Expanded Environmental Assessment

for the:

Proposed Incentive Overlay District and Pearsall Avenue Development Project

Village of Cedarhurst
Nassau County, New York

May 2021

Cameron Engineering & Associates, LLP

TABLE OF CONTENTS

(Continues on the next page)

TABLE OF CONTENTS
(continued)

LIST OF TABLES

LIST OF FIGURES

APPENDICES

1. Introduction

This Expanded Environmental Assessment (EEA) is issued pursuant to the State Environmental Quality Review Act (SEQRA), codified at Article 8 of the New York Environmental Conservation Law, and its implementing regulations, promulgated at Part 617 of Title 6 of the New York Codes, Rules and Regulations (N.Y.C.R.R.), which collectively contain the requirements for the State Environmental Quality Review (SEQR) process.

1.1. Proposed Action and Project Description

Proposed Action

The Village of Cedarhurst is adopting a new "Incentive Overlay District" (IOD), pursuant to New York State Village Law §7-703. Permitted uses within this Incentive Overlay District will include all uses permitted in the General Business District as listed in Village Code §265-86 A (including retail), and multi-family dwellings. Pearsall Rock LLC ("the Applicant") is requesting the approval of a site plan involving the proposed development project discussed below (starting on page 1-2).

The Village Board of Trustees is authorized to provide and regulate by planning and zoning, the granting of incentives or bonuses. The incentives and bonuses include the discretion for adjustments to permissible density, area, height, or other zoning provisions. Establishing an incentive overlay zoning code provides for zoning incentives or bonuses in exchange for specific benefits or amenities that help promote revitalization that can allow for uses that are consistent with being in close proximity to public transportation and compatible with neighborhood residential uses.

The proposed Incentive Overlay District would be applicable to any property or assembled properties that meet three criteria: (i) at least 0.75 acres in area; (ii) located on a corner having two street frontages, with at least one side abutting the Village boundary; and (iii) wholly zoned General Business District, or municipally-owned.

To encourage development of eligible properties in accordance with the requirements of the IOD and Village law, the Board of Trustees is empowered to provide for a system of zoning incentives or bonuses in exchange for specific physical, social, or cultural benefits or amenities as the Board of Trustees deems necessary and appropriate.

At the discretion of the Board of Trustees, an applicant could provide one or more of the following community benefits in exchange for one or more incentives:

- *Public parking*: municipal or public parking provided in addition to the minimum required on-site parking. Alternatively, a monetary contribution can be made for the creation or improvement of public parking elsewhere in the community.

- *Open or park space*: additional or passive open or park space available to the public. Alternatively, a monetary contribution can be made for the creation or improvement of open or park space elsewhere in the community.
- *Infrastructure improvements* above and beyond minimum requirements in the form of street furniture, lighting, pavers, plazas, and related public amenities, as well as improvements to sewer and water systems. Alternatively, a monetary contribution can be made for the enhancement of similar improvements elsewhere in the community.
- Other facilities or benefits to the residents of the community, as determined by the Board of Trustees.

In exchange for community benefits, the Board of Trustees may grant the following specific incentives under the IOD:

- *Increased residential density:* Up to 30 units per acre for properties less than 1.0 acre in land area; up to 45 units per acre for properties larger than 1.0 acre and less than 3.0 acres in land area; and up to 60 units per acre for properties larger than 3.0 acres.
- *Increased height*: Up to three (3) stories or 35 feet in height for properties less than 1.0 acre in land area; up to four (4) stories or 45 feet in height for properties that are larger than 1.0 acre and less than 3.0 acres; and up to five (5) stories or 55 feet in height for properties larger than 3.0 acres.
- *Reduced parking requirements*: The Board of Trustees may reduce the parking requirements, relative to the baseline parking requirement in Village code, for applications that demonstrate elevated transit usage and significant amenities geared towards pedestrians and walkability.
- *Increased building area*: The building area may be increased from 50% to 55% of the lot area (not to exceed 55%).
- Modifications to other land development standards or dimensional requirements, subject to application to and approval from the Board of Trustees.

The proposed Incentive Overlay District text is provided in Appendix A.

Proposed Development Project

Approval of the Proposed Action would facilitate construction of the "Proposed Development Project": three 4-story buildings totaling approximately 49,543.5 square feet on a ±2.5-acre site at the northeast corner of Pearsall Avenue and Rockaway Turnpike (Sec. 39, Blk. 424, Lots 12, 413, 36, 14, 50, 711, 134, 234 and 21-23). See Figure 1-1 for the proposed site plan.

The proposed development project would include approximately 177,577 gsf of residential floor area (112 dwelling units), 9,289 gsf of resident amenity spaces, and 25,280 gsf of circulation.

Figure 1-1: Proposed Site Plan

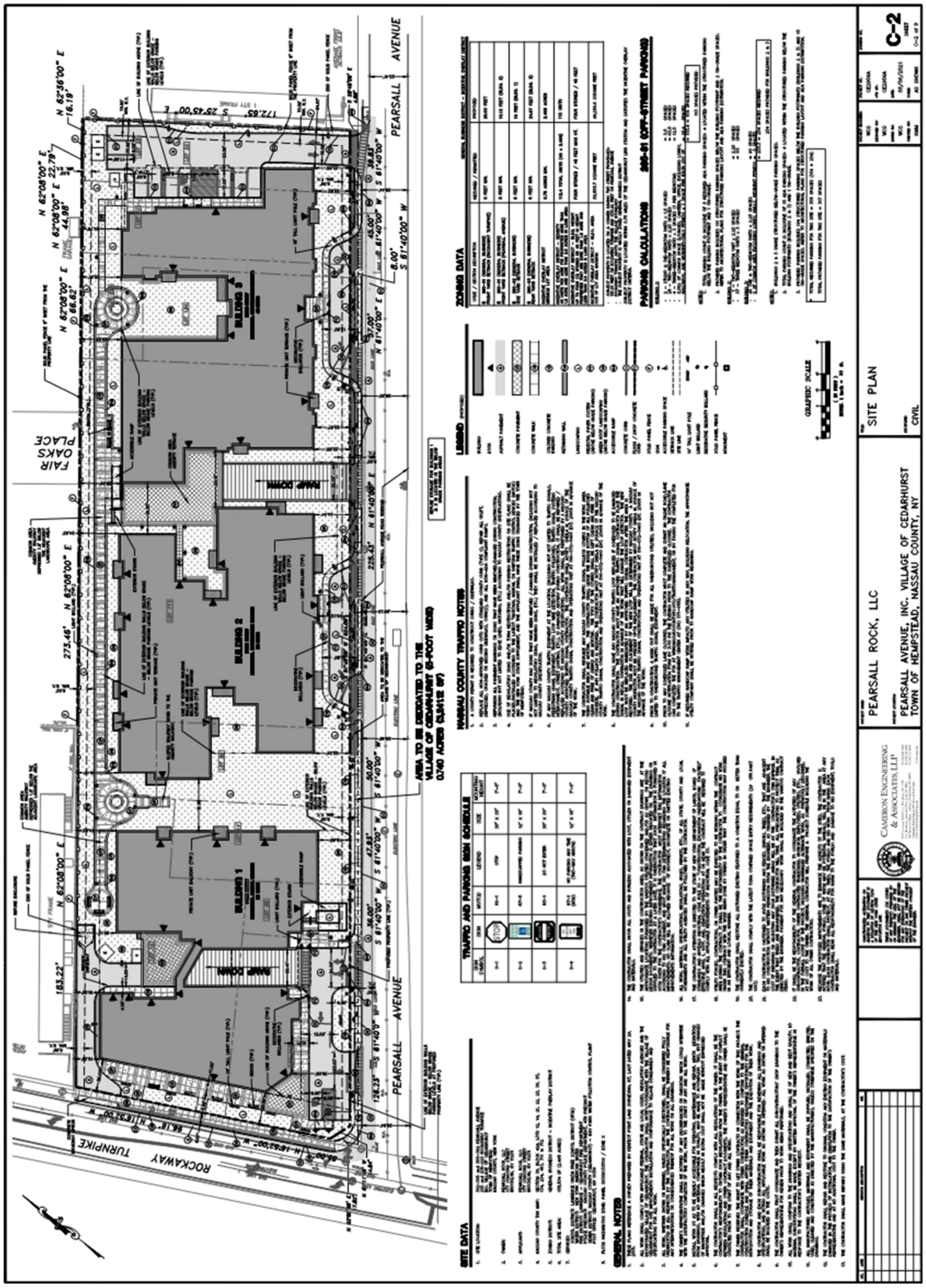


Figure 1-2 depicts an aerial view of the site plan. Figure 1-3 provides an overview of the proposed project.

Figure 1-2: Proposed Site Aerial View

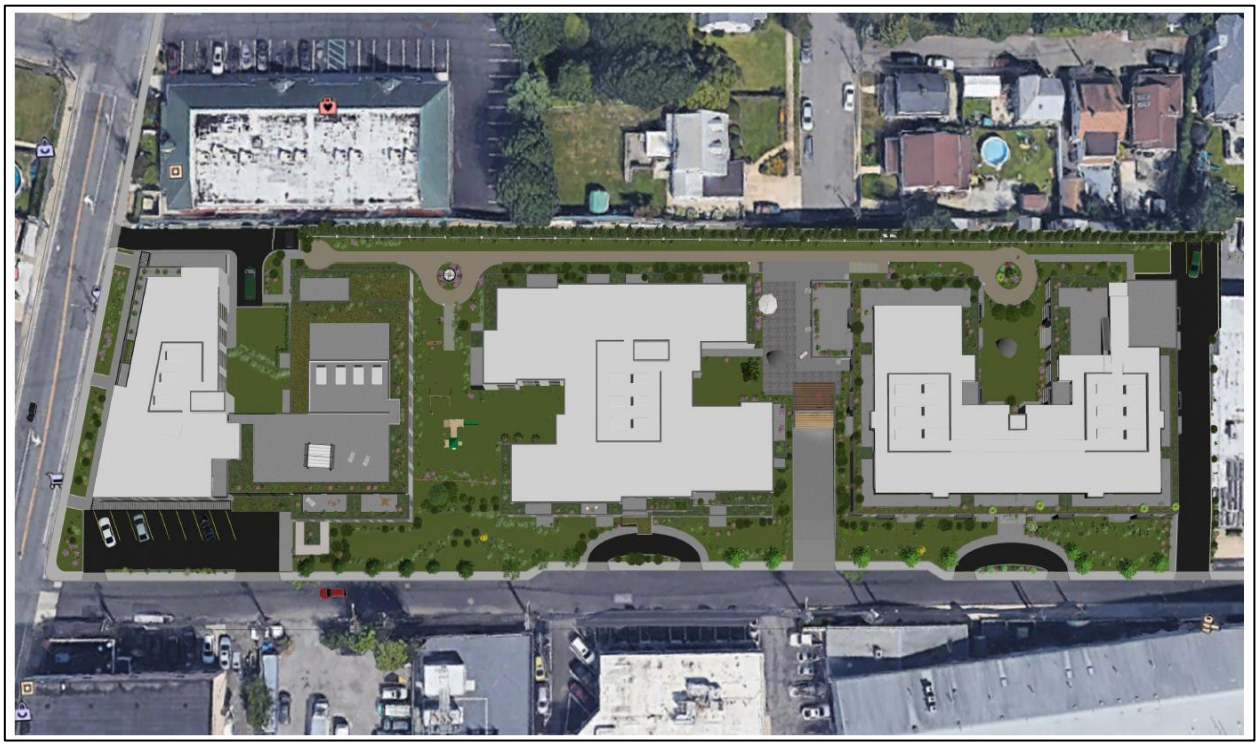


Figure 1-3: Proposed Project Overview

Building 1 would have a gross interior area of 61,255 s.f. and have a maximum 45-foot (4 stories) top of wall height. It would comprise 34 residential units (studios, 1-, 2-, and 3-bedrooms) and ±5,326 s.f. of residential amenity space on part of the ground floor, plus a 745 s.f. management office. Figure 1-4 and Figure 1-5 depict Building 1 visual renderings.

Figure 1-4: View of Mixed-Use Building 1

Figure 1-5: View of Mixed-Use Building 1 from Rockaway Turnpike

Building 2 would have a gross interior area of 63,271 s.f. and have a maximum top of wall height of 45 feet (4 stories). It would comprise 38 residential units (2- and 3-bedroom units). See Figure 1-6 for a visual rendering of Building 2.

Figure 1-6: View of Building 2 (middle)

Building 3 would have a gross interior area of 63,271 s.f. and have a maximum top of wall height of 45 feet (4 stories). It would contain 40 two-bedroom residential units. See Figure 1-7 for a visual rendering of Building 3.

Figure 1-7: View of Building 3 (east side)

The Proposed Development Project would provide a total of 317 on-site parking spaces, with the required number of parking spaces (or small surplus) for each proposed building.

The site of the Proposed Development Project would be adequately landscaped and include pedestrian pathways. Access to the site, including the below-grade parking, would be from Pearsall Avenue, with a service entrance located on Rockaway Turnpike.

The Pearsall Avenue property would be redeveloped in a single phase with a duration of approximately 18 months.

1.2. Project Location

As described above, the proposed Incentive Overlay District would be applicable to any property or assembled properties that is (i) at least 0.75 acres in area; (ii) located on a corner having two street frontages, with at least one side abutting the Village boundary; and (iii) wholly zoned General Business District or municipally-owned.

Two locations within the Village currently meet the eligibility criteria for applying the proposed incentive overlay. This document refers to these locations as Site 1 and Site 2.

Site 1 (Proposed Development Project)

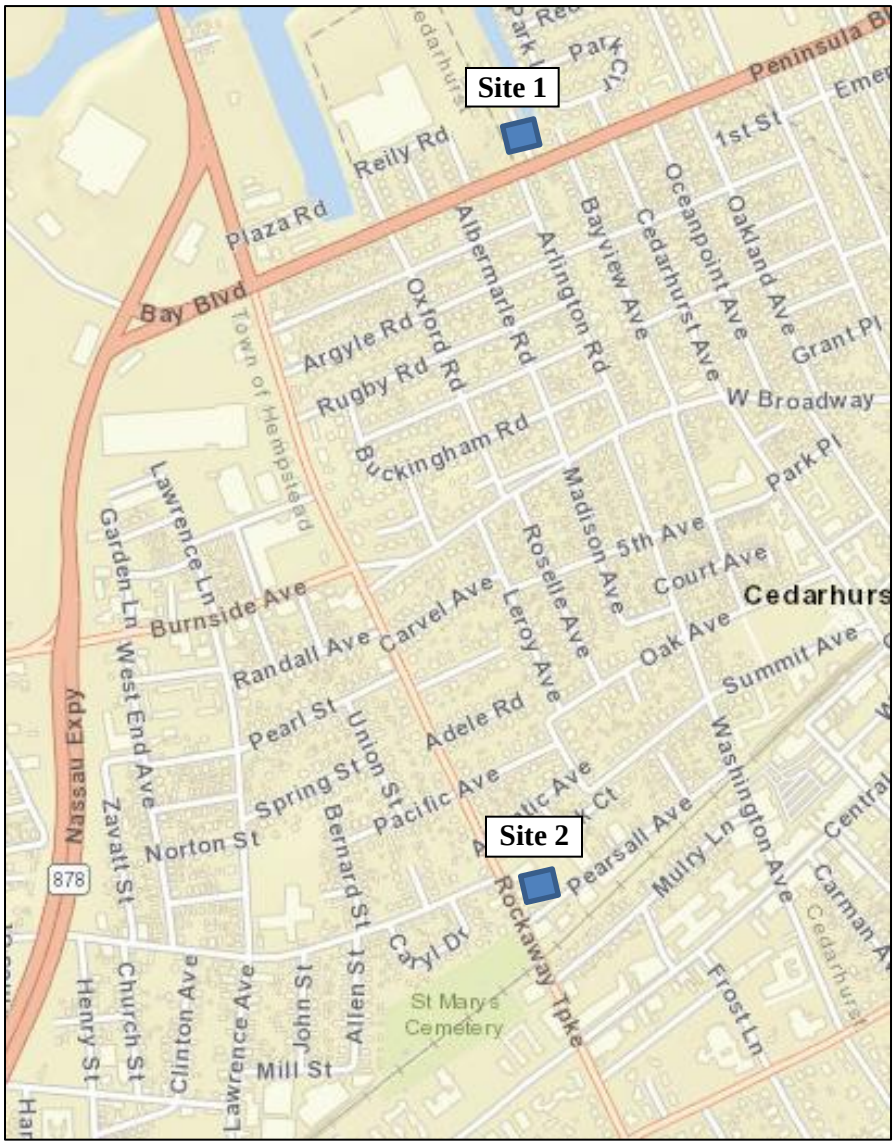
Site 1 is an approximately ±2.5-acre site comprised of ten contiguous parcels at the northeast corner of Pearsall Avenue and Rockaway Turnpike (Sec. 39, Blk. 424, Lots 12, 14, 21, 22, 23, 36, 50, 134, 234, 413, 711 & 712). See Figure 1-8: Location Map on the next page. As described above, the Applicant proposes to redevelop the entire site with three 4-story buildings that would include 112 residential units, and ground floor residential amenity space in one of the buildings (Building 1).

Site 2

Site 2 comprises two contiguous parcels on Peninsula Boulevard (Sec. 39, Block. A, Lots 530 and 15) owned by the Village of Cedarhurst, totaling 9.20 acres (see Figure 1-8: Location Map). The site had been the location of the Village's sewer treatment plant until the plant was decommissioned. The sewage treatment plant occupied the southerly section of the property, closest to Peninsula Boulevard, while the remaining portions of the property are used for DPW buildings and vehicle storage. Due to the long, narrow shape of the northern half of the property, which is squeezed between the high school and the canal, any potential future development of this property would be limited to the southern half of the property, which has frontage on Peninsula Boulevard and is approximately 4 acres in area.

While there are currently no development plans for Site 2, a potential development program consisting of 130 dwelling units is contemplated for purposes of State Environmental Quality Review.

Figure 1-8: Location Map



1.3. Project Purpose and Need

Incentive zoning is a tool that allows development to occur in a way that ordinarily would not be allowable in exchange for a public benefit that would otherwise not be required. Communities often use incentive zoning to promote specific development projects, such as transit-oriented development. To promote opportunities that exist for economic investment in areas in close proximity to the Long Island Rail Road (LIRR) train station and downtown, as well as vacant municipally-owned property, the proposed Incentive Overlay Zone would provide the opportunity to facilitate redevelopment of vacant or underutilized land within the Village of Cedarhurst. The incentives and bonuses that can be granted by the Village Board of Trustees include adjustments to permissible density, area, height, or

other zoning provisions. In exchange, specific benefits or amenities are given to the Village that helps to promote revitalization.

Site 1 (Peninsula Boulevard) is a vacant site surrounded by single-family residential and the local high school, while Site 2 (Pearsall Avenue/Rockaway Turnpike) is currently surrounded by a mix of commercial, residential, office and light industrial uses, with the subject site being vacant and underutilized. These sites would not be able to be redeveloped in the manner being discussed without the approval of the Incentive Overlay District.

2. Land Use, Zoning, and Community Character

2.1. Existing Conditions

The incentive overlay district is applicable only to parcels that are wholly zoned General Business District or are municipally-owned. The uses permitted within the incentive overlay district are those uses already permitted in the General Business District, with the added permitted use of multi-family residences. See Figure 2-1 on the following page for the Village of Cedarhurst Building Zone Map.

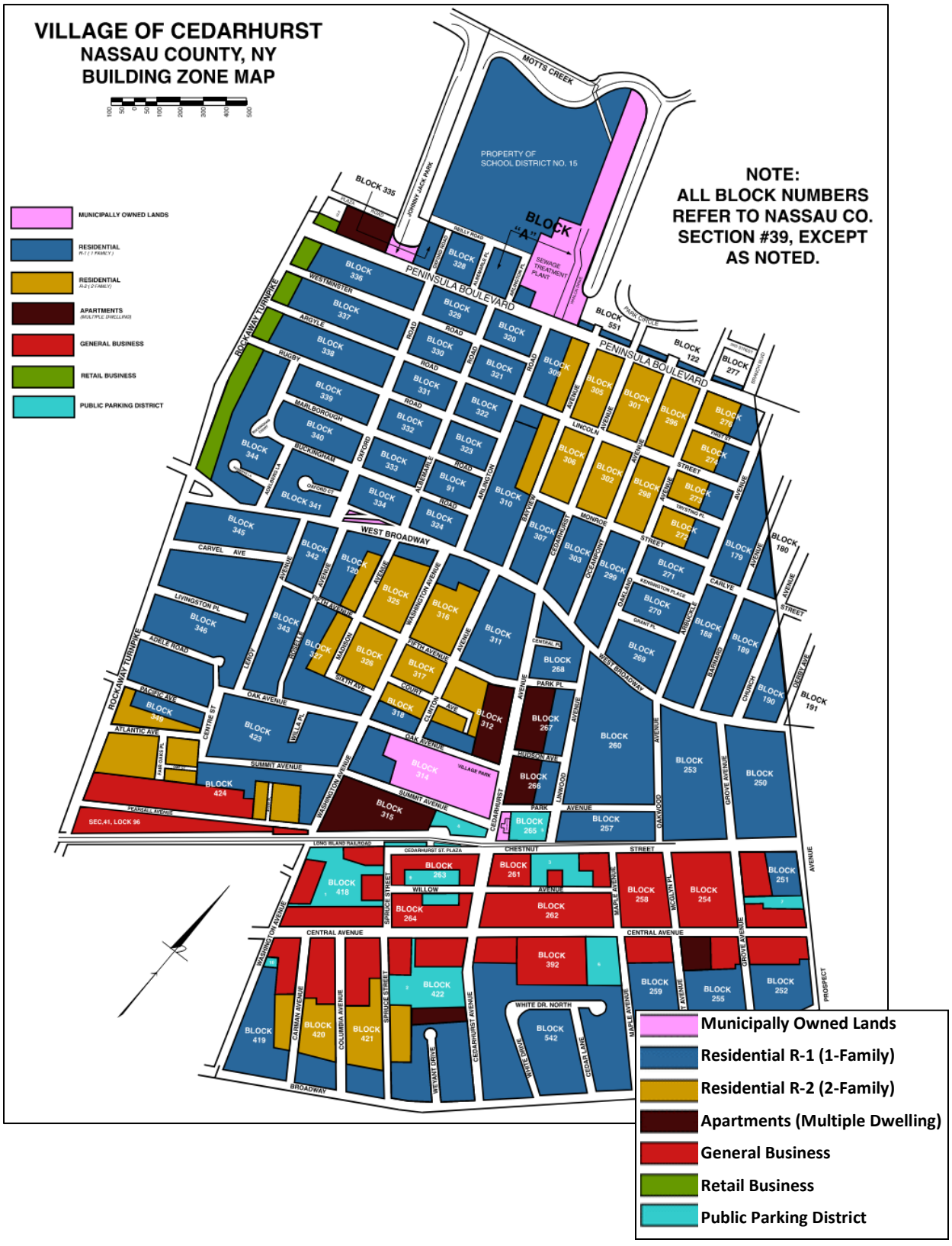
The development of any multi-family residences would be a consistent use for properties in close proximity to public transportation, and this type of development is compatible with adjacent residential uses.

The subject property on Pearsall Avenue (Site 2) currently has a wide variety of disjointed uses, including commercial, residential, office, and light industrial. There is no connection between the existing uses, and the structures are neglected and in need of repair. Located in the middle of the property is a large empty lot with a vacant industrial building. Directly across the street are similar disjointed uses, with some commercial buildings and light industrial uses. To the rear of the property are an office building and residential homes.

The other site that can qualify for use of the incentive overlay district (Site 1, Peninsula Boulevard) was until recently used for the Village's sewer treatment plant. This property does not have an underlying zoning district, and on the Village Zoning Map the property is labeled as "Municipally Owned Lands." The rear of the property is currently being used as outdoor storage. For the most part, the property is surrounded by single-family residential structures. On the south side of Peninsula Boulevard as well as on the area southwest of the property, is a single-family residential neighborhood. Adjacent to the northern half of the property, Lawrence High School is on the west side and a canal and a residential neighborhood (in the Town of Hempstead) are to the east.

Photos of the existing conditions around Site 1 and Site 2 are provided beginning on page 2-3 (Pearsall Avenue) and page 2-5 (Peninsula Boulevard).

Figure 2-1: Village of Cedarhurst Building Zone Map



Photos of Existing Conditions (Pearsall Avenue – Site 2)

Photo 1: **Looking north at existing building (to be removed) located at northwest corner of subject property.**

Photo 2: Looking south at existing building (to be removed) located at southwest corner of subject property.

Photo 3: Looking south at the southeast corner of Pearsall Avenue and Rockaway Turnpike.

Photo 4: Looking east down Pearsall Avenue, with the subject property on the left side of the street (existing buildings on left side of the street to be removed).

Photos of Existing Conditions (Pearsall Avenue – Site 2)

Photo 5: Looking east down Pearsall Avenue from subject property.

Photo 6: Looking across Pearsall Avenue at subject property from south side of street (building to be removed).

Photo 7: View of existing vacant parking lot and building (to be removed) located on subject property.

Photo 8: Looking west down Pearsall Avenue from south side of street. The subject property is located adjacent (west side) to the building located in the foreground.

Photos of Existing Conditions (Peninsula Boulevard – Site 1)

Photo 1: Looking west on Peninsula Boulevard, at the residential homes located across the street from the subject property.

Photo 2: Current entrance to property from Peninsula Boulevard.

Photo 3: Looking north at the subject property from Peninsula Boulevard.

Photo 4: Looking west towards Lawrence High School, showing the previous location of the sewage treatment tank and the current storage of new vehicles.

Photos of Existing Conditions (Peninsula Boulevard)

Photo 5: Existing storage of new vehicles on the subject property.

Photo 6: Looking south across the vacant front portion of the subject property towards Peninsula Boulevard.

Photo 7: Existing Village DPW offices and equipment located on the subject property.

Photo 8: Looking south along the existing entry drive towards Peninsula Boulevard.

2.2. Potential Impacts of Proposed Action

The introduction of the incentive overlay district has the potential to permit subject properties to increase their permitted building height and permitted building area, along with modifications to other land development standards or dimensional requirements that are different than what is permitted by the underlying zoning district. However, the land uses that are being introduced by this application would be consistent and compatible with the existing land uses in the nearby areas.

The proposed Pearsall Avenue development would be introducing multi-family residential units into an area which currently has office and industrial uses. The use is compatible with the adjacent single-family residential neighborhood and it is an appropriate use for an area that is close to a train station (less than ½ mile to the Cedarhurst LIRR station). The multifamily development would encourage more pedestrian activity and less dependence on motor vehicles for everyday trips.

With residential use immediately to the east of the project site, the multi-family project provides an appropriate transition from residential to commercial. The intent of the proposed Incentive Zoning District is to address existing incompatibilities in the area. The proposed District is the mitigation that will bring more desirable and compatible uses to a growing mixed-use transit-adjacent area.

The property on Peninsula Boulevard is a vacant site that would be providing infill multi-family residential into an area that is predominantly single-family residential. The use is compatible with the adjacent single-family residential neighborhoods as well as the adjacent high school. The way the site is situated and shaped makes it appealing to bring new development to the southern half of the property (the half closest to Peninsula Boulevard).

2.3. Proposed Mitigation

Because multi-family dwelling units would be a permitted use in the incentive overlay district, and the proposed Pearsall Avenue development would not result in any potential land use, zoning, or community character impacts, no mitigation is required.

3. Community Services

3.1. Existing Conditions

Police

Police protection for the eligible areas included in the proposed incentive overlay district is provided by the Nassau County Police Department (NCPD) 4th Precinct. This police precinct provides protection for the entire Village of Cedarhurst. The headquarters for the 4th Precinct is in Hewlett.

Fire

The eligible areas included in the proposed incentive overlay receive fire protection and emergency medical services from the Lawrence-Cedarhurst Fire Department, located at 75 Washington Avenue in Lawrence. The Department has approximately 95 fire personnel, and their equipment inventory includes three engines, one ladder truck, one heavy rescue truck, and one or two ambulances.

Schools

The entire Village of Cedarhurst is located within the Lawrence Union Free School District (UFSD). Based on data from the New York State Education Department (NYSED), the total 2018-2019 school year enrollment for the Lawrence UFSD was 2,728 students. The projected enrollment for the 2019-2020 school year is approximately 2,572 students, a decrease of 156 students, or 5.72%. Based on data from the NYSED, enrollment within the Lawrence UFSD has steadily declined over the last 20 years – dropping approximately 31% during that same time period (enrollment during the 1999-2000 school year was 3,738).[1]

Properties eligible to benefit from the application of the incentive overlay district must be at least 0.75 acres in area and within the General Business District or municipally-owned. This prerequisite for application of the incentive overlay district reduces the number of eligible properties to a select number. All the potentially eligible properties currently utilize police, fire, and emergency response, and would continue to do so with the application of the incentive overlay district.

3.2. Potential Impacts of Proposed Action

With the potential of multiple-family residences, there may be a slight increase in the demand for services, which can be handled sufficiently by the existing levels of provided service. Of the children anticipated to reside at the subject sites, a relatively small percentage are anticipated to attend public schools. This analysis is supported by existing

[1] New York State Education Department. Lawrence UFSD NYSED Data. June 30, 2017. https://data.nysed.gov/profile.php?instid=800000049493

US Census data and recognizes that both sites would likely attract residents from the Orthodox Jewish community. Students who might otherwise enroll in the public school system would instead receive primary and secondary school instruction within private system providers/religious schools. Therefore, the school district is expected to benefit from increased tax revenues that would exceed any added expenses.

Police and Fire

Within the Village of Cedarhurst, the police and fire departments serve approximately 2,035 existing housing units.[2] The creation of the new incentive overlay would have the potential to add up to 242 new housing units in the Village of Cedarhurst within the next few years. This represents a 12% increase from the existing number of housing units. All of these new housing units would be multi-family units within a small number of buildings. The existing housing units require police and fire services, and new residential development would also require the continuation of these services. Both the police department and the fire department would benefit from the additional tax revenues.

The Lawrence Cedarhurst Fire Department currently serves a large number of multi-family residential and apartment buildings within the Village of Cedarhurst and surrounding area. Figure 3-1 below provides an overview of the 35 multi-family properties within the Department's service area.

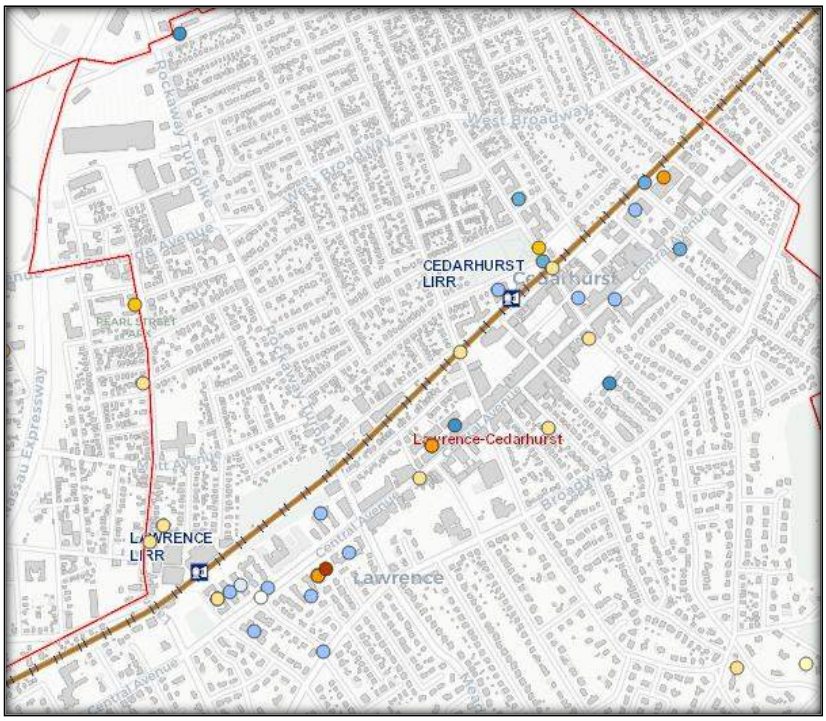


Figure 3-1: Multi-Family Properties in the Lawrence Cedarhurst Fire Department Service Area

[2] U.S. Census Bureau, 2018 American Community Survey 5-Year Estimates.

Several of these multi-family properties are of similar height to the proposed development on Pearsall Avenue, including the 4-story Carlyle Condominium on Central Avenue.

Schools

New residential development at the two project sites, like any residential development, has the potential to generate school-age children. However, the proposed development at both sites is expected to attract a number of households from the Orthodox Jewish community, where students who might otherwise enroll in the public school system would enroll in religious primary and secondary schools with private system providers.

In combination with the housing typologies proposed (i.e., smaller units with fewer bedrooms than single-family residences), the generation of public school-age children is anticipated to be minimal, with financial benefits realized by the local school district. A significant percentage of school-age children within the Village of Cedarhurst attend private school, and similar patterns are expected with new multi-family development. According to the 2019 American Community Survey 5-Year Estimates, there are 1,606 school-age children (K-12) residing in 2,078 households within the Village (approximately 0.69 school-age children per household). However, this ratio drops significantly when looking specifically at multi-family housing units within the Village. There are approximately 213 school-age children (K-12) residing in 643 multi-family housing units within the Village (approximately 0.33 school-age children per multi-family housing unit).

Further, of these school-age children residing within the Village, 259 (19.8%) attend public schools. Applying the same overall ratio of school-age children to multi-family households results in projected totals of 37 students for the proposed development and 43 students for the hypothetical development on Peninsula Boulevard. Given the relatively low level of public-school enrollment within the Village (19.8%), public-school enrollment from the proposed and hypothetical development would be very low (up to 8 students for the proposed development and up to 9 students for the hypothetical development). As these projections result in less than one new public school-age child per grade, no adverse impacts are anticipated from any potential increase in public school enrollment.

Applying the ratio of private school-age children residing in Cedarhurst (80.2%) to the proposed and hypothetical developments would result in 29 and 34 private school students, respectively. Private school attendance does not introduce any adverse fiscal impacts to the Village of Cedarhurst or the Lawrence School District. However, from an operational perspective, private school attendance does rely on extensive busing, which has the potential to impact local traffic conditions. As a result, this Expanded Environmental Assessment provides additional analysis associated with private school bus activity within the Village (see Section 4.2). Overall, this analysis found that private school bus activity would have minimal impacts on the surrounding road network.

It should be noted that the above projections represent a significantly higher number of school-age children than evidenced in most multi-family developments on Long Island, particularly transit-oriented developments. These projections represent a conservative approach, accounting for both the high levels of private school attendance in the Village and the proposed housing typologies of the Pearsall Avenue development (larger number of two- and three-bedroom units compared to typical TOD developments). For contextual purposes, additional research and school-age children projections are provided below – largely demonstrating a far lower number of school age children per unit than the projections provided above.

Additional Research on School-Age Children in Transit-Oriented Developments

In addition, Cameron Engineering has also compiled additional data focusing specifically on transit-oriented/downtown development and where possible, providing data from similar developments on Long Island.

A 2008 study titled *What About Our Schools?*[3] specifically looked at the number of school-children generated by transit-oriented developments ("TOD") across the country. The study found that transit-oriented developments resulted in fewer school-age children than other developments located farther from transit, and referenced a multiplier of 0.03. Using the multiplier referenced in the study for the Pearsall Avenue project would potentially generate three school-aged children, while the potential multi-family development on Peninsula Boulevard would yield an estimated four school-aged children.

The 2009 Kearney Transit-Oriented Development Vision Plan[4] utilizes a multiplier of 0.017 for TOD apartments. Using the multiplier referenced in this Plan would potentially generate two school-aged children from the proposed development on Pearsall Avenue.

Cameron Engineering also reached out to local developers to request data on their recent TOD projects. Three developers provided data on five projects, as shown in Table 3-1. Even including the data from the Village at Patchogue, which includes predominantly larger units, there is only a total of 21 school aged children generated from the 487 units studied, or a rate of 0.043. Using the aforementioned multiplier generated from the survey of local projects would generate five school-age children from the proposed Pearsall Avenue development and six school-age children from the hypothetical development.

Table 3-1: School-Age Children and Multi-Family/Transit-Oriented Development on Long Island

Development	Number of Units	Types of Units	Number of School-Age Children
The Cornerstone at Farmingdale	42	28 Studios, 10 1BR, 4 2BR	0
The Jefferson at Farmingdale	154	82 1BR, 72 2BR	6
Avalon Towers (Long Beach)	109	68 1BR, 38 2BR, 3 3BR	0

[3] *What About Our Schools?* Urbanomics and Edison Exchange. July 25, 2008.
[4] http://www.nj.gov/state/planning/publications/188-kearny-vision-plan.pdf

Development	Number of Units	Types of Units	Number of School-Age Children
The Avalon at Glen Cove	256	41 Studios, 124 1BR, 91 2BR	4
New Village at Patchogue	291	35 Studios, 113 1BR, 138 2BR, 5 3BR	11

3.1. Proposed Mitigation

Because the Proposed Action would not result in a notable number of project-generated public-school age children, no potential adverse impacts to public schools are anticipated. Additionally, as there are no potential adverse impacts associated with private school bus activity, no mitigation is required. It is anticipated that additional tax revenues associated with new residential development would provide a significant tax positive revenue source.

4. Transportation and Parking

4.1. Existing Conditions

Cameron Engineering performed a detailed traffic investigation of the potential traffic impacts of the proposed Zoning Overlay District on the local street system of the immediate area of the two sites. The scope of study reviewed the area's existing roadway characteristics and traffic conditions (including traffic volumes, traffic flow quality, and geometry), determined future conditions if the zoning remains unchanged, estimated the potential peak-period trip generation (weekday AM and PM peak hours, and the Sunday* midday peak hour), and assessed the effect of this additional traffic on the surrounding roads.

* *In the Village of Cedarhurst, traffic volumes are higher on Sundays than on Saturdays, so this EEA considers the Sunday peak hour.*

A copy of the Traffic Impact Study can be found in Appendix B.

Traffic and Level of Service

The major roadways in the area that were examined include Pearsall Avenue, Peninsula Boulevard, Burnside Avenue, Cedarhurst Avenue, Central Avenue, Rockaway Turnpike and Washington Avenue. Based on site visits, there were six key intersections identified in the vicinity of the two sites:

1. Rockaway Turnpike and Peninsula Boulevard-Bay Boulevard
2. Cedarhurst Avenue and Peninsula Boulevard
3. Rockaway Turnpike and Burnside Avenue
4. Rockaway Turnpike and Pearsall Avenue
5. Washington Avenue and Pearsall Avenue
6. Central Avenue and Rockaway Turnpike

Traffic impact studies are tasked with identifying potential impacts to traffic flow quality, measured in terms of intersection travel delay ("seconds per vehicle"). The travel delays are identified in terms of the corresponding "Level of Service" (LOS) which can range from A through F. Level of Service is described in detail in the Traffic Impact Study's Section 2.6 and Appendix A.

The existing levels of service are summarized in Table 4-1 on the following page.

Table 4-1: Existing Levels of Service

		AM Peak Hour			PM Peak Hour			Sunday Peak Hour		
Intersection	**Movement**	**Delay (sec/veh)**	**v/c Ratio**	**LOS**	**Delay (sec/veh)**	**v/c Ratio**	**LOS**	**Delay (sec/veh)**	**v/c Ratio**	**LOS**
Rockaway Turnpike and Peninsula Boulevard - Bay Boulevard	Eastbound Left	30.3	0.33	C	40.5	0.36	D	42.7	0.76	D
	Through-Right	36.4	0.44	D	48.4	0.58	D	44.4	0.53	D
	Westbound Left	34.3	0.76	C	89.7	1.01	F	44.0	0.74	D
	Through	30.7	0.51	C	44.8	0.63	D	71.7	0.89	E
	Right	40.5	0.88	D	36.9	0.70	D	45.4	0.66	D
	Northbound Left	54.2	0.50	D	60.5	0.61	E	63.3	0.54	E
	Through	50.0	0.93	D	10.5	0.61	B	47.9	0.64	D
	Right	49.9	0.93	D	10.6	0.61	B	47.9	0.64	D
	Southbound Left	46.8	0.82	D	61.7	0.85	E	57.3	0.80	E
	Through	21.3	0.52	C	20.0	0.44	C	21.2	0.37	C
	Right	21.3	0.52	C	20.0	0.44	B	21.2	0.37	C
	INTERSECTION	*37.7*		*D*	*36.4*		*D*	*44.8*		*D*
Cedarhurst Avenue and Peninsula Boulevard	Eastbound Left	12.5	0.06	B	9.9	0.06	A	9.0	0.06	A
	Through	6.9	0.72	A	6.0	0.59	A	5.6	0.54	A
	Right	6.9	0.72	A	6.0	0.59	A	5.6	0.54	A
	Westbound Left	13.8	0.34	B	10.2	0.24	B	9.4	0.25	A
	Through	7.5	0.79	A	6.4	0.66	A	6.0	0.61	A
	Right	7.4	0.79	A	6.4	0.66	A	6.0	0.61	A
	Northbound LTR	15.2	0.37	B	15.7	0.46	B	15.2	0.36	B
	Southbound LTR	14.4	0.19	B	14.1	0.08	B	14.2	0.10	B
	INTERSECTION	*7.9*		*A*	*7.0*		*A*	*6.6*		*A*
Rockaway Turnpike and Burnside Avenue	Eastbound Left	56.1	0.80	E	56.9	0.81	E	49.6	0.69	D
	Through	64.3	0.87	E	66.8	0.89	E	53.2	0.76	D
	Right	64.8	0.87	E	67.8	0.90	E	53.8	0.77	D
	Westbound Left	61.7	0.85	E	63.6	0.86	E	54.9	0.77	D
	Through	54.5	0.77	D	55.4	0.78	E	51.3	0.70	D
	Right	37.1	0.30	D	33.4	0.23	C	40.0	0.45	D
	Northbound Left	37.2	0.11	D	51.3	0.28	D	33.6	0.13	C
	Through	31.0	0.36	C	33.9	0.40	C	28.6	0.33	C
	Right	30.9	0.36	C	0.0	0.00	A	28.5	0.33	C
	Southbound Left	22.7	0.24	C	25.9	0.39	C	21.0	0.30	C
	Through	28.1	0.60	C	47.0	0.68	D	31.0	0.51	C
	Right	90.4	1.09	F	99.2	1.06	F	36.0	0.65	D
	INTERSECTION	*56.4*		*E*	*61.0*		*E*	*40.6*		*D*
Rockaway Turnpike-Pearsall Ave	Westbound LR	18.1	0.00	C	20.9	0.00	C	29.1	0.00	D
	Northbound TR	8.8	0.00	A	8.6	0.00	A	8.7	0.00	A
	Intersection	*2.6*		*A*	*3.2*		*A*	*3.8*		*A*
Washington Ave-Pearsall Ave	Eastbound LR	15.1	0.00	C	14.5	0.00	B	15.7	0.00	C
	Northbound LT	8.0	0.00	A	8.0	0.00	A	8.1	0.00	A
	Intersection	*3.2*		*A*	*3.1*		*A*	*3.0*		*A*
Central Avenue at Rockaway Turnpike	Eastbound Left	37.9	0.63	D	38.3	0.67	D	36.9	0.61	D
	Through-Right	39.9	0.65	D	37.1	0.57	D	37.3	0.55	D
	Westbound Left	36.9	0.10	D	34.6	0.13	C	35.3	0.10	D
	Through-Right	61.4	0.94	E	60.8	0.94	E	63.4	0.94	E
	Northbound Left	17.6	0.12	B	19.3	0.12	B	18.5	0.07	B
	Through-Right	24.1	0.48	C	23.7	0.40	C	24.4	0.42	C
	Southbound Left	16.8	0.21	B	17.3	0.17	B	17.1	0.26	B
	Through-Right	24.1	0.54	C	27.0	0.60	C	24.8	0.55	C
	INTERSECTION	*34.7*		*C*	*35.6*		*D*	*34.8*		*C*

Parking

Existing Village Code parking requirements apply to any property and use when applying for the incentive overlay district. For non-residential spaces, the Village Code requires one parking space for each 200 square feet of occupant common areas, excluding the building lobby, hallways, and residents-only fitness/pool facilities. For multi-family residential uses, Village Code requires 1.5 parking spaces for each studio and one-bedroom unit, 2.25 spaces for each two-bedroom unit, and one parking space for each bedroom for units with three or more bedrooms.

4.2. Potential Impacts of Proposed Action

Trip Generation

Future Build scenario volumes were determined by adding site-generated traffic to the No Build volumes. Trip generation data were referenced from the 10th Edition of the *Trip Generation Manual*, published by the Institute of Transportation Engineers (ITE). For the purposes of the traffic study, peak weekday generated traffic coincides with the peak weekday AM and PM travel periods on the surrounding roads, while ITE peak Saturday data coincides with the Village's Sunday peak periods on the surrounding roads.

Additionally, the Pearsall Avenue site is occupied by existing buildings. The net new trip generation is equal to the potential new traffic minus the traffic associated with the existing land uses that would be removed. Trip generation is summarized in Table 4-2 below.

Table 4-2: Site-Generated Peak Hour Trips

Site 1: Peninsula Boulevard; Site 2: Pearsall Avenue

Time Period	New Site #1 Trips	Site #2: Existing Uses Removed	Site #2: New Residences	Net Site #2 Trips
AM Peak Hour	Enter: 14 tph Exit: 47 tph Total: 61 tph	Enter: -12 tph Exit: -17 tph Total: -29 tph	Enter: 11 tph Exit: 30 tph Total: 41 tph	Enter: -1 tph Exit: 13 tph Total: 12 tph
PM Peak Hour	Enter: 47 tph Exit: 28 tph Total: 75 tph	Enter: -41 tph Exit: -40 tph Total: -81 tph	Enter: 30 tph Exit: 20 tph Total: 50 tph	Enter: -11 tph Exit: -20 tph Total: -31 tph
Sunday Peak Hour	Enter: 46 tph Exit: 45 tph Total: 91 tph	Enter: -60 tph Exit: -60 tph Total: -120 tph	Enter: 26 tph Exit: 28 tph Total: 54 tph	Enter: -34 tph Exit: -32 tph Total: -66 tph

	AM Peak Hour	PM Peak Hour	Sunday Peak Hour
Net New Trips: Sites 1 and 2	Enter: 13 tph Exit: 60 tph Total: 73 tph	Enter: 36 tph Exit: 8 tph Total: 44 tph	Enter: 12 tph Exit: 13 tph Total: 25 tph

As shown in the table, the Pearsall Avenue site could generate net new traffic on the order of 12 new AM peak hour trips; 31 fewer PM peak hour trips; and 66 fewer Sunday peak hour trips, once existing land uses are removed. The Peninsula Boulevard site could generate 61 AM peak hour trips; 75 PM peak hour trips; and 91 Sunday peak hour trips.

Site Access

The site plan for the Pearsall Avenue site would retain the existing apron on Rockaway Turnpike and change the current continuous flush curb to discreet site driveways. It would also replace the existing buildings with new buildings that are set back further from Pearsall Avenue, which would improve sight lines along Pearsall Avenue. Additionally, the proposed site plan includes a 5-foot dedication and widening on Pearsall Avenue to accommodate the proposed driveways, to provide more room for through traffic to pass a vehicle slowing to enter the site.

To date, there is no proposed site plan for Peninsula Boulevard.

On-Site Parking

The number of parking spaces being provided for the Pearsall Avenue development should be more than adequate to serve the needs of the proposed project, and will satisfy or exceed Village Code §265-81 (Off-street parking). Furthermore, the location of the Pearsall Avenue site, in close proximity to the LIRR station, would facilitate fewer privately-owned cars per unit, compared to a residential site not located near a railroad station.

Provided and required parking in each building is summarized below for the Pearsall Avenue site. Of note, the parking underneath Buildings 2 and 3 is connected, so these two buildings are considered together.

The Peninsula Boulevard site does not have a formal site plan.

Table 4-3: Required and Provided Parking (Pearsall Avenue development)

Building	***Required Parking***	***Provided Parking***
Building 1	*104 spaces (5 ADA)*	*113 spaces (5 ADA)*
Buildings 2 and 3	*204 spaces (5 ADA per building)*	*204 spaces (5 ADA per building)*
Site-wide	*308 spaces (15 ADA)*	*317 spaces (15 ADA)*

Control of Parking Access

There will be surface parking in front of Building 1/on the side of Building 3, for deliveries or short-term visitors. Garage access will be controlled, generally implemented as follows. The exact technology is to be determined.

Each garage will have a locking garage door, and only authorized drivers will be admitted into one of the garages. The applicant will use a to-be-determined technology (such as a smartphone app, cameras, key fob readers, or other scannable device), to facilitate streamlined entry, access control, and security. Visitors can be given access to a

smartphone app, or they can be permitted to use a pass code on-site. Guests staying overnight would be expected to register the vehicle to avoid having the vehicle towed.

Parking will be partially assigned to residents as described below:

- Building 1 will have one assigned parking space per unit. Remaining parking spaces would be unassigned for tenants and visitors. There will be no charge for visitor parking.
- Employees (e.g., management office staff) will be permitted to park by Building 1.
- Buildings 2 and 3 will have two assigned parking spaces per unit. Remaining parking spaces will be owned in common for general resident and visitor use, including for a third vehicle for 3-bedroom units.
- There will be no leasing or sharing of parking with non-building residents.

Off-Site Parking

An increase in the number of Village residents could increase the customer base for local retailers and generate additional parking demand on Central Avenue and Village parking lots. To gauge relative parking demand in these off-site areas, Cameron Engineering conducted Thursday evening parking counts on Central Avenue and the Village's municipal parking lots on Thursday, February 27, 2020 (i.e., before covid-related traffic changes)[5] from 5:00 to 7:30 p.m. Of note, Thursday evening is reported to be the busiest time of the week for local retailers in the Village, as community members prepare for the Sabbath. Weather conditions were favorable before, during, and after the observation date, so there was no concern that weather may have impacted the results.

Each municipal lot was observed to have at least 10% availability during the counts (higher than the potential ±7% population increase with both sites), and overall, there were more than 460 spaces observed available along Central Avenue and in the municipal lots in the Village's shopping district.

The available space counts roughly correspond to the Institute of Transportation Engineers (ITE) projections for the parking demand at both sites (460 or more available spaces, 464 spaces projected genuine demand for the two sites combined). Therefore, the proposed action is not anticipated to create daily excess parking demand that would impact shopping activity in the Village.

School Bus Activity

New residential uses will likely increase the number of school-aged children in the Village. However, based on local data and recent trends in the Lawrence Union Free School District, many of the new school-aged children would likely attend private schools.

[5] "New York on Pause" covid-related building occupancy/business restrictions began on March 20, 2020. The parking counts in this study pre-date the restrictions and reflect pre-pandemic, typical use.

Public school buses and private school buses frequent Village roads during peak hours; the number of buses is not expected to change with new children living at these two sites. The routing of individual routes may change, in that one or more carriers may add a bus stop near one or both sites. However, buses are generally sized with excess capacity compared to the number of children who live along the route, so individual routes should be able to accommodate new school-aged children. This is particularly true in this instance, because of the expectation that children will enroll in various public and private schools rather than all new children enrolling in the same public school district.

Changing these properties to residential use may result in a nominal number of carriers adding a school bus stop near one or both sites. The impact on traffic from a school bus stop is a temporary, non-adverse impact, because the effect of a stopped school bus lasts for only a minute or two. Per New York State law, drivers in both directions must stop while a school bus is boarding or deboarding (denoted by red flashing lights). This stoppage is temporary and does not represent a pervasive impact on traffic flow.

Additionally, it is important to note that multi-family housing has less of an impact on "new school bus stops" than typical single-family homes, for districts/schools that have a "door-step pickup" policy. Children in different single-family homes could warrant multiple door-step pickups on the same block, whereas children in a multi-family development would only have one such pickup location.

4.3. Proposed Mitigation

None of the study intersections examined in the traffic impact report would be materially affected by the proposed Incentive Overlay District.

There would be one nominal movement Level of Service (LOS) change (0.1 seconds of delay, not noticeable to drivers) for northbound Cedarhurst Avenue at Peninsula Boulevard.

Other movements will improve their LOS grade because of reduced delay associated with reduced trip generation at the Pearsall Avenue site, compared to existing land use.

Overall, the largest lane group delay increases will generally be small (less than 5 seconds per vehicle), which is too small to warrant mitigation.

As part of the proposed Pearsall Rock LLC site plan, there will be a minor 5-foot dedication and widening on Pearsall Avenue to accommodate the proposed driveways and provide room for through traffic to pass a vehicle slowing to enter the site. This will improve site access and will provide a more consistent travel way width on Pearsall Avenue approaching Rockaway Turnpike.

5. Infrastructure and Utilities

5.1. Water Supply

5.1.1. Existing Conditions

New York American Water supplies potable water to the entire Village of Cedarhurst (Service Area 1 – Long Island District). Based on the existing uses on the subject property on Pearsall Avenue, the estimated current potable water usage for the entire site is 7,261 gpd (gallons per day).[6]

To assess available fire flow for the proposed Pearsall Avenue project, tests were performed on July 17, 2019 (Mulry Lane/William Street; Flow #49, Gauge #123) and May 12, 2020 (Pearsall Avenue and Rockaway Turnpike; Flow #111, Gauge #16). The second hydrant location is located closer to the Pearsall Avenue project site and provides adequate available fire flow calculated at 1,291 to 1,434 GPM (gallons per minute) for the 8-inch main at a residual pressure of 20 PSI (pounds per square inch). This would provide a hydrant Classification of "Green – Class A".

5.1.2. Potential Impacts of Proposed Action

The application of the incentive overlay zoning district may have a minor impact on water consumption, but the projected water demand loads would not be a significant increase over existing use levels.

The estimated potable water usage for the Pearsall Avenue site is 37,660 gpd plus irrigation (see Table 5-1 below). The estimated potable water usage for the Peninsula Boulevard site is 39,500 gpd plus irrigation (see Table 5-2 below).

Table 5-1: Proposed Potable Water Use (Pearsall Avenue)[7]

Unit Type / Use	Number/Size	Daily Water Demand Rate	Water Demand (gpd)
Studio/One Bedroom Unit	2 units	200 gpd / unit	400
Two-Bedroom Unit	69 units	300 gpd / unit	20,700
Three-Bedroom Unit	41 units	400 gpd / unit	16,400
Amenity Space	5,326 SF	0.03 gpd / SF	160
Total of Proposed Action			**37,660**

Table 5-2: Proposed Potable Water Use (Peninsula Boulevard)[7]

Unit Type / Use	Number/Size	Daily Water Demand Rate	Water Demand (gpd)
Studio/One Bedroom Unit	40 units	200 gpd / unit	8,000
Two-Bedroom Unit	45 units	300 gpd / unit	13,500
Three-Bedroom Unit	45 units	400 gpd / unit	18,000
Total of Proposed Action			**39,500**

[6] *Minimum Design Sewage Flow Rates*. Nassau County Department of Public Works.
[7] *Minimum Design Sewage Flow Rates*. Nassau County Department of Public Works.

5.1.3. Proposed Mitigation

No mitigation is required. Should any water supply distribution infrastructure require upgrades, such work would be considered a positive enhancement to area infrastructure. Infrastructure costs associated with public water supply upgrades are to be addressed by the utility purveyor or at the cost of the developer is determined at the time of an application made to the Village.

While no specific mitigation is anticipated to be required, post-development, water conservation methods would reduce consumption of public water, principally through the utilization of low-flow fixtures. There would also be opportunities to use energy-efficient and water saving appliances. The irrigation systems should be tied to moisture sensors and limited to the early morning to reduce unnecessary water consumption caused by evaporation losses. Wherever possible, areas should be planted with drought-tolerant plants that require minimal or no irrigation.

5.2. Wastewater

5.2.1. Existing Conditions

The Village of Cedarhurst and the Village of Lawrence have consolidated their sewage treatment plants into the Nassau County sewer system. The sewage generated by Cedarhurst and Lawrence is sent to a pumping station in Inwood and then to the Bay Park Sewage Treatment Plant in East Rockaway. The Bay Park facility can handle 70 million gallons per day, which is 80 times more than what the Cedarhurst facility was able to handle. The plant currently treats 50 million gallons per day on average. The nearest existing sewer line to the Pearsall Avenue site is an 8-inch clay pipe sewer line in Rockaway Turnpike.

5.2.2. Potential Impacts of Proposed Action

Similar to the potential impacts of new development on the water supply, the projected sewage flows do not represent a significant increase over existing flows. According to a representative from the Nassau County Department of Public Works, sewer capacity will not be a problem for the proposed project on Pearsall Avenue.

The estimated wastewater flow for the Pearsall Avenue site is 37,660 gpd, and for the Peninsula Boulevard site it is 39,500 gpd (see Table 5-3 and Table 5-4 on the next page).

Table 5-3: Proposed Wastewater Flow (Pearsall Avenue)[8]

Unit Type / Use	Number/Size	Daily Sewage Flow Rate	Sewage Flow (gpd)
Studio/One Bedroom Unit	2 units	200 gpd / unit	400
Two-Bedroom Unit	69 units	300 gpd / unit	20,700
Three-Bedroom Unit	41 units	400 gpd / unit	16,400
Amenity Space	5,326 SF	0.03 gpd / SF	160
Total of Proposed Action Uses			**37,660**

Table 5-4: Proposed Wastewater Flow (Peninsula Boulevard)[8]

Unit Type / Use	Number/Size	Daily Water Demand Rate	Water Demand (gpd)
Studio/One Bedroom Unit	40 units	200 gpd / unit	8,000
Two-Bedroom Unit	45 units	300 gpd / unit	13,500
Three-Bedroom Unit	45 units	400 gpd / unit	18,000
Total of Proposed Action Uses			**39,500**

5.2.3. Proposed Mitigation

Proposed water conservation measures would minimize project-generated water consumption and, thereby, minimize the amount of wastewater added to the County sewer system. While no specific mitigation is anticipated to be required, post-development, water conservation methods would reduce consumption of public water, principally through the utilization of low-flow fixtures in new development. There would also be opportunities to use energy-efficient and water saving appliances. The irrigation systems should be tied to moisture sensors and limited to the early morning to reduce unnecessary water consumption caused by evaporation losses. Wherever possible, areas should be planted with drought-tolerant plants that require minimal or no irrigation.

