# DRAFT GENERIC ENVIRONMENTAL IMPACT STATEMENT (DGEIS)

**FOR**

# New Frontier

**HAMLET OF NORTH AMITYVILLE, TOWN OF BABYLON**
**SUFFOLK COUNTY , NEW YORK**


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**August 2011**

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Date of Acceptance by Lead Agency: _____

Comments to the Lead Agency are to be submitted by: _____

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# SUMMARY

# SUMMARY

## Introduction

This document is a Draft Generic Environmental Impact Statement (Draft GEIS) for proposed change of zone, site plan and subdivision applications and for associated variance relief from the Board of Appeals on a 20.26-acre site located east of Broadway (NYS Route 110) and south, west and north of Brefni Street, Geraldine Avenue, and Nathalie Avenue, respectively, in North Amityville, Town of Babylon. This Draft GEIS describes the proposed project, characterizes site and area resources, analyzes potential environmental impacts of the project, presents measures to mitigate adverse impacts, and examines alternatives to the proposed project.

The proposed project, known as **"New Frontier"** will establish a high quality mix of residential and retail uses on the property, while providing the community with numerous benefits. The applicant for this project is New Frontier II, LLC. The Overall Site Layout Plan illustrates the design intent for the purpose of impact analysis and Town Board review of the change of zone, Planning Board review of the change of zone, site plan and subdivision and the Board of Appeals review of associated variances. After the Board completes the current review process and renders a decision on the requested change of zone, more detailed Site Plans will be prepared for final approvals of the proposed development.

This DGEIS is submitted to the Town Board of the Town of Babylon, as project information and documentation to assist in rendering an informed decision on the rezone, site plan and variance applications noted above. This document is prepared in compliance with Title 6 of the New York Code of Rules and Regulations (6 NYCRR) Part 617, the implementing regulations for the New York State Environmental Quality Review Act (SEQRA).

## Description of the Proposed Project

The New Frontier project involves a change of zone of 20.26 acres from E Business and B Residence zoning to MR Multiple Residence zoning. Flexibility in zoning is necessary to achieve the design and combination of uses associated with this project, in order to achieve the specific benefits important to the community, as reflected in the proposed project. As a result, a number of variances will be required to enable the project to achieve success. The proposed project would result in the closing of the Frontier Trailer Park while providing residents with a comprehensive relocation package and establishing new housing and mixed uses on the project site. The specific development calls for 500 residential dwelling units comprised of one-bedroom and two-bedroom units as well as affordable units, 45,500 square feet (SF) of retail space and a poolhouse and pool for use by the residents to be developed over five phases. The project provides parking and amenities to support the residential and retail uses and proposes sidewalks and open space/gathering areas, attractive design, architecture and landscaping, a bus stop, connection to the Bergen Point wastewater treatment facility (WWTF) [Suffolk County Sewer District (SCSD) 3] and all improvements necessary to support the proposed use.

**Anticipated Impacts**

Topography

Grading operations will be necessary throughout the proposed area of development (20.26 acres) to provide the infrastructure, foundation installation and appropriate surface areas to accommodate development. Excavation will be required for new building foundations/basements. Since the site In general, it is proposed that all of the excavated soil within the site will be retained as fill for the building foundations, internal roadways and parking areas, as well as along the internal access driveways and utility excavations. As a result fill will be required to be imported to the site to provide adequate elevations. Overall it is estimated that a total cut of 13,934 CY will be required as compared with 54,580 CY of fill. Using an 85% compaction factor which is applied to on-site cut which will be reused as site fill it is estimated that 42,735 CY [54,580 CY – (13,934 CY x 0.85) = 42,735 CY] of soil will need to be imported to the site to provide adequate surface areas for development. It is also expected that topsoil will be imported to the site in connection with the landscape plan in order to establish suitable soil enrichment for the 6.41 acres of proposed landscaped area.

Applicable erosion and sedimentation control guidelines are incorporated into the proposed project and will be observed during construction in order to minimize impacts. In accordance with the NYSDEC Phase II SPDES Program, coverage under the General Permit for Stormwater Discharges from Construction Activities (NYSDEC Permit No. GP 0-10-001) will be obtained prior to the initiation of construction activities. Prior to filing for coverage under the General Permit, the NYSDEC requires that a SWPPP be prepared for the parcel, including a detailed erosion and sediment control plan, to manage stormwater generated on-site during construction activities, and for post-construction stormwater management. A SWPPP will be prepared to ensure compliance with water quality and quantity requirements pursuant to Technical Guidance and GP 0-10-001 and Town of Babylon Chapter 189 requirements. The NOI requesting coverage under the General Permit will be reviewed by the Town prior to filing in accordance NYSDEC requirements and prior to the initiation of construction activities at the property. In summary, grading operations are not anticipated to result in significant adverse impacts, particularly in view of the absence of such resources and implementation of the mitigation measures.

Soils

Approximately 99% of the property is occupied by RhB soils with the remaining 1% consisting of HaA soils. RhB soils, by definition, are soils that have been altered for prior development. No severe limitations are exhibited by either soil and the features of each will not significantly affect the development components specific to the proposed project. A moderate limitation to streets and parking lots is noted for RhB soils, however the subject property does not exhibit any significant topographic relief and as a result should not provide a restriction related to the development of the proposed project.

Water

The average depth to the water table ranges from approximately 5 to 12.8 feet below ground surface in the proposed development portions of the Site. Regionally groundwater is observed to flow in a southerly direction. The site has depth to groundwater limitations that will be

addressed by addition of fill ensure that leaching of stormwater recharge will occur efficiently. Existing stormwater is not completely contained on site, therefore the installation of drainage systems that will contain and recharge runoff on-site will improve hydrologic conditions by recharging stormwater at the point of origin. All sanitary wastewater generated by the project will be conveyed to the Suffolk County Sewer District 3, the Bergen Point Sewage Treatment Plant.

The volume of water recharged by the proposed project, and its associated nitrogen concentration were computed. Based on the SONIR model results, the total volume of water recharged on-site will decrease by 54.9%. It is anticipated that the project will recharge approximately 18.05 MGY, which is a decrease of 22.00 MGY over the existing on site recharge of 40.05 MGY.

Ecology

The impacts to the ecological resources of a project site are generally a direct result of clearing of natural vegetation, increase in human activity and associated wildlife stressors, and the resulting loss and fragmentation of wildlife habitat. However, as there are no true ecological resources associated with the subject site, no negative ecological impacts are anticipated.

As the only known record of an endangered plant (Hyssop skullcap) was listed by the NYNHP over 100 years ago, and no suitable habitat exists on site for the plant, no impacts are anticipated to the species as a result of the proposed project.

The entirety of the subject property is currently developed with trailers and small areas of landscaping. The property is not expected to act as a refuge for rare, threatened or endangered native fauna. The proposed project will favor those wildlife species that prefer edge and suburban habitats and those that are relatively tolerant of human activity.

Land Use, Zoning and Plans

*Land Use*- The proposed project represents an alternative use in the area that can be buffered and designed to maximize compatibility between the differing land uses in the vicinity of the site. The roads, buildings and other paved surfaces will cover approximately 68% of the site, a coverage that is less than that of existing conditions, which is 90%. Overall, the proposed project represents a modified land use type in the area (residential apartments and mixed-use as compared with mostly a mobile home park); however, independently the proposed retail and residential land uses proposed are currently well represented in the area and are compatible with adjoining and surrounding uses. Given the proposed use and project design, no significant adverse land use impacts are expected, and benefits will be provided by removing aesthetic, safety and environmental issues and providing needed rental and affordable housing in the area.

*Zoning*- The proposed project requires rezoning of the site from E Business (Neighborhood) and B Residence (10,000 SF) zoning to MR Multiple Residence District to allow the construction of the proposed retail and residential development. Approval of this request is under the jurisdiction of the Town Board, which is required to conduct its review and decision in conformance with applicable sections of the Town Zoning Code. The proposed project will also

include a site plan and subdivision application by the Planning Board and the Board of Appeals' review of associated variances.

The Town of Babylon does not currently have a zoning district which permits a mix of residential and commercial uses such as Planned Development District (PDD) zoning or Planned Unit Development (PUD) zoning. As a result, several variances will be required to permit construction of the mixed-use project.

*A Plan for the Future of the Town of Babylon, Draft Comprehensive Plan Summary (March 1998)* - The proposed project involves the redevelopment of the site from the existing mobile home park and miscellaneous uses to a mixed-use retail/multifamily residential development. The proposed project will conform to several recommendations of the Plan, including redeveloping the subject site which is the cause of unsafe living conditions, unattractive views, groundwater impacts and unsanitary environmental conditions and creating affordable housing opportunities.

*Suffolk County Planning Commission* – The SCPC Policies, General Policy Goals, and Specific Policies (Guidelines) under which the SCPC reviews the applications that are under its jurisdiction per the NYS General Municipal Law. To summarize the analysis, the proposed project conforms to the applicable Policies, either directly or in spirit and intent.

Community Character

The existing mobile home park on the site lends itself to its own unique character, as no similar use is located in the vicinity. The site is developed with closely spaced mobile homes, a series of narrow internal roadways and small areas of landscaping. The mobile homes on the property range in individual character from attractive and nicely maintained to dilapidated, unsafe and unattractive. The property is fenced off on all sides, with the exception of the six street connections from NYS Route 110, making it partially screened from view from the surrounding area. There are currently no amenities provided to the residents, and the majority of the site is closed to the public.

The proposed project will replace the current obsolete housing that exists on the subject site. More specifically, the current mobile home park includes unsafe, energy in-efficient, non-code compliant housing and is under consent to be corrected. The existing use provides no amenities for the existing residents, no on-site open space and is generally utilized only by the residents of the mobile home park rather than being open to the community at large. The proposed project consists of mixed uses, with commercial uses situated closer to NYS Route 110 and multi family residential uses situated within the interior of the site. The project will result in an overall development that includes LEED design elements and Energy Star design/construction, in conformance with applicable requirements of Chapter 89, Article VIII Green Building Certification.

In terms of community character, the existing surrounding land use character includes multiple family housing; however, due to the density and height proposed, the development will represent a modified multi-family housing type in the area. A significant increase in landscaped area will

occur as a result of the proposed project, resulting in a more aesthetically pleasing view of the subject property, which is currently occupied by trailers and has minimal landscaping. Furthermore, the commercial portion of the site and greenspace areas of the proposed development will be open to the community. Finally, the project will include on-site amenities for residents of the community.

Despite this fact it is recognized that the mobile home park does provide a sense of place for its residents. The mobile home park does function as a community for its residents; however, it is also recognized that the existing housing is substandard and in poor condition. The subject location is served by on-site sanitary systems and not connected to the Southwest Sewer District 3 for wastewater disposal. The lack of connection to off-site wastewater disposal for such a high density development poses a threat to groundwater resources. Therefore the loss of the mobile home park by implementation of the proposed project is not driven solely by economic factors. There will be beneficial environmental impacts as a result of the project. The site does not contain any significant aesthetic or cultural resources. There are no historic or archeological resources identified on the site.

The proposed new development is envisioned to recreate its own sense of community character once the site is redeveloped. The Town of Babylon is working with the Long Island Housing Partnership on a relocation plan to provide, among other options, a similar mobile home development in the tri-state area as a potential option for the residents to relocate to. The development will also be phased, which will aid in the orderly transition for existing residents. These two factors and the applicants relocation plan will provide mitigation to address this impact. In terms of land use, the largely residential character of the subject location will continue with new safe, environmentally compatible housing and commercial space. In fact, it is anticipated that the community character of the new development will be of a much higher value because there will be open spaces and community amenities provided. The new development will be aesthetically pleasing, while the existing mobile park has little or no aesthetic value. Currently there is no significant open space or recreation area on the site.

Community Facilities and Services

The proposed project will significantly increase taxes generated by the site, resulting in a substantial rise in revenues distributed to each taxing jurisdiction. At full build-out, the proposed project is projected to generate over $4.2 million in annual taxes. This represents a net increase of over $3.6 million per year – over seven (7) times the generation under existing site conditions.

Eighty four students are projected to reside within New Frontier, with seven students projected to attend nonpublic schools; the remaining 77 students are likely to attend public schools. The 77 students will result in additional costs to the Amityville UFSD. According to the New York State School Report Card, Fiscal Accountability Supplement for Amityville UFSD, expenditures averaged $12,226 per general education student and $41,601 per special education student during the 2008-09 academic year. Given these assumptions, it is estimated that the 66 general education students will cost the school district approximately $806,916, while the 11 special education students will cost the school $457,611. Combined, the students will result in additional costs to the Amityville UFSD amounting to $1.26 million per academic year.

However, it is estimated that the school district will revenue nearly $2.2 million in taxes – covering the associated expenses incurred by the 77 students. This results in a net revenue to the Amityville UFSD of approximately $925,544 per year.

The proposed project will be serviced by the SCPD's 1st precinct. A letter was sent regarding the subject site and the ability of the precinct to handle the additional development. A response was received on March 24, 2011, which indicated that the SCPD will adapt as necessary to protect and serve the community as it grows. It is expected that the project will result in an increase to $335,376 in annual tax revenue for the SCPD, which is expected to offset the costs to provide the increase in police services.

The proposed project will be serviced by the North Amityville Fire Company. The development will include current building materials and safety installations per the NYS Building Code. The project will be planned with suitable access for emergency vehicles and will include installation of fire hydrants as directed through the site plan review process. The Fire District will continue to be given the opportunity to provide comments on the ability to provide service for the proposed development. It is expected that the project will result in an increase to $235,082 per year in tax revenue for the Fire Department, which is expected to offset the costs to provide the increase in fire protective services related to the development.

The project will utilize public water, to be supplied by the SCWA via connections to the existing water mains surrounding the property. The potable water requirement of the project of approximately 118,198 gpd, is not anticipated to impact the ability of the SCWA to serve the subject site and existing customers. SCWA is chartered to provide water to its service district customers, based on approved tariffs. There are no large water consumptive uses in the area. The presence of 12-inch water mains indicate a substantial distribution system in the area of the subject site. The site is intended to be connected to this system, and will pay the required rates for water used.

The development is expected to generate approximately 33 tons of solid waste per month, based on 13 lb/day/ 1,000 SF of retail space and 3.5 lb/day/capita with an estimated 1,019 residents.

The proposed project will use LIPA and National Grid to supply energy resources to the subject property. Connections will be made to each utility through the creation of an internal distribution network within the proposed development. Connection of this network to LIPA and National Grid will likely be through the transmission line which presently runs along the property as well as gas mains in the area. It is anticipated that both of these energy supply companies maintain adequate resources to supply the proposed project. In addition, energy saving devices will be utilized where practical to reduce the total energy demand which will be required by the project site upon completion.

<u>Transportation</u>
Based on the results of the Traffic Impact Study as detailed in the body of this report, it is the professional opinion of Nelson & Pope that, the construction of the proposed project will not

significantly impact the operation of the roadways and intersections adjacent to the site. The implementation of the proposed mitigation measures will improve the operation of the roadways and intersection adjacent to the site.

**Proposed Mitigation**

Topography

- Following approval for the Change of Zone, a detailed grading and drainage plan will be prepared and submitted to the Town for approval.

Soils

- Test holes will be required prior to any site plan approvals from the Town Planning Board as part of the drainage design reveiw. This will permit evaluation of soils in conjunction with detailed grading and drainage final design. Unsuitable material is not expected based known regional conditions, however, if encountered, any such material will be removed and backfilled with clean material to promote proper leaching of stormwater and sanitary effluent.
- Short-term impacts will be controlled by proper grading, erosion control, construction management and site stabilization techniques.
- Dust raised during grading operations will be minimized and controlled by the use of water sprays, truck cleaning stations at the construction exit, and implementation of any dust suppression systems specified by the appropriate Town agencies.
- Truck routes to and from the site will be limited to NYS Route 110 thereby minimizing noise, dust and potential safety impacts to residential communities adjacent to the site.
- Erosion control measures such as staked hay bales, silt fences, groundcovers (vegetative or artificial), drainage diversions, minimizing the area of soil exposed to erosive elements at one time, and minimizing the time span that soil is exposed to erosive elements, will be utilized to minimize loss of soil during construction, particularly in locations where erosion and sedimentation could adversely impact adjoining properties and streets. Applicable Town of Babylon standards and construction practices specified by the appropriate Town agencies will be followed.
- Conformance with NYSDEC requirements for the SPDES GP 0-10-001 permit and Town of Babylon Chapter 189, including preparation of an SWPPP, will ensure that the potential for erosion impacts during construction will be minimized.

Water

- The proposed project is designed to conform to those recommendations of the 208 Study that involve groundwater protection and best management practice for protection of water supply and management of wastewater, specifically including the following measures:
  - Project does not conform to sanitary density restrictions equivalent to 600 gallons per acre, however municipal sewage treatment will be provided;
  - ensure proper stormwater management practices through recharge of stormwater with sufficient depth to groundwater to attenuate pollutants;
  - ensure proper storage and handling of toxic and/or hazardous materials;
  - limit fertilizer dependent vegetation if possible or were applicable to reduce application of fertilizers.
- In conformance with the Town of Babylon requirements, all stormwater runoff generated on developed surfaces will be retained on-site, to be recharged to groundwater through the proposed leaching pools and/or sustainable drainage retention
- The proposed project conforms to the recommendations of the NURP Study with respect to stormwater handling.

- Adherence to the proposed SWPPP (to be prepared for the SPDES GP-0-10-001 permit, and would include an erosion control plan) and NYS Stormwater Design Manual would ensure that stormwater generated during the construction period is controlled, and that erosion and its associated impacts is minimized.

Ecology

- Landscaping proposed on site will provide a 252% (4.59 acre) increase in vegetative cover of the site.
- Landscaped areas will provide some additional habitat for wildlife utilizing the subject site.
- A TNR program will be implemented to control the feral cat population known to utilize the area.
- No known invasive plant species will be utilized, including those species specifically those species listed in Resolution 614-2007 enacted by the Suffolk County Legislature.

Land Use, Zoning and Plans

- The site will include on-site recreational amenities for residents.
- Land use mitigation is provided by locating residential use on the eastern and southern portions of the property adjacent to residential communities.
- Providing a maximum of two-bedroom residential units ensures a low number of school aged children and diversity of housing types/sizes.
- Providing 10% affordable housing.

Community Character

- Landscaping will be planted within the site between and along the new buildings and internal access driveway and walkways, to provide a vegetative accent to the structure's architectural theme.
- The proposed action will enhance the site's use by removing miscellaneous commercial uses not in aesthetic conformance with the surrounding community, and replacing the current use with an aesthetically-pleasing mixed-use development that will have an architectural style which is congruent with that of the surrounding community.

Community Facilities and Services

- The proposed project will generate significant increases in tax revenues and allocations to each of the pertinent community services would mitigate the impact of the increased costs to the pertinent community services to provide services.
- The school district will revenue nearly $2.2 million in taxes – covering the associated expenses incurred by the 77 students.
- Conformance to the NYS Building and Fire Safety Codes will partially mitigate potential health and safety impacts from fire response providers.
- The increase in water required for the sites can be mitigated by use of water-saving plumbing fixtures and mechanical systems.
- While the proposed project will utilize energy-conserving equipment, building materials and mechanical systems, this increase in energy consumption can be further mitigated by use of building materials and systems that would provide a higher level of energy conservation and/or energy efficiency. No specific information on materials, designs, equipment or specifications that may be considered is available at the present time.

Transportation

After the completion of the project, the intersection will continue to operate at No Build LOS during the PM peak hour. However, the LOS will change from LOS C to LOS D during the weekday AM peak hour

and LOS B to LOS C during the Saturday midday peak hour. In order to improve the operation of the intersection the following mitigation measures were considered:

- "Build Mitigation 1" – This mitigation measure considers restriping the westbound Brefni Street approach to provide a left-turn/through lane and exclusive right-turn lane and the addition of a right-turn overlap for the westbound right-turn movement as well as performing timing adjustments. With implementation of these improvements, the intersection is anticipated to operate at No Build LOS during the AM and PM peak periods.
- "Build Mitigation 2" – This mitigation measure incorporates the improvements from "Build Mitigation 1" and changes the northbound/southbound left turn phase from protected only to protected/permissive. With the implementation of these improvements, the intersection is anticipated to operate at No Build LOS during all time periods studied.

After the completion of the project, the intersection of NYS Route 110 at Ritter Avenue/Site Access will continue to operate at No Build LOS during the AM and PM peak hours and will experience a change in LOS during the Saturday midday peak hour. The change in LOS during the Saturday peak hour is due to the heavy eastbound left turning traffic from Ritter Avenue onto NYS Route 110 and the southbound left turn traffic into the site. Extending the southbound left turn lane storage length by 100 feet (from 140 feet to 240 feet) will improve the operation of the intersection by providing adequate storage for vehicles waiting the make a left turn into the site. To further improve the overall operation of this intersection, phasing adjustments were performed under the "Build Mitigation 2" condition to change the northbound and southbound left turn phase from protected only to protected/permissive. With the implementation of the phasing adjustments and the extension of the southbound left turn storage, the intersection is anticipated to operate at No Build LOS during all time periods studied.

## Alternatives Considered

For the subject application, the following alternatives have been analyzed:

- Alternative 1: No Action - assumes that the site remains in its current use and condition.
- Alternative 2: Development per Existing Zoning - assumes development of 3 single-family homes and 224,502 SF of commercial space.

## Permits and Approvals Required

| Issuing/Permitting Entity | Type of Permit/Approval |
|---|---|
| Town Board | Change of Zone Approval |
| Town Planning Board | Site Plan and Subdivision Approval, Change of Zone recommendation |
| Town Board of Appeals | Area & Use Variance Approvals (9 types of variances) (see note) |
| Town Building Department | Building Permit |
| SCDHS | Realty Subdivision review/approval |
| | |
| | Article 4 (water supply system design) review/approval |
| | Site Plan/Permit to Construct review/approval |
| SCPC | NYS General Municipal Law Section 239 review/approval |
| SCWA | Water Supply Connection Permit/approval |
| SCDPW | Connection to sewer district review/approval |
| | NYS Highway Law 136 & NYS General Municipal Law 239f review |
| NYSDEC | General Permit, Stormwater Discharge from Construction Activity |
| NYSDOT | Roadwork Permit |

# SECTION 1.0

# DESCRIPTION OF THE PROPOSED PROJECT

# 1.0 DESCRIPTION OF THE PROPOSED PROJECT

## 1.1 Introduction and Project Overview

This document is a Draft Generic Environmental Impact Statement (Draft GEIS) for a proposed change of zone, site plan and subdivision applications and for associated variance relief from the Board of Appeals on a 20.26-acre site located east of Broadway (NYS Route 110) and south, west and north of Brefni Street, Geraldine Avenue, and Nathalie Avenue, respectively, in North Amityville, Town of Babylon. This Draft GEIS describes the proposed project, characterizes site and area resources, analyzes potential environmental impacts of the project, presents measures to mitigate adverse impacts, and examines alternatives to the proposed project. **Figure 1-1** provides a location map of the subject site in relation to adjacent and local roadways. The **Overall Site Layout Plan** (in a pouch at the end of this document) presents a conceptual site plan for the overall project site.

The proposed project, known as **"New Frontier"** will establish a high quality mix of residential and retail uses on the property, while providing the community with numerous benefits. The applicant for this project is New Frontier II, LLC. The Overall Site Layout Plan illustrates the design intent for the purpose of impact analysis and Town Board review of the change of zone, Planning Board review of the change of zone, site plan and subdivision and the Board of Appeals review of associated variances. After the Board completes the current review process and renders a decision on the requested change of zone, more detailed Site Plans will be prepared for final approvals of the proposed development.

The New Frontier project involves a change of zone of 20.26 acres from E Business and B Residence zoning to MR Multiple Residence zoning. Flexibility in zoning is necessary to achieve the design and combination of uses associated with this project, in order to achieve the specific benefits important to the community, as reflected in the proposed project. As a result, a number of variances will be required to enable the project to achieve success. Zoning approvals needed are discussed in more detail in **Section 1.6**. The proposed project would result in the closing of the Frontier Trailer Park while providing residents with a comprehensive relocation package and establishing new housing and mixed uses on the project site. The specific development calls for 500 residential dwelling units comprised of one-bedroom and two-bedroom units as well as affordable units, 45,500 square feet (SF) of retail space and a poolhouse and pool for use by the residents to be developed over five phases. The project provides parking and amenities to support the residential and retail uses and proposes sidewalks and open space/gathering areas, attractive design, architecture and landscaping, a bus stop, connection to the Bergen Point wastewater treatment facility (WWTF) [Suffolk County Sewer District (SCSD) 21] and all improvements necessary to support the proposed use.

The property is comprised of nine tax parcels, which are specified by the following Suffolk County Tax Map (SCTM) numbers: 0100-163-01.00 Lots 54, 55, 56 & 57 and 0100-164-02.00 Lots 2, 5, 9, 10 & 25. The majority of the site is zoned E Business (19.40 acres) with the exception of a small portion of the northeast corner (corner of Brefni Street and Geraldine Avenue) and a small portion of the southeast corner (along Nathalie Avenue) zoned B Residence

(0.86 acres). The majority of the site is currently developed with approximately 356 mobile homes, as well as a trailer sales use, a small strip retail center, a single family residence and parking areas.

This document is part of the official record under the New York State Environmental Quality Review Act (SEQRA) process outlined in Title 6 of the New York Code of Rules and Regulations (6 NYCRR) Part 617, with statutory authority and enabling legislation under Article 8 of the New York State (NYS) Environmental Conservation Law (ECL). The Babylon Town Board is the Lead Agency for the project, as the application that triggered the SEQRA process is under the jurisdiction of that Board. The Town Board determined that the proposed project is a Type I Action pursuant to Section 114-4B of Chapter 114 Town of Babylon Environmental Quality Review. The Town Board issued a Positive Declaration on April 26, 2011 (see **Appendix A**). It was determined that the proposal would be appropriate for the preparation of a GEIS. SEQRA Part 617.10 (a) indicates the following with regard to GEIS's:

> (a) Generic EIS's may be broader, and more general than site or project specific EIS's and should discuss the logic and rationale for the choices advanced. They may also include an assessment of specific impacts if such details are available. They may be based on conceptual information in some cases. They may identify the important elements of the natural resource base as well as the existing and projected cultural features, patterns and character. They may discuss in general terms the constraints and consequences of any narrowing of future options. They may present and analyze in general terms a few hypothetical scenarios that could and are likely to occur.
>
> A generic EIS may be used to assess the environmental impacts of:
>
> (4) an entire program or plan having wide application or restricting the range of future alternative policies or projects, including new or significant changes to existing land use plans, development plans, zoning regulations or agency comprehensive resource management plans.

The above determination indicates that a Draft GEIS is the correct method of evaluating the significance of the proposed change of zone, subdivision, site plan and variance relief applications. As noted in Part 617.10 (c),

> Generic EIS's and their findings should set forth specific conditions or criteria under which future actions will be undertaken or approved, including requirements for any subsequent SEQR compliance. They may include thresholds and criteria for supplemental EIS's to reflect specific significant impacts, such as site-specific impacts, that were not adequately addressed or analyzed in the generic EIS.

With respect to subsequent SEQRA procedures, Part 617.10 (d) states:

> (d) When a final generic EIS has been filed under this part:
>
> (1) No further SEQRA compliance is required if a subsequent proposed action will be carried out in conformance with the conditions and thresholds established for such actions in the generic EIS or its findings statement;

(2) An amended findings statement must be prepared if the subsequent proposed action was adequately addressed in the generic EIS but was not addressed or was not adequately addressed in the findings statement of the generic EIS;
(3) A negative declaration must be prepared if a subsequent proposed action was not addressed or was not adequately addressed in the generic EIS and the subsequent action will not result in any significant environmental impacts;
(4) A supplement to the final generic EIS must be prepared if the subsequent proposed action was not addressed or was not adequately addressed in the generic EIS and the subsequent action may have one or more significant adverse environmental impacts.

Thus, this Draft GEIS will be subject to the full procedures of Part 617 and Chapter 114 Town of Babylon, Environmental Quality Review, providing a proper and complete forum for interagency review and public comment.

As noted above, this document assesses the potential environmental impacts and recommends mitigation measures for the proposed project, New Frontier, based on the Overall Site Layout Plan. Actual development detailed in future, revised site plan filings may vary from that shown in the above-referenced plan, but will be consistent with the uses evaluated in this Draft GEIS, and will conform to the overall concept and intent established in the Overall Site Layout Plan. The GEIS process will result in the adoption of a Statement of Findings, and future development will be guided by the Overall Site Layout Plan, the GEIS and the Findings. The following thresholds shall be utilized to determine future conformance with SEQRA procedures discussed above, and serve as a basis for determining the need for further SEQRA review and/or a Supplemental EIS.

- The number of residential units shall not exceed 500, and shall contain a mix of one and two-bedroom apartments.
- The amount of commercial development shall not exceed 45,500 SF.
- The entire development shall be connected to the Suffolk County Sewer District 21.

In addition, as a synthesis of this and other sections of this DGEIS, a matrix has been prepared to identify the various phases of the project and mitigation appropriate to implement for each phase (see **Table 1-1**). Any variation from these thresholds that results in a significant adverse environmental impact shall require the submittal of a Supplemental EIS.

## Table 1-1
## PROJECT PHASE BREAKDOWN

| | Residential Units | Commercial Space | Amenities | Traffic Generation | | Mitigation Measures |
|---|---|---|---|---|---|---|
| Phase I | 50<br>(22 1-bedroom,<br>28 2-bedroom) | 45,500 SF | -- | Residential<br>AM- 25<br>PM-29<br>Sat- 22 | Retail<br>AM- 97<br>PM-375<br>Sat- 514 | SWPPP, Drainage, Upgrade to SCSD 3, 246 Parking stalls, Fire protection |
| Phase II | 155<br>(65 1-bedroom,<br>90 2-bedroom) | -- | Open greenspace | AM- 77<br>PM-91<br>Sat- 70 | | SWPPP, Drainage, Upgrade to SCSD 3, 180 Parking stalls, Fire protection |
| Phase III | 120<br>(50 1-bedroom,<br>70 2-bedroom) | -- | Poolhouse<br>Pool<br>Open greenspace | AM- 60<br>PM-71<br>Sat- 54 | | SWPPP, Drainage, Upgrade to SCSD 3, 133 Parking stalls, Fire protection |
| Phase IV | 130<br>(56 1-bedroom,<br>74 2-bedroom) | -- | Open greenspace | AM- 65<br>PM-76<br>Sat- 58 | | SWPPP, Drainage, Upgrade to SCSD 3, 181 Parking stalls, Fire protection, Traffic improvements (see below) |
| Phase V | 45<br>(20 1-bedroom,<br>25 2-bedroom) | -- | | AM- 22<br>PM-26<br>Sat- 20 | | SWPPP, Drainage, Upgrade to SCSD 3, 50 Parking stalls, Fire protection |
| **Build out** | **500<br>(213 1- bedroom,<br>287 2-bedroom)** | **45,500 SF** | **Poolhouse<br>Pool<br>Public gathering areas** | **Residential<br>AM- 249<br>PM-293<br>Sat- 224** | **Retail<br>AM- 97<br>PM-375<br>Sat- 514** | **SWPPP, Drainage, Upgrade to SCSD 3, 790 Parking stalls, Fire protection, Traffic improvements** |

Traffic Improvements will be completed at the time of Phase IV:

- Extend southbound left turn lane storage length by 100 feet (from 140 feet to 240 feet) at the intersection of Ritter Avenue and NYS Route 110 which will improve the operation of the intersection by providing adequate storage for vehicles waiting the make a left turn into the site.
- Restriping the westbound Brefni Street approach to provide a left-turn/through lane and exclusive right-turn lane and the addition of a right-turn overlap for the westbound right-turn movement.
- Change the northbound/southbound left turn phase from protected only to protected/permissive.

## 1.2 Project Background, Need, Objectives and Benefits

### 1.2.1 Project Background

The applicant was approached by the owner of the subject property to explore redevelopment and revitalization of the site in a manner that would provide community benefit and assistance with a difficult situation due to health, building, fire and safety violations. Recognizing the sensitivity of the existing uses on the site, several steps were initiated in the conceptual stages of the application. First, it was found that the existing mobile home park is not connected to sanitary waste treatment systems, even though it significantly exceeds the allowable flow established under Article 6 of the Suffolk County Sanitary Code (SCSC) and has numerous pending violations issued with respect to sanitary code compliance. Second, it was found that the existing trailer park has Building Department, fire and safety issues with respect to the 356 mobile home units situated on the site. Third, the concept of site redevelopment was explored with Town officials to determine if it was something that would be entertained. The applicant found that there was a willingness to entertain an application provided it achieved several goals and objectives, including: responsible treatment of existing residents through a comprehensive relocation package and provision for smaller, more affordable units as well as designated affordable housing within the development; connection of the site to a wastewater treatment facility for sanitary waste handling and appropriate water resource management; and design of an appropriately scaled mixed-use redevelopment that enhances the site and area with appropriate buildings, uses, architecture, landscaping, amenities and overall quality in design, all subject to analysis, review and appropriate mitigation of potential adverse environmental impacts of the project under SEQRA. Initial exploration of redevelopment potential found that the existing use would not be able to continue given the documented site conditions, and as a result, displacement was likely regardless of whether or not the New Frontier development was proposed. As a result, it was determined by the applicant that a proactive approach that is sensitive to the current land use while facilitating site redevelopment was something worth pursuing. A feasible project that provided the necessary revenue, benefits and design elements was conceived. The redevelopment is designed to correct sanitary, health and safety violations, and establish a permanent, viable, successful, and beneficial use on the site for overall neighborhood and regional improvement. Additional information on existing conditions is provided in **Section 1.3**.

