

### III. EXISTING CONDITIONS ANTICIPATED IMPACTS AND MITIGATION

#### A. Existing Legal Limitations/Restrictions on Property Development

The development of Parcel B is subject to the applicable provisions of the Zoning Code and the May 18, 1984 and October 11, 1984 Stipulations of Settlement (Appendices I and J).

#### B. Zoning and Town Code Compliance

The subject property is within the SB-35 "Special Business District" (Figure II.B-1).

A "planned office park" is a permitted use in an SB-35 zone subject to granting of a special exception use permit by the Planning Board, which in turn is subject to review by the Town Board. A special exception use permit for a planned office park was previously granted by the Town of Harrison for construction of the existing office building on Parcel B. The Applicant seeks an amendment of that special permit to allow the construction of the proposed building. Section 235-14.E of the Town Zoning Ordinance lists the various factors that must be considered by the Planning Board in determining whether to grant a special exception use permit:

- The use would not prevent or substantially impair either the reasonable and orderly use or the reasonable or orderly development of other properties in the neighborhood.

The proposed office building is in conformance with the development of Parcel B and adjoining properties within the SB-35 District, which also contain office buildings. It is also consistent with two Stipulations of Settlement that allow the development of an aggregate of 355,000 zsf feet of zoning floor area of office space on Parcel B.

- The disadvantages to the neighborhood from the location of such use at the property are outweighed by the advantages to be gained by either the neighborhood or the Town by authorizing the special exception use permit.

This DSEIS describes and discusses the minimal impacts resulting from the proposed use and proposed mitigation measures. The proposed building would be located in an area already developed with office buildings that is well served by public transportation and easily accessed by nearby highways. Benefits to the Town include employment and property tax revenue generated by the proposed use. The benefits of the project and the appropriateness of the location clearly outweigh any disadvantages posed by the project.

- The health, safety, welfare, comfort, convenience and order of the Town would not be adversely affected by the authorized use.

The proposed use would provide benefits to the Town as noted above, and would not adversely affect the health, safety, welfare, comfort convenience and order of the Town, as it completely consistent with surrounding existing uses. The proposed building is consistent with the Town's previous approval of the development of an aggregate of 355,000 zsf of office space on Parcel B.

- The use would be in harmony with and promote the general purposes and intent of the Zoning Ordinance.

The proposed office building is in harmony with and would promote the general purposes and intent by complying with the requirements of the zoning ordinance.

Pursuant to Section 235-17.J, the intent of the special exception use permit for a planned office park is to provide for flexible planned development and future overall control and maintenance of a planned office park site, while conserving the natural scenic environment, implementing the Town of Harrison Master Plan and meeting the following special conditions and safeguards.

- An overall development plan is to be presented, showing the use or uses proposed, including dimensions, indicating the areas set aside for each use and the locations of all structures, parking spaces and rights-of-way or driveways, and the provisions for drainage, sewer and water service, lighting facilities, signs and landscaping.

The proposed office building site design is depicted on the set of Site Plan drawings submitted as part of this DSEIS, which conform to the above noted requirements. The building would be well screened surrounding uses by existing landscaping and vegetation and would be attractively landscaped. In addition, the proposed drainage system would improve the quality and effectiveness of wetlands on site.

- All of the site area not specifically covered by a building or structure, including areas such as yards, roadways and parking facilities, pedestrian walks and malls and landscapes areas resulting from the establishment of a planned office park are to remain in control of one (1) agency which is to be accountable for their control and maintenance.

The Applicant is entitled to construct and maintain the proposed building on Parcel B pursuant to a 1991 ground lease. However, BFG as the owner of Parcel B retains ultimate control over Parcel B.

- All of the applicable regulations with regard to uses permitted, accessory uses, bulk regulations and buffer strips of the SB-35 District are to prevail, except for the actual buildings may be grouped and the yard, lot area and coverage revisions applied to the group as a whole.

Figure III.B-1 "Table of Land Use" which follows, details the specific bulk requirements and conformity to such bulk requirements by the existing building A, proposed building B, and combined buildings A and B.

As indicated on Figure III.B-1, the Applicant is requesting two (2) variances from the Town of Harrison Board of Appeals, one to reduce the parking on the site to 80% of that required under the Zoning Code, and another to reduce the side yard setback for the 20% landbank (reserve) parking structure from 200 to 133 feet.

As stated in Section 235-61.D(4)(a) of the Zoning Ordinance, the Board of Appeals may permit a reduction in the number of off-street parking spaces required for a particular use pursuant to the Zoning Ordinance in cases where the Board of Appeals determines that, with respect to a particular proposed use, there is reasonable analytic evidence with reference to its special character and function, including, among other things, the projected density of employees or other site population or the provision of a communal transportation system, to warrant a finding that the demand for construction of such spaces is, at least in the initial development, less than that required pursuant to the Zoning Ordinance, without transferring such demand to on-street sites or to inadequately improved off-street sites.

This is provided, however, that any such determination to authorize a reduction in the number of off-street parking spaces and/or truck loading spaces is to be contingent upon the Town Attorney, on behalf of the Town, entering into a written agreement with the owner of the property, which is to be in recordable form and recorded in the Land Records Division of the Westchester County Clerk's office, guaranteeing the reservation of an adequate area shown on an approved site plan for the construction of the number of such spaces by which the requirement was reduced and provided, further, that any such permitted reduction may be automatically rescinded where the Board of Appeals subsequently determines that such reduced number has proven inadequate for a period of 90 days, in which case the then owner of such premises is to be found in violation of the requirements of the Zoning Ordinance and such violation is to become effective within 90 days if the additional required spaces are not constructed and available within such ninety-day period.

The existing building on the Parcel B site is subject to written agreement between the Town and the Applicant providing for a reduction in required parking spaces by 20% (Appendix K). With the additional sought after parking variance, the entire site would be parked at 80% with 20% landbanked. This level of parking is consistent with the Stipulations of Settlement and the goal of minimizing, to the extent practicable, impervious surfaces on Parcel B.

The proposed project would be consistent with the Town Zoning Ordinance and would not have any adverse impacts on zoning. Therefore, no mitigation is required or proposed.

## C. Wetlands and Stormwater Management

### 1. Description of Existing Conditions

The Applicant has proposed changes to Parcel B involving modifications to stormwater management in concert with the expansion of parking facilities, which requires work adjacent to regulated wetlands. The proposed development activities occur on both the east and west sides of the building and parking areas. A new stormwater management area (wet pond) is to be constructed on Parcel C property, north of the College Road cul-de-sac. To the west, the site is bounded by another office complex and associated roads and parking, so that there is little in the way of natural resources or impacts to same.

To the east, there is a Town and Federal 3.7 acre wetland (first delineated by Jay Fain & Associates in 2000 and re-flagged and remapped by Dru Associates, Inc. in 2006) that extends eastward from the edge of the existing Building A parking area over to Purchase Street (Figure III.C-1). This area was altered by the initial development of the site, wherein improvements along the southern edge of the wetland were designed and function for stormwater detention.

When Parcel B was first developed, Manhattanville Road was constructed with a large berm aligned across the entire open space parcel that now includes the wetland. This berm was fitted with a culvert and outflow structure for drainage of the wetland under the road, to continue southward along the original watercourse. However, the elevation of the culvert invert allowed water to pond, back-up and eventually flood a much greater area north of the berm than had originally been saturated, thus expanding the wetland considerably in both east and west directions. Therefore, the wetland mapped since 2000 is in part an artifact of past land use practices, including both the historic and modern development of the site itself.

There were no mapped, regulated wetlands identified on the site when the US Department of Interior Wetland Inventory maps were prepared and the present vegetation assemblage of the area is a reflection of the historic absence of such wetlands. There are tree species that were clearly introduced, and a margin of native forest along Purchase Street that reflect the distant history of the area. Within the core of the wetland are some native wetland species, but most of the margin of this wetland is comprised of landscape species (e.g. apple orchard) and invasive vines and shrubs (e.g. wild rose, greenbrier, honeysuckle).

Parcel B is situated at the upstream end of the Mamaroneck River watershed. The site is divided by a single major drainage divide creating two major drainage areas identified as Drainage Area 1 (DA-1) and Drainage Area 2 (DA-2) as shown on drawing DA-1 "Existing Drainage Area Map" (Figure III.C-2). DA-1 consists of approximately 23.1 acres and contains the western portion of the site. DA-2 consists of approximately 28.7 acres and contains the eastern portion of the site.

DA-1 is comprised of three sub-drainage areas (DA-1A, DA-1B, DA-1C). DA-1A consists of 12.14 acres. Runoff from 3.91 acres of buildings and recreation fields from the adjacent Manhattanville College Campus enters Parcel B by overland flow across the western half of the northern property line. The remainder of DA-1A consists of the western half of Building A and driveways, parking areas, landscaped areas and a small amount of woods. Runoff from DA-1A is detained in a dry detention basin located to the west of the existing parking area. Outflow from the detention basin is controlled by an 18-inch corrugated metal pipe (CMP) which discharges to a stone-lined swale within DA-1C and eventually enters the detention basin in DA-1C. DA-1B consists of 2.45 acres and primarily contains lawn area, an old barn, a driveway and some walkways. Runoff from DA-1B flows overland in a southwesterly direction to College Road. DA-1C consists of 8.48 acres and contains parking and landscaped areas in the southwestern portion of the property. Runoff from DA-1C is collected by a series of catch basins underground pipes and discharges to a small dry detention basin to the northeast of College Road. Outflow from the detention basin is controlled by a 24-inch

CMP which connects to a manhole on the east side of College Road. The stormwater is then conveyed under College Road to a manhole on the west side of College Road which is designated as Design Point 1. DA-3 is within DA-1. DA-3 is 1.69 acres and contains driveways, parking areas, associated landscaping and a stormwater detention basin on the Manhattanville College Campus. DA-3 is not included in DA-1 because the outflow from the detention basin is piped outside of DA-1 to the College Road Extension.

DA-2 consists of approximately 13.3 acres of the Manhattanville College Campus which contains buildings, driveways, parking areas, landscaped areas and undeveloped areas. Runoff from the Manhattanville College Campus enters Parcel B across the eastern portion of the northern property line via overland flow. The remainder of DA-2 consists of the eastern half of Building A and associated driveways, parking areas, landscaped areas, woods and brush. Runoff from DA-2 is detained within an existing detention area north of Manhattanville Road between the existing parking area and Purchase Street. Outflow from the detention area is controlled by a 36-inch CMP. The outflow is conveyed under Manhattanville Road and continues through the Parcel A property. Within DA-2 is DA-2A which consists of 2.56 acres. DA-2A is the area that would be developed to provide the proposed parking expansion.

The existing peak runoff rates have been calculated for the 1, 10 and 100-year storm recurrence intervals and are summarized in Table III.C-1 below:

**Table III.C-1**  
**Summary of Existing Peak Rates of Runoff**

Storm Recurrence Interval	Peak Rate of Runoff (cfs)	
	Design Point 1	Design Point 2
1	13.83	1.84
10	39.21	5.56
100	62.12	10.23

## **2. Description of Measures developed by Applicant to address Wetland and Stormwater Management Issues**

The development of the proposed parking and drainage improvements would cause minimal impacts to natural resources on the western side of the site. At this time, the stormwater drainage through this area is confined to a “bowl” land form into which drainage pipes dump stormwater. The bowl area is regularly mowed as lawn, so no natural meadow habitat has developed. In all other respects, the western side of Parcel B is fully developed. While some stormwater passes through this area, it enters culverts and descends to deeper piping to pass under neighboring buildings and roadways. The proposed re-design of the stormwater basin would actually improve the ecological resources available to small mammals and birds, particularly waterfowl, by the creation of wet-pond and aquatic bench habitat within the basin (conditions not now present on the western part of the site).

On the eastern side of the site, in association with work proposed along the wetland edge, there would be a reduction in linear setback from the wetland in certain portions of the margin between the wetland and existing parking lot. There is a 0.58 acre area that would be converted from landscaped and mowed buffer to parking lot. This area is now a raised berm and hillside, covered for the most part by dense and invasive vegetation. The buffer zone serves a limited use for wildlife because it slopes towards the parking lot, which exposes animals to contact with people and cars. This area also directs surface runoff back into the parking lot, which then drains towards the southern end of the parking area and through its storm drains directly into the wetland. Accordingly, this loss of buffer zone represents an impact, but one that is not significant to the site’s ecological function.

In the design of the new parking areas, the stormwater flows now draining towards the parking lot from the existing landscaped buffer would be collected and treated as part of the new project. The project proposes to install within the existing buffer zone a set

of stormwater management features which results in approximately 0.74 acres of buffer disturbance. These features would upgrade the site's treatment of stormwater, some of which presently enters directly into the wetland, carrying sediment and pollutants without treatment. Thus, there is a loss of existing buffer, but this loss is readily mitigated by the improvement to the habitats and the addition of new water quality treatment to better protect the wetland overall.

The incursion into the buffer zone may induce some of the wildlife using the margin of the existing open space to move further into the interior of the wetland and surrounding open space. However, this would not have an adverse impact on the site's overall function for wildlife, which is largely to support cosmopolitan species already adapted to their proximity to human activities.