5.3. Energy

5.3.1. Existing Conditions

The majority of existing uses within the surrounding areas of the two eligible sites utilize a combination of electricity and natural gas for energy. The Village is supplied electricity from PSEG-LI and natural gas from National Grid.

5.3.2. Potential Impacts of Proposed Action

An increase in energy consumption is anticipated as a result of the Proposed Action. As the engineering design of the building is advanced, load letters will be furnished to the utility providers for coordination of service connection(s).

[8] *Minimum Design Sewage Flow Rates.* Nassau County Department of Public Works.

Since the recent moratorium on new natural gas connections on Long Island has been lifted, the proposed development project may choose to use natural gas provided by National Grid. Based on the proposed uses, the estimated load factors and estimated demand for the three buildings on Pearsall Avenue are as shown in Table 5-5.

The total estimated demand for the Pearsall Avenue development is 1,135 kVA.

Table 5-5: Estimated Energy Load Factors (Pearsall Avenue)

BUILDING 1	The total estimated demand for Building 1 is **388** kVA			
BUILDING SPACE	Area (sf)	KVA CONN.	Volts 3-Phase	Amps CONN.
Apartments / Community / Common *	61,255	978	208	2,715
Gym/ Canteen*	1,244	23	208	65
Additional Amenity Space	4,082	45	208	126
Elevator(s)	n/a	26	208	73
BUILDING TOTAL	**66,581**	**1,072**	**208**	**2,979**

BUILDING 2	The total estimated demand for Building 2 is **352** kVA			
BUILDING SPACE	Area (sf)	KVA CONN.	Volts 3-Phase	Amps CONN.
Residences / Community / Common *	63,271	1,086	208	3,015
Elevator(s)	n/a	26	208	73
BUILDING TOTAL	**63,271**	**1,112**	**208**	**3,088**

BUILDING 3	The total estimated demand for Building 3 is **394** kVA			
BUILDING SPACE	Area (sf)	KVA CONN.	Volts 3-Phase	Amps CONN.
Residences / Community / Common *	63,271	1,123	208	3,117
Gym*	3,218	30	208	83
Pumps and Elevator	n/a	28	208	77
BUILDING TOTAL	**66,489**	**1,181**	**208**	**3,277**

* *Includes General Lighting, Receptacles, Appliances, and HVAC loads*

Using the 130-unit development program for the site on Peninsula Boulevard, the estimated load factor and estimated demand are as follows:

Table 5-6: Estimated Energy Load Factors (Peninsula Boulevard)

BUILDING 1	The total estimated demand for Building 1 is **1,045** kVA			
BUILDING SPACE	Area (sf)	KVA CONN.	Volts 3-Phase	Amps CONN.
Apartments / Community / Common *	189,750	3,363	208	9,335
Gym	1,000	10	208	27
Misc. Pumps and Elevator(s)	n/a	41	208	113
BUILDING TOTAL	**190,750**	**3,414**	**208**	**9,475**

* *Includes General Lighting, Receptacles, Appliances, and HVAC loads*

5.3.3. Proposed Mitigation

The current NYS Building Code includes certain requirements that help to mitigate energy usage. To further reduce overall electricity and natural gas demand and use, additional modern energy efficient building materials and energy conservation should be incorporated into the design of the residential units. Energy efficiency measures would include:

- High efficiency heating/cooling equipment that utilizes environmentally friendly refrigerants
- Programmable thermostats
- Energy Star products/appliances
- Low wattage/fluorescent light bulbs
- Sensor operated light switches
- High R-value insulating materials for building envelope, glass, ductwork, piping, etc.
- High efficiency domestic hot water storage equipment

6. Shadows and Visual Resources

6.1. Existing Conditions

Pursuant to the provisions of the proposed incentive overlay zoning district, the Board of Trustees may grant an increase in the maximum allowable building height, based on lot size:

Table 6-1: Incentive Overlay Zoning District – Maximum Allowable Building Heights

Lot Size	Maximum Allowable Building Height
< 1.0 acre	3 stories (35 feet)
≥ 1.0 acre and < 3.0 acres	4 stories (45 feet)
≥ 3.0 acres	5 stories (44 feet)

The existing structures on the Pearsall Avenue property are one or two stories in height. The surrounding residential neighborhood contains predominantly two-story residences. Properties fronting the south side of Pearsall Avenue (opposite the project site) contain one- and two-story commercial buildings. See Figure 6-1: Land Uses on page 6-5.

6.2. Potential Effects of Proposed Action

The increase in maximum allowable building height for proposed new buildings within the incentive overlay district would allow for buildings that are slightly taller than the existing building environment. Specifically, the Proposed Development Project would consist of three 4-story buildings fronting Pearsall Avenue. These proposed buildings would result in an incremental increase in shadows cast on the surrounding area. Therefore, a shadow assessment was conducted to determine the potential for adverse project-generated shadow effects. The methodology for the shadow assessment follows the guidelines of New York City's *City Environmental Quality Review [CEQR] Technical Manual (March 2014 Edition)*.

6.2.1. Shadow Study Methodology

The analysis methodology is based on the *CEQR Technical Manual* guidelines, which include conducting a preliminary assessment to determine whether shadows resulting from a proposed project could reach any sunlight-sensitive resource at any time of year. The analysis requires a three-tier preliminary screening assessment, and if necessary, a detailed shadow study.

The Tier 1 screening assessment identifies the Shadow Study Area based on the height of the structure(s) in the future with the proposed action and the longest shadow a proposed structure(s) could cast (that shadow length is 4.3 times the height of the structure).

If there are sunlight-sensitive resources within the Shadow Study Area, a Tier 2 screening

assessment is warranted. As stated in the *CEQR Technical Manual*, because of the path the sun travels across the sky in the northern hemisphere, no shadow can be cast in a triangular area south of any given project site. In New York City (similar shadow characteristics to Long Island), this area lies between -108 and +108 degrees from true north. If the area outside this triangular area contains a sunlight-sensitive resource(s), further analysis is necessary.

The Tier 3 screening assessment is a detailed evaluation that further refines the analysis once sunlight-sensitive resources have been identified, by analyzing specific representative days of the year and determining the maximum extent of shadows over the course of each representative day on these sunlight-sensitive resources.

Based on the guidelines of the *CEQR Technical Manual*, if the three-tiered screening analysis described above does not rule out the possibility that project-generated shadows would reach any sunlight-sensitive resources, a detailed shadow analysis is warranted.

Preliminary Screening Assessment

The Proposed Project consists of three, 4-story (45 feet) buildings. Pursuant to the *CEQR Technical Manual* guidelines, a shadow assessment should contemplate the structure's total height, including rooftop structures such as stairwell bulkheads and mechanical equipment.[9] Therefore, for purposes of this shadow assessment, a maximum building height of 54.5 feet is used.

Tier 1 Screening Assessment

As shown in Figure 6-2, buildings with a maximum height of 54.5 feet on the Development Site (the With-Action Condition) would cast a shadow extending over a maximum radius of 234.35 feet, the "Shadow Study Area," occurring on December 21, the winter solstice (54.5 feet x 4.3 = 234.35 feet). Existing land uses within the Shadow Study Area include residential, commercial, and vacant land.

Tier 2 Screening Assessment

The purpose of the Tier 2 screening is to determine whether any resources lie within the portion of the Shadow Study Area that potentially can be shaded by the Proposed Project. According to the *CEQR Technical Manual*, shadows cast by a proposed building fall generally to the north, east, and west depending on the day and time. The shadow area between –108 degrees and +108 degrees from true north is shown in Figure 6-3 on page 6-7. Conversely, any area lying to the south of a site in the triangular area beyond these angles cannot be shaded by a proposed project.

Tier 3 Screening Assessment

[9] Rooftop structures such as stairwells and mechanical equipment are not governed by maximum allowable building height requirements in the Village Zoning Code.

Tier 3 screening used 3D computer modeling software to depict the shadow patterns of the Proposed Project within the Shadow Study Area. The shadow model utilized 3D representations of the elements of the base maps used in the Tier 1 and Tier 2 assessments to determine the project-generated shadows in the With-Action Condition.

The Tier 3 screening analysis was conducted for four representative days of the year: March 21, the vernal equinox (which is equivalent to September 21, the autumnal equinox); May 6, the midpoint between the summer solstice and the equinox (and equivalent to August 6); June 21, the summer solstice and longest day of the year; and December 21, the winter solstice and shortest day of the year. In accordance with *CEQR Technical Manual* guidelines, all times reported herein are Eastern Standard Time and do not reflect adjustments for daylight savings time that is in effect from mid-March to early November.

As the earth rotates around the sun, shadows fall in a curve on the ground opposite the sun. When the sun rises, shadows fall to the west. As the sun travels across the southern part of the sky throughout the day, shadows move in a clockwise direction until they stretch east as the sun sets in the west. Midday shadows are always shorter than those at other times because the sun is highest in the sky at that time. Due to the tilt of the earth's axis, the angle at which the sun's rays strike the earth varies throughout the year, so that during the summer, the sun is higher in the sky and shadows are shorter than during the winter.

The shadow analysis used the proposed building heights to determine the shadows on the four representative days of the year. Building 1 would have a maximum height of approximately 54.5 feet (including rooftop mechanicals); Building 2 would have a maximum height of 52.5 feet (including rooftop mechanicals); Building 3 would have a maximum height of 47.75 feet (no rooftop mechanicals). The project-generated shadows are shown in light gray. The discussion below describes the times of shadows as they travel beyond the Development Site property lines and enter privately-owned land (i.e. not public rights-of-way).

December 21

As shown in Figure 6-4 (page 6-8), on December 21, the time period for shadow analysis begins at 8:51 AM and continues until 2:53 PM. All three buildings cast shadows on the residential properties to the northwest of the Development Site in the morning, with the length of the shadows gradually decreasing throughout the day. Shadows to the northeast begin around 10:30 AM and remain for the duration of the analysis time (2:53 PM).

March 21

As shown in Figure 6-5 (page 6-9), on March 21, the time period for shadow analysis begins at 7:36 AM and continues until 4:29 PM. In the morning hours, beginning at 7:36 AM, shadows reach properties across Rockaway Turnpike for about an hour, receding to within the property line by 11:30 AM. Around 12:30PM, shadows begin to reach the

property to the east until 4:29 PM.

May 6

As shown in Figure 6-6 (page 6-10), on May 6, the time period for shadow analysis begins at 6:27 AM and continues until 5:18 PM. Shadows from the three buildings are cast to the northwest beginning at 6:27 AM until receding onto the Development Site until 9:30 AM. Beginning at approximately 1:30 PM, shadows begin to reach the adjacent commercial and residential properties to the east eventually reaching the commercial properties across Pearsall Avenue after 4:30 PM until 5:18 PM.

June 21

As shown in Figure 6-7 (page 6-11), on June 21, the time period for shadow analysis begins at 5:57 AM and continues until 6:01 PM. In the morning hours, shadows reach the commercial and residential properties across Rockaway Turnpike until approximately 8:00 AM, receding to within the property line by 10:00 AM. Shadows begin to reach the adjacent commercial property to the east by 2:30 PM and reach the commercial properties across Pearsall Avenue by 4:30 PM until 6:01 PM.

Conclusion

Based on the results of the Tier 3 shadows analysis, project-generated shadows on adjacent residential properties to the north generally occur during cold weather months only (December 21 and March 21 analysis days), and the duration of the shadows is limited to early morning hours. During warm weather months (May 6 and June 21 analysis days), project-generated shadows occur mostly on the commercial properties fronting Pearsall Avenue, southeast of the Development Site. Project-generated shadows cast to the east of the Development Site would be interrupted by the existing two-story commercial building directly adjacent to site of Building 3.

6.3. Proposed Mitigation – Visual

Based on this assessment, the Proposed Development Project is not anticipated to result in any significant adverse shadow effects on the surrounding properties; therefore, no further assessment or mitigation is required.

Nonetheless, the Proposed Development Project would include "screening" elements in the form of landscaping along the rear property line; this would establish a buffer between Proposed Development Site and the adjacent single-family residential properties. The proposed plantings will include evergreen trees 8' to 10' high at initial installation. The selected species would grow at a rate of 2' to 3' per year, eventually reaching a mature height of 50' to 60', higher than the proposed buildings. This will maximize the level of screening.

312-318 Pearsall Avenue

Figure 6-1: Land Uses

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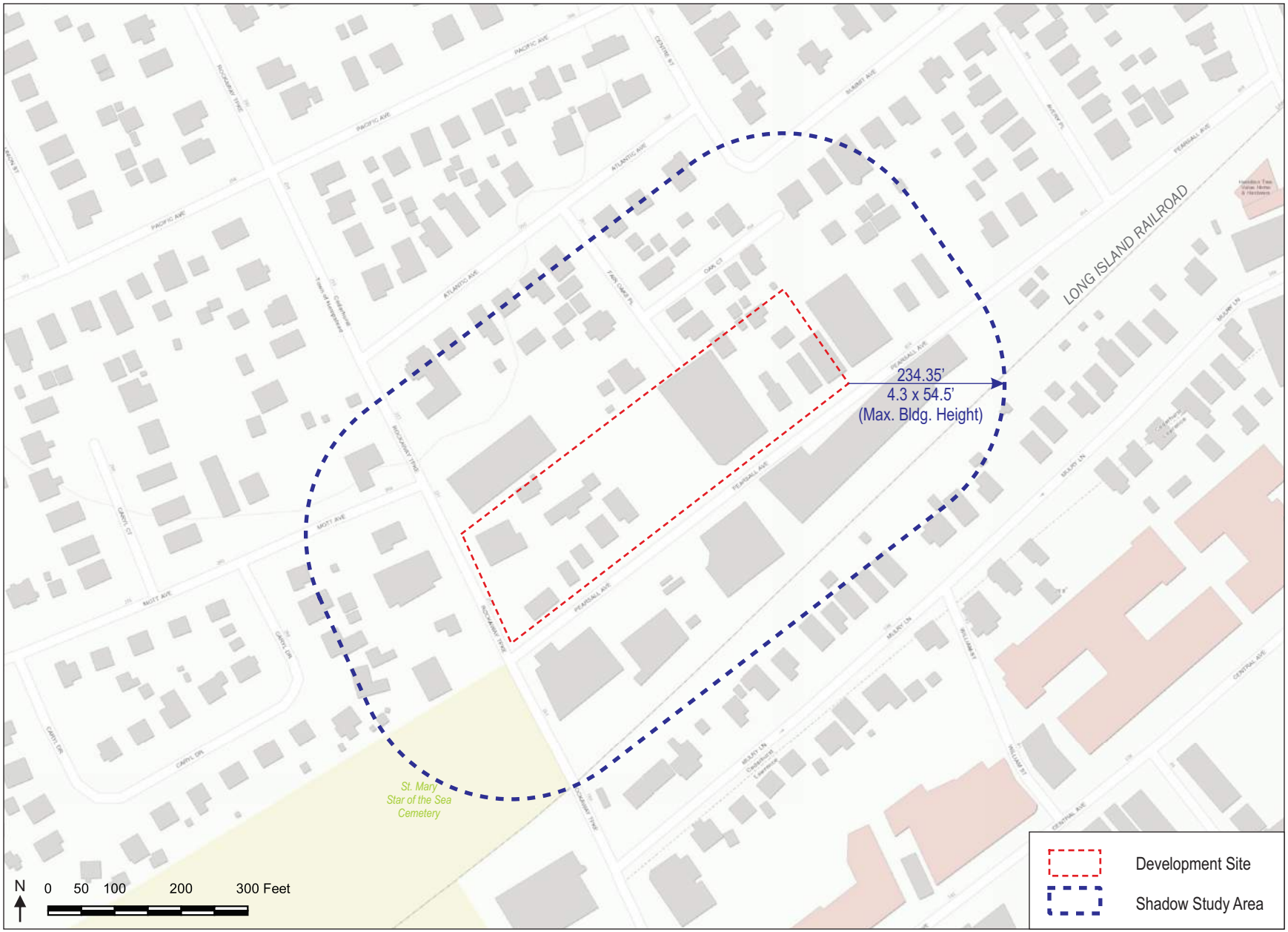
312-318 Pearsall Avenue

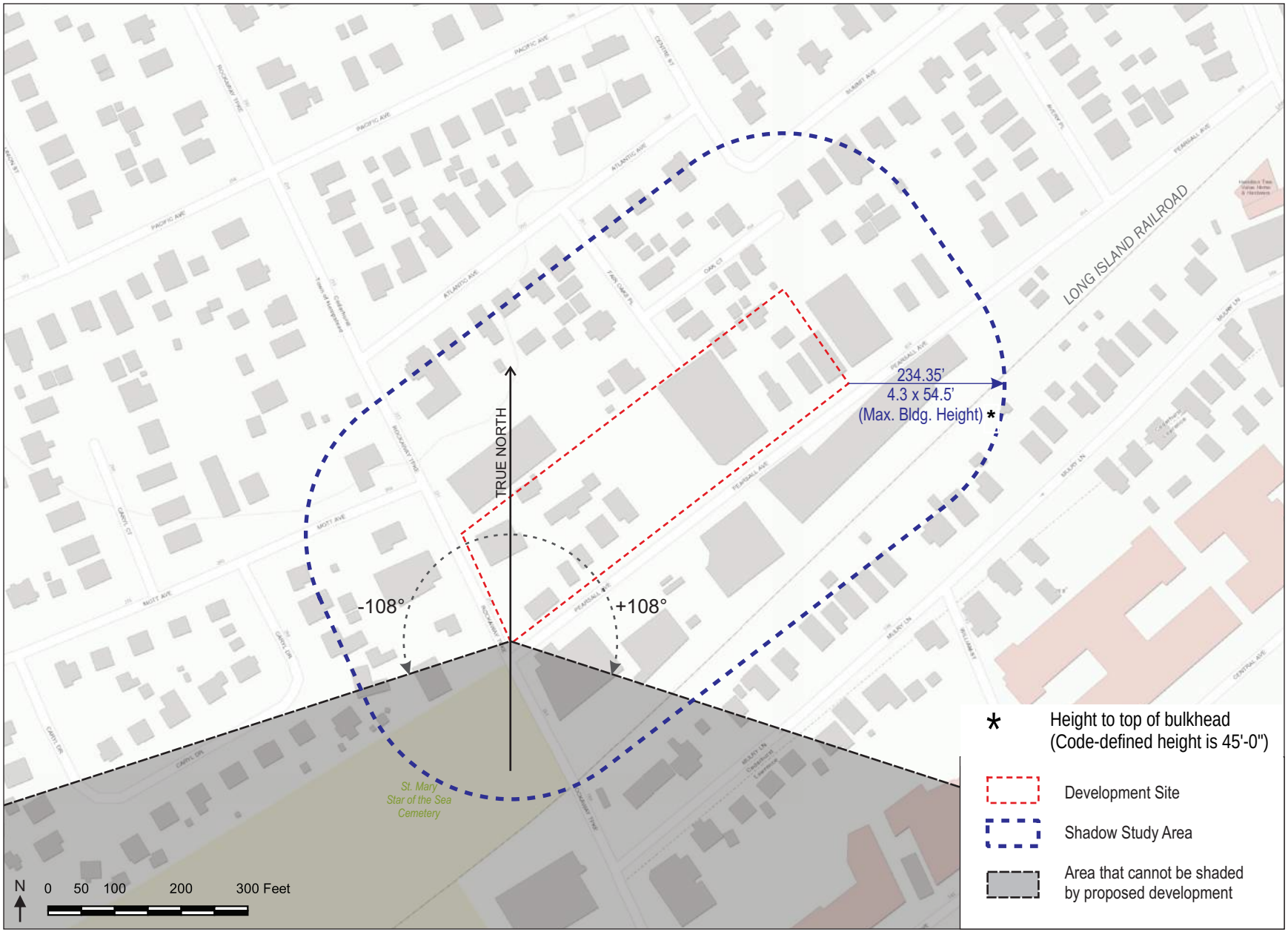
Figure 6-2: Tier 1 Screening Assessment



CAMERON ENGINEERING

312-318 Pearsall Avenue

Figure 6-3: Tier 2 Screening Assessment



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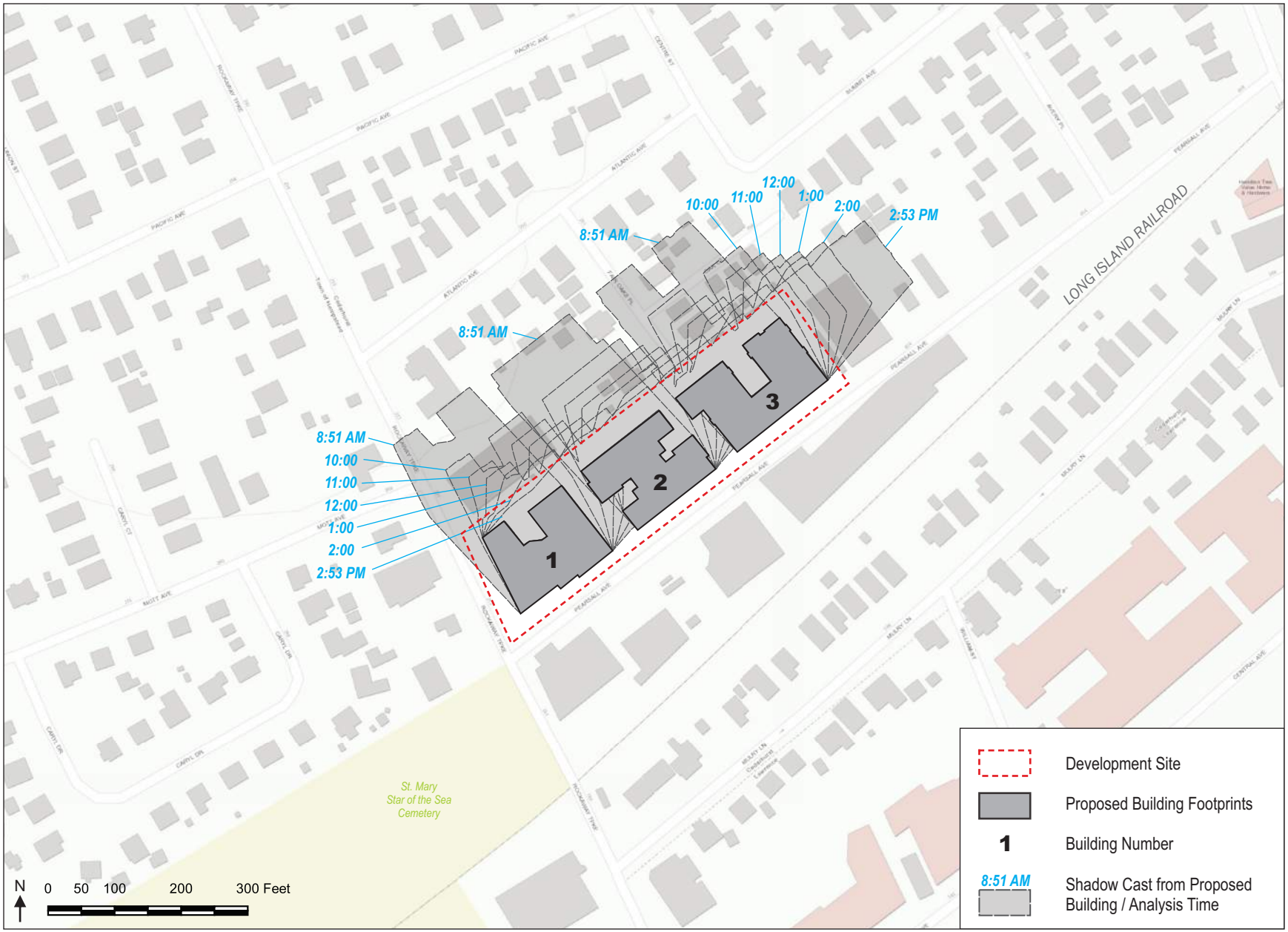
312-318 Pearsall Avenue

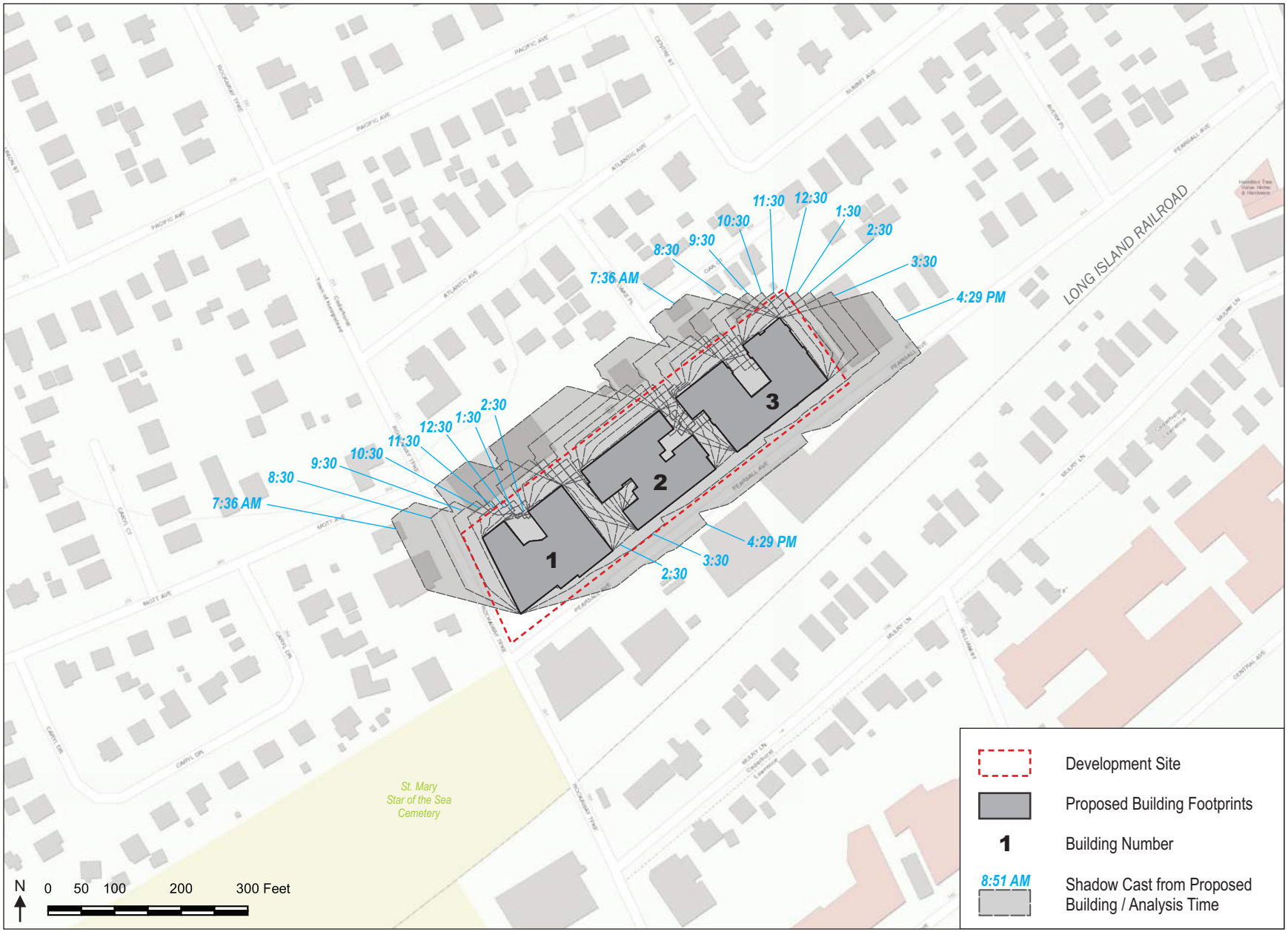
Figure 6-4:
Tier 3 Shadow Analysis for December 21 Analysis Day



CAMERON ENGINEERING

312-318 Pearsall Avenue

Figure 6-5:
Tier 3 Shadow Analysis for March 21 Analysis Day



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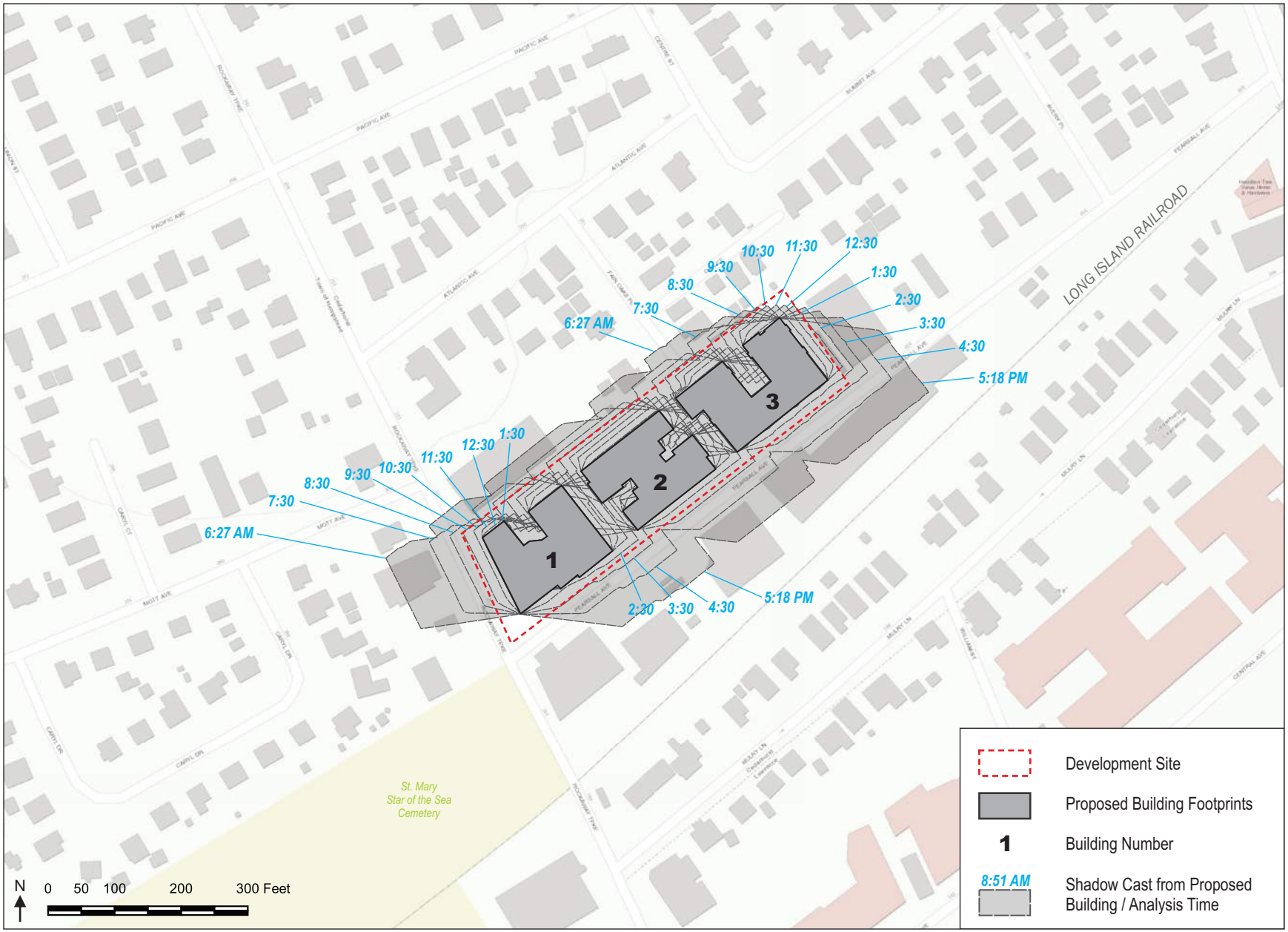
312-318 Pearsall Avenue

Figure 6-6:
Tier 3 Shadow Analysis for May 6 Analysis Day



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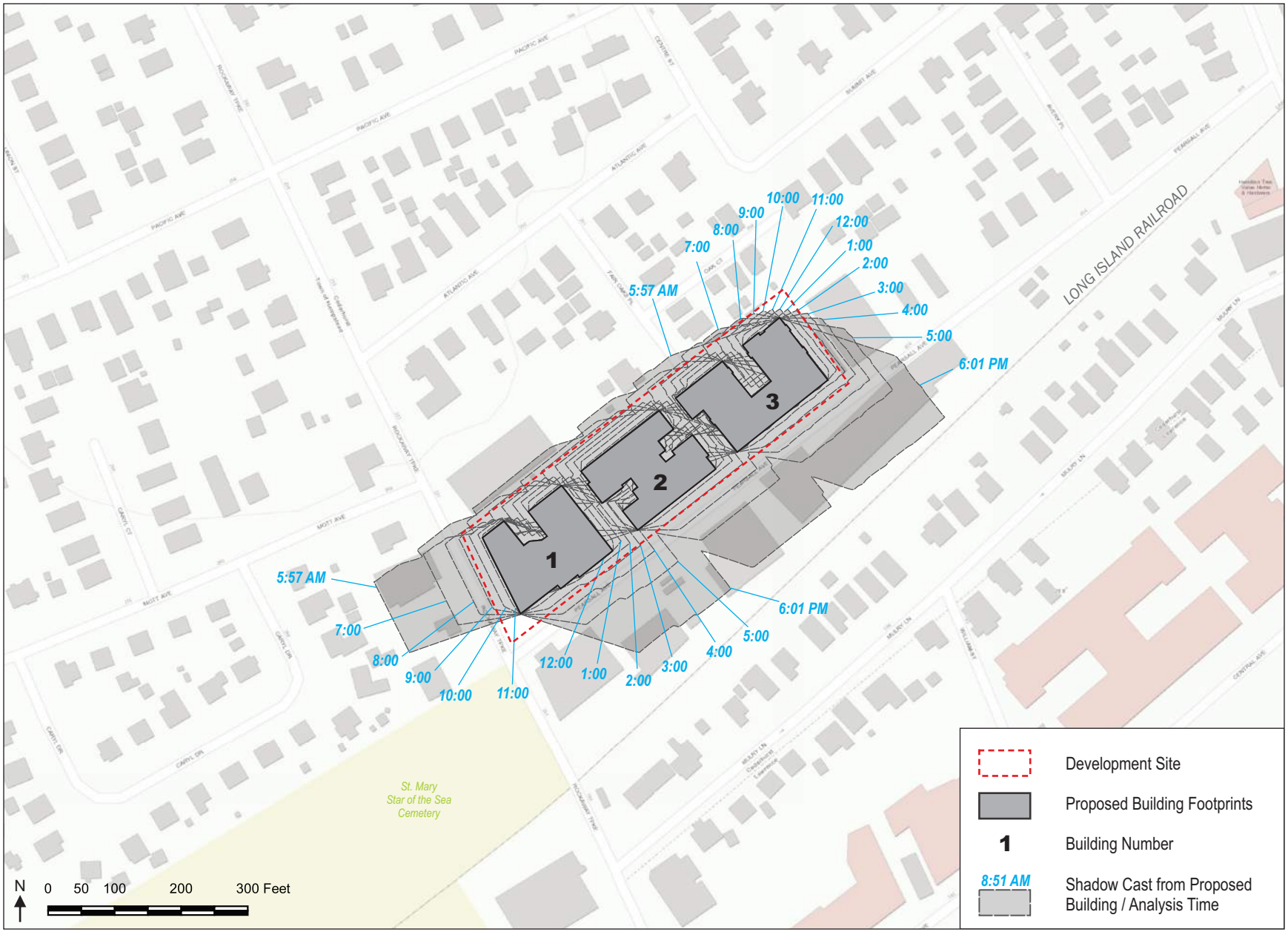
312-318 Pearsall Avenue

Figure 6-7:
Tier 3 Shadow Analysis for June 21 Analysis Day



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7. Fiscal and Real Estate Impacts

7.1. Existing Conditions

A fiscal impact analysis was performed for the Pearsall Avenue project as well as for a hypothetical development that could potentially occur on the Peninsula Boulevard site. A fiscal impact analysis allows for the projection of the direct, current, public costs and revenues associated with residential and/or non-residential growth within a political jurisdiction in which new investment is to take place. This analysis was based on the current (2019) tax rate and equalization rate for the Village of Cedarhurst, as well as projected apartment lease rates and/or sale prices furnished by Pearsall Rock, LLC. In addition, the analysis examined the fiscal impacts to the Village in the first stabilized year.

The full report describes the background, methodology and findings of the fiscal impact analysis and can be found in Appendix C. The analysis compared estimated annual local revenues and expenditures associated with the proposed multi-family, mixed-use residential project. At full build-out, when this analysis was prepared, the proposed development was considered to have 112 multi-family residential units and 5,826 square feet of community space and canteen/café service[10]. The potential development program being analyzed for the Peninsula Boulevard site comprises 130 apartment units.

Since this analysis was performed, the Pearsall Avenue project's proposed community space/amenity square footage was slightly reduced. This slight change would not be expected to impact the results.

7.2. Potential Impacts of Proposed Action

The net fiscal impact of the Pearsall Avenue project to the Village of Cedarhurst is as follows:

Estimated market value in the first stabilized year:	$48,445,333
Estimated tax assessment value in the first stabilized year:	$1,341,936
Estimated annual real property tax revenue in the first stabilized year:	$91,659
- Estimated annual service cost in the first stabilized year:	*($27,295)*
Estimated net (positive) impact:	**$64,364**

The net fiscal impact of the hypothetical Peninsula Boulevard project to the Village of Cedarhurst is as follows:

Estimated annual real property tax revenue in the first stabilized year:	$91,669
- Estimated annual service cost in the first stabilized year:	*($29,898)*
Estimated net (positive) impact:	**$61,771**

[10] The Appendix C analysis was prepared in November 2019. The Pearsall Avenue site plan was since modified to reduce the size of the community space/resident canteen, resulting in 5,326 s.f. of amenity space.

A review of research on this subject consistently found that generally, new, well-designed, market-rate multi-family development has a neutral to slightly positive real estate proximity effect on neighboring single-family property values. A 2001 report published by the National Association of Home Builders found that single-family homes located within a half block (approximately 300 feet) of multi-family developments had an average annual value premium of approximately 0.3 percent. Assuming a project scenario where no multi-family housing is built, the estimated annual percentage increase in home value over a ten-year period is between 3.9 and 6.7 percent per year (reflective upon recent single-family home value appreciation trends in Cedarhurst). By comparison, with project scenarios where multi-family housing is built, the estimated range of annual percentage increase in home value over a ten-year period is between 4.2 and 7.0 percent per year, which is 0.3 points per year above historic trends in Cedarhurst. For a single-family home located within 300 feet of a proposed mid-rise multi-family project, the difference in home value appreciation between the no-build and the build scenarios would average $19,470 for a hypothetical $400,000 single-family home to $58,410 for a hypothetical $1.2 million single-family home.

In addition to the anticipated positive impacts on property values and the Village's tax base, new multi-family development is expected to benefit Village retailers by increasing the pool of potential customers (nearby residents). An increase in the number of households in the Village will inherently increase the potential customer base for local shops. The Proposed Project represents infill development that will change the character of under-utilized parcels in the Village non-residential (with no impact on the local customer base) to residential (which would add to the local customer base).

7.3. Proposed Mitigation

The estimated annual real property tax revenue generated by the proposed developments exceeds the estimated annual service costs to the Village, resulting in a net positive annual fiscal impact. Property values would increase, and new residential infill redevelopment will add to the local customer base for retailers in the Village. Therefore, the Proposed Project would not result in any adverse fiscal or real estate impacts, and mitigation is not required.

APPENDICES

Appendix A: Proposed Incentive Overlay District Text

Appendix B: Traffic Impact Study

Appendix C: Pearsall Avenue Development Fiscal Impact Analysis

Appendix D: Plans for Pearsall Avenue Development

Appendix E: Full Environmental Assessment Form

Appendix A

Proposed Incentive Overlay District Text

Article __. Overlay District.

§ ___. Intent and purpose.

The Board of Trustees finds that in order to promote opportunities that exist for economic investment in areas in close proximity to the Long Island Rail Road, the downtown commercial corridor, and municipally-owned property, the requirements of the underlying zoning code provide the opportunity to advance revitalization efforts for promoting redevelopment of existing property. According to New York State Village Law §7-703, the Village Board of Trustees is authorized to provide and regulate by planning and zoning, the granting of incentives or bonuses. The incentives and bonuses include adjustments to permissible density, area, height, or other zoning provisions. Establishing an overlay zoning code provides for zoning incentives or bonuses in exchange for specific benefits or amenities that help promote revitalization that can allow for uses that are consistent with being in close proximity to public transportation and compatible with neighborhood residential uses.

§ ___. General procedures.

The Overlay District is hereby established with potential applicability to any property or assemblages which are at least 0.75 acres in area, and which are (i) located in close proximity to public transportation stations, notably the Long Island Rail Road, or (ii) wholly zoned General Business District, or (iii) municipally-owned as of the date of adoption of this local law, shall be eligible for inclusion in the Overlay District. The subject property shall also meet the lot, bulk, design, and other requirements contained in this article, as determined by the Board of Trustees.

§ ___. Permitted uses.

A. In the Overlay District, no building shall be used and no building shall hereafter be erected or altered, unless otherwise provided for in this article, except for one or more of the following purposes.

   (1) All uses permitted in the General Business District, as listed in § 265-86 A. of the Village Code.

   (2) A Multiple Dwelling.

§ ___. Lot and bulk controls.

Subject to the grant of Zoning Incentives pursuant to Section ___, all development in the Overlay District shall meet the standards applicable to such development and uses pursuant to other sections of the Village Code in which such development and uses are permitted, including, without limitation, the standards for building area, front yards, rear yards, side yards, building height, frontage, lot depth, parking, residential density, and streetscapes.

§ ___. Application.

An application to amend the Village Building Zone Map to apply the Overlay District shall be submitted to the Board of Trustees, in accordance with the application procedures and requirements of this article. An application to request incentive bonuses as promulgated in § ___ may also be considered by the Board of Trustees concurrent with the review of an application to amend the Village Building Zone Map. The applicant shall pay a filing fee established by the Board of Trustees and shall reimburse the Village for any expenses incurred by the Village to review said application and petition and to comply with SEQRA,

including the services of engineers, architects, legal representatives, and environmental consultants, through a deposit into an escrow account.

§ ___. Zoning incentives.

A. In order to encourage development of eligible properties in accordance with this article and in accordance with the Village Law, the Board of Trustees is empowered to provide for a system of zoning incentives or bonuses in exchange for specific physical, social or cultural benefits or amenities, as the Board of Trustees deems necessary and appropriate, consistent with the purposes and conditions set forth herein.

B. Community benefits or amenities.

(1) The following community benefits or amenities may, at the discretion of the Board of Trustees be accepted in exchange for one or more incentives, as provided in paragraph C.

(a) Public parking: municipal or public parking provided in addition to the minimum required on-site parking. Alternatively, a monetary contribution can be made for the creation or improvement of public parking elsewhere in the community.

(b) Open or park space: additional or passive open or park space available to the public. Alternatively, a monetary contribution can be made for the creation or improvement of open or park space elsewhere in the community.

(c) Infrastructure improvements: infrastructure improvements above and beyond minimum requirements in the form of street furniture, lighting, pavers, plazas, and related public amenities, as well as improvements to sewer and water systems. Alternatively, a monetary contribution can be made for the enhancement of similar improvements elsewhere in the community.

(d) Other facilities or benefits to the residents of the community, as determined by the Board of Trustees.

(e) Any combination of the above listed community benefits or amenities.

(2) These community benefits or amenities shall be in addition to any mandated requirements pursuant to other provisions in this article.

(3) These community benefits or amenities may be either on or off the site of the subject application and may involve one or more parcels of land.

(4) If the Board of Trustees determines that a suitable community benefit or amenity is not immediately feasible or is impractical, the applicant shall pay the Village a fee in lieu of such amenities or benefits in an amount set by the Board, in such phases and at such times as the Board of Trustees shall determine, but in no event later than the issuance of the first certificate of occupancy. If a fee is accepted in lieu of or in addition to a community amenity or benefit, provision shall be made for such sum to be deposited in a trust fund to be used by the Board of Trustees for the creation or improvement of community amenities or for purposes which provide a community benefit, as authorized by the Board of Trustees in the future.

C. Incentives or bonuses. The Board of Trustees may grant the following specific incentives:

(1) Increased residential density. The Board of Trustees may grant an increased residential density of (i) up to 30 units per acre for properties less than 1.0 acre in land area, and (ii) up to 45 units per acre for properties that are 1.0 acre or more in land area but less than 3.0 acres in land area, and (iii) up to 60 units per acre for properties 3.0 acres or more in land area.

(2) Increased height. The Board of Trustees may grant an increased building height of (i) up to three (3) stories or 35 feet in height for properties less than 1.0 acres in land area, and (ii) up to four (4) stories or 45 feet in height for properties of more than 1.0 acre and less than 3.0 acres or in land area; and (iii) up to five (5) stories or 55 feet in height for properties of 3.0 acres or more in land area. Height measurements shall be made to the highest point of a structure excluding [parapets not exceeding three feet in height above the roof,] rooftop mechanical systems and service bulkheads.

(3) Reduced parking requirements. The Board of Trustees may reduce the parking requirements for applications that demonstrate elevated transit usage and significant pedestrian and walkability amenities.

(4) Increased building area. The Board of Trustees may grant an increased building area coverage of up to 55%.

(5) Modifications to other land development standards or dimensional requirements. The Board of Trustees, at its discretion, may modify other land development standards or dimensional requirements of the Code.

D. Criteria and procedure for approval. Authorization of zoning incentives is subject to approval by the Board of Trustees. The following procedures shall be followed for the approval of any incentive or bonus:

(1) Submission of application. Applications for incentives in exchange for amenities shall be submitted to the Board of Trustees. In order to preliminarily evaluate the adequacy of the community benefit or amenity to be accepted in exchange for the requested incentive or bonus, the following information shall be provided by the applicant:

(a) A description of the incentive being requested.

(b) A description of the proposed amenities outlining the benefits that will accrue to the community.

(c) An economic analysis of the value of the proposed amenities to the Village as compared with the economic value of the proposed incentives to the applicant. The analysis shall include a comparison of the long-term economic impact of the proposed amenities to the Village compared to the long-term economic value of the incentives to the applicant. For purposes of this section, "long-term" shall be defined as a term of 10 years or more.

If a rational future evaluation as outlined above cannot be provided, the fair market value of the project, as proposed with all bonuses, and the fair market value of the property in its then-current state shall be provided.

(i) The aforementioned calculations shall be prepared by a qualified professional(s), based on analyses acceptable to the Board of Trustees, and commissioned by the applicant at the expense of the applicant. The Board of Trustees may commission an independent analysis if the Board finds it appropriate, in its sole discretion, that an independent study is necessary or prudent to establish reasonable values.

(d) A preliminary demonstration that there are adequate sewer, water, transportation, waste disposal, and fire-protection facilities serving or proximate to the propose development to handle the additional demands the increased density, incentive or amenity may place on such facilities or the Village beyond the demand that would otherwise occur with as-of-right development.

(e) An explanation of the physical, social and/or cultural impact of the amenity upon the Village.

E. If the Board of Trustees determines that a suitable community benefit or amenity is not immediately feasible, or otherwise not practical, the Board of Trustees may require, in lieu thereof, a payment to the Village of a sum to be determined by the Board of Trustees. The fee in lieu of community amenities or benefits shall be paid in full prior to issuance of a building permit.

If a fee is accepted in lieu of or in addition to a community amenity or benefit, a provision shall be made for such fee to be deposited in a trust fund to be used by the Board of Trustees for the creation or improvement of community amenities, or for purposes which provide a community benefit, as authorized by the Board of Trustees in the future.

F. It shall be a condition of every grant of zoning incentives that the applicant or owner of the project that receives such grant of incentive agrees in a writing to be memorialized and recorded as a covenant running with the land, (i) that there shall be no abatement or deferral of real estate taxes payable to the Village for so long as the buildings and improvements stand on the land, and (ii) there shall not be requested by the applicant or owner, and there shall not be granted by the Village Board of Zoning Appeals, any variance, special exception, special use permit or other relief from the requirements of the Zoning Code or from the incentives granted by the Board of Trustees, unless the Board of Trustees consents to an amendment of the covenant granted by the applicant or owner as set forth above.

Appendix B

Traffic Impact Study

TRAFFIC IMPACT STUDY

PROPOSED ZONING OVERLAY

VILLAGE OF CEDARHURST
NASSAU COUNTY, NEW YORK

PREPARED BY
CAMERON ENGINEERING

MAY 2021

TABLE OF CONTENTS

TABLE OF TABLES

TABLE OF FIGURES

(Figures are found at the end of each chapter)

APPENDICES

(Appendices are found at the end of the document)

1. Background

1.1 Purpose of Report

Pearsall Rock LLC (the "Applicant") is requesting site plan approval for its site on Pearsall Avenue, under a new "Incentive Overlay District" (IOD) from the Village of Cedarhurst Board of Trustees.

Based on the criteria the Village developed, there are two study parcels that could be redeveloped as a result of the new IOD: one on Pearsall Avenue just east of Rockaway Turnpike, and one on Peninsula Boulevard. The parcels and included roadway network are shown in Figure 1-1 at the end of this chapter.

Cameron Engineering has performed a detailed traffic investigation of the potential traffic impacts of the proposed zoning changes and the Pearsall Rock LLC site plan on the local street system. The scope of study reviewed the area's existing roadway characteristics and traffic conditions (including traffic volumes, traffic flow quality, and geometry), determines future conditions if the zoning remains unchanged, estimates the potential peak-period trip generation (weekday and Sunday), and assesses the effect of this additional traffic on the surrounding roads.

1.2 Study Methodology

A. Review the Existing Conditions on the subject property and in the surrounding area

- Examine the site plan, potential yields, and other project-related material (e.g., local ordinances).
- Determine the Average Annual Daily Traffic [AADT] volumes near the property using New York State Department of Transportation [NYSDOT] 24-hour data.
- Perform traffic counts at those key intersections during weekday AM (7:00-9:00 am), PM (4:00-6:00 pm), and Sunday midday (11:00 am-2:00 pm) peak traffic periods to establish the existing peak hour volumes.
- Determine the existing levels of service (LOS) at the study intersections, using *Synchro* version 10, a software package that complies with the guidelines of the *Highway Capacity Manual Sixth Edition* (*HCM 6*).

B. Determine the "No Build" Scenario: Future Conditions if the project is not built

- Obtain the area's ambient growth rate from the New York State Department of Transportation (NYSDOT); this rate accounts for general population growth.

- Correspond with Village representatives to determine if there are any other projects being planned nearby. Traffic from these projects has the potential to affect volumes through the key intersections within two years.
- These two features together provide the expected future traffic volumes in two years if the project is not constructed (the "No Build" scenario).
- Use *Synchro* to determine future No Build levels of service.

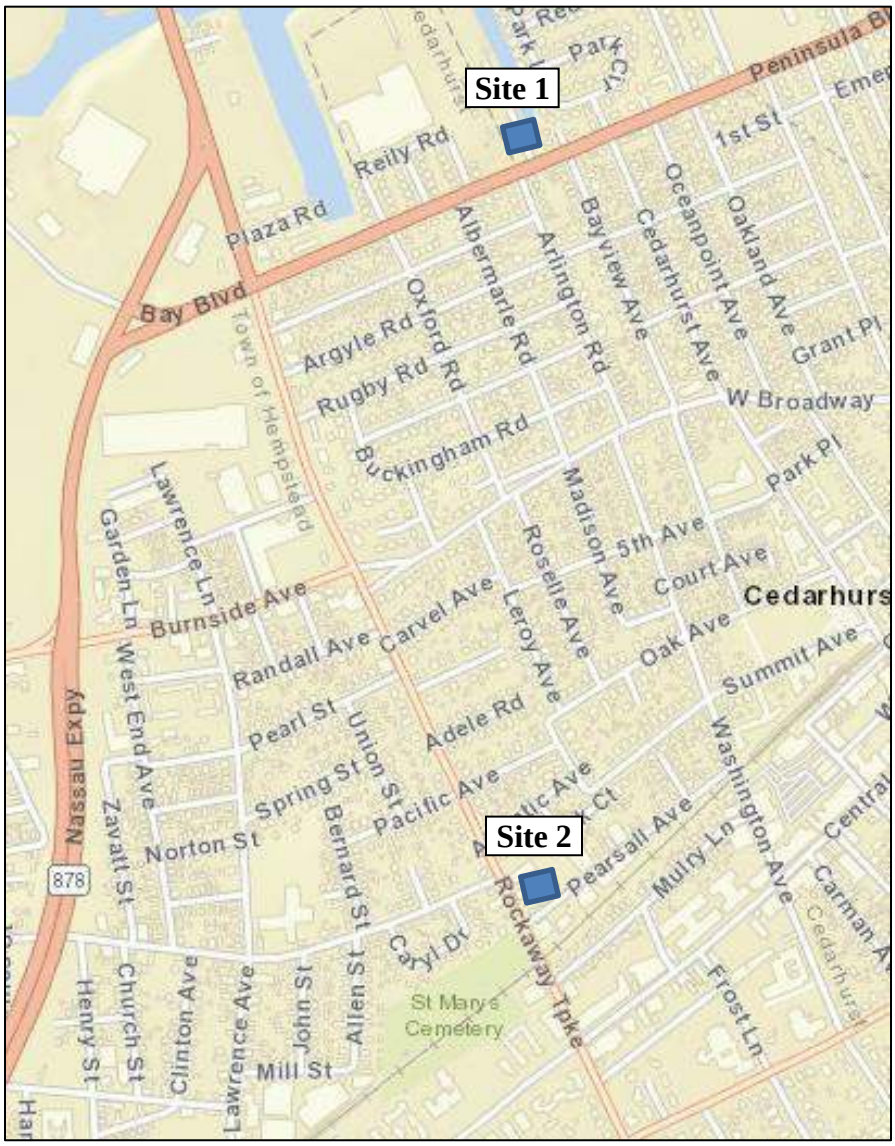
C. Determine the "Build" Scenario: Future Conditions with the zoning change

- Two sites have been identified as having potential for redevelopment under the proposed zoning. For the purposes of this study, these sites are called Site 1 and Site 2. Discuss the potential new yield on each property.
- Calculate the volumes typically generated by the new uses during peak hours, and compare these numbers with the trips generated by the current/former uses, using the Institute of Transportation Engineers (ITE) *Trip Generation Manual* (10th Ed.).
- Determine the number of parking spaces required by the Village for each site. If applicable, use data in the ITE *Parking Generation Manual* (5th Edition).
- Discuss potential impacts on parking demand at the general business district in the Village, particularly on Central Avenue and nearby public parking lots.
- Distribute net new site-generated traffic to specific movements at the key intersections. Adding the site traffic to the No Build volumes yields the expected future traffic volumes if the project is constructed (the "Build" scenario).
- Use *Synchro* to determine the future Build levels of service.

D. Determine the traffic impact (if any) of the proposed project

- Compare the "No Build" and "Build" levels of service. Any difference between the two scenarios indicates an initial impact on traffic conditions.
- Address impacts by proposing mitigation. Any scenario that includes a mitigation measure is labeled the "Mitigated Build" condition.
- The comparison between the "No Build" and either the "Build" or "Mitigated Build" scenarios indicates the viability of the proposed redevelopment with respect to traffic conditions.

Figure 1-1: Project Location Map



2. Existing Conditions

2.1 Existing Land Use

Site 1 on Peninsula Boulevard is vacant; it was previously utilized for municipal utility purposes. Site 2 on Pearsall Avenue has a convenience market, a single-family house, a 2-family duplex, a 4-unit home, 8 apartments, retail, and a warehouse-retail building.

2.2 Roadway Descriptions

The major roadways in the area are described below. The next section describes the study intersections that include these roadways and local streets.

Burnside Avenue is an east-west NCDPW arterial-major collector. It has two through lanes in each direction with turn lanes at some intersections, and its speed limit is 30 mph. Its Average Annual Daily Traffic (AADT) volume is roughly 15,000 vehicles per day (vpd) east of Rockaway Turnpike.

Cedarhurst Avenue is a Village major collector that runs north-south. It has one lane in each direction and a 30 mph speed limit. The AADT near Peninsula Boulevard is 2,900 vpd, increasing to 5,000 vpd further south and near the LIRR Cedarhurst station.

Central Avenue is an east-west Village major collector. It has one lane in each direction and a 30 mph speed limit. Its AADT volume is 14,000 vpd.

Pearsall Avenue is a Village local road running east-west. It has one lane in each direction and a 30 mph speed limit. Based on September 2019 traffic counts, its AADT is roughly 2,500 vpd.

Peninsula Boulevard is an east-west NCDPW principal arterial that runs east-west. It has two lanes in each direction and a left turn lane in one direction along much of its length within the Village. There is a 20 mph school speed limit east of Rockaway Turnpike; its baseline speed limit is 35 mph. The AADT is roughly 28,500 vpd.