### 1.2.2 Public Need and Municipality Objectives

<u>Public Need</u>

The New Frontier will meet the need for a mixed-use residential/retail development in the hamlet of North Amityville through the provision of a high-quality development to meet the specific local and area needs. The proposed development will provide affordable housing opportunities, which are much needed throughout the community. In addition, the proposed project will attract a variety of retail uses to meet the local community needs. The proposed project would rehabilitate the property and address documented unsafe living conditions such as lack of connection to sewers, undocumented expansion of the existing uses through additions and the

inappropriate storage of combustible material; these conditions would be replaced by a mixed-use and vibrant community having a sense of place that provides affordable and diverse housing options and enjoyment for local residents, employees and consumers alike.

The mixed-use development is designed using smart growth principles, by incorporating features and characteristics including internal walkability, sense-of-place features, retail combined with residential use for on-site jobs and shopping, safe and convenient pedestrian access to public transit and consumer shopping needs, and on-site recreational amenities. Superior design elements will be utilized, with attractive and coordinated architectural treatments, extensive site improvements and landscaping features. The project will include several public gathering areas, as well as a pool and poolhouse for residents.

New Frontier will complement the surrounding land uses while providing an economic return to local taxing jurisdictions through increased tax revenues. Moreover, the proposed project will generate immediate construction jobs for the Town of Babylon and area residents, as well as long-term employment opportunities during project operations. Such economic benefits are most crucial during the current economic state throughout Long Island, New York State and the nation as a whole.

Municipality Objectives

It is expected that the Town's objective for the subject site is to provide for desirable and high-quality redevelopment that is appropriate in consideration of the Town's and community's plans for the site, and the pattern of land uses along the NYS Route 110 corridor. Such a project would provide a substantial positive economic return to the Town and other taxing jurisdictions, as well as increased job opportunities. Such a project would (as will be the case for the proposed project) be designed to conform to the environmental protection goals and SCSC Article 6 requirements for sanitary wastewater treatment.

Furthermore, it is anticipated that the Town would prefer that the existing sanitary and building violations and unsafe conditions be remedied. Given these conditions, the only way to effect positive change is through redevelopment of the site. The project will replace the existing unsafe and unsanitary conditions with a mixed-use residential and retail project that complements the site in the context of NYS Route 110 and its surroundings and is characterized by attractive and well-conceived spaces featuring needed rental residential units, retail tenants and services.

In summary, the objectives of both the public and Town are to provide for private development that:

- would address one or more needs in the area, particularly those needs that have been recognized by members of the community,
- is considered desirable and appropriate for the community (from the perspectives of both the Town and the community),
- is at a density and layout appropriate for the site and the surrounding community,
- would remedy the existing unsanitary and unsafe conditions on the site in a sensitive manner,
- would provide affordable housing to residents in need of such opportunities,
- minimizes the potential for adverse environmental impacts while remediating adverse environmental impacts associated with existing development, and

- addresses other needs and/or concerns of the community.

### 1.2.3 Objectives of the Project Sponsor

The applicant's objective is motivated in part by the desire to produce a profitable economic return on the land investment, which would result from a high-quality development. The applicant seeks to provide uses and benefits that will enable the site to be redeveloped in a manner that achieves Town goals, and complements the surrounding land uses while providing an economic return to local taxing jurisdictions through increased tax revenues and job creation.

Furthermore, an important aspect of the proposed project is providing a relocation package for the existing residents of the mobile home park and phasing the proposed development in over five phases. A summary of the relocation package currently being proposed includes the following:

- Property will be developed in stages, allowing park residents to have flexibility in the timing of their relocation.
- A Long Island Housing Partnership (LIHP) representative will be available to assist residents with organizing and moving decisions.
- Six months current rent will be credited to current Frontier Park residents who become tenants of the workforce housing.
- Work with families of school-age children so they will be able to stay until the school year is complete.
- Assist with placement in county, state and federally subsidized housing.
- Assist with placement in trailer parks in tri-state area.
- Make available multi-lingual placement assistance.
- Trailer homeowners who prefer to leave the trailer will be compensated in the amount of six months current rent.
- A relocation package will be available to every trailer homeowner who chooses to move. This may include the following, with a total value of up to six months current rent:
  - The first three months fee at a storage facility
  - Moving expenses
  - Relocation subsidy assistance
  - Airfare for residents moving to another state

A goal of the applicant is to be understanding of the needs and concerns of existing site residents, and to facilitate a positive transition in as sensitive a manner as possible, given the difficult conditions associated with this transition.

### 1.2.4 Benefits of the Project

The New Frontier will result in the following overall design and use benefits:

- Meets several of the Town of Babylon Comprehensive Plan goals including providing affordable housing, improving the physical character of neighborhoods, improving the quality of life, sensitivity to natural resources such as groundwater and providing jobs.

- Provides 100 units of affordable housing (20% of the overall development).
- Addresses the objectives of Smart Growth principles by incorporating features and characteristics including: internal walkability; sense-of-place features (street trees, pedestrian lighting), retail combined with residential use for on-site jobs and shopping, safe and convenient pedestrian access to public transit and consumer shopping needs; on-site recreational amenities; sufficient parking/shared parking opportunities and convenient vehicle access and traffic flow.
- Provides a bus shelter and bus stop pull-off area for safe and convenient use by the public and residents and employees of the development to utilize.
- Incorporates superior design elements including attractive coordinated architectural treatments, extensive site improvements and landscaping features in a mix of uses including housing, retail, on-site recreation for residents and a public gathering place that will integrate into the existing surrounding community. .
- Provides open space and civic space for the public.
- Provides significant tax revenues to the Town of Babylon and other local taxing entities without significant increase in the need for additional services.
- Minimizes the number of school-age children by providing residential units with fewer bedrooms than other types of residential units.
- Attracts a variety of retail uses to meet the local community needs.
- Generates full time jobs in the retail and service-oriented businesses.
- Locates development on previously disturbed property. There are currently unsafe living conditions associated with the existing trailer park such as the lack of connection to sewers, undocumented additions and the inappropriate storage of combustible material.
- Locates development on a major roadway, thereby improving accessibility and reducing traffic impacts on existing neighborhoods.
- Reduces trip generation as compared with possible development under the existing zoning.
- Generates additional purchasing power in the area benefiting existing local retailers and businesses.
- Generates much-needed jobs in the area, including temporary construction jobs and permanent jobs.
- Generates additional sales tax revenue in addition to real estate taxes.
- Improves wastewater treatment for the property.
- Energy saving devices will be utilized where practical to reduce the total energy demand which will be required by the project site upon completion.

It should be noted that because the proposed project will be developed in phases, the amount of tax revenues collected on the property will fluctuate. However, the applicant has committed that at no point will the taxes generated on the property be less than current conditions. In summary, the proposed New Frontier meets the needs of the community, provides a beneficial and desirable land use on the property, and meets Town goals for diverse and affordable (workforce) housing opportunities.

## 1.3 Location and Existing Conditions

The 20.26-acre property is located on the east side of Broadway (NYS Route 110), south of Brefni Street, west of Geraldine Avenue and north of Nathalie Avenue, in the hamlet of North Amityville. The site is currently developed with approximately 356 mobile homes, associated parking, a trailer sales business, strip mall with a variety of office, retail and wet store (deli) uses

and single family residence located in the western central portion of the site along NYS Route 110. The site includes several structures, including a two-story frame building (trailer sales), a one-story concrete block building (strip mall), a 1-story frame building (single family residence), a frame garage and a shed in the central portion of the site along NYS Route 110 and a one-story masonry building in the central portion of the site surrounded by mobile homes. **Figure 1-2** provides an aerial photograph of the site and immediate area.

Nearly the entire property is developed with closely spaced mobile homes and pavement. Internal roadways provide access to the trailers and the mobile home park is externally accessed from six street connections from NYS Route 110 (Holly Lane, West Court, Hazel Court, Buffalo Avenue, Cheyenne Trail and Horseshoe Court) and two access points from The Boulevard (Mohawk Place and Pawnee Court). The trailer sales, commercial building, and single family residence are all accessed directly from NYS Route 110. Numerous complaints have been filed in recent years regarding maintenance of the property and the fact that there is heavy debris, dumping on-site, high grass and weeds in several areas, the internal roads not taken care of and insufficient drainage.

The development currently has inadequate fire protection. There is only one hydrant with a two inch main to serve the property. To provide adequate water pressure for firefighting, water mains should range in size from six inches to 12 inches. There is inadequate parking throughout the site and many residents park their vehicles on the narrow streets making it impassible for fire and rescue vehicles responding to a call. Furthermore, the development uses multiple fuel sources such as oil, kerosene and propane in a small, congested area creating a dangerous fire hazard. Furthermore, several mobile homes locate propane tanks at the front of the structure without adequate protection from vehicles driving in close proximity. The sanitary systems for the mobile homes consist of individual cesspools for each trailer. The age and location of these pools is not always known and cesspool collapses have occurred in the past.

Several of the mobile homes are in extreme disrepair and many have unauthorized improvements and additions. Some of these improvements have created dangerous situations for the tenants and pose a threat to their health and safety. The Suffolk County Department of Health Services and the Town of Babylon have filed violations of the Building Code, New York State Public Health Law and the SCSC with the property owner. An overview of violations includes: includes accumulation of rubbish or garbage; combustibles stored on porches; ivy growing on the front of a mobile home; areas where external siding is not completed; sections of skirting along one of the trailers missing, dislodged or not secured; areas where leaves and debris have accumulated throughout the trailer park creating a fire hazard; all roadways within the trailer park are in a deteriorated condition; several mobile homes with additions that do not have Certificates of Occupancy of Compliance and the trailer park not hooked into a sewer district. The SCDHS has a Stipulation with the owners of the trailer park which agrees on terms and conditions to begin the process of bringing the site into compliance with applicable public health and sanitary laws. A copy of the Notice of Formal Hearing dated May 8, 2008 which identifies violations and the Stipulation dated July 23, 2008 is provided in **Appendix B.**

The Town has also indicated that a feral cat population currently exists on or in the immediate vicinity of the subject property. Feral cats are generally considered problematic as they display

nuisance behaviors including spraying urine, making noise during the night from fighting or mating, and impacts to local bird populations from hunting. Currently, the exact location where the cats inhabit is unknown, as is the number of feral cats inhabiting the area. Issues associated with the feral cat population and mitigation in the form of the humane management of this issue are discussed further in **Section 2.3**. The applicant will be instituting an appropriate program to address this issue in cooperation with the Town.

The property is surrounded by commercial, multifamily and single family residential uses, as described in greater detail in **Section 3.1.1**.

The site is located within or served by the following planning and/or service districts:

- North Amityville Fire Company
- SCWA
- Long Island Power Authority (LIPA)/National Grid
- Suffolk County Police Department (SCPD), 1st Precinct
- Amityville Union Free School District
- Amityville Library District
- Groundwater Management Zone VII (600 gpd/acre)
- E Business and B Residence zoning districts
- Suffolk County Sewer District 21

## 1.4 Project Design and Layout

### 1.4.1 Overall Site Layout

The New Frontier will consist of a mix of residential and retail uses to be located in nine buildings. The commercial component of the proposed project includes 45,500 SF of space and the residential component includes 500 units of various types and sizes, including 213 one-bedroom units and 287 two-bedroom units. Of the residential units, a total of 43 one-bedroom units and 57 two-bedroom units will be set aside as affordable units (20%). Three of the proposed nine buildings will be 4-stories in height. These 4-story buildings are all located in the central portion of the property with the greatest setback to both NYS Route 110 and the single family residences to the east. All residential units will be for rent. On-site amenities for the residents include a poolhouse and pool located in central portion of the site (Phase 3). The retail space will be located in the western portion of the site, along NYS Route 110 (Phase 1) and the majority of residential units will be located towards the east and southern portion of the site, adjacent to single family residences to the east. Fifty residential units are proposed on the second and third floor of the retail building (25 units on each floor). The change of zone application includes the assemblage of the existing nine parcels for subdivision into five parcels for the purpose of a five-phased development. A Site Plan Aerial Overlay is provided as **Figure 1-3** and a Site Rendering is provided as **Figure 1-4**.

An important aspect of the proposed project is providing a relocation package for the existing residents of the trailer park and phasing the proposed development in over five phases. An

overall breakdown of uses as well as a breakdown by phase is provided in **Table 1-2**. Individual phasing plans for each of the phases are provided in a pouch at the end of this document. Affordable units will be dispersed throughout the community, and therefore are not demarcated in the phasing schedule.

**Table 1-2**
**PROJECT USES AND YIELDS**

| Use | **Gross Square Footage** (SF)**/# Units** |
|---|---|
| **Overall Project** | |
| **Retail** | **45,500** |
| **Residential** | **500** |
| 1-bedroom (market) | 170 |
| 2-bedroom (market) | 230 |
| 1-bedroom (affordable) | 43 |
| 2-bedroom (affordable) | 57 |
| **Phase I** | |
| **Retail** | **45,500** |
| Mixed-use building | 37,000 |
| 1-story structure | 8,500 |
| **Residential** | **50** |
| 1-bedroom | 22 |
| 2-bedroom | 28 |
| **Phase II** | |
| **Residential** | **155** |
| 1-bedroom | 65 |
| 2-bedroom | 90 |
| **Phase III** | |
| **Residential** | **120** |
| 1-bedroom | 50 |
| 2-bedroom | 70 |
| **Phase IV** | |
| **Residential** | **130** |
| 1-bedroom | 56 |
| 2-bedroom | 74 |
| **Phase V** | |
| **Residential** | **45** |
| 1-bedroom | 20 |
| 2-bedroom | 25 |

**Table 1-3** presents the current coverages and physical characteristics of the subject site ("Existing Conditions"), and the corresponding quantities after construction of the proposed project. The project design is shown on the Overall Site Layout Plan. Included below are descriptions of the proposed on-site improvements of the proposed project, along with brief discussions of the anticipated off-site and traffic-related improvements.

**Table 1-3**
**SITE AND PROJECT CHARACTERISTICS**
Existing Conditions and Proposed Project

| Parameter | Existing Conditions | Proposed Project |
|---|---|---|
| Zoning | E Business (19.40 acres)<br>B Residence (0.86 acres) | MR Multiple Residence |
| Uses & Yields | 356 mobile homes, trailer sales, strip mall, SF residence | 45,500 SF retail<br>500 apartments |
| **Coverages** (acres)**:** | --- | --- |
| Roads, Buildings, Paved Surfaces | 18.24 | 13.85 |
| Unvegetated | 0.20 | -- |
| Landscaping | 1.82 | 6.41 |
| **Water Resources:** | --- | --- |
| Domestic Use (gpd) (1) | 54,208 | 115,575 |
| Sanitary Wastewater (gpd) (1) | 54,010 | 115,575 |
| Irrigation (gpd) | 0 | 2,623 |
| Total Water Use (gpd) | 54,208 | 118,198 |
| Recharge Volume (MGY) | 40.05 (2) | 18.05 (3) |
| Nitrogen Concentration. (mg/l) | 10.43 (2) | 0.61 (3) |
| Nitrogen Recharged (lbs/day) | 3,482.45 (2) | 91.84 (3) |
| **Peak Hour Trips** (vph)**:** | --- | --- |
| Weekday PM | 138 | 668 |
| Saturday Mid-Day | 95 | 738 |
| **Miscellaneous:** | --- | --- |
| Residents | 595 | 1,109 |
| School-Age Children | 59 | 84 |
| Employees (FTE) | 19 | 75 |
| Solid Waste (lbs/day) | 2,185 | 4,158 |
| Total Taxes ($/yr) | $592,318 | $4,265,008 |
| School Taxes ($/yr) | $273,914 | $2,190,071 |
| School Fiscal Impact (+/-$/yr) | -$621,290 | $925,544 |
| Parking Required (spaces) | 712 | 1,372 |
| Parking Provided (spaces) | ± 375 | 790 |

Notes; gpd-gallons per day; MGY-million gallons per year; mg/l-milligrams per liter; vph-vehicles per hour
(1) Per SCDHS design criteria for sanitary system engineering.
(2) See **Appendix C-3**.
(3) See **Appendix E-4**.

The Town Board will issue a decision on the change of zone, and subdivision and Site Plan approvals will be issued by the Planning Board. The Board of Appeals will issue decisions for any associated variances determined from the Overall Site Layout Plan. Based on the Site Layout Plan, several variances will be required:

- Minimum lot area- 2 acres required; 1.664 acres provided (Phase 5)
- Use variance to allow business in MR Multiple Residence District (Phase 1)
- Front yard setback- 40 feet required; 8 feet provided (Phase 1), 5 feet and 8 feet provided (Phase 2), 10 feet and 16 feet provided (Phase 3), 17 feet, 24 feet and 25 feet provided (Phase 4), 5 feet and 15 feet provided (Phase 5)
- Side yard setback- 40 feet single yard/80 feet total required; 6.4 feet single yard provided (Phase 1), 10 feet single yard/77 feet total yard provided (Phase 3), 27 feet single yard provided (Phase 4), 15 feet single and total yard provided (Phase 5)
- Rear yard setback- 50 feet required, 0.20 feet and 11 feet provided (Phase 1)
- Height variance- 30 feet/2 ½ stories permitted; 48 feet/3 stories proposed (Phase 1), 46 feet/3 stories and 56 feet/4 stories proposed (Phase 2), 46 feet/3 stories proposed (Phase 3 & 5), 56 feet/4 stories proposed (Phase 4)
- Habitable floor area- No habitable space above the second story; habitable space provided on 3rd and 4th stories (Phase 1-5)
- Density of dwelling units on lot- 4,000 SF and 5,000 SF required for one and two-bedroom units, respectively; 1,402 SF provided for each (Phase 1), 1,150 SF provided for each (Phase 2), 1,777 SF provided for each (Phase 3), 1,665 SF provided for each (Phase 4), 1,611 SF provide for each (Phase 5)
- Parking variance- 1,372 spaces required, 790 total spaces provided

**Section 3.1.2** discusses variance criteria, along with analyses of the project's conformance to each criterion.

### 1.4.2 Grading and Drainage

Grading

Soil disturbance is necessary to establish suitable grades for the proposed roads and building locations. The site is basically flat and below grade conditions include sanitary systems for the existing mobile homes with no foundations or other substantial subsurface structures. The site will be developed in phases such that abandonment and/or removal of surface improvements is completed followed by removal of subsurface structures. Excavation will be required for new building foundations/basements. Total site cut is estimated to be 13,934 CY and total site fill is estimated to be 54,580 CY. Approximately 42,735 CY of fill will be imported onto the site. The site will be raised at a slope of approximately 2% from the east edge of NYS Route 110 towards the center of the site and back down at approximately 2% to the west edge of Geraldine Avenue. A more detailed grading and drainage plan will be prepared as part of the Site Plan application, subsequent to a decision on the requested change of zone. The Site Plan will undergo further review by the Town Department of Planning and Development, along with Planning Board approval prior to implementation. Refer to **Section 1.5** for a discussion of erosion-control measures to be taken during the construction period.

Drainage System

It is noted that the site contains a greater quantity of impervious surfaces under current conditions than under proposed conditions (see **Table 1-3**). As a result, the quantity of runoff generated on site will be decreased as a result of the proposed project. Furthermore, all roof drains will connect to dry wells of adequate capacity as an outfall for rainfall roof runoff.

In conformance with Town of Babylon requirements, all stormwater runoff generated by impervious surfaces will be retained on-site, and would be recharged to groundwater (see Phase 1-5 Site Layout Plans, in a pouch at the end of this document). The drainage system will be designed to accommodate at least 2 inches of storage. The Town will be responsible for the review and approval of the drainage design, to be conducted during site plan review.

The drainage system will be designed to comply with State Pollutant Discharge Elimination System (SPDES) requirements under New York State Department of Environmental Conservation (NYSDEC) SPDES General Permit for Stormwater Discharges from Construction Activity (GP 0-10-001 or "General Permit"), New York State Stormwater Management Design Manual (August 2010) and Chapter 189 of the Town Code. Under these requirements, a site-specific Stormwater Pollution Prevention Plan (SWPPP) must be prepared and submitted to the Town for review and approval as a condition to final subdivision approval.[1] The SWPPP evaluates the proposed drainage system to ensure that it meets the NYSDEC and Town requirements for treatment and retention of stormwater runoff. The SWPPP must demonstrate that the proposed stormwater management system is sized adequately to ensure that there is no net increase in peak stormwater discharges from a property once developed.

Additionally, the SWPPP includes details of erosion controls required during construction to contain stormwater runoff on site during construction and ensure that there is no transport of sediment off site. The Erosion Control Plan will be prepared in accordance with the recommendations of the NYSDEC Standards and Specifications for Erosion and Sedimentation Control and the NYSDEC Technical Guidance Manual. Use will be made of measures including:

- silt fencing and temporary diversion swales installed along the perimeter of the limits of clearing within the site to minimize/prevent sediment from washing into the natural buffer areas, adjacent streets and properties.
- inlet protection installed around all grated drainage inlets to trap sediments in stormwater runoff.
- dust control and watering plan and a stabilized construction entrance to minimize the tracking of dirt and debris from construction vehicles onto adjacent roadways.
- designation of material and topsoil stockpile areas as well as use of silt fencing and anchored tarps to prevent/reduce wind-blown dust and erosion from rainwater.
- establishment of a stabilized stone vehicle washing station which drains into an approved sediment-trapping device.

[1] The SWPPP must include: a description of the existing site conditions including topography, soils, potential receiving water bodies and stormwater runoff characteristics, a description of the proposed construction project, construction schedule, the erosion and sediment controls planned during construction activities and the details of the post construction stormwater management system design and consistency of said system with the *NYS Stormwater ManagementDesign Manual*, appropriate maintenance procedures for the erosion and sediment controls and each component of the post construction drainage system, pollution prevention measures during construction activities, a post-construction hydrologic and hydraulic analysis for all structural components of the post construction stormwater management system for a 1, 10 and 100 year storm event, and comparison of existing and post construction peak stormwater discharges.

The proposed locations, sizes, and lengths of each of the temporary erosion and sediment control practices planned during site construction activities, and the dimensions, material specifications, and installation details for all erosion and sediment control practices will also be provided on the Erosion Control Plan.

The drainage system and associated SWPPP will be more fully designed for the Site Plan application (revisions submitted subsequent to issuance of the change of zone), and will require the review and approval of Town engineering and the Planning Board. Evaluation of the drainage system through preparation of the SWPPP analysis required pursuant to Chapter 189 of the Town Code and the NYSDEC General Permit ensures there will be no net increase in stormwater runoff generated by the proposed project. Based on existing developments in the area, local geologic conditions, and adequate depth to groundwater, subsoils are expected to be of suitable quality to allow efficient recharge of stormwater, subject to further evaluation during subsequent project review.

### 1.4.3 Access, Road System and Parking

Vehicle Access

Vehicles will be able to enter and depart from the site via eight driveways. Two driveways are proposed on NYS Route 110, opposite Ritter Avenue and one north of Ritter Avenue configured for entering and exiting right-turns only. The remaining driveways will be located on Brefni Street, Nathalie Avenue and Geraldine Avenue (4 locations). The driveways on Geraldine Avenue will be located opposite Benburb Street, Glenmalure Street, The Boulevard & opposite the southern terminus of Geraldine Avenue at Benburb Street.

Road System

The proposed development will be served by a series of roads which connect the buildings and parking areas. The main roadway serving the site will begin at the proposed entrance at Brefni Street and extend south and curve to meet the existing "L" intersection of Geraraldine Avenue and The Boulevard. The smaller roads serving the entrances from NYS Route 110 (two entrances proposed), Geraldine Avenue (two entrances proposed) and Nathalie Avenue (one entrance proposed) will all intersect with the main roadway.

Parking

Parking calculations are provided on the Overall Site Layout Plan. If each individual use is totaled in terms of required parking as required by Town Code, a total of 1,372 parking spaces are needed for the project. However, a number of factors would decrease the need to accommodate the additive spaces required as a function of each individual use. It is expected that the project site will benefit from shared parking whereby residential spaces vacated during the day will be available for retail parking during business hours. In addition, the project is a mixed-use project which provides on-site shopping and employment opportunities. Factors that will decrease the dependency on the automobile and potentially decrease the need for parking. It is also noted that public transportation is conveniently located adjacent to the subject site, including the Suffolk Transit bus line which provides service to the Amityville Station of the LIRR (approximately 2 miles south of the site off of John Street). The proposed project is

proximate to NYS Route 110 and available bus service along this corridor. The applicant will install a bus stop along NYS Route 110 in order to facilitate use of public transit to the site and area. The site is within walking distance of services along NYS Route 110 which include shopping, personal services and restaurants; this is also expected to decrease dependency on cars by site tenants. As a result, a total of 790 parking stalls are provided in connection with the site plan, and this number is believed to be adequate to serve the parking needs of the project. Parking is dispersed throughout the site in order to serve the needs of each building and phase.

A Parking Assessment was prepared for the proposed project to determine the parking needs of the development (see **Appendix L**). The assessment concluded that the total design peak parking demand for the project will be 520 parking spaces. The 790 parking spaces proposed to be provided substantially exceed the peak parking demand and the retail and residential parking areas each contain ample parking to meet their separate parking need.

### 1.4.4 Water Supply , Water Use and Sanitary Disposal

Water Supply

Potable water is provided in the area by the SCWA using an existing distribution system that includes large transmission and supply mains to serve existing uses in the area. The existing mobile home park is connected to this water supply system. A 12-inch main is located beneath NYS Route 110 as well as along Brefni Street and Nathalie Avenue. An 8-inch water main is located beneath Geraldine Avenue and The Boulevard. A new internal system for hydrants will be required which may result in the relocation of some existing hydrants. The nearest public supply well field and pump station is located approximately 1,500 feet east of the property at Great Neck Road in North Amityville. Other wells, tanks and pump stations that ensure water supply and water pressure in the area of the subject site are the Albany Avenue well field, pump station and elevated tank located at the northeast corner of Albany Avenue and 45$^{th}$ Street in North Amityville and the Greene Avenue well field and pump station located at the northeast corner of the intersection of Greene Avenue and Birch Street in the Village of Amityville. The potable water consumed by the project would be supplied from SCWA Distribution Area 1. The project's water supply system design will be determined during the Site Plan review process; however, it is apparent that the existing water use on the site coupled with the extensive water supply distribution system in the area will ensure that potable water supply is sufficient for the proposed use. Any necessary connections, meters, easements and installations will be provided to ensure adequate water supply from the existing distribution system.

Water Use and Wastewater Generation

Assuming the wastewater generation rate values used by the SCDHS for design of wastewater systems (which yields a conservative estimate of water used), it is estimated that the proposed project will generate approximately 115,575 gpd of sewage flow and domestic water usage (see **Table 1-4**). All sanitary wastewater generated by the project will be conveyed to SCSD 21, the Bergen Point STP. Total daily water use is expected to be approximately 118,198 gpd, which includes 2,623 gpd assumed for landscape irrigation, using a rate of 5.5 inches over the growing season.

**Table 1-4**
**DESIGN & SANITARY WASTEWATER GENERATION**

| Use | Quantity | Design Rate | Design Flow |
|---|---|---|---|
| Retail (dry) | 35,000 SF | 0.03 gpd/SF | 1,050 |
| Retail (wet) | 10,500 SF | 0.15 gpd/SF | 1,575 |
| Residential | 500 Units | 225 gpd/unit [1] | 112,500 |
| Poolhouse | 1,500 SF | 0.30 gpd/SF | 450 |
| Landscaping | 6.41 Acres | -- | 2,623 |
| **TOTALS** | **---** | **---** | **118,198 gpd** |

Notes: * Maximum allowable sanitary flow with a septic system in Groundwater Management Zone VII is 600 gpd/acre, or 12,156 for the entire site.
1. Assumes housing units between 601-1,200 SF.

Sanitary Disposal

Article 6 of the SCSC addresses sewage facility requirements for realty subdivisions, and other construction projects, in order to limit the loading of nitrogen in various groundwater management zones as established by the SCDHS. As promulgated under Article 6, a Population Density Equivalent must be determined for the subject site in order to determine the type of sewage disposal system required for a proposed project. This equivalent (or total allowable flow) is then compared to the design sewage flow for the project. If the project's design sewage flow exceeds the Population Density Equivalent, a community sewerage system or on-lot sewage treatment plant is required. If the project's design sewage flow is less than the site's Population Density Equivalent, conventional subsurface sewage disposal systems (i.e., septic systems) may be used, provided individual systems comply with the current design standards and no community sewage system is available or accessible. However, the location of the subject site is located within an existing sewer district and therefore is required to connect, consequently, all sanitary wastewater generated by the project will be conveyed to the Suffolk County Sewer District 3, the Bergen Point Sewage Treatment Plant (STP).

### 1.4.5 Site Lighting and Landscaping

Lighting

It is expected that pole-mounted lights will be installed along the internal access driveways and within the parking areas, and wall-mounted lights will be placed on building exteriors. Footlights for pedestrians would also be installed along all walkways, for safety and security. The poles lining the roadway would be 20 feet in height, and would use metal halide luminaires. All luminaires will be “dark-sky compliant” so that the potential for adverse impacts from fugitive lighting (on the suburban character of the area from sky glow) will be minimized. Photometric analyses will be performed to ensure that there would be no lighting impacts to adjacent properties or wildlife. The exterior lighting system will be subject to the requirements of Town Zoning Code §213-245 Exterior Lighting Standards. A full and detailed Lighting Plan will be contained in revisions to the Site Plan set, to be prepared and submitted at the time of Site Plan review. This plan will be subject to review by the Town Department of Planning and Development, along with Planning Board approval prior to implementation.

In general, lighting will be provided to establish a safe and secure environment with illumination only in those areas where it is necessary. Illumination will not extend beyond the property boundaries and diffuse lighting will not occur.

Landscaping
The project will include a total of 6.41 acres of landscaping (31.63% of the site) throughout the site. It is noted that the quantity of landscaped area on the subject property will increase as a result of the proposed project, potentially providing more vegetative habitat within the subject site.

A full and detailed Landscape Plan will be contained in revisions to the Site Plan set, to be prepared and submitted if and when the Town Board approves the rezone application. This plan will be subject to review by the Town Department of Planning and Development, along with Planning Board approval prior to implementation.

## 1.5 Construction Schedule and Operations

Construction
This document is a Generic EIS for a change of zone, site plan, subdivision and associated variance approval. Following the change of zone stage, the applicant will revise and submit to the Planning Board, an overall Site Plan, with detailed site design for the first several phases of the project. The five (5) phases will be completed based on approved Site Plans. The applicant will proceed with construction upon final Town Planning Board and other agency approvals. The construction of the proposed project is anticipated to occur over a 3-5 -year period, beginning in 2012 and ending in November 2015/17.

The construction process will begin with establishment of flagged clearing limits, followed by installation of staked hay bales and silt fencing in critical areas for erosion control purposes, including the downslope limit of all cleared/graded area, to minimize the potential for eroded soils to impact the wetlands or dedicated areas. For trucks exiting the site, "rumble strips" (which cause truck tires to shed any mud trapped within the treads) will be placed at the construction vehicle entrance/exit, to prevent soil from being tracked onto adjacent roadways. Construction equipment and materials and all vehicles will be parked and loaded/unloaded within the site.

The existing buildings and parking areas on the site will require demolition. The owner will comply with all applicable requirements for site preparation for demolition. A demolition permit will be obtained prior to removal of the building. Prior to the issuance of a demolition permit, a thorough subsurface investigation will be conducted to locate all underground infrastructure and removal will be conducted subject to applicable standards. SCDHS will be notified of any tanks that require removal. If present, tanks will be removed under the auspices of SCDHS personnel, by a reputable contractor. All sanitary systems will be sampled, approved and backfilled pursuant to SCDHS closure requirements. The owner will utilize contractors licensed in lead based paint materials control as well as asbestos removal for demolition activities to ensure

compliance with applicable health/safety requirements. All construction and demolition materials will be disposed of at a properly licensed facility. Demolition wastes will be recycled where possible, to increase re-use of materials and reduce the volume of demolition wastes to be disposed of; this may include the existing parking areas asphalt pavement. Applicable LEED standards for demolition may be utilized, if appropriate, however it is anticipated that the majority of the mobile homes will be removed and relocated off-site by the respective owners and mobile homes not salvageable will be recycled.

In order to minimize the time span that denuded soil in the developed area is exposed to erosive elements, excavations will take place immediately after grading operations have been completed. Excavations for building foundations, roadways and parking areas, the drainage system and utility connections will occur next, followed by pouring of concrete for the foundations for each respective phase of construction. Building construction can then begin, concurrent with the utility connections, final grading and paving of the internal roadways, driveways and parking areas. Because these steps will take the most time, installation of the site lighting system and landscaping can be performed while the buildings are completed.

The construction manager, in combination with the various specialized contractors, will be responsible for all construction activities, site grading, and installation and maintenance of the erosion and sediment controls. The construction manager will also be responsible for ensuring proper storage and stockpiling of construction materials and that building supplies will be stored in designated areas, and that measures are implemented to prevent/reduce wind-blown dust. The construction manager will be responsible for securing an approved carter to empty the site dumpster and haul waste from the site to an approved location for disposal.

The potential for erosion during the construction period will be mitigated by conforming to the requirements of Chapter 189 of the Town Code, and with the NYSDEC's review of the project's runoff control methods under the State Pollutant Discharge Elimination System (SPDES) program. Under this program, a site-specific Stormwater Pollution Prevention Plan (SWPPP) must be prepared and submitted to the Town for review and approval. Once the Town approves the SWPPP, the applicant must file a Notice of Intent (NOI) with the NYSDEC to obtain coverage under the SPDES General Permit, designated GP 0-10-001.

Sediment will not be transported off-site by stormwater runoff and, as a result of the erosion and sedimentation control measures and permit compliance that will be implemented during construction, no impact on local water quality is expected. However, should any sediment escape from the site, it will be swept back onto the site by manual or mechanical means (depending upon the amount of fugitive sediments) under the direction of the construction manager. It is expected that the erosion control plan will incorporate recommended measures of the NYSDEC Technical Guidance Manual, and use of measures such as:

- Silt fence, storm drain inlet protection, hay bales & good housekeeping procedures will be used;
- Construction equipment and vehicles will be parked and loaded/unloaded within the site;
- "Rumble strips" will be placed at the site entrance to prevent soil on truck tires from being tracked onto the public road system;

- The construction process will begin with establishment of flagged clearing limits, followed by installation of the erosion control measures;
- Construction of the structures can then begin concurrent with the utility connections. Once heavy construction is complete, finish grading will occur followed by soil preparation using topsoil mix, turf and installation of the landscaping, which will be performed while the structures are being completed; and
- The drainage system will further provide permanent stormwater controls once construction is completed.