The additional development of Parcel B would increase the amount of impervious surfaces with the addition of Building B and additional paved areas which would increase the peak rate of runoff and pollutants from the site. Two stormwater management areas are proposed to mitigate the increase in runoff rates and pollutants. In addition, a subsurface detention facility is also proposed to mitigate the increase in peak runoff rates. A Stormwater Pollution Prevention Plan (SPPP) for this project would be prepared in accordance with Town of Harrison requirements and the technical requirements set forth in the New York State Department of Environmental Conservation (NYSDEC) General Permit GP-02-01 for Stormwater Discharges from Construction Activities. The proposed stormwater management areas have been designed in accordance with the guidelines provided in the New York State Stormwater Management Design Manual, dated August 2003. The proposed stormwater management areas have been designed to provide Water Quality (treatment of 90% of the average annual stormwater runoff volume), Stream Channel Protection (24-hour extended detention of the 1-year storm event), Overbank Flood control (10-year storm event) and Extreme Flood Control (100-year storm event).

Under proposed conditions the major drainage divide between DA-1 and DA-2 remains unchanged. However, the sub-drainage areas within DA-1 change as shown on drawing DA-2 "Proposed Drainage Area Map" (Figure III.C-3). The two dry detention basins within DA-1 would be eliminated. DA-1A consists of 11.85 acres and contains the same off-site area from Manhattanville College, proposed Building B, additional parking areas, a portion of a new driveway to College Road, landscaped areas and a new stormwater management area to be located north of the College Road cul-de-sac on Parcel C property. Stormwater Management Area 1A (SMA 1A) has been designed as a wet pond (NYSDEC practice P-2). Outflow from the pond would be controlled by an outlet control structure with a 3 ½ inch orifice elevation at 239.50 for stream channel protection and a four foot wide weir at elevation 241.20 for control of the 5 through 100-year storms. The outflow from the basin would then be conveyed by a 24-inch storm pipe to the existing manhole adjacent to College Road.

Under proposed conditions DA-1B consists of 1.68 acres and contains the lower portion of the proposed driveway and landscaped areas between College Road and the proposed parking areas. Runoff from DA-1B would flow overland to College Road.

DA-1C consists of 9.54 acres and contains approximately 4.3 acres that was previously within DA-1A under existing conditions. Runoff from DA 1-C would be detained in a proposed subsurface detention system to be constructed under the parking area on the western side of the drainage area. The system would consist of 600 feet of 96-inch diameter aluminized CMP. Prior to entering the subsurface detention system, runoff would be conveyed through two Vortechs stormwater treatment systems which would remove sediment, trash and oil. Outflow from the subsurface detention system would be controlled by an outlet control structure with a 15-inch orifice at elevation 246.00 and three 13-inch orifi at elevation 248.70. The outflow would be conveyed by a 24-inch storm pipe to the existing manhole adjacent to College Road.

Under proposed conditions DA-2A is divided into two sub-drainage areas, DA-2A which is detained and DA-2B which is undetained. DA-2A consists of 2.15 acres and contains the new parking areas west of the existing parking area as well as some portions of the existing parking area. DA-2B consists of 0.41 acres of landscaping associated with the parking expansion. Runoff from DA-2A would be collected by a series of catch basins and pipes and discharge to proposed Stormwater Management Area 2A (SMA 2A). SMA 2A has been designed as a pocket pond (NYSDEC Practice P-5) due to high seasonal groundwater. Similar to SMA 1A, SMA 2A provides water quality, channel protection, overbank flood control and extreme flood control in accordance with NYSDEC requirements. Outflow from SMA-2A is controlled by a 2  $\frac{3}{8}$  orifice at elevation 284.00 and two 2.5 foot wide weirs at elevation 285.25. The outflow is discharged to the existing wetlands via a 24-inch storm pipe.

The proposed peak rates of runoff are summarized in Table III.C-2 below:

**Table III.C-2**  
**Summary of Proposed Peak Rates of Runoff**

Storm Recurrence Interval	Peak Rate of Runoff (cfs)	
	Design Point 1	Design Point 2
1	9.33	0.43
10	29.87	4.31
100	62.08	9.85

### **3. Anticipated Impacts and Mitigation**

While the project proposes no disturbance within the actual wetland area, a total of approximately 1.52 acres of disturbance is proposed within the 100 foot wetland buffer. These activities are the minimum necessary to reasonably develop the property and comply with the various codes, ordinances and requirements of the Town/Village of Harrison.

Off-site improvements associated with the project would include widening the north side of Manhattanville Road to provide an additional eastbound travel lane and associated drainage improvements. While none of the disturbance associated with the road widening would occur within the wetland area, approximately 0.20 acres of disturbance would occur within the 100 foot wetland buffer. It should be noted that Manhattanville Road is physically separated from the wetland area by a substantial berm which exists along the north side of Manhattanville Road. Therefore, the highway improvements should have no effect on the wetlands.

In addition, a stormwater management basin and associated storm drainage piping and rip-rap stabilization would be constructed which would result in approximately 0.74 acres of disturbance within the buffer. The stormwater management areas would be heavily landscaped with wetland plant species (Figure III.C-4) and have been sized to treat 90% of the average annual stormwater runoff volume from all existing and proposed areas of the site that contribute drainage to the basins. The stormwater management basins and plantings would mitigate any potential wetland impacts that may result from construction of the proposed improvements. Also, the proposed catch basins throughout the site would be equipped with 18 inch deep sumps and the discharge points from the storm drainage system include energy dissipators for additional stormwater treatment.

The proposed parking area expansion would affect the existing configuration of the open space by converting approximately 0.58 acres of landscaped lawn and invasive vegetation into new pavement, an area that falls within the 100-foot wetland buffer. This would result in a minimal loss of habitat since much of the area which is to be converted to additional parking space is already disturbed, having been cleared of the original woodland and partially maintained by landscape activities (some of these modern and some originating with the site's history as part of the Ophir Farm, developed in the 1800's). This minimal reduction in open space would not be considered significant to the total size of the natural habitat because its size already falls below the threshold of a preserve serving disturbance sensitive species of wildlife.

In addition, no impervious surfaces would be constructed within the wetland limits.

The newly added parking areas would increase the overall volume of drainage on both the eastern and western portions of the site. Accordingly, designs have been prepared to capture and treat the flows with stormflow control structures (including where necessary Vortechs treatment systems) and in vegetated basins, where settling of silt and biological treatment of pollutants can occur. In both proposed stormwater management areas on the western and eastern portions of the site, forebays would attenuate flows allowing settling of solids. In both the forebays and aquatic bench habitats created, native emergent and submergent vegetation would aid in the biochemical breakdown of pollutants (e.g. nitrogenous and hydrocarbon compounds). Since each basin system is sized for large storm events, there would be sufficient capacity to hold waters in which concentrations of pollutants are not diluted by the larger storm events, and thereby allow for biotreatment of these lingering storm waters.

In order to preclude any increase in stormwater pollution into the wetlands (on the eastern side of the site) or the watercourse (on the western side of the site), complete capture and treatment are proposed of newly generated stormwater flows. With respect to the western watercourse, there are no additional habitat areas or wetland jurisdictional issues identified at this time. For the wetland on the eastern side of the site, which is regulated by the Town of Harrison and US Army Corps of Engineers, any potential impact to the wetland functions have been addressed by both the maintenance of setbacks to the greatest extent feasible and measures to improve the habitat along the margin of the existing wetland boundary. Not only would the new stormwater features reduce the pollutant loading associated with sediment transport, and eliminate delivery to the wetland of such sediment, but the new basin features would offer high quality habitat to certain species of wildlife using the site. These species include waterfowl and herpetofauna.

At present, there are some temporary pools within the eastern wetland which serve as breeding habitat for wood frogs and peepers, while with the new basin, this type of habitat would be improved and more reliable for these species. Moreover, waterfowl

traveling through the area would find useful feeding and resting habitat in the new basins. Accordingly, the plantings selected include species useful for sediment trapping and processing (e.g. Typha, bulrush, etc.) and plants that provide food for wildlife (e.g. duck potato, arrow arum). Proposed planting plans for the basins are included within the "Environmental Assessment" contained within Appendix E of this SEIS.

Tabulations of plant species proposed for the basins are:

**Eastern Wetland Buffer Basin Plantings**

Scientific Name	Common Name	Symbol	Number	Type
Vaccinium corymbosum	Blueberry	Blb	16	Shrub
Scirpus fluvionalis	Bulrush	Blr	331	Aquat
Typha angustifolia	Cattails	Ctl	121	Aquat
Sambucus Canadensis	Elderberry	Elb	156	Shrub
Cornus foemina racemosa	Grey Dogwood	Gdw	40	Tree
Spiraea ulmaria	Meadowsweet	Mws	39	Emergent
Scirpus sp.	Sedge Various	Ssp	696	Emergent
Panicum virgatum	Switchgrass	Swg	545	Grass
Carex stricta	Tussock Sedge	Ts	113	Aquat
Scirpus cyperinus	Woolgrass	Wg	182	Aquat

The basin proposed for the western portion of the site would be located in an area that is currently completely mowed and provides virtually no habitat for wildlife. This area is not contiguous with any natural habitat, so unlike the eastern basin, its proposed functions would be limited to stormwater collection, containment and bio-treatment. Nevertheless, the project intends to plant this basin with species that would enhance its function in cleansing stormwater before it is released to the culvert system (Figure III.C-5).

**Western College Road Basin Plantings**

<b>Scientific Name</b>	<b>Common Name</b>	<b>Symbol</b>	<b>Number</b>	<b>Type</b>
Scirpus fluvintails	Bulrush	Blr	104	Aquat
Sambucus canadensis	Elderberry	Elb	98	Shrub
Scirpus cyperinus	Woolgrass	Wg	711	Aquat
Scirpus sp.	Sedge Various	Ssp	287	Emergent
Panicum virgatum	Switchgrass	Swg	1104	Grass
Carex stricta	Tussock Sedge	Ts	60	Aquat
Wildflower Mix	Wildflower Mix	Wm		Upland
Native Grasses	Native Grasses	Ng		Upland

The proposed project has the potential to impact natural resources by altering habitat availability for wildlife on the eastern margin of Parcel B. There are two forms of potential impact: stormwater discharge from impervious areas; and activities in the area adjacent to a regulated wetland. In order to prevent adverse impacts from stormwater, the project proposes stormwater basins designed according to current principles of water quality protection. Accordingly, the basins would be planted with native wetland and riparian species that would result in the creation of ecological habitat which can achieve two objectives.

First, the basins would provide for biological treatment of stormwater that removes pollutants by allowing settling of sediment and silt and by the breakdown and uptake of contaminants. As the solids settle from the stormwater, the material would accumulate around plantings that thrive in such soils, helping to stabilize these sediments. The plants themselves would also breakdown and absorb excess nutrients and hydrocarbons, thus removing them from circulation back into local waters.

Second, the newly created wetland and riparian habitat would be self-sustaining because the plant species selected have the capability to sustain their own communities. This capability is ensured by selection of a cross-section of species that tolerate the fluctuating conditions expected in these storm basins. As these basins grow in, the vegetation would provide cover and food resources for wildlife. In the case of the

eastern basin, the new habitat replaces existing scrub and thicket that bounds the wetland, and this new habitat would be of higher diversity and quality than the existing conditions. Hence, while some impact to the buffers is proposed, the net result would be improved buffering for the wetland in the eastern portion of the site, as well as improved habitat for wildlife, especially birds and herpetofauna.

## **D. Transportation**

### **1. Existing Conditions**

#### **a. Existing Transportation Resources**

Parcel B is in a prime location for access to regional roadways such as I-684, I-287 and the Hutchinson River Parkway (Figure I.A-2). The proposed site driveway would be off of College Road which provides two travel lanes in each direction from its intersection with Manhattanville Road. Manhattanville Road provides two travel lanes in the easterly direction from the I-684 Southbound Ramps to the East MasterCard Driveway, at which point the two lanes converge into one lane which continues to Purchase Street. All intersections along Manhattanville Road and College Road are currently unsignalized. There is one travel lane in the western direction from Purchase Street to the East Parcel 'B' Driveway at which point two lanes are provided to the intersection with the I-684 Southbound Ramps. Purchase Street generally provides one travel lane in each direction except for exclusive left turn lanes at its intersection with Anderson Hill Road, Manhattanville Road and the Hutchinson River Parkway Ramps.

The primary public transit provider is the Westchester County's "Bee Line" system, providing extensive fixed route and paratransit service throughout Westchester County, as well as several innovative shuttle services feeding or distributing riders from the Metro North Railroad. The Bee Line system handles over 29 million passengers annually. The project site is specifically served by the Westchester County Bee Line Bus System's express Route #3. Route #3 provides express service from the Bronx to Purchase, via White Plains.

According to the New York State Department of Transportation, the Bee Line includes the "Platinum Mile Shuttles" to the outlying corporate office parks along the Cross Westchester Corridor (I-287) in and near White Plains. The shuttles

provide feeder service to both the Metro North Railroad and regular Bee Line fixed route services. They are an important transit link enabling commuters, including reverse commuters, to access the corporate parks via transit. The network of regional services is integrated with the county fixed route system at the White Plains “TransCenter” Intermodal Station. They also connect with interregional services from Connecticut and other counties at the TransCenter.

The Bee Line bus makes two connections with the Metro North commuter rail system, thereby further extending its reach and the site’s accessibility. The Metro North Hudson Line is accessed at a stop adjacent to the Yonkers Station, and the Harlem Line trains are accessed at the multi-modal TransCenter, in downtown White Plains. This express bus further connects to the New York City Transit subway system at the 242 Street Station, the Bronx. The bus ride from White Plains to the project site is 21 minutes; it is 53 minutes from Yonkers; and 68 minutes from the 242nd Street subway station.

**b. Discussion of Vehicular Accident History Data**

The Harrison Police Department provided information on accidents that occurred within the study area between August 24, 2003 and August 24, 2006. The accident information indicates the accidents were caused primarily by human error, examples of which were driver inattention, turning improperly, traffic control disregarded, failure to yield right of way, following too closely and unsafe speed. Slippery pavement and animals were also identified as causes. The reported accidents did not involve sight distance or roadway geometric related causes.