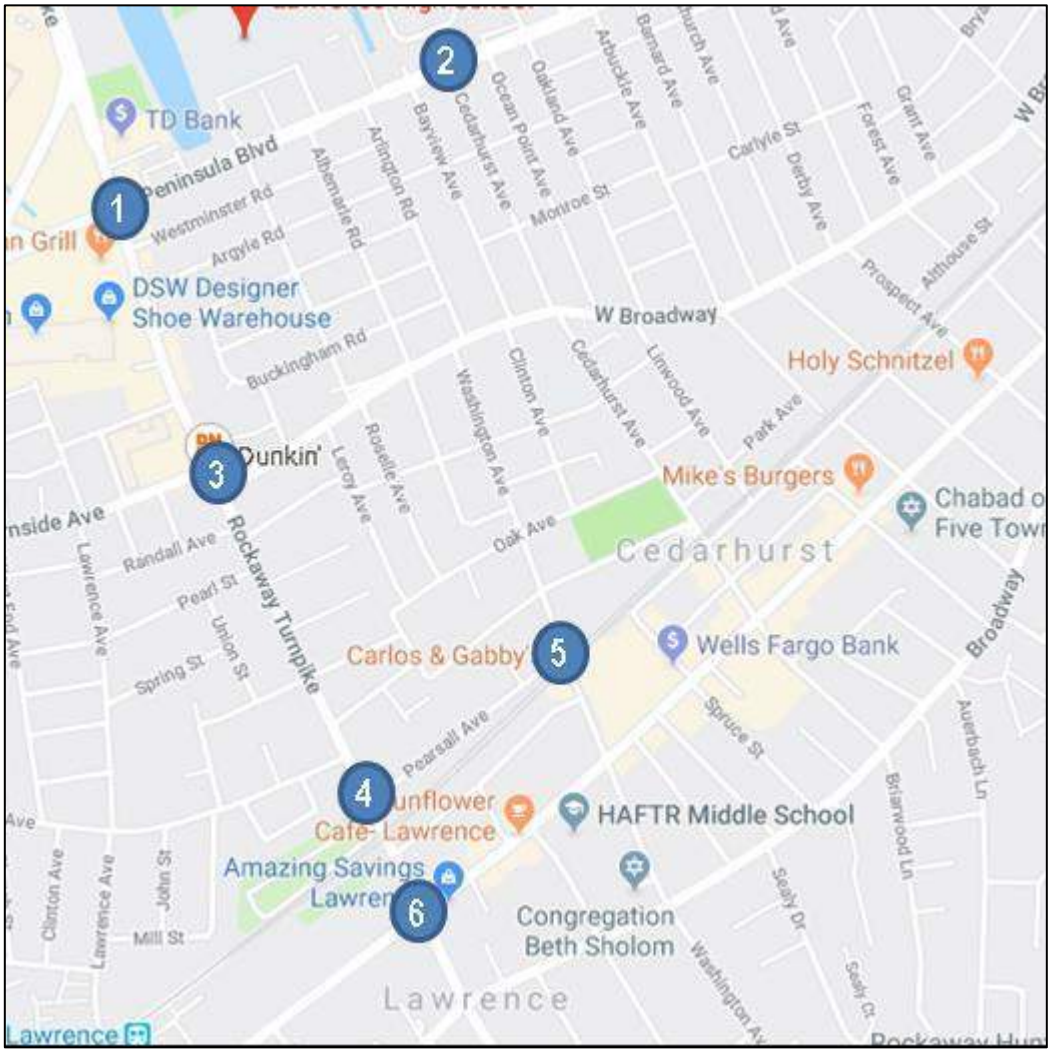
Rockaway Turnpike is a north-south NCDPW minor arterial. It has one lane in each direction with turning lanes at some intersections, and its posted speed limit is 30 mph. The AADT is approximately 17,000 vpd between W. Broadway and Pearsall Avenue.

Washington Avenue is a north-south local Village street with one lane in each direction and a 30 mph speed limit. Its AADT is approximately 3,600 vpd.

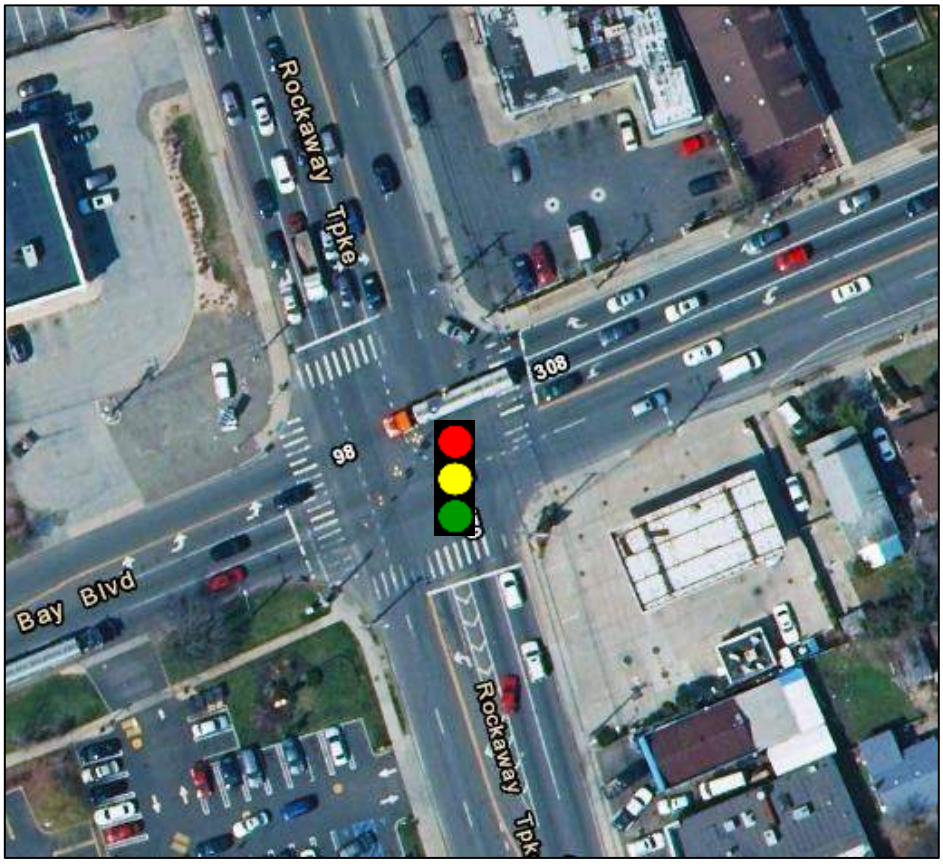
2.3 Key Intersections

Based on site visits, there were six key intersections identified in the vicinity of the two properties:

1. Rockaway Turnpike and Peninsula Boulevard-Bay Boulevard
2. Cedarhurst Avenue and Peninsula Boulevard
3. Rockaway Turnpike and Burnside Avenue
4. Rockaway Turnpike and Pearsall Avenue
5. Washington Avenue and Pearsall Avenue
6. Central Avenue at Rockaway Turnpike



Below are aerial photos of each intersection and a note on whether each location is controlled by a traffic signal or stop sign.



Peninsula Boulevard at Rockaway Turnpike

Peninsula Boulevard at Cedarhurst Avenue

Burnside Avenue at Rockaway Turnpike

Rockaway Turnpike at Pearsall Avenue

Washington Avenue at Pearsall Avenue

Central Avenue at Rockaway Turnpike

2.4 Traffic Volumes

Traffic volumes were counted at the study intersections on Sunday, September 22, 2019 from 11:00 a.m.-2:00 p.m. and Tuesday, September 24, 2019 from 7:00-9:00 a.m. and 4:00-6:00 p.m. Our experience with localized traffic patterns in the Village indicates that local traffic is busier on Sundays than on Saturdays. This is supported by our recently published traffic study for the area, so this report considers Sunday as the busier weekend day. The existing volumes, shown in Figure 2-2 through Figure 2-4 at the end of this section, were used to determine current level of service conditions at the key intersections.

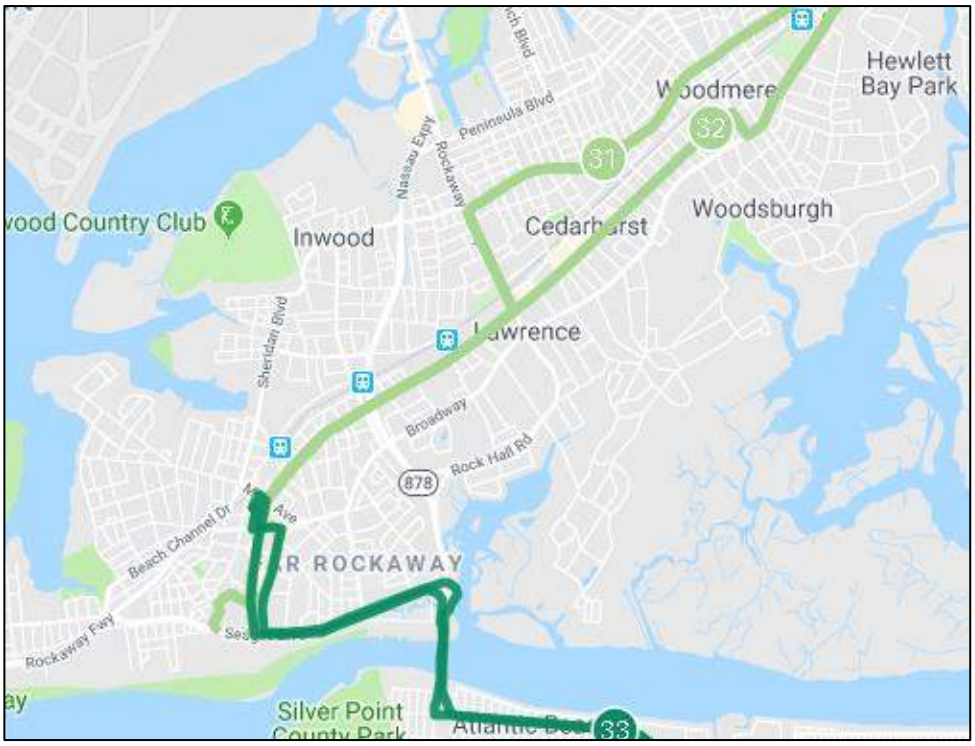
2.5 Transit

Walking at a leisurely pace, the Long Island Rail Road (LIRR) Lawrence station (Far Rockaway branch) is roughly 15-20 minutes from the Pearsall Avenue parcels and roughly 25-30 minutes from the northerly Peninsula Boulevard parcels. Every train on this branch that travels between Penn Station and Far Rockaway stops at the Inwood and Lawrence stations. Travel time to Penn Station is ±55 minutes.

Nassau Inter-County Express (NICE) Bus runs two bus routes that stop near the southern Pearsall Avenue parcels: the N31/N32 (shown in light green in the figure below). The N31 and N32 connect Far Rockaway and Hempstead, running approximately every 10-30 minutes in either direction, seven days a week (shorter hours on weekends).

For the purposes of this study, no transit use is considered.

Figure 2-1: Excerpt of NICE Bus Map



2.6 Existing Levels of Service

An intersection's Level of Service (LOS) describes its quality of traffic flow, and ranges in grade from LOS "A" (relatively congestion-free) to LOS "F" (congested). LOS grades are based on average delay, measured in "seconds per vehicle", and the threshold delays for each grade depend on whether the intersection is controlled by a signal or a stop sign. Detailed LOS descriptions are in Appendix A. Existing LOS analyses were performed using Synchro 10, a software package that complies with the guidelines of the *Highway Capacity Manual Sixth Edition* (*HCM 6*). Synchro software incorporates the following:

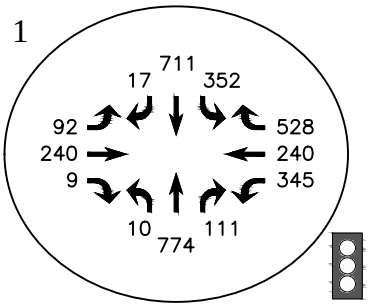
- Counted/adjusted traffic volumes, in 15-minute intervals
- The numbers of lanes (turn lanes, through lanes) in each direction
- Turn lane storage (where applicable)
- Whether an intersection has a signal or stop sign
- If there is a signal, the amount of green, yellow, and red time for each movement
- The use of left turn arrows or right turn arrows at signalized intersections
- The relative locations of adjacent intersections

The existing levels of service are summarized in Table 2-1, and the analysis worksheets are in Appendix B.

Table 2-1:
Existing Levels of Service

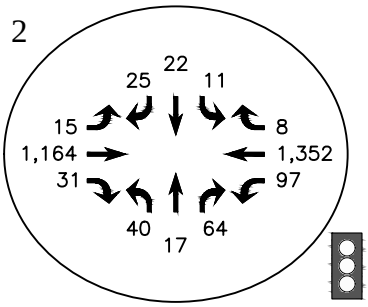
Intersection	Movement	AM Peak Hour			PM Peak Hour			Sunday Peak Hour		
		Delay (sec/veh)	v/c Ratio	LOS	Delay (sec/veh)	v/c Ratio	LOS	Delay (sec/veh)	v/c Ratio	LOS
Rockaway Turnpike and Peninsula Boulevard-Bay Boulevard	Eastbound Left	30.3	0.33	C	40.5	0.36	D	42.7	0.76	D
	Through-Right	36.4	0.44	D	48.4	0.58	D	44.4	0.53	D
	Westbound Left	34.3	0.76	C	89.7	1.01	F	44.0	0.74	D
	Through	30.7	0.51	C	44.8	0.63	D	71.7	0.89	E
	Right	40.5	0.88	D	36.9	0.70	D	45.4	0.66	D
	Northbound Left	54.2	0.50	D	60.5	0.61	E	63.3	0.54	E
	Through	50.0	0.93	D	10.5	0.61	B	47.9	0.64	D
	Right	49.9	0.93	D	10.6	0.61	B	47.9	0.64	D
	Southbound Left	46.8	0.82	D	61.7	0.85	E	57.3	0.80	E
	Through	21.3	0.52	C	20.0	0.44	C	21.2	0.37	C
	Right	21.3	0.52	C	20.0	0.44	B	21.2	0.37	C
	INTERSECTION	*37.7*		*D*	*36.4*		*D*	*44.8*		*D*
Cedarhurst Avenue and Peninsula Boulevard	Eastbound Left	12.5	0.06	B	9.9	0.06	A	9.0	0.06	A
	Through	6.9	0.72	A	6.0	0.59	A	5.6	0.54	A
	Right	6.9	0.72	A	6.0	0.59	A	5.6	0.54	A
	Westbound Left	13.8	0.34	B	10.2	0.24	B	9.4	0.25	A
	Through	7.5	0.79	A	6.4	0.66	A	6.0	0.61	A
	Right	7.4	0.79	A	6.4	0.66	A	6.0	0.61	A
	Northbound LTR	15.2	0.37	B	15.7	0.46	B	15.2	0.36	B
	Southbound LTR	14.4	0.19	B	14.1	0.08	B	14.2	0.10	B
	INTERSECTION	*7.9*		*A*	*7.0*		*A*	*6.6*		*A*
Rockaway Turnpike and Burnside Avenue	Eastbound Left	56.1	0.80	E	56.9	0.81	E	49.6	0.69	D
	Through	64.3	0.87	E	66.8	0.89	E	53.2	0.76	D
	Right	64.8	0.87	E	67.8	0.90	E	53.8	0.77	D
	Westbound Left	61.7	0.85	E	63.6	0.86	E	54.9	0.77	D
	Through	54.5	0.77	D	55.4	0.78	E	51.3	0.70	D
	Right	37.1	0.30	D	33.4	0.23	C	40.0	0.45	D
	Northbound Left	37.2	0.11	D	51.3	0.28	D	33.6	0.13	C
	Through	31.0	0.36	C	33.9	0.40	C	28.6	0.33	C
	Right	30.9	0.36	C	0.0	0.00	A	28.5	0.33	C
	Southbound Left	22.7	0.24	C	25.9	0.39	C	21.0	0.30	C
	Through	28.1	0.60	C	47.0	0.68	D	31.0	0.51	C
	Right	90.4	1.09	F	99.2	1.06	F	36.0	0.65	D
	INTERSECTION	*56.4*		*E*	*61.0*		*E*	*40.6*		*D*
Rockaway Turnpike-Pearsall Ave	Westbound LR	18.1	0.00	C	20.9	0.00	C	29.1	0.00	D
	Northbound TR	8.8	0.00	A	8.6	0.00	A	8.7	0.00	A
	Intersection	*2.6*		*A*	*3.2*		*A*	*3.8*		*A*
Washington Ave-Pearsall Ave	Eastbound LR	15.1	0.00	C	14.5	0.00	B	15.7	0.00	C
	Northbound LT	8.0	0.00	A	8.0	0.00	A	8.1	0.00	A
	Intersection	*3.2*		*A*	*3.1*		*A*	*3.0*		*A*
Central Avenue at Rockaway Turnpike	Eastbound Left	37.9	0.63	D	38.3	0.67	D	36.9	0.61	D
	Through-Right	39.9	0.65	D	37.1	0.57	D	37.3	0.55	D
	Westbound Left	36.9	0.10	D	34.6	0.13	C	35.3	0.10	D
	Through-Right	61.4	0.94	E	60.8	0.94	E	63.4	0.94	E
	Northbound Left	17.6	0.12	B	19.3	0.12	B	18.5	0.07	B
	Through-Right	24.1	0.48	C	23.7	0.40	C	24.4	0.42	C
	Southbound Left	16.8	0.21	B	17.3	0.17	B	17.1	0.26	B
	Through-Right	24.1	0.54	C	27.0	0.60	C	24.8	0.55	C
	INTERSECTION	*34.7*		*C*	*35.6*		*D*	*34.8*		*C*

1



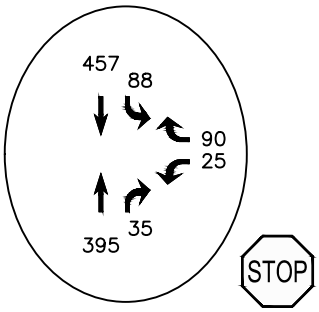
Rockaway Turnpike at Peninsula Boulevard-Bay Boulevard

2

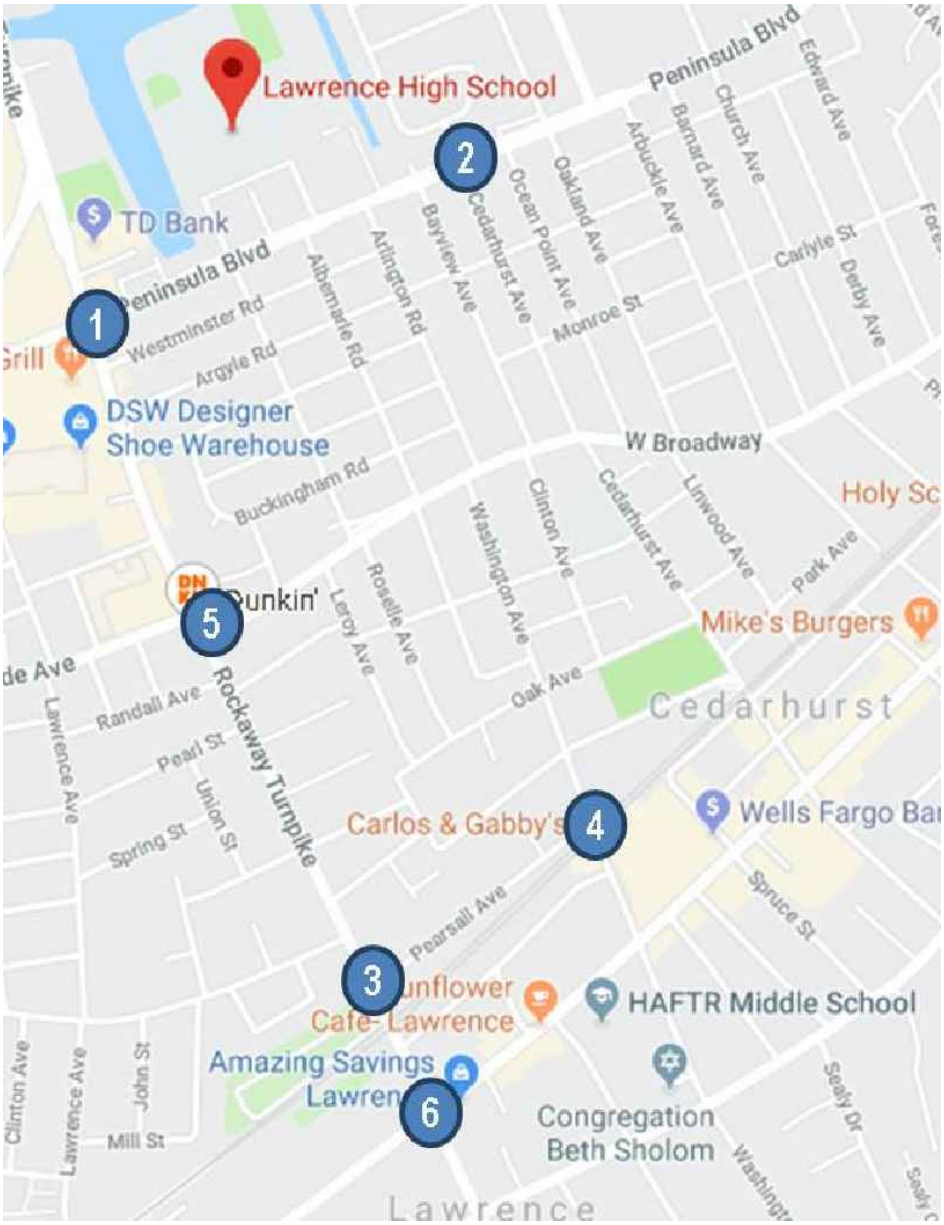


Cedarhurst Avenue at Peninsula Boulevard

3



Rockaway Turnpike at Pearsall Avenue



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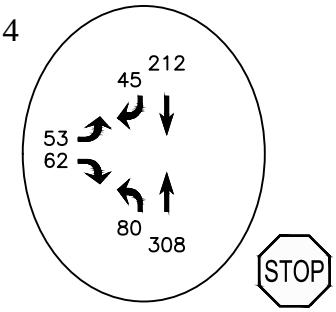
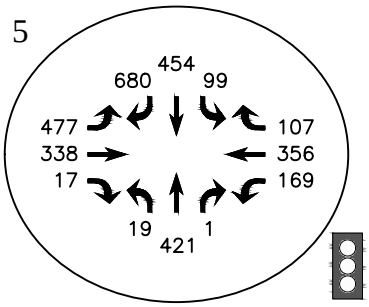


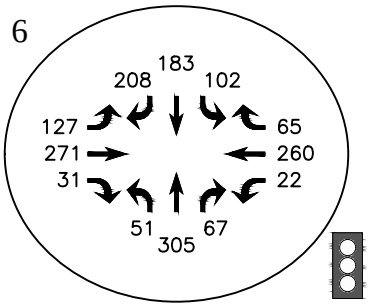
Washington Avenue at Pearsall Avenue

5



Rockaway Turnpike at Burnside Avenue

6



Central Avenue at Rockaway Turnpike

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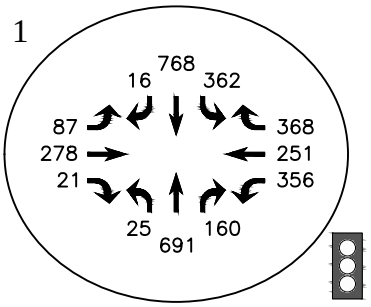
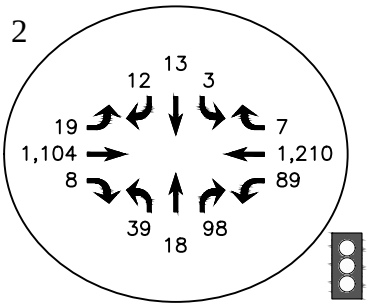
Existing AM Peak Hour Volumes
Figure No. 2-2

1



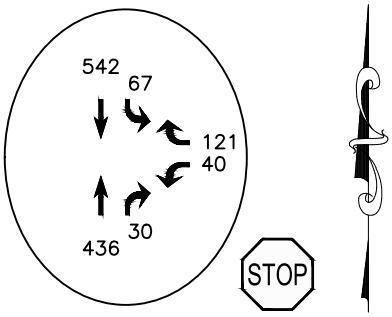
Rockaway Turnpike at Peninsula Boulevard-Bay Boulevard

2

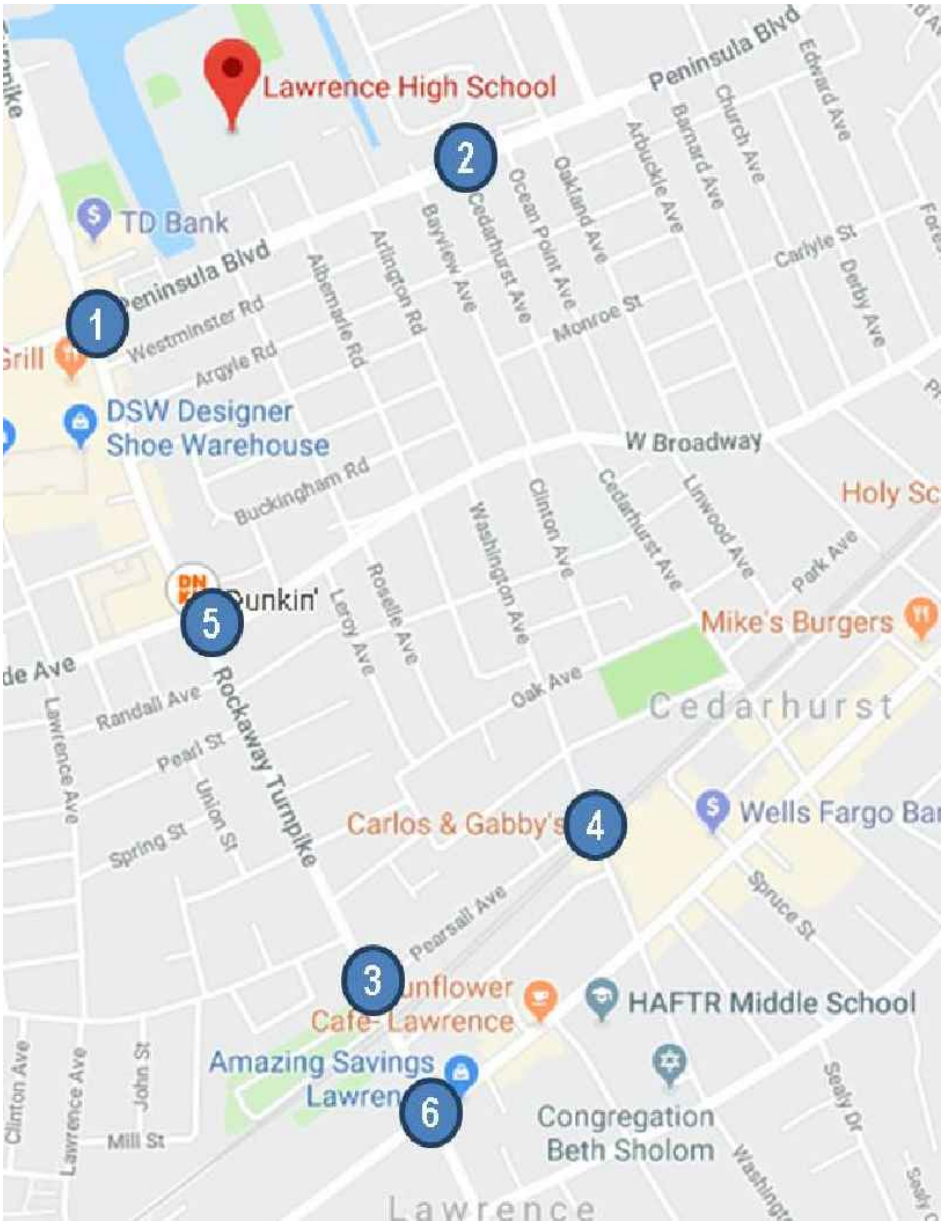


Cedarhurst Avenue at Peninsula Boulevard

3



Rockaway Turnpike at Pearsall Avenue



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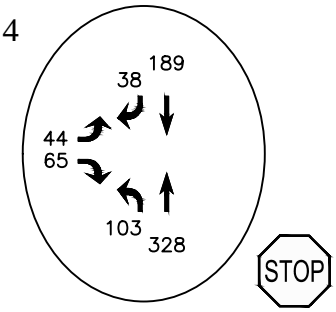
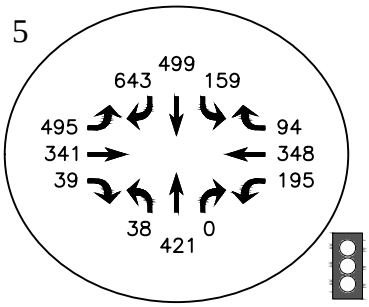


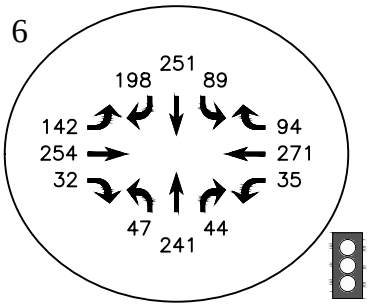
Washington Avenue at Pearsall Avenue

5



Rockaway Turnpike at Burnside Avenue

6



Central Avenue at Rockaway Turnpike

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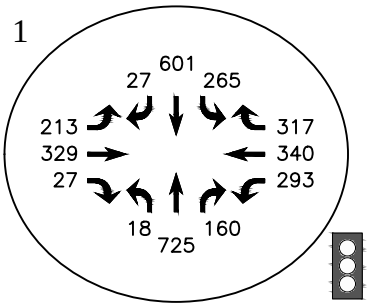
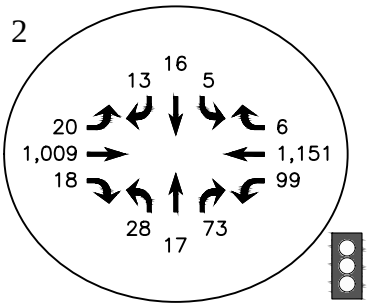
Existing PM Peak Hour Volumes
Figure No. 2-3

1



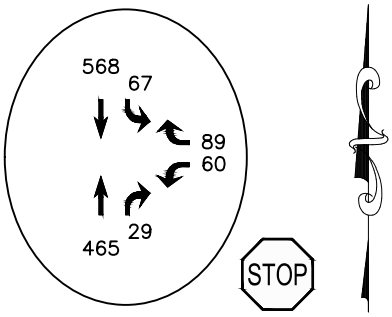
Rockaway Turnpike at Peninsula Boulevard-Bay Boulevard

2

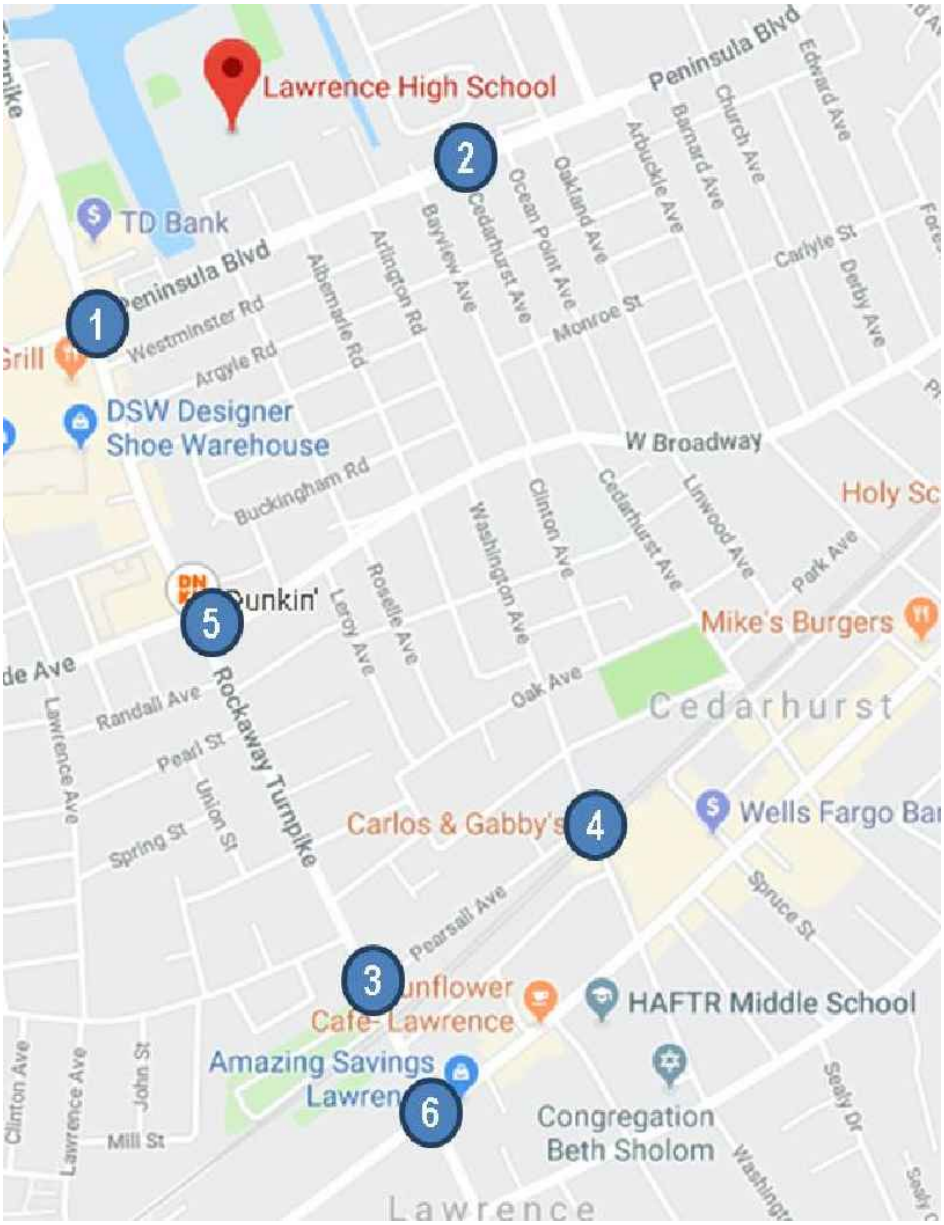


Cedarhurst Avenue at Peninsula Boulevard

3



Rockaway Turnpike at Pearsall Avenue



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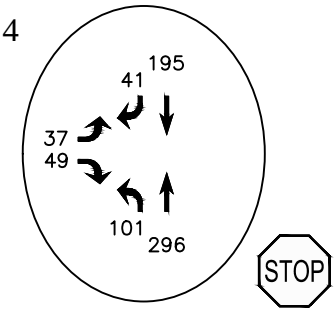
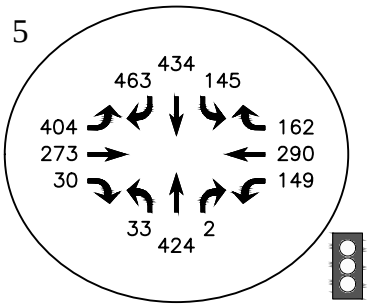


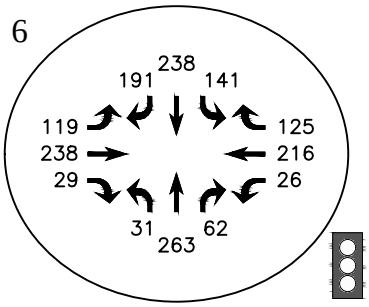
Washington Avenue at Pearsall Avenue

5



Rockaway Turnpike at Burnside Avenue

6



Central Avenue at Rockaway Turnpike

Existing Sunday Peak Hour Volumes
Figure No. 2-4

3. Future Conditions Without the Project – The No Build Scenario

Traffic conditions near the site will change even if the proposed project is not constructed. The future "No Build" condition comes about from the following two types of changes:

- **Ambient growth** from general population increases and minor development in the area.
- **Other planned developments** close to the site which have the potential to affect traffic patterns at the study intersections in this report.

3.1 Ambient Growth

According to the NYSDOT, the annual ambient growth rate in this part of Nassau County is 0.6% per year, which reflects minor new development. The factor was applied to the counted traffic volumes for four years to project the existing traffic volumes to the year 2023. These volumes comprise the "Ambient No Build" scenario.

3.2 Other Planned Developments

The term "other planned developments" refers to projects that are planned in the general surrounding area and are currently under review by the Village or by neighboring municipalities. These projects have the potential to generate traffic through one or more of the key intersections within the two-year scope of this report, but that traffic would not have been included in the field counts. Additionally, this term encompasses road improvement projects that are expected to be complete by 2023, since intersection geometry changes traffic flow quality/Level of Service.

As of the writing of this report, the other projects planned in the area were:

- *Town of Hempstead Zoning Initiative*: a zoning overlay recently approved in the Town of Hempstead for North Lawrence and Inwood that would allow for transit-oriented redevelopment with Complete Streets and infrastructure improvements. The associated traffic was obtained from the 3-year phase in the traffic study prepared by this office.
- *Nassau Expressway-Route 878 Improvements:* NYSDOT plans to complete a major road raising project in December 2019 to elevate 0.57 miles of Route 878 by 3-4 feet, starting at Burnside Avenue and running north to Rockaway Turnpike. For the purposes of this study, the road improvements will only improve upon the geometry of Bay Boulevard, west of the Rockaway Turnpike intersection. According to NYSDOT public information plans, there will be additional eastbound capacity exiting Nassau Expressway and approaching Rockaway Turnpike, with a left lane and two through lanes. As of October 2019, roadwork was closing one westbound lane west of (away from) the intersection of

Rockaway Turnpike-Peninsula Boulevard. The approaching lanes were not affected, and all movements were permitted. Looking southwest at the corner, one of two lanes remains in operation and accommodates trucks:

October 2019 photo – trucks shown are headed west:

- *The Woodmere Club*: The golf course was sold in 2017 and is subject to redevelopment with single-family residential homes in 2022 or later; the club is expected to close in 2022[1]. The associated redevelopment could be subsequent to the Village's rezoning, so for the purposes of this study, there is no change through the year 2022/2023 for The Woodmere Club.

The net new trip generation numbers for the Town zoning initiative were incorporated into the "No Build" condition; the "Total No Build" volumes are illustrated in Figure 3-2 through Figure 3-4. The No Build level of service worksheets are in Appendix C, and the data are summarized together with the Build levels of service in Section 5 of this report.

[1] Source: http://www.thejewishstar.com/stories/fight-over-woodmere-clubs-future-drags-hemptown-into-court,15648

Figure 3-1: Other Project Locations

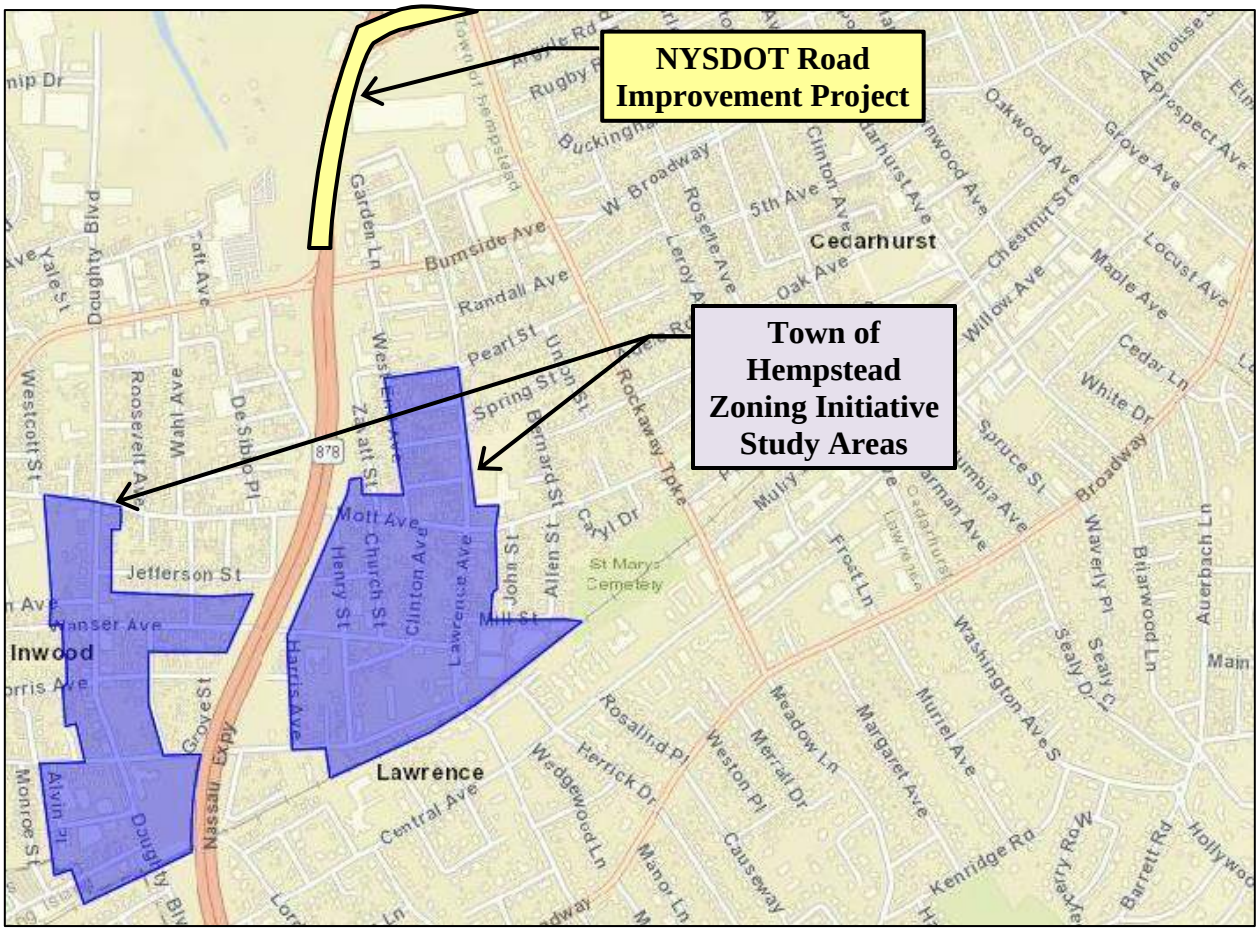


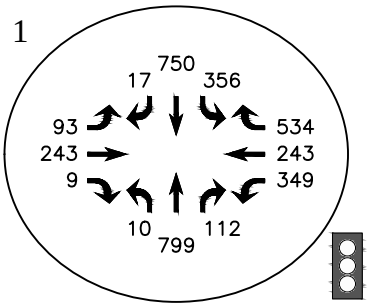
Table 3-1:

Other Planned Projects

Passby Factors:		TOH Zoning Overlay: Removed Land Uses AM	PM	SUN	TOH Zoning Overlay: Non-Residential Uses AM	PM	SUN	TOH Zoning Overlay: Residential Uses AM	PM	SUN	TOH Zoning: Relocate bus lot AM	PM
0% Weekday	Enter	**-12**	**-41**	**-60**	**62**	**47**	**82**	**18**	**84**	**68**		
0% Weekend	Exit	**-17**	**-40**	**-60**	**72**	**4**	**74**	**94**	**46**	**58**		
	Total	-28	-81	-120	134	51	156	112	130	126	0	0

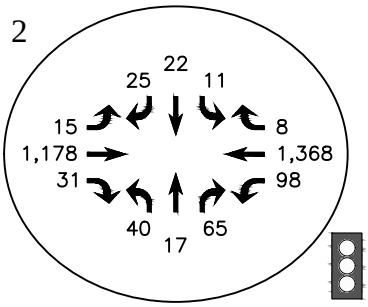
Dir	Movemt	Traffic Distribution % enter	% exit	Other Project 1 Volume AM	PM	SUN	Traffic Distribution % enter	% exit	Other Project 2 Volume AM	PM	SUN	Traffic Distribution % enter	% exit	Other Project 3 Volume AM	PM	SUN	Other Project 4 Volume AM	PM	Total Other Project Volume AM	PM	SUN
INTERSECTION: Rockaway Turnpike and Peninsula Boulevard-Bay Boulevard																					
NB	Left			---	---	---			---	---	---			---	---	---	---	---	0	0	0
	Through		5%	-1	-2	-3		5%	4	0	4		5%	5	2	3	8	0	15	0	4
	Right			---	---	---			---	---	---			---	---	---	---	---	0	0	0
SB	Left			---	---	---			---	---	---			---	---	---	---	---	0	0	0
	Through	10%		-1	-4	-6	10%		6	5	8	10%		2	8	7	24	19	31	28	9
	Right			---	---	---			---	---	---			---	---	---	---	---	0	0	0
EB	Left			---	---	---			---	---	---			---	---	---	---	---	0	0	0
	Through			---	---	---			---	---	---			---	---	---	---	---	0	0	0
	Right			---	---	---			---	---	---			---	---	---	---	---	0	0	0
WB	Left			---	---	---			---	---	---			---	---	---	---	---	0	0	0
	Through			---	---	---			---	---	---			---	---	---	---	---	0	0	0
	Right			---	---	---			---	---	---			---	---	---	---	---	0	0	0
INTERSECTION: Cedarhurst Avenue and Peninsula Boulevard																					
INTERSECTION: Rockaway Turnpike and Pearsall Avenue																					
NB	Left			---	---	---			---	---	---			---	---	---	---	---	0	0	0
	Through	10%	8%	-3	-7	-11	10%	8%	12	5	14	10%	8%	9	12	11	---	---	19	10	15
	Right			---	---	---			---	---	---			---	---	---	---	---	0	0	0
SB	Left			---	---	---			---	---	---			---	---	---	---	---	0	0	0
	Through	8%		-1	-3	-5	8%		5	4	7	8%		1	7	5	---	---	5	7	7
	Right			---	---	---			---	---	---			---	---	---	---	---	0	0	0
EB	Left			---	---	---			---	---	---			---	---	---	---	---	0	0	0
	Through			---	---	---			---	---	---			---	---	---	---	---	0	0	0
	Right			---	---	---			---	---	---			---	---	---	---	---	0	0	0
WB	Left			---	---	---			---	---	---			---	---	---	---	---	0	0	0
	Through			---	---	---			---	---	---			---	---	---	---	---	0	0	0
	Right			---	---	---			---	---	---			---	---	---	---	---	0	0	0
INTERSECTION: Washington Avenue and Pearsall Avenue																					
INTERSECTION: Rockaway Turnpike and Burnside Avenue																					
NB	Left			---	---	---			---	---	---			---	---	---	---	---	0	0	0
	Through		5%	-1	-2	-3		5%	4	0	4		5%	5	2	3	8	0	15	0	4
	Right		3%	-1	-1	-2		3%	2	0	2		3%	3	1	2	---	---	4	0	2
SB	Left			---	---	---			---	---	---			---	---	---	---	---	0	0	0
	Through	5%		-1	-2	-3	5%		3	2	4	5%		1	4	3	24	19	27	24	4
	Right	5%		-1	-2	-3	5%		3	2	4	5%		1	4	3	---	---	3	5	4
EB	Left			---	---	---			---	---	---			---	---	---	---	---	0	0	0
	Through			---	---	---			---	---	---			---	---	---	---	---	0	0	0
	Right			---	---	---			---	---	---			---	---	---	---	---	0	0	0
WB	Left	3%		0	-1	-2	3%		2	1	2	3%		1	3	2	---	---	2	3	3
	Through			---	---	---			---	---	---			---	---	---	---	---	0	0	0
	Right			---	---	---			---	---	---			---	---	---	---	---	0	0	0
INTERSECTION: Rockaway Turnpike and Central Avenue																					
NB	Left			---	---	---			---	---	---			---	---	---	---	---	0	0	0
	Through	4%		0	-2	-2	4%		2	2	3	4%		1	3	3	---	---	3	4	4
	Right			---	---	---			---	---	---			---	---	---	---	---	0	0	0
SB	Left		6%	-1	-2	-4		6%	4	0	4		6%	6	3	3	---	---	9	1	4
	Through		4%	-1	-2	-2		4%	3	0	3		4%	4	2	2	---	---	6	0	3
	Right			---	---	---			---	---	---			---	---	---	---	---	0	0	0
EB	Left			---	---	---			---	---	---			---	---	---	---	---	0	0	0
	Through		6%	-1	-2	-4		6%	4	0	4		6%	6	3	3	---	---	9	1	4
	Right			---	---	---			---	---	---			---	---	---	---	---	0	0	0
WB	Left			---	---	---			---	---	---			---	---	---	---	---	0	0	0
	Through	6%		-1	-2	-4	6%		4	3	5	6%		1	5	4	---	---	4	5	5
	Right	6%		-1	-2	-4	6%		4	3	5	6%		1	5	4	---	---	4	5	5

1



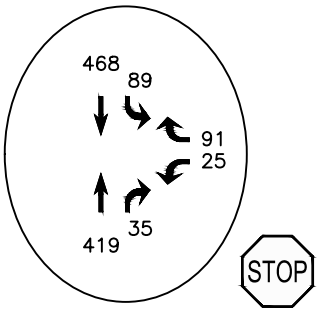
Rockaway Turnpike at Peninsula Boulevard-Bay Boulevard

2

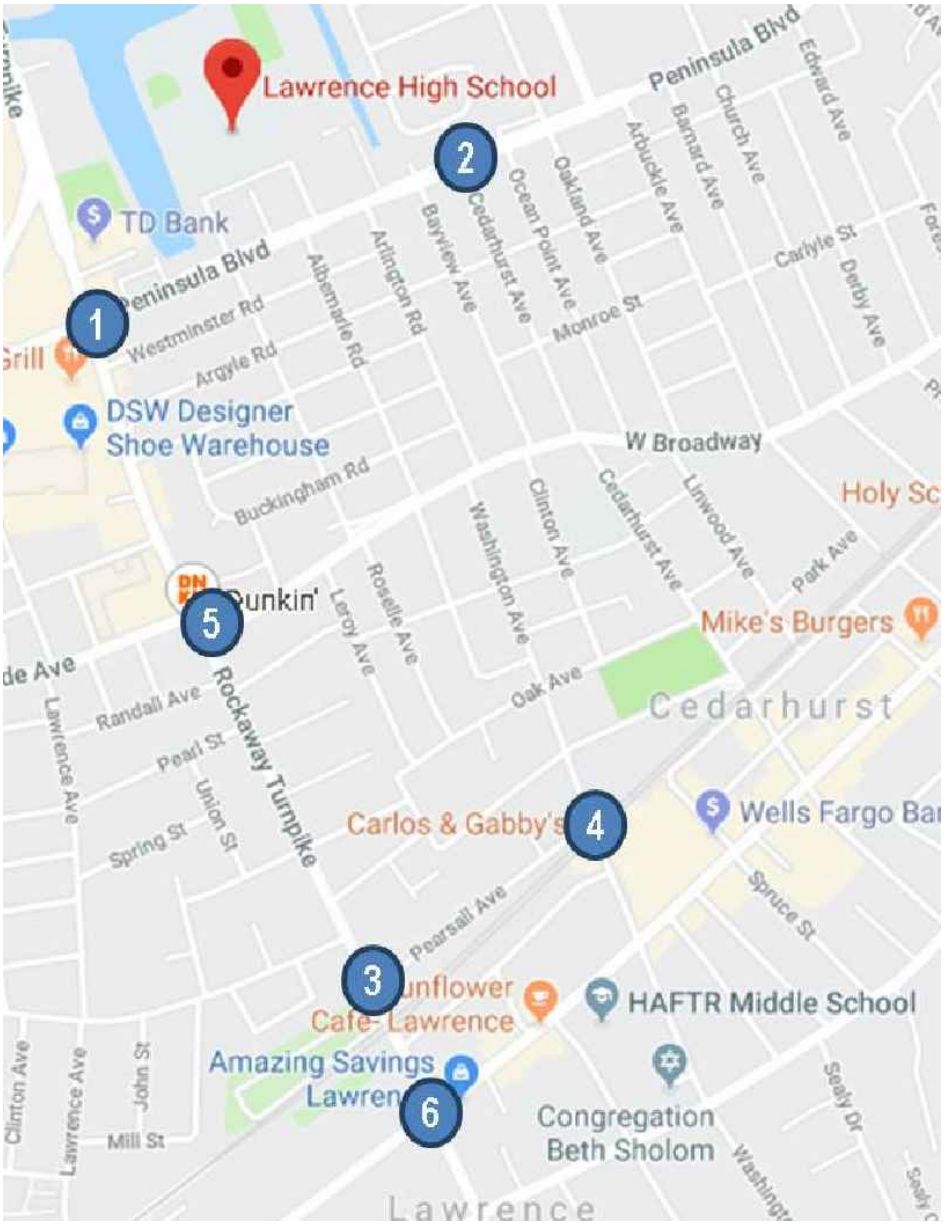


Cedarhurst Avenue at Peninsula Boulevard

3



Rockaway Turnpike at Pearsall Avenue



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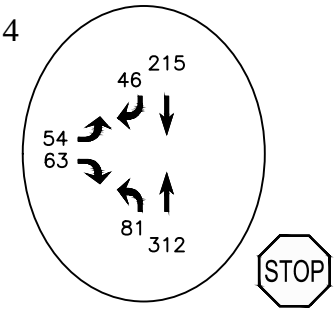
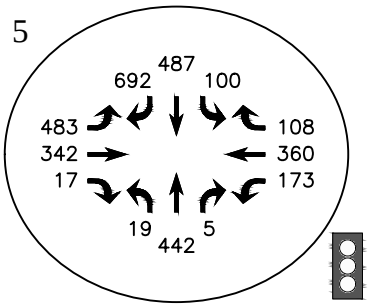


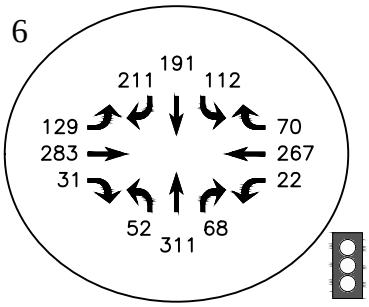
Washington Avenue at Pearsall Avenue

5



Rockaway Turnpike at Burnside Avenue

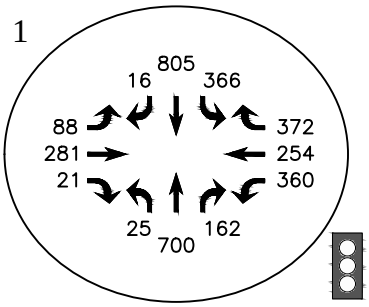
6



Central Avenue at Rockaway Turnpike

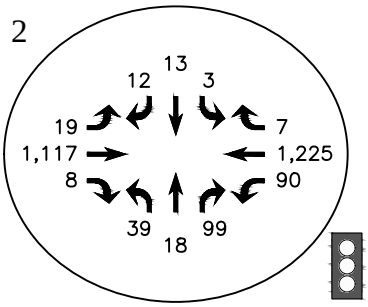
No Build AM Peak Hour Volumes
Figure No. 3-2

1



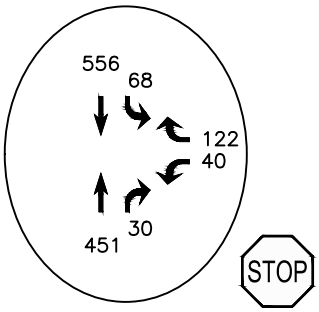
Rockaway Turnpike at Peninsula Boulevard-Bay Boulevard

2

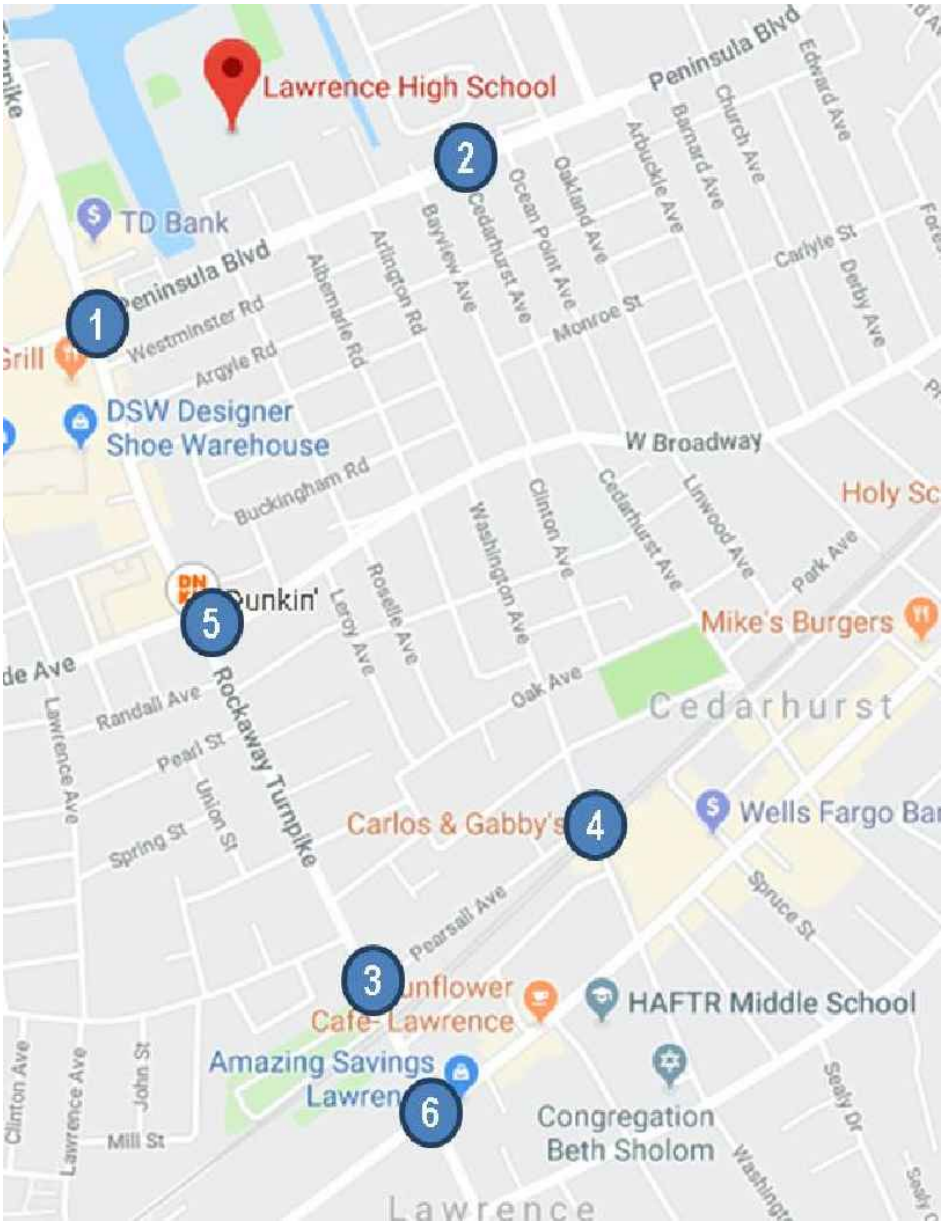


Cedarhurst Avenue at Peninsula Boulevard

3



Rockaway Turnpike at Pearsall Avenue



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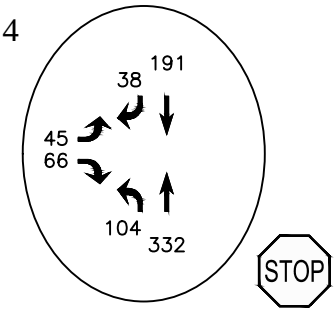
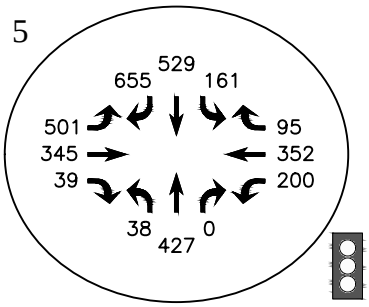


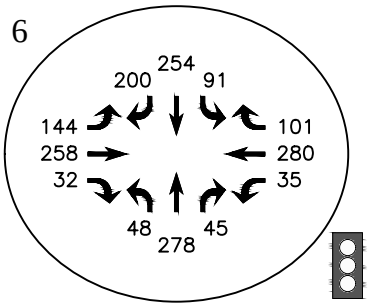
Washington Avenue at Pearsall Avenue

5



Rockaway Turnpike at Burnside Avenue

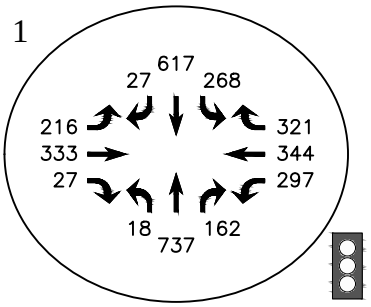
6



Central Avenue at Rockaway Turnpike

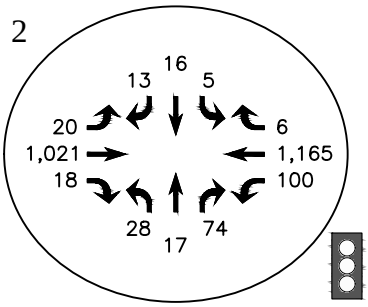
No Build PM Peak Hour Volumes
Figure No. 3-3

1



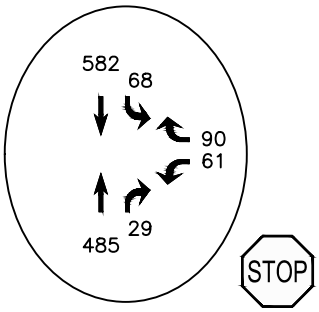
Rockaway Turnpike at Peninsula Boulevard-Bay Boulevard

2

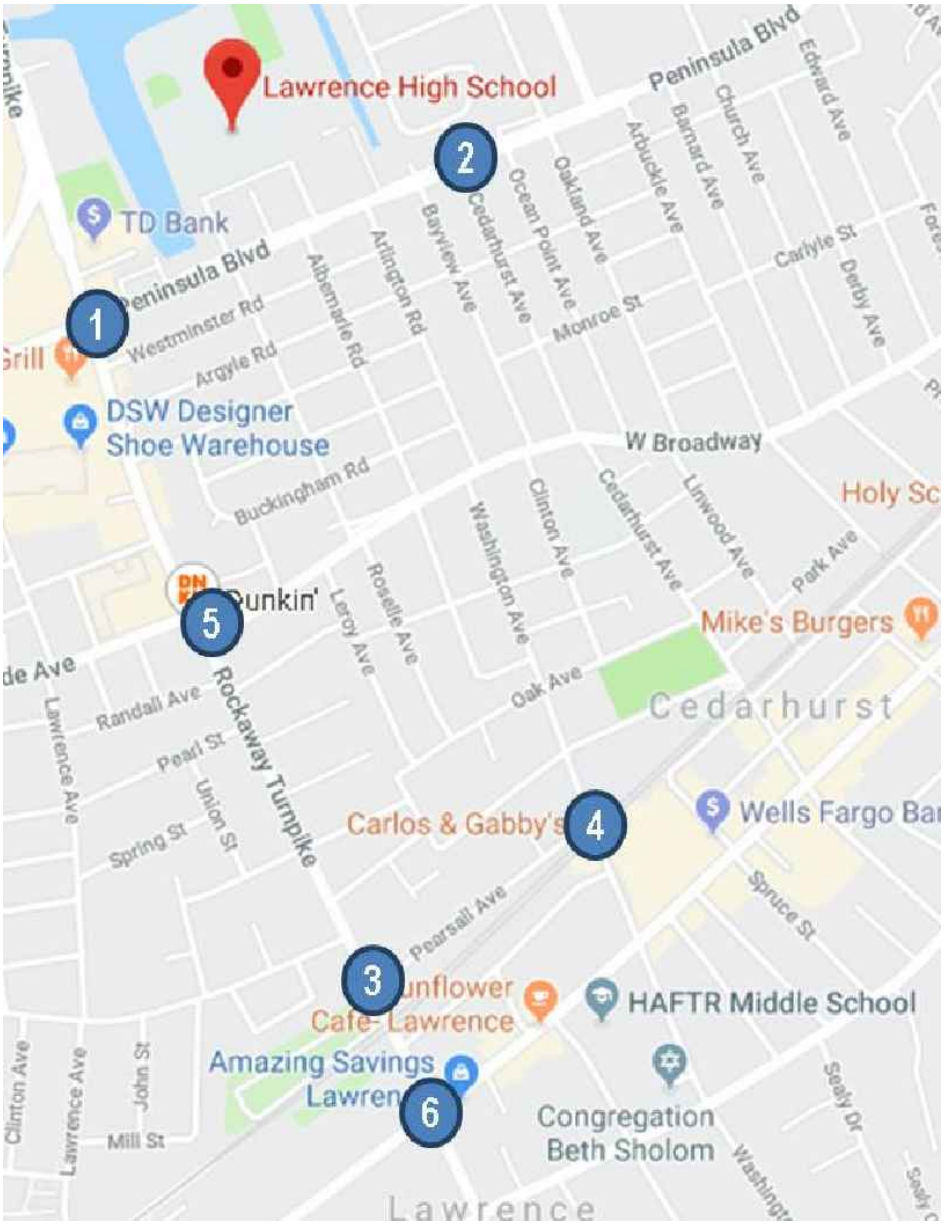


Cedarhurst Avenue at Peninsula Boulevard

3



Rockaway Turnpike at Pearsall Avenue



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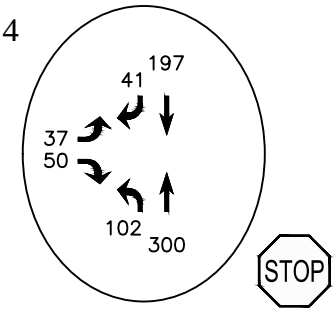
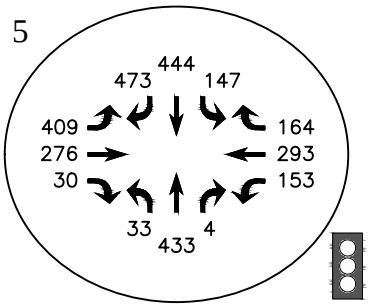


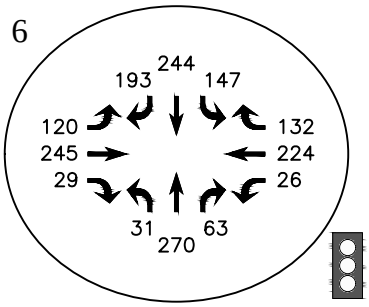
Washington Avenue at Pearsall Avenue

5



Rockaway Turnpike at Burnside Avenue

6



Central Avenue at Rockaway Turnpike

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No Build Sunday Peak Hour Volumes
Figure No. 3-4

4. Future Conditions with the Zoning Overlay – The Build Scenario

4.1 Description of Proposed Zoning

The proposed zoning overlay would apply to parcels that meet specific criteria:

- 0.75-acre minimum
- General Business zoned, or Municipally owned (no private property)
- Two or more street frontages
- Located on a Village of Cedarhurst boundary

As of the writing of this report, two assemblages of parcels satisfy the criteria. "Site 1" is on the north side of Peninsula Boulevard, next to Lawrence High School. "Site 2" is located on Pearsall Avenue, east of Rockaway Turnpike. See Figure 4-1 below.