Covenants and restrictions will be adopted for post construction stormwater management in accordance with the SWPPP. Maintenance of all permanent stormwater management controls and drainage structures will be the responsibility of the site owner upon the completion of construction activities. Routine maintenance responsibilities for permanent stormwater structures and practices include:

1. Monitoring of the drainage inlets should be completed routinely, particularly following rainfall events with significant rainfall (defined as 0.5 inches of rainfall over a 24 hour period, or greater is recommended as a minimum).
2. Drainage grates should be kept free from obstruction of leaves, trash, and other debris.
3. Drainage structures are to be initially inspected annually to determine if sediment removal is necessary to ensure drainage structures are properly functioning and permitting adequate conveyance throughout the system and establish the frequency of future maintenance.
4. All seeded and landscaped areas are to be maintained, reseeded, and mulched as necessary to maintain a dense vegetative cover.

NYS Route 110 will be used for all construction vehicle access. Construction activities will not occur between the hours of 8:00 PM and 7:00 AM as governed by Town regulations, and will conform to additional applicable Town regulations regarding construction noise generation and hours.

Site Operations and Solid Waste Removal

The proposed project involves multiple story residential buildings with two buildings having ground floor retail uses. The on-site facilities will be operated by a management company that will be responsible for snow removal, landscaping, grounds maintenance and related services.

The proposed development will utilize the Town Commercial Garbage District as required by the Town of Babylon. A Solid Waste Management Plan will be prepared for the proposed project to address bagged trash and recyclable materials (including cans, bottles, plastics and metals, as well as paper and cardboard) generated in residential apartments and in the retail stores. It is anticipated that each building will contain a utility room with access to a garbage compactor; however details of solid waste management will be coordinated with the Town of Babylon's Commercial Garbage District.

## 1.6 Permits and Approvals Required

A number of approvals will ultimately be required for the proposed project (see **Table 1-5**).

**Table 1-5**
**PERMITS AND APPROVALS REQUIRED**

| Issuing/Permitting Entity | Type of Permit/Approval |
|---|---|
| Town Board | Change of Zone Approval |
| Town Planning Board | Site Plan and Subdivision Approval, Change of Zone recommendation |
| Town Board of Appeals | Area & Use Variance Approvals (9 types of variances) (see note) |
| Town Building Department | Building Permit |
| SCDHS | Realty Subdivision review/approval |
| | |
| | Article 4 (water supply system design) review/approval |
| | Site Plan/Permit to Construct review/approval |
| SCPC | NYS General Municipal Law Section 239 review/approval |
| SCWA | Water Supply Connection Permit/approval |
| SCDPW | NYS Highway Law 136 & NYS General Municipal Law 239f review |
| | Connection to sewer district review/approval |
| NYSDEC | General Permit, Stormwater Discharge from Construction Activity |
| NYSDOT | Roadwork Permit |

Note: Permits and approvals are not necessarily in consecutive order.
Variances requested in order to achieve the design/use flexibility for this project include:

- Minimum lot area- 2 acres required; 1.664 acres provided (Phase 5)
- Use variance to allow business in MR Multiple Residence District (Phase 1)
- Front yard setback- 40 feet required; 8 feet provided (Phase 1), 5 feet and 8 feet provided (Phase 2), 10 feet and 16 feet provided (Phase 3), 17 feet, 24 feet and 25 feet provided (Phase 4), 5 feet and 15 feet provided (Phase 5)
- Side yard setback- 40 feet single yard/80 feet total required; 6.4 feet single yard provided (Phase 1), 10 feet single yard/77 feet total yard provided (Phase 3), 27 feet single yard provided (Phase 4), 15 feet single and total yard provided (Phase 5)
- Rear yard setback- 50 feet required, 0.20 feet and 11 feet provided (Phase 1)
- Height variance- 30 feet/2 ½ stories permitted; 48 feet/3 stories proposed (Phase 1), 46 feet/3 stories and 56 feet/4 stories proposed (Phase 2), 46 feet/3 stories proposed (Phase 3 & 5), 56 feet/4 stories proposed (Phase 4)
- Habitable floor area- No habitable space above the second story; habitable space provided on 3rd and 4th stories (Phase 1-5)
- Density of dwelling units on lot- 4,000 SF and 5,000 SF required for one and two-bedroom units, respectively; 1,402 SF provided for each (Phase 1), 1,150 SF provided for each (Phase 2), 1,777 SF provided for each (Phase 3), 1,665 SF provided for each (Phase 4), 1,611 SF provide for each (Phase 5)
- Parking variance- 1,372 spaces required, 790 total spaces provided

# SECTION 2.0

# NATURAL ENVIRONMENTAL RESOURCES

# 2.0 NATURAL ENVIRONMENTAL RESOURCES

## 2.1 Geological Resources

### 2.1.1 Existing Conditions

Topography

Review of topographic mapping as well as on-site reconnaissance reveals that the subject property maintains relatively flat topography (generally 0-2%) with an extremely limited slope from east to west. The general elevation of the site ranges from a maximum elevation of approximately 46.8 feet above mean sea level (msl) in the southwestern portion of the property to 39.0 feet in the southeastern portion of the property. The topography of the subject property and surrounding area is depicted in **Figure 2-1**.

Soils

The Soil Survey of Suffolk County, New York (**Warner et al., 1975**) provides a complete categorization, mapping and description of soil types found in the County. Soils are classified by similar characteristics and depositional history into soil series, which are in turn grouped into associations. These classifications are based on profiles of the surface soils down to the parent material, which is slightly changed by leaching and/or the action of plant roots. An understanding of soil character is important in environmental planning as it aids in determining vegetation type, slope, engineering properties and land use limitations. These descriptions are general, however, and soils can vary greatly within an area, particularly soils of glacial origin. The slope identifiers named in this subsection are generalized based upon regional soil types; the more detailed subsection on topography should be consulted for analysis of slope constraints.

The site lies within an area characterized by Haven-Riverhead association soils. The soils of this association are deep, rolling, nearly level to gently sloping, well drained, medium textured and moderately coarse textured soils on outwash plains.

A majority of the site (approximately 99%) is occupied by Rhb types soils (Riverhead and Haven soils, graded, 0-8%. However, small areas in the southeastern corner of the property are occupied by HaA type soils (Haven loam, 0-2% slopes). The locations and distributions of each soil type are depicted in **Figure 2-2**. Specific descriptions of these soils are as follows:

> Riverhead and Haven soils, graded, 0-8% slopes (RhB) – This soil type consists of areas of Riverhead sandy loam, Haven loam or both. These areas have been altered by grading operations for housing developments, shopping centers, industrial parks and other non-farm uses. These soil are generally on outwash plains and the areas are large and uniform. The hazard of erosion is slight and is only limited by moderate droughtiness. This soil is well suited to all crops and is extensively used for that purpose. Most areas in the western portion of the County are used for housing developments and industrial parks.
>
> Haven Loam 0-2% slopes (HaA) - This map unit consist of deep, well drained, medium textured soils that formed in a loamy or silty mantle over stratified coarse sand and gravel. Most of these areas are on outwash plains; some are on moraines and generally are on top of low-lying hills. The hazard of erosion is slight and internal drainage is good. Natural fertility is low.

The Soil Survey also provides information on the potential limitations to development that the soils may present. The constraints for the site's soils are summarized in **Table 2-1**. No severe limitations are exhibited by either soil and the features of each will not significantly affect development components specific to the proposed project. A moderate limitation to streets and parking lots is noted for RhB soils, however the subject property does not exhibit any significant topographic relief and as a result should not provide a restriction related to the development of the proposed project.

**Table 2-1**
**SOIL LIMITATIONS**

| Use | Haven Loam 0-2% slopes (HaA) | Riverhead and Haven soils, graded, 0 to 8% slopes (RhB) |
|---|---|---|
| **Soil features affecting:** | | |
| Highway location | Very shallow cuts have nonuniform subgrade in places on HaA component. No affects reported for Riverhead component. | |
| Embankment foundation | Strength generally adequate for high embankments; slight settlement for both Haven and Riverhead components. | |
| Foundations for low buildings | Low compressibility for both Haven and Riverhead components. | |
| Irrigation | No unfavorable features for Haven components. Moderate to rapid water intake for Riverhead component. | |
| **Limitations of the soil for:** | | |
| Sewage disposal fields | Slight | Slight |
| Homesites | | |
| Streets and parking lots | | Moderate: Slopes |
| Lawns and landscaping | | Slight |
| Paths & trails | | |
| Picnic & play areas | | |

Subsurface Geology

Long Island is located within the Atlantic Coastal Plain, a physiographic province in which substantial sediment deposits overlie the base, or bedrock **(Fuller, 1914).** The surface topography primarily reflects the glacial history of the Island and subsequent human activity. Understanding the geologic history and stratigraphy of Long Island is useful for relating potential impacts of the project to hydrogeologic resources and their importance in Long Island's future.

The bedrock which underlies Long Island slopes south and east at a rate of approximately 70 feet per mile, and the overlying sediments increase in thickness toward the south **(Jensen and Soren, 1974; Smolensky, et al., 1989).** The elevation of the top of bedrock is approximately 1,400 feet below sea level in the area of the site **(Smolensky, et al., 1989)**. Bedrock is probably of

Precambrian age, and is overlain by unconsolidated sediments of Cretaceous and Quaternary age. The Cretaceous sediments contain three major groundwater aquifers: the Lloyd, Magothy and Upper Glacial Aquifers. **Figure 2-3** provides a cross section of Long Island for a profile running from Long Island Sound to the Atlantic Ocean in the vicinity of the project site, with the approximate site location indicated **(Jensen and Soren, 1974).**

The primary Cretaceous sediments on Long Island are the Raritan and Magothy Formations, which were deposited atop bedrock during the mid to late Cretaceous period (138 to 65 million years ago) as a result of sediment transport from highlands to the north of the Island **(Koszalka, 1984).** The Raritan Formation consists of two members: the Lloyd Sand and the Raritan Clay. The Lloyd Sand contains the Lloyd aquifer, which is separated from the overlying Magothy aquifer by the low permeability Raritan Clay **(Sutter et al., 1949; Jensen and Soren, 1974).** The upper altitude of the Lloyd sand member is approximately 950 feet below sea level in the vicinity of the site, indicating a thickness of 450 feet, and the top of the Raritan clay is approximately 550 feet below sea level, indicating a thickness of 100 feet. The Magothy Formation and Matawan Group, which form the Magothy aquifer, were deposited in the late Cretaceous (approximately 75 million years ago) following a period of erosion of the Raritan clay. The base of the Magothy formation is composed of coarse sand, gravel and pebbles as large as 2 inches in diameter. These coarse sediments are interbedded with fine to clayey sands and solid clays. Locally thick clay beds have been traced to spans of up to one mile. At the site, the upper altitude of the Magothy Formation is approximately 50 feet below sea level, indicating a thickness of about 500 feet **(Smolensky et al., 1989).**

During the Tertiary period (65 to 2 million years ago) there was erosion of Cretaceous deposits over much of Long Island due to hydrologic processes such as stream formation. Sea level was low, and a large valley formed north of Long Island in what is now Long Island Sound. Most of the surface sediments evident on Long Island were deposited during the glacial advances of the Pleistocene epoch, Quaternary period (2 million years ago to 10,000 years ago). The Pleistocene was marked by cycles of glacial advance and subsequent retreat producing morainal and glaciofluvial (outwash) sediments on top of the Magothy Formation and Matawan Group. These Quaternary sediments, which consist of clay, silt, sand, gravel, and boulders, include both the Gardiners Clay and the Upper Glacial aquifer. The Ronkonkoma and Harbor Hills Terminal Moraines were deposited as part of this Upper Glacial deposit along the spine and the North Shore of Long Island as the glaciers retreated during the Wisconsin stage of the Late Pleistocene (approximately 25,000 to 10,000 years ago) **(Koszalka, 1984, p. 15).** Low, flat outwash plains formed southward as erosional processes carried sediments away from the moraines, and coastal processes formed barrier beaches along the south shore as sea level rose.

The project site is situated on the outwash plain deposits to the south of the Ronkonkoma and Harbor Hill Terminal Moraines (**Jensen and Soren, 1974**). The sediments of the moraine to the north typically consist of unsorted and unstratified clay, silt, sand, gravel, and boulders but can also include crudely to well-sorted, stratified glacial drift. In contrast, the glaciofluvial sediments of the outwash plains consist of fine to coarse sand and gravel. The surface elevation of the project site is approximately 45 feet above msl, and thus the thickness of the Upper Glacial aquifer is approximately 95 feet beneath the site.

### 2.1.2 Anticipated Impacts

Topography

Grading operations will be necessary throughout the proposed area of development (20.26 acres) to provide the infrastructure, foundation installation and appropriate surface areas to accommodate development. Overall, the property is relatively flat with slopes of less than 2%, and as erosion and/or sedimentation potential is limited and no significant topographic features will be altered. Current conditions include the existing mobile homes with no foundations or other substantial subsurface structures and below grade sanitary systems for the trailers and limited drainage. The site will be developed in phases such that abandonment and/or removal of surface improvements is completed followed by removal of subsurface structures. This will involve disturbance of most of the soils on site, which would be required regardless of land use.

Excavation will be required for new building foundations/basements. In general, it is proposed that all of the excavated soil within the site will be retained as fill for the building foundations, internal roadways and parking areas, as well as along the internal access driveways and utility excavations. The general grading strategy involves raising the grade of the site at a slope of approximately 2% from the east edge of NYS Route 110 towards the center of the site and back down at approximately 2% to the west edge of Geraldine Avenue in order to contain the required amount of stormwater runoff on-site. The intent of this grading plan is to increase the vertical space above the groundwater table to install the required subsurface stormwater containment. As a result fill will be required to be imported to the site to provide adequate elevations. Overall it is estimated that a total cut of 13,934 CY will be required as compared with 54,580 CY of fill. Using an 85% compaction factor which is applied to on-site cut which will be reused as site fill it is estimated that 42,735 CY [54,580 CY – (13,934 CY x 0.85) = 42,735 CY] of soil will need to be imported to the site to provide adequate surface areas for development. It is also expected that topsoil will be imported to the site in connection with the landscape plan in order to establish suitable soil enrichment for the 6.41 acres of proposed landscaped area.

A detailed grading and drainage plan will be prepared as part of the Site Plan application, subsequent to a decision on the requested change of zone. The Site Plan will undergo further review by the Town Planning Board approval prior to implementation. Refer to **Section 1.5** for a discussion of erosion-control measures to be taken during the construction period.

The drainage and grading plan will be designed to conform to Town regulations, which require the following:

- Stormwater runoff or natural drainage will not be diverted to overload existing drainage systems, create flooding or cause erosion or the need for additional drainage facilities on other private or public real property.
- Adequate drainage facilities for stormwater runoff shall be provided.
- Proposed slope embankments along adjoining property lines and street frontages shall have a slope not steeper than one foot on three feet (33 1/3 percent), unless an adequate stabilization or retaining wall is provided as approved by the Planning Board. All slopes shall be adequately stabilized with topsoil and seeding or other approved planting.

- The finished grade at a point no less than ten feet from the building shall be at least one foot below the lowest exterior opening in the foundation of the habitable portion of the structure, except that the finished grade may be no less than six inches at a point no less than 10 feet opposite open porches, patios and pedestrian ramps.
- Roof runoff from the buildings will connect to dry wells of adequate capacity as an outfall for rainfall roof runoff.

Demolition, clearing and grading will be done in phases coordinated with new development areas. Grading will be conducted internally within the site and will not impact adjacent properties with the possible exception of minor and temporary inconvenience on area roads and intermittent activity. All operations will be staged within the property so that only temporary access and use of public roads will occur. In addition, construction management techniques as outlined in **Section 1.5.2** will ensure that sedimentation and erosion control measures are implemented.

As discussed in **Section 1.5.2**, applicable erosion and sedimentation control guidelines are incorporated into the proposed project and will be observed during construction in order to minimize impacts. In accordance with the NYSDEC Phase II SPDES Program, coverage under the General Permit for Stormwater Discharges from Construction Activities (NYSDEC Permit No. GP 0-10-001) will be obtained prior to the initiation of construction activities. Prior to filing for coverage under the General Permit, the NYSDEC requires that a SWPPP be prepared for the parcel, including a detailed erosion and sediment control plan, to manage stormwater generated on-site during construction activities, and for post-construction stormwater management, to be certified by the Town of Babylon. A SWPPP will be prepared to ensure compliance with water quality and quantity requirements pursuant to Technical Guidance and GP 0-10-001 and Town of Babylon Chapter 189 requirements. The NOI requesting coverage under the General Permit will be reviewed by the Town prior to filing in accordance NYSDEC requirements and prior to the initiation of construction activities at the property.

In summary, grading operations are not anticipated to result in significant adverse impacts, particularly in view of the implementation of the mitigation measures identified in **Section 2.1.3**. The grading envisioned will be the minimum necessary to provide for the proposed development. An engineered Grading and Drainage Plan will be subject to review by the Town. Erosion control and stormwater pollution prevention measures will ensure that adverse impacts are minimized to the maximum extent practicable. As a result, no significant adverse impacts to natural topography are expected.

<u>Soils</u>

Approximately 99% of the property is occupied by RhB soils with the remaining 1% consisting of HaA soils. RhB soils, by definition, are soils that have been altered for prior development. No severe limitations are exhibited by either soil and the features of each will not significantly affect the development components specific to the proposed project. A moderate limitation to streets and parking lots is noted for RhB soils, however the subject property does not exhibit any significant topographic relief and as a result should not provide a restriction related to the development of the proposed project.

As discussed in **Section 1.5**, applicable erosion and sedimentation control guidelines will be observed during construction of the proposed project in order to minimize impacts.

Subsurface Geology

The **Overall Site Layout Plan** depicts the extent and details of grading to be performed on the project site. It is anticipated that the entire site will be subject to clearing and grading operations. The acreage to be graded is comprised of (see **Table 1-3**): 13.85 acres of paved/impervious surfaces and 6.41 acres of landscape vegetation.

As noted, the removal of subsurface infrastructure (sanitary and drainage systems) would necessitate subsurface disturbance of nearly the entire site, regardless of proposed use. The proposed project will backfill and grade the site to an elevation that will accommodate the proposed development. During the grading operation, truck traffic to and from the site will be routed along NYS Route 110; and truck staging will occur within the site in proximity to the grading area, to minimize the amount of truck movements, thereby minimizing the potential for raising dust.

Test hole borings will be conducted to determine the underlying subsoils suitability for leaching and soil bearing capacity prior to any site plan or subdivision approvals from the Town Planning Board or SCDHS. Based on the surface soil characterization, and the location of the site within the outwash plain consisting of fine to coarse sand and gravel, subsoils are expected to exhibit adequate leaching qualities. Any subsurface material encountered during site grading will be removed and backfilled with clean material to promote proper leaching of stormwater and sanitary effluent.

No significant long-term adverse impacts are expected with respect to subsurface soils once the existing conditions are remedied and site development is established. Short-term impacts will be controlled by proper grading, erosion control, construction management and site stabilization techniques that will be employed as described in detail in **Section 1.5.2** of this document.

### 2.1.3 Proposed Mitigation

- Following approval for the Change of Zone, a detailed grading and drainage plan will be prepared and submitted to the Town for approval.
- Test holes will be required prior to any site plan approvals from the Town Planning Board as part of the drainage design review. This will permit evaluation of soils in conjunction with detailed grading and drainage final design. Unsuitable material is not expected based known regional conditions, however, if encountered, any such material will be removed and backfilled with clean material to promote proper leaching of stormwater and sanitary effluent.
- Short-term impacts will be controlled by proper grading, erosion control, construction management and site stabilization techniques.
- Dust raised during grading operations will be minimized and controlled by the use of water sprays, truck cleaning stations at the construction exit, and implementation of any dust suppression systems specified by the appropriate Town agencies.
- Truck routes to and from the site will be limited to NYS Route 110 thereby minimizing noise, dust and potential safety impacts to residential communities adjacent to the site.

- Erosion control measures such as staked hay bales, silt fences, groundcovers (vegetative or artificial), drainage diversions, minimizing the area of soil exposed to erosive elements at one time, and minimizing the time span that soil is exposed to erosive elements, will be utilized to minimize loss of soil during construction, particularly in locations where erosion and sedimentation could adversely impact adjoining properties and streets. Applicable Town of Babylon standards and construction practices specified by the appropriate Town agencies will be followed.
- Conformance with NYSDEC requirements for the SPDES GP 0-10-001 permit and Town of Babylon Chapter 189, including preparation of an SWPPP, will ensure that the potential for erosion impacts during construction will be minimized.

## 2.2 Water Resources

### 2.2.1 Existing Conditions

Surface Water and Drainage

In general, precipitation that falls on the site infiltrates downward through soils (except that portion which is subject to evapotranspiration), is directed to limited drainage systems within the site or flows along the land surface downslope in a direction perpendicular to the topographic contours of the property and adjacent lands. The site currently contains 18.24 acres of roads, buildings or other paved surfaces, and consequently generates substantial runoff that is not controlled on site as would be required of new development. There are no regulated or unregulated wetlands or surface water bodies on or tributaries to or from the Site.

Hydrogeologic Conditions

Groundwater on Long Island is derived from precipitation, sanitary discharge, and irrigation, each of which enters the subsurface in the form of recharge. This recharge water passes through the unsaturated zone to the water table, which marks the upper surface of saturated soils that comprise the Upper Glacial aquifer. Generally, the water table underlying Long Island forms a linear mound of groundwater that crests under the central portion of the Island. The apex of this crest forms an east-west trending ridge in the water table, known as the groundwater divide that gradually slopes downward towards the north and south shores of Long Island. The configuration of this groundwater mound creates a hydraulic gradient, which causes groundwater to flow downslope under gravity in a direction perpendicular to contours of equal elevation (generally toward the north and south shores) as they descend from the groundwater divide. In addition to horizontal flow, water flow within the central and inland portions of the Island is characterized by a deep flow system which exhibits a generally vertical component that provides recharge to the deeper Magothy and Lloyd aquifers, before flowing to the north and south shores in these deeper aquifers. Groundwater recharge along the shorelines tends to flow horizontally in a shallow flow system through the Upper Glacial aquifer and eventually discharges from subsurface systems into streams or marine surface waters (**Krulikas, 1986**).

Groundwater underlying the site lies at an elevation of approximately 34 feet above msl. The topographic elevation of the site varies between 39 feet and 46.8 feet above msl, for a median elevation of 42.9 feet. This indicates that the depth to the groundwater table beneath the site varies from 5 feet and 12.8 feet, for an average of 8.9 feet. Regionally, groundwater is assumed to flow in a southerly direction (see **Figure 2-4**). Movement of water through the deposits of

each aquifer is a function of their hydraulic conductivity, which is an expression of the ability of these deposits to transmit water. According to Franke and Cohen (**1972**), the horizontal and vertical hydraulic conductivity of Upper Glacial deposits is 270 feet per day (fpd) and 27 fpd, respectively. The hydraulic conductivity within the Magothy and Lloyd aquifer is significantly less than that present in the Upper Glacial aquifer with both exhibiting a horizontal conductivity ranging from 40 to 50 fpd and a vertical hydraulic conductivity ranging from 0.001 to 1.4 fpd.

Water Balance

The groundwater budget for an area is expressed in the hydrologic budget equation, which states that recharge equals precipitation minus evapotranspiration plus overland runoff. This indicates that not all rain falling on the land is recharged. Loss in recharge is represented by the sum of evapotranspiration and overland runoff. The equation for this concept is expressed as follows:

$$R = P - (E + Q)$$

where: R = recharge
P = precipitation
E = evapotranspiration
Q = overland runoff

Nelson, Pope & Voorhis, LLC (NP&V) maintains a microcomputer model developed for its exclusive use in predicting both the water budget of a site and the concentration of nitrogen in recharge. The model, named SONIR (Simulation Of Nitrogen In Recharge), utilizes a mass-balance concept to determine the nitrogen concentration in recharge. Critical in the determination of nitrogen concentration is a detailed analysis of the various components of the hydrologic water budget, including recharge, precipitation, evapotranspiration and overland runoff.

The SONIR model includes four sheets of computations: 1) Data Input Field; 2) Site Recharge Computations; 3) Site Nitrogen Budget; and 4) Final Computations. All information required by the SONIR model is input in Sheet 1. Sheets 2 and 3 utilize data from Sheet 1 to compute the Site Recharge and the Site Nitrogen Budget. Sheet 4 utilizes the total values from Sheets 2 and 3 to perform the final Nitrogen in Recharge computations. Sheet 4 also includes tabulations of all conversion factors utilized in the model.

It should be noted that the simulation is only as accurate as the data that is input into the model. An understanding of hydrologic principles is necessary to determine and justify much of the data inputs used for water budget parameters. Further principles of environmental science and engineering are applied in determining nitrogen sources, application and discharge rates, degradation and losses, and final recharge. Users must apply caution in arriving at assumptions in order to ensure justifiable results. There are a number of variables, values and assumptions concerning hydrologic principles that are discussed in detail in a user's manual developed for the SONIR model and provided in **Appendix C-1**. Also included are the references used to derive data and hydrologic principles.

The SONIR model was run to obtain the existing recharge budget. The run was based on current site conditions and coverages (see **Table 1-3**), which include 1.82 acres of landscape vegetation,

0.20 acres of unvegetated surfaces and 18.24 acres of impervious coverage (buildings and pavement). The 20.26-acre site currently has a total recharge of 40.05 MGY; the results of this analysis are presented in **Appendix C-2**.

## Groundwater Quality

### Existing Data

No groundwater quality data was available for the Upper Glacial aquifer in the vicinity of the subject property. Existing literature was researched to establish groundwater quality conditions in the area.

The SCWA was contacted for groundwater quality data within the vicinity of the subject property. Review of the information provided revealed that the nearest water supply well consists of the Great Neck Road Well Field and Pump Station which is locate approximately one-half mile east of the subject property (**Figure 2-5**). Review of raw groundwater results for samples collected prior to treatment revealed that the quality of groundwater retrieved from this aquifer is generally good with compound/parameter concentrations within regulatory ranges or standards. Tables summarizing the detected compounds and their concentrations for samples collected during 2010 are provided in **Appendix D**.

### Nitrogen Recharge

The SONIR model results (**Appendix C-2**) indicate a predicted nitrate (as nitrogen) concentration in recharge of 10.43 mg/l for existing site conditions. As the NYS Drinking Water standard for nitrogen is 10 mg/l, the recharge generated on-site represents a significant adverse impact on groundwater quality. This due to the condition that the existing mobile home park is not connected to private or municipal sanitary waste treatment systems, even though it significantly exceeds the allowable flow established under Article 6 of the Suffolk County Sanitary Code (SCSC) and has numerous pending violations issued with respect to sanitary code compliance.

### Water Resource Plans

*208 Study* - The Long Island Regional Planning Board, in conjunction with other agencies, prepared a management plan for Long Island groundwater resources in 1978 under a program funded by Section 208 of the 1972 Federal Water Pollution Control Act Amendments. The purpose of the 208 Study was to investigate waste disposal options and best practice for ground and surface water protection. The study delineated Hydrogeologic Zones for the formulation of management plans based on groundwater flow patterns and quality (**Koppelman, 1978**). The site is located in Groundwater Management Zone VII, a zone which is likely to contribute water only to the shallow groundwater flow system. This flow system discharges to streams and saltwater bays, and hence will affect the quality of surface water. Specifically, flow from zone VII discharges into the Nassau County south Shore bays, and will have an impact on marine water quality.

Stormwater runoff is the vehicle by which pollutants move across land and through the soil to groundwater or surface waters. Contaminants accumulate or are disposed of on land and

developed surfaces. Sources of contaminants include:

- animal wastes;
- highway deicing materials;
- decay products of vegetation and animal matter;
- fertilizers;
- pesticides;
- air-borne contaminants deposited by gravity, wind or rainfall;
- general urban refuse;
- by-products of industry and urban development; and
- improper storage and disposal of toxic and hazardous material.

It has been recommended that Zone VII be protected through the expansion of sewering and the control of stormwater runoff.

*Nationwide Urban Runoff Program (NURP Study)* - In 1982, the Long Island Regional Planning Board prepared the LI Segment of the NURP Study (**Koppelman, 1982**). This program attempted to address, among other things, the following:

- the actual proportion of the total pollutant loading that can be attributed to stormwater runoff, given the presence of other point and non-point sources and conditions within the receiving waters;

The purpose of the NURP Study, carried out by the US Geological Survey, was to determine:

- the source, type, quantity, and fate of pollutants in stormwater runoff routed to recharge basins; and
- the extent to which these pollutants are, or are not attenuated as they percolate through the unsaturated zone.

In order to accomplish this, five recharge basins, located in areas with distinct land use types, were selected for intensive monitoring during and immediately following storm events. Five recharge basins, three in Nassau and two in Suffolk, were chosen for the study on the basis of type of land use from which they receive stormwater runoff. While this document and the testing conducted dates back to 1982, it is a useful reference given the comprehensive nature of the sampling of sediments from recharge facilities of various land use types. There are no more up-to-date references that resulted in the generation of such comprehensive empirical data for various land use practices on Long Island. The following is a listing and description of each drainage area:

| Site Location | Land Use |
|---|---|
| Centereach | Strip Commercial |
| Huntington | Shopping Mall, Parking Lot |
| Laurel Hollow | Low Density Residential (1 acre zoning) |
| Plainview | Major Highway |
| Syosset | Medium Density Residential (1/4 acre zoning) |

The land use included in the NURP report that is most like the proposed use would be medium density residential (the Syosset site was the example analyzed). The empirical data generated by the NURP study results for this land use type are shown in **Table 2-2**.

**Table 2-2**
**STORMWATER IMPACTS FROM LAND USE**
NURP Study, Syosset (Medium Density Residential)

| Parameter | Medium Density | Standard |
|---|---|---|
| Spec. Cond (umhos) | 104 | [n] |
| pH | 5.1 | 6.5-8.5 |
| Turbidity (NTU) | 26 | 5 |
| Hardness (mg/l) | 16.5 | [n] |
| Calcium (mg/l) | 4.85 | [n] |
| Magnesium (mg/l) | 1.2 | [n] |
| Sodium (mg/l) | 4.25 | [n] |
| Potassium (mg/l) | 1.4 | [n] |
| Sulfate (mg/l) | 7.05 | 250 |
| Fluoride (mg/l) | 0.1 | 1.5 |
| Chloride (mg/l) | 7.3 | 250 |
| Nitrogen-Total (mg/l) | 2.55 | 10 |
| Phosphorus (mg/l) | 0.010 | [n] |
| Cadmium (ug/l) | 2.5 | 10 |
| Chromium (ug/l) | 1.0 | 50 |
| Lead (ug/l) | 6.0 | 50 |
| Arsenic (ug/l) | 0.0 | 25 |
| Coliform (MPN) | 13.0 | [n] |
| Coliform, fecal | 3.0 | [n] |

**Source:** Koppelman, 1982, p. 26-29
[n] - no standard for parameter

None of the parameters examined within the NURP Study violated the standards for the reported constituents at the studied site, with the exception of turbidity and pH. As expected, slightly elevated levels of heavy metals were detected; however, their concentrations were significantly reduced through attenuation and did not exceed standards. Chloride concentrations generally increase by two orders of magnitude during the winter months. Chloride is not attenuated in soils like lead and chromium (**Koppelman, 1982**), and thus it is anticipated that the amount of chloride contributed to groundwater will be correlated with the amount of salt applied to roadways and parking areas within the stormwater drainage area. Nitrogen was detected at a concentration of 2.55 mg/l, which is less than the drinking water standard of 10 mg/l. However, this elevated concentration likely the result of sanitary discharges and fertilization practices conducted at the time of testing. This exemplifies the need for control of landscape practices and determination of fertilizer (including nitrogen) application on a site-specific basis as well as treatment of sanitary discharges. These analyses are conducted for the proposed project and documented in Section **2.3.2.** Finally, coliform and fecal streptococcal indicator bacteria are removed from stormwater as it infiltrates through the soil.

Based on the sampling program, the NURP Study reached the following relevant findings and conclusions:

Finding: Stormwater runoff concentrations of most of the inorganic chemical constituents for which analyses were performed were generally low. In most cases, they fell within the permissible ranges for potable water; however, there were two notable exceptions:

- median lead concentrations in stormwater runoff samples collected at the recharge basin draining a major highway (Plainview) consistently exceeded the drinking water standards;
- chloride concentrations in stormwater runoff samples generally increase two orders of magnitude during the winter months.

Conclusion: In general, with the exception of lead and chloride, the concentrations of inorganic chemicals measured in stormwater runoff do not have the potential to adversely affect groundwater quality.

Finding: The number of coliform and fecal streptococcal indicator bacteria in stormwater range from $10^0$ MPN [most probable number] to $10^{10}$ MPN per acre per inch of precipitation.

Conclusion: Coliform and fecal streptococcal indicator bacteria are removed from stormwater as it infiltrates through the soil.

The handling of stormwater for the proposed use and potential impact on groundwater will be considered in **Section 2.2.2**.

*SCCWRMP (1987), and SCDHS Studies* - The SCDHS is presently updating its Suffolk County Comprehensive Water Resources Management Plan **(SCCWRMP; 1987)** in order to reflect more recent development trends, resource plans and studies, and government programs and regulations pertinent to water supply and water resource protection.