**c. Description of Pedestrian Circulation Patterns**

There are low pedestrian volumes throughout the study area. Pedestrian activities during the peak hours do not significantly impact traffic operations.

## 2. Traffic

### a. **Description of Prior Traffic Studies**

A Traffic Impact Study dated March 6, 2000 was prepared by John Meyer Consulting. That study concluded that the proposed project would not significantly impact traffic conditions in the study area, and that proposed improvements to Manhattanville Road, i.e., widening the road to provide separate left and right turn lanes on the approach to Purchase Street, the proposed installation of a traffic light at the intersection of Manhattanville Road and Purchase Street, and improvements to the Hutchinson River Parkway north and south ramps at Purchase Street (now completed), would significantly improve then existing traffic conditions in the study area.

In response to comments received regarding that study from the Planning Board's outside traffic consultant, a Traffic Impact Study Supplement prepared by John Meyer Consulting, dated September 1, 2000, and a letter from John Meyer Consulting to the Planning Board, dated November 6, 2000, provided additional information. The most significant component of the Traffic Impact Study Supplement and the November 6, 2000 letter was the study of the impact of a potential closure of Manhattanville Road at Purchase Street (NY Route 120), together with an extension of Manhattanville Road to Corporate Park Drive, which connects to Westchester Avenue. Subsequently, after an extensive review process, NYSDOT determined that Manhattanville Road should not be closed at Purchase Street or connected to Corporate Drive (see Appendix L).

Due to NYSDOT's rejection of the proposed road closure, there is no need to include any further environmental review of such scenario in this SEIS.

**b. Update of Prior Traffic Studies**

In order to update the March 2000 Traffic Study, a new Traffic Impact Study was conducted and is included as Volume III of this DSEIS. The study includes additional figures and detailed capacity analyses. The Traffic Impact Study analyzes the anticipated traffic impact of the proposed development on the surrounding roadway network. In order to determine impact of the proposed development on traffic conditions in the site's vicinity, recognized traffic engineering techniques were used. Specifically, the potential impacts of implementing the proposed project in 2008 were determined by comparing the proposed project to the conditions that would likely exist in 2008 (the Build Year) if the proposed project is not implemented (the 2008 No Build Condition). The 2008 Build Condition assumes the continuation of existing conditions, realization of other known planned development activity, and expected changes in population and traffic.

As part of the study, representatives of John Meyer Consulting prepared field surveys of the roadways in the site's vicinity. The study area includes intersection along Manhattanville Road as well as along Purchase Street between the Hutchinson River Parkway ramps and Purchase Street. The study area is believed to be appropriate based on the site of the proposed development and is consistent with the 2000 study. The reconnaissance work included an inventory of the existing roadways, lane widths, pavement types, curbing, shoulders, horizontal and vertical alignments, speed limits and traffic control devices. The inventory was utilized primarily in computing the intersection capacity analyses.

Manual field traffic counts were taken at the following intersections on Wednesday, April 26, 2006:

- Purchase Street & Manhattanville Road
- Manhattanville Road & Parcel B East Driveway
- Manhattanville Road & Parcel B West Driveway
- Manhattanville Road & College Road
- College Road & Parcel C Driveway
- Manhattanville Road & I-684 Northbound Ramps
- Manhattanville Road & I-684 Southbound Ramps
- Purchase Street & MasterCard Driveway/Hutchinson River Parkway Southbound Off-Ramp
- Purchase Street & Hutchinson River Parkway Southbound On-Ramp
- Purchase Street & Hutchinson River Parkway Northbound Ramps
- Purchase Street & Anderson Hill Road

The counts were conducted from 7:00 AM to 9:00 AM and from 4:00 PM to 6:00 PM, the hours typically associated with peak weekday traffic volume along the roadways and driveways. The existing traffic volumes were reviewed to determine 2006 Existing Volumes and peak roadway hours. The Peak AM Hour occurs between 8:00 and 9:00 AM and the Peak PM Hour occurs between 5:00 and 6:00 PM.

Traffic volumes are expected to increase along the area roadways regardless of whether the proposed Parcel B office building is redeveloped. In order to account for general increases in traffic volumes, the 2006 Existing Volumes were increased by an annual growth rate of 2% to the 2008 Build Year and the resulting volumes are identified as 2008 General Growth Volumes. A 2% general growth rate is a standard and generally conservative growth rate for Westchester County. While

1% is occasionally used, the 2% rate is appropriate for a conservative analysis. In addition, the 2008 Build Year traffic volumes were conservatively assumed to include 100% occupancy of the existing building (Building A) on Parcel B, even though the building is currently not fully occupied. According to Pat Cleary, the Town's Planning Consultant, there are no other pending or proposed projects in the study area that would be completed in the 2008 Build Year. Accordingly, both the 2008 General Growth Volumes and the assumed 100% occupancy volume for Building A were added to the 2006 Existing Volumes, and the resulting volumes are identified as 2008 No Build Volumes, which is representative of future conditions without the specific volumes associated with the proposed development.

**c. Anticipated Impacts and Mitigation**

The anticipated traffic generation of the proposed development has been projected based on information contained in Trip Generation, 7<sup>th</sup> Edition, published by the Institute of Transportation Engineers (ITE). The publication provides traffic generating characteristics for a wide variety of development types based on studies conducted by traffic engineers for similar developments throughout the country. Table III.D-1, "Site Generated Volumes," presents the traffic volumes utilized in this study based on the gross square footage of the building.

**TABLE III. D-1**

**SITE GENERATED VOLUMES**

LAND USE	CONDITION		PEAK AM HOUR			PEAK PM HOUR		
	CODE	GROSS S.F.	ENTER	EXIT	TOTAL	ENTER	EXIT	TOTAL
GENERAL OFFICE BUILDING	710	81,567	140	19	159	29	141	170

Table III.D-2 provides 2006 Existing Volumes, 2008 No Build Volumes and the projected site volumes at two intersections within the study area to provide an indication of the relative increase in traffic generated by the proposed office building.

**TABLE III. D-2**

**PEAK HOUR TRAFFIC VOLUME COMPARISON**

INTERSECTION	2006 EXISTING		2008 NO BUILD		SITE GENERATED		PERCENT INCREASE FROM SITE	
	AM	PM	AM	PM	AM	PM	AM	PM
Purchase Street & Manhattanville Road	1403	1423	1536	1550	72	76	4.7%	4.9%
Purchase Street & Anderson Hill Road	1989	2085	2086	2187	16	17	0.8%	0.8%

The origin and destination distribution patterns anticipated for the subject Parcel B development are based on the existing distribution percentages determined from the counts conducted at the existing Parcel B driveways generated by Building A.

The Peak AM and Peak PM site generated traffic volumes were distributed along the roadway network in accordance with the origin and destination percentages. The resulting volumes are depicted on Figures III.D-1 and III.D-2. The site generated volumes were then added to the 2008 No-Build Volumes and assigned to the same intersections in the network, resulting in the 2008 Build Volumes. The combined volumes are representative of volumes anticipated upon completion of the proposed development.

Capacity analyses were computed for the peak highway hours for the intersections in the study area based upon the methodologies presented in the 2000 Highway Capacity Manual. Tables III.D-3 and III.D-4 summarize the operations of the intersections for the Peak AM Highway Hour and Peak PM Highway Hour, respectively.

The levels of service for unsignalized intersections are determined for those movements which must yield the right-of-way to one or more other movements. Levels of service range from A thru F, with A representing the shortest delays. Level of Service F is associated with vehicles which have a delay longer than 50 seconds per vehicle. The level of service criteria for unsignalized intersections is characterized by shorter delays for the various levels of service as compared to signalized intersections.

The levels of service for signalized intersections are defined in terms of control delay, which includes deceleration delay, queue move-up time, stops delay and final acceleration delay. As with unsignalized intersections, levels of service range between Level of Service A thru F, with Level of Service A representing the shortest delays. Level of Service F is associated with vehicles delayed in excess of 80 seconds. Capacity does not directly relate to level of service. It is not uncommon for a Level of Service E to exist even though there is sufficient capacity for a movement. An example of this perceived paradox is a vehicle along a side street which must wait during a long signal cycle for a green indication, after which ample green time is provided for the vehicle to enter the intersection.

All of the intersections analyzed for the 2008 Build Volumes would operate at acceptable levels of service except for the following:

#### Purchase Street & Manhattanville Road

The eastbound Manhattanville Road approach currently operates at Level of Service (LOS) F under existing conditions during the Peak PM Hour. During the Peak AM Hour, the eastbound approach currently operates at LOS E and would operate at LOS F based on the 2008 No Build Volumes. For this reason and the fact that the intersection previously met warrants for traffic control

signals, the Applicant is proposing to construct a traffic signal as well as separate right and left turn lanes for the Manhattanville Road approach to Purchase Street. With these improvements, the intersection would operate at LOS B for the 2008 Build Volumes during the Peak AM and Peak PM hours.

#### Purchase Street and Anderson Hill Road

The capacity analyses indicate that the overall intersection currently operates at LOS F during the Peak PM Hour. The relatively low volume of site generated traffic anticipated at the intersection is minimal when compared to the overall volume at the intersection and delays are not projected to increase significantly based on the intersection capacity analyses with the additional vehicles from the proposed project. The delay to the northbound approach increases by 0.3 and 0.7 seconds for the Peak AM and Peak PM hours, respectively, and by 1.5 and 0.2 seconds, respectively, for the southbound approach.

**TABLE III.D-3**

**INTERSECTION OPERATIONS-PEAK AM HOUR**

INTERSECTION	DIRECTION	LANE GROUP	2003 EXISTING			2008 NO BUILD			2008 BUILD		
			V/C	DELAY	LOS	V/C	DELAY	LOS	V/C	DELAY	LOS
1. PURCHASE STREET & ANDERSON HILL ROAD (SIGNALIZED)	EASTBOUND	LEFT/THRU/RIGHT	0.75	26.0	C	0.78	27.6	C	0.78	30.0	C
	WESTBOUND	LEFT/THRU/RIGHT	0.41	18.4	B	0.44	18.7	B	0.44	20.4	C
	NORTHBOUND	LEFT	0.27	31.5	C	0.30	34.0	C	0.32	35.0+	D
		THRU/RIGHT	0.69	31.1	C	0.72	32.3	C	0.73	32.5	C
	SOUTHBOUND	APPROACH	-	31.1	C	-	32.6	C	-	32.9	C
		LEFT	0.83	51.7	D	0.91	64.6	E	0.92	66.6	E
		THRU/RIGHT	0.74	33.1	C	0.80	36.1	D	0.82	37.7	D
INTERSECTION		-	40.1	D	-	46.6	D	-	48.1	D	
INTERSECTION		-	31.4	C	-	34.6	C	-	36.2	D	
2. COLLEGE RD & DRIVEWAY NORTH (UNSIGNALIZED)	EASTBOUND	LEFT	0.00	10.4	B	0.00	10.5	B			
		RIGHT	0.01	8.4	A	0.01	8.4	A		N/A	
		APPROACH	-	8.7	A	-	8.7	A			
	NORTHBOUND	LEFT/THRU	0.07	7.4	A	0.07	7.4	A			
2A. COLLEGE RD & DRIVEWAY NORTH (UNSIGNALIZED W/ IMPROVEMENTS)	EASTBOUND	LEFT/THRU							0.00	10.7	B
		RIGHT							0.01	8.4	A
		APPROACH							-	8.7	A
	WESTBOUND	LEFT/THRU/RIGHT		N/A			N/A		0.01	11.1	B
	NORTHBOUND	LEFT/THRU/RIGHT							0.07	7.4	A
	SOUTHBOUND	LEFT/THRU/RIGHT							0.00	7.3	A
3. HUTCH NB & PURCHASE ST. (SIGNALIZED)	EASTBOUND	LEFT	0.82	53.2	D	0.93	67.1	E	0.98	80.5	F
	NORTHBOUND	THRU/RIGHT	0.37	6.0	A	0.40	6.2	A	0.42	6.4	A
	SOUTHBOUND	LEFT	0.21	12.8	B	0.23	13.0	B	0.24	13.1	B
		THRU	0.36	14.0	B	0.38	14.2	B	0.39	14.2	B
		APPROACH	-	13.7	B	-	13.9	B	-	13.9	B
4. HUTCH SB & PURCHASE ST (SIGNALIZED)	EASTBOUND	LEFT	0.01	27.5	C	0.02	27.5	C	0.02	27.5	C
		RIGHT	0.05	27.8	C	0.05	27.8	C	0.05	27.8	C
		APPROACH	-	27.7	C	-	27.7	C	-	27.8	C
	WESTBOUND	LEFT	0.18	28.6	C	0.19	28.6	C	0.19	28.6	C
		THRU/RIGHT	0.60	38.5	D	0.65	40.4	D	0.67	41.2	D
		APPROACH	-	36.0	D	-	37.5	D	-	38.3	D
	NORTHBOUND	LEFT	0.31	7.8	A	0.33	8.0	A	0.34	8.1	A
		THRU	0.46	7.5	A	0.52	8.0	A	0.55	8.5	A
		APPROACH	-	7.5	A	-	8.0	A	-	8.4	A
	SOUTHBOUND	THRU/RIGHT	0.59	14.6	B	0.62	15.2	B	0.62	15.3	B
	INTERSECTION		-	15.4	B	-	16.0	B	-	16.2	B
5. MANHATTANVILLE RD & 684 NB (UNSIGNALIZED)	EASTBOUND	LEFT/THRU	0.00	7.3	A	0.00	7.3	A	0.00	7.3	A
	NORTHBOUND	LEFT/THRU	0.01	12.7	B	0.01	13.4	B	0.01	13.8	B
		RIGHT	0.73	21.7	C	0.85	31.2	D	0.92	41.9	E
		APPROACH	-	21.6	C	-	31.1	D	-	41.7	E