Figure 4-1: Location Map

4.2 Description of Associated Land Uses

With the proposed zoning overlay, the potential redevelopment at Site #1 includes 130 multifamily units based on 3.0 developable acres, ±44 units per acre, excluding wetland setbacks and the space which would be necessary for parking and fire apparatus access.

Site #2 includes 112 multifamily units in three buildings; the west building would have ancillary tenant amenity spaces. Tenant amenities would be for residents' use only, so they would generate no traffic for the purposes of a traffic study. This statement includes the trips associated with the management office; ITE study site mid-rise multifamily buildings (including apartments, townhouses, condominiums, and co-ops) typically have small management offices. This is discussed further in Section 4.5, Trip Generation.

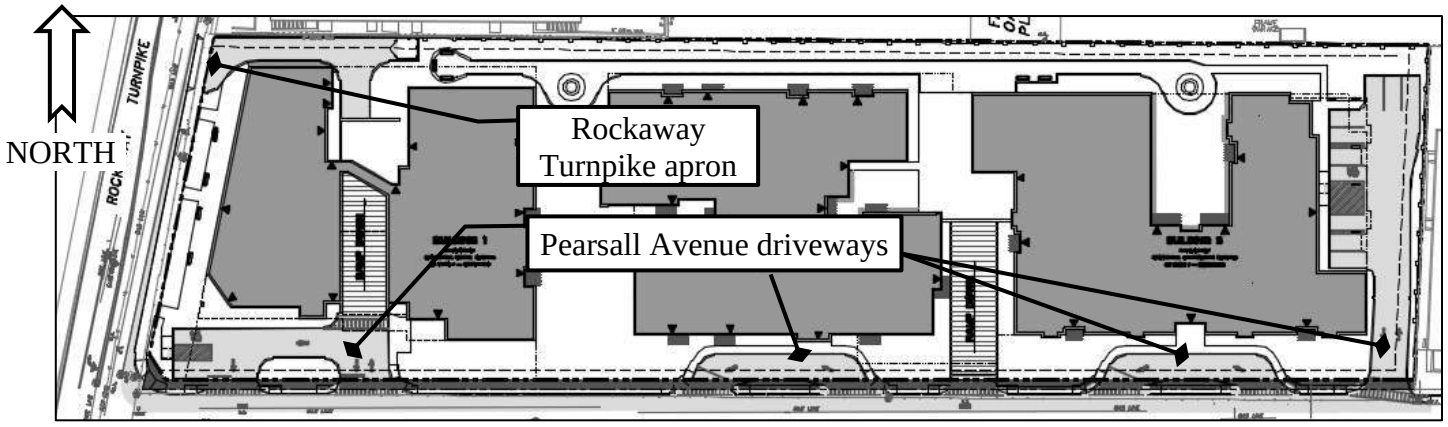
Table 4-1: Potential Land Use Yield

	Site 1: Peninsula Boulevard	Site 2: Pearsall Avenue
Residential Units: Total	130	34 apartments 78 multifamily units
Studio	0	1 apartment
1-bedroom	40	1 apartment
2-bedroom	45	28 apartments 41 multifamily units
3-bedroom	45	4 apartments 37 multifamily units
Tenant Amenities, Management Office		8,544 s.f. amenities, 745 s.f. office: Resident Lounge: 2,778 s.f. Library/Lounge: 1,304 s.f. Canteen: 255 s.f. Building 1 Resident Gym: 989 s.f. Building 3 Resident Fitness: 3,218 s.f. 745 s.f. Management Office Ancillary spaces: Restrooms: 390 s.f. Utility Storage: 267.5 s.f. Circulation: 3,492 s.f. Total Ancillary space: 4,150 s.f. Total Amenity space: 13,439 s.f.

4.3 Site Access

There is no site plan for Site 1. For Site 2, there is a concept site plan that retains the apron on Rockaway Turnpike and changes Pearsall Avenue access to a series of circular one-way driveways and parking access points, with a two-way access at the easterly corner. Each building will have space for vehicles to stage, so vehicles do not have to stop on Pearsall Avenue. These drop-off/pickup areas would serve resident drop off and service deliveries. Please refer to the plan excerpt below, provided in Figure 4-2:

Figure 4-2: Site 2 (Pearsall Avenue) Plan Excerpt[2]



It is premature to analyze individual driveways, with respect to sight distance and level of service. Based on the proposed plan, the driveway layout would consolidate activity compared to the existing nearly-fully-flush apron along the Pearsall Avenue frontage (see photo below). Additionally, the proposed layout results in the buildings being set back further from the curb than the existing building at the corner of Pearsall Avenue and Rockaway Turnpike, which would result in better sight lines than what exists today.

Looking northwest at the existing building at Rockaway Turnpike-Pearsall Avenue:

[2] Plan prepared by John F. Capobianco, AIA

4.4 Parking

The zoning overlay would be subject to current Village code §265-81 and to zoning incentives at the discretion of the Board of Trustees, e.g. monetary contributions for off-site public parking; infrastructure improvements (street furniture, lighting, pavers, plazas, sewer, water), or other benefits as determined by the Board. Village code has the same required parking for apartments or "multiple dwellings" (including any multifamily units):

- 1.5 spaces per studio, efficiency, and one-bedroom unit
- 2.25 spaces per two-bedroom apartment
- 1 space per bedroom for units with 3 or more bedrooms
- Non-residential space: 1 space for each 200 square feet of floor area, excluding lobbies, hallways, and resident-only health facilities and pools[3]

Common/hall/utility areas are considered part of the multifamily buildings.

Table 4-2: Village Code Required Parking (Site 1)

Studio, 1-bedroom, 2-bedroom Apartments	85 units: 170 spaces
3-bedroom Apartments	45 units: 135 spaces
TOTAL	*170 + 135 =* ***305 spaces***

Table 4-3: Village Code Required Parking (Site 2)

Buildings 2 and 3 will have one below-grade garage, so their parking is considered together

Building 1		
Management Office space *	745 s.f.: 3.7 spaces	
Tenant Amenity Spaces (excluding gym, lobby, hallways) *	4,337 s.f. resident lounges, library, canteen: 21.7 spaces	
Non-residential Subtotal	*3.7 + 21.7 = 25.4 (26)*	
Studio, 1-bedroom Apartments	2 units: 3 spaces	
2-bedroom Apartments	28 units: 63 spaces	
3-bedroom Apartments	4 units: 12 spaces	***78 spaces***
Building 1 Total Required	*26 + 78 = 104 spaces*	
Building 1 Provided Parking	*113 spaces, including 5 ADA spaces*	
Buildings 2 and 3		
2-bedroom Multifamily units	41 units: 92.25 spaces	
3-bedroom Multifamily units	37 units: 111 spaces	
Building 3 fitness/pool resident amenity spaces	3,218 s.f.: 0 spaces	
Buildings 2 and 3 Total Required	*92.25 + 111 + 0 = 203.25 = 204 spaces*	
Buildings 2 and 3 Provided Parking	*204 spaces, including 10 ADA spaces*	

* These tenant amenity spaces are considered for parking purposes under the code, as is the management office, but will not generate additional parking demand, as they would be

[3] In our experience, any surcharge for amenity spaces exceeds anticipated peak demand. Satisfying Village code is expected to exceed actual anticipated demand.

open to residents only; visitors to a tenant amenity space would be comprised of visitors associated with the tenants (i.e., periodic invited visitors). It would not be "publicly accessible" space utilized on a regular basis, but is included in the required parking count.

Of note, satisfying Village code will satisfy or exceed the genuine anticipated parking demand. This may be in part because peak residential parking occurs overnight, when there are fewer visitors to accommodate. The Institute of Transportation Engineers (ITE) *Parking Generation Manual* (5th Edition) recommends 70 and 53 fewer spaces than Village code for the sites on Peninsula Boulevard and Pearsall Avenue, respectively.[4]

For the Pearsall Avenue site, the plans prepared by John F. Capobianco, AIA label 317 spaces in the three buildings: 113 in Building 1 (exceeds Village code by 9 spaces) and 204 in Buildings 2 and 3 (satisfy Village code). Provided parking is anticipated to exceed genuine peak demand.

The Americans with Disabilities Act (ADA) requires 5 accessible spaces for Building 1, 4 for Building 2, and 5 for Building 3. The John F. Capobianco, AIA plans provide 5 ADA spaces per building, including at-grade and below-grade parking.

Site 2 will have sufficient parking to satisfy demand and accessible parking requirements.

Table 4-4: Provided and Required Parking

	Sitewide	Building 1	Buildings 2 and 3
Village Code	308	104	204
Provided	317	113	204
Surface Parking	*12*	*2*	*10*
Underground Level 1		*53*	*105*
Underground Level 2		*58*	*89*
ADA Spaces Included		*5*	*10 (5 under each building)*

4.4.1 Control of Parking Access

There will be surface parking in front of Building 1/on the side of Building 3, for deliveries or short-term visitors. Garage access will be controlled, generally implemented as follows. The exact technology is to be determined. Each garage will have a locking garage door, and only authorized drivers will be admitted into one of the garages. The applicant will use a to-be-determined technology (such as a smartphone app, cameras, key fob readers, or other scannable device), to facilitate streamlined entry, access control, and security. Visitors can

[4] Village code requires 305 spaces for Site 1-Peninsula Boulevard and 282 spaces for Site 2-Pearsall Avenue residences (plus 26 spaces if Site 2 amenities generated additional parking demand). The ITE *Parking Generation Manual* recommends 235 spaces for Site 1 and 229 spaces for Site 2. These ITE numbers reflect the bedroom counts and reflect a higher result than ITE data based on unit count.

be given access to a smartphone app, or they can be permitted to use a pass code on-site. Guests staying overnight would be expected to register the vehicle to avoid having the vehicle towed.

Parking will be partially assigned to residents as described below:

- Building 1 will have one assigned parking space per unit. Remaining parking spaces would be unassigned for tenants and visitors. There will be no charge for visitor parking.
- Employees (e.g., management office staff) will be permitted to park by Building 1.
- Buildings 2 and 3 will have two assigned parking spaces per unit. Remaining parking spaces will be owned in common for general resident and visitor use, including for a third vehicle for 3-bedroom units.
- There will be no leasing or sharing of parking with non-building residents.

4.4.2 Off-Site Parking

An increase in the number of Village residents could increase the customer base for local retailers and generate additional parking demand on Central Avenue and Village parking lots. According to the fiscal impact assessment performed for the Expanded Environmental Assessment, the Pearsall Avenue project is projected to house 259 people and the Peninsula Boulevard site could house 286 people (545 total). This represents a ±7% increase above the latest Census Bureau population estimate in Cedarhurst (±7,670 residents)[5].

The increase in area-wide parking demand would be expected to be less than or equal to 7%, the anticipated population increase. This is because the downtown Cedarhurst/Central Avenue shopping district attracts shoppers and restaurant patrons who live outside the Village, and it is reasonable to anticipate some new residents as current "out-of-towners" who patronize Village shops and restaurants. Said persons would not materially change total parking demand. Additionally, any increase in shopping district parking demand associated with this application would be spread out among different municipal parking lots and a ±1/2 mile length of Central Avenue, which limits the localized increases in individual areas.

As reported by local residents, Thursday afternoon/evening is the busiest time of the week at local shops as community members prepare for the Sabbath. Cameron Engineering conducted parking counts of the Central Avenue retail district and nearby public parking lots on Thursday, February 27, 2020 (i.e., pre-COVID) from 5:00 to 7:30 p.m. to gauge the relative number of available parking spaces during peak periods. Weather conditions during

[5] https://data.census.gov/cedsci/table?q=11516%20population&g=8600000US11516&hidePreview=false&tid=ACSDP5Y2018.DP05&vintage=2018&cid=DP05_0001E&layer=zcta5

the counts were clear, with no inclement weather in the forecast. The locations included in the count are depicted in the map on page 4-8 and the results are provided in Table 4-5.

Each municipal lot was observed to have at least 10% availability during the counts, relative to a ±7% population increase. The busiest parking demand was observed at 5:00 p.m., when each lot had more than 25 available spaces, all lots combined had over 400 available spaces, and Central Avenue had over 60 available spaces. This is roughly equivalent to the anticipated total peak parking demand at Site 1 and Site 2 combined, based on ITE projections: 460 or more available spaces, 464 spaces projected genuine demand for the two sites combined (235 + 229, per footnote 4 on page 4-5).

Therefore, while there could be temporary surges in localized demand (such as before major holidays), it is not expected that the proposed applications will create excessive parking demand that might impact shopping activity in the Village on a regular basis.

Table 4-5: Shopping District Parking – Available Space Counts

Table 4-5 shows available parking in eight municipal lots and on Central Avenue within the Village.

Location	Lot 1		Lot 2		Lot 3		Lot 4		Lot 5		Lot 6	
TIME	Available	%	Available	%	Available	%	Available	%	Available	%	Available	%
5:00 PM	26	10%	48	31%	34	40%	52	40%	58	70%	73	53%
5:30 PM	38	15%	66	43%	44	52%	75	57%	63	76%	84	61%
6:00 PM	33	13%	83	54%	57	67%	83	63%	68	82%	85	62%
6:30 PM	30	12%	92	59%	63	74%	90	69%	71	86%	90	65%
7:00 PM	42	16%	99	64%	65	76%	103	79%	75	90%	92	67%
Spaces	257		155		85		131		83		138	

Location	Lot 7		Lot 8		*Available spaces on Central Avenue*		*Available spaces in Lots*	
TIME	Available	%	Available	%	Available	%	Available	%
5:00 PM	178	59%	4	9%	65	32%	473	40%
5:30 PM	190	63%	9	21%	87	42%	569	48%
6:00 PM	230	76%	5	12%	109	53%	644	54%
6:30 PM	255	84%	6	14%	115	56%	697	58%
7:00 PM	260	86%	8	19%	122	59%	744	62%
Spaces	302		43		206		1,194	

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CENTRAL AVENUE RETAIL DISTRICT AND MUNICIPAL PARKING LOTS

CEDARHURST, NY

DATE: FEB 2020

SCALE: 1"=400'

4.5 Trip Generation

The future Build volumes were determined by adding net new site-generated traffic to the No Build volumes. Trip generation data were referenced from the 10th Edition of the *Trip Generation Manual*, published by the Institute of Transportation Engineers (ITE). For the purposes of this report, it was considered that the peak weekday generated traffic would coincide with the peak AM and PM travel periods on the surrounding roads. For Sundays, the ITE has less data and shows less generated traffic than Saturdays. In the Five Towns, Sunday has more traffic than Saturday. Therefore, what the ITE would calculate for Saturday traffic actually reflects Sunday in the Village of Cedarhurst, so Saturday ITE data were applies to the Sunday peak hour for this study.

The net new trip generation is equal to the potential new traffic minus the traffic associated with the existing land uses that would be removed.

- Site 1 on Peninsula Boulevard is vacant, so the net new traffic is equal to the potential new traffic from 130 apartments.
- Site 2 on Pearsall Avenue currently has multiple buildings: a 1,346 s.f. convenience market, a single-family house, a 2-family duplex, a 4-unit home, 8 apartments, 2,856 s.f. retail, and a 14,950 s.f. warehouse-retail building. The net new traffic is equal to the new traffic minus existing potential traffic.

Table 4-6: Site-Generated Peak Hour Trips

Time Period	New Site #1 Trips	Site #2: Existing Uses Removed	Site #2: New Residences	Net Site #2 Trips
AM Peak Hour	Enter: 14 tph Exit: 47 tph Total: 61 tph	Enter: -12 tph Exit: -17 tph Total: -29 tph	Enter: 11 tph Exit: 30 tph Total: 41 tph	Enter: -1 tph Exit: 13 tph Total: 12 tph
PM Peak Hour	Enter: 47 tph Exit: 28 tph Total: 75 tph	Enter: -41 tph Exit: -40 tph Total: -81 tph	Enter: 30 tph Exit: 20 tph Total: 50 tph	Enter: -11 tph Exit: -20 tph Total: -31 tph
Sunday Peak Hour	Enter: 46 tph Exit: 45 tph Total: 91 tph	Enter: -60 tph Exit: -60 tph Total: -120 tph	Enter: 26 tph Exit: 28 tph Total: 54 tph	Enter: -34 tph Exit: -32 tph Total: -66 tph

Net New Trips: Sites 1 and 2	AM Peak Hour	PM Peak Hour	Sunday Peak Hour
	Enter: 13 tph Exit: 60 tph Total: 73 tph	Enter: 36 tph Exit: 8 tph Total: 44 tph	Enter: 12 tph Exit: 13 tph Total: 25 tph

4.6 Distribution and Assignment of Site-Generated Traffic

Cameron Engineering next assigned the peak new traffic volumes to various movements at each study intersection. For example: "*15% of exiting trips will make the northbound left turn at the intersection of...*" The predominant destinations will be the major roadways in the area, especially Peninsula Boulevard. The overall distribution was assigned based on the road network and the existing traffic volume patterns. See Table 4-7 below.

Table 4-7: Basic Site Trip Distribution

SITE 1 ORIGIN/DESTINATION	INBOUND	OUTBOUND
To/from the north (Rockaway Turnpike)	25%	20%
To/from the south (Rockaway Turnpike)	4%	7%
To/from the northeast (Peninsula Boulevard)	45%	45%
To/from the west (Bay Boulevard)	20%	20%
To/from the east (Burnside Avenue)	2%	3%
To/from the west (Burnside Avenue)	4%	5%

SITE 2 ORIGIN/DESTINATION	INBOUND	OUTBOUND
To/from the north (Rockaway Turnpike)	17%	30%
To/from the south (Rockaway Turnpike, etc.)	20%	33%
To/from the northeast (Peninsula Boulevard)	13%	15%
To/from the northeast (W. Broadway-Central)	42%	14%
To/from the west (Central Avenue)	8%	8%

Once the distributions were established, they were used to calculate specific trip numbers. For example: "*15% of 100 PM trips out of the site trips equals 15 trips added to northbound Street 'X' during the PM peak hour…*" Table 4-8 illustrates the existing, No Build, and Build volumes, and the precise trip distribution percentages.

Figures 4-3 and 4-4 follow and depict the distribution of site-generated traffic for Sites 1 and 2, respectively. Figure 4-5 follows with the total generated hourly volumes. This generated traffic was added to the No Build volumes to determine the Build volumes, shown in Figure 4-6 through Figure 4-8.

Table 4-8:

Trip Distribution & Assignment
Growth Factor: 0.6% for 4 years, to 2023
4-year growth: 1.024

Existing volumes X 1.024 for 4-year growth & trips from other projects related to the Town of Hempstead Zoning Overlay

Peninsula Boulevard: 130 apartments

	AM	PM	SUN
Enter	14	47	46
Exit	47	28	45
Total	61	75	91

Existing Pearsall Site Uses to be Removed

	AM	PM	SUN
Enter	-12	-41	-60
Exit	-17	-40	-60
Total	-28	-81	-120

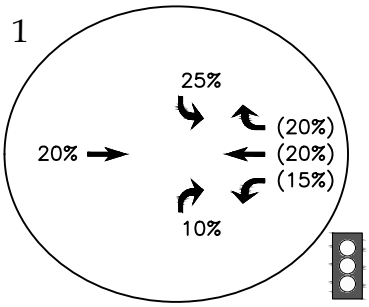
Pearsall Avenue: 112 residential units

	AM	PM	SUN
Enter	11	30	26
Exit	30	20	28
Total	41	50	54

AM	PM	SUN	Dir.	Mvmt.	2019 Existing Volumes AM	PM	SUN	Other Project Trips AM	PM	SUN	2023 No Build Volumes AM	PM	SUN	Distribution %Enter	%Exit	Generated Traffic AM	PM	SUN	Distribution %Enter	%Exit	Generated Traffic AM	PM	SUN	Distribution %Enter	%Exit	Generated Traffic AM	PM	SUN	Total Generated Trips AM	PM	SUN	2023 Build Volumes AM	PM	SUN
INTERSECTION: Rockaway Turnpike and Peninsula Boulevard-Bay Boulevard																																
			NB	Left	10	25	18	0	0	0	10	26	18			---	---	---			---	---	---			---	---	---	0	0	0	10	26	18
Peak Hours Begin at:				Thr	774	691	725	15	0	4	808	708	746			---	---	---		30%	-5	-12	-18		30%	9	6	8	4	-6	-10	812	702	737
745	1700	1300		Right	111	160	160	0	0	0	114	164	164	10%		1	5	5		10%	-2	-4	-6		10%	3	2	3	3	3	1	116	167	165
			SB	Left	352	362	265	0	0	0	361	371	271	25%		4	12	12			---	---	---			---	---	---	4	12	12	364	383	283
				Thr	711	768	601	31	28	9	759	815	625			---	---	---	17%		-2	-7	-10	17%		2	5	4	0	-2	-6	759	813	619
				Right	17	16	27	0	0	0	17	16	28			---	---	---			---	---	---			---	---	---	0	0	0	17	16	28
			EB	Left	92	87	213	0	0	0	94	89	218			---	---	---			---	---	---			---	---	---	0	0	0	94	89	218
				Thr	240	278	329	0	0	0	246	285	337	20%		3	9	9			---	---	---			---	---	---	3	9	9	249	294	346
				Right	9	21	27	0	0	0	9	22	28			---	---	---			---	---	---			---	---	---	0	0	0	9	22	28
0.95	0.98	0.98	WB	Left	345	356	293	0	0	0	353	365	300		15%	7	4	7	8%		-1	-3	-5	8%		1	2	2	7	3	4	360	368	304
Hourly Peak Hour				Thr	240	251	340	0	0	0	246	257	348		20%	9	6	9			---	---	---			---	---	---	9	6	9	255	263	357
Factors (PHFs)				Right	528	368	317	0	0	0	541	377	325		20%	9	6	9			---	---	---			---	---	---	9	6	9	550	383	334
INTERSECTION: Cedarhurst Avenue and Peninsula Boulevard																																
			NB	Left	40	39	28	0	0	0	41	40	29			---	---	---			---	---	---			---	---	---	0	0	0	41	40	29
Peak Hours Begin at:				Thr	17	18	17	0	0	0	17	18	17			---	---	---			---	---	---			---	---	---	0	0	0	17	18	17
745	1630	1300		Right	64	98	73	0	0	0	66	100	75			---	---	---		5%	-1	-2	-3		5%	2	1	1	1	-1	-2	66	99	73
			SB	Left	11	3	5	0	0	0	11	3	5			---	---	---			---	---	---			---	---	---	0	0	0	11	3	5
				Thr	22	13	16	0	0	0	23	13	16			---	---	---			---	---	---			---	---	---	0	0	0	23	13	16
				Right	25	12	13	0	0	0	26	12	13			---	---	---			---	---	---			---	---	---	0	0	0	26	12	13
			EB	Left	15	19	20	0	0	0	15	19	20			---	---	---			---	---	---			---	---	---	0	0	0	15	19	20
				Thr	1,164	1,104	1,009	0	0	0	1,192	1,131	1,033		45%	21	13	20		10%	-2	-4	-6		10%	3	2	3	22	11	17	1,215	1,141	1,050
				Right	31	8	18	0	0	0	32	8	18			---	---	---			---	---	---			---	---	---	0	0	0	32	8	18
0.92	0.98	0.95	WB	Left	97	89	99	0	0	0	99	91	101			---	---	---	5%		-1	-2	-3	5%		1	2	1	0	-1	-2	99	91	100
Hourly Peak Hour				Thr	1,352	1,210	1,151	0	0	0	1,385	1,239	1,179	45%		6	21	21	8%		-1	-3	-5	8%		1	2	2	6	20	18	1,391	1,260	1,197
Factors (PHFs)				Right	8	7	6	0	0	0	8	7	6			---	---	---			---	---	---			---	---	---	0	0	0	8	7	6
INTERSECTION: Rockaway Turnpike and Pearsall Avenue																																
Peak Hours Begin at:			NB	Thr	395	436	465	19	10	15	423	456	491	4%		1	2	2			---	---	---			---	---	---	1	2	2	424	458	493
800	1645	1245		Right	35	30	29	0	0	0	36	31	30			---	---	---	30%		-4	-12	-18	30%		3	9	8	0	-3	-10	36	27	19
			SB	Left	88	67	67	0	0	0	90	69	69			---	---	---	35%		-4	-14	-21	35%		4	11	9	0	-4	-12	90	65	57
0.90	0.96	0.91		Thr	457	542	568	5	7	7	474	562	589		7%	3	2	3			---	---	---			---	---	---	3	2	3	477	564	592
Hourly Peak Hour			WB	Left	25	40	60	0	0	0	26	41	61			---	---	---		25%	-4	-10	-15		25%	8	5	7	3	-5	-8	29	36	53
Factors (PHFs)				Right	90	121	89	0	0	0	92	124	91			---	---	---		40%	-7	-16	-24		40%	12	8	11	5	-8	-13	97	116	78
INTERSECTION: Washington Avenue and Pearsall Avenue																																
Peak Hours Begin at:			NB	Left	80	103	101	0	0	0	82	105	103			---	---	---	23%		-3	-9	-14	23%		3	7	6	0	-3	-8	82	103	96
800	1630	1245		Thr	308	328	296	0	0	0	315	336	303			---	---	---			---	---	---			---	---	---	0	0	0	315	336	303
			SB	Thr	212	189	195	0	0	0	217	194	200			---	---	---			---	---	---			---	---	---	0	0	0	217	194	200
0.91	0.92	0.81		Right	45	38	41	0	0	0	46	39	42			---	---	---	12%		-1	-5	-7	12%		1	4	3	0	-1	-4	46	38	38
Hourly Peak Hour			EB	Left	53	44	37	0	0	0	54	45	38			---	---	---		15%	-3	-6	-9		15%	5	3	4	2	-3	-5	56	42	33
Factors (PHFs)				Right	62	65	49	0	0	0	64	67	50			---	---	---		20%	-3	-8	-12		20%	6	4	6	3	-4	-6	66	62	44
INTERSECTION: Rockaway Turnpike and Burnside Avenue																																
			NB	Left	19	38	33	0	0	0	19	39	34			---	---	---			---	---	---			---	---	---	0	0	0	19	39	34
Peak Hours Begin at:				Thr	421	421	424	15	0	4	447	432	438	4%		1	2	2		40%	-7	-16	-24		40%	12	8	11	6	-6	-11	453	425	427
800	1645	1245		Right	1	0	2	4	0	2	6	0	4			---	---	---			---	---	---			---	---	---	0	0	0	6	0	4
			SB	Left	99	159	145	0	0	0	101	163	149		3%	1	1	1			---	---	---			---	---	---	1	1	1	103	164	150
				Thr	454	499	434	27	24	4	492	535	449		7%	3	2	3	25%		-3	-10	-15	25%		3	8	7	3	-1	-5	496	534	444
				Right	680	643	463	3	5	4	700	663	479		5%	2	1	2			---	---	---			---	---	---	2	1	2	702	664	481
			EB	Left	477	495	404	0	0	0	489	507	414	4%		1	2	2			---	---	---			---	---	---	1	2	2	489	509	416
				Thr	338	341	273	0	0	0	346	349	280			---	---	---			---	---	---			---	---	---	0	0	0	346	349	280
				Right	17	39	30	0	0	0	17	40	31			---	---	---			---	---	---			---	---	---	0	0	0	17	40	31
0.96	0.94	0.96	WB	Left	169	195	149	2	3	3	175	202	155			---	---	---	10%		-1	-4	-6	10%		1	3	3	0	-1	-3	175	201	152
Hourly Peak Hour				Thr	356	348	290	0	0	0	365	356	297			---	---	---			---	---	---			---	---	---	0	0	0	365	356	297
Factors (PHFs)				Right	107	94	162	0	0	0	110	96	166	2%		0	1	1			---	---	---			---	---	---	0	1	1	110	97	167
INTERSECTION: Rockaway Turnpike and Central Avenue																																
			NB	Left	51	47	31	0	0	0	52	48	32			---	---	---			---	---	---			---	---	---	0	0	0	52	48	32
Peak Hours Begin at:				Thr	305	271	263	3	4	4	315	281	273	4%		1	2	2	20%		-2	-8	-12	20%		2	6	5	0	0	-5	316	281	268
800	1645	1230		Right	67	44	62	0	0	0	69	45	64			---	---	---			---	---	---			---	---	---	0	0	0	69	45	64
			SB	Left	102	89	141	9	1	4	113	92	149			---	---	---		4%	-1	-2	-2		4%	1	1	1	1	-1	-1	114	91	147
				Thr	183	251	238	6	0	3	193	257	247		7%	3	2	3		13%	-2	-5	-8		13%	4	3	4	5	-1	-1	198	257	246
				Right	208	198	191	0	0	0	213	203	196			---	---	---		8%	-1	-3	-5		8%	2	2	2	1	-2	-3	214	201	193
			EB	Left	127	142	119	0	0	0	130	145	122			---	---	---	8%		-1	-3	-5	8%		1	2	2	0	-1	-3	130	145	119
				Thr	271	254	238	9	1	4	287	261	248			---	---	---			---	---	---			---	---	---	0	0	0	287	261	248
				Right	31	32	29	0	0	0	32	33	30			---	---	---			---	---	---			---	---	---	0	0	0	32	33	30
0.96	0.98	0.96	WB	Left	22	35	26	0	0	0	23	36	27			---	---	---			---	---	---			---	---	---	0	0	0	23	36	27
Hourly Peak Hour				Thr	260	271	216	4	5	5	270	283	227			---	---	---			---	---	---			---	---	---	0	0	0	270	283	227
Factors (PHFs)				Right	65	94	125	4	5	5	71	102	133			---	---	---	2%		0	-1	-1	2%		0	1	1	0	0	-1	71	101	133

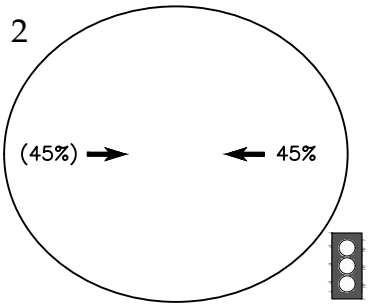
LEGEND: Enter (Exit)

1



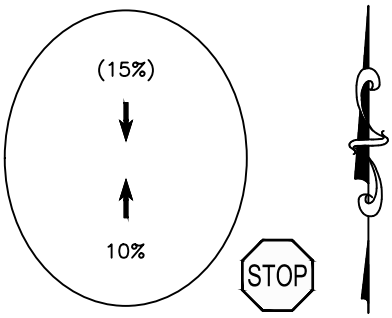
Rockaway Turnpike at Peninsula Boulevard-Bay Boulevard

2

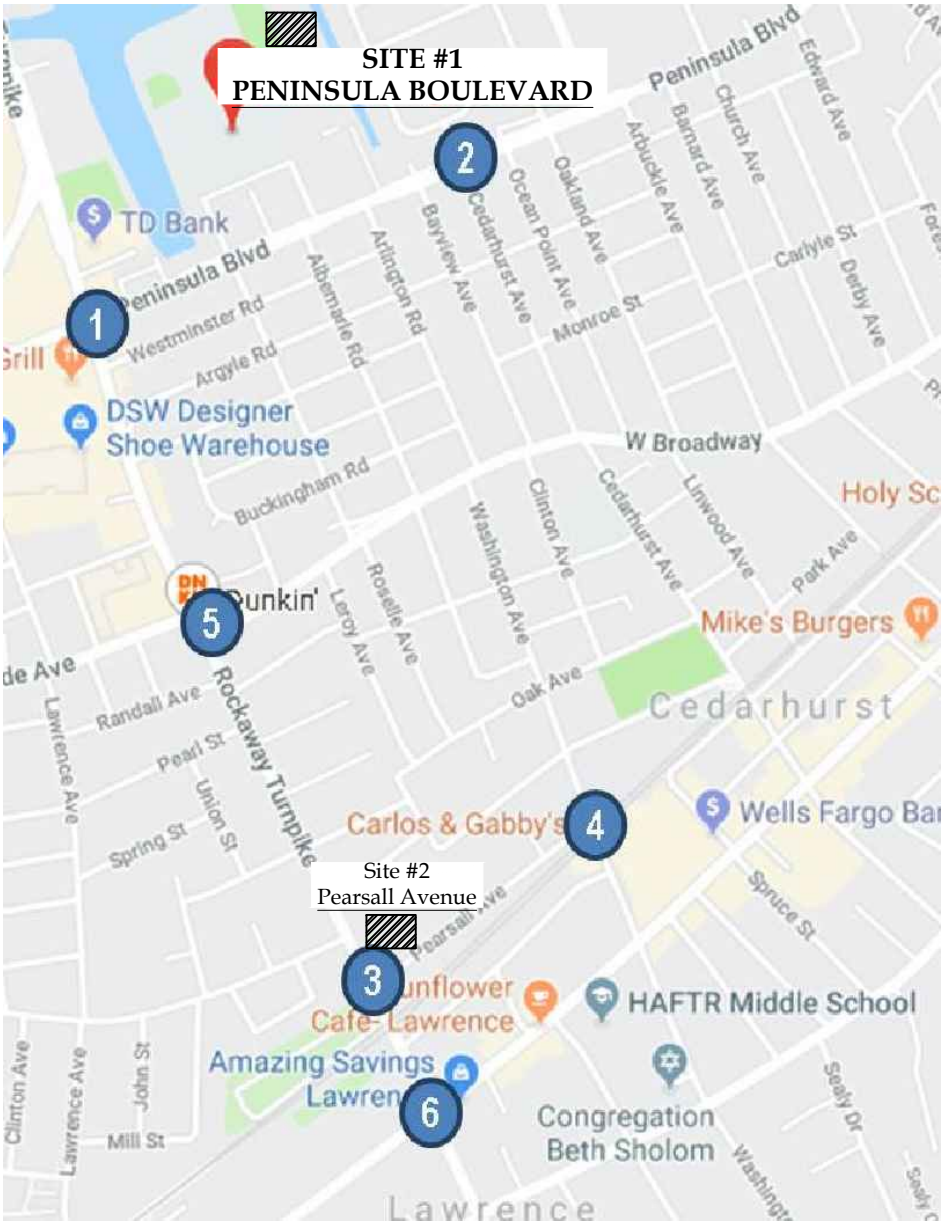


Cedarhurst Avenue at Peninsula Boulevard

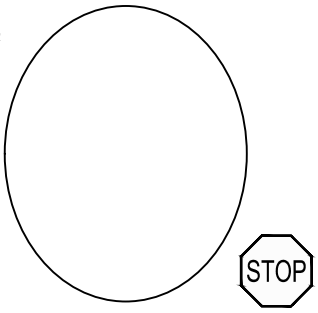
3



Rockaway Turnpike at Pearsall Avenue

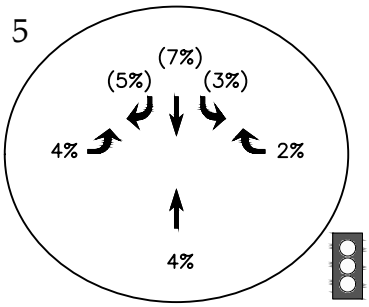


4



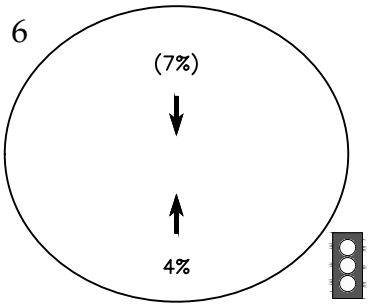
Washington Avenue at Pearsall Avenue

5



Rockaway Turnpike at Burnside Avenue

6



Central Avenue at Rockaway Turnpike

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177 Crossways Park Drive, Woodbury, NY 11797 T: (516) 827-4900
1411 Broadway, Suite 610, New York, NY 10018 T: (212) 324-4000
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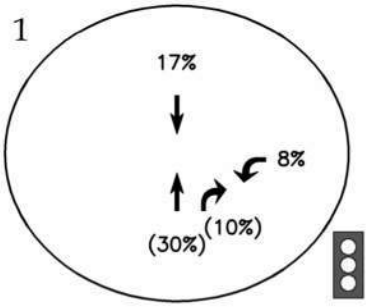
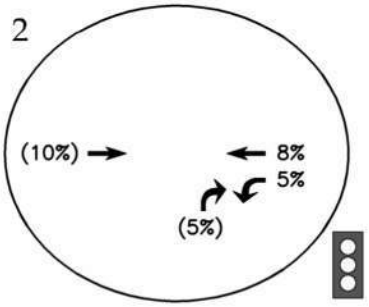
Distribution Of Site 1 Traffic
Figure No. 4-3

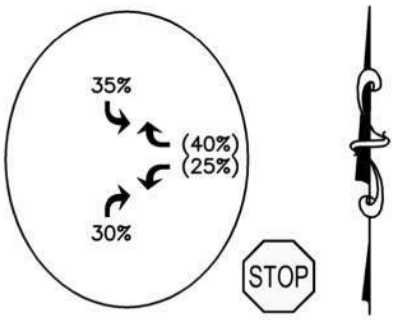
LEGEND: Enter (Exit)



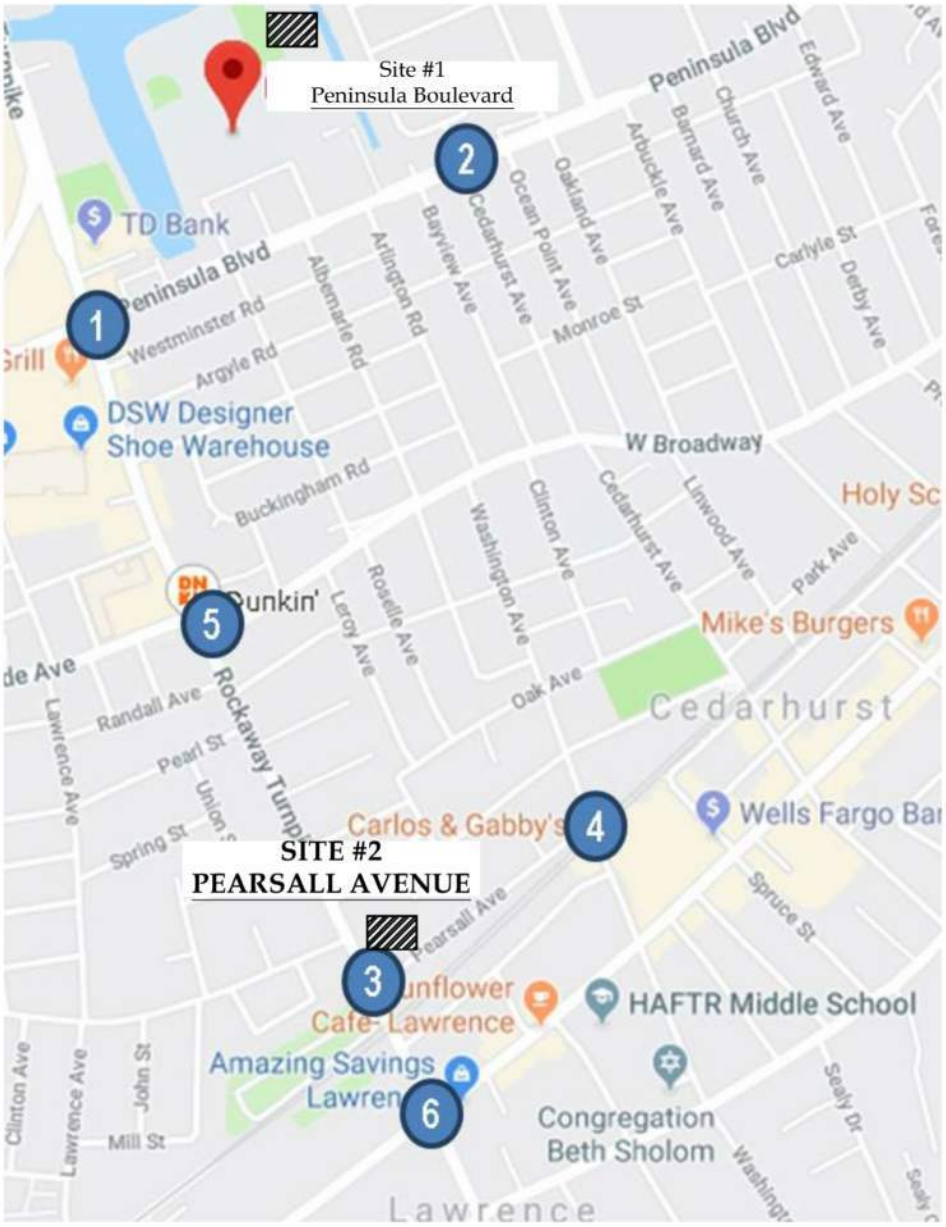
Rockaway Turnpike at Peninsula Boulevard-Bay Boulevard

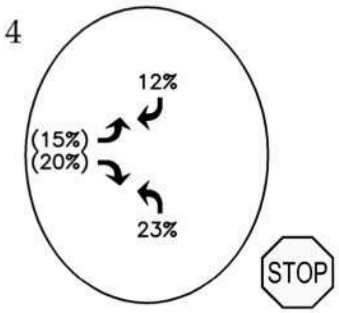


Cedarhurst Avenue at Peninsula Boulevard

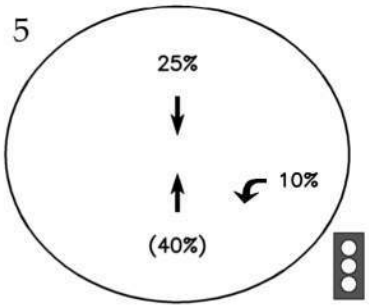


Rockaway Turnpike at Pearsall Avenue

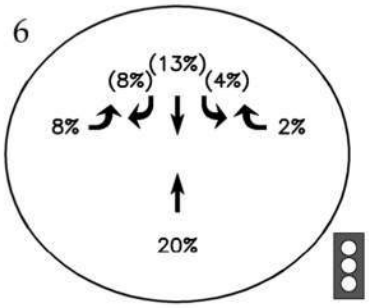




Washington Avenue at Pearsall Avenue



Rockaway Turnpike at Burnside Avenue



Central Avenue at Rockaway Turnpike

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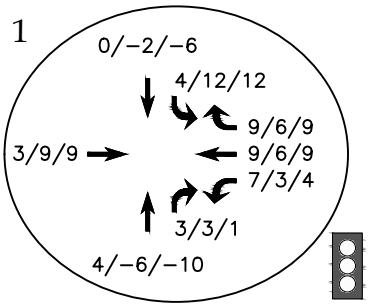
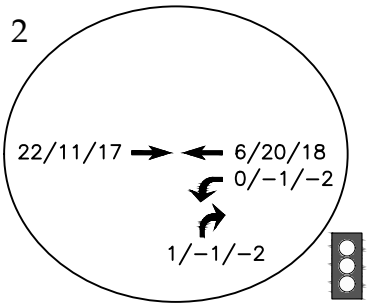
Distribution Of Site 2 Traffic
Figure No. 4-4

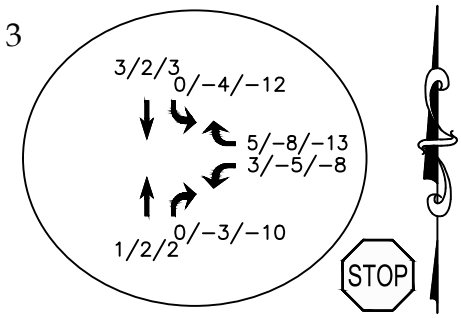
LEGEND: AM/PM/Sunday



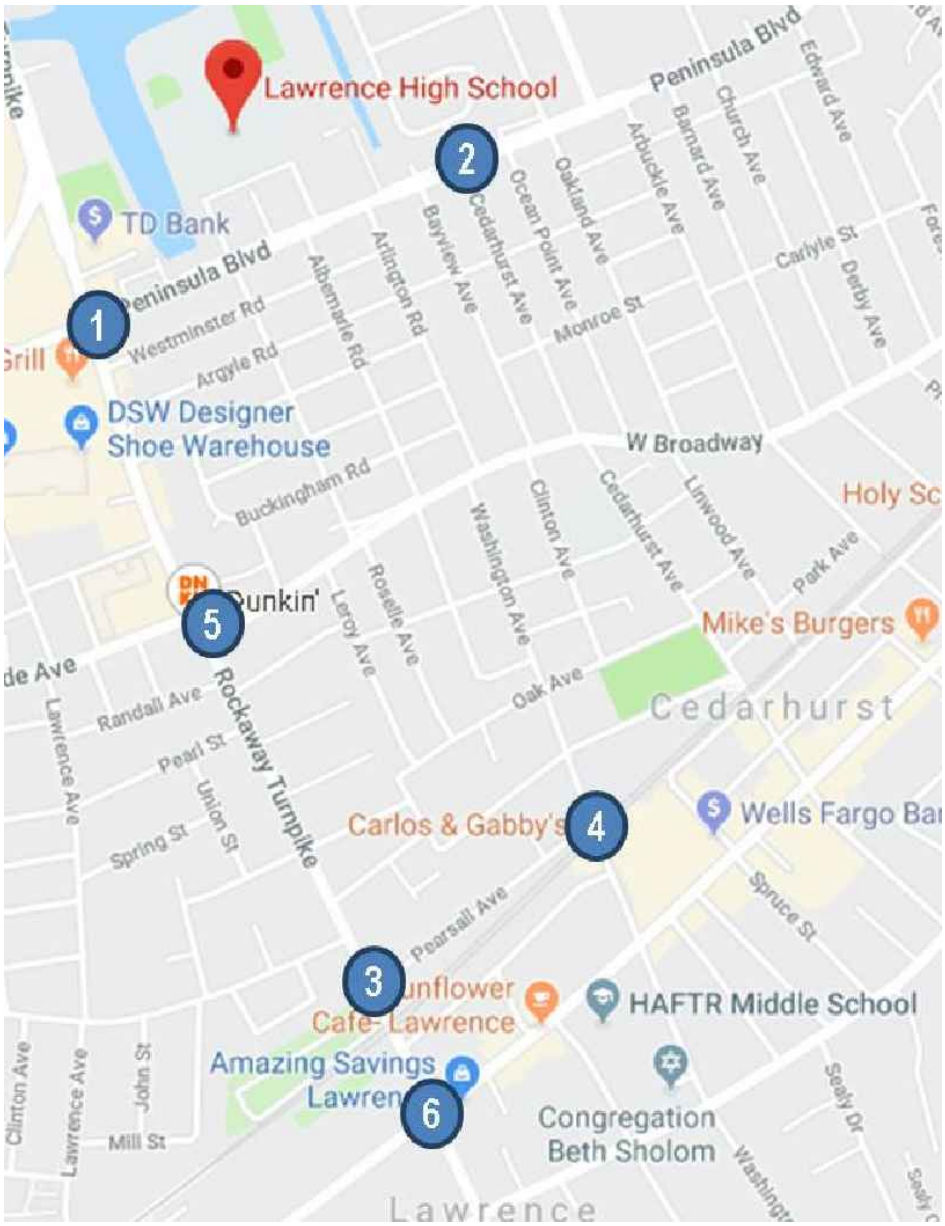
Rockaway Turnpike at Peninsula Boulevard-Bay Boulevard

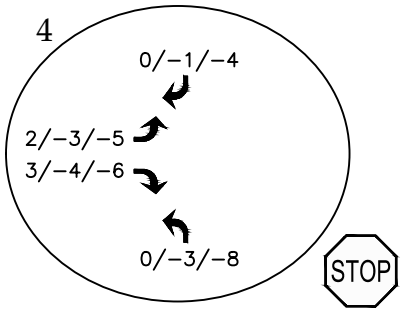


Cedarhurst Avenue at Peninsula Boulevard

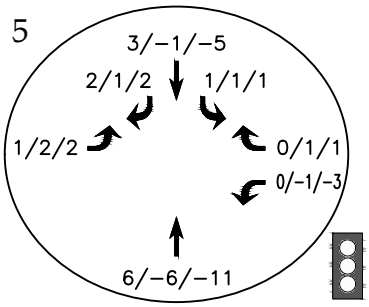


Rockaway Turnpike at Pearsall Avenue

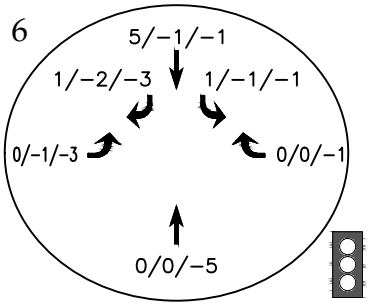




Washington Avenue at Pearsall Avenue



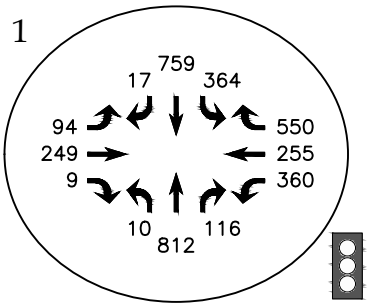
Rockaway Turnpike at Burnside Avenue



Central Avenue at Rockaway Turnpike

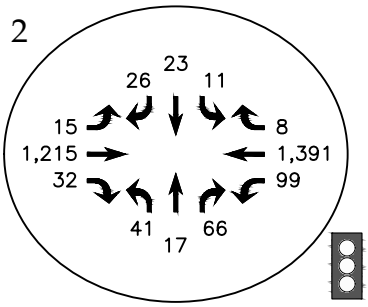
Peak Hour Site-Generated Trips
Figure No. 4-5

1



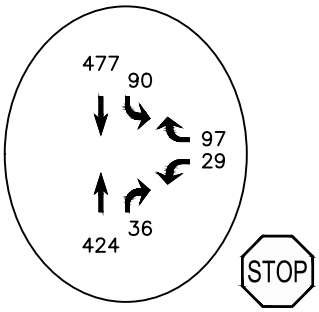
Rockaway Turnpike at Peninsula Boulevard-Bay Boulevard

