	0.38
Clearance Time (s)	5.0	5.0	5.0	4.0	5.0		5.0	5.0		5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	277	414	352	271	438		286	1287		214	1341	580
v/s Ratio Prot	0.01	0.07		0.02	c0.12		0.02	c0.28		c0.03	0.20	
v/s Ratio Perm	0.07		c0.08	0.06			0.10			0.14		0.06
v/c Ratio	0.37	0.32	0.34	0.30	0.47		0.26	0.74		0.36	0.52	0.15
Uniform Delay, d1	32.6	32.0	32.2	29.7	31.9		16.7	26.7		18.1	24.0	20.4
Progression Factor	1.00	1.00	1.00	1.01	1.01		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	3.7	2.0	2.7	2.8	3.5		0.5	3.8		1.1	1.5	0.5
Delay (s)	36.3	34.0	34.8	32.9	35.6		17.2	30.5		19.1	25.5	21.0
Level of Service	D	C	C	C	D		B	C		B	C	C
Approach Delay (s)		34.9			34.8			29.5			24.5	
Approach LOS		C			C			C			C	

Intersection Summary

HCM 2000 Control Delay	29.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	24.0
Intersection Capacity Utilization	57.9%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis
16: North Street & Ridgeway

EXISTING
7-8 AM



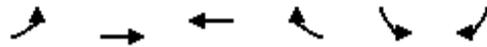
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕		↗	↕↗		↗	↕↗	
Volume (vph)	117	30	71	40	28	53	80	301	55	30	408	113
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	9	9	12	15	12	13	13	12	10	12	12
Total Lost time (s)		5.0	5.0		5.0		5.0	5.0		5.0	5.0	
Lane Util. Factor		1.00	1.00		1.00		1.00	0.95		1.00	0.95	
Frt		1.00	0.85		0.94		1.00	0.98		1.00	0.97	
Flt Protected		0.96	1.00		0.98		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1612	1425		1896		1829	3566		1652	3417	
Flt Permitted		0.71	1.00		0.84		0.39	1.00		0.51	1.00	
Satd. Flow (perm)		1190	1425		1628		750	3566		878	3417	
Peak-hour factor, PHF	0.71	0.71	0.71	0.70	0.70	0.70	0.84	0.84	0.84	0.82	0.82	0.82
Adj. Flow (vph)	165	42	100	57	40	76	95	358	65	37	498	138
RTOR Reduction (vph)	0	0	66	0	50	0	0	30	0	0	50	0
Lane Group Flow (vph)	0	207	34	0	123	0	95	393	0	37	586	0
Bus Blockages (#/hr)	0	0	0	0	0	0	0	1	1	0	1	1
Turn Type	Perm	NA	Perm	Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8			2			6		
Actuated Green, G (s)		17.0	17.0		17.0		23.0	23.0		23.0	23.0	
Effective Green, g (s)		17.0	17.0		17.0		23.0	23.0		23.0	23.0	
Actuated g/C Ratio		0.34	0.34		0.34		0.46	0.46		0.46	0.46	
Clearance Time (s)		5.0	5.0		5.0		5.0	5.0		5.0	5.0	
Lane Grp Cap (vph)		404	484		553		345	1640		403	1571	
v/s Ratio Prot								0.11				c0.17
v/s Ratio Perm		c0.17	0.02		0.08		0.13			0.04		
v/c Ratio		0.51	0.07		0.22		0.28	0.24		0.09	0.37	
Uniform Delay, d1		13.2	11.2		11.8		8.3	8.2		7.6	8.8	
Progression Factor		1.26	2.86		1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		4.4	0.3		0.9		2.0	0.3		0.5	0.7	
Delay (s)		20.9	32.2		12.7		10.3	8.5		8.1	9.5	
Level of Service		C	C		B		B	A		A	A	
Approach Delay (s)		24.6			12.7			8.9			9.4	
Approach LOS		C			B			A			A	