**TABLE III .D-3 (Continued)**

**INTERSECTION OPERATIONS-PEAK AM HOUR**

6. MANHATTANVILLE RD & 684 SB (UN SIGNALIZED)	WESTBOUND	LEFT/THRU	0.01	7.3	A	0.02	7.3	A	0.02	7.3	A
	SOUTHBOUND	LEFT/RIGHT	0.55	13.5	B	0.62	15.1	C	0.66	16.4	C
7. MANHATTANVILLE RD & COLLEGE RD (UN SIGNALIZED)	EASTBOUND	LEFT/THRU	0.05	7.9	A	0.05	7.9	A	0.08	8.0	A
	SOUTHBOUND	LEFT	0.06	14.4	B	0.07	15.6	C	0.09	17.8	C
		RIGHT	0.00	9.0	A	0.00	9.0	A	0.01	9.1	A
		APPROACH	-	14.1	B	-	15.2	C	-	16.0	C
8. MANHATTANVILLE RD & EAST DRIVEWAY (UN SIGNALIZED)	EASTBOUND	LEFT/THRU	0.08	8.2	A	0.15	8.8	A	0.19	9.2	A
	SOUTHBOUND	LEFT	0.05	16.4	C	0.12	23.4	C	0.19	28.9	D
		RIGHT	0.00	9.3	A	0.02	9.7	A	0.02	10.0	A
		APPROACH	-	15.2	C	-	18.9	C	-	22.9	C
9. MANHATTANVILLE RD & PURCHASE ST (UN SIGNALIZED)	EASTBOUND	LEFT/RIGHT	0.70	35.0	E	0.94	78.8	F	1.16	151.0	F
	NORTHBOUND	LEFT	0.30	9.7	A	0.38	10.5	B	0.43	11.1	B
9A. MANHATTANVILLE RD & PURCHASE ST (SIGNALIZED WITH IMPROVEMENTS)	EASTBOUND	LEFT							0.07	18.3	B
		RIGHT							0.54	25.5	C
		APPROACH							-	24.6	C
	NORTHBOUND	LEFT		N/A			N/A		0.91	42.5	D
		THRU							0.43	8.8	A
		APPROACH							-	25.3	C
	SOUTHBOUND	THRU/RIGHT							0.72	20.3	C
INTERSECTION								-	23.6	C	
10. MANHATTANVILLE RD & WEST DRIVEWAY (UN SIGNALIZED)	EASTBOUND	LEFT/THRU	0.04	7.9	A	0.04	8.0	A	0.04	8.0	A
	SOUTHBOUND	LEFT/RIGHT	0.01	14.3	B	0.01	15.4	C	0.01	15.7	C
11. HUTCH (SB) ON- RAMP & PURCHASE ST. (UN SIGNALIZED)	NORTHBOUND	LEFT/THRU	0.02	9.0	A	0.02	9.1	A	0.02	9.2	A

**TABLE III.D-4**

**INTERSECTION OPERATIONS-PEAK PM HOUR**

INTERSECTION	DIRECTION	LANE GROUP	2003 EXISTING			2008 NO BUILD			2008 BUILD		
			V/C	DELAY	LOS	V/C	DELAY	LOS	V/C	DELAY	LOS
3. PURCHASE ST. & ANDERSON HILL RD. (SIGNALIZED)	EASTBOUND	LEFT/THRU/RIGHT	1.35	201.2	F	1.46	248.8	F	1.46	248.8	F
	WESTBOUND	LEFT/THRU/RIGHT	1.17	119.1	F	1.23	142.5	F	1.23	142.5	F
	NORTHBOUND	LEFT	0.32	18.0	B	0.35	19.0	B	0.35	19.2	B
		THRU/RIGHT	0.64	24.7	C	0.69	26.1	C	0.71	27.0	C
		APPROACH	-	22.6	C	-	24.0	C	-	24.7	C
	SOUTHBOUND	LEFT	0.19	16.4	B	0.21	17.6	B	0.21	18.1	B
		THRU/RIGHT	0.65	24.8	C	0.68	25.8	C	0.68	26.0	C
APPROACH		-	23.1	C	-	24.1	C	-	24.3	C	
INTERSECTION		-	91.1	F	-	108.5	F	-	108.1	F	
4. COLLEGE RD. & DRIVEWAY NORTH (UNSIGNALIZED)	EASTBOUND	LEFT	0.00	9.0	A	0.00	9.1	A			
		RIGHT	0.14	9.0	A	0.15	9.1	A			
		APPROACH	-	9.0	A	-	9.1	A		N/A	
	NORTHBOUND	LEFT/THRU	0.01	7.3	A	0.02	7.3	A			
2A. COLLEGE ROAD & DRIVEWAY NORTH (UNSIGNALIZED W/IMPROVEMENTS)	EASTBOUND	LEFT/THRU							0.0	0.0	A
		RIGHT							0.15	9.1	A
		APPROACH							-	9.1	A
	WESTBOUND	LEFT/THRU/RIGHT		N/A			N/A		0.06	10.9	B
	NORTHBOUND	LEFT/THRU/RIGHT							0.02	7.3	A
	SOUTHBOUND	LEFT/THRU/RIGHT							0.00	7.3	A
5. HUTCH NB & PURCHASE ST. (SIGNALIZED)	EASTBOUND	LEFT/THRU	0.62	46.6	D	0.66	48.7	D	0.67	49.6	D
	NORTHBOUND	THRU/RIGHT	0.45	12.2	B	0.47	12.4	B	0.48	12.5	B
	SOUTHBOUND	LEFT	0.25	4.7	A	0.28	4.9	A	0.29	4.9	A
		THRU	0.24	3.7	A	0.27	3.8	A	0.28	3.8	A
		APPROACH	-	4.0	A	-	4.1	A	-	4.2	A
6. HUTCH SB & PURCHASE ST. (SIGNALIZED)	EASTBOUND	LEFT	0.02	27.5	C	0.02	27.5	C	0.02	27.5	C
		RIGHT	0.56	37.2	D	0.58	37.9	D	0.58	37.9	D
		APPROACH	-	36.9	D	-	37.6	D	-	37.6	D
	WESTBOUND	LEFT	0.03	27.5	C	0.03	27.5	C	0.03	27.5	C
		THRU/RIGHT	0.18	29.5	C	0.19	29.6	C	0.19	29.6	C
		APPROACH	-	29.1	C	-	29.2	C	-	29.3	C
	NORTHBOUND	LEFT	0.04	7.5	A	0.05	8.0	A	0.05	8.2	A
		THRU	0.39	7.0	A	0.42	7.1	A	0.42	7.2	A
		APPROACH	-	7.0	A	-	7.2	A	-	7.2	A
	SOUTHBOUND	THRU/RIGHT	0.76	19.2	B	0.84	23.3	C	0.89	27.6	C
INTERSECTION		-	18.0	B	-	20.2	C	-	22.5	C	
7. MANHATTANVILLE RD. & 684 NB (UNSIGNALIZED)	EASTBOUND	LEFT/THRU	0.01	8.5	A	0.01	8.8	A	0.01	9.0	A
	NORTHBOUND	LEFT/THRU	0.00	9.4	A	0.01	9.5	A	0.01	9.7	A
		RIGHT	0.05	8.5	A	0.06	8.6	A	0.07	8.6	A
		APPROACH	-	8.6	A	-	8.6	A	-	8.7	A

**TABLE III .D-4 (Continued)**

**INTERSECTION OPERATIONS-PEAK PM HOUR**

INTERSECTION	DIRECTION	LANE GROUP	2003 EXISTING			2008 NO BUILD			2008 BUILD		
			V/C	DELAY	LOS	V/C	DELAY	LOS	V/C	DELAY	LOS
8. MANHATTANVILLE RD & 684 SB (UNSIGNALIZED)	WESTBOUND	LEFT/THRU	0.13	7.6	A	0.15	7.6	A	0.17	7.7	A
	SOUTHBOUND	LEFT/RIGHT	0.03	12.2	B	0.05	13.5	B	0.08	14.9	B
9. MANHATTANVILLE RD & COLLEGE RD (UNSIGNALIZED)	EASTBOUND	LEFT/THRU	0.01	7.9	A	0.01	8.1	A	0.02	8.2	A
	SOUTHBOUND	LEFT	0.24	13.5	B	0.28	15.2	C	0.31	16.4	C
		RIGHT	0.05	9.4	A	0.06	9.7	A	0.11	10.1	B
		APPROACH	-	12.4	B	-	13.8	B	-	14.0	B
10. MANHATTANVILLE RD & EAST DRIVEWAY (UNSIGNALIZED)	EASTBOUND	LEFT/THRU	0.00	7.7	A	0.01	7.8	A	0.02	7.9	A
	SOUTHBOUND	LEFT	0.17	12.9	B	0.32	15.3	C	0.47	18.8	C
		RIGHT	0.06	9.2	A	0.14	9.7	A	0.18	10.0	A
		APPROACH	-	11.5	B	-	12.9	B	-	15.2	C
9 MANHATTANVILLE RD & PURCHASE ST. (UNSIGNALIZED)	EASTBOUND	LEFT/RIGHT	1.41	232.0	F	1.76	385.2	F	2.02	498.2	F
	NORTHBOUND	LEFT	0.12	8.9	A	0.14	9.0	A	0.15	9.1	A
9A. MANHATTANVILLE RD. & PURCHASE ST. (SIGNALIZED) W/IMPROVEMENTS	EASTBOUND	LEFT							0.32	17.3	B
		RIGHT							0.75	29.3	C
		APPROACH							-	25.4	C
	NORTHBOUND	LEFT							0.37	19.9	B
		THRU		N/A			N/A		0.47	11.2	B
		APPROACH							-	13.4	B
	SOUTHBOUND	THRU/RIGHT							0.77	24.8	C
INTERSECTION								-	21.1	C	
10. MANHATTANVILLE RD & WEST DRIVEWAY (UNSIGNALIZED)	EASTBOUND	LEFT/THRU	0.00	7.8	A	0.00	8.0	A	0.00	8.1	A
	SOUTHBOUND	LEFT/RIGHT	0.11	11.3	B	0.12	12.1	B	0.13	12.4	B
11. HUTCH (SB) ON-RAMP & PURCHASE ST. (UNSIGNALIZED)	NORTHBOUND	LEFT/THRU	0.07	10.5	B	0.08	11.0	B	0.09	11.3	B

**3. Transit**

**a. Description of circulation routes designed in consultation with the Westchester DOT**

The Applicant coordinated closely with the Westchester County Department of Transportation regarding Bee-Line bus service to and circulation within Parcel B. Buses servicing the site would enter the eastern existing site access driveway at Manhattanville Road. The bus would travel north along the east side of the existing

office Building A to the north side of Building A and would then continue west to the north side of proposed office Building B.

**b. Anticipated impacts and mitigation**

It is not anticipated that there would be a significant impact on the existing bus service. Regardless, the Applicant proposes to improve the bus related facilities by adding two bus shelters, one just east of Building A and one just north of Building B. Crosswalks, handicapped ramps and sidewalks would be constructed to provide convenient routes between the bus shelters and the buildings.

**E. Market Conditions**

**1. Description of Prior Analyses of Market Conditions**

The prior EIS, completed in 1983, noted that economic conditions in Harrison had been favorable during the last several years. In 1977, there were 44 establishments involved in wholesale trade, including 30 merchant wholesalers and 7 manufacturers. Total sales for the 44 businesses were over \$370 million. Further, Harrison had 2.5 percent of Westchester's wholesale establishments and 5.2 percent of Westchester County wholesale sales. In 1977, there were 170 service establishments with total receipts of more than \$50.8 million. Harrison had less than 2 percent of the Westchester County service industries, but 5.1 percent of the county's receipts. There were also thirteen manufacturers producing \$3.8 million in goods, and 112 retail businesses with total sales of more than \$34.6 million.

In addition, Westchester County had a relatively high employment rate in recent years. In March 1982, approximately 449,000 of Westchester's residents were employed and 20,600 were unemployed, an unemployment rate of 4.6 percent. Furthermore, while Westchester County had 6 percent of the employed workers in New York State, it had only 3.7 percent of those in New York State receiving unemployment benefits.

In 1970, there were 9,200 workers in Harrison. Of this number, more than 32 percent were in professional, technical, managerial and administrative positions. This percentage was comparable to Westchester as a whole, but significantly higher than New York State as a whole.

The 1970 Census also indicated that more than 65 percent of Harrison residents who were members of the work force were employed in Westchester County while approximately 20 percent worked in New York City. More than 94 percent of the Harrison resident work force was employed within the New York Standard

Metropolitan Statistical Area (SMSA).

## **2. Update to Prior Analyses**

AKRF, Inc., conducted a "Market Analysis of the Parcel B" which is contained within Appendix C of this DSEIS. This market analysis provided an update and an overview of the indicators affecting the demand for Class A office space in the Parcel B market area. The indicators affecting "demand" include factors such as per capita income, payroll and employment characteristics, commute-to-work times, and origin/destination of workers. In addition, the market analyses considers indicators of "supply", such as the Class A office space inventory in the affected market and submarket areas, vacancy rates, absorption rates, lease costs, as well as general real estate market conditions and trends.