2

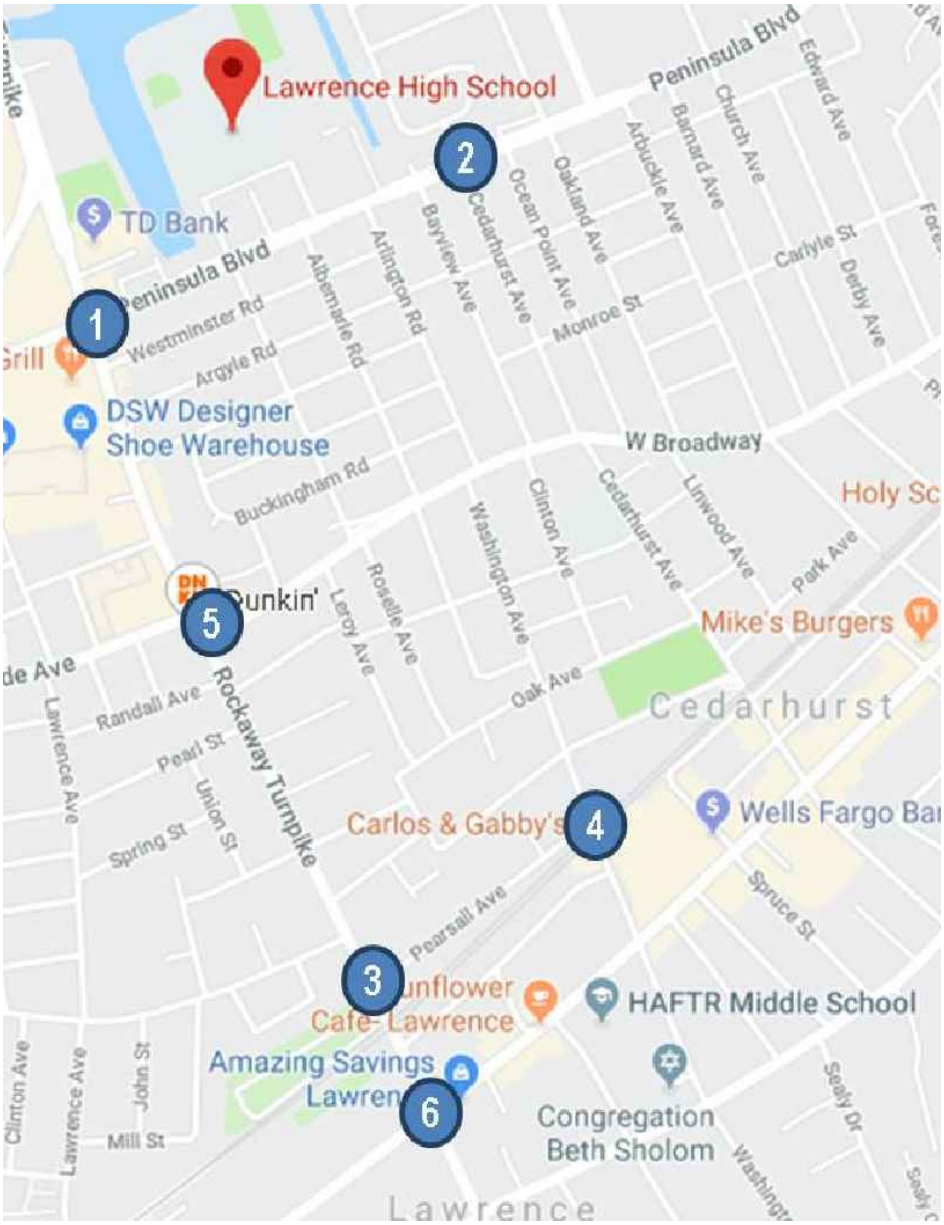


Cedarhurst Avenue at Peninsula Boulevard

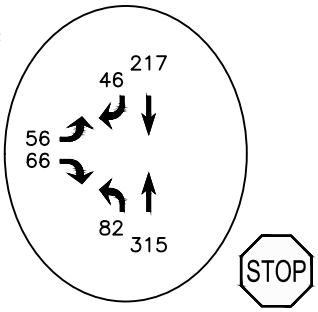
3



Rockaway Turnpike at Pearsall Avenue

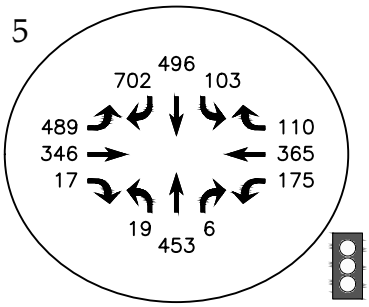


4



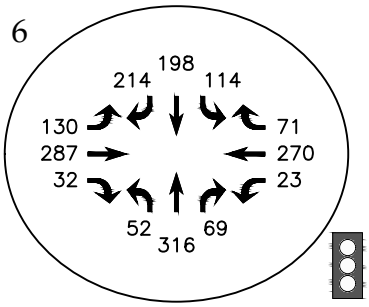
Washington Avenue at Pearsall Avenue

5



Rockaway Turnpike at Burnside Avenue

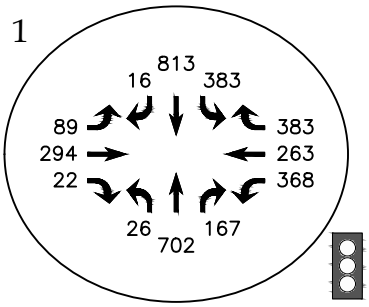
6



Central Avenue at Rockaway Turnpike

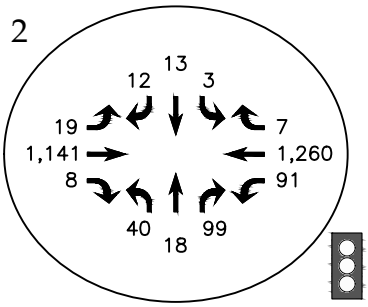
Build AM Peak Hour Volumes
Figure No. 4-6

1



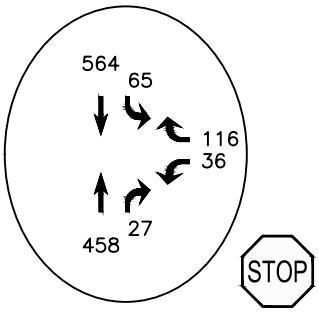
Rockaway Turnpike at Peninsula Boulevard-Bay Boulevard

2

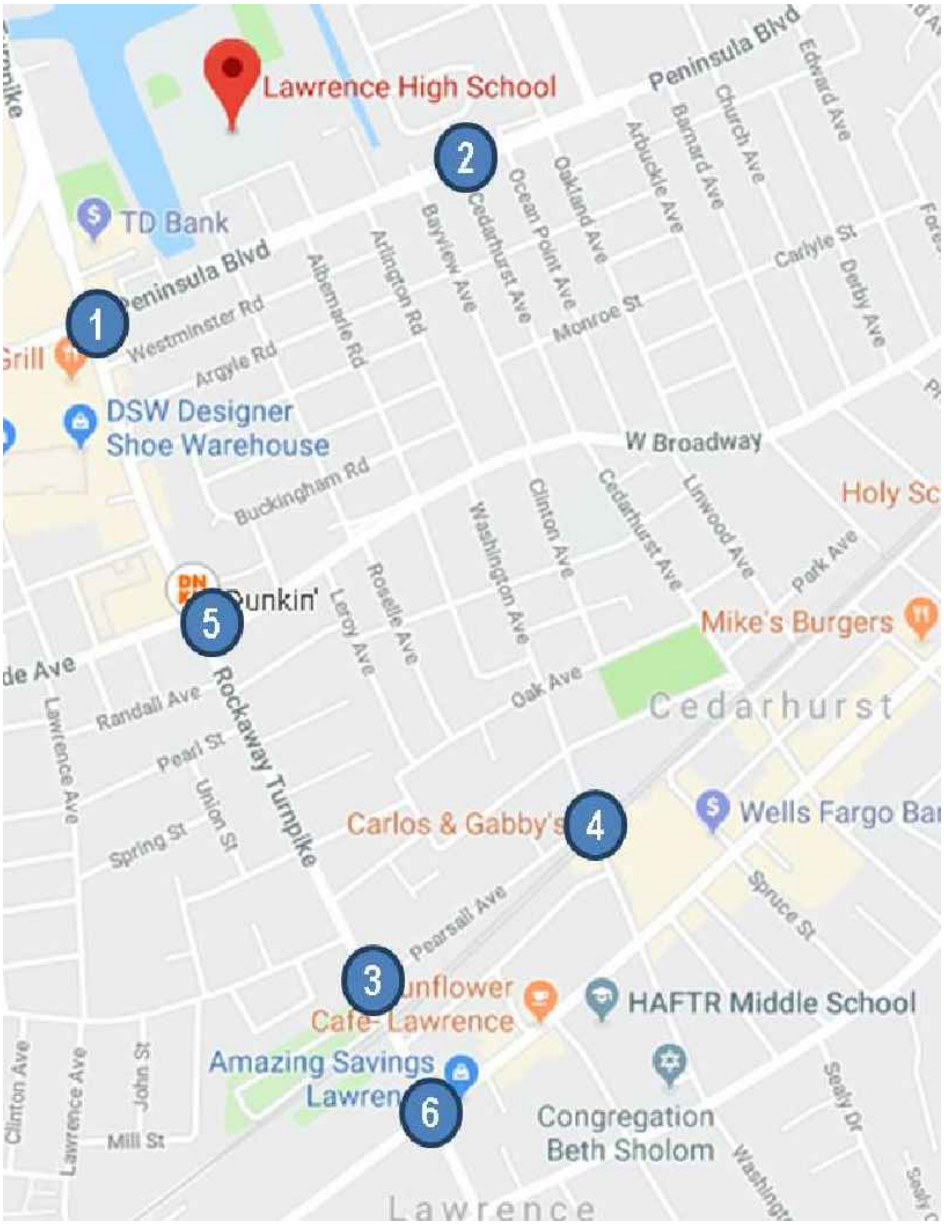


Cedarhurst Avenue at Peninsula Boulevard

3



Rockaway Turnpike at Pearsall Avenue



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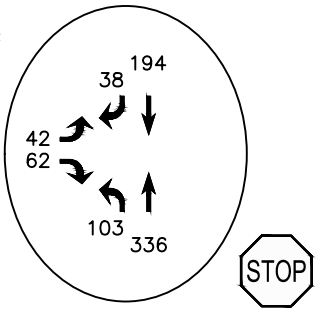
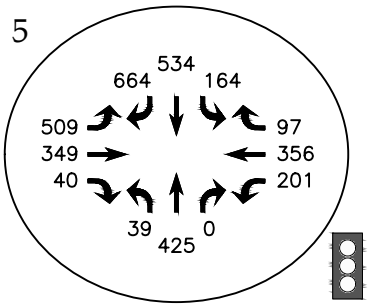


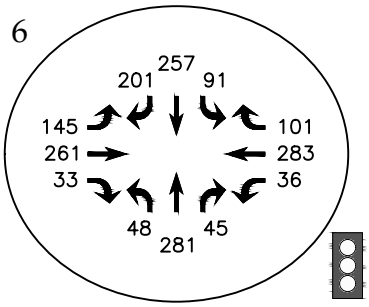
Washington Avenue at Pearsall Avenue

5



Rockaway Turnpike at Burnside Avenue

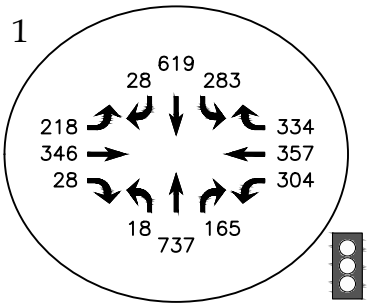
6



Central Avenue at Rockaway Turnpike

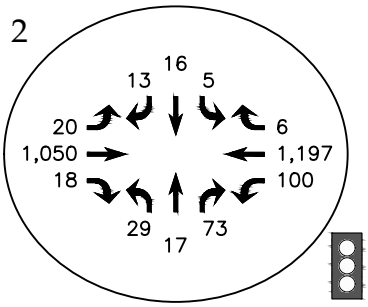
Build PM Peak Hour Volumes
Figure No. 4-7

1



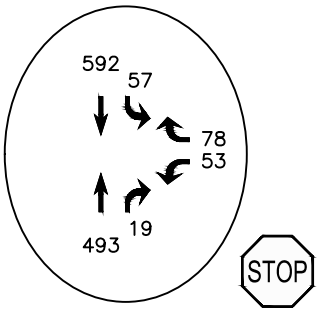
Rockaway Turnpike at Peninsula Boulevard-Bay Boulevard

2

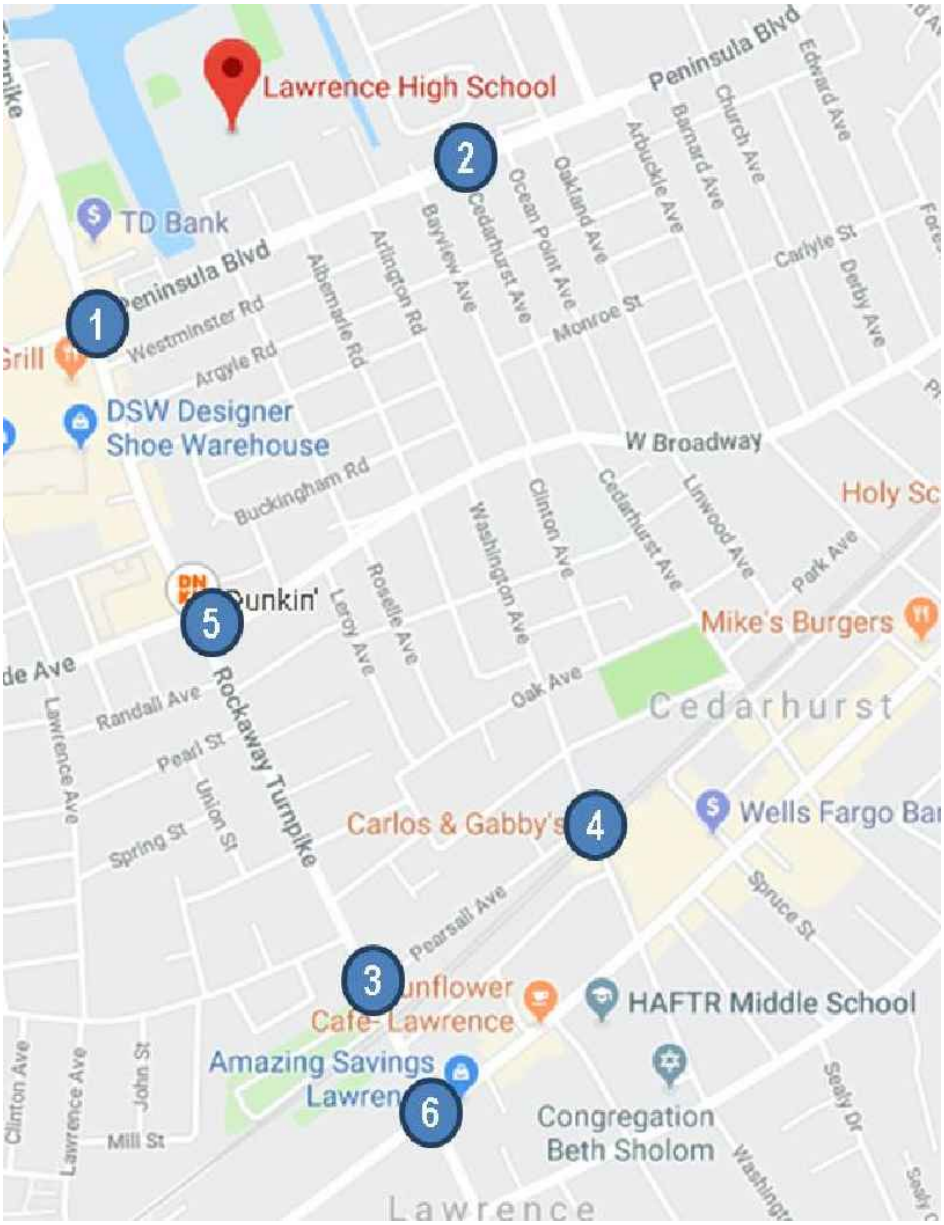


Cedarhurst Avenue at Peninsula Boulevard

3



Rockaway Turnpike at Pearsall Avenue



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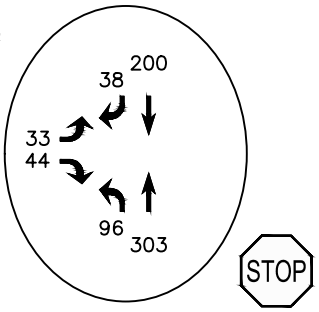
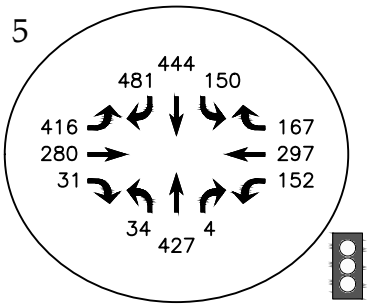


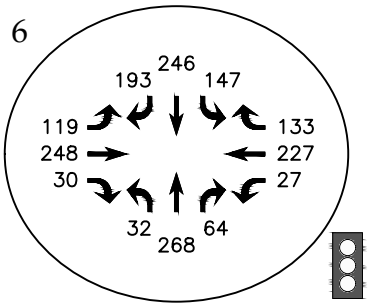
Washington Avenue at Pearsall Avenue

5



Rockaway Turnpike at Burnside Avenue

6



Central Avenue at Rockaway Turnpike

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Build Sunday Peak Hour Volumes
Figure No. 4-8

5. Assessing Impact: No Build vs. Build Scenario Levels of Service

The next step of this report was to determine the Build condition levels of service. Any traffic impacts are gauged by the genuine differences between the No Build and Build levels of service. Table 5-1 follows and contains the future level of service summaries. The tables are summarized below, and the analysis worksheets are in Appendix D.

Rockaway Turnpike and Peninsula Boulevard-Bay Boulevard: Every lane group will maintain its No Build level of service, and delay changes will generally be minimal (less than 4 seconds per vehicle). The westbound left turn has the highest delay increase during weekday peak hours, but the change does not warrant mitigation. Mitigation is not necessary at this intersection to accommodate the uses contemplated by the zoning overlay.

Cedarhurst Avenue and Peninsula Boulevard: Every approach to this intersection will have nearly the same delay with vs. without the zoning overlay. The differences in delay between the No Build and Build scenarios are less than 1 second per vehicle to any movement. The northbound approach will technically change from LOS D to E on Sundays, but the delay change is less than 0.1 seconds; it will not be necessary to provide mitigation.

Rockaway Turnpike and Burnside Avenue: Like the intersection of Cedarhurst Avenue at Peninsula Boulevard, every approach at this intersection will have nearly the same delay with vs. without the zoning overlay, except the Sunday northbound left turn has a small improvement from LOS D to C. The differences in delay are all equal or less than 1 second per vehicle, with some minor delay decreases associated with the zoning overlay. This is a nominal different that will not be noticeable to drivers. Mitigation is not required at this intersection to accommodate the zoning overlay.

Rockaway Turnpike and Pearsall Avenue: The northbound approach will operate at LOS A, and the westbound Pearsall Avenue approach will continue to operate at LOS C during the week. On Sundays, the westbound approach improves from LOS E to LOS D, with roughly 10 fewer seconds of delay. Overall, the zoning overlay will improve this intersection, so mitigation will not be needed at this intersection to accommodate the zoning overlay.

Washington Avenue and Pearsall Avenue: Every lane group will continue to operate at LOS A, B, or C, with a maximum delay change less than 1 second per vehicle in the morning. The intersection's delay improves during the afternoon and on Sundays. Mitigation will not be needed at this intersection.

Central Avenue at Rockaway Turnpike: There will be no LOS changes at this intersection, and the largest change in delay will be less than 1 second. Drivers will not notice such a small increase, so nothing further is needed to accommodate site traffic.

Table 5-1: Level of Service Summaries

Rockaway Turnpike and Peninsula Boulevard-Bay Boulevard

AM Peak Hour	2019 Existing Volumes			2023 No Build Volumes			2023 Build Volumes		
Movement	**Delay**	**v/c Ratio**	**LOS**	**Delay**	**v/c Ratio**	**LOS**	**Delay**	**v/c Ratio**	**LOS**
Eastbound Left	30.3	0.33	C	31.3	0.35	C	31.5	0.36	C
Through-Right	36.4	0.44	D	37.6	0.46	D	37.9	0.46	D
Westbound Left	34.3	0.76	C	39.3	0.81	D	41.9	0.83	D
Through	30.7	0.51	C	32.6	0.54	C	33.3	0.56	C
Right	40.5	0.88	D	46.5	0.92	D	49.9	0.93	D
Northbound Left	54.2	0.50	D	55.5	0.50	E	55.8	0.50	E
Through	50.0	0.93	D	53.0	0.93	D	53.6	0.94	D
Right	49.9	0.93	D	52.9	0.93	D	53.5	0.94	D
Southbound Left	46.8	0.82	D	48.9	0.83	D	49.3	0.83	D
Through	21.3	0.52	C	21.5	0.54	C	21.4	0.54	C
Right	21.3	0.52	C	21.5	0.54	C	21.4	0.54	C
INTERSECTION	*37.7*		*D*	*40.3*		*D*	*41.3*		D
PM Peak Hour									
Eastbound Left	40.5	0.36	D	40.4	0.37	D	40.4	0.38	D
Through-Right	48.4	0.58	D	48.4	0.59	D	48.6	0.61	D
Westbound Left	89.7	1.01	F	98.3	1.04	F	105.1	1.06	F
Through	44.8	0.63	D	45.3	0.65	D	45.8	0.66	D
Right	36.9	0.70	D	37.2	0.71	D	37.1	0.72	D
Northbound Left	60.5	0.61	E	60.4	0.62	E	60.4	0.62	E
Through	10.5	0.61	B	11.2	0.63	B	11.6	0.63	B
Right	10.6	0.61	B	11.2	0.63	B	11.7	0.63	B
Southbound Left	61.7	0.85	E	62.1	0.86	E	62.7	0.86	E
Through	20.0	0.44	C	20.7	0.47	C	20.7	0.46	C
Right	20.0	0.44	B	20.6	0.47	C	20.6	0.46	C
INTERSECTION	*36.4*		*D*	*37.6*		*D*	*38.8*		D
Sunday Peak Hour									
Eastbound Left	42.7	0.76	D	43.4	0.77	D	43.7	0.78	D
Through-Right	44.4	0.53	D	44.1	0.54	D	43.9	0.54	D
Westbound Left	44.0	0.74	D	44.4	0.75	D	44.7	0.76	D
Through	71.7	0.89	E	72.7	0.89	E	73.9	0.90	E
Right	45.4	0.66	D	45.4	0.67	D	45.0	0.67	D
Northbound Left	63.3	0.54	E	63.3	0.54	E	63.3	0.54	E
Through	47.9	0.64	D	49.3	0.67	D	49.9	0.68	D
Right	47.9	0.64	D	49.4	0.67	D	49.9	0.68	D
Southbound Left	57.3	0.80	E	57.3	0.80	E	57.7	0.81	E
Through	21.2	0.37	C	21.9	0.39	C	22.1	0.39	C
Right	21.2	0.37	C	21.8	0.39	C	22.0	0.39	C
INTERSECTION	*44.8*		*D*	*45.4*		*D*	*45.9*		D

Table 5-1: Level of Service Summaries (continued)

Cedarhurst Avenue and Peninsula Boulevard

AM Peak Hour	2019 Existing Volumes			2023 No Build Volumes			2023 Build Volumes		
Movement	**Delay**	**v/c Ratio**	**LOS**	**Delay**	**v/c Ratio**	**LOS**	**Delay**	**v/c Ratio**	**LOS**
Eastbound Left	12.5	0.06	B	13.0	0.06	B	13.1	0.06	B
Through	6.9	0.72	A	7.0	0.73	A	7.2	0.75	A
Right	6.9	0.72	A	7.0	0.74	A	7.1	0.75	A
Westbound Left	13.8	0.34	B	14.6	0.36	B	15.0	0.37	B
Through	7.5	0.79	A	7.7	0.81	A	7.7	0.81	A
Right	7.4	0.79	A	7.7	0.81	A	7.7	0.81	A
Northbound LTR	15.2	0.37	B	15.2	0.38	B	15.2	0.38	B
Southbound LTR	14.4	0.19	B	14.4	0.19	B	14.4	0.19	B
INTERSECTION	*7.9*		*A*	*8.1*		*A*	*8.2*		A

PM Peak Hour									
Eastbound Left	9.9	0.06	A	7.4	0.05	A	7.5	0.05	A
Through	6.0	0.59	A	4.8	0.41	A	4.8	0.42	A
Right	6.0	0.59	A	4.8	0.41	A	4.7	0.42	A
Westbound Left	10.2	0.24	B	8.6	0.22	A	8.7	0.22	A
Through	6.4	0.66	A	5.6	0.46	A	5.6	0.47	A
Right	6.4	0.66	A	5.5	0.46	A	5.6	0.47	A
Northbound LTR	15.7	0.46	B	53.6	0.72	D	53.7	0.72	D
Southbound LTR	14.1	0.08	B	47.7	0.12	D	47.8	0.12	D
INTERSECTION	*7.0*		*A*	*8.6*		*A*	*8.6*		A

Sunday Peak Hour									
Eastbound Left	9.0	0.06	A	5.5	0.05	A	5.5	0.05	A
Through	5.6	0.54	A	3.8	0.37	A	3.7	0.38	A
Right	5.6	0.54	A	3.7	0.37	A	3.7	0.38	A
Westbound Left	9.4	0.25	A	6.5	0.21	A	6.5	0.22	A
Through	6.0	0.61	A	4.3	0.42	A	4.3	0.43	A
Right	6.0	0.61	A	4.2	0.42	A	4.2	0.43	A
Northbound LTR	15.2	0.36	B	55.0	0.66	D	55.0	0.66	E
Southbound LTR	14.2	0.10	B	50.6	0.18	D	50.8	0.18	D
INTERSECTION	*6.6*		*A*	*7.2*		*A*	*7.1*		A

Table 5-1: Level of Service Summaries (continued)

Rockaway Turnpike and Burnside Avenue

AM Peak Hour	2019 Existing Volumes			2023 No Build Volumes			2023 Build Volumes		
Movement	**Delay**	**v/c Ratio**	**LOS**	**Delay**	**v/c Ratio**	**LOS**	**Delay**	**v/c Ratio**	**LOS**
Eastbound Left	56.1	0.80	E	57.3	0.81	E	57.3	0.81	E
Through	64.3	0.87	E	66.5	0.89	E	66.5	0.89	E
Right	64.8	0.87	E	67.0	0.89	E	67.0	0.89	E
Westbound Left	61.7	0.85	E	62.7	0.86	E	62.7	0.86	E
Through	54.5	0.77	D	55.0	0.78	D	55.0	0.78	D
Right	37.1	0.30	D	36.8	0.30	D	36.7	0.30	D
Northbound Left	37.2	0.11	D	40.5	0.12	D	40.8	0.12	D
Through	31.0	0.36	C	32.1	0.39	C	32.3	0.39	C
Right	30.9	0.36	C	32.0	0.39	C	32.2	0.40	C
Southbound Left	22.7	0.24	C	23.3	0.26	C	23.3	0.26	C
Through	28.1	0.60	C	29.9	0.66	C	30.0	0.66	C
Right	90.4	1.09	F	107.0	1.13	F	108.0	1.13	F
INTERSECTION	*56.4*		*E*	*60.6*		*E*	*60.7*		E
PM Peak Hour									
Eastbound Left	56.9	0.81	E	58.0	0.82	E	57.8	0.82	E
Through	66.8	0.89	E	68.7	0.91	E	68.9	0.91	E
Right	67.8	0.90	E	69.7	0.91	E	69.9	0.91	E
Westbound Left	63.6	0.86	E	64.9	0.87	E	64.8	0.87	E
Through	55.4	0.78	E	56.1	0.79	E	56.0	0.79	E
Right	33.4	0.23	C	32.9	0.23	C	32.9	0.23	C
Northbound Left	51.3	0.28	D	57.2	0.33	E	57.1	0.33	E
Through	33.9	0.40	C	34.9	0.43	C	34.8	0.42	C
Right	0.0	0.00	A	0.0	0.00	A	0.0	0.00	A
Southbound Left	25.9	0.39	C	26.6	0.41	C	26.6	0.41	C
Through	47.0	0.68	D	49.6	0.74	D	49.5	0.74	D
Right	99.2	1.06	F	116.0	1.11	F	116.5	1.11	F
INTERSECTION	*61.0*		*E*	*65.4*		*E*	*65.5*		E
Sunday Peak Hour									
Eastbound Left	49.6	0.69	D	50.1	0.70	D	50.0	0.70	D
Through	53.2	0.76	D	54.0	0.77	D	54.1	0.78	D
Right	53.8	0.77	D	54.6	0.78	D	54.7	0.78	D
Westbound Left	54.9	0.77	D	55.3	0.78	E	55.2	0.77	E
Through	51.3	0.70	D	51.4	0.70	D	51.4	0.70	D
Right	40.0	0.45	D	39.6	0.45	D	39.6	0.45	D
Northbound Left	33.6	0.13	C	35.2	0.14	D	34.8	0.14	C
Through	28.6	0.33	C	29.4	0.35	C	29.3	0.34	C
Right	28.5	0.33	C	29.4	0.35	C	29.2	0.34	C
Southbound Left	21.0	0.30	C	21.5	0.32	C	21.4	0.32	C
Through	31.0	0.51	C	31.9	0.53	C	31.7	0.52	C
Right	36.0	0.65	D	37.5	0.68	D	37.5	0.68	D
INTERSECTION	*40.6*		*D*	*41.3*		*D*	*41.3*		D

Table 5-1: Level of Service Summaries (continued)

Rockaway Turnpike and Pearsall Avenue

AM Peak Hour	2019 Existing Volumes		2023 No Build Volumes		2023 Build Volumes	
Movement	**Delay**	**LOS**	**Delay**	**LOS**	**Delay**	**LOS**
Westbound LR	18.1	C	19.6	C	20.6	C
Northbound TR	8.8	A	8.9	A	8.9	A
Intersection	*2.6*	*A*	*2.7*	*A*	*2.9*	*A*
PM Peak Hour						
Westbound LR	20.9	C	22.6	C	20.9	C
Northbound TR	8.6	A	8.7	A	8.6	A
Intersection	*3.2*	*A*	*3.3*	*A*	*3.0*	*A*
Sunday Peak Hour						
Westbound LR	29.1	D	37.3	E	27.6	D
Northbound TR	8.7	A	8.9	A	8.8	A
Intersection	*3.8*	*A*	*4.9*	*A*	*3.2*	*A*

Washington Avenue and Pearsall Avenue

AM Peak Hour	2019 Existing Volumes		2023 No Build Volumes		2023 Build Volumes	
Movement	**Delay**	**LOS**	**Delay**	**LOS**	**Delay**	**LOS**
Eastbound LR	15.1	C	15.4	C	15.6	C
Northbound LT	8.0	A	8.1	A	8.1	A
Intersection	*3.2*	*A*	*3.2*	*A*	*3.3*	*A*
PM Peak Hour						
Eastbound LR	14.5	B	14.8	B	14.5	B
Northbound LT	8.0	A	8.0	A	8.0	A
Intersection	*3.1*	*A*	*3.2*	*A*	*3.0*	*A*
Sunday Peak Hour						
Eastbound LR	15.7	C	16.2	C	15.4	C
Northbound LT	8.1	A	8.2	A	8.1	A
Intersection	*3.0*	*A*	*3.1*	*A*	*2.8*	*A*

Table 5-1: Level of Service Summaries (continued)

Central Avenue at Rockaway Turnpike

AM Peak Hour	2019 Existing Volumes			2023 No Build Volumes			2023 Build Volumes		
Movement	**Delay**	**v/c Ratio**	**LOS**	**Delay**	**v/c Ratio**	**LOS**	**Delay**	**v/c Ratio**	**LOS**
Eastbound Left	37.9	0.63	D	37.7	0.64	D	37.7	0.64	D
Through-Right	39.9	0.65	D	39.7	0.66	D	39.7	0.66	D
Westbound Left	36.9	0.10	D	36.1	0.11	D	36.1	0.11	D
Through-Right	61.4	0.94	E	62.7	0.94	E	62.7	0.94	E
Northbound Left	17.6	0.12	B	18.7	0.13	B	18.8	0.13	B
Through-Right	24.1	0.48	C	25.9	0.51	C	26.0	0.51	C
Southbound Left	16.8	0.21	B	17.8	0.25	B	17.8	0.25	B
Through-Right	24.1	0.54	C	25.8	0.57	C	26.0	0.58	C
INTERSECTION	*34.7*		*C*	*35.8*		*D*	*35.8*		D

PM Peak Hour									
Eastbound Left	38.3	0.67	D	38.3	0.68	D	38.3	0.68	D
Through-Right	37.1	0.57	D	36.2	0.56	D	36.2	0.56	D
Westbound Left	34.6	0.13	C	33.6	0.12	C	33.7	0.12	C
Through-Right	60.8	0.94	E	64.8	0.94	E	64.7	0.94	E
Northbound Left	19.3	0.12	B	20.5	0.13	C	20.4	0.13	C
Through-Right	23.7	0.40	C	25.2	0.43	C	25.1	0.42	C
Southbound Left	17.3	0.17	B	18.3	0.18	B	18.2	0.18	B
Through-Right	27.0	0.60	C	29.0	0.63	C	28.8	0.62	C
INTERSECTION	*35.6*		*D*	*37.3*		*D*	*37.2*		D

Sunday Peak Hour									
Eastbound Left	36.9	0.61	D	36.4	0.62	D	36.5	0.62	D
Through-Right	37.3	0.55	D	36.4	0.55	D	36.6	0.55	D
Westbound Left	35.3	0.10	D	34.3	0.10	C	34.3	0.10	C
Through-Right	63.4	0.94	E	64.7	0.94	E	64.7	0.94	E
Northbound Left	18.5	0.07	B	19.7	0.08	B	19.5	0.08	B
Through-Right	24.4	0.42	C	26.1	0.45	C	25.8	0.44	C
Southbound Left	17.1	0.26	B	18.0	0.28	B	17.9	0.28	B
Through-Right	24.8	0.55	C	26.6	0.58	C	26.3	0.58	C
INTERSECTION	*34.8*		*C*	*35.9*		*D*	*35.8*		D

6. Summary and Conclusions

This traffic study examines the potential traffic impacts of a zoning initiative in the Village of Cedarhurst that would redevelop low-density residential/vacant industrial properties into high quality residential redevelopment with some ancillary supporting tenant amenities.

1. To be included in this zoning initiative, individual or assembled parcels must meet certain criteria: 0.75-acre minimum size, zoned General Business or municipally-owned (i.e., not privately owned), with two or more street frontages and located on a Village boundary. Two properties meet these criteria: Site 1 is on the north side of Peninsula Boulevard near the high school, and Site 2 is on the north side of Pearsall Avenue, east of Rockaway Turnpike.
2. The following key intersections were included in this report, adjacent to one of the two sites:
    a. Rockaway Turnpike and Peninsula Boulevard-Bay Boulevard
    b. Cedarhurst Avenue and Peninsula Boulevard
    c. Rockaway Turnpike and Burnside Avenue
    d. Rockaway Turnpike and Pearsall Avenue
    e. Washington Avenue and Pearsall Avenue
    f. Central Avenue at Rockaway Turnpike
3. Existing traffic volumes were counted in September 2019, including Sunday (not Saturday) as the busier weekend day based on local traffic patterns in the Five Towns. The No Build condition was projected by applying a 0.6% per year ambient growth rate and accounting for the other planned projects in the area for their generated traffic and proposed mitigation.
4. Site 1 (Peninsula Boulevard) could generate 61 AM peak hour trips (14 entering, 47 exiting); 75 PM peak hour trips (47 entering, 28 exiting), and 91 trips Sunday peak hour trips (46 entering, 45 exiting). Site 2 (Pearsall Avenue) could generate net new traffic in the order of 12 net new AM peak hour trips (-1 entering, 13 exiting); -31 net new PM peak hour trips (-11 entering, -20 exiting), and -66 net new Sunday peak hour trips (-34 entering, -32 exiting) once the existing uses are vacated.
5. Taken together, the zoning overlay could generate 73, 44, and 25 net new trips during the respective AM, PM, and Sunday midday peak hours.
6. There is no site plan to date for Site 1. The plan for Site 2 would retain the existing apron on Rockaway Turnpike and change the current continuous flush curb on Pearsall Avenue to discreet driveways. It would also replace the existing building with a new building set back further from Pearsall Avenue, which will improve sight lines along Pearsall Avenue.
7. The proposed zoning overlay would be subject to Village parking requirements. Provided parking at the Pearsall Avenue site would exceed Village code for Building 1 (by 9 spaces) and satisfy Village code for Buildings 2 and 3 (which will have connected underground

parking). Provided parking would satisfy the ADA-required number of spaces for each building.

8. None of the study intersections in this report will be affected by the zoning overlay. The northbound Cedarhurst Avenue approach at Peninsula Boulevard will technically change LOS grade, with less than 0.1 seconds of delay change. Other movements will improve their LOS grade because of reduced delay associated with reduced trip generation at Site 2. Overall, the largest lane group delay increases will generally be small (less than 5 seconds per vehicle), which is too small to warrant mitigation.

APPENDICES

Appendix A: Level of Service Descriptions

Appendix B: Existing Level of Service Worksheets

Appendix C: No Build Level of Service Worksheets

Appendix D: Build Level of Service Worksheets

APPENDIX A:
LEVEL OF SERVICE DESCRIPTIONS

Level of service is a measure of traffic flow quality, which denotes the average delays that motorists face as they travel through an intersection. A motorist's delay is caused by several factors, including the presence of a traffic control (i.e., a signal or stop sign), geometry, other vehicles on the road, and incidents.

Total delay is the difference between the actual travel time, and the ideal travel time that would happen if there weren't any traffic controls, geometric delays, incidents, or other vehicles on the road. The HCS program only quantifies the "control delay," the portion of total delay attributed to the signal or stop sign. Control delay includes delays due to initial deceleration, stopped time, queue move-up time, and final acceleration.

The level of service (LOS) at **signalized** intersections is defined in terms of delay, which is a measure of driver discomfort, frustration, fuel consumption, and lost travel time.

The LOS at **two-way stop controlled** (**TWSC**) intersections depends on the capacity of each minor movement, not for the intersection as a whole. The capacity of a controlled leg is based on the distribution of gaps in the major street traffic flow, driver judgment in selecting a gap through which to move, and the follow-up time required by each driver in a queue.

The LOS at **All-Way stop controlled** (**AWSC**) intersections is also defined for each minor movement, and depends on the capacity, departure headway, and service time. A movement's delay is a function of the volume-to-capacity (v/c) ratio, service time, and departure headway.

The right of way at an AWSC intersection is controlled by stop signs on every leg of an intersection. Though the driver on the right generally has right of way, actual traffic flow at AWSC intersections generally follows one of two patterns:

1. Vehicles from opposite legs (i.e., northbound and southbound, or eastbound and westbound) arrive close to the same time; this is considered "2-phase" operation.
2. Vehicles from all four legs arrive separately. This is considered "4-phase" operation.

Service time is the time it takes an average vehicle to enter the intersection after stopping, and it depends on the probability that someone is on an opposing leg when a vehicle reaches the stop line. When the opposing legs are empty, a motorist can enter the intersection right after stopping. But if there are one or more vehicles on the opposing legs, the driver must wait for consensus from the other drivers before entering the intersection. The more opposing vehicles there are, the longer the service time will be, although subsequent delay increases get smaller with each additional vehicle. This probability depends on several factors, including the geometry of the intersection, lane configuration, and vehicular volumes.

Levels of service range between LOS A (relatively congestion-free) and LOS F (congested):

Level of Service A indicates very low control delays. This occurs when progression is extremely favorable; most vehicles arrive during the green phase and do not stop at all. Short traffic signal cycles may contribute to low delay.

Level of Service B generally occurs with good progression and/or short signal cycle lengths at signalized intersections. More vehicles stop than for LOS A, causing higher average delays.

APPENDIX A (continued):
LEVEL OF SERVICE DESCRIPTIONS

Level of Service C has higher delays than LOS B. This may result from fair progression and/or longer cycle lengths. Individual cycle failures, where motorists wait through an entire signal cycle, may begin to appear. The number of vehicles stopping is significant, though many still pass through without stopping.

Level of Service D has the influence of congestion becoming more noticeable. This may result from some combination of unfavorable progression, long cycle lengths, and high volume-to-capacity (v/c) ratios. The proportion of stopping vehicles increases, and individual cycle failures are noticeable.

Level of Service E is considered the limit of acceptable delay. This LOS generally indicates poor progression, long cycle lengths, and high v/c ratios. Individual cycle failures occur often.

Level of Service F is considered unacceptable to most drivers. The condition occurs with oversaturation (when arrival flow exceeds the intersection's capacity, denoted by the v/c ratio*) but it may also occur at v/c ratios below 1.0 with many individual cycle failures.

The following conditions are used to determine **Signalized** levels of service:

Average Control Delay (seconds per vehicle)	Level of Service (v/c Ratio)	
	v/c ≤ 1.0	v/c > 1.0
≤ 10.0	Level of Service A	Level of Service F
> 10.0 and ≤ 20.0	Level of Service B	Level of Service F
> 20.0 and ≤ 35.0	Level of Service C	Level of Service F
> 35.0 and ≤ 55.0	Level of Service D	Level of Service F
> 55.0 and ≤ 80.0	Level of Service E	Level of Service F
> 80.0	Level of Service F	Level of Service F

The expectation is that TWSC and AWSC intersections are designed to carry smaller traffic volumes than signalized intersections. Therefore, the delay threshold times are lower for the same LOS grades. The following delays are used to determine **Unsignalized** levels of service:

Average Control Delay (seconds per vehicle)	Level of Service (v/c Ratio)	
	v/c ≤ 1.0	v/c > 1.0
≤ 10.0	Level of Service A	Level of Service F
> 10.0 and ≤ 15.0	Level of Service B	Level of Service F
> 15.0 and ≤ 25.0	Level of Service C	Level of Service F
> 25.0 and ≤ 35.0	Level of Service D	Level of Service F
> 35.0 and ≤ 50.0	Level of Service E	Level of Service F
> 50.0	Level of Service F	Level of Service F

** For individual lane groups (not overall approaches or intersections), HCM 6 automatically defines the signalized level of service as LOS F if the v/c ratio is above 1.0.*

APPENDIX B:
EXISTING LEVEL OF SERVICE/CAPACITY WORKSHEETS

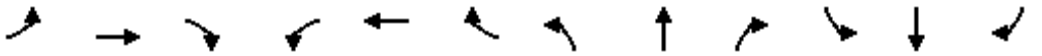
Signalized Intersections

1. Rockaway Turnpike and Peninsula Boulevard-Bay Boulevard
2. Cedarhurst Avenue and Peninsula Boulevard
3. Rockaway Turnpike and Burnside Avenue
4. Central Avenue at Rockaway Turnpike

Unsignalized Intersections

1. Rockaway Turnpike and Pearsall Avenue
2. Washington Avenue and Pearsall Avenue

HCM 6th Signalized Intersection Summary
1: Rockaway Turnpike & Peninsula Boulevard



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	92	240	9	345	240	528	10	774	111	352	711	17
Future Volume (veh/h)	92	240	9	345	240	528	10	774	111	352	711	17
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1737	1737	1737	1796	1796	1796	1767	1767	1767	1781	1781	1781
Adj Flow Rate, veh/h	97	253	9	363	253	556	11	815	117	371	748	18
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	11	11	11	7	7	7	9	9	9	8	8	8
Cap, veh/h	296	572	20	476	496	629	22	878	126	453	1427	34
Arrive On Green	0.06	0.18	0.18	0.15	0.28	0.28	0.01	0.30	0.30	0.14	0.42	0.42
Sat Flow, veh/h	1654	3251	115	1711	1796	1522	1682	2946	423	3291	3378	81
Grp Volume(v), veh/h	97	128	134	363	253	556	11	464	468	371	375	391
Grp Sat Flow(s),veh/h/ln	1654	1650	1716	1711	1796	1522	1682	1678	1690	1646	1692	1767
Q Serve(g_s), s	4.6	6.8	6.8	15.0	11.6	27.0	0.6	26.3	26.3	10.7	16.1	16.1
Cycle Q Clear(g_c), s	4.6	6.8	6.8	15.0	11.6	27.0	0.6	26.3	26.3	10.7	16.1	16.1
Prop In Lane	1.00		0.07	1.00		1.00	1.00		0.25	1.00		0.05
Lane Grp Cap(c), veh/h	296	290	302	476	496	629	22	500	504	453	715	746
V/C Ratio(X)	0.33	0.44	0.44	0.76	0.51	0.88	0.50	0.93	0.93	0.82	0.52	0.52
Avail Cap(c_a), veh/h	461	455	474	476	496	629	327	617	622	639	715	746
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.1	36.0	36.0	27.8	29.9	26.5	48.0	33.3	33.3	41.0	21.0	21.0
Incr Delay (d2), s/veh	0.2	0.4	0.4	6.5	0.9	14.0	6.2	16.7	16.6	5.8	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	2.7	2.8	7.5	5.0	13.7	0.3	12.7	12.8	4.7	6.2	6.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.3	36.4	36.4	34.3	30.7	40.5	54.2	50.0	49.9	46.8	21.3	21.3
LnGrp LOS	C	D	D	C	C	D	D	D	D	D	C	C
Approach Vol, veh/h		359			1172			943			1137	
Approach Delay, s/veh		34.8			36.5			50.0			29.6	
Approach LOS		C			D			D			C	

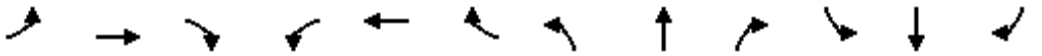
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.5	35.2	21.0	23.2	6.3	47.3	11.2	33.0
Change Period (Y+Rc), s	5.0	6.0	6.0	6.0	5.0	6.0	5.0	6.0
Max Green Setting (Gmax), s	19.0	36.0	15.0	27.0	19.0	36.0	16.0	27.0
Max Q Clear Time (g_c+I1), s	12.7	28.3	17.0	8.8	2.6	18.1	6.6	29.0
Green Ext Time (p_c), s	0.7	0.9	0.0	0.8	0.0	0.8	0.1	0.0

Intersection Summary	
HCM 6th Ctrl Delay	37.7
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
2: Cedarhurst Avenue & Peninsula Boulevard

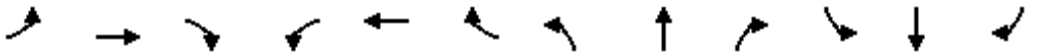


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	15	1164	31	97	1352	8	40	17	64	11	22	25
Future Volume (veh/h)	15	1164	31	97	1352	8	40	17	64	11	22	25
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1737	1737	1737	1796	1796	1796	1796	1796	1796	1722	1722	1722
Adj Flow Rate, veh/h	16	1265	34	105	1470	9	43	18	70	12	24	27
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	11	11	11	7	7	7	7	7	7	12	12	12
Cap, veh/h	269	1765	47	310	1870	11	186	47	120	140	102	95
Arrive On Green	0.54	0.54	0.54	0.54	0.54	0.54	0.14	0.14	0.14	0.14	0.14	0.14
Sat Flow, veh/h	380	3283	88	471	3478	21	413	334	858	179	732	683
Grp Volume(v), veh/h	16	635	664	105	721	758	131	0	0	63	0	0
Grp Sat Flow(s),veh/h/ln	380	1650	1721	471	1706	1792	1605	0	0	1594	0	0
Q Serve(g_s), s	1.3	10.8	10.8	8.0	12.6	12.6	1.5	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	13.9	10.8	10.8	18.8	12.6	12.6	2.8	0.0	0.0	1.3	0.0	0.0
Prop In Lane	1.00		0.05	1.00		0.01	0.33		0.53	0.19		0.43
Lane Grp Cap(c), veh/h	269	887	926	310	918	964	353	0	0	338	0	0
V/C Ratio(X)	0.06	0.72	0.72	0.34	0.79	0.79	0.37	0.00	0.00	0.19	0.00	0.00
Avail Cap(c_a), veh/h	892	3594	3748	1083	3717	3904	1283	0	0	1251	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	12.5	6.5	6.5	13.5	6.9	6.9	15.0	0.0	0.0	14.3	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.4	0.4	0.2	0.6	0.5	0.2	0.0	0.0	0.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	2.0	2.1	0.7	2.5	2.6	0.9	0.0	0.0	0.4	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	12.5	6.9	6.9	13.8	7.5	7.4	15.2	0.0	0.0	14.4	0.0	0.0
LnGrp LOS	B	A	A	B	A	A	B	A	A	B	A	A
Approach Vol, veh/h		1315			1584			131			63	
Approach Delay, s/veh		6.9			7.9			15.2			14.4	
Approach LOS		A			A			B			B	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		26.0		11.2		26.0		11.2				
Change Period (Y+Rc), s		6.0		6.0		6.0		6.0				
Max Green Setting (Gmax), s		81.0		27.0		81.0		27.0				
Max Q Clear Time (g_c+I1), s		12.8		3.3		14.6		4.8				
Green Ext Time (p_c), s		0.3		0.1		0.4		0.2				

Intersection Summary												
HCM 6th Ctrl Delay			7.9									
HCM 6th LOS			A									

HCM 6th Signalized Intersection Summary
3: Rockaway Turnpike & Burnside Avenue



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	477	338	17	169	356	107	19	421	1	99	454	680
Future Volume (veh/h)	477	338	17	169	356	107	19	421	1	99	454	680
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.91	1.00		0.98	1.00		0.97	0.99		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1781	1781	1781	1796	1796	1796	1841	1841	1841	1796	1796	1796
Adj Flow Rate, veh/h	289	643	18	176	371	111	20	439	1	103	473	708
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	8	8	8	7	7	7	4	4	4	7	7	7
Cap, veh/h	363	736	21	208	469	375	190	1235	3	429	790	652
Arrive On Green	0.21	0.21	0.21	0.20	0.20	0.20	0.34	0.34	0.34	0.05	0.44	0.44
Sat Flow, veh/h	1697	3438	96	1059	2391	1497	541	3579	8	1711	1796	1482
Grp Volume(v), veh/h	289	333	328	290	257	111	20	214	226	103	473	708
Grp Sat Flow(s),veh/h/ln	1697	1781	1753	1743	1706	1497	541	1749	1839	1711	1796	1482
Q Serve(g_s), s	19.4	21.7	21.7	19.2	17.1	7.2	3.5	11.0	11.0	4.5	24.0	52.8
Cycle Q Clear(g_c), s	19.4	21.7	21.7	19.2	17.1	7.2	16.2	11.0	11.0	4.5	24.0	52.8
Prop In Lane	1.00		0.05	0.61		1.00	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	363	381	375	342	335	375	190	603	634	429	790	652
V/C Ratio(X)	0.80	0.87	0.87	0.85	0.77	0.30	0.11	0.36	0.36	0.24	0.60	1.09
Avail Cap(c_a), veh/h	382	401	394	392	384	418	190	603	634	566	790	652
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.75	0.75	0.75
Uniform Delay (d), s/veh	44.7	45.6	45.6	46.5	45.6	36.5	36.0	29.3	29.3	22.6	25.6	33.6
Incr Delay (d2), s/veh	11.4	18.8	19.2	15.2	8.9	0.6	1.1	1.6	1.6	0.1	2.5	56.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.3	11.5	11.4	9.7	8.1	2.7	0.5	4.9	5.1	1.8	10.7	28.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	56.1	64.3	64.8	61.7	54.5	37.1	37.2	31.0	30.9	22.7	28.1	90.4
LnGrp LOS	E	E	E	E	D	D	D	C	C	C	C	F
Approach Vol, veh/h		950			658			460			1284	
Approach Delay, s/veh		62.0			54.7			31.2			62.0	
Approach LOS		E			D			C			E	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	11.4	47.4		31.7		58.8		29.6				
Change Period (Y+Rc), s	5.0	6.0		6.0		6.0		6.0				
Max Green Setting (Gmax), s	16.0	27.0		27.0		48.0		27.0				
Max Q Clear Time (g_c+I1), s	6.5	0.0		23.7		0.0		21.2				
Green Ext Time (p_c), s	0.1	0.0		1.7		0.0		1.8				

Intersection Summary												
HCM 6th Ctrl Delay			56.4									
HCM 6th LOS			E									

Notes

User approved volume balancing among the lanes for turning movement.