Intersection Summary		
HCM 2000 Control Delay	12.4	HCM 2000 Level of Service
HCM 2000 Volume to Capacity ratio	0.43	B
Actuated Cycle Length (s)	50.0	Sum of lost time (s)
Intersection Capacity Utilization	46.5%	10.0
Analysis Period (min)	15	ICU Level of Service
		A

c Critical Lane Group

HCM Unsignalized Intersection Capacity Analysis
 17: Ridgeway & Hathaway Ln

EXISTING
 7-8 AM



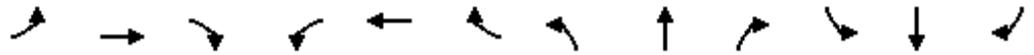
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	7	214	169	21	29	27
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.75	0.75	0.90	0.90	0.78	0.78
Hourly flow rate (vph)	9	285	188	23	37	35
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	211				503	199
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	211				503	199
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	99				93	96
cM capacity (veh/h)	1359				524	842

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	295	211	72
Volume Left	9	0	37
Volume Right	0	23	35
cSH	1359	1700	641
Volume to Capacity	0.01	0.12	0.11
Queue Length 95th (ft)	1	0	9
Control Delay (s)	0.3	0.0	11.3
Lane LOS	A		B
Approach Delay (s)	0.3	0.0	11.3
Approach LOS			B

Intersection Summary			
Average Delay		1.6	
Intersection Capacity Utilization		26.9%	ICU Level of Service
Analysis Period (min)		15	A

HCM Signalized Intersection Capacity Analysis
1: Mamaroneck Avenue & Ridgeway

NO BUILD
7-8 AM



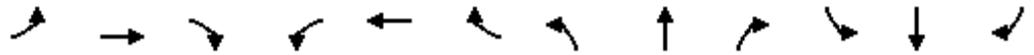
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	90	115	107	73	111	71	68	793	67	69	621	77
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	11	12	12	10	12	12	10	12	11
Total Lost time (s)	5.0	5.0	5.0	4.0	5.0		5.0	5.0		5.0	5.0	5.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00		1.00	0.95		1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	0.94		1.00	0.99		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1711	1801	1531	1711	1754		1604	3398		1652	3539	1531
Flt Permitted	0.62	1.00	1.00	0.48	1.00		0.26	1.00		0.13	1.00	1.00
Satd. Flow (perm)	1123	1801	1531	866	1754		435	3398		233	3539	1531
Peak-hour factor, PHF	0.84	0.84	0.84	0.85	0.85	0.85	0.87	0.87	0.87	0.85	0.85	0.85
Adj. Flow (vph)	107	137	127	86	131	84	78	911	77	81	731	91
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	107	137	127	86	215	0	78	988	0	81	731	91
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	5%	5%	5%	2%	2%	2%
Turn Type	pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8			2			6		6
Actuated Green, G (s)	23.0	23.0	23.0	25.0	25.0		44.7	37.8		44.9	37.9	37.9
Effective Green, g (s)	23.0	23.0	23.0	25.0	25.0		44.7	37.8		44.9	37.9	37.9
Actuated g/C Ratio	0.23	0.23	0.23	0.25	0.25		0.45	0.38		0.45	0.38	0.38
Clearance Time (s)	5.0	5.0	5.0	4.0	5.0		5.0	5.0		5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	275	414	352	267	438		275	1284		203	1341	580
v/s Ratio Prot	0.01	0.08		0.02	c0.12		0.02	c0.29		c0.03	0.21	
v/s Ratio Perm	0.08		c0.08	0.06			0.11			0.15		0.06
v/c Ratio	0.39	0.33	0.36	0.32	0.49		0.28	0.77		0.40	0.55	0.16
Uniform Delay, d1	32.8	32.1	32.3	29.8	32.1		16.9	27.3		18.4	24.3	20.5
Progression Factor	1.00	1.00	1.00	1.01	1.01		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	4.1	2.1	2.9	3.1	3.8		0.6	4.5		1.3	1.6	0.6
Delay (s)	36.9	34.2	35.2	33.2	36.1		17.4	31.8		19.7	25.9	21.1
Level of Service	D	C	D	C	D		B	C		B	C	C
Approach Delay (s)		35.3			35.3			30.7			24.9	
Approach LOS		D			D			C			C	