The original SCCWRMP provides information on water quality from 0 to 400 feet below the water table, based upon observation as well as public and private water supply and well monitoring. The 0-100 foot interval was provided as the "shallow" groundwater depth interval, and the 100-400 foot interval was provided as the "deep" groundwater depth interval. These were based primarily on available data, with private well data providing the majority of the data for the 0-100 foot interval, and public water supply wells providing data for 100-400 feet. The general area in proximity to the property is depicted as having good water quality with respect to nitrate-nitrogen (0-6 mg/l) at between 0 and 100 feet. With regard to organic compounds, SCDHS water quality data presented in the SCCWRMP indicates that VOC levels at 0-100 feet below the water table are good (this category was created to represent generalized data where results were less than 60% of standard) and found not to exceed drinking water standards the majority of the time (per the category description in the SCCWRMP). For the "deep" interval, no elevated concentrations of nitrogen or VOC's were detected. Water quality data used in this study dates back to before 1987 and the source of contamination noted is not known.

The SCDHS conducted the eighteen-month SCCWRMP to study the impact that pesticides have had on the groundwater. This study obtained water quality information from across the full

geographic area of Nassau and Suffolk Counties in order to identify if any pesticides and metabolites had leached into the groundwater. The data from the wells in Nassau County and the five western towns of Suffolk County show that only 1.5 and 2.0%, respectively, exceeded the pesticide related drinking water maximum contaminant levels (MCL) and 15.4% of the wells in the five eastern Suffolk towns exceeded the MCL. Private wells in the five eastern towns are at the highest risk of pesticides contamination. Maps provided in the appendix of the SCDHS study provide data for specific geographic locations and revealed the subject property is not located in the vicinity of any wells that are contaminated with pesticides.

### 2.2.2 Anticipated Impacts

Surface Water and Drainage

As stated in **Section 2.2.1**, there are no natural surface water bodies or wetlands on or tributaries to or from the site. As a result, no such surface waters will be impacted by the proposed project. It is noted that the site contains a greater quantity of impervious surfaces under current conditions than under proposed conditions (see **Table 1-3**). As a result, the quantity of runoff generated on site will be decreased as a result of the proposed project and installation of new drainage systems to current design standards will ensure retention of drainage on the site thus improving current conditions which allow for transport of stormwater off the site.

In conformance with Town requirements, stormwater runoff generated from the proposed project will be retained on-site and recharged to groundwater (see Conceptual Plan). The drainage system will be designed to accommodate at least 2 inches of storage. A detailed grading and drainage plan will be prepared as part of the Site Plan application, subsequent to a decision on the requested change of zone. The Town will be responsible for the review and approval of the drainage design, to be conducted during site plan review. Refer to **Section 1.5** for a discussion of erosion-control measures to be taken during the construction period.

The drainage system will be designed to comply with SPDES requirements under NYSDEC SPDES General Permit for Stormwater Discharges from Construction Activity (GP 0-10-001 or "General Permit") and Chapter 189 of the Babylon Town Code. Under these requirements, a site-specific Stormwater Pollution Prevention Plan (SWPPP) must be prepared and submitted to the Town for review and approval as a condition to final subdivision approval. The SWPPP evaluates the proposed drainage system to ensure that it meets the NYSDEC and Town requirements for treatment and retention of stormwater runoff. The SWPPP must demonstrate that the proposed stormwater management system is sized adequately to ensure that there is no net increase in peak stormwater discharges from a property once developed.

Additionally, the SWPPP includes details of erosion controls required during construction to contain stormwater runoff on site during construction and ensure that there is no transport of sediment off site. The Erosion Control Plan will be prepared in accordance with the recommendations of the *NYSDEC Standards and Specifications for Erosion and Sedimentation Control* and the NYSDEC Technical Guidance Manual. Use will be made of measures including:

- silt fencing and temporary diversion swales installed along the perimeter of the limits of clearing

within the site to minimize/prevent sediment from washing into the natural buffer areas, adjacent streets and properties.
- inlet protection installed around all grated drainage inlets to trap sediments in stormwater runoff.
- dust control and watering plan and a stabilized construction entrance to minimize the tracking of dirt and debris from construction vehicles onto adjacent roadways.
- designation of material and topsoil stockpile areas as well as use of silt fencing and anchored tarps to prevent/reduce wind-blown dust and erosion from rainwater.
- establishment of a stabilized stone vehicle washing station which drains into an approved sediment-trapping device.

The proposed locations, sizes, and lengths of each of the temporary erosion and sediment control practices planned during site construction activities, and the dimensions, material specifications, and installation details for all erosion and sediment control practices will also be provided on the Erosion Control Plan.

The drainage system and associated SWPPP will be fully designed for the Site Plan application (prepared subsequent to issuance of the change of zone), and will require the review and approval of Town engineering and the Planning Board. Evaluation of the drainage system through preparation of the SWPPP analysis required pursuant to Chapter 189 of the Town Code and the NYSDEC General Permit ensures there will be no net increase in stormwater runoff generated by the proposed project. As noted, the project will decrease generation of stormwater by reducing impervious surfaces and the drainage design to current requirements will ensure that stormwater is retained on site.

As noted in **Section 1.4.2**, the Town will receive a Site Plan application with full grading and drainage plans for review subsequent to the change of zone. Statements herein represent the applicant's intent with respect to drainage design and will be subject to review and approval by the Engineering Division and Planning Board.

The potential for impacts to water resources during the construction period will be minimized by implementing the mitigation measures required in the SWPPP, to be prepared by the applicant and reviewed and approved by the Town of Babylon as well as filing with NYSDEC under the general GP 0-10-001 SPDES permit.

Hydrogeologic Conditions

The average depth to water ranges from approximately 5 to 12.8 feet below ground surface in the proposed development portions of the Site. Regionally groundwater is observed to flow in a southerly direction. The site has depth to groundwater limitations that will be addressed by addition of fill ensure that leaching of stormwater recharge will occur efficiently. Existing stormwater is not completely contained on site, therefore the installation of drainage systems that will contain and recharge runoff on-site will improve hydrologic conditions by recharging stormwater at the point of origin. In addition, the quantity of stormwater generated on-site will be reduced by reduction of impervious surfaces proposed in connection with the proposed project. Furthermore, the proposed project will remove all on-site sanitary systems, and wastewater will be routed to the nearest existing sewer mains of the SWSD 3 for treatment in a municipal wastewater treatment facility. This will reduce the hydraulic load of the existing sanitary systems.

Article 6 of the SCSC addresses sewage facility requirements for realty subdivisions, development and other construction projects in order to limit the loading of nitrogen in various groundwater management zones as established by the SCDHS. As promulgated under Article 6, a Population Density Equivalent must be determined for the Site in order to determine the type of sewage disposal system required for the proposed project. This equivalent (or total allowable flow) is then compared to the design sewage flow for the project. If the project's design sewage flow exceeds the Population Density Equivalent, a community sewerage system or on-lot sewage treatment system is required. If the project's design sewage flow is less than the Site's Population Density Equivalent, a conventional subsurface sewage disposal system may be used, provided individual systems comply with the current design standards and no community sewerage system is available or accessible. However, the location of the subject site within an existing sewer district requires that all sanitary wastewater generated by the project be conveyed to the Suffolk County Sewer District 3, the Bergen Point STP.

Water Resources Plans & Studies

*208 Study* - The Site is located in Groundwater Management Zone VII. In this zone, much of the area is in higher density, primarily non-agricultural, land use. This designation allows development of the property in accordance with all applicable zoning regulations as long as it is compatible with other property uses in the region. It is recommended in the 208 Study that development in this zone utilize public sewers if available, or provide for wastewater collection/treatment where the wastewater generation rate is 600 gpd/ac or more. Therefore, as noted above, the proposed development will direct all sanitary wastewater to the SWSD 3, the Bergen Point STP. In addition, the 208 Study recommends: 1) that stormwater runoff be controlled on-site by preventing sediments, nutrients, metals, organic chemicals and bacteria from reaching surface and, eventually, ground waters.

In consideration of the above, the proposed project is designed to implement those recommendations of the 208 Study that involve groundwater protection and best management practice for protection of water supply and management of wastewater, and therefore no adverse impacts are anticipated.

*NURP Study* - It is noted that the site contains a greater quantity of impervious surfaces under current conditions than under proposed conditions (see **Table 1-3**). As a result, the quantity of runoff generated on site will be decreased as a result of the proposed project.

In conformance with Town of Babylon requirements, all stormwater runoff generated by impervious surfaces will be retained on-site, and would be recharged to groundwater (see Phase 1-5 Site Layout Plans, in a pouch at the end of this document). The drainage system will be designed to accommodate at least 2 inches of storage. The Town will be responsible for the review and approval of the drainage design, to be conducted during site plan review.

The drainage system will be designed to comply with State Pollutant Discharge Elimination System (SPDES) requirements under New York State Department of Environmental Conservation (NYSDEC) SPDES General Permit for Stormwater Discharges from Construction Activity (GP 0-10-001 or "General Permit") and Chapter 189 of the Town Code.

Based on information presented in the NURP Study, this is an appropriate means of handling stormwater. It is noted that the Syosset site did exhibit nitrogen concentrations of 2.55 mg/l in sediments associated with recharge facilities. While this is less than the drinking water standard for nitrogen of 10 mg/l, it is important to consider stormwater as a source of nitrogen in overall site recharge. The proposed project is in conformance with the applicable recommendations of the NURP Study in regard to the proposed stormwater recharge system and further evaluation of overall site recharge is provided in subsequent subsections to examine potential impacts in more detail.

Based upon information presented in the NURP Study, the decreased recharge volume (discussed in detail below) is not anticipated to contain significant concentrations of pollutants. As noted above, in conformance with Town requirements, all stormwater runoff generated by impervious surfaces will be retained on-site, and would infiltrate surface detention systems and subsequently be recharged to groundwater via a network of stormwater catch basins and leaching pools. The NURP Study found that any organic chemicals that may be present in stormwater generally volatilize on surfaces, and inorganic chemicals and bacteriological indicators are removed as recharge infiltrates through soil.

Based on project design through use of the stormwater system noted above, the proposed development of the site is not expected to have a significant impact to groundwater resources underlying the Property and surrounding area as related to the recharge of stormwater runoff.

Water Balance

Utilizing the same mass balance model described in **Section 2.2.1**, the volume of water recharged by the proposed project, and its associated nitrogen concentration were computed. Based on the SONIR model results, the total volume of water recharged on-site will decrease by 54.9%. It is anticipated that the project will recharge approximately 18.05 MGY, which is a decrease of 22.00 MGY over the existing on site recharge of 40.05 MGY.

It is not anticipated that this volume will be sufficient to adversely impact hydrologic conditions beneath the site, since it will reduce the existing volume of water recharged on the site or within the area. As a result, no significant mounding of the water table from this decrease in recharge volume is expected, so no change in the direction of existing groundwater flow would result.

Nitrogen Budget

Based on the SONIR model results presented in **Appendix C-3**, it is anticipated that the concentration of nitrates (as nitrogen) generated on-site will be decrease by the proposed project, due primarily to the reduced volume of nitrogen-bearing sanitary recharge which will be transferred to a municipal sewage treatment facility. This anticipated value is calculated at 0.61 mg/l, representing a decrease from the existing level of 10.43 mg/l. This anticipated concentration is well below the NYSDEC drinking water standard of 10 mg/l, and is less than the target range nitrogen for this Groundwater Management Zone based on the 208 Study and SCSC Article 6. Therefore the proposed project is not expected to result in significant adverse effects to groundwater quality with regard to nitrogen loading and in fact will result in a benefit as compared with existing conditions.

Groundwater Quality

The proposed project will consist of a mix of residential and retail uses and is not expected to result in the use, generation or disposal of toxic substances that may be discharged to the subsurface. Retail uses do not typically use or store significant quantities of toxic or hazardous materials (as compared with industrial use). Small containers of store bought cleaners may be expected to be used by business occupants of the site. The project will be required to comply with the regulations and restrictions outlined in Articles 6, 7 and 12 of the SCSC. Based on the results presented above related to sanitary discharges and compliance with the land use studies noted, the proposed project is not expected to have a significant adverse impact on the quality of groundwater underlying the site and in the surrounding area.

### 2.2.3 Proposed Mitigation

- The proposed project is designed to conform to those recommendations of the 208 Study that involve groundwater protection and best management practice for protection of water supply and management of wastewater, specifically including the following measures:
  - Project does not conform to sanitary density restrictions equivalent to 600 gallons per acre, however municipal sewage treatment will be provided;
  - ensure proper stormwater management practices through recharge of stormwater with sufficient depth to groundwater to attenuate pollutants;
  - ensure proper storage and handling of toxic and/or hazardous materials;
  - limit fertilizer dependent vegetation if possible or were applicable to reduce application of fertilizers.
- In conformance with the Town of Babylon requirements, all stormwater runoff generated on developed surfaces will be retained on-site, to be recharged to groundwater through the proposed leaching pools.
- The proposed project conforms to the recommendations of the NURP Study with respect to stormwater handling.
- Adherence to the proposed SWPPP (to be prepared for the SPDES GP-0-10-001 permit, and would include an erosion control plan) would ensure that stormwater generated during the construction period is controlled, and that erosion and its associated impacts is minimized.

## 2.3 Ecology

### 2.3.1 Existing Conditions

Vegetation

The project site is entirely developed with impervious surfaces (internal roadways, trailers and on site buildings) and small areas of landscaping. NYS Route 110 and commercial development occurs to the north and west, and residential development occurs to the east and south. All of the land in the vicinity of the proposed project is currently developed.

The 20.26 acre subject parcel was inspected on April 14, 2011. The property can best be described as containing developed area, with a small area of mowed lawn, as defined by the classification system developed by the NYSDEC (Edinger *et al.*, 2002). Structures on site

include maintenance and storage buildings and individual trailers. The existing site habitat quantities as determined by aerial photography and field inspections by NP&V are presented in **Table 2-3**. Below is a detailed description of the habitat types found on site along with a list of species present or expected on the site.

**Table 2-3**
**HABITAT QUANTITIES**
Existing Conditions

| Coverage Type | Quantity | |
|---|---|---|
| | Acres | % of site |
| Roads, Buildings, Paved Surfaces | 18.24 | 90.03% |
| Unvegetated | 0.20 | 0.99% |
| Landscaping | 1.82 | 8.98% |
| **TOTALS** | **20.26** | **100.0%** |

The nearest NYSDEC-regulated freshwater wetland is located approximately 6,800 feet to the west of the subject site and is identified as wetland number A-2, which is associated with Massapequa Creek.

**Edinger** (**2001**) defines Mowed Lawn as *"residential, recreational, or commercial land, or unpaved airport runways in which the groundcover is dominated by clipped grasses and there is less than 30% cover of trees. Ornamental and/or native shrubs may be present, usually with less than 50% cover. The groundcover is maintained by mowing."* It is noted that as this habitat consists of primarily introduced species, it provides little ecological value to the area. Few trees were noted on site, and shrubs present included forsythia and yew bushes. The remainder of the site consisted of mowed, low growing vegetation.

Rare and Endangered Plant Species Potential

No rare, threatened or endangered plants were observed on site. The N.Y. Natural Heritage Program (ECL 9-1503) was contacted to determine if there is any record of rare plants, habitats or wildlife in the vicinity. The Natural Heritage Program has one historical record of an endangered plant located within the vicinity of the subject property. No significant natural communities were identified as being located on or in the vicinity of the subject site. A summary of this species and its potential for occurring on the property is provided below. Correspondence with the Natural Heritage Program is contained in **Appendix E-1**.

Hyssop-skullcap (*Scutellaria integrifolia*) is an endangered forb/herb plant that prefers open clearings and wooded edges. The last report of this species was located in the general area of Farmingdale in July 1899. As the subject site contains no natural habitat and the species has not been identified in the vicinity of the project in over 100 years, the species is unlikely to be found on the site.

No "exploitably vulnerable" species were observed within the woodland on the property. "Exploitably vulnerable" plants are species which are not currently threatened or endangered, but which are commonly collected for flower arrangements or other uses. Under ECL 1503.3, no

person may "*knowingly pick, pluck, sever, damage by the application of herbicides or defoliants or carry, without the consent of the owner thereof, protected plants"* (**NYSDEC, 1975**). As per this section of the ECL the project sponsor (i.e. owner) would not be restricted in utilizing the site for the intended purpose. Therefore, the presence of protected plants would not restrict use of the site under the NYS Environmental Conservation Law.

Wildlife

Relatively few wildlife species are anticipated to utilize the site due to the lack of habitat present. It is anticipated that species that are tolerant of human activity and have adapted to development would be present in the surrounding area. Species that avoid humans and/or those species that are sensitive to development are less likely to inhabit the site. The following paragraphs describe the wildlife observed or expected on site.

*Birds* - Avian species which might be expected on the property include a variety of blackbirds, doves, starling, robins, jays and sparrows. The subject site is not expected to be critical habitat for any avian species utilizing the site.

During the April 2011 site visit, a robin was observed in one of the trees on site. In order to provide a more detailed representation of the avian species potentially present on site, the NYS Breeding Bird Atlas was reviewed to obtain data from the 2000-2005 Breeding Bird Survey for the census block encompassing the subject parcel (**Appendix E-2**). This study surveyed the entire State by 25 km² census blocks over a five-year period (2000 to 2004) to determine the bird species which breed within the State. Most of the species listed by the NYSDEC breeding bird survey are not likely to be found on site due to the lack of habitat. No unique species or species of special concern are expected given the surrounding site uses.

**Table 2-4** is a list of the bird species observed or expected on site given the habitats present; it is based upon the field investigation conducted by NP&V during April 2011.

**TABLE 2-4**
**BIRD SPECIES**

| | |
|---|---|
| American crow | *Corvus brachyrhynchos* |
| *American robin | *Turdus migratorius* |
| barn swallow | *Hirundo rustica* |
| blue jay | *Cyanocitta cristatta* |
| chimney swift | *Chaetura pelagica* |
| European starling | *Sturnus vulgaris* |
| gray catbird | *Dumetella carolinensis* |
| house sparrow | *Passer domesticus* |
| house wren | *Troglodytes aedon* |
| mourning dove | *Zenaida macroura* |
| Northern cardinal | *Cardinalis cardinalis* |
| Northern mockingbird | *Mimus polyglottos* |
| rock dove | *Columba livia* |

*Species observed by NP&V staff, April 2011

*Mammals* - The habitat found on the project site is not expected to support any significant population of mammal species. Small rodents and insectivores such as mice and rats are expected to be the most abundant mammals. A gray squirrel was observed on site during the April 2011 site visit.

**Table 2-5** is a list of the mammal species that are expected to occur on the property because of existing conditions on-site and in the surrounding area. This list is not meant to be all-inclusive but is intended to provide a list of the most common species.

**TABLE 2-5**
**MAMMAL SPECIES**

| | |
|---|---|
| Virginia opossum | *Didelphis virginiana* |
| house mouse | *Mus musculus* |
| white-footed mouse | *Peromyscus leucopus* |
| Eastern pipistrelle | *Pipistrellus subflavus* |
| racoon | *Procyon lotor* |
| Norway rat | *Rattus norvegicus* |
| black rat | *Rattus rattus* |
| *Eastern gray squirrel | *Sciurus carolinensis* |
| meadow-jumping mouse | *Zapus hudsonicus* |

*Species observed on site by NP&V staff, April 2011

The Town has also indicated that a feral cat population currently exists on or in the immediate vicinity of the subject property. The American Society for the Prevention of Cruelty to Animals (ASPCA) defines a feral cat as *"A cat born and raised in the wild, or who has been abandoned or lost and reverted to wild ways in order to survive, is considered a free roaming or feral cat. While some feral cats tolerate a bit of human contact, most are too fearful and wild to be handled. Ferals often live in groups, called colonies, and take refuge wherever they can find*

*food—rodents and other small animals and garbage. They will also try to seek out abandoned buildings, deserted cars, even dig holes in the ground to keep warm in winter months and cool during the summer heat*" (**ASPCA, 2011**). Feral cats are generally considered problematic as they display nuisance behaviors including spraying urine, making noise during the night from fighting or mating, and impacts to local bird populations from hunting. Currently, the exact location where the cats inhabit is unknown, as is the number of feral cats inhabiting the area.

*Amphibians and Reptiles* - The site may support a limited number of terrestrial species. No amphibian or reptile species were encountered on the property. Only the eastern garter snake would be expected to occur on the subject property (Wright, 1957). The garter snake is relatively tolerant of human activity, but prefers moist soils and would be most likely to be present near the recharge basin to the east. The garter snake is a colubrid snakes, which feeds on whole animals such as worms, insects or small amphibians (Behler and King, 1979).

Rare and Endangered Species/Unique Habitat Potential

The N.Y. Natural Heritage Program (ECL 9-1503) was contacted to determine if there is any record of rare plants, habitats or wildlife in the vicinity. The Natural Heritage Program has no records of known occurrences of state-listed animals or insects on or in the vicinity of the subject site (**Appendix E-1**).

No special concern species are likely to be found on site. Special concern species are native species which are not recognized as endangered or threatened, but for which there is documented concern about their welfare in New York State as a whole. Unlike threatened or endangered species, species of special concern receive no additional legal protection under ECL Section 11-0535. This category is intended to enhance public awareness of those species that deserve additional attention.

### 2.3.2 Anticipated Impacts

Vegetation

The impacts to the ecological resources of a project site are generally a direct result of clearing of natural vegetation, increase in human activity and associated wildlife stressors, and the resulting loss and fragmentation of wildlife habitat. However, as there are no true ecological resources associated with the subject site, no negative ecological impacts are anticipated. The changes in habitat quantities are listed in **Table 2-6**.

**Table 2-6**
**HABITAT QUANTITIES**
Existing Conditions vs. Proposed Project

| Coverage Type | Existing Conditions | | Proposed Project | | Change |
|---|---|---|---|---|---|
| | acres | % of site | acres | % of site | (acres) |
| Roads, Buildings, Paved Surfaces | 18.24 | 90.03% | 13.85 | 68.36% | -4.39 |
| Unvegetated | 0.20 | 0.99% | 0.0 | 0% | -0.20 |
| Landscaping | 1.82 | 8.98% | 6.41 | 31.64% | +4.59 |
| **TOTALS** | **20.26** | **100.0%** | **20.26** | **100%** | **---** |

It is noted that the quantity of landscaped area on the subject property will increase as a result of the proposed project, providing more vegetative habitat within the subject site. Although landscaped areas typically are not considered beneficial in terms of vegetative cover of a site, vegetative cover proposed on the subject property will be increased as a result of the landscaping associated with the proposed project. As such, landscaping associated with the proposed project will be beneficial as the subject site currently has nominal vegetative cover which is minimally maintained and the proposed landscaping will utilize quality species which will be designed to provide an attractive setting, and will be maintained on a regular basis.

Rare and Endangered Species/Unique Habitat Potential

As the only known record of an endangered plant (Hyssop skullcap) was listed by the NYNHP over 100 years ago, and no suitable habitat exists on site for the plant, no impacts are anticipated to the species as a result of the proposed project.

Exploitably vulnerable species are protected primarily because they are indiscriminately collected, rather than due to rarity within the State. The presence of these plants would not preclude development of the site, as a property owner is permitted to remove exploitably vulnerable plant species from a site. As no expolitably vulnerable species were identified on the subject site, no impacts are anticipated with species in this category.

Wildlife

The entirety of the subject property is currently developed with trailers and small areas of landscaping. The property is not expected to act as a refuge for rare, threatened or endangered native fauna. The proposed project will favor those wildlife species that prefer edge and suburban habitats and those that are relatively tolerant of human activity.

As previously stated, 6.41 acres of habitat is proposed for landscaped areas, which represents a 252% increase in vegetative cover within the subject site. Although landscaped areas are not typically considered optimal habitat for wildlife species, the increase in vegetative cover on the subject site will provide some additional habitat for wildlife that may utilize the subject site. As such, the increase in landscaping is anticipated to provide an overall benefit to wildlife over existing site conditions.

As noted in **Section 2.3.1**, a feral cat population is known to exist in the vicinity of the subject site and is problematic for the area. The cats are not anticipated to leave the area as a result of

the proposed development, and are expected to continue to inhabit the general area despite development activities. In order to reduce feral cat populations, several organizations (ASPCA, the Humane Society of the United States, the New York City Mayor's Alliance for Animals, Alley Cat Allies) recommend a Trap Neuter Release (TNR) program as the optimal method for feral cat population control (**ASPCA, 2011**). This program includes humanely trapping the cats, a medical evaluation for each cat, a rabies vaccination, an ear tipping procedure (to mark that the cat has been trapped and spayed or neutered) and then spaying or neutering for the cats (**New York City Feral Cat Initiative, 2011**). Once the cats have recovered from the spay or neuter procedure, they are released back into their habitat. This method effectively reduces the feral cat population over time as the cats can no longer breed, and the cats will grow old and die from natural causes. Additionally, for maximum effectiveness of the TNR program, it is ideal for the feral cat colony to have a "colony caretaker" who would provide food, water, shelter, and spaying/neutering for the cat population (**ASPCA, 2011**). The caretaker would also monitor the size of the population to ensure that the TNR program is operating effectively.

It is noted that other methods of feral cat population control have been considered including trapping and relocation and trapping and euthanization (**ASPCA, 2011**). Trapping and relocation methods have been shown to be ineffective as the cats will generally return to their original habitat, even if released miles away, and new cats will inhabit former feral cat colony locations as these habitats have proven ideal for the cat population (**ASPCA, 2011**).

Rare and Endangered Species/Unique Habitat Potential

There are no known rare or endangered wildlife species expected on the site given the habitats present, and analyses contained herein address anticipated impacts to expected species. As no special concern species are anticipated to utilize the subject site, no impacts are associated with such species.

### 2.3.3 Proposed Mitigation

- Landscaping proposed on site will provide a 252% (4.59 acre) increase in vegetative cover of the site.
- Landscaped areas will provide some additional habitat for wildlife utilizing the subject site.
- A TNR program will be implemented to control the feral cat population known to utilize the area.
- No known invasive plant species will be utilized, including those species specifically those species listed in Resolution 614-2007 enacted by the Suffolk County Legislature.

# SECTION 3.0

# HUMAN ENVIRONMENTAL RESOURCES

# 3.0 HUMAN ENVIRONMENTAL RESOURCES

## 3.1 Land Use, Zoning and Plans

### 3.1.1 Existing Conditions

Land Use

The subject property is comprised of nine tax lots, specified by the following Suffolk County Tax Map numbers: 0100-163-01.00 Lots 54, 55, 56 & 57 and 0100-164-02.00 Lots 2, 5, 9, 10 & 25, and totals 20.26 acres. The majority of the site is currently developed with approximately 356 mobile homes, as well as a trailer sales use, a small strip retail center, a single family residence and parking areas. The entirety of the mobile home portion of the property is developed with the trailer homes spaced close together throughout the site and nearly the entire property is paved. Several internal roadways access the groupings of the trailers. Current land use at the subject property and surrounding area is described based on aerial photographs and visual observations (see **Figure 3-1**). The subject site is surrounded by transportation, commercial, multi-family and single family residences, as follows:

| | |
|---|---|
| North: | Brefni Street, insurance office, single family residences, multifamily residential development, apartments, recharge basin, Southern State Parkway |
| East: | Geraldine Avenue, single family residences |
| South: | Nathalie Avenue, offices, single family residences, retail |
| West: | NYS Route 110, Drive through fast food restaurants, multifamily residential development, vacant office space |

The land use pattern in the vicinity is characterized primarily by commercial and residential uses. The few outparcels surrounding the subject property include single family residences, offices (insurance, real estate, vacant) and fast food restaurants. Several multifamily residential developments surround the property, including two properties to the north and one to the west. Single family residential development is the predominant land use pattern east of NYS Route 110 in the vicinity of the subject property.

Zoning

The subject property is located primarily within the E Business (Neighborhood) zoning district with a small portion of the northeastern corner and southeastern corners of the property (0.86 acres) zoned B Residence (10,000 SF). Permitted uses in the E Business district include: shops and stores for the sale of retail or consumer merchandise and services; personal service shops; banks, theaters and offices; undertaking establishments; and minor garages. Permitted uses in the B Residence district include: one-family dwellings; churches, places of worship and parish houses; public parks, playgrounds and recreational areas; colleges and universities; elementary or high school; customary agricultural occupation (no storage of manure or odor- or dust-producing substances permitted within 75 feet of any side or rear lot line or within 150 feet of any street line); and office of a physician, lawyer, architect, musician, teacher or other similar professional person residing on the premises and when such use is incidental to such residence.

The current zoning of the subject property and surrounding area is described based inspection of the Town Zoning Map (see **Figure 3-2**), as follows:

North: SC Senior Citizen MR, E Business, B Residence
East: B Residence
South: B Residence, E Business
West: Route 110, beyond which is E Business, SC Senior Citizen MR, B Residence

**Table 3-1** shows the dimensional requirements for the existing zoning on the project site.

**Table 3-1**
**ZONING REQUIREMENTS**
Existing Condition

| Requirement | E Business | B Residence |
|---|---|---|
| Maximum height (feet/stories) | 35/3 | 30/3 ½ |
| Minimum lot area (SF) | 10,000 | 10,000 |
| Maximum total building area | 60% | 20% |
| Minimum road frontage (feet) | 50 | 80 |
| Minimum front yard (feet) | 25[1] | 30[2] |
| Minimum side yard (feet) | 3 | 12 |
| Minimum total side yards (feet) | 15 | 30 |
| Minimum rear yard (feet) | 50 | 40 |

1- If the street frontage on the same side of the street between the two nearest intersecting streets shall have been improved with two or more businesses buildings, not less than the average front yard depth as so established by such existing or permitted buildings shall be maintained, provided that any such front yard depth shall be required to be more than 35 feet.

2- If on the same side of the street, 40% ore more of the total street line distance between the two nearest intersecting street lines shall have been improved with two or more buildings, not less than the average depth of front yard as so established by such existing or permitted buildings shall be maintained.

An as-of-right yield was estimated based on the current zoning of the site. Three single family lots are proposed under this scenario in the areas zoned B Residence, with two residences located on the northeastern corner of the property with access via Brefni Street and one parcel on the southeastern corner with access via Nathalie Avenue. The remaining area of the site, zoned E Business, could accommodate a large retail building in the central portion of the site (196,076 SF) with space for two retail tenants, a smaller retail building on the southern portion of the site (24,426 SF) and a 4,000 SF bank with drive-through in the northwest corner of the site. The commercial components of the as-of-right yield would share access, including two access points from NYS Route 110 and two access points from Nathalie Avenue. No access to Geraldine Avenue or The Boulevard would be expected. This alternative is addressed in **Section 5.2** of this DGEIS.

Land Use Plans

*A Plan for the Future of the Town of Babylon, Draft Comprehensive Plan Summary (March 1998)* - The purpose of the Plan is to identify actions that would make Babylon a stronger

community. Five major themes for strengthening the Town were identified by the public and Town staff, including:

1. Maintain and strengthen the Town's suburban character
2. Respond to the changing population
3. Improve the quality of life in economically distressed areas
4. Promote jobs and economic development
5. Foster stewardship of sensitive natural resources

The Proposed Land Use Changes plan identifies the site as appropriate for Highway Commercial and Neighborhood Commercial in a small area along NYS Route 110, with the remainder of the site identified as No Change (see **Figure 3-3**).

*Suffolk County Planning Commission* - The Suffolk County Planning Commission (SCPC) retains review status over the proposed project due to the subject site's location along a State-owned roadway (NYS Route 110). As a result, the SCPC is charged with the responsibility of reviewing the project in light of its Policies and Guidelines, as described below.

*Introduction*

New York State General Municipal law and the Laws of Suffolk County require local municipalities to refer certain planning and zoning actions to the [SCPC] for review prior to making a final determination. Actions that are subject to referral include the adoption or amendment of a comprehensive plan, zoning ordinance or local law, the issuance of a special use permit, approval of a site plan, the granting of area or use variances or other authorizations which a referring body may issue under the provisions of any zoning ordinance or local law such as moratoria and the adoption of urban renewal plans. Additional actions subject to referral include preliminary and final subdivisions and undeveloped plats.

These applications are required to be referred to the Commission if they are located within the Suffolk County Pine Barrens Zone, within one mile of a nuclear power plant or airport or within five hundred feet of:

- The boundary of any village or town;
- The boundary of any existing or proposed County, State or Federal park or other recreation area;
- The right-of-way of any existing or proposed County or State parkway, thruway, expressway, road or highway;
- The existing or proposed right-of-way of any stream or drainage channel owned by the County or for which the County has established channel lines;
- The existing or proposed boundary of any other County, State or Federally owned land held or to be held for governmental use;
- The Atlantic Ocean, Long Island Sound, any bay in Suffolk County or estuary of any of the foregoing bodies of water; or
- The boundary of a farm operation located in an agricultural district, as defined by Article 25-AA of the New York State Agricultural and Markets Law.

According to New York State law, the purpose of the referral process is to bring pertinent inter-community and county-wide planning, zoning, site plan and subdivision considerations to the

attention of neighboring municipalities and agencies having jurisdiction. The review of referral items may include, but is not limited to, inter-community and county-wide considerations with respect to the following:

- Compatibility of various land uses with one another;
- Traffic generating characteristics of various land uses in relation to the effect of such traffic on other land uses and to the adequacy of existing and proposed thoroughfare facilities;
- Impact of proposed land uses on existing and proposed county or state institutional or other uses;
- Protection of community character as regards predominant land uses, population density, and the relation between residential and-nonresidential areas;
- Drainage;
- Community facilities;
- Official municipal and county development policies, as may be expressed through comprehensive plans, capital programs or regulatory measures; and
- Such other matters as may relate to the public convenience, to governmental efficiency, and to the achieving and maintaining of a satisfactory community environment.

Local municipalities are required by State and County law to refer applications to the [SCPC] when the jurisdictional requirements are met. The failure to refer an application to the [SCPC] may render the local municipal determination procedurally defective and may void the action despite its identified benefits or compliance with local standards.

The jurisdictional criteria capture a great number of local municipal zoning and planning actions that do not involve regional considerations and, as such, it is the intent of the [SCPC] to concentrate its efforts on those truly regionally significant applications which affect county or state land use considerations and/or multiple municipal jurisdictions.

While the local municipality typically exercises final jurisdiction over the application, the [SCPC] may recommend approval, approval with modification or disapproval of the local action. Pursuant to New York State law, in the event the County recommends a modification or disapproval of the local action, the referring body may not act contrary to the County's recommendation except by vote of a majority plus one of all the members. The over-ride must also state the reason(s) for taking action contrary to the [SCPC] recommendation.