Intersection	
Int Delay, s/veh	2.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	25	90	395	35	88	457
Future Vol, veh/h	25	90	395	35	88	457
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	5	5	5	5	8	8
Mvmt Flow	28	100	439	39	98	508

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1163	459	0	0	478	0
Stage 1	459	-	-	-	-	-
Stage 2	704	-	-	-	-	-
Critical Hdwy	6.45	6.25	-	-	4.18	-
Critical Hdwy Stg 1	5.45	-	-	-	-	-
Critical Hdwy Stg 2	5.45	-	-	-	-	-
Follow-up Hdwy	3.545	3.345	-	-	2.272	-
Pot Cap-1 Maneuver	212	596	-	-	1054	-
Stage 1	630	-	-	-	-	-
Stage 2	485	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	184	596	-	-	1054	-
Mov Cap-2 Maneuver	184	-	-	-	-	-
Stage 1	630	-	-	-	-	-
Stage 2	422	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	18.1	0	1.4
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	401	1054	-
HCM Lane V/C Ratio	-	-	0.319	0.093	-
HCM Control Delay (s)	-	-	18.1	8.8	0
HCM Lane LOS	-	-	C	A	A
HCM 95th %tile Q(veh)	-	-	1.4	0.3	-

Intersection	
Int Delay, s/veh	3.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	53	62	80	308	212	45
Future Vol, veh/h	53	62	80	308	212	45
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	3	3	3	3	5	5
Mvmt Flow	58	68	88	338	233	49

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	772	258	282	0	-	0
Stage 1	258	-	-	-	-	-
Stage 2	514	-	-	-	-	-
Critical Hdwy	6.43	6.23	4.13	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	2.227	-	-	-
Pot Cap-1 Maneuver	366	778	1275	-	-	-
Stage 1	783	-	-	-	-	-
Stage 2	598	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	335	778	1275	-	-	-
Mov Cap-2 Maneuver	335	-	-	-	-	-
Stage 1	716	-	-	-	-	-
Stage 2	598	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	15.1	1.7	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1275	-	483	-	-
HCM Lane V/C Ratio	0.069	-	0.262	-	-
HCM Control Delay (s)	8	0	15.1	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0.2	-	1	-	-

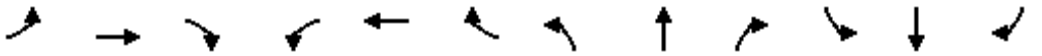
HCM 6th Signalized Intersection Summary
6: Central Avenue & Rockaway Turnpike

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	127	271	31	22	260	65	51	305	67	102	183	208
Future Volume (veh/h)	127	271	31	22	260	65	51	305	67	102	183	208
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.89	0.94		0.86	1.00		0.96	1.00		0.94
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1826	1826	1826	1811	1811	1811	1781	1781	1781
Adj Flow Rate, veh/h	132	282	32	23	271	68	53	318	70	106	191	217
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	4	4	4	5	5	5	6	6	6	8	8	8
Cap, veh/h	210	435	49	225	290	73	458	664	146	502	356	405
Arrive On Green	0.07	0.27	0.27	0.01	0.21	0.21	0.03	0.47	0.47	0.05	0.49	0.49
Sat Flow, veh/h	1753	1599	181	1739	1359	341	1725	1426	314	1697	733	832
Grp Volume(v), veh/h	132	0	314	23	0	339	53	0	388	106	0	408
Grp Sat Flow(s),veh/h/ln	1753	0	1781	1739	0	1700	1725	0	1740	1697	0	1565
Q Serve(g_s), s	6.8	0.0	18.7	1.2	0.0	23.5	1.9	0.0	18.4	3.9	0.0	21.8
Cycle Q Clear(g_c), s	6.8	0.0	18.7	1.2	0.0	23.5	1.9	0.0	18.4	3.9	0.0	21.8
Prop In Lane	1.00		0.10	1.00		0.20	1.00		0.18	1.00		0.53
Lane Grp Cap(c), veh/h	210	0	484	225	0	363	458	0	810	502	0	761
V/C Ratio(X)	0.63	0.00	0.65	0.10	0.00	0.94	0.12	0.00	0.48	0.21	0.00	0.54
Avail Cap(c_a), veh/h	257	0	564	374	0	538	584	0	810	590	0	761
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	34.5	0.0	38.6	36.8	0.0	46.4	17.6	0.0	22.1	16.7	0.0	21.4
Incr Delay (d2), s/veh	3.4	0.0	1.3	0.1	0.0	15.1	0.0	0.0	2.0	0.1	0.0	2.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	0.0	8.3	0.5	0.0	11.4	0.8	0.0	7.9	1.5	0.0	8.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.9	0.0	39.9	36.9	0.0	61.4	17.6	0.0	24.1	16.8	0.0	24.1
LnGrp LOS	D	A	D	D	A	E	B	A	C	B	A	C
Approach Vol, veh/h		446			362			441			514	
Approach Delay, s/veh		39.3			59.9			23.3			22.6	
Approach LOS		D			E			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.8	61.8	14.8	31.6	9.3	64.3	7.7	38.6
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	12.0	34.0	12.0	38.0	12.0	34.0	12.0	38.0
Max Q Clear Time (g_c+I1), s	5.9	20.4	8.8	25.5	3.9	23.8	3.2	20.7
Green Ext Time (p_c), s	0.1	1.8	0.1	0.1	0.0	1.8	0.0	0.1

Intersection Summary	
HCM 6th Ctrl Delay	34.7
HCM 6th LOS	C

HCM 6th Signalized Intersection Summary
1: Rockaway Turnpike & Peninsula Boulevard



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	87	278	21	356	251	368	25	691	160	362	768	16
Future Volume (veh/h)	87	278	21	356	251	368	25	691	160	362	768	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1796	1796	1796	1856	1856	1856	1841	1841	1841
Adj Flow Rate, veh/h	89	284	21	363	256	376	26	705	163	369	784	16
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	4	4	4	7	7	7	3	3	3	4	4	4
Cap, veh/h	249	490	36	359	404	537	43	1159	268	433	1791	37
Arrive On Green	0.06	0.15	0.15	0.13	0.22	0.22	0.05	0.82	0.82	0.13	0.51	0.51
Sat Flow, veh/h	1753	3303	243	1711	1796	1522	1767	2843	657	3401	3505	72
Grp Volume(v), veh/h	89	150	155	363	256	376	26	437	431	369	391	409
Grp Sat Flow(s),veh/h/ln	1753	1749	1797	1711	1796	1522	1767	1763	1737	1700	1749	1828
Q Serve(g_s), s	5.1	9.6	9.7	15.0	15.5	25.5	1.7	10.9	10.9	12.7	16.9	16.9
Cycle Q Clear(g_c), s	5.1	9.6	9.7	15.0	15.5	25.5	1.7	10.9	10.9	12.7	16.9	16.9
Prop In Lane	1.00		0.14	1.00		1.00	1.00		0.38	1.00		0.04
Lane Grp Cap(c), veh/h	249	259	266	359	404	537	43	719	708	433	893	934
V/C Ratio(X)	0.36	0.58	0.58	1.01	0.63	0.70	0.61	0.61	0.61	0.85	0.44	0.44
Avail Cap(c_a), veh/h	384	393	404	359	404	537	280	719	708	538	893	934
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.87	0.87	0.87	0.77	0.77	0.77	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.1	47.6	47.6	42.8	42.0	33.4	56.5	7.6	7.6	51.2	18.5	18.5
Incr Delay (d2), s/veh	0.3	0.8	0.8	46.9	2.8	3.5	4.0	2.9	3.0	10.4	1.6	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	4.2	4.4	8.4	7.1	9.8	0.8	3.1	3.0	6.0	7.1	7.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.5	48.4	48.4	89.7	44.8	36.9	60.5	10.5	10.6	61.7	20.0	20.0
LnGrp LOS	D	D	D	F	D	D	E	B	B	E	C	B
Approach Vol, veh/h		394			995			894			1169	
Approach Delay, s/veh		46.6			58.2			12.0			33.2	
Approach LOS		D			E			B			C	

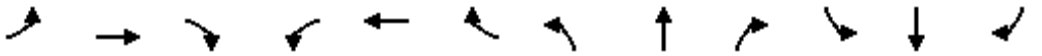
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.3	54.9	21.0	23.8	7.9	67.3	11.8	33.0
Change Period (Y+Rc), s	5.0	6.0	6.0	6.0	5.0	6.0	5.0	6.0
Max Green Setting (Gmax), s	19.0	36.0	15.0	27.0	19.0	36.0	16.0	27.0
Max Q Clear Time (g_c+I1), s	14.7	12.9	17.0	11.7	3.7	18.9	7.1	27.5
Green Ext Time (p_c), s	0.6	1.0	0.0	0.9	0.0	0.8	0.1	0.0

Intersection Summary	
HCM 6th Ctrl Delay	36.4
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
2: Cedarhurst Avenue & Peninsula Boulevard

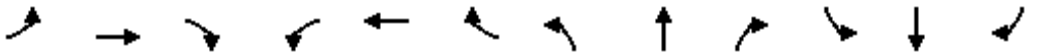


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	19	1104	8	89	1210	7	39	18	98	3	13	12
Future Volume (veh/h)	19	1104	8	89	1210	7	39	18	98	3	13	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1796	1796	1796	1811	1811	1811	1796	1796	1796
Adj Flow Rate, veh/h	19	1127	8	91	1235	7	40	18	100	3	13	12
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	4	4	4	7	7	7	6	6	6	7	7	7
Cap, veh/h	340	1918	14	375	1875	11	165	38	140	119	120	99
Arrive On Green	0.54	0.54	0.54	0.54	0.54	0.54	0.14	0.14	0.14	0.14	0.14	0.14
Sat Flow, veh/h	511	3560	25	555	3479	20	315	273	1014	87	871	719
Grp Volume(v), veh/h	19	554	581	91	606	636	158	0	0	28	0	0
Grp Sat Flow(s),veh/h/ln	511	1749	1836	555	1706	1793	1603	0	0	1678	0	0
Q Serve(g_s), s	1.0	7.9	7.9	4.9	9.4	9.4	2.4	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	10.4	7.9	7.9	12.8	9.4	9.4	3.5	0.0	0.0	0.5	0.0	0.0
Prop In Lane	1.00		0.01	1.00		0.01	0.25		0.63	0.11		0.43
Lane Grp Cap(c), veh/h	340	942	989	375	919	966	343	0	0	339	0	0
V/C Ratio(X)	0.06	0.59	0.59	0.24	0.66	0.66	0.46	0.00	0.00	0.08	0.00	0.00
Avail Cap(c_a), veh/h	1180	3816	4007	1287	3724	3912	1284	0	0	1304	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	9.9	5.8	5.8	10.1	6.1	6.1	15.3	0.0	0.0	14.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.2	0.2	0.1	0.3	0.3	0.4	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	1.6	1.7	0.5	1.8	1.9	1.1	0.0	0.0	0.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	9.9	6.0	6.0	10.2	6.4	6.4	15.7	0.0	0.0	14.1	0.0	0.0
LnGrp LOS	A	A	A	B	A	A	B	A	A	B	A	A
Approach Vol, veh/h		1154			1333			158			28	
Approach Delay, s/veh		6.1			6.7			15.7			14.1	
Approach LOS		A			A			B			B	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		26.0		11.1		26.0		11.1				
Change Period (Y+Rc), s		6.0		6.0		6.0		6.0				
Max Green Setting (Gmax), s		81.0		27.0		81.0		27.0				
Max Q Clear Time (g_c+I1), s		9.9		2.5		11.4		5.5				
Green Ext Time (p_c), s		0.3		0.0		0.3		0.2				

Intersection Summary												
HCM 6th Ctrl Delay			7.0									
HCM 6th LOS			A									

HCM 6th Signalized Intersection Summary
3: Rockaway Turnpike & Burnside Avenue



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	495	341	39	195	348	94	38	421	0	159	499	643
Future Volume (veh/h)	495	341	39	195	348	94	38	421	0	159	499	643
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.91	1.00		0.98	1.00		1.00	0.99		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1811	1811	1811	1885	1885	1885	1811	1811	1811
Adj Flow Rate, veh/h	310	666	41	207	370	100	40	448	0	169	531	684
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	3	3	3	6	6	6	1	1	1	6	6	6
Cap, veh/h	383	744	46	240	461	429	142	1107	0	430	782	645
Arrive On Green	0.22	0.22	0.22	0.20	0.20	0.20	0.31	0.31	0.00	0.03	0.14	0.14
Sat Flow, veh/h	1767	3437	211	1188	2284	1510	536	3676	0	1725	1811	1493
Grp Volume(v), veh/h	310	359	348	305	272	100	40	448	0	169	531	684
Grp Sat Flow(s),veh/h/ln	1767	1856	1793	1752	1721	1510	536	1791	0	1725	1811	1493
Q Serve(g_s), s	20.0	22.6	22.6	20.2	18.0	6.1	8.2	11.9	0.0	7.6	33.4	51.8
Cycle Q Clear(g_c), s	20.0	22.6	22.6	20.2	18.0	6.1	26.8	11.9	0.0	7.6	33.4	51.8
Prop In Lane	1.00		0.12	0.68		1.00	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	383	402	388	353	347	429	142	1107	0	430	782	645
V/C Ratio(X)	0.81	0.89	0.90	0.86	0.78	0.23	0.28	0.40	0.00	0.39	0.68	1.06
Avail Cap(c_a), veh/h	398	417	403	394	387	464	142	1107	0	520	782	645
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.73	0.73	0.73
Uniform Delay (d), s/veh	44.7	45.7	45.7	46.3	45.4	33.0	46.5	32.7	0.0	25.8	43.6	51.5
Incr Delay (d2), s/veh	12.2	21.1	22.1	17.3	10.0	0.4	4.9	1.1	0.0	0.2	3.5	47.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.0	12.7	12.4	10.5	8.6	2.3	1.3	5.3	0.0	3.4	17.0	29.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	56.9	66.8	67.8	63.6	55.4	33.4	51.3	33.9	0.0	25.9	47.0	99.2
LnGrp LOS	E	E	E	E	E	C	D	C	A	C	D	F
Approach Vol, veh/h		1017			677			488			1384	
Approach Delay, s/veh		64.1			55.8			35.3			70.3	
Approach LOS		E			E			D			E	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	14.7	43.1		32.0		57.8		30.2				
Change Period (Y+Rc), s	5.0	6.0		6.0		6.0		6.0				
Max Green Setting (Gmax), s	16.0	27.0		27.0		48.0		27.0				
Max Q Clear Time (g_c+I1), s	9.6	0.0		24.6		0.0		22.2				
Green Ext Time (p_c), s	0.1	0.0		1.3		0.0		1.6				

Intersection Summary												
HCM 6th Ctrl Delay			61.0									
HCM 6th LOS			E									

Notes

User approved volume balancing among the lanes for turning movement.

Intersection	
Int Delay, s/veh	3.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	40	121	436	30	67	542
Future Vol, veh/h	40	121	436	30	67	542
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	1	1	2	2	2	2
Mvmt Flow	42	126	454	31	70	565

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1175	470	0	0	485	0
Stage 1	470	-	-	-	-	-
Stage 2	705	-	-	-	-	-
Critical Hdwy	6.41	6.21	-	-	4.12	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.309	-	-	2.218	-
Pot Cap-1 Maneuver	213	596	-	-	1078	-
Stage 1	631	-	-	-	-	-
Stage 2	492	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	193	596	-	-	1078	-
Mov Cap-2 Maneuver	193	-	-	-	-	-
Stage 1	631	-	-	-	-	-
Stage 2	445	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	20.9	0	0.9
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	392	1078	-
HCM Lane V/C Ratio	-	-	0.428	0.065	-
HCM Control Delay (s)	-	-	20.9	8.6	0
HCM Lane LOS	-	-	C	A	A
HCM 95th %tile Q(veh)	-	-	2.1	0.2	-

Intersection	
Int Delay, s/veh	3.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	44	65	103	328	189	38
Future Vol, veh/h	44	65	103	328	189	38
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	3	3	3	3
Mvmt Flow	48	71	112	357	205	41

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	807	226	246	0	-	0
Stage 1	226	-	-	-	-	-
Stage 2	581	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.13	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.227	-	-	-
Pot Cap-1 Maneuver	354	818	1314	-	-	-
Stage 1	816	-	-	-	-	-
Stage 2	563	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	316	818	1314	-	-	-
Mov Cap-2 Maneuver	316	-	-	-	-	-
Stage 1	730	-	-	-	-	-
Stage 2	563	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	14.5	1.9	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1314	-	498	-	-
HCM Lane V/C Ratio	0.085	-	0.238	-	-
HCM Control Delay (s)	8	0	14.5	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.3	-	0.9	-	-

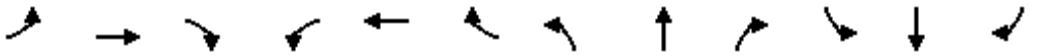
HCM 6th Signalized Intersection Summary
6: Central Avenue & Rockaway Turnpike

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	142	254	32	35	271	94	47	271	44	89	251	198
Future Volume (veh/h)	142	254	32	35	271	94	47	271	44	89	251	198
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.89	0.94		0.87	1.00		0.96	0.99		0.93
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1870	1870	1870	1856	1856	1856	1841	1841	1841
Adj Flow Rate, veh/h	145	259	33	36	277	96	48	277	45	91	256	202
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	3	3	3	2	2	2	3	3	3	4	4	4
Cap, veh/h	218	454	58	285	294	102	398	694	113	551	430	339
Arrive On Green	0.08	0.29	0.29	0.02	0.23	0.23	0.03	0.45	0.45	0.04	0.47	0.47
Sat Flow, veh/h	1767	1588	202	1781	1273	441	1767	1547	251	1753	922	727
Grp Volume(v), veh/h	145	0	292	36	0	373	48	0	322	91	0	458
Grp Sat Flow(s),veh/h/ln	1767	0	1790	1781	0	1715	1767	0	1798	1753	0	1649
Q Serve(g_s), s	7.2	0.0	16.7	1.8	0.0	25.7	1.8	0.0	14.4	3.3	0.0	24.6
Cycle Q Clear(g_c), s	7.2	0.0	16.7	1.8	0.0	25.7	1.8	0.0	14.4	3.3	0.0	24.6
Prop In Lane	1.00		0.11	1.00		0.26	1.00		0.14	1.00		0.44
Lane Grp Cap(c), veh/h	218	0	512	285	0	396	398	0	807	551	0	769
V/C Ratio(X)	0.67	0.00	0.57	0.13	0.00	0.94	0.12	0.00	0.40	0.17	0.00	0.60
Avail Cap(c_a), veh/h	258	0	567	423	0	543	530	0	807	652	0	769
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.79	0.00	0.79	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	33.3	0.0	36.6	34.6	0.0	45.3	19.3	0.0	22.2	17.3	0.0	23.6
Incr Delay (d2), s/veh	5.0	0.0	0.5	0.1	0.0	15.4	0.0	0.0	1.5	0.1	0.0	3.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	0.0	7.4	0.8	0.0	12.5	0.7	0.0	6.4	1.4	0.0	10.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.3	0.0	37.1	34.6	0.0	60.8	19.3	0.0	23.7	17.3	0.0	27.0
LnGrp LOS	D	A	D	C	A	E	B	A	C	B	A	C
Approach Vol, veh/h		437			409			370			549	
Approach Delay, s/veh		37.5			58.5			23.1			25.4	
Approach LOS		D			E			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.1	59.9	15.3	33.7	9.0	62.0	8.7	40.3
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	12.0	34.0	12.0	38.0	12.0	34.0	12.0	38.0
Max Q Clear Time (g_c+I1), s	5.3	16.4	9.2	27.7	3.8	26.6	3.8	18.7
Green Ext Time (p_c), s	0.1	1.6	0.1	0.1	0.0	1.6	0.0	0.1

Intersection Summary	
HCM 6th Ctrl Delay	35.6
HCM 6th LOS	D

HCM 6th Signalized Intersection Summary
1: Rockaway Turnpike & Peninsula Boulevard



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	213	329	27	293	340	317	18	725	160	265	601	27
Future Volume (veh/h)	213	329	27	293	340	317	18	725	160	265	601	27
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1885	1885	1885	1870	1870	1870	1885	1885	1885
Adj Flow Rate, veh/h	217	336	28	299	347	323	18	740	163	270	613	28
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	1	1	1	2	2	2	1	1	1
Cap, veh/h	286	626	52	405	392	487	33	1151	254	339	1661	76
Arrive On Green	0.11	0.19	0.19	0.04	0.07	0.07	0.01	0.13	0.13	0.10	0.48	0.48
Sat Flow, veh/h	1781	3322	275	1795	1885	1598	1781	2895	638	3483	3488	159
Grp Volume(v), veh/h	217	179	185	299	347	323	18	454	449	270	314	327
Grp Sat Flow(s),veh/h/ln	1781	1777	1821	1795	1885	1598	1781	1777	1756	1742	1791	1857
Q Serve(g_s), s	11.6	10.9	11.0	15.0	21.9	21.2	1.2	29.1	29.1	9.1	13.4	13.4
Cycle Q Clear(g_c), s	11.6	10.9	11.0	15.0	21.9	21.2	1.2	29.1	29.1	9.1	13.4	13.4
Prop In Lane	1.00		0.15	1.00		1.00	1.00		0.36	1.00		0.09
Lane Grp Cap(c), veh/h	286	335	343	405	392	487	33	707	698	339	853	884
V/C Ratio(X)	0.76	0.53	0.54	0.74	0.89	0.66	0.54	0.64	0.64	0.80	0.37	0.37
Avail Cap(c_a), veh/h	321	400	410	405	424	515	282	707	698	551	853	884
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.90	0.90	0.90	0.86	0.86	0.86	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.2	43.9	44.0	38.4	54.5	42.8	59.1	44.0	44.0	53.0	20.0	20.0
Incr Delay (d2), s/veh	7.5	0.5	0.5	5.6	17.2	2.7	4.2	3.8	3.9	4.3	1.2	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.6	4.8	5.0	1.2	13.0	9.4	0.6	14.6	14.5	4.2	5.8	6.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.7	44.4	44.5	44.0	71.7	45.4	63.3	47.9	47.9	57.3	21.2	21.2
LnGrp LOS	D	D	D	D	E	D	E	D	D	E	C	C
Approach Vol, veh/h		581			969			921			911	
Approach Delay, s/veh		43.8			54.4			48.2			31.9	
Approach LOS		D			D			D			C	

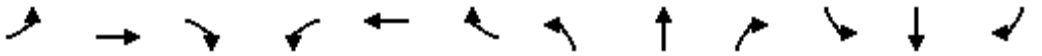
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.7	53.7	21.0	28.6	7.3	63.1	18.7	30.9
Change Period (Y+Rc), s	5.0	6.0	6.0	6.0	5.0	6.0	5.0	6.0
Max Green Setting (Gmax), s	19.0	36.0	15.0	27.0	19.0	36.0	16.0	27.0
Max Q Clear Time (g_c+I1), s	11.1	31.1	17.0	13.0	3.2	15.4	13.6	23.9
Green Ext Time (p_c), s	0.6	0.7	0.0	1.1	0.0	0.7	0.1	1.0

Intersection Summary	
HCM 6th Ctrl Delay	44.8
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
2: Cedarhurst Avenue & Peninsula Boulevard

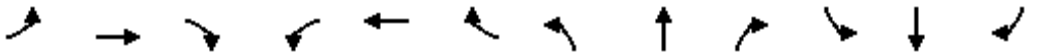


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	1009	18	99	1151	6	28	17	73	5	16	13
Future Volume (veh/h)	20	1009	18	99	1151	6	28	17	73	5	16	13
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1885	1885	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	21	1062	19	104	1212	6	29	18	77	5	17	14
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	1	1	1	1	1	1	0	0	0	0	0	0
Cap, veh/h	365	1955	35	412	1985	10	159	46	137	129	124	90
Arrive On Green	0.54	0.54	0.54	0.54	0.54	0.54	0.13	0.13	0.13	0.13	0.13	0.13
Sat Flow, veh/h	536	3600	64	615	3655	18	292	347	1047	131	948	687
Grp Volume(v), veh/h	21	528	553	104	594	624	124	0	0	36	0	0
Grp Sat Flow(s),veh/h/ln	536	1791	1874	615	1791	1882	1686	0	0	1766	0	0
Q Serve(g_s), s	1.0	7.0	7.0	4.9	8.4	8.4	1.3	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	9.4	7.0	7.0	11.9	8.4	8.4	2.5	0.0	0.0	0.7	0.0	0.0
Prop In Lane	1.00		0.03	1.00		0.01	0.23		0.62	0.14		0.39
Lane Grp Cap(c), veh/h	365	972	1017	412	972	1022	342	0	0	343	0	0
V/C Ratio(X)	0.06	0.54	0.54	0.25	0.61	0.61	0.36	0.00	0.00	0.10	0.00	0.00
Avail Cap(c_a), veh/h	1253	3938	4120	1431	3938	4139	1352	0	0	1390	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	9.0	5.5	5.5	9.3	5.8	5.8	15.0	0.0	0.0	14.2	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.2	0.2	0.1	0.2	0.2	0.2	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	1.4	1.5	0.5	1.7	1.7	0.9	0.0	0.0	0.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	9.0	5.6	5.6	9.4	6.0	6.0	15.2	0.0	0.0	14.2	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	B	A	A	B	A	A
Approach Vol, veh/h		1102			1322			124			36	
Approach Delay, s/veh		5.7			6.3			15.2			14.2	
Approach LOS		A			A			B			B	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		26.0		10.8		26.0		10.8				
Change Period (Y+Rc), s		6.0		6.0		6.0		6.0				
Max Green Setting (Gmax), s		81.0		27.0		81.0		27.0				
Max Q Clear Time (g_c+I1), s		9.0		2.7		10.4		4.5				
Green Ext Time (p_c), s		0.2		0.0		0.3		0.2				

Intersection Summary												
HCM 6th Ctrl Delay			6.6									
HCM 6th LOS			A									

HCM 6th Signalized Intersection Summary
3: Rockaway Turnpike & Burnside Avenue



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	404	273	30	149	290	162	33	424	2	145	434	463
Future Volume (veh/h)	404	273	30	149	290	162	33	424	2	145	434	463
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.90	1.00		0.98	0.99		0.97	0.99		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1885	1885	1885	1885	1885	1885	1870	1870	1870
Adj Flow Rate, veh/h	245	530	31	155	302	169	34	442	2	151	452	482
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	1	1	1	1	1	1	2	2	2
Cap, veh/h	356	694	40	202	422	379	260	1347	6	501	894	739
Arrive On Green	0.20	0.20	0.20	0.17	0.17	0.17	0.37	0.37	0.37	0.05	0.32	0.32
Sat Flow, veh/h	1781	3476	203	1170	2447	1567	708	3656	17	1781	1870	1546
Grp Volume(v), veh/h	245	284	277	242	215	169	34	216	228	151	452	482
Grp Sat Flow(s),veh/h/ln	1781	1870	1808	1827	1791	1567	708	1791	1882	1781	1870	1546
Q Serve(g_s), s	15.3	17.2	17.3	15.2	13.5	11.0	4.3	10.4	10.4	6.0	23.5	32.1
Cycle Q Clear(g_c), s	15.3	17.2	17.3	15.2	13.5	11.0	14.7	10.4	10.4	6.0	23.5	32.1
Prop In Lane	1.00		0.11	0.64		1.00	1.00		0.01	1.00		1.00
Lane Grp Cap(c), veh/h	356	373	361	315	309	379	260	660	693	501	894	739
V/C Ratio(X)	0.69	0.76	0.77	0.77	0.70	0.45	0.13	0.33	0.33	0.30	0.51	0.65
Avail Cap(c_a), veh/h	401	421	407	411	403	461	260	660	693	618	894	739
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.67	0.67	0.67
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.85	0.85	0.85
Uniform Delay (d), s/veh	44.6	45.3	45.4	47.4	46.7	38.8	32.5	27.2	27.2	20.9	29.3	32.2
Incr Delay (d2), s/veh	5.0	7.9	8.4	7.6	4.6	1.2	1.0	1.3	1.3	0.1	1.7	3.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.3	8.8	8.6	7.5	6.4	4.4	0.8	4.7	4.9	2.6	11.6	13.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.6	53.2	53.8	54.9	51.3	40.0	33.6	28.6	28.5	21.0	31.0	36.0
LnGrp LOS	D	D	D	D	D	D	C	C	C	C	C	D
Approach Vol, veh/h		806			626			478			1085	
Approach Delay, s/veh		52.3			49.6			28.9			31.9	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	13.1	50.2		30.0		63.3		26.7				
Change Period (Y+Rc), s	5.0	6.0		6.0		6.0		6.0				
Max Green Setting (Gmax), s	16.0	27.0		27.0		48.0		27.0				
Max Q Clear Time (g_c+I1), s	8.0	0.0		19.3		0.0		17.2				
Green Ext Time (p_c), s	0.1	0.0		2.7		0.0		2.5				

Intersection Summary												
HCM 6th Ctrl Delay			40.6									
HCM 6th LOS			D									

Notes

User approved volume balancing among the lanes for turning movement.

Intersection	
Int Delay, s/veh	3.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	60	89	465	29	67	568
Future Vol, veh/h	60	89	465	29	67	568
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	2	2	0	0	0	0
Mvmt Flow	66	98	511	32	74	624

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1299	527	0	0	543	0
Stage 1	527	-	-	-	-	-
Stage 2	772	-	-	-	-	-
Critical Hdwy	6	6	-	-	4.1	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.2	-
Pot Cap-1 Maneuver	207	569	-	-	1036	-
Stage 1	592	-	-	-	-	-
Stage 2	456	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	184	569	-	-	1036	-
Mov Cap-2 Maneuver	184	-	-	-	-	-
Stage 1	592	-	-	-	-	-
Stage 2	406	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	29.1	0	0.9
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	309	1036	-
HCM Lane V/C Ratio	-	-	0.53	0.071	-
HCM Control Delay (s)	-	-	29.1	8.7	0
HCM Lane LOS	-	-	D	A	A
HCM 95th %tile Q(veh)	-	-	2.9	0.2	-

Intersection	
Int Delay, s/veh	3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	37	49	101	296	195	41
Future Vol, veh/h	37	49	101	296	195	41
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	81	81	81	81	81	81
Heavy Vehicles, %	0	0	1	1	0	0
Mvmt Flow	46	60	125	365	241	51

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	882	267	292	0	-	0
Stage 1	267	-	-	-	-	-
Stage 2	615	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.11	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.209	-	-	-
Pot Cap-1 Maneuver	319	777	1275	-	-	-
Stage 1	782	-	-	-	-	-
Stage 2	543	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	280	777	1275	-	-	-
Mov Cap-2 Maneuver	280	-	-	-	-	-
Stage 1	686	-	-	-	-	-
Stage 2	543	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	15.7	2.1	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1275	-	441	-	-
HCM Lane V/C Ratio	0.098	-	0.241	-	-
HCM Control Delay (s)	8.1	0	15.7	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0.3	-	0.9	-	-

HCM 6th Signalized Intersection Summary
6: Central Avenue & Rockaway Turnpike

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	119	238	29	26	216	125	31	263	62	141	238	191
Future Volume (veh/h)	119	238	29	26	216	125	31	263	62	141	238	191
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.89	0.94		0.87	1.00		0.96	1.00		0.94
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	124	248	30	27	225	130	32	274	65	147	248	199
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	1	1	1	1	1	1	1	1	1	1	1	1
Cap, veh/h	203	450	54	278	239	138	444	650	154	574	449	360
Arrive On Green	0.07	0.28	0.28	0.02	0.23	0.23	0.03	0.45	0.45	0.06	0.48	0.48
Sat Flow, veh/h	1795	1624	196	1795	1057	611	1795	1460	346	1795	937	752
Grp Volume(v), veh/h	124	0	278	27	0	355	32	0	339	147	0	447
Grp Sat Flow(s),veh/h/ln	1795	0	1821	1795	0	1667	1795	0	1806	1795	0	1689
Q Serve(g_s), s	6.1	0.0	15.6	1.4	0.0	25.1	1.2	0.0	15.4	5.3	0.0	22.5
Cycle Q Clear(g_c), s	6.1	0.0	15.6	1.4	0.0	25.1	1.2	0.0	15.4	5.3	0.0	22.5
Prop In Lane	1.00		0.11	1.00		0.37	1.00		0.19	1.00		0.45
Lane Grp Cap(c), veh/h	203	0	505	278	0	378	444	0	804	574	0	810
V/C Ratio(X)	0.61	0.00	0.55	0.10	0.00	0.94	0.07	0.00	0.42	0.26	0.00	0.55
Avail Cap(c_a), veh/h	261	0	577	428	0	528	576	0	804	644	0	810
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	34.0	0.0	37.0	35.3	0.0	45.6	18.5	0.0	22.8	17.0	0.0	22.1
Incr Delay (d2), s/veh	3.0	0.0	0.3	0.1	0.0	17.8	0.0	0.0	1.6	0.1	0.0	2.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	0.0	7.0	0.6	0.0	12.2	0.5	0.0	6.9	2.2	0.0	9.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.9	0.0	37.3	35.3	0.0	63.4	18.5	0.0	24.4	17.1	0.0	24.8
LnGrp LOS	D	A	D	D	A	E	B	A	C	B	A	C
Approach Vol, veh/h		402			382			371			594	
Approach Delay, s/veh		37.2			61.5			23.9			22.9	
Approach LOS		D			E			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.3	59.4	14.1	33.2	9.2	63.5	8.0	39.3
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	12.0	34.0	12.0	38.0	12.0	34.0	12.0	38.0
Max Q Clear Time (g_c+I1), s	7.3	17.4	8.1	27.1	3.2	24.5	3.4	17.6
Green Ext Time (p_c), s	0.1	1.6	0.1	0.1	0.0	1.8	0.0	0.1

Intersection Summary	
HCM 6th Ctrl Delay	34.8
HCM 6th LOS	C

APPENDIX C:
NO BUILD LEVEL OF SERVICE/CAPACITY WORKSHEETS

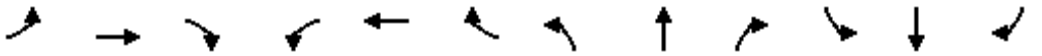
Signalized Intersections

1. Rockaway Turnpike and Peninsula Boulevard-Bay Boulevard
2. Cedarhurst Avenue and Peninsula Boulevard
3. Rockaway Turnpike and Burnside Avenue
4. Central Avenue at Rockaway Turnpike

Unsignalized Intersections

1. Rockaway Turnpike and Pearsall Avenue
2. Washington Avenue and Pearsall Avenue

HCM 6th Signalized Intersection Summary
1: Rockaway Turnpike & Peninsula Boulevard



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	94	246	9	353	246	541	10	808	114	361	759	17
Future Volume (veh/h)	94	246	9	353	246	541	10	808	114	361	759	17
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1737	1737	1737	1796	1796	1796	1767	1767	1767	1781	1781	1781
Adj Flow Rate, veh/h	99	259	9	372	259	569	11	851	120	380	799	18
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	11	11	11	7	7	7	9	9	9	8	8	8
Cap, veh/h	285	567	20	461	483	621	22	910	128	459	1470	33
Arrive On Green	0.06	0.17	0.17	0.15	0.27	0.27	0.01	0.31	0.31	0.14	0.43	0.43
Sat Flow, veh/h	1654	3254	113	1711	1796	1522	1682	2953	416	3291	3384	76
Grp Volume(v), veh/h	99	131	137	372	259	569	11	484	487	380	400	417
Grp Sat Flow(s),veh/h/ln	1654	1650	1717	1711	1796	1522	1682	1678	1692	1646	1692	1768
Q Serve(g_s), s	4.9	7.2	7.2	15.0	12.4	27.0	0.7	28.1	28.1	11.3	17.6	17.6
Cycle Q Clear(g_c), s	4.9	7.2	7.2	15.0	12.4	27.0	0.7	28.1	28.1	11.3	17.6	17.6
Prop In Lane	1.00		0.07	1.00		1.00	1.00		0.25	1.00		0.04
Lane Grp Cap(c), veh/h	285	287	299	461	483	621	22	517	521	459	735	768
V/C Ratio(X)	0.35	0.46	0.46	0.81	0.54	0.92	0.50	0.93	0.93	0.83	0.54	0.54
Avail Cap(c_a), veh/h	441	443	461	461	483	621	318	601	606	622	735	768
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.0	37.2	37.2	29.9	31.4	28.1	49.2	33.8	33.8	42.1	21.0	21.0
Incr Delay (d2), s/veh	0.3	0.4	0.4	9.4	1.2	18.4	6.3	19.2	19.1	6.8	0.5	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	2.9	3.0	2.6	5.4	15.4	0.3	13.9	14.0	5.0	6.8	7.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.3	37.6	37.6	39.3	32.6	46.5	55.5	53.0	52.9	48.9	21.5	21.5
LnGrp LOS	C	D	D	D	C	D	E	D	D	D	C	C
Approach Vol, veh/h		367			1200			982			1197	
Approach Delay, s/veh		35.9			41.3			53.0			30.2	
Approach LOS		D			D			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.0	37.0	21.0	23.5	6.3	49.7	11.5	33.0
Change Period (Y+Rc), s	5.0	6.0	6.0	6.0	5.0	6.0	5.0	6.0
Max Green Setting (Gmax), s	19.0	36.0	15.0	27.0	19.0	36.0	16.0	27.0
Max Q Clear Time (g_c+I1), s	13.3	30.1	17.0	9.2	2.7	19.6	6.9	29.0
Green Ext Time (p_c), s	0.7	0.8	0.0	0.8	0.0	0.9	0.1	0.0

Intersection Summary	
HCM 6th Ctrl Delay	40.3
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
2: Cedarhurst Avenue & Peninsula Boulevard

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	15	1192	32	99	1385	8	41	17	66	11	23	26
Future Volume (veh/h)	15	1192	32	99	1385	8	41	17	66	11	23	26
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1737	1737	1737	1796	1796	1796	1796	1796	1796	1722	1722	1722
Adj Flow Rate, veh/h	16	1296	35	108	1505	9	45	18	72	12	25	28
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	11	11	11	7	7	7	7	7	7	12	12	12
Cap, veh/h	261	1763	48	300	1868	11	188	46	121	139	103	97
Arrive On Green	0.54	0.54	0.54	0.54	0.54	0.54	0.14	0.14	0.14	0.14	0.14	0.14
Sat Flow, veh/h	367	3283	89	456	3478	21	423	327	856	173	735	687
Grp Volume(v), veh/h	16	651	680	108	738	776	135	0	0	65	0	0
Grp Sat Flow(s),veh/h/ln	367	1650	1721	456	1706	1793	1606	0	0	1596	0	0
Q Serve(g_s), s	1.4	11.2	11.3	8.7	13.1	13.2	1.5	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	14.5	11.2	11.3	20.0	13.1	13.2	2.9	0.0	0.0	1.4	0.0	0.0
Prop In Lane	1.00		0.05	1.00		0.01	0.33		0.53	0.18		0.43
Lane Grp Cap(c), veh/h	261	886	924	300	916	963	355	0	0	339	0	0
V/C Ratio(X)	0.06	0.73	0.74	0.36	0.81	0.81	0.38	0.00	0.00	0.19	0.00	0.00
Avail Cap(c_a), veh/h	861	3589	3743	1047	3711	3899	1281	0	0	1249	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	13.0	6.6	6.6	14.3	7.0	7.0	15.0	0.0	0.0	14.3	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.4	0.4	0.3	0.6	0.6	0.2	0.0	0.0	0.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	2.2	2.3	0.7	2.6	2.8	0.9	0.0	0.0	0.4	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	13.0	7.0	7.0	14.6	7.7	7.7	15.2	0.0	0.0	14.4	0.0	0.0
LnGrp LOS	B	A	A	B	A	A	B	A	A	B	A	A
Approach Vol, veh/h		1347			1622			135			65	
Approach Delay, s/veh		7.1			8.1			15.2			14.4	
Approach LOS		A			A			B			B	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	26.0	11.2	26.0	11.2
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	81.0	27.0	81.0	27.0
Max Q Clear Time (g_c+I1), s	13.3	3.4	15.2	4.9
Green Ext Time (p_c), s	0.3	0.1	0.4	0.2

Intersection Summary	
HCM 6th Ctrl Delay	8.1
HCM 6th LOS	A

HCM 6th Signalized Intersection Summary
3: Rockaway Turnpike & Burnside Avenue

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	489	346	17	175	365	110	19	447	6	101	492	700
Future Volume (veh/h)	489	346	17	175	365	110	19	447	6	101	492	700
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.91	1.00		0.98	1.00		0.97	0.99		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1781	1781	1781	1796	1796	1796	1841	1841	1841	1796	1796	1796
Adj Flow Rate, veh/h	296	659	18	182	380	115	20	466	6	105	512	729
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	8	8	8	7	7	7	4	4	4	7	7	7
Cap, veh/h	366	742	20	213	476	381	167	1198	15	406	781	644
Arrive On Green	0.22	0.22	0.22	0.20	0.20	0.20	0.34	0.34	0.34	0.05	0.43	0.43
Sat Flow, veh/h	1697	3441	94	1066	2383	1497	510	3534	45	1711	1796	1481
Grp Volume(v), veh/h	296	341	336	298	264	115	20	230	242	105	512	729
Grp Sat Flow(s),veh/h/ln	1697	1781	1754	1743	1706	1497	510	1749	1831	1711	1796	1481
Q Serve(g_s), s	19.9	22.3	22.3	19.8	17.6	7.4	3.9	12.0	12.1	4.6	27.0	52.2
Cycle Q Clear(g_c), s	19.9	22.3	22.3	19.8	17.6	7.4	19.4	12.0	12.1	4.6	27.0	52.2
Prop In Lane	1.00		0.05	0.61		1.00	1.00		0.02	1.00		1.00
Lane Grp Cap(c), veh/h	366	384	378	348	341	381	167	593	620	406	781	644
V/C Ratio(X)	0.81	0.89	0.89	0.86	0.78	0.30	0.12	0.39	0.39	0.26	0.66	1.13
Avail Cap(c_a), veh/h	382	401	395	392	384	420	167	593	620	542	781	644
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.71	0.71	0.71
Uniform Delay (d), s/veh	44.7	45.7	45.7	46.4	45.5	36.2	39.0	30.2	30.2	23.2	26.8	33.9
Incr Delay (d2), s/veh	12.6	20.8	21.3	16.3	9.5	0.6	1.5	1.9	1.8	0.1	3.1	73.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.6	12.0	11.9	10.1	8.3	2.8	0.6	5.4	5.6	1.9	12.1	31.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.3	66.5	67.0	62.7	55.0	36.8	40.5	32.1	32.0	23.3	29.9	107.0
LnGrp LOS	E	E	E	E	E	D	D	C	C	C	C	F
Approach Vol, veh/h		973			677			492			1346	
Approach Delay, s/veh		63.9			55.3			32.4			71.1	
Approach LOS		E			E			C			E	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	11.5	46.7		31.9		58.2		30.0				
Change Period (Y+Rc), s	5.0	6.0		6.0		6.0		6.0				
Max Green Setting (Gmax), s	6.6	27.0		27.0		48.0		27.0				
Max Q Clear Time (g_c+I1), s	16.6	0.0		24.3		0.0		21.8				
Green Ext Time (p_c), s	0.1	0.0		1.4		0.0		1.8				

Intersection Summary	
HCM 6th Ctrl Delay	60.6
HCM 6th LOS	E

Notes

User approved volume balancing among the lanes for turning movement.

Intersection	
Int Delay, s/veh	2.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	26	92	423	36	90	474
Future Vol, veh/h	26	92	423	36	90	474
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	5	5	5	5	8	8
Mvmt Flow	29	102	470	40	100	527

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1217	490	0	0	510	0
Stage 1	490	-	-	-	-	-
Stage 2	727	-	-	-	-	-
Critical Hdwy	6.45	6.25	-	-	4.18	-
Critical Hdwy Stg 1	5.45	-	-	-	-	-
Critical Hdwy Stg 2	5.45	-	-	-	-	-
Follow-up Hdwy	3.545	3.345	-	-	2.272	-
Pot Cap-1 Maneuver	197	572	-	-	1025	-
Stage 1	610	-	-	-	-	-
Stage 2	473	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	170	572	-	-	1025	-
Mov Cap-2 Maneuver	170	-	-	-	-	-
Stage 1	610	-	-	-	-	-
Stage 2	408	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	19.6	0	1.4
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	376	1025	-
HCM Lane V/C Ratio	-	-	0.349	0.098	-
HCM Control Delay (s)	-	-	19.6	8.9	0
HCM Lane LOS	-	-	C	A	A
HCM 95th %tile Q(veh)	-	-	1.5	0.3	-

Intersection	
Int Delay, s/veh	3.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	54	64	82	315	217	46
Future Vol, veh/h	54	64	82	315	217	46
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	3	3	3	3	5	5
Mvmt Flow	59	70	90	346	238	51

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	790	264	289	0	-	0
Stage 1	264	-	-	-	-	-
Stage 2	526	-	-	-	-	-
Critical Hdwy	6.43	6.23	4.13	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	2.227	-	-	-
Pot Cap-1 Maneuver	358	772	1267	-	-	-
Stage 1	778	-	-	-	-	-
Stage 2	591	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	326	772	1267	-	-	-
Mov Cap-2 Maneuver	326	-	-	-	-	-
Stage 1	710	-	-	-	-	-
Stage 2	591	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	15.4	1.7	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1267	-	475	-	-
HCM Lane V/C Ratio	0.071	-	0.273	-	-
HCM Control Delay (s)	8.1	0	15.4	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0.2	-	1.1	-	-

HCM 6th Signalized Intersection Summary
6: Central Avenue & Rockaway Turnpike

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	130	287	32	23	270	71	52	315	69	113	193	213
Future Volume (veh/h)	130	287	32	23	270	71	52	315	69	113	193	213
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.89	0.95		0.87	1.00		0.96	1.00		0.93
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1826	1826	1826	1811	1811	1811	1781	1781	1781
Adj Flow Rate, veh/h	135	299	33	24	281	74	54	328	72	118	201	222
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	4	4	4	5	5	5	6	6	6	8	8	8
Cap, veh/h	211	452	50	226	299	79	427	642	141	477	354	390
Arrive On Green	0.07	0.28	0.28	0.02	0.22	0.22	0.03	0.45	0.45	0.05	0.48	0.48
Sat Flow, veh/h	1753	1606	177	1739	1344	354	1725	1427	313	1697	744	822
Grp Volume(v), veh/h	135	0	332	24	0	355	54	0	400	118	0	423
Grp Sat Flow(s),veh/h/ln	1753	0	1783	1739	0	1698	1725	0	1740	1697	0	1566
Q Serve(g_s), s	6.9	0.0	19.7	1.3	0.0	24.6	2.0	0.0	19.7	4.5	0.0	23.3
Cycle Q Clear(g_c), s	6.9	0.0	19.7	1.3	0.0	24.6	2.0	0.0	19.7	4.5	0.0	23.3
Prop In Lane	1.00		0.10	1.00		0.21	1.00		0.18	1.00		0.52
Lane Grp Cap(c), veh/h	211	0	502	226	0	378	427	0	783	477	0	744
V/C Ratio(X)	0.64	0.00	0.66	0.11	0.00	0.94	0.13	0.00	0.51	0.25	0.00	0.57
Avail Cap(c_a), veh/h	257	0	565	374	0	538	551	0	783	556	0	744
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	33.9	0.0	38.1	36.0	0.0	45.8	18.7	0.0	23.6	17.7	0.0	22.6
Incr Delay (d2), s/veh	3.8	0.0	1.7	0.1	0.0	16.9	0.0	0.0	2.4	0.1	0.0	3.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	0.0	8.8	0.6	0.0	12.1	0.8	0.0	8.5	1.7	0.0	9.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.7	0.0	39.7	36.1	0.0	62.7	18.7	0.0	25.9	17.8	0.0	25.8
LnGrp LOS	D	A	D	D	A	E	B	A	C	B	A	C
Approach Vol, veh/h		467			379			454			541	
Approach Delay, s/veh		39.2			61.0			25.1			24.0	
Approach LOS		D			E			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.4	60.0	14.9	32.7	9.4	63.0	7.8	39.8
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	12.0	34.0	12.0	38.0	12.0	34.0	12.0	38.0
Max Q Clear Time (g_c+I1), s	6.5	21.7	8.9	26.6	4.0	25.3	3.3	21.7
Green Ext Time (p_c), s	0.1	1.8	0.1	0.1	0.0	1.7	0.0	0.1

Intersection Summary	
HCM 6th Ctrl Delay	35.8
HCM 6th LOS	D

HCM 6th Signalized Intersection Summary
1: Rockaway Turnpike & Peninsula Boulevard

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	89	285	22	365	257	377	26	708	164	371	815	16
Future Volume (veh/h)	89	285	22	365	257	377	26	708	164	371	815	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1796	1796	1796	1856	1856	1856	1841	1841	1841
Adj Flow Rate, veh/h	91	291	22	372	262	385	27	722	167	379	832	16
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	4	4	4	7	7	7	3	3	3	4	4	4
Cap, veh/h	247	492	37	357	404	541	44	1148	265	443	1787	34
Arrive On Green	0.06	0.15	0.15	0.13	0.22	0.22	0.05	0.81	0.81	0.13	0.51	0.51
Sat Flow, veh/h	1753	3297	248	1711	1796	1522	1767	2843	657	3401	3510	67
Grp Volume(v), veh/h	91	154	159	372	262	385	27	448	441	379	415	433
Grp Sat Flow(s),veh/h/ln	1753	1749	1796	1711	1796	1522	1767	1763	1737	1700	1749	1829
Q Serve(g_s), s	5.2	9.8	9.9	15.0	15.9	26.2	1.8	11.9	11.9	13.1	18.3	18.3
Cycle Q Clear(g_c), s	5.2	9.8	9.9	15.0	15.9	26.2	1.8	11.9	11.9	13.1	18.3	18.3
Prop In Lane	1.00		0.14	1.00		1.00	1.00		0.38	1.00		0.04
Lane Grp Cap(c), veh/h	247	261	268	357	404	541	44	712	701	443	891	931
V/C Ratio(X)	0.37	0.59	0.59	1.04	0.65	0.71	0.62	0.63	0.63	0.86	0.47	0.47
Avail Cap(c_a), veh/h	379	393	404	357	404	541	280	712	701	538	891	931
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.87	0.87	0.87	0.75	0.75	0.75	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.0	47.6	47.7	42.7	42.2	33.4	56.5	8.0	8.0	51.1	18.9	18.9
Incr Delay (d2), s/veh	0.3	0.8	0.8	55.7	3.1	3.8	3.9	3.2	3.2	11.0	1.7	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	4.3	4.5	9.2	7.3	10.0	0.8	3.3	3.3	6.2	7.7	8.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.4	48.4	48.4	98.3	45.3	37.2	60.4	11.2	11.2	62.1	20.7	20.6
LnGrp LOS	D	D	D	F	D	D	E	B	B	E	C	C
Approach Vol, veh/h		404			1019			916			1227	
Approach Delay, s/veh		46.6			61.6			12.7			33.5	
Approach LOS		D			E			B			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.6	54.5	21.0	23.9	8.0	67.1	11.9	33.0
Change Period (Y+Rc), s	5.0	6.0	6.0	6.0	5.0	6.0	5.0	6.0
Max Green Setting (Gmax), s	19.0	36.0	15.0	27.0	19.0	36.0	16.0	27.0
Max Q Clear Time (g_c+I1), s	15.1	13.9	17.0	11.9	3.8	20.3	7.2	28.2
Green Ext Time (p_c), s	0.5	1.0	0.0	0.9	0.0	0.9	0.1	0.0

Intersection Summary	
HCM 6th Ctrl Delay	37.6
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
2: Cedarhurst Avenue & Peninsula Boulevard

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	19	1131	8	91	1239	7	40	18	100	3	13	12
Future Volume (veh/h)	19	1131	8	91	1239	7	40	18	100	3	13	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1796	1796	1796	1811	1811	1811	1796	1796	1796
Adj Flow Rate, veh/h	19	1154	8	93	1264	7	41	18	102	3	13	12
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	4	4	4	7	7	7	6	6	6	7	7	7
Cap, veh/h	387	2789	19	427	2726	15	75	31	118	41	105	84
Arrive On Green	0.78	0.78	0.78	0.78	0.78	0.78	0.12	0.12	0.12	0.12	0.12	0.12
Sat Flow, veh/h	496	3560	25	540	3480	19	322	265	1015	64	899	723
Grp Volume(v), veh/h	19	567	595	93	620	651	161	0	0	28	0	0
Grp Sat Flow(s),veh/h/ln	496	1749	1836	540	1706	1793	1602	0	0	1686	0	0
Q Serve(g_s), s	1.6	12.5	12.5	8.0	14.8	14.8	8.9	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	16.5	12.5	12.5	20.5	14.8	14.8	11.8	0.0	0.0	1.8	0.0	0.0
Prop In Lane	1.00		0.01	1.00		0.01	0.25		0.63	0.11		0.43
Lane Grp Cap(c), veh/h	387	1370	1438	427	1337	1404	225	0	0	230	0	0
V/C Ratio(X)	0.05	0.41	0.41	0.22	0.46	0.46	0.72	0.00	0.00	0.12	0.00	0.00
Avail Cap(c_a), veh/h	387	1370	1438	427	1337	1404	397	0	0	407	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.66	0.66	0.66	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	7.2	4.2	4.2	7.5	4.4	4.4	52.0	0.0	0.0	47.6	0.0	0.0
Incr Delay (d2), s/veh	0.2	0.6	0.6	1.2	1.2	1.1	1.6	0.0	0.0	0.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	3.9	4.1	1.0	4.7	4.9	4.9	0.0	0.0	0.8	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	7.4	4.8	4.8	8.6	5.6	5.5	53.6	0.0	0.0	47.7	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	D	A	A	D	A	A
Approach Vol, veh/h		1181			1364			161			28	
Approach Delay, s/veh		4.8			5.8			53.6			47.7	
Approach LOS		A			A			D			D	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	100.0	20.0	100.0	20.0
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	81.0	27.0	81.0	27.0
Max Q Clear Time (g_c+I1), s	14.5	3.8	16.8	13.8
Green Ext Time (p_c), s	0.3	0.0	0.3	0.2

Intersection Summary	
HCM 6th Ctrl Delay	8.6
HCM 6th LOS	A

HCM 6th Signalized Intersection Summary
3: Rockaway Turnpike & Burnside Avenue

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	507	349	40	202	356	96	39	432	0	163	535	663
Future Volume (veh/h)	507	349	40	202	356	96	39	432	0	163	535	663
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.91	1.00		0.98	1.00		1.00	0.99		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1811	1811	1811	1885	1885	1885	1811	1811	1811
Adj Flow Rate, veh/h	318	681	43	215	379	102	41	460	0	173	569	705
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	3	3	3	6	6	6	1	1	1	6	6	6
Cap, veh/h	387	751	47	246	466	438	123	1077	0	418	771	636
Arrive On Green	0.22	0.22	0.22	0.21	0.21	0.21	0.30	0.30	0.00	0.03	0.14	0.14
Sat Flow, veh/h	1767	3431	216	1199	2273	1510	506	3676	0	1725	1811	1493
Grp Volume(v), veh/h	318	368	356	314	280	102	41	460	0	173	569	705
Grp Sat Flow(s),veh/h/ln	1767	1856	1792	1751	1721	1510	506	1791	0	1725	1811	1493
Q Serve(g_s), s	20.6	23.2	23.2	20.8	18.5	6.2	9.3	12.4	0.0	7.9	36.2	51.1
Cycle Q Clear(g_c), s	20.6	23.2	23.2	20.8	18.5	6.2	30.4	12.4	0.0	7.9	36.2	51.1
Prop In Lane	1.00		0.12	0.68		1.00	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	387	406	392	359	353	438	123	1077	0	418	771	636
V/C Ratio(X)	0.82	0.91	0.91	0.87	0.79	0.23	0.33	0.43	0.00	0.41	0.74	1.11
Avail Cap(c_a), veh/h	398	417	403	394	387	468	123	1077	0	504	771	636
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.70	0.70	0.70
Uniform Delay (d), s/veh	44.6	45.7	45.7	46.2	45.3	32.6	50.0	33.7	0.0	26.5	45.1	51.6
Incr Delay (d2), s/veh	13.3	23.1	24.0	18.7	10.8	0.4	7.1	1.2	0.0	0.2	4.4	64.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.4	13.2	12.9	10.9	9.0	2.3	1.4	5.6	0.0	3.5	18.6	31.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.0	68.7	69.7	64.9	56.1	32.9	57.2	34.9	0.0	26.6	49.6	116.0
LnGrp LOS	E	E	E	E	E	C	E	C	A	C	D	F
Approach Vol, veh/h		1042			696			501			1447	
Approach Delay, s/veh		65.8			56.7			36.7			79.2	
Approach LOS		E			E			D			E	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	15.0	42.1		32.3		57.1		30.6				
Change Period (Y+Rc), s	5.0	6.0		6.0		6.0		6.0				
Max Green Setting (Gmax), s	10.0	27.0		27.0		48.0		27.0				
Max Q Clear Time (g_c+I1), s	9.3	0.0		25.2		0.0		22.8				
Green Ext Time (p_c), s	0.1	0.0		1.0		0.0		1.5				

Intersection Summary	
HCM 6th Ctrl Delay	65.4
HCM 6th LOS	E

Notes

User approved volume balancing among the lanes for turning movement.