The Market Analysis determined that in 2004 Westchester had a per capita personal income (PCPI) of \$58,952. This PCPI ranked 2nd in the state and was 154 percent of the state average, \$38,264, and 178 percent of the national average, \$33,050. The 2004 PCPI reflected an increase of 6.7 percent from 2003. The 2003-2004 state change was 6.5 percent and the national change was 5.0 percent. In 1994 the PCPI of Westchester was \$37,161 and ranked 2nd in the state. The 1994-2004 average annual growth rate of PCPI was 4.7 percent. The average annual growth rate for the state was 4.0 percent and for the nation was 4.1 percent.

In aggregate, the total payroll of persons employed in Westchester increased from \$30,335,913 in 2003 to \$32,956,448 in 2004, an increase of 8.6 percent. The 2003-2004 state change was 6.8 percent and the national change was 6.3 percent. The average annual growth rate from the 1994 estimate of \$18,519,585 to the 2004 estimate was 5.9 percent. The average annual growth rate for the state was 4.9 percent and for the nation was 5.5 percent.

These indicators reveal that Westchester's per capita personal income and total employer payroll has been increasing at a rate greater than the statewide or national averages. These increases represent an increase in the number of jobs in the County, as well as increased average salaries and correspondingly, increases in take-home pay, all of which reinforce Westchester as an attractive market in which to locate as a resident and as an employer.

The population figures represent a potential labor pool from which a variety of worker types can be drawn. What is not readily apparent is the distance from which workers are drawn to the Harrison employment market. As noted above, 2000 U.S. Census data indicate an average journey to work time of 32.7 minutes for Westchester County residents. This commute time places the project site location within commuting distance of virtually all Westchester County residents, especially when considering that people who commute longer and shorter times are included within this average timeframe.

As shown in Table III.E-1, below, with slight annual variations, there are approximately 5 million employed persons in the New York metropolitan region within which the proposed building is located. The main concentration of jobs is located in the New York City core. Approximately 425,052 employed persons, or approximately 8 percent, are situated in Westchester County, as shown in Table III.E-2.

According to the U.S. Census, the number of employees in Westchester County has increased by about 13.2 percent since 1998, when the U.S. Census reported a total of 368,745 in Westchester County. Nationally, according to the U.S. Department of Labor, nationally, in the 24-month ending October 2005, some 4.1 million new jobs were created in all sectors, with nearly one-third of these jobs being in sectors reliant on office space. For example, the national economy increased by 299,000 jobs in the financial sector, 989,000 in professional business services. By contrast, only about 84,000 new manufacturing jobs were created in the same period.

**Table III.E-1**  
**Total Employment**  
**New York-White Plains-Wayne, NY-NJ Metropolitan Area**

Year	Total Employees (in thousands)
1996	4,730.2
1997	4,827.1
1998	4,947.1
1999	5,064.2
2000	5,193.9
2001	5,168.5
2002	5,038.0
2003	4,991.9
2004	5,016.0
2005	5,070.5

Sources: U.S. Department of Labor, Bureau of Labor Statistics, 2005

**Table III. E-2**  
**Westchester County and Project Area Employment**

Labor Force	1-mi.	3-mi.	5-mi.	Westchester County	Town/Village of Harrison
Total Employees (nonfarm)	12,875	75,854	154,219	425,052	21,038
Total Establishments	480	6,148	15,113	31,523	n/a

Sources: U.S. Census Bureau, 2003 County Business Patterns

The above commute to work time data reflect the patterns of Westchester County residents, many of whom commute to jobs located outside of Westchester County. To gain another perspective, the following section discusses the 2000 U.S. Census journey to work data. These data provide a picture of the origin and destination of workers.

As shown in Table III.E-3, below, according to the 2000 U.S. Census, there are approximately 400,918 persons who commute to jobs within Westchester County. Approximately two-thirds, or 267,180 of these workers live within the County. Another approximately 133,738 workers commute into the County from other counties of residence, some of which are at considerable distances away from the Westchester County place of work.

**Table III.E-3  
Commuting Origin of Westchester Workers**

Home Residence County	Number of Commuters
Westchester Co. NY	267,180
Bronx Co. NY	28,906
Putnam Co. NY	20,026
Fairfield Co. CT	18,436
Dutchess Co. NY	14,903
Rockland Co. NY	11,008
New York Co. NY	7,518
Queens Co. NY	6,253
Orange Co. NY	5,569
Bergen Co. NJ	3,689
Kings Co. NY	3,215
Nassau Co. NY	2,957
Suffolk Co. NY	1,245
Ulster Co. NY	1,157
Litchfield Co. CT	814
New Haven Co. CT	739
Essex Co. NJ	593
Hudson Co. NJ	575
Morris Co. NJ	482
Passaic Co. NJ	476
Richmond Co. NY	321
Middlesex Co. NJ	266
Sullivan Co. NY	258
Union Co. NJ	220
Monmouth Co. NJ	197
Columbia Co. NY	182
Hartford Co. CT	143
Somerset Co. NJ	136
Monroe Co. PA	114
Sussex Co. NJ	109
Saratoga Co. NY	109
<i>Subtotal</i>	<i>397,796</i>
Commuters from Other Places (<100 per place)	3,122
<i>Total Workers Commuting to Westchester County</i>	<i>400,918</i>
Sources: 2000 U.S. Census, County-To-County Worker Flow Files	

As shown in Table III.E-4, below, the U.S. Census reports that there are 21,038 persons who commute to jobs within Harrison (including Purchase). Of these commuters to Harrison, 12,953, or about 61 percent, commute from residences within Westchester County. Of these, 2,174 are local workers who commute to Harrison jobs

from Harrison residences. The balance of the Harrison based employees, or 8,085 workers, are reported to commute from residences outside of Westchester County.

**Table III.E-4**  
**Commuters to Jobs in Harrison/Purchase**

Residence (Origin) of Commuter to Harrison/Purchase	Number of Commuters
Harrison, Westchester Co. NY	2,174
Yonkers, Westchester Co. NY	1,427
White Plains, Westchester Co. NY	1,354
Rye (town), Westchester Co. NY	1,121
Greenburgh, Westchester Co. NY	1,025
Bronx	982
New Rochelle, Westchester Co. NY	835
Manhattan	755
Mount Vernon, Westchester Co. NY	599
Yorktown, Westchester Co. NY	553
Stamford, CT	492
Mount Pleasant, Westchester Co. NY	476
Queens	414
Mamaroneck (town), Westchester Co. NY	384
Ossining, Westchester Co. NY	367
Cortlandt, Westchester Co. NY	340
Carmel, Putnam Co. NY	337
Rye (city), Westchester Co. NY	335
Eastchester, Westchester Co. NY	308
Peekskill, Westchester Co. NY	294
Clarkstown, Rockland Co. NY	274
North Castle, Westchester Co. NY	264
Greenwich, CT	257
Brooklyn	224
Somers, Westchester Co. NY	216
Norwalk, CT	197
Lewisboro, Westchester Co. NY	192
Hempstead, Nassau Co. NY	161
Ramapo, Rockland Co. NY	157
Danbury, CT	146
Orangetown, Rockland Co. NY	139
New Castle, Westchester Co. NY	129

**Table III.E-4 (Cont'd)**  
**Commuters to Jobs in Harrison/Purchase**

Kent, Putnam Co. NY	125
Southeast, Putnam Co. NY	125
Bedford, Westchester Co. NY	120
Mount Kisco, Westchester Co. NY	117
Ridgefield, CT	116
Pelham, Westchester Co. NY	112
Patterson, Putnam Co. NY	99
New Canaan, CT	98
East Fishkill, Dutchess Co. NY	98
Newtown, CT	97
New Fairfield, CT	95
Scarsdale, Westchester Co. NY	94
Brookfield, CT	91
Fairfield, CT	87
Philipstown, Putnam Co. NY	87
Putnam Valley, Putnam Co. NY	87
Pound Ridge, Westchester Co. NY	83
North Hempstead, Nassau Co. NY	75
<i>Subtotal</i>	<i>18,734</i>
Commuters from Other Places (<75 per place)	2,304
<i>Total Workers Commuting to Harrison/Purchase</i>	<i>21,038</i>
Sources: 2000 U.S. Census, Minor Civil Division/County-to-Minor Civil Division/County Worker Flow Files	

When these commuter origination data are summarized on a county and State of origin basis, the number of workers in Harrison locations that are derived from Westchester communities far outweighs any other single originating locale, as shown in Table III.E-5, below. Given the location of the project site immediately to the Hutchinson River Parkway/Merritt Parkway and to I-95, the number of workers commuting to Harrison-based jobs from adjacent Fairfield County, Connecticut, 2,153, is relatively small. However, the proximity to the interstate highway system and the parkways account for the locations from which workers gain access to the Harrison employment market.

**Table III.E-5**  
**County Origin of Harrison Based Jobs**

County of Origin	Number of Workers in Harrison Based Jobs
Westchester County	12,953
Fairfield County	2,153
Putnam County	860
Dutchess County	447
New Jersey	416
Orange County	320
Nassau County	296
All Other Locations	3,593
<i>Total</i>	<i>21,038</i>
Sources: 2000 U.S. Census, Minor Civil Division/County-to-Minor Civil Division/County Worker Flow Files	
Note: Data available through the 2001 U.S. Census County Business Patterns files report 5,876 jobs in Harrison, and 8,750 jobs in Purchase, for a combined total of 14,626 based on zip code area. Data presented above reflects Census responses to inquiries as to place of work (e.g., city, town, or village).	

As noted above, employment in Westchester County has increased by approximately 8 percent since 1998, and is reported to be growing by nearly 2 percent per year.<sup>2</sup> The growth in employment largely tracks the increases in numbers of jobs, population growth, and growth in per capita personal income.

Further describing this growth, the Westchester Department of Planning reports that all job producing industry sectors have been growing in Westchester County. Business establishments grew from 28,661 in 1992, to 31,523 in 2003, a growth of 9 percent over the decade. This gain includes a net increase of 65 in the number of businesses employing 100 or more employees.<sup>3</sup>

When viewed in the regional perspective, the number of jobs in the Mid Hudson region is anticipated to dramatically increase by the year 2020, as shown below in Table III.E-

<sup>2</sup> Federal Deposit Insurance Corporation, Total Employment Growth, New York 2006.

<sup>3</sup> Westchester County Department of Planning, *Databook, 2005*. Figures based on 1989 and 1999 U.S. Census Bureau, County Business Patterns files..

6, below. The NYMTC projections show a higher number of workers in the labor force than the U.S. Census (e.g., 425,052 Westchester workers versus the NYMTC projection of 456,100). This difference is accounted for due to variations in the way in which the reporting agencies process and analyze data. The present analysis relies on the U.S. Census data; however the NYMTC projections show a realistic and important relative increase in the number of jobs over time in Westchester and the nearby New York counties.

**Table III.E-6**  
**Employed and Projected Labor Pool By County 2005 - 2025**

County	2005	2010	2015	2020	2025
Dutchess	139,333	141,392	146,419	156,271	164,792
Orange	183,177	199,242	207,592	226,192	242,168
Putnam	56,071	58,489	61,056	64,955	67,908
Rockland	162,950	170,110	176,326	186,207	193,558
Sullivan	35,796	38,065	40,534	44,139	46,905
Ulster	88,398	95,848	98,785	107,445	115,789
<i>Westchester</i>	<i>469,110</i>	<i>476,536</i>	<i>491,249</i>	<i>511,562</i>	<i>518,754</i>
<i>Mid Hudson</i>	<i>1,134,834</i>	<i>1,179,683</i>	<i>1,221,960</i>	<i>1,296,771</i>	<i>1,349,874</i>
Source:	New York Metropolitan Transportation Council, Technical Memorandum 1.3.3.: Labor Force Forecasting & Analysis, 2001				

The importance of the growth in the number of jobs in Westchester County and corresponding growth in the labor pool is that the single most significant economic driver of demand for office space is job creation. Nationally, 1.8 million new jobs were created during the first 11 months of 2005, and another 2 million jobs are expected to be created in 2006, as the national economy continues to expand. According to Grubb & Ellis, about a third of these new jobs will be in office-using sectors of the economy.

The inventory of commercial office building space within the general market area provides the backdrop for analysis of the addition of the Parcel B building. The existing built inventory of office buildings of all types in Westchester County consists of approximately 30 million square feet of office space. Of this total, approximately 80 percent comprises Class A office space, with the balance consisting of Class B space.

The inventory includes 172 buildings containing 100,000 square feet or more. Two new Class A buildings were added to the inventory during 2005, increasing the total available net area by 91,072 square feet of new construction during 2005.

Vacancy rates describe total amount of vacant space available for lease divided by the total inventory, and is expressed as a percentage. As shown in Table III.E-7, below, during the first quarter of 2006 direct vacancy rates for commercial office space in Westchester was generally in the teens, with a downward trend showing strong demand for the available office space inventory.

**Table III.E-7**

**2000 – 2006 National and Westchester County Commercial Office Vacancy Rates**

<b>Year</b>	<b>Westchester County</b>	<b>Nationally</b>
2000	11.30%	8.6%
2001	17.30%	14.2%
2002	16.40%	16.5%
2003	15.00%	16.8%
2004	16.80%	15.4%
2005	14.90%	13.0%
2006	14.80%	11.3%
<b>Sources:</b> Collier ABR, Cushman & Wakefield		

The gross absorption rate reflects the actual square footage of office space that is being leased. The substantial absorption rates shown in Table III.E-8 below indicate a robust and active market for Class A office space in Westchester County, and these trends are expected to continue into the future.