Intersection Summary

HCM 2000 Control Delay	29.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	24.0
Intersection Capacity Utilization	59.7%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis
16: North Street & Ridgeway

NO BUILD
7-8 AM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↖	↗		↔		↖	↕		↖	↕	
Volume (vph)	122	31	74	42	29	55	84	315	57	31	426	118
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	9	9	12	15	12	13	13	12	10	12	12
Total Lost time (s)		5.0	5.0		5.0		5.0	5.0		5.0	5.0	
Lane Util. Factor		1.00	1.00		1.00		1.00	0.95		1.00	0.95	
Frt		1.00	0.85		0.94		1.00	0.98		1.00	0.97	
Flt Protected		0.96	1.00		0.98		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1612	1425		1896		1829	3566		1652	3417	
Flt Permitted		0.70	1.00		0.84		0.37	1.00		0.50	1.00	
Satd. Flow (perm)		1181	1425		1616		718	3566		861	3417	
Peak-hour factor, PHF	0.71	0.71	0.71	0.70	0.70	0.70	0.84	0.84	0.84	0.82	0.82	0.82
Adj. Flow (vph)	172	44	104	60	41	79	100	375	68	38	520	144
RTOR Reduction (vph)	0	0	69	0	52	0	0	30	0	0	51	0
Lane Group Flow (vph)	0	216	35	0	128	0	100	413	0	38	613	0
Bus Blockages (#/hr)	0	0	0	0	0	0	0	1	1	0	1	1
Turn Type	Perm	NA	Perm	Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8			2			6		
Actuated Green, G (s)		17.0	17.0		17.0		23.0	23.0		23.0	23.0	
Effective Green, g (s)		17.0	17.0		17.0		23.0	23.0		23.0	23.0	
Actuated g/C Ratio		0.34	0.34		0.34		0.46	0.46		0.46	0.46	
Clearance Time (s)		5.0	5.0		5.0		5.0	5.0		5.0	5.0	
Lane Grp Cap (vph)		401	484		549		330	1640		396	1571	
v/s Ratio Prot								0.12				c0.18
v/s Ratio Perm		c0.18	0.02		0.08		0.14			0.04		
v/c Ratio		0.54	0.07		0.23		0.30	0.25		0.10	0.39	
Uniform Delay, d1		13.3	11.2		11.8		8.5	8.2		7.6	8.9	
Progression Factor		1.25	2.87		1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		4.8	0.3		1.0		2.4	0.4		0.5	0.7	
Delay (s)		21.5	32.3		12.8		10.8	8.6		8.1	9.6	
Level of Service		C	C		B		B	A		A	A	
Approach Delay (s)		25.0			12.8			9.0			9.5	
Approach LOS		C			B			A			A	

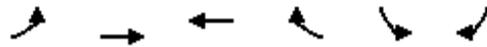
Intersection Summary

HCM 2000 Control Delay	12.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.45		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	47.8%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM Unsignalized Intersection Capacity Analysis
 17: Ridgeway & Hathaway Ln

NO BUILD
 7-8 AM



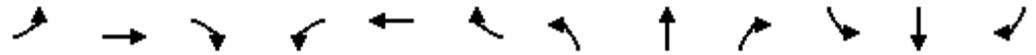
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↔	↔		↔	
Volume (veh/h)	7	223	177	22	30	28
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.75	0.75	0.90	0.90	0.78	0.78
Hourly flow rate (vph)	9	297	197	24	38	36
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	221				525	209
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	221				525	209
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	99				92	96
cM capacity (veh/h)	1348				509	831

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	307	221	74
Volume Left	9	0	38
Volume Right	0	24	36
cSH	1348	1700	627
Volume to Capacity	0.01	0.13	0.12
Queue Length 95th (ft)	1	0	10
Control Delay (s)	0.3	0.0	11.5
Lane LOS	A		B
Approach Delay (s)	0.3	0.0	11.5
Approach LOS			B

Intersection Summary			
Average Delay		1.6	
Intersection Capacity Utilization	27.4%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Signalized Intersection Capacity Analysis
1: Mamaroneck Avenue & Ridgeway