Intersection	
Int Delay, s/veh	3.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	41	124	456	31	69	562
Future Vol, veh/h	41	124	456	31	69	562
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	1	1	2	2	2	2
Mvmt Flow	43	129	475	32	72	585

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1220	491	0	0	507	0
Stage 1	491	-	-	-	-	-
Stage 2	729	-	-	-	-	-
Critical Hdwy	6.41	6.21	-	-	4.12	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.309	-	-	2.218	-
Pot Cap-1 Maneuver	200	580	-	-	1058	-
Stage 1	617	-	-	-	-	-
Stage 2	479	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	180	580	-	-	1058	-
Mov Cap-2 Maneuver	180	-	-	-	-	-
Stage 1	617	-	-	-	-	-
Stage 2	431	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	22.6	0	0.9
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	374	1058	-
HCM Lane V/C Ratio	-	-	0.46	0.068	-
HCM Control Delay (s)	-	-	22.6	8.7	0
HCM Lane LOS	-	-	C	A	A
HCM 95th %tile Q(veh)	-	-	2.3	0.2	-

Intersection	
Int Delay, s/veh	3.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	45	67	105	336	194	39
Future Vol, veh/h	45	67	105	336	194	39
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	3	3	3	3
Mvmt Flow	49	73	114	365	211	42

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	825	232	253	0	-	0
Stage 1	232	-	-	-	-	-
Stage 2	593	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.13	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.227	-	-	-
Pot Cap-1 Maneuver	345	812	1306	-	-	-
Stage 1	811	-	-	-	-	-
Stage 2	556	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	307	812	1306	-	-	-
Mov Cap-2 Maneuver	307	-	-	-	-	-
Stage 1	722	-	-	-	-	-
Stage 2	556	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	14.8	1.9	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1306	-	489	-	-
HCM Lane V/C Ratio	0.087	-	0.249	-	-
HCM Control Delay (s)	8	0	14.8	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.3	-	1	-	-

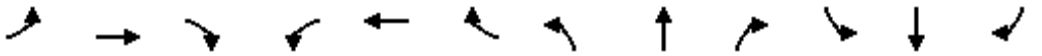
HCM 6th Signalized Intersection Summary
6: Central Avenue & Rockaway Turnpike

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	145	261	33	36	283	102	48	281	45	92	257	203
Future Volume (veh/h)	145	261	33	36	283	102	48	281	45	92	257	203
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.90	0.95		0.88	1.00		0.96	1.00		0.93
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1870	1870	1870	1856	1856	1856	1841	1841	1841
Adj Flow Rate, veh/h	148	266	34	37	289	104	49	287	46	94	262	207
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	3	3	3	2	2	2	3	3	3	4	4	4
Cap, veh/h	218	472	60	297	306	110	369	675	108	523	418	330
Arrive On Green	0.08	0.30	0.30	0.02	0.24	0.24	0.03	0.44	0.44	0.04	0.45	0.45
Sat Flow, veh/h	1767	1588	203	1781	1261	454	1767	1550	248	1753	920	727
Grp Volume(v), veh/h	148	0	300	37	0	393	49	0	333	94	0	469
Grp Sat Flow(s),veh/h/ln	1767	0	1791	1781	0	1715	1767	0	1799	1753	0	1647
Q Serve(g_s), s	7.3	0.0	17.0	1.9	0.0	27.0	1.8	0.0	15.4	3.5	0.0	26.1
Cycle Q Clear(g_c), s	7.3	0.0	17.0	1.9	0.0	27.0	1.8	0.0	15.4	3.5	0.0	26.1
Prop In Lane	1.00		0.11	1.00		0.26	1.00		0.14	1.00		0.44
Lane Grp Cap(c), veh/h	218	0	532	297	0	416	369	0	783	523	0	748
V/C Ratio(X)	0.68	0.00	0.56	0.12	0.00	0.94	0.13	0.00	0.43	0.18	0.00	0.63
Avail Cap(c_a), veh/h	257	0	567	434	0	543	499	0	783	620	0	748
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	32.7	0.0	35.6	33.5	0.0	44.7	20.4	0.0	23.5	18.2	0.0	25.0
Incr Delay (d2), s/veh	5.6	0.0	0.6	0.1	0.0	20.1	0.1	0.0	1.7	0.1	0.0	4.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	0.0	7.5	0.8	0.0	13.7	0.8	0.0	6.9	1.4	0.0	10.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.3	0.0	36.2	33.6	0.0	64.8	20.5	0.0	25.2	18.3	0.0	29.0
LnGrp LOS	D	A	D	C	A	E	C	A	C	B	A	C
Approach Vol, veh/h		448			430			382			563	
Approach Delay, s/veh		36.9			62.1			24.6			27.2	
Approach LOS		D			E			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.4	58.2	15.3	35.1	9.1	60.5	8.8	41.7
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	12.0	34.0	12.0	38.0	12.0	34.0	12.0	38.0
Max Q Clear Time (g_c+I1), s	5.5	17.4	9.3	29.0	3.8	28.1	3.9	19.0
Green Ext Time (p_c), s	0.1	1.6	0.1	0.1	0.0	1.4	0.0	0.1

Intersection Summary	
HCM 6th Ctrl Delay	37.3
HCM 6th LOS	D

HCM 6th Signalized Intersection Summary
1: Rockaway Turnpike & Peninsula Boulevard



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	218	337	28	300	348	325	18	746	164	271	625	28
Future Volume (veh/h)	218	337	28	300	348	325	18	746	164	271	625	28
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1885	1885	1885	1870	1870	1870	1885	1885	1885
Adj Flow Rate, veh/h	222	344	29	306	355	332	18	761	167	277	638	29
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	1	1	1	2	2	2	1	1	1
Cap, veh/h	288	641	54	408	398	496	33	1132	248	346	1644	75
Arrive On Green	0.12	0.19	0.19	0.04	0.07	0.07	0.01	0.13	0.13	0.10	0.47	0.47
Sat Flow, veh/h	1781	3319	278	1795	1885	1598	1781	2897	636	3483	3489	158
Grp Volume(v), veh/h	222	183	190	306	355	332	18	467	461	277	327	340
Grp Sat Flow(s),veh/h/ln	1781	1777	1820	1795	1885	1598	1781	1777	1756	1742	1791	1857
Q Serve(g_s), s	11.8	11.1	11.3	15.0	22.4	21.8	1.2	30.1	30.1	9.3	14.2	14.2
Cycle Q Clear(g_c), s	11.8	11.1	11.3	15.0	22.4	21.8	1.2	30.1	30.1	9.3	14.2	14.2
Prop In Lane	1.00		0.15	1.00		1.00	1.00		0.36	1.00		0.09
Lane Grp Cap(c), veh/h	288	343	352	408	398	496	33	694	686	346	844	875
V/C Ratio(X)	0.77	0.53	0.54	0.75	0.89	0.67	0.54	0.67	0.67	0.80	0.39	0.39
Avail Cap(c_a), veh/h	319	400	410	408	424	518	282	694	686	551	844	875
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.90	0.90	0.90	0.85	0.85	0.85	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.8	43.5	43.6	38.3	54.5	42.5	59.1	44.9	44.9	52.9	20.5	20.5
Incr Delay (d2), s/veh	8.6	0.5	0.5	6.1	18.3	2.8	4.2	4.4	4.4	4.4	1.3	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.7	4.9	5.1	1.5	13.4	9.7	0.6	15.2	15.0	4.3	6.2	6.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.4	44.0	44.1	44.4	72.7	45.4	63.3	49.3	49.4	57.3	21.9	21.8
LnGrp LOS	D	D	D	D	E	D	E	D	D	E	C	C
Approach Vol, veh/h		595			993			946			944	
Approach Delay, s/veh		43.8			54.8			49.6			32.2	
Approach LOS		D			D			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.9	52.9	21.0	29.2	7.3	62.6	18.9	31.3
Change Period (Y+Rc), s	5.0	6.0	6.0	6.0	5.0	6.0	5.0	6.0
Max Green Setting (Gmax), s	19.0	36.0	15.0	27.0	19.0	36.0	16.0	27.0
Max Q Clear Time (g_c+I1), s	11.3	32.1	17.0	13.3	3.2	16.2	13.8	24.4
Green Ext Time (p_c), s	0.6	0.6	0.0	1.1	0.0	0.7	0.1	0.9

Intersection Summary	
HCM 6th Ctrl Delay	45.4
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
2: Cedarhurst Avenue & Peninsula Boulevard

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	1033	18	101	1179	6	29	17	75	5	16	13
Future Volume (veh/h)	20	1033	18	101	1179	6	29	17	75	5	16	13
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1885	1885	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	21	1087	19	106	1241	6	31	18	79	5	17	14
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	1	1	1	1	1	1	0	0	0	0	0	0
Cap, veh/h	429	2910	51	495	2953	14	66	31	96	44	91	64
Arrive On Green	0.81	0.81	0.81	0.81	0.81	0.81	0.09	0.09	0.09	0.09	0.09	0.09
Sat Flow, veh/h	521	3602	63	600	3655	18	311	334	1040	107	990	698
Grp Volume(v), veh/h	21	540	566	106	608	639	128	0	0	36	0	0
Grp Sat Flow(s),veh/h/ln	521	1791	1874	600	1791	1882	1685	0	0	1795	0	0
Q Serve(g_s), s	1.5	10.0	10.0	7.1	11.8	11.9	6.3	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	13.3	10.0	10.0	17.1	11.8	11.9	8.9	0.0	0.0	2.3	0.0	0.0
Prop In Lane	1.00		0.03	1.00		0.01	0.24		0.62	0.14		0.39
Lane Grp Cap(c), veh/h	429	1447	1514	495	1447	1520	193	0	0	199	0	0
V/C Ratio(X)	0.05	0.37	0.37	0.21	0.42	0.42	0.66	0.00	0.00	0.18	0.00	0.00
Avail Cap(c_a), veh/h	429	1447	1514	495	1447	1520	415	0	0	431	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.79	0.79	0.79	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	5.3	3.2	3.2	5.5	3.4	3.4	53.5	0.0	0.0	50.5	0.0	0.0
Incr Delay (d2), s/veh	0.2	0.6	0.6	1.0	0.9	0.9	1.5	0.0	0.0	0.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	3.0	3.1	0.9	3.6	3.8	3.9	0.0	0.0	1.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	5.5	3.8	3.7	6.5	4.3	4.2	55.0	0.0	0.0	50.6	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	D	A	A	D	A	A
Approach Vol, veh/h		1127			1353			128			36	
Approach Delay, s/veh		3.8			4.4			55.0			50.6	
Approach LOS		A			A			D			D	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	102.9	17.1	102.9	17.1
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	81.0	27.0	81.0	27.0
Max Q Clear Time (g_c+I1), s	12.0	4.3	13.9	10.9
Green Ext Time (p_c), s	0.3	0.0	0.3	0.2

Intersection Summary	
HCM 6th Ctrl Delay	7.2
HCM 6th LOS	A

HCM 6th Signalized Intersection Summary
3: Rockaway Turnpike & Burnside Avenue

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	414	280	31	155	297	166	34	438	4	149	449	479
Future Volume (veh/h)	414	280	31	155	297	166	34	438	4	149	449	479
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.90	1.00		0.98	0.99		0.97	0.99		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1885	1885	1885	1885	1885	1885	1870	1870	1870
Adj Flow Rate, veh/h	252	543	32	161	309	173	35	456	4	155	468	499
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	1	1	1	1	1	1	2	2	2
Cap, veh/h	359	700	41	208	428	387	243	1315	12	487	884	731
Arrive On Green	0.20	0.20	0.20	0.18	0.18	0.18	0.36	0.36	0.36	0.05	0.32	0.32
Sat Flow, veh/h	1781	3474	204	1182	2435	1568	686	3637	32	1781	1870	1546
Grp Volume(v), veh/h	252	292	283	249	221	173	35	224	236	155	468	499
Grp Sat Flow(s),veh/h/ln	1781	1870	1808	1826	1791	1568	686	1791	1878	1781	1870	1546
Q Serve(g_s), s	15.8	17.7	17.8	15.6	13.9	11.2	4.7	11.0	11.0	6.3	24.6	33.8
Cycle Q Clear(g_c), s	15.8	17.7	17.8	15.6	13.9	11.2	16.0	11.0	11.0	6.3	24.6	33.8
Prop In Lane	1.00		0.11	0.65		1.00	1.00		0.02	1.00		1.00
Lane Grp Cap(c), veh/h	359	377	364	321	315	387	243	647	679	487	884	731
V/C Ratio(X)	0.70	0.77	0.78	0.78	0.70	0.45	0.14	0.35	0.35	0.32	0.53	0.68
Avail Cap(c_a), veh/h	401	421	407	411	403	464	243	647	679	600	884	731
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.67	0.67	0.67
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.84	0.84	0.84
Uniform Delay (d), s/veh	44.6	45.3	45.4	47.2	46.5	38.4	33.9	28.0	28.0	21.4	30.0	33.1
Incr Delay (d2), s/veh	5.5	8.6	9.2	8.1	4.9	1.2	1.2	1.5	1.4	0.1	1.9	4.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.5	9.1	8.9	7.8	6.6	4.5	0.9	5.0	5.2	2.7	12.2	14.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.1	54.0	54.6	55.3	51.4	39.6	35.2	29.4	29.4	21.5	31.9	37.5
LnGrp LOS	D	D	D	E	D	D	D	C	C	C	C	D
Approach Vol, veh/h		827			643			495			1122	
Approach Delay, s/veh		53.0			49.8			29.8			32.9	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	13.4	49.4		30.2		62.7		27.1				
Change Period (Y+Rc), s	5.0	6.0		6.0		6.0		6.0				
Max Green Setting (Gmax), s	16.0	27.0		27.0		48.0		27.0				
Max Q Clear Time (g_c+I1), s	8.3	0.0		19.8		0.0		17.6				
Green Ext Time (p_c), s	0.1	0.0		2.7		0.0		2.5				

Intersection Summary	
HCM 6th Ctrl Delay	41.3
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

Intersection	
Int Delay, s/veh	4.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	69	91	491	30	69	589
Future Vol, veh/h	69	91	491	30	69	589
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	2	2	0	0	0	0
Mvmt Flow	76	100	540	33	76	647

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1356	557	0	0	573	0
Stage 1	557	-	-	-	-	-
Stage 2	799	-	-	-	-	-
Critical Hdwy	6	6	-	-	4.1	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.2	-
Pot Cap-1 Maneuver	193	548	-	-	1010	-
Stage 1	574	-	-	-	-	-
Stage 2	443	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	170	548	-	-	1010	-
Mov Cap-2 Maneuver	170	-	-	-	-	-
Stage 1	574	-	-	-	-	-
Stage 2	391	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	37.3	0	0.9
HCM LOS	E		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	280	1010	-
HCM Lane V/C Ratio	-	-	0.628	0.075	-
HCM Control Delay (s)	-	-	37.3	8.9	0
HCM Lane LOS	-	-	E	A	A
HCM 95th %tile Q(veh)	-	-	3.9	0.2	-

Intersection	
Int Delay, s/veh	3.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	38	50	103	303	200	42
Future Vol, veh/h	38	50	103	303	200	42
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	81	81	81	81	81	81
Heavy Vehicles, %	0	0	1	1	0	0
Mvmt Flow	47	62	127	374	247	52

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	901	273	299	0	-	0
Stage 1	273	-	-	-	-	-
Stage 2	628	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.11	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.209	-	-	-
Pot Cap-1 Maneuver	311	771	1268	-	-	-
Stage 1	778	-	-	-	-	-
Stage 2	536	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	272	771	1268	-	-	-
Mov Cap-2 Maneuver	272	-	-	-	-	-
Stage 1	680	-	-	-	-	-
Stage 2	536	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	16.2	2.1	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1268	-	430	-	-
HCM Lane V/C Ratio	0.1	-	0.253	-	-
HCM Control Delay (s)	8.2	0	16.2	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0.3	-	1	-	-

HCM 6th Signalized Intersection Summary
6: Central Avenue & Rockaway Turnpike

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	122	248	30	27	227	133	32	273	64	149	247	196
Future Volume (veh/h)	122	248	30	27	227	133	32	273	64	149	247	196
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.89	0.95		0.88	1.00		0.96	1.00		0.93
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	127	258	31	28	236	139	33	284	67	155	257	204
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	1	1	1	1	1	1	1	1	1	1	1	1
Cap, veh/h	204	470	56	288	250	147	412	628	148	545	439	349
Arrive On Green	0.07	0.29	0.29	0.02	0.24	0.24	0.03	0.43	0.43	0.06	0.47	0.47
Sat Flow, veh/h	1795	1627	195	1795	1051	619	1795	1461	345	1795	941	747
Grp Volume(v), veh/h	127	0	289	28	0	375	33	0	351	155	0	461
Grp Sat Flow(s),veh/h/ln	1795	0	1822	1795	0	1670	1795	0	1806	1795	0	1688
Q Serve(g_s), s	6.2	0.0	16.1	1.4	0.0	26.5	1.2	0.0	16.5	5.7	0.0	24.0
Cycle Q Clear(g_c), s	6.2	0.0	16.1	1.4	0.0	26.5	1.2	0.0	16.5	5.7	0.0	24.0
Prop In Lane	1.00		0.11	1.00		0.37	1.00		0.19	1.00		0.44
Lane Grp Cap(c), veh/h	204	0	526	288	0	397	412	0	776	545	0	788
V/C Ratio(X)	0.62	0.00	0.55	0.10	0.00	0.94	0.08	0.00	0.45	0.28	0.00	0.58
Avail Cap(c_a), veh/h	261	0	577	437	0	529	543	0	776	609	0	788
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	33.3	0.0	36.1	34.2	0.0	44.9	19.7	0.0	24.2	17.9	0.0	23.4
Incr Delay (d2), s/veh	3.1	0.0	0.3	0.1	0.0	19.8	0.0	0.0	1.9	0.1	0.0	3.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	0.0	7.2	0.6	0.0	13.1	0.5	0.0	7.4	2.4	0.0	10.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.4	0.0	36.4	34.3	0.0	64.7	19.7	0.0	26.1	18.0	0.0	26.6
LnGrp LOS	D	A	D	C	A	E	B	A	C	B	A	C
Approach Vol, veh/h		416			403			384			616	
Approach Delay, s/veh		36.4			62.6			25.6			24.4	
Approach LOS		D			E			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.7	57.5	14.2	34.6	9.2	62.0	8.1	40.6
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	12.0	34.0	12.0	38.0	12.0	34.0	12.0	38.0
Max Q Clear Time (g_c+I1), s	7.7	18.5	8.2	28.5	3.2	26.0	3.4	18.1
Green Ext Time (p_c), s	0.1	1.7	0.1	0.1	0.0	1.7	0.0	0.1

Intersection Summary	
HCM 6th Ctrl Delay	35.9
HCM 6th LOS	D

APPENDIX D:
BUILD LEVEL OF SERVICE/CAPACITY WORKSHEETS

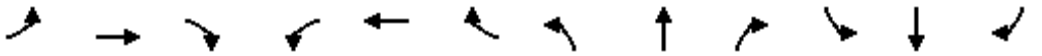
Signalized Intersections

1. Rockaway Turnpike and Peninsula Boulevard-Bay Boulevard
2. Cedarhurst Avenue and Peninsula Boulevard
3. Rockaway Turnpike and Burnside Avenue
4. Central Avenue at Rockaway Turnpike

Unsignalized Intersections

1. Rockaway Turnpike and Pearsall Avenue
2. Washington Avenue and Pearsall Avenue
3. Pearsall Avenue and Site Access
4. Peninsula Boulevard and Site Access

HCM 6th Signalized Intersection Summary
1: Rockaway Turnpike & Peninsula Boulevard



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	94	249	9	360	255	550	10	812	116	364	759	17
Future Volume (veh/h)	94	249	9	360	255	550	10	812	116	364	759	17
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1737	1737	1737	1796	1796	1796	1767	1767	1767	1781	1781	1781
Adj Flow Rate, veh/h	99	262	9	379	268	579	11	855	122	383	799	18
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	11	11	11	7	7	7	9	9	9	8	8	8
Cap, veh/h	278	565	19	458	480	620	22	914	130	461	1478	33
Arrive On Green	0.06	0.17	0.17	0.15	0.27	0.27	0.01	0.31	0.31	0.14	0.44	0.44
Sat Flow, veh/h	1654	3256	111	1711	1796	1522	1682	2948	421	3291	3384	76
Grp Volume(v), veh/h	99	132	139	379	268	579	11	487	490	383	400	417
Grp Sat Flow(s),veh/h/ln	1654	1650	1717	1711	1796	1522	1682	1678	1691	1646	1692	1768
Q Serve(g_s), s	4.9	7.3	7.3	15.0	13.0	27.0	0.7	28.5	28.5	11.4	17.6	17.6
Cycle Q Clear(g_c), s	4.9	7.3	7.3	15.0	13.0	27.0	0.7	28.5	28.5	11.4	17.6	17.6
Prop In Lane	1.00		0.06	1.00		1.00	1.00		0.25	1.00		0.04
Lane Grp Cap(c), veh/h	278	287	298	458	480	620	22	520	524	461	739	772
V/C Ratio(X)	0.36	0.46	0.46	0.83	0.56	0.93	0.50	0.94	0.94	0.83	0.54	0.54
Avail Cap(c_a), veh/h	433	441	459	458	480	620	317	598	603	619	739	772
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.2	37.5	37.5	30.6	31.8	28.6	49.5	33.9	33.9	42.2	21.0	21.0
Incr Delay (d2), s/veh	0.3	0.4	0.4	11.3	1.4	21.3	6.3	19.7	19.6	7.0	0.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	2.9	3.1	3.2	5.7	16.3	0.3	14.1	14.2	5.1	6.8	7.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.5	37.9	37.9	41.9	33.3	49.9	55.8	53.6	53.5	49.3	21.4	21.4
LnGrp LOS	C	D	D	D	C	D	E	D	D	D	C	C
Approach Vol, veh/h		370			1226			988			1200	
Approach Delay, s/veh		36.2			43.8			53.5			30.3	
Approach LOS		D			D			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.1	37.3	21.0	23.5	6.3	50.1	11.5	33.0
Change Period (Y+Rc), s	5.0	6.0	6.0	6.0	5.0	6.0	5.0	6.0
Max Green Setting (Gmax), s	19.0	36.0	15.0	27.0	19.0	36.0	16.0	27.0
Max Q Clear Time (g_c+I1), s	13.4	30.5	17.0	9.3	2.7	19.6	6.9	29.0
Green Ext Time (p_c), s	0.7	0.8	0.0	0.8	0.0	0.9	0.1	0.0

Intersection Summary	
HCM 6th Ctrl Delay	41.3
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
2: Cedarhurst Avenue & Peninsula Boulevard

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	15	1215	32	99	1391	8	41	17	66	11	23	26
Future Volume (veh/h)	15	1215	32	99	1391	8	41	17	66	11	23	26
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1737	1737	1737	1796	1796	1796	1796	1796	1796	1722	1722	1722
Adj Flow Rate, veh/h	16	1321	35	108	1512	9	45	18	72	12	25	28
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	11	11	11	7	7	7	7	7	7	12	12	12
Cap, veh/h	259	1764	47	293	1868	11	188	46	121	139	103	97
Arrive On Green	0.54	0.54	0.54	0.54	0.54	0.54	0.14	0.14	0.14	0.14	0.14	0.14
Sat Flow, veh/h	364	3284	87	445	3478	21	423	327	856	173	735	687
Grp Volume(v), veh/h	16	663	693	108	742	779	135	0	0	65	0	0
Grp Sat Flow(s),veh/h/ln	364	1650	1721	445	1706	1793	1606	0	0	1596	0	0
Q Serve(g_s), s	1.4	11.6	11.6	8.4	13.3	13.3	1.5	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	14.7	11.6	11.6	20.0	13.3	13.3	2.9	0.0	0.0	1.4	0.0	0.0
Prop In Lane	1.00		0.05	1.00		0.01	0.33		0.53	0.18		0.43
Lane Grp Cap(c), veh/h	259	886	924	293	916	963	355	0	0	339	0	0
V/C Ratio(X)	0.06	0.75	0.75	0.37	0.81	0.81	0.38	0.00	0.00	0.19	0.00	0.00
Avail Cap(c_a), veh/h	856	3589	3744	1022	3711	3899	1281	0	0	1249	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	13.1	6.7	6.7	14.7	7.1	7.1	15.0	0.0	0.0	14.3	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.5	0.5	0.3	0.7	0.6	0.2	0.0	0.0	0.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	2.2	2.3	0.8	2.7	2.8	0.9	0.0	0.0	0.4	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	13.1	7.2	7.1	15.0	7.7	7.7	15.2	0.0	0.0	14.4	0.0	0.0
LnGrp LOS	B	A	A	B	A	A	B	A	A	B	A	A
Approach Vol, veh/h		1372			1629			135			65	
Approach Delay, s/veh		7.2			8.2			15.2			14.4	
Approach LOS		A			A			B			B	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	26.0	11.2	26.0	11.2
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	81.0	27.0	81.0	27.0
Max Q Clear Time (g_c+I1), s	13.6	3.4	15.3	4.9
Green Ext Time (p_c), s	0.3	0.1	0.4	0.2

Intersection Summary	
HCM 6th Ctrl Delay	8.2
HCM 6th LOS	A

HCM 6th Signalized Intersection Summary
3: Rockaway Turnpike & Burnside Avenue

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	489	346	17	175	365	110	19	453	6	103	496	702
Future Volume (veh/h)	489	346	17	175	365	110	19	453	6	103	496	702
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.91	1.00		0.98	1.00		0.97	0.99		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1781	1781	1781	1796	1796	1796	1841	1841	1841	1796	1796	1796
Adj Flow Rate, veh/h	296	659	18	182	380	115	20	472	6	107	517	731
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	8	8	8	7	7	7	4	4	4	7	7	7
Cap, veh/h	366	742	20	213	476	383	165	1195	15	404	781	644
Arrive On Green	0.22	0.22	0.22	0.20	0.20	0.20	0.34	0.34	0.34	0.06	0.43	0.43
Sat Flow, veh/h	1697	3441	94	1066	2383	1497	507	3535	45	1711	1796	1481
Grp Volume(v), veh/h	296	341	336	298	264	115	20	233	245	107	517	731
Grp Sat Flow(s),veh/h/ln	1697	1781	1754	1743	1706	1497	507	1749	1831	1711	1796	1481
Q Serve(g_s), s	19.9	22.3	22.3	19.8	17.6	7.4	3.9	12.2	12.3	4.7	27.4	52.2
Cycle Q Clear(g_c), s	19.9	22.3	22.3	19.8	17.6	7.4	19.7	12.2	12.3	4.7	27.4	52.2
Prop In Lane	1.00		0.05	0.61		1.00	1.00		0.02	1.00		1.00
Lane Grp Cap(c), veh/h	366	384	378	348	341	383	165	591	619	404	781	644
V/C Ratio(X)	0.81	0.89	0.89	0.86	0.78	0.30	0.12	0.39	0.40	0.26	0.66	1.13
Avail Cap(c_a), veh/h	382	401	395	392	384	421	165	591	619	538	781	644
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.70	0.70	0.70
Uniform Delay (d), s/veh	44.7	45.7	45.7	46.4	45.5	36.1	39.3	30.3	30.4	23.2	26.9	33.9
Incr Delay (d2), s/veh	12.6	20.8	21.3	16.3	9.5	0.6	1.5	2.0	1.9	0.1	3.1	74.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.6	12.0	11.9	10.1	8.3	2.8	0.6	5.5	5.7	1.9	12.3	31.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.3	66.5	67.0	62.7	55.0	36.7	40.8	32.3	32.2	23.3	30.0	108.0
LnGrp LOS	E	E	E	E	E	D	D	C	C	C	C	F
Approach Vol, veh/h		973			677			498			1355	
Approach Delay, s/veh		63.9			55.3			32.6			71.6	
Approach LOS		E			E			C			E	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	11.6	46.6		31.9		58.2		30.0				
Change Period (Y+Rc), s	5.0	6.0		6.0		6.0		6.0				
Max Green Setting (Gmax), s	6.6	27.0		27.0		48.0		27.0				
Max Q Clear Time (g_c+I1), s	6.7	0.0		24.3		0.0		21.8				
Green Ext Time (p_c), s	0.1	0.0		1.4		0.0		1.8				

Intersection Summary	
HCM 6th Ctrl Delay	60.7
HCM 6th LOS	E

Notes

User approved volume balancing among the lanes for turning movement.

Intersection	
Int Delay, s/veh	2.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	29	97	424	36	90	477
Future Vol, veh/h	29	97	424	36	90	477
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	5	5	5	5	8	8
Mvmt Flow	32	108	471	40	100	530

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1221	491	0	0	511	0
Stage 1	491	-	-	-	-	-
Stage 2	730	-	-	-	-	-
Critical Hdwy	6.45	6.25	-	-	4.18	-
Critical Hdwy Stg 1	5.45	-	-	-	-	-
Critical Hdwy Stg 2	5.45	-	-	-	-	-
Follow-up Hdwy	3.545	3.345	-	-	2.272	-
Pot Cap-1 Maneuver	196	571	-	-	1024	-
Stage 1	609	-	-	-	-	-
Stage 2	472	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	169	571	-	-	1024	-
Mov Cap-2 Maneuver	169	-	-	-	-	-
Stage 1	609	-	-	-	-	-
Stage 2	407	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	20.6	0	1.4
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	369	1024	-
HCM Lane V/C Ratio	-	-	0.379	0.098	-
HCM Control Delay (s)	-	-	20.6	8.9	0
HCM Lane LOS	-	-	C	A	A
HCM 95th %tile Q(veh)	-	-	1.7	0.3	-

Intersection	
Int Delay, s/veh	3.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	56	66	82	315	217	46
Future Vol, veh/h	56	66	82	315	217	46
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	3	3	3	3	5	5
Mvmt Flow	62	73	90	346	238	51

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	790	264	289	0	-	0
Stage 1	264	-	-	-	-	-
Stage 2	526	-	-	-	-	-
Critical Hdwy	6.43	6.23	4.13	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	2.227	-	-	-
Pot Cap-1 Maneuver	358	772	1267	-	-	-
Stage 1	778	-	-	-	-	-
Stage 2	591	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	326	772	1267	-	-	-
Mov Cap-2 Maneuver	326	-	-	-	-	-
Stage 1	710	-	-	-	-	-
Stage 2	591	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	15.6	1.7	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1267	-	474	-	-
HCM Lane V/C Ratio	0.071	-	0.283	-	-
HCM Control Delay (s)	8.1	0	15.6	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0.2	-	1.2	-	-

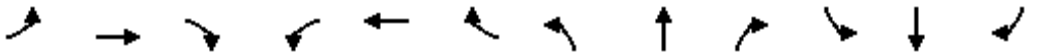
HCM 6th Signalized Intersection Summary
6: Central Avenue & Rockaway Turnpike

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	130	287	32	23	270	71	52	316	69	114	198	214
Future Volume (veh/h)	130	287	32	23	270	71	52	316	69	114	198	214
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.89	0.95		0.87	1.00		0.96	1.00		0.93
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1826	1826	1826	1811	1811	1811	1781	1781	1781
Adj Flow Rate, veh/h	135	299	33	24	281	74	54	329	72	119	206	223
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	4	4	4	5	5	5	6	6	6	8	8	8
Cap, veh/h	211	452	50	226	299	79	422	642	140	476	358	387
Arrive On Green	0.07	0.28	0.28	0.02	0.22	0.22	0.03	0.45	0.45	0.05	0.48	0.48
Sat Flow, veh/h	1753	1606	177	1739	1344	354	1725	1428	312	1697	753	815
Grp Volume(v), veh/h	135	0	332	24	0	355	54	0	401	119	0	429
Grp Sat Flow(s),veh/h/ln	1753	0	1783	1739	0	1698	1725	0	1740	1697	0	1568
Q Serve(g_s), s	6.9	0.0	19.7	1.3	0.0	24.6	2.0	0.0	19.8	4.5	0.0	23.7
Cycle Q Clear(g_c), s	6.9	0.0	19.7	1.3	0.0	24.6	2.0	0.0	19.8	4.5	0.0	23.7
Prop In Lane	1.00		0.10	1.00		0.21	1.00		0.18	1.00		0.52
Lane Grp Cap(c), veh/h	211	0	502	226	0	378	422	0	782	476	0	745
V/C Ratio(X)	0.64	0.00	0.66	0.11	0.00	0.94	0.13	0.00	0.51	0.25	0.00	0.58
Avail Cap(c_a), veh/h	257	0	565	374	0	538	545	0	782	554	0	745
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	33.9	0.0	38.1	36.0	0.0	45.8	18.8	0.0	23.6	17.7	0.0	22.8
Incr Delay (d2), s/veh	3.8	0.0	1.7	0.1	0.0	16.9	0.1	0.0	2.4	0.1	0.0	3.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	0.0	8.8	0.6	0.0	12.1	0.8	0.0	8.6	1.8	0.0	9.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.7	0.0	39.7	36.1	0.0	62.7	18.8	0.0	26.0	17.8	0.0	26.0
LnGrp LOS	D	A	D	D	A	E	B	A	C	B	A	C
Approach Vol, veh/h		467			379			455			548	
Approach Delay, s/veh		39.2			61.0			25.2			24.2	
Approach LOS		D			E			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.4	60.0	14.9	32.7	9.4	63.0	7.8	39.8
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	12.0	34.0	12.0	38.0	12.0	34.0	12.0	38.0
Max Q Clear Time (g_c+I1), s	6.5	21.8	8.9	26.6	4.0	25.7	3.3	21.7
Green Ext Time (p_c), s	0.1	1.8	0.1	0.1	0.0	1.6	0.0	0.1

Intersection Summary	
HCM 6th Ctrl Delay	35.8
HCM 6th LOS	D

HCM 6th Signalized Intersection Summary
1: Rockaway Turnpike & Peninsula Boulevard



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	89	294	22	368	263	383	26	702	167	383	813	16
Future Volume (veh/h)	89	294	22	368	263	383	26	702	167	383	813	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1796	1796	1796	1856	1856	1856	1841	1841	1841
Adj Flow Rate, veh/h	91	300	22	376	268	391	27	716	170	391	830	16
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	4	4	4	7	7	7	3	3	3	4	4	4
Cap, veh/h	242	494	36	353	404	546	44	1132	269	454	1787	34
Arrive On Green	0.06	0.15	0.15	0.13	0.22	0.22	0.05	0.80	0.80	0.13	0.51	0.51
Sat Flow, veh/h	1753	3305	241	1711	1796	1522	1767	2827	671	3401	3510	68
Grp Volume(v), veh/h	91	158	164	376	268	391	27	446	440	391	414	432
Grp Sat Flow(s),veh/h/ln	1753	1749	1797	1711	1796	1522	1767	1763	1735	1700	1749	1829
Q Serve(g_s), s	5.2	10.1	10.3	15.0	16.3	26.6	1.8	12.2	12.3	13.5	18.2	18.2
Cycle Q Clear(g_c), s	5.2	10.1	10.3	15.0	16.3	26.6	1.8	12.2	12.3	13.5	18.2	18.2
Prop In Lane	1.00		0.13	1.00		1.00	1.00		0.39	1.00		0.04
Lane Grp Cap(c), veh/h	242	261	268	353	404	546	44	706	695	454	891	931
V/C Ratio(X)	0.38	0.60	0.61	1.06	0.66	0.72	0.62	0.63	0.63	0.86	0.46	0.46
Avail Cap(c_a), veh/h	375	393	404	353	404	546	280	706	695	538	891	931
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.86	0.86	0.86	0.75	0.75	0.75	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.0	47.7	47.8	42.5	42.4	33.2	56.5	8.4	8.4	50.9	18.9	18.9
Incr Delay (d2), s/veh	0.4	0.8	0.8	62.6	3.5	3.9	3.9	3.2	3.3	11.8	1.7	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	4.4	4.6	9.7	7.5	10.2	0.8	3.4	3.4	6.5	7.7	8.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.4	48.6	48.6	105.1	45.8	37.1	60.4	11.6	11.7	62.7	20.7	20.6
LnGrp LOS	D	D	D	F	D	D	E	B	B	E	C	C
Approach Vol, veh/h		413			1035			913			1237	
Approach Delay, s/veh		46.8			64.1			13.1			33.9	
Approach LOS		D			E			B			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.0	54.1	21.0	23.9	8.0	67.1	11.9	33.0
Change Period (Y+Rc), s	5.0	6.0	6.0	6.0	5.0	6.0	5.0	6.0
Max Green Setting (Gmax), s	19.0	36.0	15.0	27.0	19.0	36.0	16.0	27.0
Max Q Clear Time (g_c+I1), s	15.5	14.3	17.0	12.3	3.8	20.2	7.2	28.6
Green Ext Time (p_c), s	0.5	1.0	0.0	1.0	0.0	0.9	0.1	0.0

Intersection Summary	
HCM 6th Ctrl Delay	38.8
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
2: Cedarhurst Avenue & Peninsula Boulevard

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	19	1141	8	91	1260	7	40	18	99	3	13	12
Future Volume (veh/h)	19	1141	8	91	1260	7	40	18	99	3	13	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1796	1796	1796	1811	1811	1811	1796	1796	1796
Adj Flow Rate, veh/h	19	1164	8	93	1286	7	41	18	101	3	13	12
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	4	4	4	7	7	7	6	6	6	7	7	7
Cap, veh/h	379	2791	19	423	2728	15	75	31	117	41	104	84
Arrive On Green	0.78	0.78	0.78	0.78	0.78	0.78	0.12	0.12	0.12	0.12	0.12	0.12
Sat Flow, veh/h	486	3561	24	535	3480	19	324	267	1012	64	899	722
Grp Volume(v), veh/h	19	572	600	93	630	663	160	0	0	28	0	0
Grp Sat Flow(s),veh/h/ln	486	1749	1836	535	1706	1793	1603	0	0	1686	0	0
Q Serve(g_s), s	1.7	12.6	12.6	8.1	15.2	15.2	8.9	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	16.9	12.6	12.6	20.7	15.2	15.2	11.8	0.0	0.0	1.8	0.0	0.0
Prop In Lane	1.00		0.01	1.00		0.01	0.26		0.63	0.11		0.43
Lane Grp Cap(c), veh/h	379	1371	1440	423	1338	1406	224	0	0	229	0	0
V/C Ratio(X)	0.05	0.42	0.42	0.22	0.47	0.47	0.72	0.00	0.00	0.12	0.00	0.00
Avail Cap(c_a), veh/h	379	1371	1440	423	1338	1406	398	0	0	407	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.65	0.65	0.65	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	7.3	4.2	4.2	7.5	4.4	4.4	52.1	0.0	0.0	47.7	0.0	0.0
Incr Delay (d2), s/veh	0.2	0.6	0.6	1.2	1.2	1.1	1.6	0.0	0.0	0.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	3.9	4.1	1.0	4.8	5.0	4.9	0.0	0.0	0.8	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	7.5	4.8	4.7	8.7	5.6	5.6	53.7	0.0	0.0	47.8	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	D	A	A	D	A	A
Approach Vol, veh/h		1191			1386			160			28	
Approach Delay, s/veh		4.8			5.8			53.7			47.8	
Approach LOS		A			A			D			D	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	100.1	19.9	100.1	19.9
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	81.0	27.0	81.0	27.0
Max Q Clear Time (g_c+I1), s	14.6	3.8	17.2	13.8
Green Ext Time (p_c), s	0.3	0.0	0.3	0.2

Intersection Summary	
HCM 6th Ctrl Delay	8.6
HCM 6th LOS	A

HCM 6th Signalized Intersection Summary
3: Rockaway Turnpike & Burnside Avenue

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	509	349	40	201	356	97	39	425	0	164	534	664
Future Volume (veh/h)	509	349	40	201	356	97	39	425	0	164	534	664
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.91	1.00		0.98	1.00		1.00	0.99		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1811	1811	1811	1885	1885	1885	1811	1811	1811
Adj Flow Rate, veh/h	318	683	43	214	379	103	41	452	0	174	568	706
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	3	3	3	6	6	6	1	1	1	6	6	6
Cap, veh/h	387	752	47	245	467	438	123	1075	0	422	771	635
Arrive On Green	0.22	0.22	0.22	0.21	0.21	0.21	0.30	0.30	0.00	0.03	0.14	0.14
Sat Flow, veh/h	1767	3432	216	1196	2276	1510	506	3676	0	1725	1811	1493
Grp Volume(v), veh/h	318	369	357	313	280	103	41	452	0	174	568	706
Grp Sat Flow(s),veh/h/ln	1767	1856	1792	1751	1721	1510	506	1791	0	1725	1811	1493
Q Serve(g_s), s	20.6	23.3	23.3	20.8	18.5	6.2	9.3	12.1	0.0	8.0	36.1	51.1
Cycle Q Clear(g_c), s	20.6	23.3	23.3	20.8	18.5	6.2	30.3	12.1	0.0	8.0	36.1	51.1
Prop In Lane	1.00		0.12	0.68		1.00	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	387	407	393	359	353	438	123	1075	0	422	771	635
V/C Ratio(X)	0.82	0.91	0.91	0.87	0.79	0.23	0.33	0.42	0.00	0.41	0.74	1.11
Avail Cap(c_a), veh/h	398	417	403	394	387	469	123	1075	0	507	771	635
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.69	0.69	0.69
Uniform Delay (d), s/veh	44.6	45.7	45.7	46.2	45.3	32.6	50.0	33.6	0.0	26.5	45.1	51.6
Incr Delay (d2), s/veh	13.2	23.3	24.2	18.6	10.7	0.4	7.1	1.2	0.0	0.2	4.3	65.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.4	13.3	13.0	10.9	8.9	2.3	1.4	5.5	0.0	3.5	18.5	32.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.8	68.9	69.9	64.8	56.0	32.9	57.1	34.8	0.0	26.6	49.5	116.5
LnGrp LOS	E	E	E	E	E	C	E	C	A	C	D	F
Approach Vol, veh/h		1044			696			493			1448	
Approach Delay, s/veh		65.9			56.6			36.7			79.4	
Approach LOS		E			E			D			E	

Timer - Assigned Phs	1	2	4	6	8
Phs Duration (G+Y+Rc), s	15.1	42.0	32.3	57.1	30.6
Change Period (Y+Rc), s	5.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	10.0	27.0	27.0	48.0	27.0
Max Q Clear Time (g_c+I1), s	10.1	0.0	25.3	0.0	22.8
Green Ext Time (p_c), s	0.1	0.0	1.0	0.0	1.5

Intersection Summary	
HCM 6th Ctrl Delay	65.5
HCM 6th LOS	E

Notes

User approved volume balancing among the lanes for turning movement.

Intersection	
Int Delay, s/veh	3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	36	116	458	27	65	564
Future Vol, veh/h	36	116	458	27	65	564
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	1	1	2	2	2	2
Mvmt Flow	38	121	477	28	68	588

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1215	491	0	0	505	0
Stage 1	491	-	-	-	-	-
Stage 2	724	-	-	-	-	-
Critical Hdwy	6.41	6.21	-	-	4.12	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.309	-	-	2.218	-
Pot Cap-1 Maneuver	201	580	-	-	1060	-
Stage 1	617	-	-	-	-	-
Stage 2	482	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	182	580	-	-	1060	-
Mov Cap-2 Maneuver	182	-	-	-	-	-
Stage 1	617	-	-	-	-	-
Stage 2	436	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	20.9	0	0.9
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	382	1060	-
HCM Lane V/C Ratio	-	-	0.414	0.064	-
HCM Control Delay (s)	-	-	20.9	8.6	0
HCM Lane LOS	-	-	C	A	A
HCM 95th %tile Q(veh)	-	-	2	0.2	-

Intersection	
Int Delay, s/veh	3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	42	62	103	336	194	38
Future Vol, veh/h	42	62	103	336	194	38
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	3	3	3	3
Mvmt Flow	46	67	112	365	211	41

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	821	232	252	0	-	0
Stage 1	232	-	-	-	-	-
Stage 2	589	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.13	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.227	-	-	-
Pot Cap-1 Maneuver	347	812	1307	-	-	-
Stage 1	811	-	-	-	-	-
Stage 2	558	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	310	812	1307	-	-	-
Mov Cap-2 Maneuver	310	-	-	-	-	-
Stage 1	723	-	-	-	-	-
Stage 2	558	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	14.5	1.9	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1307	-	491	-	-
HCM Lane V/C Ratio	0.086	-	0.23	-	-
HCM Control Delay (s)	8	0	14.5	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.3	-	0.9	-	-

HCM 6th Signalized Intersection Summary
6: Central Avenue & Rockaway Turnpike

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	145	261	33	36	283	101	48	281	45	91	257	201
Future Volume (veh/h)	145	261	33	36	283	101	48	281	45	91	257	201
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.90	0.95		0.88	1.00		0.96	1.00		0.93
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1870	1870	1870	1856	1856	1856	1841	1841	1841
Adj Flow Rate, veh/h	148	266	34	37	289	103	49	287	46	93	262	205
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	3	3	3	2	2	2	3	3	3	4	4	4
Cap, veh/h	218	471	60	296	306	109	372	676	108	524	420	329
Arrive On Green	0.08	0.30	0.30	0.02	0.24	0.24	0.03	0.44	0.44	0.04	0.45	0.45
Sat Flow, veh/h	1767	1588	203	1781	1265	451	1767	1550	248	1753	925	723
Grp Volume(v), veh/h	148	0	300	37	0	392	49	0	333	93	0	467
Grp Sat Flow(s),veh/h/ln	1767	0	1791	1781	0	1715	1767	0	1799	1753	0	1648
Q Serve(g_s), s	7.3	0.0	17.0	1.9	0.0	26.9	1.8	0.0	15.4	3.5	0.0	25.9
Cycle Q Clear(g_c), s	7.3	0.0	17.0	1.9	0.0	26.9	1.8	0.0	15.4	3.5	0.0	25.9
Prop In Lane	1.00		0.11	1.00		0.26	1.00		0.14	1.00		0.44
Lane Grp Cap(c), veh/h	218	0	531	296	0	415	372	0	785	524	0	749
V/C Ratio(X)	0.68	0.00	0.56	0.13	0.00	0.94	0.13	0.00	0.42	0.18	0.00	0.62
Avail Cap(c_a), veh/h	257	0	567	433	0	543	503	0	785	622	0	749
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	32.7	0.0	35.7	33.6	0.0	44.7	20.3	0.0	23.4	18.2	0.0	24.9
Incr Delay (d2), s/veh	5.6	0.0	0.6	0.1	0.0	20.0	0.1	0.0	1.7	0.1	0.0	3.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	0.0	7.5	0.8	0.0	13.7	0.8	0.0	6.9	1.4	0.0	10.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.3	0.0	36.2	33.7	0.0	64.7	20.4	0.0	25.1	18.2	0.0	28.8
LnGrp LOS	D	A	D	C	A	E	C	A	C	B	A	C
Approach Vol, veh/h		448			429			382			560	
Approach Delay, s/veh		36.9			62.1			24.5			27.0	
Approach LOS		D			E			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.3	58.4	15.3	35.0	9.1	60.5	8.8	41.6
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	12.0	34.0	12.0	38.0	12.0	34.0	12.0	38.0
Max Q Clear Time (g_c+I1), s	5.5	17.4	9.3	28.9	3.8	27.9	3.9	19.0
Green Ext Time (p_c), s	0.1	1.6	0.1	0.1	0.0	1.5	0.0	0.1

Intersection Summary	
HCM 6th Ctrl Delay	37.2
HCM 6th LOS	D

HCM 6th Signalized Intersection Summary
1: Rockaway Turnpike & Peninsula Boulevard

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	218	346	28	304	357	334	18	737	165	283	619	28
Future Volume (veh/h)	218	346	28	304	357	334	18	737	165	283	619	28
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1885	1885	1885	1870	1870	1870	1885	1885	1885
Adj Flow Rate, veh/h	222	353	29	310	364	341	18	752	168	289	632	29
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	1	1	1	2	2	2	1	1	1
Cap, veh/h	286	653	53	408	404	507	33	1109	248	358	1633	75
Arrive On Green	0.12	0.20	0.20	0.04	0.07	0.07	0.01	0.13	0.13	0.10	0.47	0.47
Sat Flow, veh/h	1781	3326	272	1795	1885	1598	1781	2886	645	3483	3487	160
Grp Volume(v), veh/h	222	188	194	310	364	341	18	463	457	289	324	337
Grp Sat Flow(s),veh/h/ln	1781	1777	1821	1795	1885	1598	1781	1777	1754	1742	1791	1856
Q Serve(g_s), s	11.8	11.4	11.5	15.0	23.0	22.3	1.2	29.9	29.9	9.7	14.1	14.1
Cycle Q Clear(g_c), s	11.8	11.4	11.5	15.0	23.0	22.3	1.2	29.9	29.9	9.7	14.1	14.1
Prop In Lane	1.00		0.15	1.00		1.00	1.00		0.37	1.00		0.09
Lane Grp Cap(c), veh/h	286	349	358	408	404	507	33	683	674	358	838	869
V/C Ratio(X)	0.78	0.54	0.54	0.76	0.90	0.67	0.54	0.68	0.68	0.81	0.39	0.39
Avail Cap(c_a), veh/h	318	400	410	408	424	524	282	683	674	551	838	869
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.89	0.89	0.89	0.85	0.85	0.85	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.7	43.3	43.4	38.2	54.5	42.1	59.1	45.3	45.3	52.7	20.7	20.7
Incr Delay (d2), s/veh	9.0	0.5	0.5	6.5	19.4	2.9	4.2	4.6	4.6	5.1	1.3	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.7	5.0	5.2	1.7	13.8	9.9	0.6	15.1	14.9	4.5	6.2	6.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.7	43.8	43.9	44.7	73.9	45.0	63.3	49.9	49.9	57.7	22.1	22.0
LnGrp LOS	D	D	D	D	E	D	E	D	D	E	C	C
Approach Vol, veh/h		604			1015			938			950	
Approach Delay, s/veh		43.8			55.3			50.2			32.9	
Approach LOS		D			E			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.3	52.1	21.0	29.6	7.3	62.2	18.8	31.7
Change Period (Y+Rc), s	5.0	6.0	6.0	6.0	5.0	6.0	5.0	6.0
Max Green Setting (Gmax), s	19.0	36.0	15.0	27.0	19.0	36.0	16.0	27.0
Max Q Clear Time (g_c+I1), s	11.7	31.9	17.0	13.5	3.2	16.1	13.8	25.0
Green Ext Time (p_c), s	0.6	0.6	0.0	1.1	0.0	0.7	0.1	0.7

Intersection Summary	
HCM 6th Ctrl Delay	45.9
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
2: Cedarhurst Avenue & Peninsula Boulevard

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	1050	18	100	1197	6	29	17	73	5	16	13
Future Volume (veh/h)	20	1050	18	100	1197	6	29	17	73	5	16	13
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1885	1885	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	21	1105	19	105	1260	6	31	18	77	5	17	14
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	1	1	1	1	1	1	0	0	0	0	0	0
Cap, veh/h	422	2915	50	487	2958	14	66	31	94	44	90	63
Arrive On Green	0.81	0.81	0.81	0.81	0.81	0.81	0.09	0.09	0.09	0.09	0.09	0.09
Sat Flow, veh/h	511	3603	62	589	3656	17	317	339	1031	108	989	698
Grp Volume(v), veh/h	21	549	575	105	617	649	126	0	0	36	0	0
Grp Sat Flow(s),veh/h/ln	511	1791	1874	589	1791	1882	1687	0	0	1795	0	0
Q Serve(g_s), s	1.5	10.1	10.1	7.2	12.0	12.0	6.3	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	13.5	10.1	10.1	17.3	12.0	12.0	8.8	0.0	0.0	2.3	0.0	0.0
Prop In Lane	1.00		0.03	1.00		0.01	0.25		0.61	0.14		0.39
Lane Grp Cap(c), veh/h	422	1449	1516	487	1449	1523	191	0	0	197	0	0
V/C Ratio(X)	0.05	0.38	0.38	0.22	0.43	0.43	0.66	0.00	0.00	0.18	0.00	0.00
Avail Cap(c_a), veh/h	422	1449	1516	487	1449	1523	416	0	0	431	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.79	0.79	0.79	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	5.3	3.2	3.2	5.5	3.3	3.3	53.6	0.0	0.0	50.6	0.0	0.0
Incr Delay (d2), s/veh	0.2	0.6	0.6	1.0	0.9	0.9	1.5	0.0	0.0	0.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	3.0	3.1	0.9	3.7	3.8	3.8	0.0	0.0	1.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	5.5	3.7	3.7	6.5	4.3	4.2	55.0	0.0	0.0	50.8	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	E	A	A	D	A	A
Approach Vol, veh/h		1145			1371			126			36	
Approach Delay, s/veh		3.8			4.4			55.0			50.8	
Approach LOS		A			A			E			D	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	103.1	16.9	103.1	16.9
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	81.0	27.0	81.0	27.0
Max Q Clear Time (g_c+I1), s	12.1	4.3	14.0	10.8
Green Ext Time (p_c), s	0.3	0.0	0.3	0.2

Intersection Summary	
HCM 6th Ctrl Delay	7.1
HCM 6th LOS	A

HCM 6th Signalized Intersection Summary
3: Rockaway Turnpike & Burnside Avenue

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	416	280	31	152	297	167	34	427	4	150	444	481
Future Volume (veh/h)	416	280	31	152	297	167	34	427	4	150	444	481
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.90	1.00		0.98	0.99		0.97	0.99		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1885	1885	1885	1885	1885	1885	1870	1870	1870
Adj Flow Rate, veh/h	252	545	32	158	309	174	35	445	4	156	462	501
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	1	1	1	1	1	1	2	2	2
Cap, veh/h	359	701	41	204	429	386	247	1315	12	493	885	732
Arrive On Green	0.20	0.20	0.20	0.17	0.17	0.17	0.36	0.36	0.36	0.05	0.32	0.32
Sat Flow, veh/h	1781	3475	203	1167	2450	1567	688	3636	33	1781	1870	1546
Grp Volume(v), veh/h	252	293	284	247	220	174	35	219	230	156	462	501
Grp Sat Flow(s),veh/h/ln	1781	1870	1808	1827	1791	1567	688	1791	1878	1781	1870	1546
Q Serve(g_s), s	15.8	17.8	17.9	15.5	13.8	11.3	4.7	10.7	10.7	6.3	24.3	33.9
Cycle Q Clear(g_c), s	15.8	17.8	17.9	15.5	13.8	11.3	15.5	10.7	10.7	6.3	24.3	33.9
Prop In Lane	1.00		0.11	0.64		1.00	1.00		0.02	1.00		1.00
Lane Grp Cap(c), veh/h	359	377	365	320	313	386	247	648	679	493	885	732
V/C Ratio(X)	0.70	0.78	0.78	0.77	0.70	0.45	0.14	0.34	0.34	0.32	0.52	0.68
Avail Cap(c_a), veh/h	401	421	407	411	403	465	247	648	679	606	885	732
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.67	0.67	0.67
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.83	0.83	0.83
Uniform Delay (d), s/veh	44.5	45.3	45.4	47.2	46.6	38.5	33.6	27.9	27.9	21.3	29.9	33.2
Incr Delay (d2), s/veh	5.5	8.8	9.3	8.0	4.8	1.2	1.2	1.4	1.4	0.1	1.8	4.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.5	9.1	8.9	7.7	6.6	4.5	0.9	4.8	5.1	2.7	12.0	14.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.0	54.1	54.7	55.2	51.4	39.6	34.8	29.3	29.2	21.4	31.7	37.5
LnGrp LOS	D	D	D	E	D	D	C	C	C	C	C	D
Approach Vol, veh/h		829			641			484			1119	
Approach Delay, s/veh		53.1			49.7			29.6			32.8	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	13.4	49.4		30.2		62.8		27.0				
Change Period (Y+Rc), s	5.0	6.0		6.0		6.0		6.0				
Max Green Setting (Gmax), s	16.0	27.0		27.0		48.0		27.0				
Max Q Clear Time (g_c+I1), s	8.3	0.0		19.9		0.0		17.5				
Green Ext Time (p_c), s	0.1	0.0		2.6		0.0		2.5				

Intersection Summary	
HCM 6th Ctrl Delay	41.3
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

Intersection	
Int Delay, s/veh	3.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	53	78	493	19	57	592
Future Vol, veh/h	53	78	493	19	57	592
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	2	2	0	0	0	0
Mvmt Flow	58	86	542	21	63	651

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1330	553	0	0	563	0
Stage 1	553	-	-	-	-	-
Stage 2	777	-	-	-	-	-
Critical Hdwy	6	6	-	-	4.1	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.2	-
Pot Cap-1 Maneuver	199	551	-	-	1019	-
Stage 1	576	-	-	-	-	-
Stage 2	453	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	180	551	-	-	1019	-
Mov Cap-2 Maneuver	180	-	-	-	-	-
Stage 1	576	-	-	-	-	-
Stage 2	409	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	27.6	0	0.8
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	300	1019	-
HCM Lane V/C Ratio	-	-	0.48	0.061	-
HCM Control Delay (s)	-	-	27.6	8.8	0
HCM Lane LOS	-	-	D	A	A
HCM 95th %tile Q(veh)	-	-	2.5	0.2	-

Intersection	
Int Delay, s/veh	2.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	33	44	96	303	200	38
Future Vol, veh/h	33	44	96	303	200	38
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	81	81	81	81	81	81
Heavy Vehicles, %	0	0	1	1	0	0
Mvmt Flow	41	54	119	374	247	47

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	883	271	294	0	-	0
Stage 1	271	-	-	-	-	-
Stage 2	612	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.11	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.209	-	-	-
Pot Cap-1 Maneuver	319	773	1273	-	-	-
Stage 1	779	-	-	-	-	-
Stage 2	545	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	281	773	1273	-	-	-
Mov Cap-2 Maneuver	281	-	-	-	-	-
Stage 1	687	-	-	-	-	-
Stage 2	545	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	15.4	2	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1273	-	442	-	-
HCM Lane V/C Ratio	0.093	-	0.215	-	-
HCM Control Delay (s)	8.1	0	15.4	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0.3	-	0.8	-	-

HCM 6th Signalized Intersection Summary
6: Central Avenue & Rockaway Turnpike

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	119	248	30	27	227	133	32	268	64	147	246	193
Future Volume (veh/h)	119	248	30	27	227	133	32	268	64	147	246	193
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.89	0.95		0.88	1.00		0.96	1.00		0.93
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	124	258	31	28	236	139	33	279	67	153	256	201
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	1	1	1	1	1	1	1	1	1	1	1	1
Cap, veh/h	201	468	56	286	250	147	418	628	151	551	443	348
Arrive On Green	0.07	0.29	0.29	0.02	0.24	0.24	0.03	0.43	0.43	0.06	0.47	0.47
Sat Flow, veh/h	1795	1627	195	1795	1051	619	1795	1455	349	1795	946	743
Grp Volume(v), veh/h	124	0	289	28	0	375	33	0	346	153	0	457
Grp Sat Flow(s),veh/h/ln	1795	0	1822	1795	0	1670	1795	0	1805	1795	0	1689
Q Serve(g_s), s	6.0	0.0	16.1	1.4	0.0	26.5	1.2	0.0	16.2	5.6	0.0	23.7
Cycle Q Clear(g_c), s	6.0	0.0	16.1	1.4	0.0	26.5	1.2	0.0	16.2	5.6	0.0	23.7
Prop In Lane	1.00		0.11	1.00		0.37	1.00		0.19	1.00		0.44
Lane Grp Cap(c), veh/h	201	0	524	286	0	397	418	0	779	551	0	791
V/C Ratio(X)	0.62	0.00	0.55	0.10	0.00	0.94	0.08	0.00	0.44	0.28	0.00	0.58
Avail Cap(c_a), veh/h	261	0	577	435	0	529	549	0	779	616	0	791
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	33.4	0.0	36.2	34.2	0.0	44.9	19.5	0.0	24.0	17.8	0.0	23.3
Incr Delay (d2), s/veh	3.0	0.0	0.3	0.1	0.0	19.8	0.0	0.0	1.8	0.1	0.0	3.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	0.0	7.2	0.6	0.0	13.1	0.5	0.0	7.3	2.3	0.0	10.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.5	0.0	36.6	34.3	0.0	64.7	19.5	0.0	25.8	17.9	0.0	26.3
LnGrp LOS	D	A	D	C	A	E	B	A	C	B	A	C
Approach Vol, veh/h		413			403			379			610	
Approach Delay, s/veh		36.5			62.6			25.3			24.2	
Approach LOS		D			E			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.6	57.8	14.0	34.6	9.2	62.2	8.1	40.5
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	12.0	34.0	12.0	38.0	12.0	34.0	12.0	38.0
Max Q Clear Time (g_c+I1), s	7.6	18.2	8.0	28.5	3.2	25.7	3.4	18.1
Green Ext Time (p_c), s	0.1	1.7	0.1	0.1	0.0	1.7	0.0	0.1

Intersection Summary	
HCM 6th Ctrl Delay	35.8
HCM 6th LOS	D

Appendix C

Pearsall Avenue Development Fiscal Impact Analysis

Memorandum

To: **Thomas Liebermann, The SLCE Group**

From: **Todd J. Poole, 4ward Planning Inc.**

Date: **November 5, 2019**

Re: **Pearsall Avenue Development Fiscal Impact Analysis**

Findings

Following is a summary of the findings from the fiscal impact and proximity effect analysis.

1. Fiscal Impact Analysis

Based on the current (2019) Cedarhurst tax rate ($6.83 per $100 of valuation) and equalization rate (2.77 percent), as well as the projected apartment lease rates and condominium prices furnished by Pearsall Rock, LLC, the net fiscal impact to the village of Cedarhurst in the first stabilized year (for analysis purposes, the first stabilized year is 2019 and is further explained in the methodology section of this memo) is as follows:

Fiscal Impact Analysis Findings

	Mixed-use 34 multi-family apartment unit development	78 condominium unit development
Estimated annual real property tax revenue in first stabilized year	$28,605	$63,054
Estimated annual service cost in the first stabilized year	$6,604	$20,691
Estimated net impact to Cedarhurst:	$22,001	$42,363

2. Proximity Effect Analysis

Local opposition to the development of new multi-family housing, particularly in areas adjacent to existing single-family properties, is often based on fears of property devaluation. Our review of third-party research consistently found that, generally, new, well-designed, market-rate multi-family development has a neutral to slightly positive real estate "proximity effect on neighboring single-family property values. A 2001 report published by the National Association of Home Builders, found that single-family homes located within a half block (approximately 300 feet) of multi-family developments had an average annual value premium across of approximately 0.3 percent.

According to Zillow, as of November 2019, single family homes currently for sale or recently sold within a 300-foot radius of the project site have asking sale prices ranging from approximate $400,000 to $1.2 million. Assuming a project scenario were no multifamily housing is built, the

estimated annual percentage increase in home value over a ten-year period is between 3.9 and 6.7 percent per year (reflective recent single family home value appreciation trends in Cedarhurst). Assuming a project scenario were multifamily housing is built, by comparison, the estimated range of annual percentage increase in home value over a ten-year period is between 4.2 and 7.0 percent per year (0.3 points per year above historic trends in Cedarhurst). As illustrated below, the potential 10-year real estate premium (the difference in home value appreciation between the no build and the build scenarios) for single family home located within 300 feet of the proposed mid-rise multi-family project would average $19,470 for a hypothetical $400,000 single family home to $58,410 for a hypothetical $1.2 million single family home.

10-year Real Estate Premium on a Hypothetical Single Family Home

	Hypothetical Home Value				
Premium Scenario	$400,000	$600,000	$800,000	$1,000,000	$1,200,000
Low (4.2% increase)	$17,150	$25,730	$31,680	$42,890	$51,460
High (7.0% increase)	$21,790	$32,680	$37,840	$54,460	$65,360
Average	$19,470	$29,205	$34,760	$48,675	$58,410

Background

Pearsall Rock, LLC is the project sponsor for a proposed multi-family development project to be located on Pearsall Avenue in the incorporated village of Cedarhurst, New York. Upon completion, the development will contain 78 two- and three-bedroom condominium units and 34 apartments, comprised of studio, one-, two- and three-bedroom units (bedroom counts for both the condominium and apartment units are exhibited in build-out tables located on pages 10 and 12 of this memo.