**Table III.E-8**

**Gross Absorption Rate: Westchester County Office Space (in Square Feet)**

Year	Reporting Entity			
	Colliers ABR	Cushman & Wakefield	Grubb & Ellis	CB Richard Ellis
2005	1,231,000	1,675,916	n/a	2,100,000
1st Q 2006	n/a	488,959	442,638	596,270

**Sources:** *Colliers International US Real Estate Review, 2006; Grubb & Ellis, Office Market Trends: Westchester County (First Quarter 2006); Cushman & Wakefield, Marketbeat Snapshot: Office Overview Westchester County (First Quarter 2006); CB Richard Ellis, MarketView Westchester County, NY (First Quarter 2006)*

The tightening New York City market combined with the optimistic national office absorption forecast present a positive outlook for the office market in Westchester into the foreseeable future.

Rental rates indicate demand-based pricing of office space, and differences in rates over time and between competing markets can illustrate market trends in absorption and leasing activities. Westchester County office space rents over the past few years have remained relatively stable, but have begin to rise to record levels. The rise of prices indicates sustained strength in the market.

New York City office rental rates are substantially higher than those in Westchester. The Manhattan Class A vacancy rate has dropped to 6.5 percent, the lowest level since early 2001. Further, the cost of leasing Class A space in Manhattan has reached an all-time high, topping out at a market-wide average of \$63.26 per square foot, more than twice those of average Westchester Class A office space rents.

The effect of tightening of the New York City market will be increased demand for suburban Class A office space, particularly in submarkets exhibiting superior access, such as the I-287 East submarket, where the proposed project is located.

The available Class A office space in Westchester County is filling up, thereby reducing available supply. This is especially true in certain submarkets – such as the White Plains CBD and Platinum Mile – and for the larger tenants seeking expansion or relocation to this market area. Currently, there is only one building with a block of over 50,000 contiguous square feet available in the White Plains Central Business District (CBD) submarket (445 Hamilton Avenue), and only 10 buildings Countywide with available contiguous space of over 100,000 square feet.

The transactions illustrated below in Table III.E.9 are a sampling of all transactions, and do not represent all lease transactions that have occurred in the area over the past year.

**Table III.E-9**  
**Examples of Recent Lease Activity in Project Area**

<b>Building/Address</b>	<b>Locality</b>	<b>Tenant</b>	<b>Leased Square Footage</b>
3 International Place	Rye Brook	OpHedge	25,000
6 International Place	Rye Brook	Tag Aviation	15,148
4 W. Red Oak Drive	White Plains	ITT Industries	51,875
3 Gannett Drive	White Plains	Wilson Elser Muskowitz Edelman & Dicker	37,000
One Gateway Plaza	White Plains	Guild Net	33,667
One Gateway Plaza	White Plains	Alliance Bernstein	210,756
100 Hillside Avenue		Comstock, Inc.	46,316
100 Manhattanville Road	Purchase	Pernod Richard	82,831
445 Hamilton Avenue	White Plains	GRP Financial	26,326
800 Westchester Avenue	Rye Brook	Guardian Insurance	40,973
800 Westchester Avenue	Rye Brook	USA Bank	14,500
777 Westchester Avenue	White Plains	Austin Nichols & Co.	31,443
One Theall Road	Rye	Westchester Medical	65,000
701 Westchester Avenue	White Plains	Bank of New York	20,000
<b>Sources:</b> CB Richard Ellis, Newmark Knight Frank, Westchester County Business Journal			

The market availability of Class A office space in the immediate vicinity of the proposed building is very limited. As noted above, the supply of large contiguous blocks of office space in the County is limited, and as shown in the table above, there have been numerous transactions by diverse businesses that have consumed significant spaces. Conversely, the large blocks of space that have entered the market due to vacancies created by, for example, IBM, are seen by real estate industry leaders as positive additions to the area's tightening supply.

The I-287 East submarket area comprises approximately 10.7 million square feet of Class A office space. At the time of this writing, there remain approximately 805,000 square feet of Class A office space advertised as available within the immediate area of Parcel B, as shown in Table III.E-10, below. This represents only about 7.6 percent of the total inventory of Class A office space in this submarket area. This percentage vacancy is several percentage points below the 10.3 percent vacancy rate reported for the Eastern Westchester submarket, as a whole.

**Table III.E-10**  
**Available Class A Office Space in Project Vicinity**

<b>Building Address</b>	<b>Locality</b>	<b>Available Space</b>	<b>Cost/Square Foot</b>
100 Manhattanville Road	Purchase	36,750	\$29.00
287 Bowman	Purchase	7,200	\$28.50
One Manhattanville Road	Purchase	67,100	n/a
2500 Westchester Avenue	Purchase	79,467	\$28.50
2700 Westchester Avenue	Purchase	58,483	\$26.50
2975 Westchester Avenue	Purchase	27,316	\$28.75
2900 Westchester Avenue	Purchase	6,068	\$26.50
3000 Westchester Avenue	Purchase	3,948	\$26.00
3010 Westchester Avenue	Purchase	6,815	\$26.00
3012 Westchester Avenue	Purchase	9,123	\$26.00
925 Westchester Avenue	White Plains (East I-287)	25,681	\$20.00
333 Westchester Avenue	White Plains (East I-287)	115,506	n/a
711 Westchester Avenue	White Plains (East I-287)	7,071	n/a
103 Corporate Park Drive	White Plains (East I-287)	70,128	\$28.00
105 Corporate Park Drive	White Plains (East I-287)	7,283	\$28.00
106 Corporate Park Drive	White Plains (East I-287)	39,790	\$28.00
108 Corporate Park Drive	White Plains (East I-287)	26,467	\$27.00
110 Corporate Park Drive	White Plains (East I-287)	17,207	\$27.00
2 Gannett Drive	White Plains (East I-287)	11,684	n/a
4 Wet Red Oak Drive	White Plains (East I-287)	18,007	\$28.50

**Table III.E-10 (Cont'd)**  
**Available Class A Office Space in Project Vicinity**

<b>Building Address</b>	<b>Locality</b>	<b>Available Space</b>	<b>Cost/Square Foot</b>
2 International Drive	Rye Brook	66,848	\$29.50
3 International Drive	Rye Brook	17,726	\$27.00
4 International Drive	Rye Brook	1,970	\$24.00
5 International Drive	Rye Brook	30,758	\$27.50
6 International Drive	Rye Brook	12,000	\$29.00
900 King Street	Rye Brook	29,277	\$19.00
222 Westchester Avenue	Harrison	2,400	\$32.00
244 Westchester Avenue	Harrison	2,800	\$32.00
Total Available Space		804,873	
Average Cost/Square Foot			\$27.18
<b>Sources:</b> Loopnet, Inc., Reckson Associates Realty Corp., Westchester County Office of Economic Development			

This inventory includes only one building with total available space exceeding 100,000 square feet (333 Westchester Avenue), and only five buildings with total available space exceeding 50,000 (2 International Drive, 103 Corporate Park Drive, One and 100 Manhattanville Road, and 2500 and 2700 Westchester Avenue). Much of the advertised available space, however, is not available in contiguous or single-floor blocks, and is comprised of smaller spaces dispersed throughout the buildings. This limits the potential marketability of these spaces to larger business and corporate tenants.

### **3. Anticipated Impacts and Mitigation**

The Westchester County office space market in which the Parcel B is proposed has shown a resilient and strong history of rental and occupancy activity. Recently, several additions to the inventory resulting from corporate restructurings (e.g., IBM and Reader's Digest) have had a disproportionate inflationary affect on the inventory, resulting in elevated vacancy rates and depressed absorption rates. These indicators should be interpreted within the context of the effect of large inventory increases resulting from unusual corporate resizing events.

More indicative of the dynamic and positive nature of the market are the ongoing comings and goings and expansions and contractions of businesses as they innovate and adjust to the regional, national, and global economies as illustrated in the positive gross absorption rates described in Table 5.E-14 of Appendix C, which reports approximately one-half million square feet of positive occupancy during the first three months of 2006. As shown in Table 5.E-13 of Appendix C, some 2.2 million *net* square feet of office space was occupied nationally during this same period, revealing a powerful national economy and correspondingly strong office space demand.

Further, with another 2 million jobs predicted for creation during 2006, with a quarter of them being in sectors requiring office space, the national demand for office space is predicted to remain strong, with demand outstripping supply. Certainly this is the case in New York City, where the vacancy rates are declining, and the average rents for Class A space are in the mid-\$60s; even Class B Midtown office space is at a rate double that of Westchester's superior Class A space. These national and regional indicators clearly point to a strong rental office space market in Westchester. The project site being in the epicenter of Westchester County's Platinum Mile places it in a particularly strategic location, geographically and within the overall Westchester Market context.

The inclusion of a new 76,384 zsf Class A office building represents an approximately 2.6 percent increase in the total nearly 30 million square foot Westchester office inventory. With a current vacancy rate of approximately 15 percent, if this building were built today the vacancy rate would increase to about 15.3 percent, an insignificant change.

The trends, however, indicate that existing Westchester office inventory will sustain increasing pressure, as the national and regional market tightens, and as the existing Westchester inventory becomes occupied. The addition of another mid-sized Class A office building in an established office location in a well-established and well-known

submarket – the Platinum Mile – with superior transportation access would have no negative effect on the overall suburban or central business district (White Plains) office marketplace. The inclusion of the Parcel B building at this location should, in fact, provide prospective tenants an attractive new location to consider. The introduction of this facility would be expected to increase the competition within the county for office space tenants, resulting in the maintenance of competitive rental rates within the market, and an increased demand by the tenant community for renovations and improvements to the existing buildings and spaces to maintain their competitive edge.

**F. Infrastructure**

**1. Description of Existing Conditions**

**a. Water Service**

Water service to Parcel B is provided by Westchester Joint Water Works (WJWW). The water originates at the Kensico Reservoir and is pumped south through a 20 inch diameter water main along the west side of Purchase Street to a 16 inch water main within the Manhattanville Road right-of-way. A 12 inch water main within College Road connects to the existing 16 inch water main in Manhattanville Road (see Figure III.F-1). A 12 inch service line was installed in the College Road cul-de-sac when WJWW installed the 12 inch main. WJWW performed a test on the northernmost hydrant on the west side of College Road in 2000 which yielded a static pressure of 92 psi and a flow of 2,510 gpm.

**b. Sewage Disposal**

A 12 inch diameter sanitary sewer line exists within College Road (see Figure III.F-2). The sewer flows in a northwesterly direction within College Road and connects to a 12 inch sanitary sewer which flows in a southwesterly direction through the northwest portion of Parcel C, then crosses under I-684. The sewer line then crosses under the Cross Westchester Expressway (I-287) and ultimately connects into the Westchester County Trunk Sewer within the I-287 right-of-way. The sewage from Parcel B ultimately flows to the Mamaroneck Sewage Treatment Plant which is operated by the WCDEF.

**c. Storm Drainage**

Stormwater from Parcel B is discharged into a municipal separate storm sewer system (MS4) owned and maintained by the Town of Harrison (see Figure III.F-3). Stormwater runoff from the western portion of the site is discharged through a 24-inch corrugated metal pipe (CMP) to a manhole on the east side of College Road. The stormwater is then conveyed to Parcel C via a 24-inch CMP which crosses under College Road. The runoff is conveyed through the Parcel C property by a series of closed drainage systems, culverts, landscaped channels and detention basins. Stormwater runoff from the eastern portion of the site is discharged through a 36-inch CMP to a catch basin on the north side of Manhattanville Road. The stormwater is conveyed under Manhattanville Road through a 30-inch reinforced concrete pipe which discharges to Parcel A.

**2. Proposed Improvements**

**a. Water Service**

The existing 12 inch service line would be utilized to provide water service to Building B (see Figure III.F-1). A tee would be installed on the end of the existing service line to provide an 8 inch fire service and a 4 inch domestic service. A water meter pit would be constructed on the property, between the College Road right-of-way and the proposed site driveway. The water meter pit would include water meters and backflow prevention for both the domestic and fire service lines. An 8 inch fire service and 4 inch domestic service would be constructed from the water meter pit, along the proposed site driveway, to the building. Two new fire hydrants would be installed to provide fire protection for the proposed building.

**b. Sewage Disposal**

A new 6 inch sanitary sewer line would be constructed from Building B to an existing 8 inch sewer service line on the subject property (see Figure III.F-2). The existing 8 inch sewer service line connects from Building A to the existing 12 inch sanitary sewer line in College Road via an existing manhole in the center of the College Road cul-de-sac.

**c. Storm Drainage**

New catch basins, manholes and storm pipes would be installed to collect and convey stormwater runoff from Building B and the parking lot expansions to stormwater treatment practices for water quality and quantity control (see Figure III.F-3). The existing storm drain pipes in College Road and Manhattanville Road would continue to be utilized to convey stormwater discharges from the site.

**3. Anticipated Impacts and Mitigation**

**a. Water Service**

It is anticipated that the water demand for the project would be approximately 7,180 gallons per day based on NYSDEC Design Standards for Wastewater Treatment Works, 1998, increased by 10% to provide a conservative analysis and allow for water which may not be reclaimed by the sewer system as a result of cleaning, cooking and evaporation. Westchester Joint Water Works (WJWW) has advised that the water system in the vicinity of the project can provide adequate supply and sufficient pressure for both domestic and fire purposes for the proposed project.

Backflow prevention would be installed to prevent cross contamination of the WJWW supply with water from the building and fire protection system in accordance with the requirements of the Westchester County Department of Health and WJWW.