BUILD
7-8 AM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	90	157	107	123	132	85	68	793	170	96	621	77
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	11	12	12	10	12	12	10	12	11
Total Lost time (s)	5.0	5.0	5.0	4.0	5.0		5.0	5.0		5.0	5.0	5.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00		1.00	0.95		1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	0.94		1.00	0.97		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1711	1801	1531	1711	1753		1604	3347		1652	3539	1531
Flt Permitted	0.60	1.00	1.00	0.37	1.00		0.28	1.00		0.11	1.00	1.00
Satd. Flow (perm)	1083	1801	1531	671	1753		467	3347		183	3539	1531
Peak-hour factor, PHF	0.84	0.84	0.84	0.85	0.85	0.85	0.87	0.87	0.87	0.85	0.85	0.85
Adj. Flow (vph)	107	187	127	145	155	100	78	911	195	113	731	91
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	107	187	127	145	255	0	78	1106	0	113	731	91
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	5%	5%	5%	2%	2%	2%
Turn Type	pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8			2			6		6
Actuated Green, G (s)	23.0	23.0	23.0	25.0	25.0		42.1	35.2		47.5	37.9	37.9
Effective Green, g (s)	23.0	23.0	23.0	25.0	25.0		42.1	35.2		47.5	37.9	37.9
Actuated g/C Ratio	0.23	0.23	0.23	0.25	0.25		0.42	0.35		0.48	0.38	0.38
Clearance Time (s)	5.0	5.0	5.0	4.0	5.0		5.0	5.0		5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	267	414	352	230	438		275	1178		227	1341	580
v/s Ratio Prot	0.01	c0.10		0.04	c0.15		0.02	c0.33		c0.05	0.21	
v/s Ratio Perm	0.08		0.08	c0.12			0.10			0.19		0.06
v/c Ratio	0.40	0.45	0.36	0.63	0.58		0.28	0.94		0.50	0.55	0.16
Uniform Delay, d1	32.9	33.1	32.3	32.0	32.9		18.1	31.4		19.6	24.3	20.5
Progression Factor	1.00	1.00	1.00	1.01	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	4.4	3.5	2.9	12.3	5.5		0.6	15.1		1.7	1.6	0.6
Delay (s)	37.3	36.6	35.2	44.6	38.4		18.7	46.5		21.3	25.9	21.1
Level of Service	D	D	D	D	D		B	D		C	C	C
Approach Delay (s)		36.4			40.7			44.7			24.9	
Approach LOS		D			D			D			C	

Intersection Summary		
HCM 2000 Control Delay	36.6	HCM 2000 Level of Service D
HCM 2000 Volume to Capacity ratio	0.73	
Actuated Cycle Length (s)	100.0	Sum of lost time (s) 24.0
Intersection Capacity Utilization	66.4%	ICU Level of Service C
Analysis Period (min)	15	
c Critical Lane Group		

HCM Unsignalized Intersection Capacity Analysis

5: Hathaway Lane & FASNY Dwy

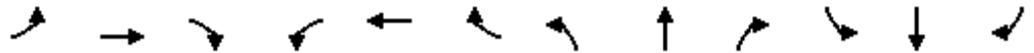
BUILD
7-8 AM



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↖	↖	
Volume (veh/h)	0	131	271	29	58	0
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	142	295	32	63	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	684	63	63			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	684	63	63			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	86	81			
cM capacity (veh/h)	335	1002	1540			
Direction, Lane #	EB 1	NB 1	SB 1			
Volume Total	142	326	63			
Volume Left	0	295	0			
Volume Right	142	0	0			
cSH	1002	1540	1700			
Volume to Capacity	0.14	0.19	0.04			
Queue Length 95th (ft)	12	18	0			
Control Delay (s)	9.2	7.3	0.0			
Lane LOS	A	A				
Approach Delay (s)	9.2	7.3	0.0			
Approach LOS	A					
Intersection Summary						
Average Delay			6.9			
Intersection Capacity Utilization			26.5%		ICU Level of Service	A
Analysis Period (min)			15			