There are two circumstances where the [SCPC] has final authority over an action. Pursuant to the Laws of Suffolk County, in the event there is an objection from an adjacent municipality to the amendment or adoption of a municipal zoning ordinance relating to any portion of the town or village within 500 feet of the municipal boundary, it shall not take effect until the ordinance or amendment has been submitted to and approved by the [SCPC].

In addition, when the [SCPC] is considering a zoning action and a state agency having a statutory responsibility involving air pollution, water pollution or estuarine values interposes an objection on the grounds that the action is likely to produce water pollution or air pollution or be destructive of estuarine values, the recommendation of the [SCPC] is final and binding on the local municipality. However, this provision is not applicable to any action which would change the district classification of, or the regulations applying to, real property lying within the Suffolk County Pine Barrens Zone.

*Policies and Guidelines*
The following guidelines provide an overview of the procedural aspects of the referral process along with a review of the policy considerations that guide the [SCPC] in the execution of its duties.

The following policies and guidelines are intended to articulate [SCPC] land use policies in order to better inform local municipalities and applicants, effectively guide regionally significant actions and better coordinate local responses. Central to [SCPC] policy is the promotion of sustainability. Sustainable development is defined as development that meets the needs of the present without compromising the ability of future generations to meet their own needs. Doing so must integrate and balance economic, environmental and social goals. The goal of the following section is to promote sustainable development in Suffolk County defined by the nexus of economic development, environmental health and social equity.

[SCPC] policy is also contained in myriad land use studies, research documents and comprehensive plan documents prepared by the Department of Planning on an annual basis. The following policies and guidelines should be considered a starting point for reference purposes. It is therefore also recommended that applicants and local municipalities consult the resources of the Suffolk County Planning Department for additional guidance or visit the County website at:

www.suffolkcountyny.gov/departments/planning.aspx

The SCPC Policies and Guidelines are presented in detail in **Appendix F**, along with a discussion of the project's conformance to each. The analysis of conformance with SCPC guidelines was prepared as a separate product to be included by the Town in the referral to SCPC for their recommendation and is attached herein.

### 3.1.2 Anticipated Impacts

Land Use
The proposed project will change the land use classification for the site from its current primary use as a mobile home park and miscellaneous commercial uses to mixed-use residential and commercial uses. The site use will change from its existing 356 mobile homes, strip mall, trailer sales and rental business and single family residence located on the nine subject tax parcels to 45,500 SF of retail floor area in two buildings, and 500 residential rental dwelling units (including 100 affordable units), in eight buildings on the site. Of the residential units, 213 units will be one-bedroom (including 43 affordable units) and 287 units will be two bedroom (including 57 affordable units). The project will include a 1,500 SF poolhouse and an outdoor pool located in the central portion of the site, for use by the residents of the development.

Frontier Village is an existing community of residences that exists as a result of past land use practices. The proposed project represents a land use change that will result in the removal of this community. It is believed that this change in land use is inevitable due to the obsolete nature of this housing. More specifically, the existing mobile home development has been identified as being in disrepair with safety issues associated with additions that have been made, unsanitary conditions due to high volumes of wastewater discharge, inadequate fire protection, as well as abandoned vehicles and other conditions resulting in poor aesthetic quality in this area.

Therefore, a primary benefit of the proposed action is the removal of these conditions in a sensitive manner that respects and minimizes impact to existing residents to the maximum extent practicable, recognizing that the current conditions cannot remain. Further, the proposed project will replace this form of housing with up-to-date, energy efficient housing, in compliance with current codes and regulations. In addition, it is acknowledged that the existing mobile home park provides one type of affordable housing, specifically related to the existing mobile homes. The proposed development will also provide rental and affordable housing which meets current building standards. It is noted that the existing mobile home park includes 356 units. The proposed project will include 500 units of which 100 (or 20%) will be offered as affordable housing under applicable guidelines. The remaining units will be market rate units; however, the smaller size (as compared to single family homes and townhouse-type multi-family development) will ensure that these units provide alternative housing to more expensive homes in the Town and region. The end result is that the number of guaranteed affordable units may decrease; however, the existing units which are in violation of various safety and building codes will be removed in favor of safe, code compliant, energy-efficient housing including 100 guaranteed affordable units and alternative housing that will be more affordable in the local market than other forms of housing. Nevertheless, since it is inevitable that the existing obsolete housing offered by Frontier Village is not able to remain, there is a net benefit of updating and upgrading affordable and alternative housing to the benefit of the Town and the region.

As indicated above and in **Section 1.2.3**, an important aspect of the proposed project is providing a relocation package for the existing residents of the mobile home park and phasing the proposed development in over five phases. A goal of the applicant is to be understanding of the needs and concerns of existing site residents, and to facilitate a positive transition in as sensitive a manner as possible, given the difficult conditions associated with this transition.

The site is believed to be an ideal transitional parcel between the NYS Route 110 transportation corridor and mixed commercial uses and multifamily uses along the corridor and the single family residences beyond. The project is in conformance with other land uses in the surrounding area, particularly the commercial areas surrounding the subject site and the multifamily uses to the north and west. The proposed project will improve transportation circulation through the linkage between the NYS Route 110 and the single family residences to the east of the site, as the present development is completely fenced in with access points from NYS Route 110, only, which results in effectively creating a barrier between the residences and the transportation corridor. The proposed project will include several access points from the surrounding roadways.

Public and commercial facilities and services are located in the surrounding area; it is expected that the site's residents will patronize these uses. Several stores and services are available in the area which will be well within the range for convenient access by the site residents. In addition, for those residents who do not own automobiles, public transportation is available along the site's NYS Route 110 frontage. This service enables public transit to the above-mentioned facilities as well as the nearest LIRR train station located in Amityville (approximately 2 miles south of the site).

The proposed project will generate greenspace and landscaped areas throughout the site. Approximately 6.41 acres, or 31.6% of the site will be landscaped, resulting in an increase of 4.59 acres. The proposed residential component of the development includes on-site recreational amenities for residents in the form of a poolhouse, outdoor pool, outdoor seating areas and outdoor open recreational areas. As a result, although local parks and recreational facilities would be expected to be used by site residents, on-site activities will ensure that recreational amenities in the area are not over-taxed by use of residents of New Frontier.

The proposed project represents an alternative use in the area that can be buffered and designed to maximize compatibility between the differing land uses in the vicinity of the site. The roads, buildings and other paved surfaces will cover approximately 68% of the site, a coverage that is less than that of existing conditions, which is 90%. Overall, the proposed project represents a modified land use type in the area (residential apartments and mixed-use as compared with mostly a mobile home park); however, independently the proposed retail and residential land uses proposed are currently well represented in the area and are compatible with adjoining and surrounding uses. Given the proposed use and project design, no significant adverse land use impacts are expected, and benefits will be provided by removing aesthetic, safety and environmental issues and providing needed rental and affordable housing in the area.

Zoning

The proposed project requires rezoning of the site from E Business (Neighborhood) and B Residence (10,000 SF) zoning to MR Multiple Residence District to allow the construction of the proposed retail and residential development. Approval of this request is under the jurisdiction of the Town Board, which is required to conduct its review and decision in conformance with applicable sections of the Town Zoning Code. The proposed project will also include a site plan and subdivision application by the Planning Board and the Board of Appeals' review of associated variances.

The Town of Babylon does not currently have a zoning district which permits a mix of residential and commercial uses such as Planned Development District (PDD) zoning or Planned Unit Development (PUD) zoning. As a result, several variances will be required to permit construction of the mixed-use project. **Table 3-2** contains a detailed discussion of the project's conformance with the applicable requirements of the MR Multiple Residence zoning district, as well as any other pertinent requirements in the Town Code. Items in bold represent required variances.

**Table 3-2**
**ZONING CONFORMANCE**
Proposed Project

| Parameter | Required | Phase 1 | Phase 2 | Phase 3 | Phase 4 | Phase 5 |
|---|---|---|---|---|---|---|
| Conduct of Business | No business or profession of any type | **45,500 SF retail space**, 50 residences | 155 residences | 120 residences | 130 residences | 45 residences |
| Building Height | 30 feet/2 ½ stories | **48 feet/3 stories** | **46 feet/3 stories & 56 feet/4 stories** | **46 feet/3 stories** | **56 feet/4 stories** | **46 feet/ 3 stories** |
| Lot Area | 2 acres | 4.645 acres | 4.093 acres | 4.894 acres | 4.969 acres | **1.664 acres** |
| Front Yard | 40 feet | **8 feet** | **5 feet & 8 feet** | **10 feet & 16 feet** | **17 feet, 24 feet & 25 feet** | **5 feet & 15 feet** |
| Side Yard (single yard/total) | 40 feet/80 feet | **6.4 feet**/116.4 feet | 61 feet/158 feet | **10 feet/77 feet** | **27 feet**/84 feet | **15 feet/15 feet** |
| Rear Yard | 50 feet | **0.20 feet & 11 feet** | 97 feet | 62 feet | 77 feet | N/A |
| Density | 4,000 SF per 1-bedroom unit; 5,000 SF per 2-bedroom unit | **1,402 SF/unit** | **1,150 SF/unit** | **1,777 SF/unit** | **1,665 SF/unit** | **1,611 SF/unit** |
| Habitable Floor Area | No portion of building below 1st story or above 2nd story used for dwelling purposes | **3rd story** | **3rd and 4th stories** | **3rd story** | **3rd and 4th stories** | **3rd story** |
| Off-street parking | 1,372 spaces (1 space per 200 SF GFA for retail; 2 spaces per residential unit + 0.5 spaces per bedroom in excess of one per unit) | **246 spaces** | **180 spaces** | **133 spaces** | **181 spaces** | **50 spaces** |

As identified in **Table 3-2**, the project requires a number of variances. A list of the expected variances from the Board of Appeals is provided, as follows:

- Minimum lot area- 2 acres required; 1.664 acres provided (Phase 5)
- Use variance to allow business in MR Multiple Residence District (Phase 1)
- Front yard setback- 40 feet required; 8 feet provided (Phase 1), 5 feet and 8 feet provided (Phase 2), 10 feet and 16 feet provided (Phase 3), 17 feet, 24 feet and 25 feet provided (Phase 4), 5 feet and 15 feet provided (Phase 5)
- Side yard setback- 40 feet single yard/80 feet total required; 6.4 feet single yard provided (Phase 1), 10 feet single yard/77 feet total yard provided (Phase 3), 27 feet single yard provided (Phase 4), 15 feet single and total yard provided (Phase 5)
- Rear yard setback- 50 feet required, 0.20 feet and 11 feet provided (Phase 1)
- Height variance- 30 feet/2 ½ stories permitted; 48 feet/3 stories proposed (Phase 1), 46 feet/3 stories and 56 feet/4 stories proposed (Phase 2), 46 feet/3 stories proposed (Phase 3 & 5), 56 feet/4 stories proposed (Phase 4)
- Habitable floor area- No habitable space above the second story; habitable space provided on 3rd and 4th stories (Phase 1-5)
- Density of dwelling units on lot- 4,000 SF and 5,000 SF required for one and two-bedroom units, respectively; 1,402 SF provided for each (Phase 1), 1,150 SF provided for each (Phase 2), 1,777 SF provided for each (Phase 3), 1,665 SF provided for each (Phase 4), 1,611 SF provide for each (Phase 5)
- Parking variance- 1,372 spaces required, 790 total spaces provided

The Town Zoning Code places jurisdiction of these variances under the Board of Appeals. Town Zoning Code Section 213-13 outlines the criteria under which the Board of Appeals shall review the project in order to determine whether to approve the variance applications. The required criterion and the proposed projects conformance is provided below:

A. Before such approval shall be given, the Board of appeals shall determine:
    1. That the use will not prevent the orderly and reasonable use of adjacent properties or of properties in adjacent use districts.

    *The proposed project will change the land use classification for the site from its current mobile home and miscellaneous commercial use to mixed-use residential and commercial uses. The site is believed to be an ideal transitional parcel between the NYS Route 110 transportation corridor and mixed commercial uses and multifamily uses along the corridor and the single family residences beyond. The project is in conformance with other land uses in the surrounding area, particularly the commercial areas surrounding the subject site and the multifamily uses to the north and west. The proposed project will improve transportation circulation by providing a linkage between the NYS Route 110 corridor and the single family residences to the east of the site, as the present development is completely fenced in with access points from NYS Route 110, only, which results in effectively creating a barrier between the residences and the transportation corridor. In addition, the project will facilitate the transition of the current use to a new mixed-use development thus providing a benefit over existing conditions.*

2. That the use will not prevent the orderly and reasonable use of permitted or legally established uses in the district wherein the proposed use is to be located or of permitted or legally established uses in adjacent use districts.

*The proposed project has the potential to improve the character of the site and thus improve the compatibility of the site with the surrounding area. In addition, the proposed project will facilitate the transition of the current site use which includes 356 mobile homes and unsanitary, unsafe and illegal conditions, to a modified use which will benefit the community as outlined in the DGEIS. The site could accommodate a large retail building in the central portion of the site (196,076 SF) with space for two retail tenants, a smaller retail building on the southern portion of the site (24,426 SF) and a 4,000 SF bank with drive-through in the northwest corner of the site, along with three (3 additional residences). The proposed project is viewed as an improvement over both current conditions and the allowable use under existing zoning.*

3. That the safety, the health, the welfare, the comfort, the convenience or the order of the Town will not be adversely affected by the proposed use and its location.

*The existing sanitary and building violations and unsafe conditions will be remedied as a result of redevelopment of the site. The project will replace the existing unsafe and unsanitary conditions with a mixed-use residential and retail project that will be code-compliant and will complement the site in the context of NYS Route 110 and its surroundings and is characterized by attractive and well-conceived spaces featuring needed rental residential units, retail tenants and services. The Town health, welfare, comfort, convenience or order of the Town will not be adversely affected by the proposed use, given the improvement over current conditions, the smart growth design elements inherent in the project, the provision of affordable housing and the sensitive transition from the current use to the proposed project. Conversely, the Town is expected to benefit from the proposed project given the proposed economic and related benefits.*

4. That the use will be in harmony with and promote the general purposes and intent of this chapter.

*The proposed project will be in harmony with the implementation of sound zoning principles to achieve beneficial use and re-development of the project site.*

B. In making such determination, the Board of Appeals shall also give consideration, among other things, to:
   1. The character of the existing and probable development of uses in the district and the peculiar suitability of such district for the location of any of such permissive uses.

*The proposed project will change the land use classification for the site from its current mobile home and miscellaneous commercial use to mixed-use residential and commercial uses. The site is believed to be an ideal transitional parcel between the NYS Route 110 transportation corridor and mixed commercial uses and multifamily uses along the corridor and the single family residences beyond. The project is in conformance with other land uses in the surrounding area, particularly the commercial areas surrounding the subject site and the multifamily uses to the north and west. The proposed project will improve traffic circulation by linking the NYS Route 110 corridor with the single family residences to the*

*east of the site, as the present development is completely fenced in with access points from NYS Route 110, only, which results in effectively creating a barrier between the residences and the transportation corridor.*

2. The conservation of property values and the encouragement of the most appropriate uses of land.

*Nearly the entire property is developed with closely spaced mobile homes and pavement. Numerous complaints have been filed in recent years regarding maintenance of the property and the fact that there is heavy debris, dumping on-site, high grass and weeds in several areas, the internal roads not taken care of and drains not working. The proposed redevelopment of the site will create a safer, more attractive mixed-use development that will compliment existing uses in the vicinity and as a result would be expected to enhance and conserve property values.*

3. The effect that the location of the proposed use may have upon the creation or undue increase of vehicular traffic congested on public streets or highways.

*The Traffic Impact Study (TIS) prepared for the proposed project finds that all potentially impact intersection studied, will operate at an acceptable level of services with only minor mitigation including road striping, signal phasing and extension of a left turn storage lane. Mitigation is easily implemented and therefore, based on the TIS the proposed project will not cause an undue increase in vehicle traffic or traffic congestion on public streets or highways.*

4. The availability of adequate and proper public or private facilities for the treatment, removal or discharge of sewage, refuse or other effluent (whether liquid, solid, gaseous or otherwise) that may be caused or created by or as a result of the use.

*The existing mobile home park is not connected to sanitary waste treatment systems, even despite significantly exceeding the allowable flow established under Article 6 of the Suffolk County Sanitary Code (SCSC) and has numerous pending violations issued with respect to sanitary code compliance. The proposed sanitary flow is greater than the allowable flow for the site and, as a result, will require connection to a sewer district. Therefore, all sanitary wastewater generated by the project will be conveyed to the Suffolk County Sewer District 21, the Bergen Point Sewage Treatment Plant (STP). The project operations will ensure efficient removal of solid waste, and the site will be designed to contain stormwater on-site in conformance with Town drainage design requirements.*

5. Whether the use or materials incidental thereto or produced thereby may give off obnoxious gases, odors, smoke or soot.

*The proposed project involves residential and retail use. No obnoxious gases, odors, smoke or soot are expected in connection with the proposed project.*

6. Whether the use will cause disturbing emissions of electrical discharges, dust, light, vibration or noise.

*The proposed project involves residential and retail use. No disturbing emissions of electrical discharges or vibration are expected. The proposed project will not generate noise significantly above existing ambient noise levels in this portion of the Town adjoining NYS Route 110. Dust will be controlled during construction through proper construction management techniques, and no generation of dust would be expected after completion of the project. The design of site lighting will utilize dark sky compliant fixtures, and luminaires will be contained within the boundaries of the property and will involve the minimum site lighting necessary to ensure a safe residential and retail environment.*

7. Whether the operations in pursuance of the use will cause undue interference with the orderly enjoyment by the public of parking or of recreational facilities, if existing, or if proposed by the Town or by other competent governmental agency.

*The proposed project is designed to provide adequate parking based on the mixed-use development incorporating features and characteristics including a bus stop along an existing bus route, internal walkability and pedestrian connections to off-site amenities, shared parking opportunities based on uses on the site and the number of on-site and on-street parking that is available. The project combines retail with residential use for on-site residency, employment, shopping, safe and convenient pedestrian access to public transit and consumer shopping needs, and on-site recreational amenities. More specifically, the proposed project will provide recreational opportunities (a pool and poolhouse) and open areas, sidewalks, courtyards and public gathering areas that will enhance the on-site recreational experience. This is contrasted with the current conditions with 356 mobile home units and inadequate parking, recreational facilities and potential to overtax existing resources.*

8. The necessity for bituminous surfaced space for purposes of off-street parking of vehicles incidental to the use and whether such space is reasonably adequate and appropriate and can be furnished by the owner of the plot sought to be used within or adjacent to the plot wherein the use shall be had.

*If each individual use is totaled in terms of required parking as required by Town Code, a total of 1,372 parking spaces are needed for the project. However, a number of factors would decrease the need to accommodate the additive spaces required as a function of each individual use. It is expected that the project site will benefit from shared parking whereby residential spaces vacated during the day will be available for retail parking during business hours. In addition, the project is a mixed-use project which provides on-site shopping and employment opportunities. It is also noted that public transportation is conveniently located adjacent to the subject site. The proposed project is proximate to NYS Route 110 and bus service is available along this corridor. The applicant will install a bus shelter along NYS Route 110 in order to facilitate use of public transit to the site and area. The site is within walking distance of services along NYS Route 110 which include shopping, personal services and restaurants; this is also expected to decrease dependency on cars by site tenants. The nearest LIRR train station is the Amityville Station, which is approximately 2 miles south of the site off of John Street. As a result, a total of 790 parking stalls are provided in connection with the site plan, and this number is believed to be adequate to serve the parking needs of the project. Parking is dispersed throughout the site in order to serve the needs of each building and phase.*

9. Whether a hazard to life, limb or property because of fire, flood, erosion or panic may be created by reason or as a result of the use, or by the structures to be used therefore, or by the inaccessibility of the property or structures thereon for the convenient entry and operation of fire and other emergency apparatus or by the undue concentration or assemblage of persons upon such plot.

*Several of the mobile homes are in extreme disrepair and many have unauthorized improvements and additions. Some of these improvements have created potentially dangerous conditions for the tenants and pose a threat to their health and safety. The Suffolk County Department of Health Services and the Town of Babylon have filed violations of the Building Code, New York State Public Health Law and the SCSC with the property owner. An overview of violations includes: accumulation of rubbish or garbage; combustibles stored on porches; ivy growing on the front of a mobile home; areas where external siding is not completed; sections of skirting along one of the trailers missing, dislodged or not secured; areas where leaves and debris have accumulated throughout the trailer park creating a fire hazard; all roadways within the trailer park are in a deteriorated condition; several mobile homes with additions that do not have Certificates of Occupancy of Compliance and the trailer park not hooked into a sewer district. Redevelopment of the site will result in a project that removes the current conditions and establishes a planned development that will improve emergency access, safety and overall site conditions. The site is not subject to conditions which would promote flooding or erosion.*

10. Whether the use or the structures to be used therefore will cause an overcrowding of the land or undue concentration of population.

*The proposed project has been designed in conformance with the capacity of the site to accommodate development from the standpoint of sanitary waste, traffic, parking and overall site design. The proposed project will not cause overcrowding of the land or an undue concentration of population based on the design and analyses of the proposed use.*

11. Whether the plot area is sufficient, appropriate and adequate for the use and the reasonably anticipated operation and expansion thereof.

*The proposed project will be operated by a management company experienced in operating housing and retail developments; it is noted that future expansion of the facility is not contemplated. The proposed project has been designed in conformance with the capacity of the site to accommodate development from the standpoint of sanitary waste, traffic, parking and overall site design.*

12. Whether the use to be operated is unreasonably near to a church, school, theater, recreational area or other place of public assembly.

*The subject parcel is not located in close proximity to a church, school, theater, recreational area or other place of public assembly. However, the proposed project is appropriate in consideration of the Town's and community's plans for the site, and the pattern of land uses along the NYS Route 110 corridor.*

C. The Board of Appeals shall, in authorizing such permissive uses, impose such conditions and safeguards as it may deem appropriate, necessary or desirable to preserve and protect the spirit

> and objectives of this chapter. Such permits may be granted for a temporary period or permanently, as determined by the Board of Appeals. If granted for a temporary period, the application for extension of same will be subject to a public hearing as required in the original application.

The project design was arrived at through a cooperative process between the applicant, the Town and their consultant. There is currently no single zoning district in the Town Code that can accommodate the type of development proposed. As a result, variances are requested to achieve the intended design. It is also noted that the project involves division of the site into five phases. Many of the variances involve relief that is internal and related to the newly created lot lines for these phases. The following provides an explanation of the variances being requested:

*Minimum lot area; 2 acres required, 1.664 acres proposed (Phase 5)* - The MR Multiple Residence District requires a minimum lot size of 2 acres. The proposed project is envisioned as a complete, planned site on the 20.265-acre subject site; however, because the project also includes the subdivision of the overall property into five phases and lots, Phase 5 proposes a lot size of 1.664 acres. All other proposed lots are greater than 2 acres.

*Use variance to allow business in MR Multiple Residence District* – The MR Multiple Residence District prohibits business or professional uses of any type. The proposed project is mixed-use development, including both retail (business) and multifamily residential uses. The Town does not currently have a zoning district which permits the mix of uses being proposed. As a result, a variance to allow business uses within the MR Multiple Residence District is required (Phase 1).

*Height variance; 2½ stories permitted, 4 stories proposed* - The MR Multiple Residence District allows structures up to 2½ stories; however, five 3-story buildings and three 4-story buildings are proposed. The 4-story buildings will contain residential units, only, and will be located in the central portion of the property with the greatest setback to both NYS Route 110 and the single family residences to the east.

*Front yard setback;- minimum 40 feet required; 5 feet, 8 feet, 10 feet, 15 feet, 16 feet, 17 feet, 24 feet and 25 feet provided* - The front setback for any building in the MR Multiple Residence District shall not be less than 40 feet. However, because the proposed project is a mixed-use planned development, the internal setbacks between the road, buildings and other integral project features will be less than the required minimum to maximize design and efficiency of the proposed development. The minimum setback is five feet (Phase 5) with other phases requiring less relief. Flexibility in zoning is necessary to achieve the design and combination of uses associated with this project.

*Side yard setback; minimum 40 feet for single yard and 80 feet total side yard required; 6 feet, 10 feet, 15 feet and 27 feet provided* – The side yard setback for any building in the MR Multiple Residence District shall not be less than 80 feet for the total width and 40 feet for either side yard. The minimum side yard setback for the proposed project is 6 feet (Phase 1). Other phases will require less relief. However, similar to the required front yard setback, flexibility in zoning is necessary to achieve the design associated with this project.

*Rear yard setback; 50 feet required, 0.20 feet and 11 feet provided* - The rear yard setback in the MR Multiple Residence District requires a minimum depth of 50 feet. The minimum rear yard setback for the proposed project is 0.20 feet for Phase 1. Phase I will also require relief to 11 feet. Similar to the front and side yard setbacks, flexibility in zoning is necessary to achieve the design associated with this project.

*Density of dwelling units on lot; 4,000 SF and 5,000 SF required for one and two-bedroom units, respectively; 1,501 SF provided for each* – The MR Multiple Residence District requires at least 4,000 SF of land area within the premises for each one-bedroom dwelling unit and 5,000 SF of land area within the premises for each two-bedroom dwelling unit. The proposed site layout provides between 1,150 SF for each unit (Phase 2) and 1,777 SF for each unit (Phase 3).

*Parking variance; 1,372 spaces required, 790 spaces provided* – The total parking required for the proposed project is 1,372 spaces based on a residential parking requirement of 2 spaces per unit plus 0.5 spaces per bedroom in excess of one bedroom unit and one space per 200 SF of GFA for the retail uses. The Site Layout Plan proposes 790 parking spaces.

*Habitable floor area; No habitable space above the second story; habitable space provided on 3rd and 4th stories* – In the MR Multiple Residence District, the minimum habitable floor area for each dwelling must be at least 500 SF and no portion of any building below the first story or above the second story shall be used for dwelling purposes. Each of the residential-only buildings will have a minimum of three stories. Five 3-story buildings and three 4-story residential buildings are proposed.

Overall, the New Frontier will be a community that provides many benefits for the people that will live and work in or near it. The Town of Babylon does not currently have a zoning district which permits a mix of residential and commercial uses. As a result, the noted variances will be required to permit construction of the mixed-use project. Despite the necessity of variances, no adverse zoning impacts are anticipated, and it is the applicants' belief that the conversion of zoning from E Business and B Residence to MR Multiple Residence will provide benefit over the existing as-of-right zoning in terms of a mixed-use development that provides public benefits and serves greater public need.

Land Use Plans

*A Plan for the Future of the Town of Babylon, Draft Comprehensive Plan Summary (March 1998)* - The proposed project involves the redevelopment of the site from the existing mobile home park and miscellaneous uses to a mixed-use retail/multifamily residential development. By doing so, the proposed project will conform to several goals and initiatives identified in the Plan, including the following excerpts:

- Most neighborhoods in the Town are physically sound and well kept. This is one of the primary reasons residents find the Town attractive. In order to keep Babylon a desirable place to live, the Town should maintain or improve the physical character of its neighborhoods. In turn, this can promote neighborhood unity and cohesiveness. As discussed in the Neighborhoods chapter, this can be achieved by utilizing commercial business districts as the focal point for neighborhood

pride. It can also be accomplished through increased enforcement of Town regulations, such as the Building Code, Zoning Code, Accessory Apartment Code and property maintenance regulations.

- The Plan seeks to improve the quality of life in areas which have gone through an economic decline. There are two areas that require the greatest attention- Wyandanch and North Amityville. Housing in Wyandanch and North Amityville exhibited the lowest median values, the highest percentages of overcrowding and the highest percentages of renter-occupied housing among the Town's hamlets. These hamlets also possessed high percentages of abandoned housing and are facing pressure to redevelop vacant residential land to industrial uses. The Town's housing programs, administered by the Long Island Housing Partnership Inc., should continue to focus their efforts in these areas. These programs include rehabilitation, new construction and rental assistance.
- Improving neighborhood vitality is a major goal of the Plan. The basic approach to achieving this is to improve the integration of various land uses. People tend to prefer to interact with others. Yet the Town's zoning tends to segregate day-to-day activities like dwelling, working, shopping, learning and playing. Given the Town's interest in designing a community that meets its residents needs, land use patterns which can carefully integrate these activities in appropriate areas should be implemented.
- The character of the Town's highway corridors is predominantly commercial. However, commercial development is generally one parcel wide along each side of the Town's highways. This closely follows the current commercial zoning districts. This zoning approach discourages the integration of various daily activities and has resulted in a monotonous stretch of commercial uses along the Town's highways. With some changes to the Town's zoning, certain highway corridors could begin to serve a broader range of land uses and could improve highway safety and capacity. The following major corridors should be considered for use of the integrated Neighborhood Commercial Zoning District/Multiple Residential Zoning District strategy:
    - Route 110 (Broadway) - From the Amityville Village line to Route 109.
- Groundwater is a critically important resource in the Town because all potable water in this area comes from groundwater wells. The groundwater aquifer system of Nassau and Suffolk Counties has been designated as the sole source of drinking water for the residents of Long Island by the US EPA. Groundwater quality in the aquifer system is directly impacted by land use activities.

The proposed project will conform to several recommendations of the Plan, including redeveloping the subject site which is the cause of unsafe living conditions, unattractive views, groundwater impacts and unsanitary environmental conditions and creating affordable housing opportunities.

*Suffolk County Planning Commission* – **Appendix F** includes the SCPC Policies, General Policy Goals, and Specific Policies (Guidelines) under which the SCPC reviews the applications that are under its jurisdiction per the NYS General Municipal Law. Immediately after each Guideline is a discussion of the proposed project's conformance to that Guideline. The analysis of conformance with SCPC guidelines was prepared as a separate product to be included by the Town in the referral to SCPC for their recommendation and is attached herein.

To summarize the analysis, the proposed project conforms to the applicable Policies, either directly or in spirit and intent.

### 3.1.3 Proposed Mitigation

- The site will include on-site recreational amenities for residents.
- Land use mitigation is provided by locating residential use on the eastern and southern portions of the property adjacent to residential communities.
- Providing a maximum of two-bedroom residential units ensures a low number of school aged children and diversity of housing types/sizes.
- Providing 10% affordable housing.

## 3.2 Community Character

The proposed project is evaluated in other sections with respect to land use and land use compatibility and related aspects of community character. As a result, this section will address community character in consideration of aesthetic and lighting characteristics.

### 3.2.1 Existing Conditions

The existing mobile home park on the site lends itself to its own unique character, as no similar use is located in the vicinity. The site is developed with closely spaced mobile homes, a series of narrow internal roadways and small areas of landscaping. The mobile homes on the property range in individual character from attractive and nicely maintained to dilapidated, unsafe and unattractive. The property is fenced off on all sides, with the exception of the six street connections from NYS Route 110, making it partially screened from view from the surrounding area. There are currently no amenities provided to the residents, and the majority of the site is closed to the public.

Despite this fact it is recognized that the mobile home park does provide a sense of place for its residents. The mobile home park does function as a community for its residents; however, it is also recognized that the existing housing is substandard and in poor condition. The subject location is served by on-site sanitary systems and not connected to the Southwest Sewer District 3 for wastewater disposal. The lack of connection to off-site wastewater disposal for such a high density development poses a threat to groundwater resources. Therefore the loss of the mobile home park by implementation of the proposed project is not driven solely by economic factors. There will be beneficial environmental impacts as a result of the project. The site does not contain any significant aesthetic or cultural resources (see **Appendix G**). There are no historic or archeological resources identified on the site (see **Figure 3-6**).

Several multifamily residential developments surround the property, including two properties to the north and one to the west. Single family residential development is the predominant land use pattern beyond NYS Route 110 in the vicinity of the subject property as described in **Section 3.1.1**. The following discussion presents the existing visual character of the site and vicinity; the photographs in **Appendix G** represent typical views of the site and depict community character.

Photographs 1-7 illustrate typical views from the single family residential located to the east of the subject site towards the site. These views are dominated by the fencing which surrounds the property and partial views of the interior of the site, which includes trailers and personal vehicles. Photograph 8 illustrates the view from the intersection of Geraldine Avenue and Brefni Street looking south along Geraldine Avenue. The dichotomy of uses along this road are apparent in this view, as the trailers are apparent in the right of the photograph, while single family residences are apparent in the left of the photograph. This view also illustrates the extent of this dichotomy, which encompasses the entirety of Geraldine Avenue.

Photograph 9 illustrates the view from the Southwood Country Club Apartments towards the subject site. As with the views from the single family residential development, this view is dominated by the fencing which surrounds the subject site and the intermittent views of the trailers and personal vehicles within the subject site.

Photographs 10-16 illustrate views of the subject site and the NYS Route 110 corridor. Generally, these views are dominated by the mix of uses which occur along NYS Route 110 and illustrate a lack of defined character for this area. Photograph 10 illustrates the view into the northern most entrance of the subject site, which is dominated by the residential trailers and interior roadways. Trailers in this view appear to be well maintained as does the site entrance. Photograph 11 illustrates the view looking south along NYS Route 110. This view is dominated by the roadway and illustrates the mix of uses visible on either side of NYS Route 110. Photographs 12, 13 and 14 illustrate views of the site from NYS Route 110 and the leasing office for the site, and generally illustrate the various states of maintenance which have occurred throughout the subject site. As illustrated in Photograph 12, not all of the trailers and internal roadways have been well maintained, as evidence of disrepair is visible in this photograph. While the leasing office building itself is well maintained (Photograph 13) the adjacent parking lot (Photograph 14) is in need of repaving and views of trailers within the site are readily apparent from this location.

Photographs 15 and 16 illustrate the mix of uses and lack of character present along NYS Route 110. This is particularly evident in Photograph 15, which illustrates a single family residence in the left of the photograph, with the entrance to the trailer park and trailers visible in the central portion of the photograph, and fencing for the subject site visible in the right of the photograph. Finally, Photograph 16 illustrates the view from the southernmost site entrance, which depicts a parking area in need of repair with trailers beyond, and a commercial parking lot and a portion of a commercial building located in the left of the photograph.