**b. Sewage Disposal**

It is anticipated that the proposed building would generate a sanitary sewer load of approximately 6,530 gallons per day based on NYSDEC Design Standards for Wastewater Treatment Works, 1998. Discussions with the Town of Harrison Engineering Department have indicated that they are aware of no existing sanitary sewer infrastructure problems in the vicinity of the project and it is anticipated that the existing sanitary sewer network would be adequate to serve the proposed building

The WCDEF has indicated that the design capacity of the Mamaroneck Sewage Treatment Plant is 20.6 million gallons per day and the 2005 average daily flow was 18.0 million gallons per day. Accordingly, the Sewage Treatment Plant has adequate excess capacity to serve the proposed office building as confirmed in a letter included as Appendix H from the WCDEF to John Meyer Consulting, dated August 29, 2006.

**c. Storm Drainage**

The additional development of Parcel B would increase the amount of impervious surfaces which would increase the peak rate of runoff from the site. Two stormwater management areas and one subsurface detention facility are proposed to mitigate the increase in runoff rates (see Figure III.F-3). Minimal impacts to downstream drainage facilities are anticipated.

**d. Solid Waste**

The proposed building is estimated to generate 15 cubic yards of solid waste per week. The waste would be hauled by a private carter to the Wheelabrator Westchester LP facility in Peekskill, N.Y. Discussions with Cathy Tubridy of Wheelabrator Westchester LP indicate that the plant has capacity to accommodate this additional waste stream.

Construction debris resulting from the proposed construction on the site would be hauled off-site by a licensed hauler to a licensed landfill or recycling facility.

## **G. Visual Issues**

### **1. Description of Visual Impacts**

Figure III.G-0 provides a photo key map for the below noted views, and depicts the photo number, the location where the photograph was taken, and the direction the camera was pointed. In addition, each photo figure depicts an existing view followed by a future view of the project, to provide visual comparison. The photo key map and all photo figures follow this page.

The proposed building would be 3-stories and approximately 42 feet in height. As described below, distance and/or existing vegetation and/or existing buildings/wall tend to screen and mitigate views of the proposed building.

#### **i. Purchase Street**

No visual impact is anticipated (Figure III.G-1A and III.G-1B). The proposed building would be located approximately 1,400 feet from Purchase Street and there is an existing masonry wall along the west side of Purchase Street. There is substantial existing landscaping between this location and the proposed site, which acts as a screening buffer. The distance, existing masonry wall, and the existing landscaping between the Purchase Street vantage point and the proposed site effectively eliminate the view of the proposed building, as demonstrated on the photo views.

#### **ii. Manhattanville Road**

No visual impact is anticipated (Figure III.G-2A and III.G-2B). The proposed building would be located approximately 835 feet from Manhattanville Road. There is substantial existing landscaping and a berm between this location and

the proposed site. The distance of the proposed building and the existing landscaping and berm between the Manhattanville Road vantage point and the proposed site effectively eliminate the view of the proposed building as demonstrated on the photo views. In addition, the mass of the existing Building A on the site helps mask views of the proposed building.

**iii. I-684**

Minimal visual impact is anticipated (Figure III.G-3A and III.G-3B). The proposed building would be located approximately 1,480 feet from I-684. There is substantial existing landscaping between this location and the proposed site. The distance combined with the existing landscaping between the I-684 vantage point and the proposed building limit the anticipated visual impact of the  $\pm 42$  foot high building to a minimum. Vehicles would be moving at 55 plus MPH on I-684, further reducing the anticipated visual impact from this view because drivers have little time for such a view to visually register.

Views from I-684 to the west of the proposed building are blocked by a highway rock cut and resultant steep rock face adjacent to I-684. The top of the rock face contains existing mature trees and vegetation.

**iv. Manhattanville College**

Minimal visual impact is anticipated (Figure III.G-4A and III.G-4B). The proposed building would be located approximately 800 feet from the center of the main campus green. The grade level of the proposed site is approximately 36 feet below this location, making the proposed +42-foot high building appear smaller. There is substantial existing landscaping between this location and the proposed site. The combination of the distance, height difference, and the existing landscaping between the campus green vantage point and the proposed building limit the anticipated visual impact to a minimum, although the proposed

building will be partially visible.

Some visual impact is anticipated from the Manhattanville College faculty housing cul-de-sac (Figure III.G-5A and III.G-5B). The grade level of the proposed site is approximately 24 feet below this location, making the  $\pm 42$ -foot high building appear smaller. There is substantial existing landscaping between this location and the proposed site, providing some screening. The combination of the height difference and the existing landscaping between the faculty housing cul-de-sac vantage point and the proposed building limit the anticipated visual impact, although the proposed building will be visible.

v. **Existing Site Office Building A**

Minor visual impact is anticipated (Figure III.G-6A and III.G-6B). The grade level of the proposed  $\pm 42$ -foot high building would be approximately 16 feet below the grade of the existing office building, making it appear smaller. There is an existing parking deck and existing landscaping between the two buildings which serve to screen the view of the proposed building. The combination of the height difference, existing parking deck, and the existing landscaping between the existing site office building vantage point and the proposed building limit the anticipated visual impact to a minimum, although the proposed building will be visible.

vi. **MasterCard Site**

No visual impact is anticipated (Figure III.G-7A and III.G-7B). The proposed  $\pm 42$ -foot high building would be located approximately 1,100 feet from the MasterCard site, minimizing its perceived size. There is substantial existing landscaping and mature evergreen trees between this location and the proposed building that effectively block the view of the proposed building. The distance and the existing landscaping between the MasterCard site vantage point and the proposed building effectively eliminate the view of the proposed building.

**vii. Office Buildings West of College Road (Parcel C)**

Minimal visual impact is anticipated (Figure III.G-8A and III.G-8B). The proposed building would be located approximately 694 feet from the west of College Road existing office building site, making the building appear smaller. There is substantial existing landscaping between this location and the proposed site. The combination of the distance and the existing landscaping between the existing office building site vantage point and the proposed building limit the anticipated visual impact to a minimum, although the proposed building will be partially visible.

**2. Anticipated impacts and mitigation**

In conclusion, minimal visual impacts are anticipated due to the proposed building's height in combination with various factors of distance, intervening screening vegetation, topography, and an existing masonry wall, and therefore no mitigation measures are proposed.

In addition, as described in Section II.C, the proposed building is of high quality architectural design, consistent with the other office buildings in the vicinity. Also, described in Section II.A, proposed landscaping will enhance the appearance of the site. Although 32 trees would be removed, approximately 277 new trees consisting of 119 evergreen trees and 158 deciduous trees are proposed to be planted. In addition, other landscaping including shrubs and perennials would be planted on the site, also enhancing the site's overall appearance. These mitigation measures all support the development of a high quality office building.

## H. Noise

### 1. Discussion of relevance of Westchester County Airport 65 Ldn noise contour

Appendix G of this DSEIS contains a noise assessment prepared by Potomac-Hudson Engineering, Inc.

Noise information was derived from the *Westchester County Airport Aircraft Noise Study* (Westchester County Department of Transportation, August 2002). The methodology employed for the noise study to develop contour lines utilized as a noise metric the Day-Night Average Sound Level (DNL), which is a measure of the cumulative noise exposure occurring during a 24-hour period averaged over the course of one year. DNL is the standard used by all federal agencies and 49 states including New York. The contour lines were developed using the Integrated Noise Model (INM), which was developed by the U.S. Federal Aviation Administration (FAA). Aviation operations were analyzed from 1985 through 2000 and projections were made for the period 2000 through 2005.

Figure III.H-1 was taken directly from the Westchester County study. It illustrates the changes in noise exposure levels that existed from 1985-2000 as well as the projected line for 2005. The subject property appeared on the edge of the 60-decibel DNL contour line in 1988. By 1999, the site was located approximately 1.5 miles to the south of the 60-decibel DNL contour. From 1988 through 1999 Westchester County calculated that the total area within the 60-decibel DNL contour decreased by approximately five square miles.

Therefore, during the study period, significant decreases in noise exposure levels were measured throughout the region and in the area of the subject property.

## 2. Anticipated Impacts and Mitigation

Noise monitoring was conducted at the location of Proposed Building "B" on July 7, 2006 from 1:30 PM to 3:30 PM. The weather was sunny and in the 90s. The following standard field procedures were observed:

- Free field microphone mounted approximately 5 feet (1.5 meters) high and at least 4 feet (1.2 meters) from any reflecting surfaces;
- Wind screen used on microphone;
- Field notes documented:
  - calibration factors,
  - selected instrument range,
  - monitoring period,
  - general weather data and time of day,
  - unusual occurrences (e.g., aircraft flyovers),
  - no monitoring during periods of significant precipitation, snow or ice cover, or wet pavement;
  - calibration of sound level meters every hour;
  - batteries checked before and after each measurement period; and
  - no monitoring during winds of 10 mph or more.

Measurements were made using a Quest Model 2200, which is an ANSI Type 2 standard meter.

Noise levels generally ranged from approximately 45 dBA to 52 dBA. This is considered quiet. See Table 1 in Appendix G. The loudest (though infrequent) noise sources were helicopter flyovers (2), lawnmowers/tractors mowing the lawn on adjacent properties (about 30 minutes), and occasional single engine prop planes. The helicopter noise peaked in the low seventies. The lawnmower noise was in the mid to upper 50s. The approximate 15 prop planes that were visible during the 2 hours

generated peak noise levels from the low to mid 50s, which is still considered quiet. One jet was observed at a distance that it was no louder than the prop planes when they were nearby.

During the majority of the time period the noise levels were controlled by birds chirping and distant truck and automobile traffic.

In conclusion, the noise environment at the site is quiet. The site is now well outside mapped noise contours from Westchester County Airport, and is no longer impacted in any way by aircraft landing at, or taking off from the airport. Therefore, no special noise mitigation measures are necessary to develop the property.

## **I. Historic and Archeological Resources**

### **1. Description of prior historic analyses and existing conditions**

The 1983 EIS identified Reid Hall on the Manhattanville College campus as a building of documented historical significance in the vicinity of the project site. The prior EIS determined that Reid Hall would not be affected by the then proposed project. The prior EIS also noted that no evidence of archaeological significance had been found in the vicinity of the project site.

To update the 1983 EIS, John Milner Associates, Inc. (JMA) conducted a Phase 1A cultural resources survey of the approximately 35-acre Parcel B site and an adjacent area within which a project-related stormwater detention basin would be constructed (together, the Study Area). The survey is contained within Appendix F of this DSEIS.

The purpose of the Phase 1A investigation is to identify the previously recorded archaeological or historic sites that may be located within or adjacent to the Study Area. The Phase 1A survey also evaluates the potential for there to be previously unrecorded archaeological or historic resources within the Study Area that could be affected by proposed construction. All research and report preparation were conducted in accordance with the New York Archaeological Council's *Standards for Cultural Resources Investigations and the Curation of Archaeological Collections* (NYAC 1994), recommended for use by the New York State Office of Parks, Recreation, and Historic Preservation (OPRHP).

JMA reviewed the consolidated site files of the OPRHP and the New York State Museum (NYSM) to identify previously recorded archeological sites located within one mile of the Study Area. Reported archeological resources in Westchester County include sites that were documented by archeologists in the early twentieth century

(e.g., Beauchamp 1900; Bolton 1920; Parker 1922). None of these sources contained information indicating the presence of previously recorded archeological sites within one mile of the Study Area. The nearest recorded site with a precise location (A119.05.14) is located approximately 1.2 miles to the north. NYSM Site 5215 is mapped in OPRHP files just over one mile away, south of the I-287/Hutchinson River Parkway interchange. The site corresponds with Parker's Westchester County Site No. 79. Parker 79 is described as a Native American "Camp site 4 miles north of Mamaroneck station near a high rock" (1922:715).

Previous archeological surveys conducted in the Town and for which reports are on file with OPRHP include two for projects on the campus of SUNY-Purchase (Cobbs, Saunders, and Kearns (1999) and Berger (2004); one for a cell tower site (Boesch 2001); and one for the New York City Department of Environmental Protection (Roberts et al. 1999). None of these surveys identified previously unrecorded archeological sites.

JMA also reviewed the National Register of Historic Places (NRHP), State Register of Historic Places (SRHP), and OPRHP Building-Structure Inventory, and the Westchester County Inventory of Historic Places to identify historically significant structures or properties located in or near the Study Area. (A complete listing of OPRHP inventories properties for the Town/Village of Harrison is included in Appendix A of Appendix F of this DSEIS.) There are no previously identified NRHP/SRHP-listed, or determined eligible for listing, properties located within or immediately adjacent to the Study Area. The nearest listed property is Reid (Ophir) Hall at Manhattanville College, approximately 1500 feet north of the Study Area. Reid Hall is also listed in the Westchester County Inventory. Due to its distance from the project site, Reid (Ophir) Hall would not be affected by the proposed project.

Parcel B has been subjected to prior ground disturbance of varying degrees. All of the Study Area was part of the former Ophir Farm and, with the exception of a small

area which is still in mature forest, was likely subject to some disturbance associated with farming agricultural activities. Existing vegetation indicates that almost all of the Study Area was cleared of its original forest cover at some point and converted to pasture and or other forms of agricultural land. The 1983 DEIS for Parcel B, prepared prior to the construction of Building A, notes that the majority of the site's vegetation shows signs of "severe disturbance" (Raymond 1983:II-13).

Soils in the southeast corner of Parcel B, north of Manhattanville Road have been disturbed, as documented by the presence of soils of the UpB complex (see Section 2.1 of Appendix F). This disturbance is most likely associated with the construction of Manhattanville Road and the existing parking area associated with Building A.