HCM Signalized Intersection Capacity Analysis
 16: North Street & Ridgeway

BUILD
 7-8 AM



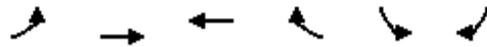
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↖	↗		↔		↖	↕		↖	↕	
Volume (vph)	143	31	100	42	29	55	135	315	57	31	426	164
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	9	9	12	15	12	13	13	12	10	12	12
Total Lost time (s)		5.0	5.0		5.0		5.0	5.0		5.0	5.0	
Lane Util. Factor		1.00	1.00		1.00		1.00	0.95		1.00	0.95	
Frt		1.00	0.85		0.94		1.00	0.98		1.00	0.96	
Flt Protected		0.96	1.00		0.98		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1610	1425		1896		1829	3566		1652	3385	
Flt Permitted		0.70	1.00		0.83		0.34	1.00		0.50	1.00	
Satd. Flow (perm)		1172	1425		1598		658	3566		861	3385	
Peak-hour factor, PHF	0.71	0.71	0.71	0.70	0.70	0.70	0.84	0.84	0.84	0.82	0.82	0.82
Adj. Flow (vph)	201	44	141	60	41	79	161	375	68	38	520	200
RTOR Reduction (vph)	0	0	93	0	52	0	0	30	0	0	80	0
Lane Group Flow (vph)	0	245	48	0	128	0	161	413	0	38	640	0
Bus Blockages (#/hr)	0	0	0	0	0	0	0	1	1	0	1	1
Turn Type	Perm	NA	Perm	Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8			2			6		
Actuated Green, G (s)		17.0	17.0		17.0		23.0	23.0		23.0	23.0	
Effective Green, g (s)		17.0	17.0		17.0		23.0	23.0		23.0	23.0	
Actuated g/C Ratio		0.34	0.34		0.34		0.46	0.46		0.46	0.46	
Clearance Time (s)		5.0	5.0		5.0		5.0	5.0		5.0	5.0	
Lane Grp Cap (vph)		398	484		543		302	1640		396	1557	
v/s Ratio Prot								0.12			0.19	
v/s Ratio Perm		c0.21	0.03		0.08		c0.24			0.04		
v/c Ratio		0.62	0.10		0.24		0.53	0.25		0.10	0.41	
Uniform Delay, d1		13.8	11.3		11.8		9.7	8.2		7.6	9.0	
Progression Factor		1.18	2.09		1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		6.4	0.4		1.0		6.6	0.4		0.5	0.8	
Delay (s)		22.6	23.9		12.9		16.3	8.6		8.1	9.8	
Level of Service		C	C		B		B	A		A	A	
Approach Delay (s)		23.1			12.9			10.7			9.7	
Approach LOS		C			B			B			A	

Intersection Summary		
HCM 2000 Control Delay	13.0	HCM 2000 Level of Service
HCM 2000 Volume to Capacity ratio	0.57	B
Actuated Cycle Length (s)	50.0	Sum of lost time (s)
Intersection Capacity Utilization	53.2%	10.0
Analysis Period (min)	15	ICU Level of Service
		A

c Critical Lane Group

HCM Unsignalized Intersection Capacity Analysis
 17: Ridgeway & Hathaway Ln

BUILD
 7-8 AM



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↔	↔		↔	
Volume (veh/h)	181	221	177	119	77	112
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.75	0.75	0.90	0.90	0.78	0.78
Hourly flow rate (vph)	241	295	197	132	99	144
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	329				1040	263
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	329				1040	263
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	80				52	81
cM capacity (veh/h)	1231				205	776

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	536	329	242
Volume Left	241	0	99
Volume Right	0	132	144
cSH	1231	1700	364
Volume to Capacity	0.20	0.19	0.67
Queue Length 95th (ft)	18	0	115
Control Delay (s)	5.0	0.0	32.6
Lane LOS	A		D
Approach Delay (s)	5.0	0.0	32.6
Approach LOS			D

Intersection Summary			
Average Delay		9.6	
Intersection Capacity Utilization	59.4%		ICU Level of Service B
Analysis Period (min)	15		

Attachment C
VISSIM Videos

(provided on disc only)