Overall, as illustrated in the photographs, the mobile home park has its own unique character, however the area surrounding the subject site has a lack of defined character, generally resulting from the diverse mix of uses, architectural styles, and states of disrepair of buildings and roadways both on the subject property and surrounding the subject property.

### 3.2.2 Anticipated Impacts

As discussed and analyzed in **Section 3.1.2**, the land use classification of the site would be changed by the proposed project. The proposed project includes multifamily residential uses in addition to commercial uses and attractive landscaping and the proposed use is intended to enhance the character and use of the site and land use in the area.

The proposed new development is envisioned to recreate its own sense of community character once the site is redeveloped. The Town of Babylon is working with the Long Island Housing Partnership on a relocation plan to provide, among other options, a similar mobile home development in the tri-state area as a potential option for the residents to relocate to. The development will also be phased, which will aid in the orderly transition for existing residents. These two factors and the applications relocation plan (see **Section 1.2.3**) will provide mitigation to address this impact. In terms of land use, the largely residential character of the subject location will continue with new safe, environmentally compatible housing and commercial space. In fact, it is anticipated that the community character of the new development will be of a much higher value because there will be open spaces and community amenities provided. The new development will be aesthetically pleasing, while the existing mobile park has little or no aesthetic value (see proposed building elevations in **Appendix H**). Currently there is no significant open space or recreation area on the site.

The proposed project will replace the current obsolete housing that exists on the subject site. More specifically, the current mobile home park includes unsafe, energy in-efficient, non-code compliant housing and is under consent to be corrected. The existing use provides no amenities for the existing residents, no on-site open space and is generally utilized only by the residents of the mobile home park rather than being open to the community at large.

As described in **Section 1.4**, the proposed project consists of mixed uses, with commercial uses situated closer to NYS Route 110 and multi family residential uses situated within the interior of the site. The project will result in an overall development that includes LEED design elements and Energy Star design/construction, in conformance with the applicable requirements of Chapter 89, Article VIII Green Building Certification.

In terms of community character, the existing surrounding land use character includes multiple family housing; however, due to the density and height proposed, the development will represent a modified multi-family housing type in the area. A significant increase in landscaped area will occur as a result of the proposed project, resulting in a more aesthetically pleasing view of the subject property, which is currently occupied by trailers and has minimal landscaping. Furthermore, the commercial portion of the site and greenspace areas of the proposed development will be open to the community. Finally, the project will include on-site amenities for residents of the community.

**Appendix H** illustrates building elevations of the proposed project. As illustrated, the proposed buildings will provide a much improved site character by utilizing a consistent architectural style, quality building materials and landscaping. The proposed buildings will further enhance

the aesthetics of the site by providing a mix of building sizes which will have varying rooflines in order to provide a view which is visually interesting. Attractive landscaping will serve to further enhance the aesthetics of the overall development.

It is noted that three of the proposed buildings will be four stories in height, and four of the proposed buildings will be three stories in height. The buildings located closest to NYS Route 110 (the retail building and the mixed-use building) will be one and three stories in height, respectively. As a result, views of the site from NYS Route 110 would differ from the existing condition in that the proposed three and four story buildings' upper floors would be visible over the intervening existing commercial and residential uses and the proposed retail and mixed uses, and the new landscaping along the lower portions would be visible between the existing uses along NYS Route 110. It is noted that the development area is set back from NYS Route 110, toward the eastern portion of the site, thereby providing further separation distance from observers on NYS Route 110 looking towards the subject site. The visual impact of the proposed three and four story buildings decreases with distance between an observer and an object. For example, for a doubling of the distance between the observer and the site being viewed, the area viewed increases by four times. As a result, the viewscape incorporates a greater number of individual objects in the field of view, while simultaneously reducing the size of each object in that viewscape. These two effects would tend to reduce the impact of the larger mass of residential buildings that would occupy the site as compared with current conditions. It is noted that observers located along Geraldine Avenue and in the residential developments to the east will have a more prominent view of the proposed three and four story buildings; however, it is important to note that the architecture and landscaping of the proposed buildings will serve to enhance the view of the subject site, and will be more aesthetically pleasing than current views of the subject site.

Consideration has been given to the height of buildings with respect to potential shadows that may impact surrounding properties. Shadows may be cast toward the west during the morning hours and toward the east during evening hours, as the sun passes across the east to west arc created by the earth's rotation. Preliminary modeling was conducted of the height and location of buildings with respect to the shadows cast during May and December. Modeling finds that on May 21, building shadows will not be cast beyond the west side of Route 110 or beyond the east side of Geraldine Avenue during the hours between 6:53 AM and 5:53 PM. The May 21 sunrise occurs at 4:36 AM with sunset at 7:04 PM. Therefore, shadows may extend west beyond Route 110 and east beyond Geraldine from 4:36 to 6:53 AM (2 hours 17 minutes), and from 5:53 to 7:04 PM (1 hour 51 minutes). During these time periods the sun is low in the sky and will cast shadows from trees, other buildings and any object within its path. On December 21, shadows will not be cast beyond the west side of Route 110 or beyond the east side of Geraldine Avenue during the hours between 8:30 AM and 2:53 PM. The December 21 sunrise occurs at 7:19 AM with sunset at 4:24 PM. Therefore, shadows may extend west beyond Route 110 and east beyond Geraldine from 7:19 to 8:30 AM (1 hour 11 minutes), and from 2:53 to 4:24 PM (2 hours 11 minutes). As noted for May, during these time periods the sun is low in the sky and will cast shadows from trees, other buildings and any object within its path. In summary, shadows may occur during a limited time period after sunrise and before sunset as noted; however, impacts are limited to the immediately surrounding area at a time when the sun is low in the sky and other

objects in the area will impede sunlight and cause shadows regardless of the presence of the proposed project. As a result, it is not anticipated that the height of the proposed buildings will adversely impact the overall character of the community given the change from residential trailers to mixed-use and multi family residential use and the location of the buildings with respect to surrounding roads and views.

In general, the proposed project will reduce the existing difference in appearance between the site and adjacent properties by removing the trailer park that now exists, and replacing it with development more similar to the residential uses to the east and north and commercial uses along NYS Route 110, which will therefore be more compatible with the surrounding community. The character of the surrounding community, which is currently poorly defined as a result of the mix of uses along NYS Route 110 and the surrounding area, will be visually enhanced by the proposed action and will establish a mixed-use with a defined character at the site.

### 3.2.3 Proposed Mitigation

- Landscaping will be planted within the site between and along the new buildings and internal access driveway and walkways, to provide a vegetative accent to the structure's architectural theme.
- The proposed action will enhance the site's use by removing the current use which consists of a mobile home development and miscellaneous commercial uses and therefore is not in aesthetic conformance with the surrounding community, and replacing the current use with an aesthetically-pleasing mixed-use development that will have an architectural style which is congruent with that of the surrounding community.

## 3.3 Community Facilities & Services

The various community services relevant to the project site include schools, police, fire and ambulance, water supply, solid waste disposal, parks and recreation services and energy/utility service providers. Each service provider was contacted to inform them of the project and obtain input with respect to their service capabilities. **Appendix I** contains the related correspondence with community service providers regarding facilities, services and conditions. Information provided in these responses is included in the following subsections. Also identified herein is the existing tax structure, existing and anticipated future tax revenue.

### 3.3.1 Existing Conditions

The project site is served by the following service districts and community service providers:

- Amityville Union Free School District
- Suffolk County Police Department (SCPD), 1st Precinct
- North Amityville Fire Company

- SCWA
- Long Island Power Authority (LIPA)/National Grid

Information regarding these community resources as well as the related fiscal considerations is discussed in this section.

Fiscal Considerations and Tax Revenue

The ±20.26-acre subject property consists of nine parcels[1], identified as the following Suffolk County Tax Map numbers:

- District 100, Section 163, Block 1, Lots 54, 55, 56 and 57
- District 100, Section 164, Block 2, Lots 2, 5, 9 and 25

The following is taken from the Fiscal and Economic Impact Analysis completed for the proposed project (see **Appendix J**):

> The majority of the Town's revenues are levied through property tax generation, which is based upon a rate per $100 assessed valuation of a given parcel. Property owners within this part of the Town of Babylon are currently[2] taxed at a rate between $253.4857 and $262.3724 per $100 of assessed valuation, depending on whether a given parcel is within the jurisdiction and charged a Waste Management tax rate of $8.8867 per $100 assessed valuation. The additional tax rates account for property taxes paid to Amityville UFSD, Library District, Suffolk County, Suffolk County Police Department, the Town of Babylon, North Amityville Fire District, Metropolitan Transportation Authority and other local taxing jurisdictions. In addition, there are various local taxing jurisdictions that institute a 'per parcel' charge, and/or fees for services.
>
> The subject property consists of nine (9) parcels on which approximately 356 trailers are located. According to the Town of Babylon Assessor's Office, the majority of the property taxes levied from the subject property are from these nine parcels. However, if individual homeowners qualify and file for an exemption such as senior-citizenship, veteran status or disability status, the Town Assessor's Office creates a new sub-parcel for their individual lot to be taxed separately. Currently, there are eighteen (18) such lots within the trailer park that qualify for this type of exemption.[3] These are identified as the following Suffolk County Tax Map numbers:
>
> - District 100, Section 163, Block 1, Lots 54.35, 54.37, 55.27, 55.31, 55.34, 55.4, 55.43, 56.33, 56.34, 56.39, 56.4, 56.41 and 56.43
> - District 100, Section 164, Block 2, Lots 10.32, 10.35, 10.36, 10.38 and 10.39
>
> According to the 2010-11 tax bills from the Town of Babylon's Receiver of Taxes, the nine (9) parcels and the eighteen (18) sub-parcels combine to assess at $225,688 (1.19% of $18,965,368). Combined, this translates into a current generation of $592,318 in property tax revenues. Of this, $273,914 or 46.2% of the total taxes generated by the site are distributed to the Amityville UFSD, and

[1] There exist numerous sub-parcels located within the above-mentioned tax parcels, on which additional tax revenues are generated from applicable mobile housing units. Further information is available in Section 5.0 [of the Fiscal and Economic Impact Analysis].
[2] The Town of Babylon's fiscal year is between December 1, 2010 and November 31, 2011.
[3] Per correspondence with the Town of Babylon Assessor's Office, April 2011.

$17,122 or 2.9% of the taxes are allocated to the Library District. An additional $80,433 or 13.6% of the total tax revenues are distributed to Suffolk County, which includes the General Fund, the Police Department and the Highway Tax. Approximately 3.8% of the tax revenue is levied to the Town of Babylon, comprising $22,646 in revenues. The North Amityville Fire District levies $38,435, or 6.5% of the tax revenue, and the balance of the current property tax revenues are apportioned to various other local taxing jurisdictions, as seen in **Table 3-3**.

**Table 3-3**
**EXISTING TAX REVENUES**

| Taxing Jurisdiction | Current Tax Rate (per $100 Assessed Valuation) | Current Tax Revenue | Percent of Total Tax Revenue |
|---|---|---|---|
| **Total: School Tax** | **166.3078** | **$291,036** | **49.1%** |
| Amityville Union Free School District | 158.6548 | $273,914 | 46.2% |
| Amityville Union Free School District - Library District | 7.6530 | $17,122 | 2.9% |
| **Total: County Tax** | **36.1038** | **$80,433** | **13.6%** |
| Suffolk County General Fund | 2.7043 | $6,023 | 1.0% |
| Suffolk County Police | 24.2956 | $54,113 | 9.1% |
| Highway Tax No. 1 | 9.1039 | $20,297 | 3.4% |
| **Total: Town Tax** | **10.1574** | **$22,646** | **3.8%** |
| Town Tax | 9.8115 | $21,875 | 3.7% |
| Town Outside Villages | 0.3459 | $771 | 0.1% |
| **Total: Other Tax** | **49.8034** | **$198,203** | **33.5%** |
| FPD - N. Amityville No. 6 | 17.0300 | $38,435 | 6.5% |
| FD – Firemen's Service Award | 0.9580 | $2,162 | 0.4% |
| Babylon Town Lighting District | 1.0442 | $2,357 | 0.4% |
| New York State Real Property Tax Law | 8.0538 | $17,938 | 3.0% |
| Sewer District - County Sewer Rate | 13.7134 | $30,949 | 5.2% |
| Sewer District - Per Parcel Charge* | | $882 | 0.1% |
| Commercial Garbage District – Res** | | $101,081 | 17.1% |
| Commercial Refuse District*** | | $3,200 | 0.5% |
| Waste Management Fee | 8.8867 | $937 | 0.2% |
| New York State MTA Tax | 0.1173 | $261 | 0.0% |
| **TOTAL: ALL TAXING JURISDICTIONS** | **262.3724** | **$592,318** | **100.0%** |

Source: Town of Babylon Receiver of Taxes.

* This taxing jurisdiction does not impose a tax rate. However, each parcel is charged the amount of $32.66 for the purpose of the Sewer District.

** This taxing jurisdiction does not impose a tax rate. However, taxes are levied by parcels 100-163-1-54, 100-163-1-55, 100-163-1-56, 100-164-2-5, 100-164-2-9, 100-164-2-10, and 100-164-2-25.

*** This taxing jurisdiction does not impose a tax rate. However, taxes are levied by parcels 100-163-1-57, and 100-164-2-2.

Educational Services

The following analysis is taken from the Fiscal and Economic Impact Analysis in **Appendix J**:

> According to the U.S. Census Bureau, there are 40,943 school-aged children residing within the Town of Babylon. Of this, 37,508 school-aged children residing in the Town of Babylon were enrolled in public school and 3,435 school-aged children residing in the Town were enrolled in

private school.[4] This equates to 91.6% of all school-aged children in the Town attending public schools; the remaining 8.4% of school-aged children in the Town attend private schools.

New Frontier is located within the Amityville Union Free School District (UFSD). The district is comprised of five schools – Northeast School serves students enrolled in Pre-K and Kindergarten; Northwest Elementary School provides education to first and second graders; Park Avenue School serves third, fourth, fifth and sixth grade students; Edmund Miles Middle School provides education to students in grades seven through nine; and Amityville Memorial High School serves those enrolled in grades nine through twelve. According to the U.S. Census Bureau, there are 26,210 persons residing within 9,967 housing units located within the Amityville UFSD.[5]

Under existing conditions, 59 school-aged children reside at the subject property.[6] It is unknown how many of these school-aged children attend nonpublic schools, or how many of these school-aged children attend public schools within the Amityville UFSD.

The cumulative enrollment within the five schools has decreased by 384 students, or 12.5%, over the ten years between 2000-01 and 2009-10. Each of the five (5) schools witnessed a decline in student enrollment over this ten-year period. The largest decrease in enrollment was witnessed in the Northwest Elementary School, which experienced a decline of approximately 33.5% since 2000-01. Given these trends, there is no known capacity or overcrowding issues within the school system.

According to the New York State School Report Card, Fiscal Accountability Supplement for Amityville UFSD, expenditures averaged $12,226 per general education student and $41,601 per special education student during the 2008-09 academic year.[7] During this year, 475 students, or 14.5% of the students within Amityville UFSD, were enrolled in the special education program.

**Figure 3-4** illustrates the locations of educational resources within the vicinity of the site.

Police Protection

The site and surrounding area are located within the jurisdiction of the 1st precinct, sector 109 of the SCPD. The 1st precinct is located at 555 Route 109 in West Babylon. **Figure 3-5** illustrates the location of police services within the vicinity of the site.

Based on the 2010-11 tax rates, the subject site generates approximately $54,113 in annual property tax allocations to the SCPD.

Fire Protection

The site and surrounding area are located within the jurisdiction of the North Amityville Fire Company. The fire house is located at 601 Broadway, Amityville, approximately 0.5 miles south of the subject property. **Figure 3-5** illustrates the fire stations in the area.

[4] 2005-2009 American Community Survey 5-Year Estimates, via the U.S. Census Bureau.
[5] 2010 Decennial Census, via the U.S. Census Bureau.
[6] Provided by New Frontier II, LLC, July 2010.
[7] As of the date of submission of this analysis, this represents the most current year that such detailed financial data is available.

Funding for fire protection is received through property taxes placed on lands within the fire districts. During the 2010-11 tax year, the subject property generates $38,435 for the North Amityville Fire Department.

Water Supply

The subject property and surrounding region is located within the service area of the SCWA. SCWA maintains 12-inch water mains along NYS Route 110, Brefni Street and Nathalie Avenue and 8-inch water mains along Geraldine Avenue and The Boulevard. The nearest public supply well field and pump station is located approximately 1,500 feet east of the property at Great Neck Road in North Amityville. Other wells, tanks and pump stations that ensure water supply and water pressure in the area of the subject site are the Albany Avenue well field, pump station and elevated tank located at the northeast corner of Albany Avenue and 45th Street in North Amityville and the Greene Avenue well field and pump station located at the northeast corner of the intersection of Greene Avenue and Birch Street in the Village of Amityville. The potable water consumed by the project would be supplied from SCWA Distribution Area 1.

Solid Waste Disposal

Existing solid waste generated on the subject site is estimated at 62 tons per month based on 13 lb/day/ 1,000 SF of retail space and 3.5 lb/day/capita with an estimated 595 residents. Residents of the mobile home park put solid waste in individual garbage cans outside their trailers for twice-weekly municipal pickup and once-weekly recyclable pickup.

The Town has mandatory source-separation ordinances, as required under New York State law. It is the responsibility of the owner, operator and/or manager of any facility to separate all mandatory recyclables from its waste stream, and to find a means of recycling these source-separated materials. The Town of Babylon Sanitation Department is responsible for overseeing the operations with the Town's contracted private carters for both the Residential and Commercial Waste Districts. The Town's Commercial Waste District is responsible for the Town's approximately 5,000 commercial entities that comprise the district. The Town's Residential Recycling Center is located on Field Street off Edison Avenue in West Babylon and is open for drop-off of recyclable materials such as plastics/glass, waste oil, car batteries, computer paper, telephone books, rocks/bricks, household batteries, junk mail, oil filters, metal/aluminum cans, polystyrene, newspapers, cardboard, concrete, tires as well as bicycles for the adopt-a-bike program.

Energy Services

LIPA is the public electric company in the area, while National Grid serves as the natural gas supplier for the area.

### 3.3.2 Anticipated Impacts

All community service providers were contacted by mail. As a result, all recipients have been made aware of plans to utilize the subject property for New Frontier. Responses received from

service providers are included in **Appendix I**. Further impact analysis and discussion regarding community services are included herein.

Fiscal Considerations and Tax Revenue

The following analysis is taken from the Fiscal and Economic Impact Analysis in **Appendix J**:

> Many of the Town and County's community services and facilities are supported in large part by the revenues generated through property taxes. The Town of Babylon and Suffolk County, as well as other local taxing jurisdictions will greatly benefit from an increase in such property tax revenues, resulting from the development and operations of New Frontier.
>
> For the purpose of this analysis, it is necessary to determine the assessed valuation for New Frontier. The value was determined based upon estimated building construction and land acquisition and development costs.[8] Given these assumptions, and as seen in **Table 3-4**, the total estimated market valuation is approximately $116 million. After applying an equalization rate and an assessment rate per $100 of the project's market valuation, the estimated assessed valuation of the project upon full build-out and occupancy is $1,380,400.

**Table 3-4**
**ESTIMATED ASSESSED VALUATION**

| | |
|---|---|
| Total Estimated Market Valuation | $116,000,000 |
| Equalization Rate | 1.19% |
| **Total Estimated Assessed Valuation** | **$1,380,400** |

Source: New Frontier II, LLC; Analysis by Nelson, Pope & Voorhis, LLC

> Current tax and equalization rates can be applied to the assessed valuation in order to project the impact that the development will have on the local tax base. **Table 3-5** shows the current tax rates and revenues that are projected to be levied from full build-out of the proposed development. The information provided in the table was derived from the current assessment factors and tax rates provided by the Town of Babylon's Receiver of Taxes, as well as the total projected assessed valuation for the development upon full build-out. It is important to note that all analyses are based on current tax dollars, and the revenue allotted among taxing jurisdictions will vary from year to year, depending on the annual tax rates, assessed valuation and equalization rates. Further, the final assessment and levy will be determined by the sole assessor at the time of occupancy. Projections included herein are as accurate as possible using fiscal impact methodologies, for the purpose of the planning and the land use approval process.

[8] Construction costs, as well as costs associated with the land development provided by New Frontier II, LLC, August 2010. It is important to note that all costs are estimates based upon market conditions as of the date of submission of this analysis.

## Table 3-5
## ANTICIPATED TAX REVENUE GENERATION

| Taxing Jurisdiction | Current Tax Revenue | Projected Tax Revenue | Change in Tax Revenue | Percent of Total Tax Revenue |
|---|---|---|---|---|
| **Total: School Tax** | **$291,036** | **$2,295,713** | **$2,004,677** | **49.1%** |
| Amityville Union Free School District | $273,914 | $2,190,071 | $1,916,157 | 46.2% |
| Amityville Union Free School District - Library District | $17,122 | $105,642 | $88,520 | 2.9% |
| **Total: County Tax** | **$80,433** | **$498,377** | **$417,944** | **13.6%** |
| Suffolk County General Fund | $6,023 | $37,330 | $31,307 | 1.0% |
| Suffolk County Police | $54,113 | $335,376 | $281,263 | 9.1% |
| Highway Tax No. 1 | $20,297 | $125,670 | $105,373 | 3.4% |
| **Total: Town Tax** | **$22,646** | **$140,213** | **$117,567** | **3.8%** |
| Town Tax | $21,875 | $135,438 | $113,563 | 3.7% |
| Town Outside Villages | $771 | $4,775 | $4,004 | 0.1% |
| **Total: Other Tax** | **$198,203** | **$1,330,705** | **$1,132,503** | **33.5%** |
| FPD - N. Amityville No. 6 | $38,435 | $235,082 | $196,647 | 6.5% |
| FD – Firemen's Service Award | $2,162 | $13,224 | $11,062 | 0.4% |
| Babylon Town Lighting District | $2,357 | $14,414 | $12,058 | 0.4% |
| New York State Real Property Tax Law | $17,938 | $111,175 | $93,237 | 3.0% |
| Sewer District - County Sewer Rate | $30,949 | $189,300 | $158,350 | 5.2% |
| Sewer District - Per Parcel Charge* | $882 | $5,394 | $4,512 | 0.1% |
| Commercial Garbage District – Res** | $101,081 | $618,253 | $517,172 | 17.1% |
| Commercial Refuse District*** | $3,200 | $19,573 | $16,373 | 0.5% |
| Waste Management Fee | $937 | $122,672 | $121,735 | 0.2% |
| New York State MTA Tax | $261 | $1,619 | $1,358 | 0.0% |
| **TOTAL: ALL TAXING JURISDICTIONS** | **$592,318** | **$4,265,008** | **$3,672,690** | **100.0%** |

Source: Town of Babylon Receiver of Taxes; Analysis by Nelson, Pope & Voorhis, LLC.

* This taxing jurisdiction does not impose a tax rate. Under existing conditions, each parcel is charged the amount of $32.66 for the purpose of the Sewer District. For the purpose of this analysis, the ratio of the current tax revenue was assumed to remain constant under the development conditions of the proposed project, comprising the same percentage of the total tax revenues generated by the subject property.

** This taxing jurisdiction does not impose a tax rate. Under existing conditions, taxes are levied by parcels 100-163-1-54, 100-163-1-55, 100-163-1-56, 100-164-2-5, 100-164-2-9, 100-164-2-10, and 100-164-2-25. For the purpose of this analysis, the ratio of the current tax revenue was assumed to remain constant under the development conditions of the proposed project, comprising the same percentage of the total tax revenues generated by the subject property.

*** This taxing jurisdiction does not impose a tax rate. Under existing conditions, taxes are levied by parcels 100-163-1-57, and 100-164-2-2. For the purpose of this analysis, the ratio of the current tax revenue was assumed to remain constant under the development conditions of the proposed project, comprising the same percentage of the total tax revenues generated by the subject property.

The proposed project will significantly increase taxes generated by the site, resulting in a substantial rise in revenues distributed to each taxing jurisdiction. At full build-out, the proposed project is

projected to generate over $4.2 million in annual taxes. This represents a net increase of over $3.6 million per year – over seven (7) times the generation under existing site conditions.

Upon full build-out, New Frontier will levy nearly $2.2 million to the Amityville UFSD, representing 46.2% of the total tax generated by the site. Likewise, the proposed development will levy over $105,000 to the Library District, comprising 2.9% of the tax levy. Suffolk County – which includes taxes generated for the General Fund, the Police Department and the Highway Tax – is projected to levy $498,377, comprising 13.6% of the total generation. Moreover, the Town of Babylon is projected to generate over $140,000 in annual property tax revenues under the proposed development, representing 3.8% of the tax generation. In excess of an additional $1.3 million, or 33.5%, will be generated by the proposed development and distributed among the Town's special taxing jurisdictions, including the North Amityville Fire District, the Firemen's Service Award, the Babylon Town Lighting District, the New York State Real Property Tax Law, the Sewer District, Garbage District, Waste Management, and the New York State Metropolitan Transportation Authority Tax.

It should be noted that because the proposed project will be developed in phases, the amount of tax revenues collected on the property will fluctuate. However, the applicant has committed that at no point will the taxes generated on the property be less than current conditions.

Educational Facilities

The following analysis is taken from the Fiscal and Economic Impact Analysis in **Appendix J**:

As previously stated, 91.6% of all school-aged children in the Town of Babylon attend public schools; the remaining 8.4% of school-aged children in the Town of Babylon attend private schools. For the purpose of this analysis, and when applying this factor to the 84 students projected to reside within New Frontier, seven (7) students are projected to attend nonpublic schools; the remaining 77 students are likely to attend public schools.

There are many nonpublic schooling options available to students in Suffolk County, and as such it is unknown where the seven (7) students are likely to enroll. However, the 77 students projected to attend public schools would likely be enrolled within the Amityville UFSD.

As previously stated, the ratio of special education students to the total enrollment at Amityville UFSD is approximately 14.5%. For lack of any other statistics to use as a basis for projection, it is assumed that the portion of special education students will remain constant with the development of the proposed project. When applied to the 77 school-aged children that are projected to attend public schools, it is anticipated that 11 of the school-aged children residing at the proposed development would require enrollment within the district's special education program. The remaining 66 students are likely to be enrolled within the general education program at Amityville UFSD.

The 77 students will result in additional costs to the Amityville UFSD. According to the New York State School Report Card, Fiscal Accountability Supplement for Amityville UFSD, expenditures averaged $12,226 per general education student and $41,601 per special education student during the 2008-09[9] academic year. Given these assumptions, it is estimated that the 66 general education students will cost the school district approximately $806,916, while the 11 special education students will cost the school $457,611. Combined, the students will result in additional costs to the Amityville

[9] As of the date of submission of this analysis, this represents the most current year that such detailed financial data is available.

UFSD amounting to $1.26 million per academic year. However, as seen in **Table 3-6** it is estimated that the school district will revenue nearly $2.2 million in taxes – covering the associated expenses incurred by the 77 students. This results in a net revenue to the Amityville UFSD of approximately $925,544 per year.

**Table 3-6**
**FISCAL IMPACT ON SCHOOL DISTRICT**

| Parameter | General Education | Special Education | Total: All Students |
|---|---|---|---|
| Student Enrollment | 2,791 | 475 | 3,266 |
| Percentage of Enrollment | 85.5% | 14.5% | 100.0% |
| Number of Additional Students | 66 | 11 | 77 |
| Expenditure per Pupil | $12,226 | $41,601 | -- |
| Additional Expenditures Incurred by District | $806,916 | $457,611 | $1,264,527 |
| Projected Tax Revenue Allocated to Schools (excludes Library District) | -- | -- | $2,190,071 |
| **Net Revenue** | -- | -- | **$925,544** |

Source: Amityville Union Free School District; Town of Babylon Receiver of Taxes; Analysis by Nelson, Pope & Voorhis, LLC.

Police Protection

The proposed project will be serviced by the SCPD's 1st precinct. A letter was sent regarding the subject site and the ability of the precinct to handle the additional development. A response was received on March 24, 2011, which indicated that the SCPD will adapt as necessary to protect and serve the community as it grows.

It is expected that the project will result in an increase to $335,376 in annual tax revenue for the SCPD, which is expected to offset the costs to provide the increase in police services.

Fire Protection

The proposed project will be serviced by the North Amityville Fire Company. The development will include current building materials and safety installations per the NYS Building Code. The project will be planned with suitable access for emergency vehicles and will include installation of fire hydrants as directed through the site plan review process.

The Fire Marshal conducted site plan review for the proposed project in February 2011 (see **Appendix I**). The Fire District will continue to be given the opportunity to provide comments on the ability to provide service for the proposed development.

It is expected that the project will result in an increase to $235,082 per year in tax revenue for the Fire Department, which is expected to offset the costs to provide the increase in fire protective services related to the development.

Public Water Supply

The project will utilize public water, to be supplied by the SCWA via connections to the existing water mains surrounding the property. The potable water requirement of the project of approximately 118,198 gpd, is not anticipated to impact the ability of the SCWA to serve the subject site and existing customers. SCWA is chartered to provide water to its service district customers, based on approved tariffs. There are no large water consumptive uses in the area. The presence of 12-inch water mains indicate a substantial distribution system in the area of the subject site. The site is intended to be connected to this system, and will pay the required rates for water used.

Solid Waste Removal and Disposal

The development is expected to generate approximately 33 tons of solid waste per month, based on 13 lb/day/ 1,000 SF of retail space and 3.5 lb/day/capita with an estimated 1,019 residents. The proposed development will utilize the Town Commercial Garbage District as required by the Town of Babylon. Bagged trash and recyclable materials (including cans, bottles, plastics and metals, as well as paper and cardboard) generated in residential apartments will be discarded in a designated garbage room on every floor of every residential building. The site manager will ensure that on-site personnel remove trash and recyclables from the garbage rooms in each building on a daily basis, or as needed. Trash will then be placed daily in dumpsters conveniently located in proximity to buildings throughout the site. Special consideration will be made for solid waste management and may include compactors to handle the volume of solid waste generated on-site.

Retail uses will utilize their employees to place trash in dumpsters conveniently located in proximity to retail stores and transport recyclable materials to the on-site service area. Retail tenants can transport recyclable materials to a designated on-site service area during normal working hours. A Solid Waste Management Plan will be prepared for the proposed project.

Energy Suppliers

The proposed project will use LIPA and National Grid to supply energy resources to the subject property. Existing utilities will be abandoned in phases coordinated with new development areas while still providing service to remaining residential areas on the site. Connections to the proposed development will be made to each utility through the creation of an internal distribution network within the proposed development. Connection of this network to LIPA and National Grid will likely be through the transmission line which presently runs along the property as well as gas mains in the area. It is anticipated that both of these energy supply companies maintain adequate resources to supply the proposed project. In addition, energy saving devices will be utilized where practical to reduce the total energy demand which will be required by the project site upon completion. The proposed project will conform to applicable requirements of Chapter 89, Article VIII Green Building Certification.

### 3.3.3 Proposed Mitigation

- The proposed project will generate significant increases in tax revenues and allocations to each of the pertinent community services would mitigate the impact of the increased costs to the pertinent community services to provide services.

- The school district will revenue nearly $2.2 million in taxes – covering the associated expenses incurred by the 77 students.
- Conformance to the NYS Building and Fire Safety Codes will partially mitigate potential health and safety impacts from fire response providers.
- The increase in water required for the sites can be mitigated by use of water-saving plumbing fixtures and mechanical systems.
- While the proposed project will utilize energy-conserving equipment, building materials and mechanical systems, this increase in energy consumption can be further mitigated by use of building materials and systems that would provide a higher level of energy conservation and/or energy efficiency. No specific information on materials, designs, equipment or specifications that may be considered is available at the present time.

## 3.4 Transportation

### 3.4.1 Existing Conditions

The descriptions and discussions of the site and area's existing traffic and public transit conditions are taken from the TIS (see **Appendix K**).

Roadway Conditions

The following is a list of roadways included in the study network surrounding the site. The greatest portion of the traffic generated by the proposed development will be distributed throughout the network. The general descriptions listed here refer only to the sections of the roadways that exist near the site. Their cross-section may vary further away from the site. The Average Annual Daily Traffic (AADT) is listed for each roadway where available in the most recent NYDOT Local Highway Traffic Volumes Report.

*NYS Route 110 (Broadway)* is a north/south urban principal arterial under the jurisdiction of the NYSDOT. NYS Route 110 provides two northbound and two southbound travel lanes with exclusive turn lanes at key intersections. The section of NYS Route 110, between the Southern State Parkway and Sunrise Highway (NY 27) has an average annual daily traffic (AADT) volume of approximately 42,195 vehicles per day (source: NYSDOT Traffic Volume Report 2007). In the vicinity of the site, NYS Route 110 provides a primarily straight horizontal alignment and a flat vertical alignment. The posted speed limit is 40 miles per hour. The land uses along this roadway in the vicinity of the site are predominantly commercial.

*Brefni Street* is an east/west local roadway under the jurisdiction of the Town of Babylon, providing one travel lane in each direction. In the vicinity of the site, Brefni Street provides a primarily straight horizontal alignment and a flat vertical alignment. The posted speed limit is 30 miles per hour. The land uses on Brefni Street in the vicinity of the site consist of primarily residential uses.

*Nathalie Avenue* is an east/west local roadway under the jurisdiction of the Town of Babylon, providing one travel lane in each direction. In the vicinity of the site, Nathalie Avenue provides a primarily straight horizontal alignment and a flat vertical alignment. The posted speed limit is 30 miles per hour. The land uses on Nathalie Avenue in the vicinity of the site consist of primarily residential uses.