A large portion of the Study Area was subjected to extensive grading in connection with construction of Building A. A 1984 grading plan (Figure 17 of Appendix F) shows the approximate extent of this activity. The only significant areas shown as unaffected by grading are the eastern part of Parcel B, with the exception of the landscaped berm along Manhattanville Road, and the northwestern corner of Parcel B south of the existing service road and north of a structure on Parcel B identified as the "Ophir Farm Dairy." However, the grading plan may not depict the full extent of prior grading. A comparison of contours on the 1984 grading plan with an existing conditions plan (Figure 16 of Appendix F) at the same scale suggests that much of the latter area has also been reconfigured. A berm located east of a building identified as the "Salt Shed" and just east of the western boundary of the Study Area is not shown on the 1984 grading plan. The berm was clearly constructed some time after 1984, effectively ruling out its historical significance. However, an analysis of historic cartography (see Section 2.3 of Appendix F) indicates that numerous, no-longer-extant late 19<sup>th</sup>/early 20<sup>th</sup> century structures were at one time located in this general area. Their construction and demolition undoubtedly resulted in significant ground disturbance.

There are no previously recorded Native American archeological sites located within one mile of the Study Area. The only portion of Parcel B with the potential to contain Native American archeological resources is a small areas of old growth forest located in the northeast corner of Parcel B. This area is located within regulated setbacks and no ground disturbing activities associated with the construction of Building B is planned for this area.

## **2. Anticipated Impacts and Mitigation**

### Historic Resources

The Study Area was once part of a large 19<sup>th</sup>-century estate known as Ophir Farm which was associated with a number of historically significant personages. Documentary research, and a review of historic cartography from the late-nineteenth and early-twentieth centuries, indicated that three structures, the “Salt Shed,” the “Ophir Farm Root Cellar/Farm House,” and the “Ophir Farm Dairy,” were associated with Ophir Farm. These structures were constructed between 1889 and 1929. A lengthy description of these structures is contained in Appendix F, section 4. All three structures are proposed to be demolished in order to construct the proposed building.

The “Salt Shed” is located between the west side of Parcel B and the east side of College Road Extension, in the area proposed for construction of a stormwater detention pond. The building appears to have been erected as an agricultural outbuilding but has been altered substantially. Existing documentation hints at a connection between the building and the architectural firm of McKim, Mead and White, but this tie cannot be conclusively demonstrated. The building is currently used to store road salt and landscape equipment. The alterations to the building have substantially compromised the historic character of the building and it does not appear to be eligible for the New York State or National Registers of Historic Places.

The “Ophir Farm Root Cellar/Farm House” is located in the northwest portion of Parcel B. The structure has been extensively modified and little of its original character is present. The most notable alteration is the construction of a wood-framed house atop the stone foundation walls. The only exposed traces of the original structure are visible on the south side where the basement wall is exposed. The interior of the lower level appears to have been considerably altered by the expansion of the room and the addition of a concrete floor slab. Due to these alterations, which have compromised the building’s integrity of design, materials, workmanship, feeling and association, the cellar no longer conveys its historic appearance and use as a root cellar or a farm house. Accordingly, the building lacks the integrity necessary for eligibility in the New York State or National Registers of Historic Places.

In contrast to these two buildings, the “Ophir Farm Dairy” retains its historic integrity. It is a one-and-a-half story, stone, gabled roof building is set into the slope of a hill in the northwest portion of Parcel B. The building itself is well preserved. Ephemera found in the building provide hints concerning its operation. Several different varieties of cardboard milk bottle caps were found. A list covering the period of January 22 through January 29, 1924, compiled by Mr. Truckman, dairyman, lists deliveries of milk and cream throughout the Ophir Farm estate. Also found was a wood rack with vertical spindles that may have been used as a drying rack for glass milk bottles. Other apparatus found may be related to the former power system for a churn and/or cream separator. While the integrity of the building’s setting has been compromised by subsequent development, the building appears to satisfy both New York and National Register eligibility Criteria A (associated with events that have made a significant contribution to the broad patterns of our history) and C (embodies distinctive characteristics of a type, period, or method of construction) because of its association with the agricultural history of Ophir Farm.

Both redesign of the proposed building, and relocation of the Ophir Farm Dairy, were evaluated as possible mitigation options, but neither were found to be feasible. The Ophir Farm Dairy structure is approximately 20 feet by 43 feet in size and located approximately 120 feet east of the westerly property line. The structure is built into a slope such that the south wall of the structure is fully exposed and the north wall of the structure serves as a partially buried retaining wall. The structure lies approximately 40 feet to the west and directly in front of the proposed entrance to Office Building B. Proposed Office Building B has been sited in its proposed location due to existing site constraints including the existing two story parking deck on the west side of Building A, 200 foot side yard building setbacks along College Road and College Road Extension, a 100 foot rear yard building setback adjacent to Manhattanville College and topography. Based on these site constraints, there are no viable alternatives on the site for the location of proposed Office Building B.

The first floor elevation for proposed Office Building B has been set at 277, which is the lowest possible elevation based on existing topography, the relationship to existing Office Building A which is considerably higher and maximum internal driveway grades between the existing and proposed buildings, based on good engineering practices. The proposed parking area directly in front of proposed Office Building B, in the vicinity of the existing dairy structure, ranges in elevation from 272 to 274. The existing elevation at the dairy structure ranges from 266 to 269 which places it approximately 6 feet below the proposed grade.

Due to the location of the existing dairy structure directly in front of the entrance to proposed Office Building B and the existing elevation which is approximately 6 feet lower than the proposed elevation, it is the professional opinion of the project Site Engineer that the siting of the proposed Office Building cannot be redesigned to avoid the existing former dairy structure, without significantly compromising the design and function of the project.

An engineer evaluated what would be entailed in moving the Dairy and determined that stresses on the building that would occur both during preparation for a move and during the move itself would significantly and adversely impact the structural stability of the building (Appendix B).

Accordingly, JMA recommends detailed recordation according to the standards of the Historic American Buildings Survey (HABS) prior to demolition as an acceptable form of mitigation.

### Archeological Resources

Cartographic research also suggests that archeological remains associated with a number of no longer extant Ophir Farm structures may exist in limited areas within the northwest portion of the Study Area (in areas not subject to the extensive prior ground disturbance associated with the construction of existing Building A in the center of the Study Area). A limited Phase IB archeological investigation of these areas would be undertaken for the purpose of determining the presence or absence of archeological remains. The significance of any archeological remains that might be identified would lie in their information potential. In that case, data recovery would be an appropriate form of mitigation. Implementation of data recovery would result in the proposed project having no adverse effect on archeological remains.

## **J. Construction Impacts and Mitigation**

### **1. Soil Erosion and Sediment Transport**

Development of the proposed building could potentially result in the erosion and transport of sediment during construction. A Sediment and Erosion Control Management Program would be established for the proposed development, beginning at the start of construction and continuing throughout its course, as outlined in the "New York State Standards and Specifications for Erosion and Sediment Control," dated August 2005. A continuing maintenance program would be implemented for the control of sediment transport and erosion control after construction. The Applicant would have a qualified professional conduct an assessment of the site prior to the commencement of construction and certify that the appropriate erosion and sediment controls, as shown on Drawing SP-6 "Sediment & Erosion Control Plan" (Figure III.J-1), have been adequately installed to ensure overall preparedness of the site for the commencement of construction.

#### On-Site Pollution Prevention

Pollution prevention measures, such as temporary riser and anti-vortex devices, are proposed to control litter and construction debris on site. These devices would be placed at the bottom of the temporary sediment basins where they intercept and collect debris and litter before they can enter the off-site storm system. There would be inlet protection provided for all storm inlets with the use of curb gutter inlet protection structures and stone and block drop inlet protection, which keep silt, sediment and construction litter and debris out of the on-site stormwater drainage system.

### Temporary Control Measures

Throughout the project, temporary control facilities would be implemented to control on-site erosion and sediment transfer. Interceptor swales would be used to direct stormwater runoff to temporary sediment basins for settlement. The two stormwater management areas to be constructed as part of this project would serve as temporary sediment basins to remove sediment and pollutants from the stormwater runoff produced during construction.

Descriptions of the temporary sediment & erosion controls that would be used during the development of the site including silt fence, stabilized construction entrance, seeding, mulching, inlet protection and stone check dams are as follows:

1. Silt Fence is constructed using a geotextile fabric. The fence would be either 18 inches or 30 inches high. The height of the fence can be increased in the event of placing these devices on uncompacted fills or extremely loose undisturbed soils. The fences would not be placed in areas which receive concentrated flows such as ditches, swales and channels nor would the filter fabric material be placed across the entrance to pipes, culverts, spillway structures, sediment traps or basins.
2. Stabilized Construction Entrance consists of AASHTO No. 1 rock. The rock entrance would be a minimum of 50 feet in length by 20 feet in width by 8 inches in depth.
3. Seeding would be used to create a vegetative surface to stabilize disturbed earth until at least 70% of the disturbed area has a perennial vegetative cover. This amount is required to adequately function as a sediment and erosion control facility. Grass lining would also be used to line temporary channels and the surrounding disturbed areas.

4. Mulching is used as an anchor for seeding and disturbed areas to reduce soil loss due to storm events. These areas would be mulched with straw at a rate of 3 tons per acre such that the mulch forms a continuous blanket. Mulch must be placed on all exposed areas within 48 hours.
5. Inlet Protection would be provided for all stormwater inlets with the use of curb gutter inlet protection and stone & block inlet protection structures, which would keep silt, sediment and construction debris out of the storm system.
6. Stone Check Dams would be installed within temporary and permanent swales in the active construction area.

Temporary sediment & erosion control measures would be maintained throughout construction. This maintenance would include but not be limited to the following tasks:

1. For dust control purposes, all exposed graded areas would be moistened with water at least twice a day in those areas where soil is exposed and cannot be planted with a temporary cover due to construction operations or the season (December through March).
2. Inspection of erosion and sediment control measures would be performed at the end of each construction day and immediately following each rainfall event. All required repairs would be immediately executed.
3. Sediment deposits would be removed when they reach approximately 1/3 the height of the silt fence. All such sediment would be properly disposed of in fill areas on the site. Fill would be protected following disposal with mulch, temporary and/or permanent vegetation and be completely circumscribed on the downhill side by silt fence.

4. All exposed areas parallel to the slope would be raked during earthwork operations.
5. Following final grading, the disturbed area would be stabilized with a permanent surface treatment (i.e. turfgrass, pavement or sidewalk). During rough grading, areas which are not to be disturbed for fourteen or more days would be stabilized with the temporary seed mixture, as defined on the plans. Piles of dirt in exposed soil areas that would not receive a permanent surface treatment would be seeded.

#### Permanent Control Measures and Facilities for Long Term Protection

Towards the completion of construction, permanent sediment and erosion control measures would be developed for long term erosion protection. The following permanent control measures and facilities have been proposed to be implemented for the project:

1. Stormwater Management Basins would be used to treat the entire runoff volume generated from the project and provide improvement to water quality control. The proposed basins would provide water quality for 90% of the average annual stormwater runoff volume, in addition to providing detention for the design storms. The Applicant would be responsible for the long term operation and maintenance of the stormwater management basins. The NYSDEC Stormwater Pond Operation, Maintenance and Management Inspection Checklist would be utilized to maintain the basins.
2. Catch Basins would be used to remove some of the coarse sand and grit sediment before entering the drainage system. Each catch basin would be constructed with an 18 inch deep sump.

3. Rip-Rap Energy Dissipaters would be placed at all discharge points from the stormwater drainage system into the stormwater management basins and from the outlet control structures. The rip-rap pads would consist of placed angular rock to reduce the risk of erosion and dissipate velocity.
4. Seeding of at least 70% perennial vegetative cover would be used to produce a permanent uniform erosion resistant surface. The seeded areas would be mulched with straw at a rate of 3 tons per acre such that the mulch forms a continuous blanket.
5. Stormwater Treatment Systems would be used to treat stormwater runoff prior to entering the proposed subsurface detention system. The Vortechs stormwater treatment system combines swirl concentrator and flow control technologies to optimize treatment efficiency.

## **2. Traffic and Logistics**

The construction traffic would generally arrive and depart prior to the peak AM and PM highway hours. Contractors would typically arrive on the site between 7:00 and 7:30 AM and depart between 3:00 and 3:30 PM.

Heavy construction vehicles would be brought onto the project as needed and remain on the site until their activities are concluded. Accordingly, daily transporting of heavy construction vehicles would be minimized to the extent practicable.

Construction traffic would include, but would not be limited to the following types of vehicles: parcel post delivery trucks, 10-wheel and 18-wheel delivery trucks, 10-wheel and 18-wheel dump trucks, concrete mixing trucks, cranes, and general construction worker vehicles.

Interstate 684 and Purchase Street to Manhattanville Road would be the main thoroughfares being used for the entrance and egress of materials and workers into and out of the worksite. The new site driveway would be utilized as the construction entrance into the site to minimize disruption to Building A employees entering and exiting from Manhattanville Road.

Temporary parking, consisting of a gravel sub-base may be established on the western portion of the site for construction worker vehicle parking. All lots would be maintained regularly to ensure an orderly appearance and trash would be disposed of on a daily basis.

### **3. Maintenance of Roadways, Parking Areas, Utilities and Open Space**

Roadways, driveways and parking areas would be maintained during construction. Stabilized construction entrances would be installed at the access to each construction area to prevent the tracking of dirt onto driveways and area roadways. All exposed graded areas would be moistened with water at least twice a day where soil is exposed and cannot be planted with a temporary cover due to construction operations to prevent the airborne transport of dust to driveways, parking areas and roadways. Any sediment which reaches roadways, driveways or parking area would be removed by mechanical means, without washing with water, and returned to the construction site. All existing storm drain inlets within or adjacent to construction areas would have inlet protection installed to prevent litter and sediment from entering the storm drainage system. Open space areas downgrade of construction areas would be protected by the installation of silt fences.