Traffic Volume Data

Weekday turning movement counts were collected at the study intersections on Wednesday June 16, 2010 during the AM (7:00-9:00 AM) and PM (4:00-6:00 PM) peak periods. The weekend turning movement counts were collected on Saturday, June 19, 2010 during the Saturday midday peak period (11:00 AM – 2:00 PM). The volume data was tabulated to identify the peak hours at each of the study intersections. In order to perform a conservative analysis the peak hour volumes at each intersection were utilized in this study.

A weekday seasonal adjustment factor of 1.110 for the month of June and a weekend seasonal adjustment factor of 0.947 for the month of June were obtained from NYSDOT. Applying the weekend normalization factor will increase the existing weekend traffic volumes, therefore the weekend counts were normalized to account for seasonal fluctuation. Applying the weekday normalization factor to the weekday traffic count data would effectively reduce the existing peak hour volumes. Therefore to provide a conservative analysis, the weekday peak hour traffic volumes collected were not normalized. The existing intersection peak hour volumes are shown on Figures 3, 4, and 5 [of the TIS] and detailed data are contained in Appendix A [of the TIS].

Accident History

Accident data for the sections of roadways and intersections in the vicinity of the site were obtained from the NYSDOT. The most recent data available was from March 2007 to February 2010 (3 year period). Table 2 [of the TIS] indicates a total of 111 accidents occurred at or in the vicinity of study intersections during the analysis period none of which resulted in a fatality. The majority of accidents, 53%, involved injury. The location with the greatest number of accidents is the intersection of NYS Route 110 at Brefni Street with a total of 21 accidents. A review of Table 3 [of the TIS] indicates that a plurality of the accidents (46%) involved rear-end accidents. The majority of rear-end accidents (12) occurred at the intersection of Brefni Street at NYS Route 110. The intersection of Ritter Avenue/Cheyenne Trail at NYS Route 110 and the roadway segment of NYS Route 110 between Holly Lane and West Court both had eleven (11) rear end accidents.

Level of Service Description

Level of service and capacity analyses for the study intersections were performed using Highway Capacity Software *(HCS+) Release 5.24,* prepared by the Federal Highway Administration. HCS+ is a series of computer programs strictly adhering to the guidelines set forth in *Highway Capacity Manual 2000 (HCM2000). HCM2000* contains procedures and methodologies for estimating capacity and determining level of service for many transportation facilities and modes including signalized and unsignalized intersections. An intersection's level of service (LOS) describes its quality of traffic flow. It ranges in grade from LOS "A" (relatively congestion-free) to LOS "F" (very congested). The level of service definition, as well as the threshold values for each level, varies according to whether the intersection is controlled by a signal or a stop sign. A brief description is given here and a more detailed definition is found in Appendix D [of the TIS]. The capacity of a signalized intersection is evaluated in terms of the ratio of demand flow rate to capacity (V/C ratio). The capacity for each approach represents the maximum rate of flow (for the subject approach) which may pass through the intersection under prevailing traffic, roadway and signal conditions. The level of service of a signalized intersection is evaluated on the basis of average control-delay measured in seconds per vehicle (sec/veh). The control-delay is calculated using an equation that combines the stopped-delay with the vehicle acceleration/deceleration delay that is caused by the signalized intersection.

The flow at a two-way stop controlled (TWSC) intersection is gauged in terms of LOS and capacity. The capacity of a controlled leg is based on the distribution of gaps in the major street traffic, driver judgment in selecting a gap, and the follow-up time required by each driver in a queue. The LOS for a TWSC intersection is determined by the control-delay, and is defined for each movement rather than for the overall intersection. As with signalized intersections, HCS quantifies only the average control-delay, which is a function of the approach and the degree of saturation for any particular minor movement.

Existing Condition Analysis

The 2010 existing peak hour traffic volumes depicted in Figures 3, 4 and 5 [of the TIS] were used to determine the existing capacity and LOS of the study intersections. Table 4 [of the TIS] contains the LOS summary for the Existing Condition calculated through the HCS software described previously. The detailed analysis worksheets are in Appendix E [of the TIS].

*NYS Route 110 at Brefni Street*

The signalized intersection of NYS Route 110 and Brefni Street currently operates at LOS C during the weekday AM and PM peak hours and at LOS B during the Saturday midday peak hour.

*NYS Route 110 at Ritter Avenue/Cheyenne Trail*

The signalized intersection of NYS Route 110 and Ritter Avenue/Cheyenne Trail currently operates at LOS D during the weekday AM and Saturday midday peak hours and at LOS C during the weekday PM peak hour.

*NYS Route 110 at Nathalie Avenue*

Nathalie Avenue intersects NYS Route 110 to form a stop-controlled T-intersection. Currently the stop-controlled westbound approach of Nathalie Avenue operates at LOS C during the weekday AM, PM and Saturday midday peak hours. The southbound left-turn movement on NYS Route 110 operates at LOS C during the weekday AM, PM and Saturday midday peak hours. The northbound left-turn movement on NYS Route 110 operates at LOS B during the weekday AM peak hour and at LOS C during the weekday PM and Saturday midday peak hours.

### 3.4.2 Anticipated Impacts

The descriptions and discussions of the potential impacts of the proposed project on site and area traffic and public transit conditions are taken from the TIS (see **Appendix K**).

Site Access

As depicted on the site plan prepared by Bowne AE&T Group, access to the "New Frontier" site will be provided via eight (8) driveways. Two (2) driveways are proposed on NYS Route 110, one signalized (opposite Ritter Avenue) and one unsignalized (north of Ritter Avenue configured for entering and exiting right-turns only). The remaining unsignalized driveways will be located on Brefni Street, Nathalie Avenue and Geraldine Avenue (4 locations). The driveways on Geraldine Avenue will be located opposite Benburb Street, Glenmalure Street, The Boulevard & opposite the southern terminus of Geraldine Avenue at Benburb Street.

Trip Generation

In order to identify the impacts the proposed development will have on the adjacent street system, it is necessary to estimate the magnitude of traffic volume to be generated during the peak hours and to estimate the directional distribution of the site traffic when entering and exiting the subject property. The proposed project consists of 45,500 SF of retail space and 500 apartments.

The trip generation estimates for the proposed uses were prepared utilizing data within the Institute of Transportation Engineers' publication, *Trip Generation, Eighth Edition*. This publication sets forth trip generation data obtained by traffic counts conducted at sites throughout the country. The following Table summarizes the trip generation estimates for the proposed development. Appendix C [of the TIS] contains the trip generation worksheets.

**Table 3-7**
**TRIP GENERATION (PROPOSED PROJECT)**

| Time Period | Distribution | 500 Apartments | 45,500 SF Shopping Center | **Total** |
|---|---|---|---|---|
| Weekday AM Peak Hour | Enter | 50 | 59 | **109** |
| | Exit | 199 | 38 | **237** |
| | Total | 249 | 97 | **346** |
| Weekday PM Peak Hour | Enter | 190 | 184 | **374** |
| | Exit | 103 | 191 | **294** |
| | Total | 293 | 375 | **668** |
| Saturday Midday Peak Hour | Enter | 112 | 267 | **379** |
| | Exit | 112 | 247 | **359** |
| | Total | 224 | 514 | **738** |

***Source: Trip Generation, 8th Edition, published by ITE***

As can be seen from **Table 3-7** above, the project is anticipated to generate 346 trips (109 entering and 237 exiting) during the weekday AM peak hour, 668 trips (374 entering and 294 exiting) during the weekday PM peak hour and 738 trips (379 entering and 359 exiting) during the Saturday midday peak hour.

It should be noted that the basic premise behind the data presented in the ITE Trip Generation Handbook is that data is collected at single use/freestanding sites and does not take into account interaction between different uses on the same site. However in a multi-use development like the proposed site, a portion of the traffic utilizing the retail use will originate from the residential component of the site and will not utilize surrounding roadways. Therefore the combined trip generation data for the retail and residential uses obtained from ITE presented above will be higher than the anticipated site generated traffic utilizing NYS Route 110 and other adjacent roadways. Therefore we have taken internal credit between the retail and residential uses in accordance with ITE guidelines. The detailed worksheets depicting the calculations of the internal capture rates for this project are contained in Appendix C [of the TIS].

Also, it should also be noted that, according to studies conducted by the Institute of Transportation Engineers (ITE), traffic associated with a retail development is not 100% newly generated, a significant portion of these trips will be "pass-by" traffic. It is expected that at least 40% of the peak hour trips generated by the retail development on the site would originate from

traffic already using the roadway traveling to or from another destination. Therefore "pass-by" credits were applied for the retail component of the proposed project in accordance with ITE guidelines. The "pass-by" distribution and volumes are depicted on traffic volume figures located in Appendix B [of the TIS].

Trip Distribution and Assignment

The volume of site traffic that would travel through the study intersections during peak hours were distributed and assigned to each movement based on the existing roadway and travel patterns. The nature of the proposed land use and its associated travel patterns were considered as well. Figures 9 and 10 [of the TIS] depict the trip distribution for the retail and residential components of the proposed project. Figures 11, 12 and 13 [of the TIS] depict the site generated volumes for the weekday AM, PM, and Saturday midday peak hours. The site generated volumes were then added to the weekday AM, PM and Saturday midday No Build Condition volumes resulting in the Build Condition volumes. The Build volumes are depicted in Figures 14, 15 and 16 [of the TIS].

Traffic Impact Analysis

As stated previously, the intersection capacity and level-of-service (LOS) analyses were based on the procedures and guidelines presented in the *HCM 2000*, published by the Transportation Research Board. The *HCS+, Release 5.24* was used to analyze the study intersection and provide a LOS measurement of the intersection operations. The six classes of LOS, ranging from LOS A (excellent) to F (worst), are defined in Appendix D [of the TIS].

*NYS Route 110 at Brefni Street*

During the No Build Condition, the signalized intersection of NYS Route 110 at Brefni Street will operate at LOS C, D and B during the weekday AM, PM and Saturday midday peak hours respectively. After the completion of the project, the intersection will continue to operate at No Build LOS during the PM peak hour. The LOS will change from LOS C to LOS D during the weekday AM peak hour and LOS B to LOS C during the Saturday midday peak hour. The "Build Mitigation 1" condition incorporates restriping the westbound approach (Brefni Street) to include a left-turn/through lane and exclusive right-turn lane, the addition of a right-turn overlap for the westbound right-turn movement as well as performing timing adjustments. With these improvements implemented the intersection is anticipated to operate at No Build LOS during the AM and PM peak periods. The "Build Mitigation 2" condition incorporates the improvements from "Build Mitigation 1" and changes the northbound and southbound left turn phase from protected only to protected/permissive. With this improvement implemented the intersection is anticipated to operate at No Build LOS during all time periods studied.

*NYS Route 110 at Ritter Avenue/Cheyenne Trail (Ritter Avenue/Site Access)*

During the No Build Condition, the signalized intersection of NYS Route 110 at Ritter Avenue/Cheyenne Trail (Ritter Avenue/Site Access) will operate at LOS D during the weekday AM, PM and Saturday midday peak hours. After the completion of the project, the intersection will continue to operate at No Build LOS conditions during the weekday AM and PM peak hours. The Saturday midday peak hour will change from LOS D to LOS E. The change in LOS during the Saturday peak hour is due to the heavy eastbound left turning traffic from Ritter Avenue onto NYS Route 110 and the southbound left turn traffic into the site. Extending the southbound left turn lane storage length by 100 feet (from 140 feet to 240 feet) will improve the operation of the intersection by providing adequate storage for vehicles waiting the make a left turn into the site. To further improve the overall operation of this intersection, phasing adjustments were performed

under the "Build Mitigation 2" condition to change the northbound and southbound left turn phase from protected only to protected/permissive. With the implementation of the phasing adjustments and the extension of the southbound left turn storage, the intersection is anticipated to operate at No Build LOS during all time periods studied.

*NYS Route 110 at Nathalie Avenue*
During the No Build Condition, the northbound left-turn movement operates at LOS B during the weekday AM peak hour and at LOS D during the weekday PM peak hour and Saturday midday peak hour. The southbound left-turn movement operates at LOS C during the weekday AM, PM and Saturday midday peak hours. The westbound right-turn movement operates at LOS C during the weekday AM, PM and Saturday midday peak hours. After the completion of the project the intersection will continue to operate at No Build LOS conditions during the analyzed peak periods. Therefore, no significant impacts are created and no mitigation measures are proposed at this intersection.

*NYS Route 110 at Site Access*
Upon completion of the project, the westbound right-turn movement is anticipated to operate at LOS C during the weekday AM, PM and Saturday midday peak hours.

*Nathalie Avenue at Site Access*
Upon completion of the project, the eastbound left-turn/through movement is anticipated to operate at LOS A during the weekday AM, PM and Saturday midday peak hours and the southbound left-turn/right-turn movement is also anticipated to operate at LOS A during the weekday AM, PM and Saturday midday peak hours.

*Brefni Street at Site Access*
Upon completion of the project, the eastbound left-turn/through movement is anticipated to operate at LOS A during the weekday AM, PM and Saturday midday peak hours and the northbound left-turn/right-turn movement is anticipated to operate at LOS B during the weekday AM, PM and Saturday midday peak hours.

Conclusion
Nelson & Pope has investigated the potential traffic impacts associated with the proposed application to construct a mixed-use development "New Frontier" to be located on the east side of New York State Route 110 between Brefni Street and Nathalie Avenue in North Amityville, Town of Babylon, Suffolk County, New York. The proposed mixed-used development is comprised of a residential and a commercial component. The commercial portion of the development will contain 45,500 SF of retail space and the residential component will contain 500 apartments. The development will be located on parcels of land designated as District 100, Section 163, Block 01, Lots 54, 55, 56 & 57 and Section 164, Block 02, Lots 2, 5, 9, 10 & 25 on the Suffolk County Tax maps. The site is currently occupied by a residential development (trailer park) which would be removed to accommodate the proposed project.
The following is a summary of this investigation and the findings thereof:

1. The following intersections were studied:
   - NYS Route 110 at Brefni Street
   - NYS Route 110 at Ritter Avenue/Cheyenne Trail
   - NYS Route 110 at Nathalie Avenue
2. Existing volumes were counted in June 2010. 2015 No Build traffic volumes were determined by applying a 1.1% NYSDOT annual growth factor to the existing

volumes as well as including traffic generated by other planned projects in the area. Traffic volumes generated by the proposed project were distributed through the study intersections and added to the 2015 No Build volumes to obtain 2015 Build volumes. It should be noted that traffic volumes associated with the existing site (trailer park) were subtracted from the 2015 Build traffic volumes.

3. The proposed project is anticipated to generate 346 trips (109 entering and 237 exiting) during the weekday AM peak hour, 668 trips (374 entering and 294 exiting) during the weekday PM peak hour and 738 trips (379 entering and 359 exiting) during the Saturday midday peak hour.
4. As depicted on the site plan prepared by Bowne AE&T Group, access to the "New Frontier" site will be provided via eight (8) driveways. Two (2) driveways are proposed on NYS Route 110, one signalized (opposite Ritter Avenue) and one unsignalized (north of Ritter Avenue configured for entering and exiting right-turns only). The remaining unsignalized driveways will be located on Brefni Street, Nathalie Avenue and Geraldine Avenue (4 locations). The driveways on Geraldine Avenue will be located opposite Benburb Street, Glenmalure Street, The Boulevard and opposite the southern terminus of Geraldine Avenue at Benburb Street.
5. Capacity analyses were conducted at all the study intersections for the 2010 Existing, 2015 No Build and 2015 Build conditions during the weekday AM, weekday PM and Saturday midday peak hours. The site access driveways on NYS Route 110, Brefni Street and Nathalie Avenue were also analyzed under the 2015 Build condition.
6. After the completion of the project, the unsignalized intersection of NYS Route 110 at Nathalie Avenue and site access locations are anticipated to operate at acceptable LOS during all time periods studied.
7. After the completion of the project, the intersection will continue to operate at No Build LOS during the PM peak hour. However, the LOS will change from LOS C to LOS D during the weekday AM peak hour and LOS B to LOS C during the Saturday midday peak hour. In order to improve the operation of the intersection the following mitigation measures were considered:
   - "Build Mitigation 1" – This mitigation measure considers restriping the westbound Brefni Street approach to provide a left-turn/through lane and exclusive right-turn lane and the addition of a right-turn overlap for the westbound right-turn movement as well as performing timing adjustments. With implementation of these improvements, the intersection is anticipated to operate at No Build LOS during the AM and PM peak periods.
   - "Build Mitigation 2" – This mitigation measure incorporates the improvements from "Build Mitigation 1" and changes the northbound/southbound left turn phase from protected only to protected/permissive. With the implementation of these improvements, the intersection is anticipated to operate at No Build LOS during all time periods studied.
8. After the completion of the project, the intersection of NYS Route 110 at Ritter Avenue/Site Access will continue to operate at No Build LOS during the AM and PM peak hours and will experience a change in LOS during the Saturday midday peak hour. The change in LOS during the Saturday peak hour is due to the heavy eastbound left turning traffic from Ritter Avenue onto NYS Route 110 and the southbound left turn traffic into the site. Extending the southbound left turn lane storage length by 100 feet (from 140 feet to 240 feet) will improve the operation of the intersection by providing adequate storage for vehicles waiting the make a left turn into the site. To further improve the overall operation of this intersection,

phasing adjustments were performed under the "Build Mitigation 2" condition to change the northbound and southbound left turn phase from protected only to protected/permissive. With the implementation of the phasing adjustments and the extension of the southbound left turn storage, the intersection is anticipated to operate at No Build LOS during all time periods studied.

Based on the results of the Traffic Impact Study as detailed in the body of this report, it is the professional opinion of Nelson & Pope that, the construction of the proposed project will not significantly impact the operation of the roadways and intersections adjacent to the site. The implementation of the proposed mitigation measures will improve the operation of the roadways and intersection adjacent to the site.

### 3.4.3 Mitigation Measures

The TIS concluded as follows in regard to the proposed project:

After the completion of the project, the intersection will continue to operate at No Build LOS during the PM peak hour. However, the LOS will change from LOS C to LOS D during the weekday AM peak hour and LOS B to LOS C during the Saturday midday peak hour. In order to improve the operation of the intersection the following mitigation measures were considered:

- "Build Mitigation 1" – This mitigation measure considers restriping the westbound Brefni Street approach to provide a left-turn/through lane and exclusive right-turn lane and the addition of a right-turn overlap for the westbound right-turn movement as well as performing timing adjustments. With implementation of these improvements, the intersection is anticipated to operate at No Build LOS during the AM and PM peak periods.
- "Build Mitigation 2" – This mitigation measure incorporates the improvements from "Build Mitigation 1" and changes the northbound/southbound left turn phase from protected only to protected/permissive. With the implementation of these improvements, the intersection is anticipated to operate at No Build LOS during all time periods studied.

After the completion of the project, the intersection of NYS Route 110 at Ritter Avenue/Site Access will continue to operate at No Build LOS during the AM and PM peak hours and will experience a change in LOS during the Saturday midday peak hour. The change in LOS during the Saturday peak hour is due to the heavy eastbound left turning traffic from Ritter Avenue onto NYS Route 110 and the southbound left turn traffic into the site. Extending the southbound left turn lane storage length by 100 feet (from 140 feet to 240 feet) will improve the operation of the intersection by providing adequate storage for vehicles waiting the make a left turn into the site. To further improve the overall operation of this intersection, phasing adjustments were performed under the "Build Mitigation 2" condition to change the northbound and southbound left turn phase from protected only to protected/permissive. With the implementation of the phasing adjustments and the extension of the southbound left turn storage, the intersection is anticipated to operate at No Build LOS during all time periods studied.

## 3.5 Cultural Resources

### 3.5.1 Existing Conditions

The New York State Historic Preservation Office's GIS for Archeology and National Register map depicts the approximate boundaries of each of the New York's State and National Register properties and districts and identifies the general boundary of the state's known archeological areas. As identified in **Figure 3-6**, the subject site is not located within an archeologically sensitive area. Furthermore, the entire property is paved and previously disturbed.

### 3.5.2 Anticipated Impacts

Because the subject property is previously disturbed, any cultural resources that may have existed in those areas would have been removed, so that no impacts to such resources would be expected. A Letter of No Impact was received from SHPO dated March 2, 2011 which indicates that the proposed project will have no impact upon cultural resources in or eligible for inclusion in the State and National Register of Historic Places (see **Appendix M**).

### 3.5.3 Proposed Mitigation

- As noted above, no impacts to cultural resources will occur, as no such resources are present on or near the subject site. Therefore, no mitigation measures are necessary or proposed.

# SECTION 4.0

# OTHER REQUIRED SECTIONS

# 4.0 OTHER REQUIRED SECTIONS

## 4.1 Cumulative Impacts

Cumulative impacts are the potential impacts of a proposed action taken in conjunction with other active or anticipated nearby development projects, where the sum may potentially result in cumulative impacts that are greater than the individual impacts from each project. An analysis of cumulative impacts is generally required within a Draft GEIS when it is expected that multiple projects within the same area may result in a greater cumulative impact than is suggested by impact analyses of the individual actions.

As described in The SEQR Handbook (**NYSDEC, 2010**), cumulative impacts are:

> Cumulative impacts occur when multiple actions affect the same resource(s). These impacts can occur when the incremental or increased impacts of an action, or actions, added to other past, present and reasonably foreseeable future actions. Cumulative impacts can result from a single action or from a number of individually minor but collectively significant actions taking place over a period of time. Cumulative impacts do not have to all be associated with one project sponsor or applicant. They may include indirect or secondary impacts, long term impacts and synergistic effects.

Cumulative impacts are analyzed in this section, in fulfillment of SEQRA requirements. The analysis includes the following components. First, reasonably foreseeable pending projects are identified that could collectively result in cumulative impacts. Second, the various land use plans and studies that pertain to these projects are outlined in order to determine what land use controls would be expected in connection with planned development. Third, each impact category is discussed with respect to potential impacts and how these impacts could potentially be escalated as a result of some combined set of actions, or if no such cumulative impact is expected, this is so noted. The combination of these analyses provides a complete cumulative impact assessment in fulfillment of SEQRA.

### 4.1.1 Other Pending Projects

Three specific projects or development sites were identified in the surrounding area for inclusion in this analysis. These are identified as follows:

1. An existing 2,297 SF Taco Bell/Pizza Hut co-brand restaurant located on the northwest corner of NYS Route 110 and Ritter Avenue will be replaced by a new 3,135 SF Taco Bell/Pizza Hut restaurant (838 SF increase).
2. A 7,500 SF medical office to be located on the west side of NYS Route 110 between Ritter Avenue and Lindy Avenue.
3. A 24,000 SF office building to be located on the west side of NYS Route 110 opposite Brefni Street.

### 4.1.2 Resource Impact Assessment

Further consideration of specific potential cumulative impacts related to the New Frontier project in the context of the other planned project is provided below. Specifically, resource categories are analyzed in the context of potential cumulative impacts.

Soils

Soils are a site-specific limitation that would be dealt with on a site-specific basis. Each site should be subject to evaluation of its soils, both surficial and subsurface, to ensure that soil-related constraints are addressed in project design. The three pending projects do not represent a combined loss of unique or agricultural soils, and therefore can be evaluated and protected as needed based on specific project designs.

Topography

Topography is a site-specific limitation that would be dealt with on a site-specific basis. Each of these three sites would be subject to evaluation of slopes to ensure that any topographic constraints are addressed in design. Considering the developed nature of these sites, no significant natural topographic resources or features are expected, so that grading would not impact such resources. Town engineering staff will review and must approve grading, drainage and erosion control plans as part of its site plan review; the applicant will implement these controls and thereby ensure stabilization of erodible soils and minimization of potential impacts to soils and topography. This combination of pending projects does not represent a cumulative loss of unique topographic features; therefore topographic constraints can be evaluated and protected as needed based on specific projects.

Groundwater

Generally, the primary source of impact to groundwater quality is by the recharge of nitrogen in sanitary wastewater. However, these properties are located in an area that is served by public sanitary sewers, all sanitary wastewater generated will be conveyed off-site for treatment and disposal in an STP operated by the Suffolk County Sewer District. In this way, the potential for adverse cumulative impacts to groundwater would be eliminated. With respect to groundwater volume, all stormwater generated on-site will be retained on-site, to be recharged through individual drainage systems. The design and installation of these systems will be subject to the review of the Town, thereby ensuring that these systems will operate properly. In this way, the potential for adverse cumulative impacts to groundwater resources will be minimized.

Surface Water

Surface water impacts of significance relate to contaminant discharge to groundwater that could flow toward surface water, and/or stormwater runoff that is improperly controlled and could impact surface water via surface flow. However, there are no surface water bodies in proximity to any of these three development sites, so no impacts to such features would occur from stormwater runoff generated on them. Additionally, Town engineering requirements prohibit a site design that would allow runoff from exiting a site, which is a secondary layer of protection for surface water resources.

Land Use, Zoning & Plans

The three other pending site plans are for various commercial uses including a restaurant, various commercial uses including a restaurant, a medical office and a professional office, all located on the west side of NYS Route 110. These uses all differ from the mixed retail/residential use associated with the proposed project, such that cumulative impacts would not be expected.

All three sites are subject to Town zoning regulations and review under applicable land use plans. In addition, each proposal is subject to environmental review under SEQRA. These reviews will ensure that the pending projects will be consistent with the Town's overall goals, such that no cumulative impacts would be expected.

Transportation

Traffic associated with New Frontier is addressed through a full TIS that considers the other identified projects, thus ensuring that potential traffic impacts are addressed through mitigation and improvements, if necessary. Similarly, the other pending projects considered in this analysis will be subject to a separate review to determine potential traffic impacts, and so will build on the analysis provided herein with respect to cumulative impacts. Site plan review and curb cut permits from the State will provide forums for further consideration of traffic and appropriate mitigation. As a result, there is a framework for consideration of actions under site-specific review to ensure that cumulative environmental impacts would not occur.

Community Facilities & Services

While these applications would combine to increase the demand upon local community services (e.g., fire and police protection, utilities, and solid waste handling), these services will receive an increase in funds from the tax revenues generated from these developments, which would enable these service providers to continue to have sufficient capability to provide services. In addition, these pending projects are commercial in nature, so that there would be no impact to school district enrollments or expenditures, and all taxes allocated to the school district would be available for its discretionary uses.

Community Character

Each of these projects will change the appearance of their sites. Consequently, there will be a cumulative impact on the visual resources and character of the community. However, the uses on the subject site are well-established as intrusive to the residents on the neighborhood, so that the elimination of these uses would be considered a benefit to this population.

The context of these sites in the area is regulated under the Town Zoning Code, and site plans are subject to review by the Town Planning Board. In addition, the three pending project sites are located along the west side of a transportation corridor (NYS Route 110), and commercial development is prevalent along this corridor, with some areas of residential development as well. As a result, adverse changes in community character are not expected since the corridor is characterized by uses complementary to the proposed uses.

Overall, cumulative impacts are not expected based on the location of the projects on existing transportation corridors, existing surrounding development and site-specific review, mitigation and buffering that will contribute beneficially to the combined retention of community character.

Construction Impacts

Construction impacts cause temporary increases in the potential for fugitive dust and construction traffic and noise, but these impacts are limited in time to the construction period. These impacts will occur regardless of the type of land use of each proposal, and are not expected to occur simultaneously, as these projects will be constructed subject to individual schedules. The individual sites would be subject to construction hour limitations and construction management oversight. The above-noted impacts are temporary and unavoidable; however, proper construction management will limit impacts to the maximum extent. Such measures may include silt fencing, storm drain inlet protection, hay bales, and good housekeeping procedures. Additional measures that could be considered include temporary construction fencing to provide screening for aesthetic impacts, specifying construction entrances and staging areas in the least obtrusive locations, utilizing stabilized construction entrances and washout areas to minimize the transport of sediment off-site, stabilizing soil stockpiles, using wind screens to minimize fugitive dust and sediment transport off-site. The proposed project is located on the opposite side of NYS Route 110 from the other three pending projects, thereby lessening the potential for combined impacts with the New Frontier project.

Economic Impacts

The economic benefits resulting from proposed developments are projected to include increased tax revenues, the creation of employment opportunities in the form of construction jobs, mortgage recording taxes, and increased revenue streams throughout the community. Moreover, as spending increases, this creates additional jobs and further increases business and household income. Such beneficial economic impacts that would result from the development from these three projects, are most crucial during Long Island's current economic state, and present significant opportunities for the local economy, and the significant number of persons who are unemployed throughout the region.

It is noted that these projects may not be constructed at the same time, so that their short-term construction-related economic benefits would likewise not be felt at the same time. However, long-term fiscal benefits in the form of property tax revenues are anticipated to contribute to the local tax base – benefiting the Amityville UFSD, Town of Babylon, Suffolk County and other local and special taxing jurisdictions.

## 4.2 Adverse Impacts That Cannot Be Avoided

The site has been characterized, and the potential impacts to the existing site have been assessed. Some impacts may still exist for which no mitigation is available. The impacts themselves have been quantitatively and qualitatively discussed in previous sections. The impacts of the proposed project will be minimized where possible, but this section acknowledges those impacts that may still occur.

- Temporary increases in construction traffic and noise during the construction period.
- Despite the planned mitigation measures (such as soil wetting, etc.), temporary increases in the potential for fugitive dust during the construction period may still occur.
- Increase in vehicle trips generated on the site and on area roadways.
- Increased total anticipated water consumption on the site, from 53,008 at present to 118,198 gpd (of which sanitary wastewater generation is 115,575 gpd) associated with the project.
- Increased intensity of land use on the site (over current site conditions).
- Increased potential need for emergency services of SCPD and North Amityville Fire Company (offset by concomitant increase in tax revenues).
- Increase in the number of school age children to the Amityville Union Free School District (offset by concomitant increase in tax revenues).
- Increased demand on energy services of LIPA and National Grid (to be paid for according to rate tariffs).

## 4.3 Irreversible and Irretrievable Commitment of Resources

This subsection is intended to identify those natural and human resources listed in **Sections 2.0 and 3.0** that will be consumed, converted or made unavailable for future use as a result of the proposed project. Development of the proposed project will result in irreversible and irretrievable commitment of resources. The importance of this commitment of resources is not anticipated to be significant, due to the fact that these losses do not involve any resources that are in short supply, semi-precious or precious to the community or region, or are otherwise substantial.

It is difficult to quantify the exact commitment of resources; however, once the project is complete, the following losses of irreversible and irretrievable resources are expected:

- Building materials used for construction, including but not limited to: wood, asphalt, concrete, fiberglass, steel, aluminum, brick, etc.
- Energy and related resources used in the construction, operation and maintenance, including fossil fuels, electricity and water.

## 4.4 Growth-Inducing Aspects

Growth inducing impacts are impacts, which promote further development in an area as a result of a specific project or combination of projects. A project can be assessed in terms of direct impacts and secondary impacts. Direct impacts include projects that may cause significant influx of consumers to the area, the creation of a major employment center or institutional facility, installation of infrastructure improvements or the development of an industrial or retail center.

The proposed project is a mixed use development comprised of 45,500 SF of retail space and 500 apartments that will replace a 356-unit mobile home park, retail building, small strip mall and single family residence. The existing uses involve traffic, employees/customers, and general

commercial and residential type activity. The proposed project will replace the existing uses with residential apartments and commercial/retail. Occupants of the facility will utilize automobiles, however, a traffic study has been completed that indicates traffic impacts will not be significant. Residents of the facility will also use local services and shopping opportunities, which will tend to strengthen the local business community and support existing services. While the action represents a change in the land use of the site, the change is similar to the types of uses already present on the site and in the vicinity. Thus, the proposed action is not expected to cause significant growth in the area.

The proposed action is expected to result in minimal secondary growth inducing impacts, including creation of short-term jobs during the construction phase of the project and a beneficial increase in consumer demand and housing opportunities. Minor increases in utility usage and demand for community services are also expected, although existing facilities and services are available to accommodate demand associated with the development and as noted above, local business will benefit. In addition, the proposed action may lead to the improvement of community services as stimulated by the increased dollars generated by the site use and will significantly improve aesthetics. This will support existing programs and special districts without adding significantly to growth potential.

## 4.5 Effects on the Use and Conservation of Energy Resources

An increase in the consumption of energy resources would typically be expected from the intensification of land use on a site, particularly for a site which had been undeveloped or unused. However, the project site is already developed; the existing residential and commercial development presently consumes energy resources, in the form of electricity and natural gas. Removal of these operations, followed by construction of a new mixed use development is anticipated to result in a similar or a slightly greater level of energy use. Use of new, energy-efficient building materials (e.g., insulations, windows, weather stripping, door seals, etc.) and mechanical systems, (e.g., air conditioners, heating systems, HVAC systems, water heaters, heat pumps, etc.) is anticipated, which would minimize the amount of energy resources required. Incorporation of such energy-conserving measures is not only required by New York State and the Town of Babylon, but is a sensible business practice, particularly in light of the increasing cost of energy resources. Thus, it is possible that the completed project will result in a similar or a slightly greater demand for energy resources. The project will result in an overall development that includes LEED design elements and Energy Star design/construction, in conformance with the applicable requirements of Chapter 89, Article VIII Green Building Certification. It is expected that existing public utilities at the site will be more than adequate to meet the expected demand; LIPA has confirmed that it can provide electrical service to the project, and National Grid is anticipated to provide natural gas.

There may be a short-term increase in energy use during the construction phase of the proposed project. These impacts are expected to be of short duration, and the long-term energy demand is expected to remain stable or decline.

The proposed project will utilize energy efficient design standards to minimize energy consumption at the site. The residential buildings will be constructed in conformance with New York State and Town building codes, which require adequate insulation as well as other design standards that would minimize energy use. Water saving fixtures can be specified for the proposed buildings in accordance with current building requirements and practice of the trade. Such measures may include installation of low flow lavatories, sinks, fixtures and equipment, to reduce unnecessary water loss, which would translate into conservation of the energy resources required to heat this water.

In summary, it is not anticipated that the project will result in any significant adverse impacts on the use and conservation of energy resources.

# SECTION 5.0

# ALTERNATIVES CONSIDERED

# 5.0 ALTERNATIVES CONSIDERED

SEQRA requires the consideration of alternatives to the proposed project. Alternatives should represent reasonable and feasible land use, technology and other options to the proposed project that would achieve the applicant's objectives and remain within the applicant's capabilities. The purpose of this analysis is to determine the merits of the proposed project as compared to those of other possible uses, sites and technologies that would also achieve the applicant's objectives and potentially reduce environmental impacts. The discussions and analyses of the alternatives should be conducted at a level of detail sufficient to allow for this informed comparison, to be conducted by the decision-making agencies. Alternative 1 is the "No Action" alternative, which is required by SEQRA and is intended to represent site conditions if it were maintained in its current status and condition.

For the subject application, the following alternatives have been analyzed:

- Alternative 1: No Action - assumes that the site remains in its current use and condition.
- Alternative 2: Development per Existing Zoning - assumes development of 3 single-family homes and 224,502 SF of commercial space.

**Sections 5.1** and **5.2** provide descriptions of each alternative, and **Table 5-1** lists their corresponding uses, yields and characteristics, along with those of the proposed project, to enable comparisons against the values of the proposed project, as well as against each other.

## 5.1 Alternative 1: No Action

If the proposed project were not implemented, the subject site would not be further disturbed; the property would continue to be occupied by the mobile home park and associated parking, a trailer sales and rental business, strip mall with a variety of office, retail and wet store (deli) uses and single family residence. Furthermore, the site would continue to utilize on-site sanitary systems and would remain in noncompliance with the violations identified by the Town and SCDHS. As such, this scenario also describes the site's existing conditions, which are described and analyzed in **Sections 2.0 and 3.0**

The site would retain the potential for redevelopment in accordance with its existing zonings (see **Section 5.2**). It should be noted that the proposed retail uses are allowed as-of-right under the sites existing zoning. Thus, in this scenario, the potential for reuse under the sites existing zonings would continue.

In this alternative, the site would continue to generate $592,318 in annual taxes, of which $273,914/year would be allocated to the Amityville UFSD, which results in a net deficit of approximately $621,290 to the district and is substantially less than that of the proposed project.

Perhaps, the most significant aspect of this alternative is that it is not feasible in that the current conditions would not be permitted to remain given the health, safety and building violations. There is a consent order to require connection to the sewer district, and many structures do not have proper Certificates of Occupancies for additions, etc. The existing site conditions are substandard and dangerous and would not be permitted to continue, regardless of the proposed project. As a result, the no action alternative further considers the implications of these conditions. The following possible scenarios would be expected:

- The Town or County may be forced to condemn the site; or
- The site would have to be brought into conformance.

Conformance would require the following actions:

- Connection to the sewer district which would necessitate possible removal of some trailers for installation of subsurface infrastructure;
- Possible removal of substandard units, and removal of additions that cannot receive CO's or are not constructed to Town building specifications;
- Relocation or removal of some trailers to ensure adequate emergency access.

The consequences of these actions would involve significant costs, some of which would be passed on to the residents, no longer making the mobile home park an affordable option for all residents. Furthermore, upgrade of the existing sanitary conditions on-site would be prohibitive and infeasible to the existing owner/operator. The removal of units will displace occupants without the benefit of a relocation program. Sewer main installation would be extremely costly, as would demolition, re-construction and other measures needed to achieve compliance. Finally, the end result would be a decrease in housing units currently servicing this segment of the Town's population, without any offsetting affordable housing offered in its place. The actions and consequences associated with this alternative would have adverse socio-economic impacts.

In summary, if the project site were to remain unchanged and in its present condition and uses, the goals of the Applicant and Owner would not be realized, nor would the Town or community benefit from the improved site conditions and elimination of unwanted site activities, public use of the site and overall environmental benefits associated with redevelopment under the proposed project. In general, the Town seeks beneficial redevelopment of the site in conformance with the Town Comprehensive Plan. This alternative would not achieve this municipal goal.

## Table 5-1
## COMPARISON OF ALTERNATIVES

| Parameter | Proposed Project | Alternative 1- No Action | Alternative 2- As of Right |
|---|---|---|---|
| Zoning | MR Multiple Residence | E Business (19.40 acres)<br>B Residence (0.86 acres) | E Business (19.40 acres)<br>B Residence (0.86 acres) |
| Uses & Yields | 45,500 SF retail<br>500 apartments | 356 mobile homes, trailer sales, strip mass, 1 single family residence | 220,502 SF retail, 4,000 SF bank, 3 single family residences |
| **Coverages** (acres)**:** | | | |
| Roads, Buildings, Paved Surfaces | 13.85 | 18.24 | 16.98 |
| Unvegetated | -- | 0.20 | -- |
| Landscaping | 6.41 | 1.82 | 3.28 |
| **Water Resources:** | | | |
| Domestic Use (gpd) (1) | 115,575 | 54,208 | 7,755 |
| Sanitary Wastewater (gpd) (1) | 115,575 | 54,010 | 7,755 |
| Irrigation (gpd) (2) | 2,623 | 0 | 1,342 |
| Total Water Use (gpd) | 118,198 | 54,208 | 9,097 |
| Recharge Volume (MGY) | 18.05 (3) | 40.05 (4) | 22.42 (5) |
| Nitrogen Conc. (mg/l) | 0.61 (3) | 10.43 (4) | 2.91 (5) |
| Nitrogen Recharged (lbs/day) | 91.84 (3) | 3,482.45 (4) | 543.96 (5) |
| **Peak Hour Trips** (vph)**:** | | | |
| Weekday PM | 668 | 138 | 1,120 |
| Saturday Mid-Day | 738 | 95 | 1,456 |
| **Miscellaneous:** | | | |
| Residents | 1,109 | 595 | 11 |
| School-Age Children | 84 | 59 | 3 |
| Employees (FTE) | 75 (6) | 19 (6) | 325 |
| Solid Waste (lbs/day) (7) | 4,158 | 2,185 | 2,945 |
| Total Taxes ($/yr) | $4,265,008 (6) | $592,318 (6) | $1,191,553 |
| School Taxes ($/yr) | $2,190,071 (6) | $273,914 (6) | $611,860 |
| School Expenditure ($/yr) | $1,264,527 | $895,204 | $36,678 |
| School Surplus/Deficit (+/-$/yr) | + $925,544 (6) | -$621,290 (6) | + $575,182 |
| Parking Required (spaces) | 1,372 | 712 | 1,130 |
| Parking Provided (spaces) | 790 | ±375 | 1,139 |

(1) Per SCDHS design criteria for sanitary system engineering.
(2) Based on 5.5 inches over the growing season.
(3) See **Appendix C-3**
(4) See **Appendix C-2**
(5) See **Appendix C-4**
(6) See **Appendix J**
(7) Based on 3.5 lb/capita, 13 lb/1,000 SF of retail space, 1 lb/100 SF of office space

## 5.2 Alternative 2: Development per Existing Zoning

This scenario assumes that the acreages of E Business and B Residence zoned land on the subject site remain unchanged, and that conforming residential and commercial yields are realized (see **Retail Shopping Center As of Right Scenario Plan**, *in a pouch at the end of this document*). For the 0.86 acres of B Residence land, an estimated 3 single family lots could be accommodated, with lots ranging in size from 10,832 SF to 15,625 SF, where a minimum of 10,000 SF is required. Two residences could be located on the northeastern corner of the property with access via Brefni Street and one parcel located on the southeastern corner with access via Nathalie Avenue. The E Business zoned portion of the site (19.40 acres) could accommodate a large retail building in the central portion of the site (196,076 SF) with space for two retail tenants, a smaller retail building on the southern portion of the site (24,426 SF) and a 4,000 SF bank with drive-through in the northwest corner of the site. The commercial components of the as-of-right yield would share access, including two access points from NYS Route 110 and two access points from Nathalie Avenue. No access to Geraldine Avenue or The Boulevard would be permitted. No variances would be required under the as of right scenario.

Under this scenario, the residences are assumed to range in size from 4,320 SF to 5,790 SF and, for analysis purposes, are assumed to have four bedrooms each, in two-floor units. There are estimated to be 11 residents including 3 school-age children. The retail buildings and bank would generate approximately 325 FTE employees.

All sanitary wastewater generated by the development would be conveyed to the Suffolk County Sewer District 3. It is expected that the commercial components of the site would share an internal roadway connection between these uses; two access points onto NYS Route 110 and two access points on Nathalie Avenue are proposed. The primary access for the commercial area would be accessed directly off NYS Route 110.

Analyses are provided in **Table 5-1** that quantitatively compare this alternative with other alternative uses. In comparison to the proposed project, there would be greater impervious surfaces in this scenario, and less landscaped area compared to the proposed project. Because the site does not currently feature any natural area, neither scenario would be able to retain any natural vegetation. This scenario would consume significantly less water for domestic purposes, and so would generate less sanitary wastewater, and less water used for landscape irrigation than for the proposed project. The concentration of nitrogen in overall recharge generated as well as the overall recharge volume would be greater than the proposed project.

Overall peak-hour vehicle trip generations would be greater in this alternative for both the weekday PM or Saturday peak hours than it would be for the proposed project. Significantly fewer residents and school-age children would be expected under this scenario compared to the proposed project. There would be a substantial number of new employees here, greater than the number of employees generated in the proposed project and under existing conditions. Solid

waste generated would be less in this scenario than for the proposed project (2,945 lbs/day vs. 4,158 lbs/day).

With respect to taxes, this scenario would generate less total taxes and less school taxes than the proposal and, would generate three school-age children. The anticipated school district expenditure would be $36,678/year, resulting in a surplus of $575,182 to the district where the proposed would also create a net positive impact on the Amityville UFSD (+ $925,544).

In summary, this alternative would: 1) not address the established need for quality affordable residential units in the area, 2) eliminate the unwanted sanitary conditions and fire hazards currently present on the site; 3) not be designed using objectives of Smart Growth principals including internal walkabilty, sense-of-place features and on-site recreational amenities; 4) not include open space and civic space for the public; and 5) would not generate as many taxes to applicable taxing jurisdictions, however would still have a positive impact to the school district. Moreover, this alternative would not satisfy the goals of the applicant, as the applicant seeks to construct a mixed use retail and residential community.

# SECTION 6.0

# REFERENCES

# 6.0 REFERENCES

American Association of State Highway and Transportation Officials (AASHTO), A Policy on the Geometric Design of Highways and Streets, 1994, Washington, D.C.

American Planning Association, A Glossary of Zoning, Development and Planning Terms, PAS Report Number 491/492, 1999

Andrle, R.E. and J.R. Carroll, 1988. The Atlas of Breeding Birds in New York State. Cornell University Press, Ithaca, NY.

Arendt, Randall, 1999. Growing Greener: Putting Conservation into Local Plans and Ordinances, Island Press.

Behler, J.L. and F.W. King, 1979. The Audubon Society Field Guide to North American Reptiles and Amphibians. Alfred Knopf, N.Y.

Bent, A. C., 1946. Life Histories of North American Jays, Crows, and Titmice. Dover Publications, New York.

Bent, A. C., 1953. Life Histories of North American Wood Warblers, Part I. Dover Publications, New York.

Bent, A. C., 1953. Life Histories of North American Wood Warblers, Part II. Dover Publications, New York.

Bent, A. C., 1961. Life Histories of North American Birds of Prey, Part I. Dover Publications, New York.

Bent, A. C., 1963. Life Histories of North American Gallinaceous Birds. Dover Publications, New York.

Bent, A. C., 1964. Life Histories of North American Flycatchers Larks, Swallows, and their Allies. Dover Publications, New York.

Bent, A. C., 1964. Life Histories of North American Nuthatches, Wrens, Thrashers, and their Allies. Dover Publications, New York.

Bent, A. C., 1964. Life Histories of North American Woodpeckers. Dover Publications, New York.

Bent, A. C., 1964. Life Histories of North American Cuckoos, Goatsuckers, Hummingbirds and their Allies, Part II. Dover Publications, New York.

Bent, A. C., 1965. Life Histories of North American Wagtails, Shrikes, Vireos, and their Allies. Dover Publications, New York.

Bent, A. C., 1964. Life Histories of North American Cuckoos, Goatsuckers, Hummingbirds and their Allies, Part I. Dover Publications, New York.

Bent, A. C., 1965. Life Histories of North American Blackbirds, Orioles, Tanagers and Allies. Dover Publications, New York.

Bent, A. C., 1968. Life Histories of North American Cardinals, Grosbeaks, Buntings, Towhees, Finches, Sparrows and Allies, Part I. Dover Publications, New York.

Bent, A. C., 1968. Life Histories of North American Cardinals, Grosbeaks, Buntings, Towhees, Finches, Sparrows and Allies, Part II. Dover Publications, New York.

Bent, A. C., 1968. Life Histories of North American Cardinals, Grosbeaks, Buntings, Towhees, Finches, Sparrows, and Allies, Part III. Dover Publications, New York.

Bishop, S.C. 1943. Handbook of Salamanders. The Salamanders of the United States, Canada, and of Lower California. Comstock Publishing, Ithaca, New York.

Brown, Robert, 1991, Unpublished Manuscript Containing Meteorological Data Compiled at Brookhaven National Laboratory, Upton, NY. Data supplied by Robert Brown, Meteorologist, Revision Date, February 21, 1991, BNL, Upton, New York.

Bull, J. and Farrand, J., 1977, The Audubon Society Field Guide to North American Birds, New York: Alfred A. Knopf, Inc.

Burchell, R. W., D. Listokin, and W. R. Dolphin, 1985. The New Practitioners Guide to Fiscal Impact Analysis**.** Center for Urban Policy Research, Rutgers University, New Brunswick, N.J.

Burt, William H. and Grossenheider, Richard P., 1976, A Field Guide to the Mammals of America North of Mexico, Boston: Houghton Mifflin Company.

Busciolano, Ronald., Jack Monti, Jr., and Anthony Chu., (1997). Water-Table and Potentiometric-Surface Altitudes of the Upper Glacial, Magothy, and Lloyd Aquifers on Long Island, New York, in March-April, 1997, with a Summary of Hydrogeologic Conditions. U.S. Geological Survey Water-Resources Investigation Report 98-4019, United States Department of the Interior, U. S. Geological Survey, Coram, NY.

Chapman, J.A. and G.A. Feldhamer, 1982, Wild Mammals of North America: Biology, Management, Economics. John Hopkins University Press, Baltimore, Maryland.

Coastal Environmental Services, 1998, Water Quality Improvement Plan for Hempstead Harbor, Nassau County, New York. Volume I - Final Report. Prepared for the Hempstead Harbor Protection Committee.

Cohen, Philip, O.L. Frank, and B. L. Foxworthy, 1968. An Atlas of Long Island Water Resources, New York Water Resources Commission Bulletin 62, USGS in cooperation with the New York State Water Resources Commission, Published by the State of New York.

Conant, R. and J.T. Collins. 1991. A Field Guide to Reptiles and Amphibians of Eastern and Central North America. Peterson Field Guide Series, Number 12. Houghton Mifflin Company, Boston, Ma.

Connor, Paul F., 1971, The Mammals of Long Island, New York, Albany, New York: New York State Museum & Science Service.

Council On Environmental Quality (CEQ), undated. Natural Habitats of Suffolk County, Hauppauge, New York.

Cryan, John F., 1984, The Status of the Eastern Tiger Salamander (*Ambystoma tigrinum tigrinum*) on Long Island, NY, New York, New York.

Cryan, John F., 1985. Retreat in the Barrens. *Defenders of Wildlife*, 60(1): 18-29.

Cryan, John F. and Robert Dirig, 1977, The Moths of Autumn. Pine Bush Historical Preservation Project, Inc. Occasional Publication No. 1. Albany, NY. 16 pp.

CUPR [Center for Urban Policy Research], Rutgers University, 1994.

Dechant, J. A., M. L. Sondreal, D. H. Johnson, L. D. Igl, C. M. Goldade, M. P. Nenneman, and B. R. Euliss. 2003. Effects of management practices on grassland birds: Short-eared Owl. Northern Prairie Wildlife Research Center, Jamestown, ND. Northern Prairie Wildlife Research Center Online. http://www.npwrc.usgs.gov/resource/literatr/grasbird/seow/seow.htm (Version 12DEC2003).

Doriski, T.P., 1986. Potentiometric Surface of the Water Table, Magothy and Lloyd Aquifers on Long Island, New York, in 1984. Water Resources Investigation Report 86-4189. USGS, Washington D.C.

Edinger, G.J., D.J. Evans, S. Gebauer, T.G. Howard, D.M. Hunt, and A.M. Olivero (editors). 2002. Ecological Communities of New York State. Second Edition. A revised and expanded edition of Carol Reschke's Ecological Communities of New York State. New York Natural Heritage Program, New York State Department of Environmental Conservation, Albany, NY.

Environmental Laboratory, 1987. Corps of Engineers Wetlands Delineation Manual, Technical Report Y-87-1, U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS.

Farrand, John, 1997, National Audubon Society Field Guide to North American Birds, Eastern Region, Alfred A. Knopf, New York.

Farrand, J. ed. 1983. The Audubon Society Master Guide to Birding Vols. 1, 2 and 3. Alfred A. Knopf, New York, N.Y. 447 pp.

Fernald, M. L, 1970. Gray's Manual of Botany. 8th edition. D. Van Nostrand, New York. 1632 pp.

Forbush, E.H. 1912, The History of the Game Birds, Wildfowl, and Shore Birds of Massachusetts and Adjacent States. Wright and Potter Printing, Massachusetts.

Fowler, Murray E., 1993, Zoo and Wild Animal Medicine, Saunders Company, Philadelphia, Pennsylvania.

Freeze, Allan R. and Cherry, John A., 1979. Groundwater, Englewood Cliffs, New Jersey: Prentice-Hall, Inc.

Friebele, John, 1983, Parking Occupancy Survey, Garland, Texas, City of Garland Traffic and Transportation Department.

Fuller, Myron L., 1914. The Geology of Long Island, Department of the Interior, U.S. Geological Survey, Professional Paper 82, Government Printing Office, Washington, DC.

Gerrard, Michael B., Esq, et al. Environmental Impact Review in New York, updated August 2008. Matthew Bender & Company, Inc.

Gleason, Henry A. and A. Cronquist, 1991. Manual of Vascular Plants of Northeastern United States and Adjacent Canada. The New York Botanical Garden. 910 pp.

Godin, Alfred J., 1983, Wild Mammals of New England. The Globe Pequot Press, Chester, Connecticut.

Godin, Alfred J., 1977, Wild Mammals of New England. The Globe Pequot Press, Chester, Connecticut.

Hughes, Henry B.F.; Pacenka, Steve; Snowdon, Elizabeth, 1985. Thornthwaite and Mather's Climatic Water Budget Method: An Implementation using the Lotus 1-2-3 (TM) Spreadsheet Program, Draft, April 1985, Cornell University, Center for Environmental Research, Ithaca, New York.

Hydrologic Investigations Atlas, Department of the Interior, U.S. Geological Survey, Washington, DC.

Hunter, M.L., A. Calhoun, and M. McCollough. 1999. Maine Amphibians and Reptiles. The University of Maine Press, Orono.

Illuminating Engineering Society of North America (IESNA), 1993. Lighting Handbook, Reference and Application, 8th Edition, New York, NY.

Institute of Transportation Engineers, 1997, Highway Capacity Manual. Washington D.C. ITE Technical Council Committee 6A-32.

Institute of Transportation Engineers (ITE) 2003, Trip Generation, 7th Edition, Washington D.C. ITE Technical Council Committee 6A-32.

Jensen, H.M. and Julian Soren, 1974. Hydrogeology of Suffolk County, Long Island, New York, Hydrologic Investigations Atlas, Department of the Interior, U.S. Geological Survey, Washington, DC.

Jordan, Marilyn, 2006. Presentation at the 11th Annual Pine Barrens Research Forum - Upton, New York. The Nature Conservancy, Cold Spring Harbor, New York.

Koppelman, Lee., 1978. 208 Areawide Waste Treatment Management, Hauppauge, New York: Nassau-Suffolk Regional Planning Board.

Koppelman, Lee., 1992. The Long Island Comprehensive Special Groundwater Protection Area Plan, Hauppauge, New York: Long Island Regional Planning Board.

Koszalka, E.J., 1984, Geohydrology of the Northern Part of the Town of Brookhaven, Suffolk County, New York. U.S. Geologic Survey Water-Resources Investigations Report 83-4042.

Krulikas, R.K. and E.J. Koszalka, 1983. Geologic Reconnaissance of an Extensive Clay Unit in North-Central Suffolk County, Long Island, N.Y. U.S. Geologic Survey Water-Resources Investigations Report 83-4075. USGS, Syosset, N.Y.

Leahy, C., 1982, The Birdwatcher's Companion, Gramercy Books, New York, New York.

LIPA, 2007, Long Island Population Survey, 2006, Long Island Power Authority, Hicksville, New York.

Long Island Regional Planning Board, 1982. Historical Population of Long Island Communities. LIRPB, Hauppauge, New York.

Long Island Regional Planning Board, 1982. The Long Island Segment of the Nationwide Urban Runoff Program**.** LIRPB, Hauppauge, New York.

Long Island Regional Planning Board, 1984. Non-point Source Management Handbook**.** LIRPB, Hauppauge, New York.

Lubke, E.R., 1964. Hydrogeology of the Huntington-Smithtown area, Suffolk County, New York. USGS Water Supply Paper 1669-D. USGS, Washington, D.C.

Metcalf & Eddy, Inc., 1979, Wastewater Engineering: Disposal Reuse, Second Edition., McGraw-Hill Book Company.

Morreale, Stephen J., 1992, The Status and Population Ecology of the Diamondback Terrapin, Malaclemys terrapin, in New York. Okeanos Ocean Research Foundation, Inc., Hampton Bays, NY.

Nagle, Constance M., 1975, Climatology of Brookhaven National Laboratory: 1949 through 1973. Brookhaven National Laboratory and Associated Universities, Inc., Upton, New York.

Navarra, John G., 1979, Atmosphere, Weather and Climate: An Introduction to Meteorology, Commack, New York.

Newcomb, L. 1977. Newcomb's Wildflower Guide. Little, Brown and Co., Boston, Ma.

New York Natural Heritage Program (NYNHP), 2008. NYNHP Conservation Guide – Short-eared Owl (*Asio flammeus*). Albany, NY. Last updated February 6, 2008.

New York State, 1987, (revised January 1996) State Environmental Quality Review, 6 NYCRR Part 617, Environmental Conservation Law Sections 3-0301(1)(b), 3-0301(2)(m) and 8-0113, Albany, NY

NYSDEC (New York State Department of Environmental Conservation), 1975. NYS Environmental Conservation Law, New York.

NYSDEC, 1986. Long Island Groundwater Management Program. NYSDEC Division of Water.

NYSDEC, 1987, Well Permit Data Base, list of Suffolk County Well permits, NYSDEC, SUNY @ Stony Brook, New York.

NYSDEC, 1988, Coastal Erosion Hazard Area Map, Town of Huntington, Suffolk County, NY, Photo # 76-1033-83, Coastal Erosion Management Program, Albany, NY.

NYSDEC, 1998 Conserving Open Space in New York State: State Open Space Plan and Final Generic Environmental Impact Statement. NYS Department of Environmental Conservation and Office of Parks, Recreation and Historic Preservation. Albany, New York.

New York State Department of Environmental Conservation and the Center for Watershed Protection, 2008, New York State Stormwater Management Design Manual, Albany, New York.

NYSDEC (New York State Department of Environmental Conservation), 2008, SPDES General Permit For Stormwater Discharges from Construction Activities, Permit No. GP-0-08-001. New York.

New York State Department of Environmental Conservation (NYSDEC) Endangered Species Unity, 2003. Short-eared owl fact sheet. Last updated March 21, 2003. Available at http://www/dec.state.ny.us/website/dfwmr/wildlife.endspec/pefafs/html. Accessed February 12, 2008.

NYSDEC, 2004. 2003 Annual Air Quality Report, Ambient Air Monitoring System, Division of Air Resources.

NYSDEC. 2007. List of Endangered, Threatened and Special Concern Fish & Wildlife Species of New York State, NYS DEC Endangered Species Unit, Albany, N.Y.

NYSDEC. 2007. NYS Breeding Bird Atlas, 2000-2005. http://www.dec.ny.gov/cfmx/extapps/bba/. Accessed January 8, 2008.

NYSDEC, July 15, 2009, Guide for Assessing Energy Use and Greenhouse Gas Emissions in Environmental Impact Statements, Office of Air, Energy, and Climate

NYSDEC, Undated, Water Quality Regulations -Surface Water and Groundwater Classifications and Standards, New York State Codes, Rules, and Regulations, Title 6, Chapter X, Parts 700-705, Section 703.5 Classes and Quality Standards for Groundwater, NYSDEC, Albany, New York.

New York State Department of Education, The State of Learning: Statistical Profiles of Public School Districts, July 2004, The University of the State of New York, Albany, NY, July 2004

NYSDOS (New York State Department of State), 2005, Coastal Fish & Wildlife Habitat Assessment Form: Hempstead Harbor, modified October 15, 2005.

NYSDOT, Section 1.A; NYSDOT Environmental Procedures Manual, October 1995. NYSDOT Environmental Analysis Bureau, Air Quality Section.

NYSDOT, Environmental Analysis Bureau, August 1998 Environmental Procedures Manual, Chapter 3.1, Noise Analysis Procedures, Project Environmental Guidelines.

Obst, F.J. 1988. Turtles, Tortoises, and Terrapins. St. Martin's Press, New York.

Olsvig L. S. Cryan J. F. Whittaker R. H. 1979. Vegetational gradients of the pine plains and barrens of Long Island, New York. *In* R. T. T. Forman [ed.] *Pine barrens: ecosystem and landscape* 265-282 Academic Press, New York, New York, USA.

Pesek, L., 1998, Zoontic Diseases, Winged Wisdom Magazine, June 1998.

Pesek, L., 1998, Zoontic Diseases, Winged Wisdom Magazine, July 1998.

Peterson, Roger Tory, 1980, A Field Guide to the Birds East of the Rockies, Boston, Houghton Mifflin Company.

Rau, John G., Wooten, David C., 1980, Environmental Impact Analysis Handbook, McGraw-Hill, Inc.

Ramsay/Sleeper, Architectural Graphic Standards, Ninth edition, John Wiley & Sons, 1994

Real Property Tax Service Agency, Subscriber Map Album, County of Suffolk, 1997.

Reschke C., 1990, Ecological Communities of New York State, New York Natural Heritage Program, Latham, New York.

Robbins, C.S., B. Bruun and H.S. Zim. 2001. Birds of North America. St. Martin's Press. New York, NY.

Rossi, Frank, 2005. Lawn Care without Pesticides. Cornell Cooperative Extension, Information Bulletin 248. Ithaca, NY. 16 pp.

Rutgers University, Center for Urban Policy Research, Residential Demographic Multipliers, Estimates of the Occupants of New Housing, New York, Robert W. Burchell, Ph.D., David Listokin, Ph.D., William Dolphin, MA, Edward J. Bloustein School of Planning and Public Policy, June 2006

Salvato, Joseph, 1982, Environmental Engineering and Sanitation, 3rd Edition, A Wiley-Interscience Publication, New York.

Seinfeld, John H., 1975. Air Pollution, Physical and Chemical Fundamentals, McGraw-Hill, Inc.

Shepherd, M.D., 2005. Species Profile: *Erynnis persius persius*. In Shepherd, M.D., D.M. Vaughan, and S.H. Black (Eds). *Red List of Pollinator Insects of North America.* CD-ROM Version 1 (May 2005). Portland, OR: The Xerces Society for Invertebrate Conservation.

SCDHS, 1984, Standards for Subsurface Sewage Disposal Systems for Other Than Single-Family Residences, Revised March 5, 1984, Established pursuant to Article VB, Section 2c of the Suffolk County Sanitary Code, Division of Environmental Quality, Hauppauge, New York.

SCDHS, 1985-1, Suffolk County Sanitary Code-Article 7 Groundwater Management Zones & Water Supply Sensitive Areas, Map: Scale 1"=2 miles, Hauppauge, New York.

SCDHS, 1985-2, Suffolk County Sanitary Code-Article 7 Water Pollution Control, May, 1985, Code of Administrative Regulations, Hauppauge, New York.

SCDHS, 1987-1, Suffolk County Sanitary Code-Article 6 Realty Subdivisions, Development and Other Construction Projects, Amended March 4, 1987, Code of Administrative Regulations, Hauppauge, New York.

SCDHS, 1987-2, Suffolk County Comprehensive Water Resources Management Plan Volume 1, Division of Environmental Health, SCDHS; Dvirka and Bartilucci; and Malcolm Pirnie, Inc., Hauppauge, New York.

SCDHS, 1997, Contour Map of the Water Table and Location of Observation Wells in Suffolk County, New York, 1997, Division of Environmental Health Services, Hauppauge, New York.

SCDHS, 1998, Data Base, Well Network Database for Suffolk County Well Data, 225 Rabro Drive, Hauppauge, New York. Hauppauge, New York.

Suffolk County Department of Planning, "Agriculture and Farmland Protection Plan", June 1996

SCPC, Retail Commercial Development, Suffolk County, New York, February 5, 1997

SCPC, January 2009, Suffolk County Planning Commission Guidebook, Policies and Guidelines for the Referral of Proposed Municipal Subdivision and Zoning Actions, Suffolk County Department of Planning, Suffolk County, New York

Smolensky, D.A., H.T. Buxton and P.K. Shernoff, 1989, Hydrologic Framework of Long Island, New York, Hydrologic Investigation Atlas, Department of the Interior, U.S. Geological Survey, Washington, D.C.

Spinello, A.G., J.H. Makao, and R.B. Winowitch, 1992, Water Resources Data, New York Water Year 1991, Volume 2. Long Island, United States Geological Survey Water Data Report NY-89-2, Syosset, New York.

Sutter, Russel, M.A. deLaguna and Perlmutter, 1949, Mapping of Geologic Formations and Aquifers of Long Island, New York Bulletin GW-18, State of New York Department of Conservation, Water Power and Control Commission, Albany, New York.

Sutton, Ann and Myron, 1925, Eastern Forests, New York: Alfred A. Knopf, Inc.

Urban Land Institute, 1999, Parking Requirements for Shopping Centers, Summary Recommendations and Research Study Report, Second Edition

University of the State of New York, State Education Department. "The New York State School Report Card, June 2004 Report to the Governor and the Legislature

US Department of the Navy, 1979. Solid Waste Disposal; Civil Engineering Design Manual, 5.10. Naval Facilities Engineering Command, Alexandria, VA.

US Department of Transportation, 1973, Fundamentals and Abatement of Highway Traffic Noise, Federal Highway Administration, National Highway Institute, Report No. FHWA-HHI-HEV-73-7976-1, Washington, D.C.

US Department of Transportation, 1974, Fundamentals and Abatement of Highway Traffic Noise - Noise Barrier Design and Example Abatement Measures, Federal Highway Administration, National Highway Institute, Washington, D.C.

United States Department of Transportation, 1976. Fundamentals and Abatement of Highway Traffic Noise. Federal Highway Administration, Report No: FHWA-HHI-HEV-73-7976-1. Washington, D.C.

US Department of Transportation, 1976, Noise Barrier Design Handbook, Federal Highway Administration, Office of Research, Report No. FHWA-RD-76-58, Washington, D.C.

US Department of Transportation, 1980, Highway Noise, Prepared for the U. S. Department of Transportation by Urban Systems Research and Engineering, Inc. of Cambridge, Massachusetts, A reprint of: The Audible Landscape: A Manual For Highway Noise and Land Use, Federal Highway Administration, Office of Research and Development, Washington, D.C.

US Department of Transportation, 1980, Highway Noise Fundamentals - Noise Fundamentals Training Document, Federal Highway Administration, Washington, D.C.

US Department of Transportation, 1980-1, Highway Noise Fundamentals. Federal Highway Administration, National Highway Institute, Washington, D.C.

US Department of Transportation, 1980-2, Highway Traffic Noise Sources. Federal Highway Administration, Washington, D.C.

US Department of Transportation, 1990, Noise Barrier Design Guidelines, Federal Highway Administration, National Highway Institute, Washington, D.C.

US Department of Transportation, 1995, Highway Traffic Noise Analysis and Abatement: Policy and Guidance. Federal Highway Administration, Office of Environmental and Planning, Noise and Air Quality Branch, Washington, D.C.

US Environmental Protection Agency, 1981, Noise Effects Handbook: A Desk Reference to Health and Welfare Effects of Noise. EPA Office of Noise Abatement and Control, EPA Report Number 550/9-82-106. Washington, D.C.

US Geological Survey, 2002, Water-Resources Investigations Report, US Dept. of the Interior, Denver, Colorado/Weston, Virginia.

Village of Old Westbury Zoning Code, The incorporated Village of Old Westbury, NY, Village Hall, 1 Store Hill Road, Old Westbury, New York.

Wade, Murray, et. al., 1990. 1990 Natural Resource Inventory, Town of Brookhaven Department of Planning, Environment and Development, Medford, New York.

Warner, J.W., W.E. Hanna, R.J. Landry, J.P. Wulforst, J.A. Neeley, R.L. Holmes, C.E. Rice., 1975, Soil Survey of Suffolk County, New York, Washington, D.C.: U.S. Department of Agriculture, Soil Conservation Service, in cooperation with Cornell Agriculture Experiment Station, U.S. Government Printing Office.

Welsch, David J., and David L. Smart, James N. Boyer, Paul Minkin, Howard C. Smith, Tamara L. McCandless, 1995, Forested Wetlands Functions, Benefits and the Use of Best Management Practices, NA-PR-01-95, U.S.D.A. Forest Service, Radnor, PA.

Whitaker, J.O. 1996. National Audubon Society Field Guide to North American Mammals. Alfred A. Knopf, N.Y., N.Y.

White, Frederick A., 1975, Our Acoustic Environment. John Wiley & Sons, Inc.

Wright, A.H. and A.A. Wright, 1949. Handbook of Frogs & Toads. Comstock Pub. Assoc., Ithaca, NY.

Wright, A.H., and A.A. Wright, 1957. Handbook of Snakes V1. Comstock Pub. Assoc., Ithaca, NY.

# FIGURES

# APPENDICES