In addition to the residential units, the project will contain 3,426 square feet of convenience retail and approximately 2,400 square foot café space.

The project sponsor retained 4ward Planning, a land-use economics consulting practice, to perform a fiscal impact analysis (FIA) on the project as it would exist during its first stabilized year (e.g., after long-term occupancy has been reached, which, for purposes of this analysis, is 95 percent occupancy). 4ward Planning also conduct third-party research on the value impact (negative, positive, or neutral) that new multi-family housing has on existing nearby residential properties (also known as a value decay effect). 4ward Planning then modeled the likely value influence of the TOD project on nearby real estate values as part of the proximity effect analysis.

4ward Planning also performed a proximity effect analysis, identifying the likely incremental value to nearby commercial and residential real estate (within 300 feet of the proposed development), as the proximity effect dramatically decreases as the radius increases (also known as a value decay effect). Based on third party research for similar projects and identified increases in real property values, 4ward Planning then utilized a benefit transfer analysis to model the likely value influence of the TOD project on nearby real estate values.

Methodology

Following is the methodology employed for conducting both the fiscal impact and proximity effect analysis.

1. Fiscal Impact Analysis

A fiscal impact analysis (FIA) allows for the projection of the direct, current, public costs and revenues associated with residential and/or non-residential growth within a political jurisdiction (most often, a municipality), in which new investment is to take place.

4ward Planning performed a fiscal impact analysis (FIA) of the proposed development program, to be located on Pearsall Avenue in the incorporated village of Cedarhurst, New York. This FIA compares estimated annual local revenues and expenditures associated with the proposed multi-family, mixed-use residential project. At full build-out, the proposed development will contain 112 multi-family residential units (78 condominium units and 34 apartment rental units), 5,782 s.f. of convenience retail and café service.

The Preview Fiscal Impact Model (developed by the Center for Urban Policy Research of Rutgers University and widely used, nationally), forms the basis of the FIA algorithm, incorporating current revenue and expenditure figures pertaining to the village of Cedarhurst.

Given that the village does not maintain its own school district, combined with the assumption that the majority of the households likely to occupy the residential units will educate their children within local area private and/or parochial schools, this FIA does not examine public school impacts (e.g., service cost increases related to school-age children).

Further, the village of Cedarhurst provides a relatively limited amount of local government services, as compared against larger municipalities in the region (for example, Cedarhurst does not maintain its own police or fire departments, and has a small scale public works department) and, thus, the prospective local government impacts will, accordingly, also be relatively limited.

4ward Planning analyzed inputs to calculate the various service costs associated with the proposed new development, as well as revenues relating to annual local real property taxes, allowing for an examination of their relationship to existing land-use and population factors. The impact model was then used to evaluate the fiscal impacts associated with the proposed development (e.g., the extent to which service and capital costs are either lower than, equal to, or greater than the development's projected revenues and fees.

FIA Methods

There are a number of methods government analysts and private consultants may use to perform a FIA. However, the most prevalent is the Per Capita Method. Below, a summary of what the Per Capita method entails, in terms of an approach:

Per Capita Method – Quite simply, this FIA approach determines public service costs on an average unit basis – per pupil for the school district and per capita and per employee for the Village. It is, generally, a straightforward division of known annual service costs divided by either total students, residents or workers. This method is the most widely used FIA approach due to both its simplicity and its low cost to perform. The recommended multipliers for population and enrollment changes can be derived using US Census data.

The Per Capita Multiplier Method

Based on the Per Capita Multiplier Method for estimating fiscal impact analysis, *"the residential share of all residential and nonresidential service costs is estimated by dividing the residential property value and number of parcels by all nonresidential property values and the number of parcels, respectively. The calculation produces the residential percent of the residential/nonresidential parcels and the residential percent of the residential/nonresidential property value. The results are averaged, and the combined value is then applied to the total local municipal costs to derive the estimated residential-associated share."*[1]

Unfortunately, 4ward Planning was unable to locate Cedarhurst data pertaining to the number and classification of land-use parcels or their associated assessment values and, instead, defaulted to using an estimated residential-associated share of 95 percent, based on an observation of how little commercial and industrial land-uses are present within the Village.

Deriving Market Value

Based Generally, a New York State appraiser (or property tax assessor) must assess a newly constructed multi-family buildings (whether rental or condominiums), for real property tax purposes, using the income approach to valuation, as further described below:

- Income Approach to Valuation – The tax assessor identifies a capitalized value for the stabilized development (typically, after the building is 95 percent occupied) by either imputing a monthly rent for all of the units (what the units would command in rent if a condominium building) or using the developer's projected rent, estimating annual net operating income (NOI) and dividing this value by market based capitalization rate (CAP rate).

The definitional terms used in the income approach to valuation are described below:

- Capitalized Value – Capitalized value, in the context of this study, represents the market value of the subject residential building. That is, in order to derive an assessed value for property tax purposes, the subject property's market value is determined by dividing the property's estimated net operating income (see NOI definition) by a capitalization rate (see definition). While a capitalized value may not be the exact amount a property would fetch on the open market, it is considered a reasonably close value approximation of an arms-length market transaction.

[1] Development Impact Assessment Handbook, Urban Land Institute, 1994

- Cap Rate – The capitalization (cap) rate represents an average ratio of a property's net annual operating income (NOI) to the average sales price of comparable properties (in this case, luxury multi-family rental) within the market area. It is an approximation of what the market return rate should be for an investor, given the project's risk profile.

- Stabilization – That first year when the property's vacancy rate has stabilized (reached the long-term vacancy rate).

Net Operating Income – Includes all associated property maintenance expenses, insurance, management fees, marketing expenses, utilities and real estate taxes. It excludes debt service expenses

Population Multipliers

Population multipliers are applied to prospective new housing units to estimate the number of new residents, all of whom will affect service costs within the village. New York-based residential multipliers are sourced from Rutgers University Center for Urban Policy Research (CUPR), which developed such population multipliers for New York, as well as other states, on behalf of the U.S. Census Bureau.

The tables on the following page display the residential multipliers employed for this analysis (separate population multiplier sets are associated with multi-family rental units and multi-family condo units).

As has been indicated, this analysis is not concerned with the number of public school-age children and, therefore, the multipliers associated with public school-age children are not incorporated in the FIA model.

Residential Multipliers						Rental Scheme
Unit Type	Total Persons	Total PSAC	K-6	7-9	10-12	9th Only
Multi-Family Rental						
Studio	1.20	0.00	0.00	0.00	0.00	0.00
1 br	1.67	0.07	0.04	0.01	0.01	0.01
2 br	2.31	0.16	0.1	0.04	0.03	0.01
3 br	3.81	0.63	0.34	0.12	0.17	0.06

Source: Rutgers University, Center for Urban Policy Research, June 2006

Residential Multipliers						Condo Scheme
Unit Type	Total Persons	Total PSAC	K-6	7-9	10-12	9th Only
Multi-Family Rental						
Studio	1.20	0.00	0.00	0.00	0.00	0.00
1 br	1.77	0.10	0.07	0.00	0.04	0.00
2 br	1.88	0.05	0.03	0.02	0.00	0.00
3 br	3.00	0.49	0.17	0.14	0.19	0.06

Source: Rutgers University, Center for Urban Policy Research, June 2006

Adjusting Municipal and School District Budgets

The most widely used technique for performing fiscal impact analyses (the per capita approach) has, with few exceptions, included all line item expenditures within municipal and school district annual budgets. Ostensibly, this approach makes sense, as, if the objective is to derive a per capita budget expenditure cost, the sum total of all expenditure line items should be included when dividing by the current jurisdiction's population or households. However, this approach grossly overestimates the likely per capita/per household cost due to the inclusion of salaries, wages and fringe benefit costs of municipal and school district personnel, as well as the inclusion of capital outlays, fund transfers and debt service payments by municipal government and school districts.

The underlying theory of the per capita approach is that a pro rata share of goods and services are exhausted (worn out) by each resident's (or household's) consumption of said goods, services, and natural resources over some period of time (whether a month, a year or five years). For, example, a municipality has a certain number of housing units, each of which will receive notices over the course of the year from the municipality (e.g., tax notices, water and/or sewer bill notices, health department notices, etc.). These notices are mailed and, thus, consume paper, ink and postage, in addition to the labor involved in processing said notices. Separating out labor cost, for the moment, there is a known total cost for producing these notices and, via a simple calculation, the cost per household (recognizing that regardless of the number of household members, there is, with few exceptions, only one notice sent per household). Consequently, should additional households form within that municipality, the increase in total costs associated with sending public notices should, ostensibly, be known in advance, as the additional cost is simply a function of the per household cost multiplied by the number of new households.

While a case is easily made for the consumption of municipal supplies and materials associated with residents and households, the consumption or wearing out of personnel cannot be calculated in a similar manner. Specifically, the addition of residents and households to a municipality doesn't diminish the physical capacities of the town clerk, public works director or health department director, or their staffs; as while they may have to spend a marginal amount of additional time in providing service to additional residents, each of these workers will continue to work an eight hour shift and earn the same wage or salary, regardless of whether the municipality experienced an increase in 100 households or a decrease 100 households (this is an economies of scale effect).

However, while municipal personnel are not "consumed" in the same way as office supplies, there comes a point at which additional residents necessitates more capacity than can be provided by existing personnel (most municipal employees are full-time salaried personnel and, thus, for all intents and purposes, their service delivery per day, week, month and year remains relatively fixed, regardless of the change in population). It is in these situations that additional personnel are, generally, hired and an attendant increase in personnel cost incurred by the municipality.

For example, while 100 new households may form within a municipality (and an assumed 250 new residents in total), it is highly unlikely that new professional and administrative staff (e.g., clerk, tax collector, health department personnel, engineering staff, business administrator, etc.) would need to be increased, given the economies of scale for delivering service (principally, made possible by computer technology and modern administrative methods). Sending an additional 100 public notices or processing an additional 100 tax payments is relatively simple in the age of computers.

The excluding personnel salaries and benefits, capital outlays, fund transfers, contractual expenditures, debt service payments, and certain other non-personnel related costs from budget expenditures, in advance of performing a fiscal impact analysis is only logical, as these expenditures, while real, are not influenced by the increase or decrease in the number of residents, households or enrolled school students in a given jurisdiction – for example, the amount of debt payments will not fluctuate if four hundred new residents arrive or four hundred residents leave.

Consequently, to include these budget expenditures in the analysis is to overestimate service costs associated with new residents, households and students.

Accordingly, the 2019-20 adopted Village of Cedarhurst budget expenditures are displayed (by major line item), along with the adjusted expenditure line items, which excludes the above stated expenditure categories.

FY 2019-20 General Fund Expenditures

Complete Expenditures		Adjusted Expenditures	
Board of Trustees	$66,600	$600	**0.9%**
Village Justice Court	$451,000	$10,185	**2.3%**
Traffic Violations	$215,300	$15,300	**7.1%**
Mayor	$15,700	$200	**1.3%**
Finances	$34,000	$0	**0.0%**
Clerk-Treasurer	$459,200	$19,200	**4.2%**
Assessments	$11,000	$0	**0.0%**
Tax Advertising	$1,400	$1,400	**100.0%**
Law	$34,000	$0	**0.0%**
Engineering	$30,000	$0	**0.0%**
Election	$1,400	$1,400	**100.0%**
Village Hall	$172,000	$36,700	**21.3%**
Central Garage	$42,000	$34,800	**82.9%**
Special Items	$145,000	$0	**0.0%**
Public Safety (Police)	$3,000	$2,518	**83.9%**
Traffic Control	$140,000	$6,000	**4.3%**
On-Street Parking	$23,000	$22,500	**97.8%**
Safety (Fire Protection)	$687,932	$0	**0.0%**
Safety Inspection	$406,000	$10,200	**2.5%**
Emergency Management	$15,000	$15,000	**100.0%**
Transportation Admin	$109,000	$6,100	**5.6%**
Street Maintenance	$155,000	$128,035	**82.6%**
CHIPS Permanent Improvements	$300,000	$0	**0.0%**
Multi-Modal	$250,000	$0	**0.0%**
Snow Removal	$70,000	$56,000	**80.0%**
Street Lighting	$168,000	$121,000	**72.0%**
Sidewalks	$39,000	$39,000	**100.0%**
Off Street Parking	$48,900	$48,900	**100.0%**
Publicity	$77,950	$8,500	**10.9%**
Parks & Village Landscaping	$513,000	$73,000	**14.2%**
Recreation	$18,000	$0	**0.0%**
Adult Recreation	$700	$700	**100.0%**
Home Community Zoning	$13,800	$13,800	**100.0%**
Refuse & Garbage	$6,000	$0	**0.0%**
Street Cleaning	$88,000	$19,000	**21.6%**
Community Beautification	$5,000	$5,000	**100.0%**
Noise Abatement	$1,812	$0	**0.0%**
Storm Sewer Supply & Materials	$3,000	$3,000	**100.0%**
Tree Preservation	$18,000	$0	**0.0%**
Emergency Tenant Protection	$1,560	$1,560	**100.0%**
Employee Benefits	$1,570,600	$0	**0.0%**
Total Expenditures	$6,410,854	$699,598	**10.9%**

Metrics Used for Deriving Fiscal Impacts – 34 Unit Mixed-Use Multi-family Rental Project

The below categories and associated metrics were either sourced (population estimate is based on U.S Census data) or calculated (all other categories) and are used derive fiscal impacts associated with the subject property type.

Cedarhurst Population (estimate from 2017)	6,730
Adjusted Municipal Expenditures	$699,598
Percent of Municipal Expenditures Associated with Residential Development	95%
Percent of Municipal Expenditures Associated with Commercial Development	5%
Estimated Per Capita Expenditure for New Residents	$99
Estimated Per Worker Expenditure for New Workers	$5
Projected Number of New Residents	66
Projected Number of New Workers	14
Estimated Village Cost for New Residents at First Stabilized Year	$6,534
Estimated Village Cost for New Workers at First Stabilized Year	$70

Multi-Family Rental	Total Units	Total Persons
Studio	**1**	**1**
1 br	**7**	**10**
2 br	**25**	**52**
3 br	**1**	**3**
Sub-Totals:	**34**	**66**

Based on New York State multi-family rental multipliers employed for this

Multi Family Rentals			**Average**	**Monthly**		**Annual Gross**	**Annual Effective**
Market Rate Units			**S.F.**	**Rent**		**Rent**	**Rent** [1]
Studios	1	2.9%	0	$1,650		$19,800	$18,810
1BR	7	20.6%	0	$1,900		$159,600	$151,620.0
2BR	25	73.5%	0	$2,500		$750,000	$712,500
3BR	1	2.9%	0	$3,000		$36,000	$34,200
	34				Total Market Rate:	$965,400	$917,130
					Othe Residential Revenue[2]:	$48,270	$45,857
					Total Residential Revenue	$1,013,670	$962,987
Convenience Retail & Café			5,782	$14,455	$30.00	$173,460	$164,787

Net Operating Income: Residential[3]	$751,129	Estimated Market Value: Residential[4]	$13,063,121
Net Operating Income: Retail and Cafe[3]	$128,534	Estimated Market Value: Retail and Cafe[5]	$2,056,542
		Total Estimated Market Value:	$15,119,663

[1] Assumes 95 percent occupancy rate at stabilization.

[2] Includes parking and storage revenue and is estimated at 5.0 percent of residential rental revenue.

[3] Assumes operating expenses are 22 percent of gross revenue.

[4] Assumes a 5.75 percent capitalization rate.

[5] Assumes a 6.25 percent capitalization rate.

Project's estimated market value in the first stabilized year:	$15,119,663
Project's estimated tax assessment value in first stabilized year:	$ 418,815
Tax levy in the first stabilized year:	$ 28,605
Estimated service cost in the first stabilized year:	$ 6,604
Net fiscal impact in the first stabilized year:	$ 22,001

Metrics Used for Deriving Fiscal Impacts – 78 Unit Multi-family Condo Project

The below categories and associated metrics were either sourced (population estimate is based on U.S Census data) or calculated (all other categories) and are used derive fiscal impacts associated with the subject property type.

Cedarhurst Population (estimate from 2017)	6,730
Adjusted Municipal Expenditures	$699,598
Percent of Municipal Expenditures Associated with Residential Development	95%
Percent of Municipal Expenditures Associated with Commercial Development	5%
Estimated Per Capita Expenditure for New Residents	$99
Estimated Per Worker Expenditure for New Workers	$5
Projected Number of New Residents	209
Projected Number of New Workers	0
Estimated Village Cost for New Residents at First Stabilized Year	$20,691
Estimated Village Cost for New Workers at First Stabilized Year	$0

Multi-Family Condos	Total Units	Total Persons
2 br	37	**69**
3 br	41	**124**
Sub-Totals:	78	193

Based on New York State multi-family rental multipliers employed for this

Condos	78		Imputed Monthly Rent		Annual Gross Rent	Annual Effective Rent [1]
	Units					
2BR	37	47.4%	$2,500		$1,110,000	$1,054,500
3BR	41	52.6%	$3,000		$1,476,000	$1,402,200
	78			Total:	$2,586,000	$2,456,700

Net Operating Income: Residential[2] $1,916,226 Estimated Market Value: Residential[4] $33,325,670

[1] Assumes 95 percent occupancy rate at stabilization.

[2] Includes parking and storage revenue and is estimated at 5.0 percent of residential rental revenue.

[3] Assumes operating expenses are 22 percent of gross revenue.

[4] Assumes a 5.75 percent capitalization rate.

Project's estimated market value in the first stabilized year:	$33,325,670
Project's estimated tax assessment value in first stabilized year:	$ 923,121
Tax levy in the first stabilized year:	$ 63,054
Estimated service cost in the first stabilized year:	$ 20,691
Net fiscal impact in the first stabilized year:	$ 42,363

Prospective 130 Unit Multi-Family Residential Located Peninsula Blvd. and Arlington Place

Under the proposed zoning overlay, the former 9.02-acre sewerage treatment plant site, located at the intersection of Peninsula Boulevard and Arlington Place, could, potentially, be redeveloped with multi-family housng. Pursuant to this overlay consideration, Accordingly, 4wward Planning performed a high-level impact analysis associated with developing multi-family housing units, of similar character to the multi-family residential units earlier identified in this memorandum. Conceptually, the hypothetical project would be 130 multi-family apartment building, containing 40 one-bedrooms, 45 two-bedrooms, and 45 three-bedroom units.

Utilizing the same methodology, metrics, and other assumptions as earlier identified for the proposed 34 multi-family rental project, the projected fiscal impact in the first stabilized year of operation is a net positive $61,771, as exhibited in the below table.

Summary of Net Fiscal Impact Findings: 130 Unit Apartment Building

Net Annual Fiscal Impacts	**$61,771**
Projected Service Costs	**$29,898**
Village Services	$29,898
Projected Net New Revenues	**$91,669**
Tax Revenues (Village)	$91,669

Source: 4ward Planning Inc., 2019

2. Proximity Effect Analysis

Literature Review

4ward Planning conducted a literature review of recent scholarly papers researching the effects of multi-family housing development on surrounding property values. The following provides an overview of research methodology and findings.

Longitudinal Studies

Longitudinal studies are measurements of value impacts over lengthier periods of time, as opposed to studies of value impacts at a single point in time, and, therefore, tend to be more indicative of lasting effect. Two of the scholarly papers reviewed are products of *longitudinal studies* of specific major metropolitan areas – Boston and Minneapolis-St. Paul (Twin Cities). Both these papers seek to answer, specifically, the value impacts new multi-family development has had on existing nearby residential real estate. The longitudinal studies reviewed represent careful, rigorous analyses of property values over time, typically charting neighboring property values from project announcements to integration into the broader communities, as well as establishing control groups for comparison.

- A 2005 Boston study published by the MIT Center for Real Estate, Housing Affordability Initiative, spanning records from 1982 to 2003, focused on six mixed-income communities in the metro area representing its densest, largest-scale developments and its most immediate neighbors – those properties most likely to decline in value because of proximity to what were controversial affordable housing units. In all, 36,000 transactions over an approximate 20-year period were tracked, which, along with a control groups portion of the study, allowed for, to some extent, the filtering of other external impacts (e.g., economic swings) in the larger market.[2]

- A 2014 Twin Cities study published by the Family Housing Fund charted eight selected affordable-housing developments and their neighboring owner-occupied housing units (within a two-to-three block range) in the metro area from 2000 to 2010. Value impacts of each new multi-family development were determined by analyzing three measures of market performance among homes sold in the subject area over time: sales prices per square foot; the percentage of sales price to asking price and; time on the market.[3]

The resulting impacts trends of both studies generated a similar conclusion: that the introduction of multi-family housing created a neutral to slightly positive effect on the property values of neighboring residential homes, in comparison with the broader market, over time. Of course, both studies revealed exceptions to this general trend *at points in time*, as some neighborhoods declined in market performance during pre- or post-construction periods, for example. In no instance, however, did any of the study areas consistently show poorer performance among all its constituent submarkets, on all performance measures, in all post-construction years.

General Studies of Negative Impact Assumptions

A 2005 study published by the Urban Land Institute and a 2007 study published by the Harvard University's Joint Center for Housing Studies both address common misconceptions about the negative impacts of new multi-family development, often a byproduct of dated ideas of high-density, low-income housing of the 1960s and 1970s.[4,5] Combined, the two types of studies create a comprehensive portrait of the value impacts new multi-family housing development typically bring to their surrounding residential neighborhoods. Generally, neither well-designed nor –integrated into the broader communities, these developments were more likely to confirm property devaluation fears. Today, however, new, well-considered multi-family developments can be an asset to neighboring properties. Both studies conclude that neither new market-rate nor low-income multi-family housing inherently devalue neighboring residential properties, and that some actually increase those property values.

[2] Pollackowsky, Henry O., David Ritchay, and Zoe Weinrobe, *Effects of Mixed-Income Multi-Family Rental Housing Developments on Single-Family Housing Values*, MIT Center for Real Estate, Housing Affordability Initiative, April 2005.
[3] Family Housing Fund, *An Update Analysis of the Relationship Between Affordable Family Rental Housing and Home Values in the Twin* Cities, 2014.
[4] Urban Land Institute, *Higher-Density Development: Myth and Fact*, 2005.
[5] Obrinsky, Mark and Debra Stein, *Overcoming Opposition to Multifamily Housing, Joint Center for Housing* Studies, Harvard University, 2007

A 2001 report published by the National Association of Home Builders, studied American Housing Survey and found that single-family homes not located within a half block (approximately 300 feet) of multi-family developments appreciated at a rate of 3.59 percent between 1987 and 1997, while those within a half block of a mid or hi-rise multifamily building saw a 4.02 percent increase.[6] Although the average annual appreciation rates are somewhat lower for 1997-1999 than for the earlier period, the impact of nearby multi-family structures is similar in both instances. The average annual value premium across both study years is approximately 0.3 percent. Property value impact findings and corresponding years are illustrated in the following table.

Average Annual Appreciation Rates for Single Family Detached Homes

	1987-1997	1997-1999
With no multifamily building within ½ block	3.59%	2.66%
With any multifamily building within ½ block	3.96%	2.90%
With a low-rise multifamily building within ½ block	3.92%	2.91%
With a mid or hi-rise multifamily building within ½ block	4.02%	2.79%

Source: NAHB computations based on data in U.S. Census Bureau and the Department of Housing and Urban Development, American Housing Survey: 1995, 1987, 1995, 1997 and 1999.

The Urban Land Institute study offers numerous reasons multi-family developments may directly or indirectly boost surrounding residential property values. It suggests, first, that a new multi-family development, itself, can be an indicator that an area's economy is vibrant and growing. Second, multi-family housing may increase the pool of future homebuyers among its tenants, creating more potential demand for the neighborhood's existing single-family homes. The study's third point, and possibly its strongest, is that new multi-family development, particularly when it incorporates a mix of uses, often makes an area more attractive, increasing its diversity of housing and retail options, thus raising property values.

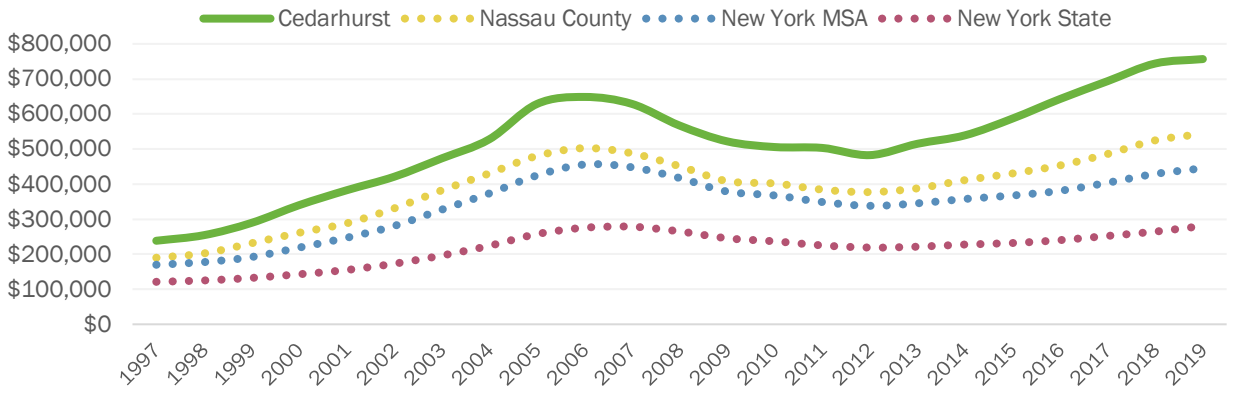
Both general studies go one step further to argue that *well-designed and -integrated* multi-family development is a significant community asset, enhancing quality of life and property values of surrounding homes.

Historic Home Value Appreciation

According to Zillow, illustrate in the following chart, average single family home values in Cedarhurst Village initially peaked in 2006, at the height of the housing bubble, before declining through 2012, as a result of the subsequent economic recession. As of September 2019, the median home value for a single family home in Cedarhurst Village was $747,700 (compared to $657,700 in February 2006, at the height of the housing bubble).

[6] National Association of Home Builders, *Housing's Impact on the Economy*, 2001

Average Single Family Home Value Trends



Source: Zillow

While average single family home values in Cedarhurst Village increased by 3.9 percent over the past two decades (from 1997 to 2019), they have increased faster in recent years as the local economy has recovered from the economic recession. From 2012 to 2019, average single family home values in Cedarhurst increased by 6.7 percent per year.

Average Single Family Home Value: Annualized Percent Change

Years	Cedarhurst	Nassau County	New York MSA	New York State
From 1997-2019	3.9%	3.0%	1.7%	1.4%
From 2012-2019	6.7%	5.4%	4.0%	3.6%

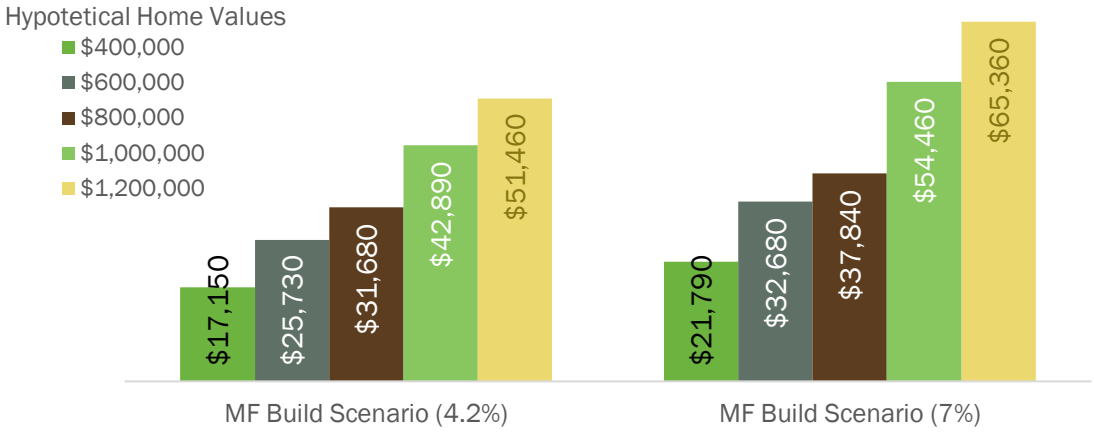
Source: Zillow

Real Estate Premium

According to Zillow, as of November 2019, single family homes currently for sale or recently sold within a 300-foot radius of the project site have asking sale prices ranging from approximate $400,000 to $1.2 million.
Assuming a project scenario were no multifamily housing is built, the estimated range of annual percentage increase in home value over a ten-year period is between 3.9 and 6.7 percent per year. Assuming a project scenario were multifamily housing is built, by comparison, the estimated range of annual percentage increase in home value over a ten-year period is between 4.2 and 7.0 percent per year (an average value premium of 0.3 percent per year based on literature review findings).

As illustrated below, the potential 10-year real estate premium (the difference in home value appreciation between the no build and the build scenarios) for single family homes located within a 300-foot radius of the proposed low-rise multi-family project would range from $17,150 to $21,790 for a hypothetical $400,000 single family home to $51,460 to $65,360 for a hypothetical $1.2 million single family home.

10-year Real Estate Premium on a Hypothetical Single Family Home



Appendix D

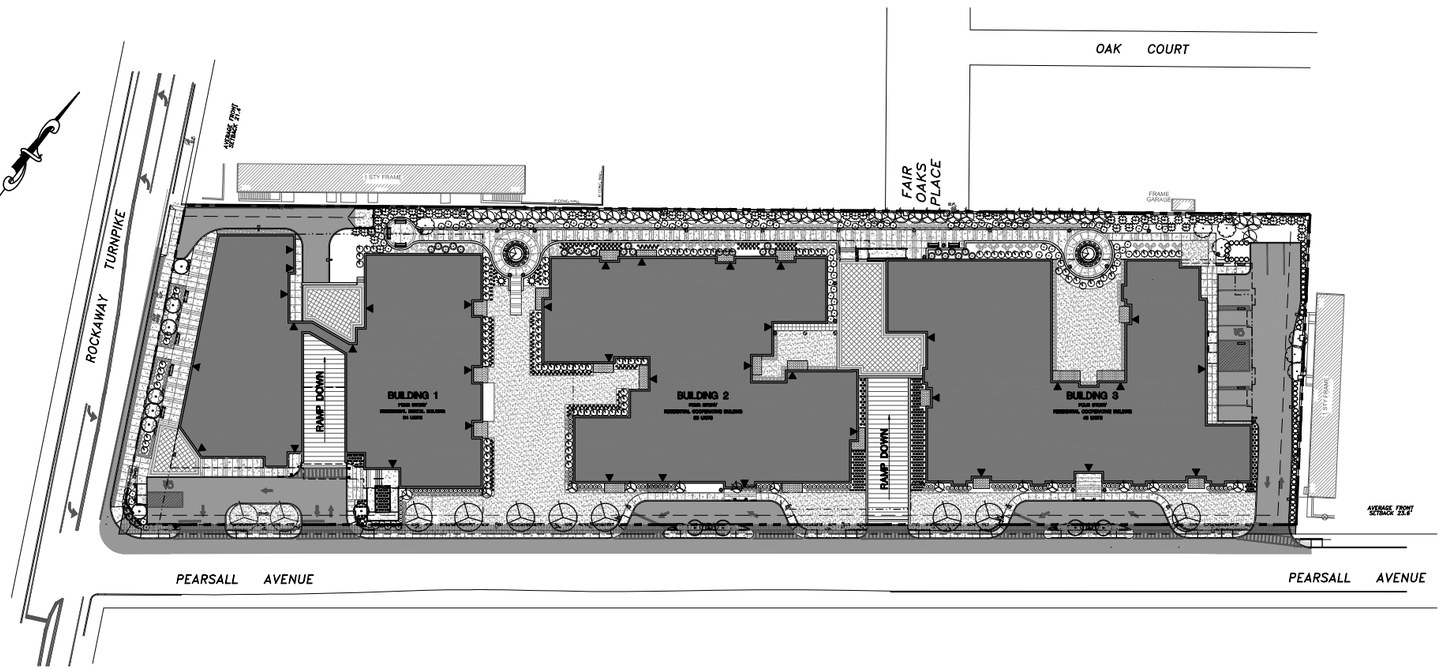
Plans

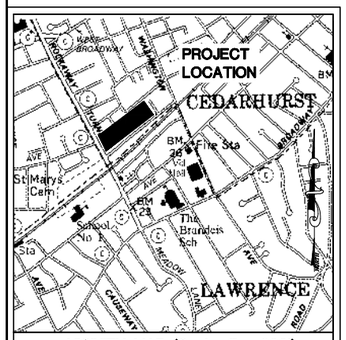
Site Plan Approval Drawings

PEARSALL ROCK, LLC

PEARSALL AVENUE, INC. VILLAGE OF CEDARHURST

TOWN OF HEMPSTEAD, NASSAU COUNTY, NY





VICINITY MAP (Scale: 1" = 600')

KEY MAP (Scale: 1" = 160')

NO.	DATE	REVISION DESCRIPTION	INT.

PLOT SCALE:

NASSAU COUNTY TAX MAP:
SECTION 39, BLOCK 484, LOTS 12, 14, 21, 22, 23, 26, 60, 194, 294, 413, 711, 712

scale

DRAWING No.	TITLE
--	COVER
	EXISTING CONDITIONS & REMOVALS
C-1	PLAN
C-2	SITE PLAN
C-3	SITE GRADING AND DRAINAGE PLAN
C-4	SITE UTILITIES PLAN
C-5	SEDIMENT & EROSION CONTROL PLAN
C-6	LANDSCAPE PLANTING PLAN
C-7	SITE LIGHTING PLAN
C-8	SITE DETAILS - SHEET 1
C-8	SITE DETAILS - SHEET 2
C-9	SITE DETAILS - SHEET 3

PREPARED BY:

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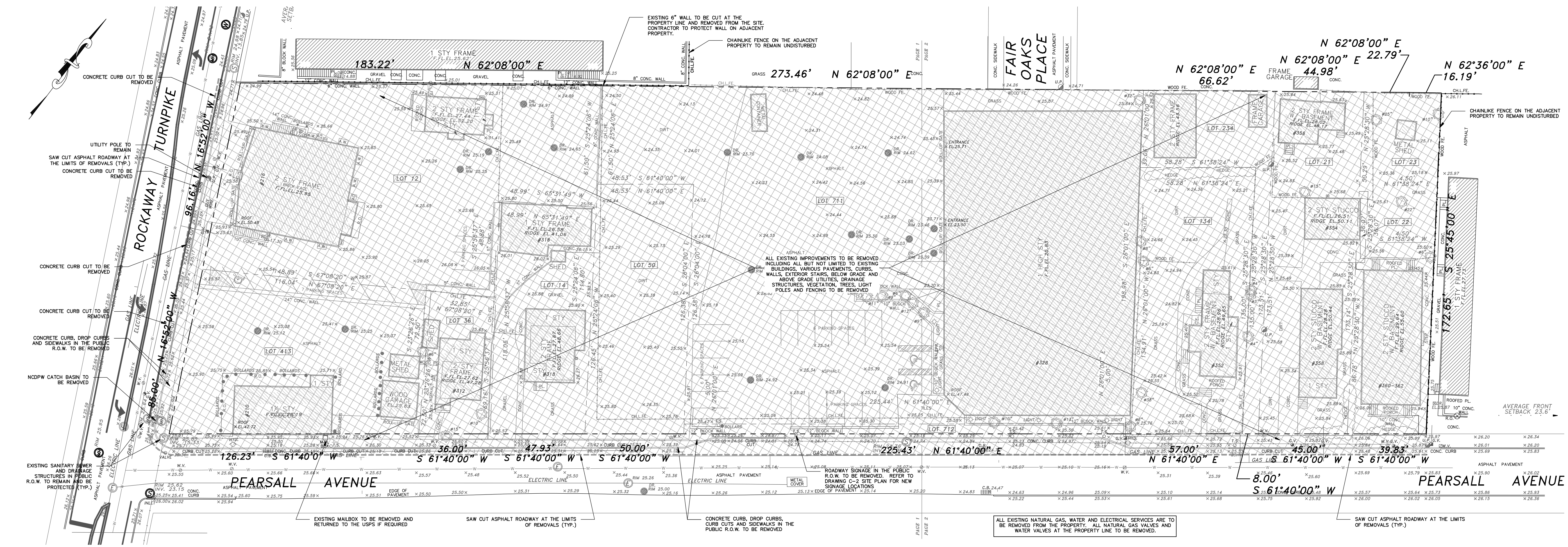
05/06/2021



SITE DATA

1. SITE LOCATION: 312–318 and 350–362 PEARSALL AVENUE
   210 and 218–220 ROCKAWAY TURNPIKE
   INC. VILLAGE OF CEDARHURST
   TOWN OF HEMPSTEAD
   NASSAU COUNTY, NEW YORK
2. OWNER: PEARSALL ROCK, LLC
   177 CONCORD STREET
   BROOKLYN, NY 11201
3. APPLICANT: PEARSALL ROCK, LLC
   177 CONCORD STREET
   BROOKLYN, NY 11201
4. NASSAU COUNTY TAX MAP: SECTION 39, BLOCK 424, LOTS 12, 14, 21, 22, 23, 36, 50, 134, 234, 413, 711 & 712
5. ZONING DISTRICT: GENERAL BUSINESS DISTRICT – INCENTIVE OVERLAY DISTRICT
6. TOTAL SITE AREA: 108,834 SF (2.498 ACRES)
7. SERVICES
   SCHOOL DISTRICT: LAWRENCE UNION FREE SCHOOL DISTRICT (UFSD)
   WATER DISTRICT: NEW YORK AMERICAN WATER
   FIRE DISTRICT: LAWRENCE – CEDARHURST FIRE DEPARTMENT
   POLICE PRECINCT: NASSAU COUNTY POLICE DEPARTMENT, 4TH PRECINCT
   SEWER DISTRICT: NASSAU COUNTY (CEDARHURST) – BAY PARK WATER POLLUTION CONTROL PLANT
   POST OFFICE: CEDARHURST, NY 11516
8. FLOOD HAZARDOUS ZONE: PANEL 36059C0301G / ZONE X

DEMOLITION AND REMOVALS NOTES

1. THESE PLANS REFERENCE A SURVEY PREPARED BY PERFECT POINT LAND SURVEYING, RT, LAST DATED MAY 29, 2018.
2. REMOVAL AND RELOCATION OF CERTAIN EXISTING WORK SHALL BE NECESSARY FOR THE PERFORMANCE OF GENERAL WORK. ALL EXISTING CONDITIONS ARE NOT COMPLETELY DETAILED ON THE DRAWINGS. THE CONTRACTOR SHALL SURVEY THE SITE AND MAKE ALL NECESSARY MODIFICATIONS REQUIRED BASED ON EXISTING CONDITIONS, FOR DEMOLITION OF EXISTING WORK AND INCLUDE ALL MATERIALS AND LABOR IN HIS BID PRICE. NO ALLOWANCE SHALL BE MADE FOR FAILURE TO DO SO.
3. PROVIDE FOR LEGAL REMOVAL AND DISPOSAL OF ALL RUBBISH AND DEBRIS FROM THE FACILITY AND SITE. PROTECT ALL WORK NOT SLATED FOR DEMOLITION.
4. THE CONTRACTOR SHALL TAKE PRECAUTIONS AGAINST DAMAGING OR DISRUPTING FACILITY SYSTEMS, UTILITIES AND/OR OPERATIONS. ANY DAMAGE TO THESE ITEMS SHALL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S COST WITHIN THE CONTRACT PERIOD FOR SUBSTANTIAL COMPLETION.
5. DURING DEMOLITION AND DURING THE CONSTRUCTION PERIOD, THE CONTRACTOR SHALL REMOVE ALL RUBBISH AND EXCESS MATERIAL ACCUMULATED AS A RESULT OF HIS OPERATIONS AND/OR THE OPERATIONS OF HIS SUBCONTRACTORS. THE CONTRACTOR IS RESPONSIBLE FOR FINAL AND THOROUGH CLEANING OF ALL SURFACES, FINISHES AND EQUIPMENT BEFORE FINAL ACCEPTANCE BY THE OWNER.
6. DEBRIS SHALL NOT BE BURIED ON THE SUBJECT SITE. ALL UNSUITABLE MATERIAL AND DEBRIS SHALL BE DISPOSED OF LEGALLY IN ACCORDANCE WITH LOCAL TOWN, COUNTY, STATE AND FEDERAL LAWS AND APPLICABLE CODES.
7. A SIX–FOOT HIGH CHAIN LINK FENCE SHALL BE INSTALLED AND SHALL BE MAINTAINED FOR THE DURATION OF THE PROJECT BY THE CONTRACTOR AROUND THE LIMIT OF WORK.
8. NO MATERIAL IS PERMITTED TO BE STORED OUTSIDE OF THE SITE PERIMETER.
9. CONTRACTOR SHALL SUBMIT ALL MANIFESTS ASSOCIATED WITH DELIVERIES AND DISPOSAL ACTIVITIES
10. ANY EXCAVATION RESULTING FROM DEMOLITION SHALL BE REPLACED WITH CLEAN, GRANULAR MATERIAL, COMPACTED TO 95% MODIFIED PROCTOR DENSITY AND BACK FILLED TO MEET EXISTING ADJACENT GRADES.
11. CONTRACTOR SHALL LOCATE AND SAFEGUARD ALL EXISTING UTILITIES WHICH ARE TO REMAIN.

UTILITY NOTES

1. THE CONTRACTOR IS HEREBY NOTIFIED THAT UTILITIES EXIST AT THE SITE. VERIFICATION OF LOCATION OF EXISTING UTILITIES IS REQUIRED PRIOR TO COMMENCEMENT OF WORK AND IS THE RESPONSIBILITY OF THE CONTRACTOR.
2. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE ACCURACY OF ALL EXISTING UTILITY INFORMATION.

LEGEND (PROPOSED)

ASPHALT SAWCUT LINE
STRIPPING TO BE REMOVED
PROJECT LIMIT LINE
EXISTING ITEMS TO BE REMOVED
TREE REMOVAL

LEGEND (EXISTING)

FENCE	CH.L.FE. / WOOD FE.
UTILITY POLE	U.P.
PARKING METER	P.M.
OIL FILL	O.F.
MONITORING WELL	M.W.
TRAFFIC LIGHT	T.L.
LIGHT	
STREET LIGHT	L.P. / L.P.
FIRE HYDRANT	HYD.
SIAMESE CONNECTION	SPR.
SHUT OFF VALVE	G.V. / G.V. / W.V. / W.V.
HANDICAPPED PARKING	
EXISTING TREE	ø12"
DRAINS	DR. / DR.
ROOF OVER	R.O.
EXISTING ELEVATIONS	×43.15 TOP OF CURB, ×42.93 BOTTOM OF CURB / ×43.78
CITY ESTABLISHED GRADES	L.G.7.52
CURB AND CURB CUT	CURB CUT
OVERHEAD SERVICE	OH.S.W.
CABLE TV MANHOLE	CTV
MANHOLES	MH / E / T / W / S RIM EL. INV.EL.
CATCH BASIN	C.B. / C.B.
FIRE ESCAPE	F.E.
PLATFORM	PL. or PLTF.
BASEMENT ENTRANCE	B.E.
CELLAR ENTRANCE	C.E.
AIR WAY	A.W.
BAY WINDOW	B.W.
CONCRETE	CONC.
OVERHANG	O.H.
AIR CONDITION	AC
METAL	MET.
NORTH OF PROPERTY LINE	N
SOUTH OF PROPERTY LINE	S
EAST OF PROPERTY LINE	E
WEST OF PROPERTY LINE	W

GRAPHIC SCALE
20 0 10 20 40
(IN FEET)
HORIZ. 1 inch = 20 ft.

NO.	DATE	REVISION DESCRIPTION	INT.

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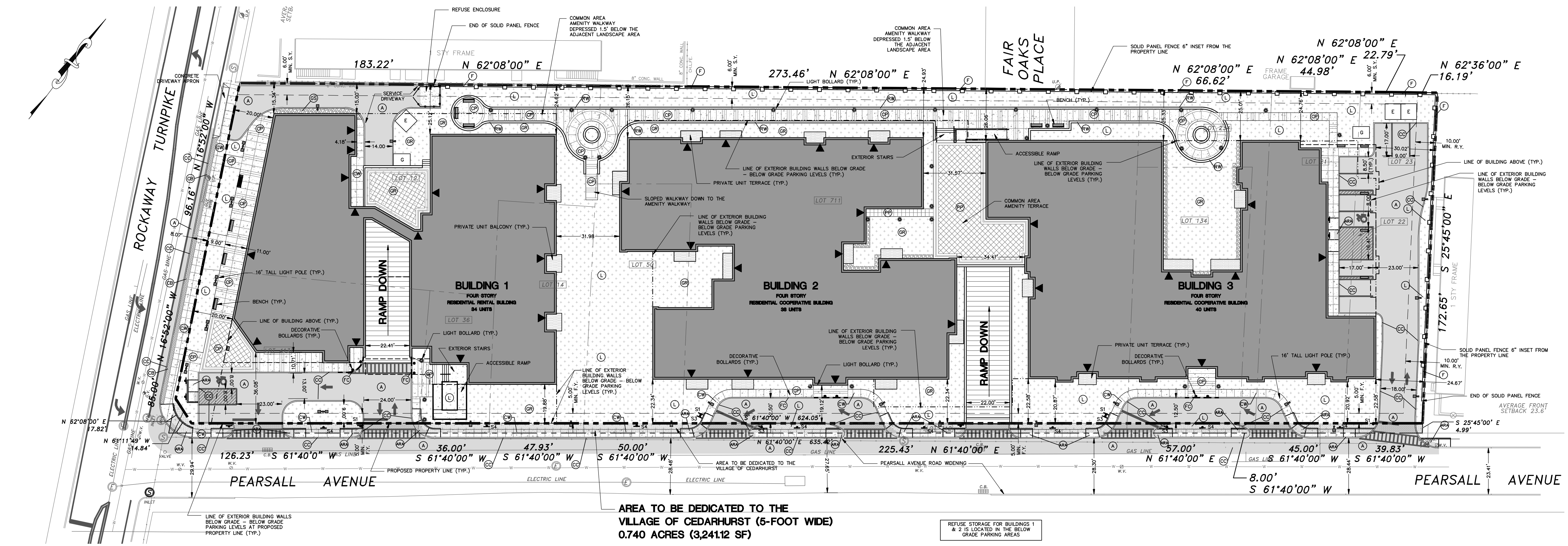
PROJECT NAME: PEARSALL ROCK, LLC
PROJECT LOCATION: PEARSALL AVENUE, INC. VILLAGE OF CEDARHURST TOWN OF HEMPSTEAD, NASSAU COUNTY, NY
TITLE: EXISTING CONDITIONS & REMOVALS PLAN
DISCIPLINE: CIVIL

PROJECT ENGINEER: JDB	PROJECT NO. CE2906A	DRAWING NO. C-1
DESIGNED BY: JDB	JOB NO. CE2906A	
DRAWN BY: LMB	DATE: 05/06/2021	SHEET
CHECKED BY: AJK	SCALE: AS SHOWN	C-1 of 9



AREA TO BE DEDICATED TO THE VILLAGE OF CEDARHURST (5-FOOT WIDE) 0.740 ACRES (3,241.12 SF)

REFUSE STORAGE FOR BUILDINGS 1 & 2 IS LOCATED IN THE BELOW GRADE PARKING AREAS

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   SEWER DISTRICT: NASSAU COUNTY (CEDARHURST) – BAY PARK WATER POLLUTION CONTROL PLANT
   POST OFFICE: CEDARHURST, NY 11516
8. FLOOD HAZARDOUS ZONE: PANEL 36059C0301G / ZONE X

GENERAL NOTES

1. THESE PLANS REFERENCE A SURVEY PREPARED BY PERFECT POINT LAND SURVEYING, RT, LAST DATED MAY 29, 2018.
2. ALL WORK SHALL COMPLY WITH APPLICABLE FEDERAL, STATE AND LOCAL CODES, REGULATORY AGENCIES AND THE INCORPORATED VILLAGE OF CEDARHURST. THE CONTRACTOR SHALL NOTIFY/COORDINATE WITH THE VILLAGE OF CEDARHURST FOR SITE IMPROVEMENTS INSTALLATION AND CONFORMANCE TO VILLAGE STANDANRDS AND SPECIFICATIONS FOR ALL WORK.
3. ALL WORK, WHETHER SHOWN OR INFERRED, UNLESS SPECIFICALLY QUESTIONED, SHALL BE CONSIDERED FULLY UNDERSTOOD IN ALL RESPECTS BY THE CONTRACTOR, AND THE CONTRACTOR SHALL THEREBY BE RESPONSIBLE FOR ANY INTERPRETATIONS OR CONSEQUENCES THEREOF FOR ALL WORK ON ALL DRAWINGS.
4. THE OWNER'S REPRESENTATIVE SHALL BE NOTIFIED OF ANY DISCREPANCIES OR OMISSIONS WHICH COULD INTERFERE WITH THE SATISFACTORY COMPLETION OF THE WORK, PRIOR TO THE START OF ANY AND ALL WORK.
5. INSTALL WORK SO AS TO BE READILY ACCESSIBLE FOR OPERATING, MAINTENANCE AND REPAIR. MINOR DEVIATIONS FROM DRAWINGS, WITH NO MATERIAL COMPROMISE IN QUALITY, MAY BE MADE TO ACCOMPLISH THIS, BUT CHANGES OF MAGNITUDE AND/OR CHANGES WHICH RESULT IN EXTRA COST SHALL NOT BE MADE WITHOUT EXPRESSED APPROVAL.
6. THE CONTRACTOR SHALL IN ALL RESPECTS COMPLY WITH ALL REGULATIONS OF THE OWNER. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN SUCH REGULATIONS FROM THE OWNER. IN THE EVENT OF CONFLICT BETWEEN REGULATIONS AND OTHER CONTRACT DOCUMENTS, THE OWNER'S REPRESENTATIVE AND OWNER SHALL BE CONSULTED PRIOR TO THE START OF ANY AND ALL WORK.
7. THE OWNER RESERVES THE RIGHT TO LET OTHER CONTRACTS IN CONNECTION WITH THE WORK OF THIS PROJECT. THE CONTRACTOR SHALL COOPERATE WITH OTHER CONTRACTORS AS REQUIRED TO CONFORM TO THE GENERAL CONSTRUCTION SCHEDULE AND SHALL AFFORD OTHER CONTRACTORS REASONABLE OPPORTUNITY FOR THE INTRODUCTION AND STORAGE OF THEIR MATERIALS AND EQUIPMENT AND THE EXECUTION OF THEIR WORK.
8. THE CONTRACTOR AND EACH SUBCONTRACTOR SHALL BE RESPONSIBLE FOR REVIEWING ALL DRAWINGS AND SPECIFICATIONS, AND NOTING ALL APPLICABLE WORK AS SHOWN OR INFERRED. ALL WORK AS SHOWN OR INFERRED SHALL BE INCLUDED IN THE COSTS.
9. THE CONTRACTOR SHALL FIRST COORDINATE AND THEN SUBMIT ALL SUBCONTRACTORS' SHOP DRAWINGS TO THE OWNER'S REPRESENTATIVE FOR REVIEW PRIOR TO WORK BEING PERFORMED.
10. ALL WORK SHALL CONFORM TO THE DRAWINGS AND SPECIFICATIONS AND SHALL BE OF NEW AND BEST QUALITY. NO MATERIAL SUBSTITUTIONS SHALL BE MADE, EXCEPT BY WRITTEN APPROVAL OF THE OWNER'S REPRESENTATIVE IN RESPONSE TO THE CONTRACTOR'S WRITTEN REQUEST.
11. ALL MANUFACTURED ARTICLES, MATERIALS AND EQUIPMENT SHALL BE SUPPLIED, INSTALLED, CONNECTED, ERECTED, USED, CLEANED AND CONDITIONED AS DIRECTED BY THE MANUFACTURERS, UNLESS OTHERWISE SPECIFIED ON THE DRAWINGS.
12. THE CONTRACTOR SHALL REPAIR AND RESTORE TO ORIGINAL CONDITION ANY EXISTING EQUIPMENT OR MATERIALS DAMAGED IN THE PROCESS OF INSTALLATION, AND DEMOLITION TO THE SATISFACTION OF THE OWNER'S REPRESENTATIVE AND AT NO ADDITIONAL COST TO THE OWNER.
13. THE CONTRACTOR SHALL MAKE REPAIRS USING THE SAME MATERIALS, AT THE CONTRACTOR'S COST.
14. THE CONTRACTOR SHALL INCUR ALL COSTS AND BURDENS ASSOCIATED WITH LOST, STOLEN OR DAMAGED EQUIPMENT AND MATERIALS.
15. THE UTILITIES AND SERVICES IN THE CONSTRUCTION AREA, AS SHOWN ON THE CONTRACT DRAWINGS ARE AT THE APPROXIMATE LOCATIONS FURNISHED BY THE VARIOUS UTILITIES CONCERNED AND/OR AS SHOWN ON RECORD DESIGN DOCUMENTS. WHENEVER EXISTING IMPROVEMENT INFORMATION IS EITHER INDICATED ON THE DRAWINGS OR SUPPLIED TO THE CONTRACTOR AT A LATER DATE, IT IS UNDERSTOOD THAT SUCH INFORMATION IS FURNISHED IN GOOD FAITH FOR THE CONTRACTOR'S CONVENIENCE. THE CONTRACTOR MUST INTERPRET THIS INFORMATION ACCORDING TO HIS OWN JUDGMENT, AND MUST MAKE HIS OWN DETERMINATIONS REGARDING THE LOCATION OF ALL IMPROVEMENTS. NO CLAIM WILL BE ALLOWED BECAUSE OF INCORRECT, INCOMPLETE OR OMITTED EXISTING IMPROVEMENTS INFORMATION.
16. ALL WORK, MATERIALS, SPECIFICATIONS, REGULATIONS, RULES, PERMITS, ETC., OF ALL STATE, COUNTY AND LOCAL GOVERNMENTS AND ALL UTILITY AGENCIES SHALL BE FOLLOWED BY THE CONTRACTOR.
17. THE CONTRACTOR'S ATTENTION IS DIRECTED TO THE STATE OF NEW YORK DEPARTMENT OF LABOR, BOARD OF STANDARDS AND APPEALS INDUSTRIAL CODE RULE 53 – "CONSTRUCTION, EXCAVATION UNDERGROUND FACILITIES" EFFECTIVE APRIL 1, 1975. AND, DEMOLITION OPERATIONS AT OR NEAR THE CONTRACT WILL BE REQUIRED TO COMPLY WITH ALL APPLICABLE REQUIREMENTS OF INDUSTRIAL CODE 53.
18. UTILITY FORCES, CONTRACTORS, OR OTHER PARTIES MAY BE EXPECTED TO BE WORKING WITHIN THE CONTRACT AREA DURING THE CONTRACT. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE HIS WORK UNDER THIS CONTRACT WITH THE WORK BEING DONE BY OTHERS IN ORDER THAT THE CONSTRUCTION MAY PROCEED IN AN EFFICIENT AND LOGICAL MANNER.
19. THE CONTRACTOR SHALL RESTORE ALL DISTURBED EXISTING FEATURES TO A CONDITION EQUAL TO OR BETTER THAN CURRENTLY EXISTED.
20. THE CONTRACTOR SHALL COMPLY WITH THE LATEST OSHA CONFINED SPACE ENTRY REQUIREMENTS (29 CFR PART 1910)
21. EACH CONTRACTOR IS CAUTIONED TO AVOID DISTURBING ANY FENCES, SHRUBS, TREES, ETC., THAT ARE ADJACENT TO HIS CONSTRUCTION WITHOUT WRITTEN PERMISSION FROM THE ENGINEER. AS ORDERED BY THE ENGINEER, THE COST OF REPAIRING OR ADJUSTING ANY SUCH DISTURBED AREAS WILL BE AT THE CONTRACTOR'S OWN EXPENSE. IN THE EVENT THAT TREES ARE ENDANGERED, THE CONTRACTOR WILL TAKE ALL PRECAUTIONS TO PROTECT THEM, AS DIRECTED BY THE ENGINEER. PAYMENT FOR ANY NECESSARY WORK SHALL BE INCLUDED IN THE VARIOUS CONTRACT ITEMS.
22. IT SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO COORDINATE THE ACTIVITIES OF ANY SUBCONTRACTOR, CONTRACTOR, OWNER CONTRACTED TRADESMAN, MUNICIPAL EMPLOYEES, UTILITIES, ETC., INVOLVED IN THE OVERALL SCOPE OF THE PROJECT, INCLUDING UNAWARDED ALTERNATE WORK, AS PREVIOUSLY DESCRIBED, AT NO COST TO THE OWNER. THE GENERAL CONTRACTOR WILL PREPARE A PROJECT SCHEDULE INCLUDING THE WORK OF ALL OTHER CONTRACTORS.
23. BECAUSE THE PROPOSED IMPROVEMENTS ARE TO ENHANCE THE ASPECTS OF THE SITES, THE CONTRACTOR IS NOTIFIED THAT THE GENERAL PUBLIC, SOME OF WHOM MAY BE POTENTIAL VANDALS, WILL BE IN THE AREA AT ANY HOUR. EACH CONTRACTOR SHALL PROTECT, AT ALL TIMES, THE PUBLIC AND HIS WORK FROM HARM. EACH CONTRACTOR SHALL BEAR ALL RESPONSIBILITY FOR HARM TO THE PUBLIC AND DAMAGE TO HIS EQUIPMENT, TOOLS AND MATERIALS.

TRAFFIC AND PARKING SIGN SCHEDULE

SIGN SYMBOL	SIGN	MUTCD	LEGEND	SIZE	MOUNTING HEIGHT
S–1	STOP	R1–1	STOP	30" X 30"	7'–0"
S–2	RESERVED PARKING	R7–8	HANDICAPPED PARKING	12" X 18"	7'–0"
S–3	DO NOT ENTER	R5–1	DO NOT ENTER	30" X 30"	7'–0"
S–4	NO PARKING ANY TIME	R7–1 (MOD)	NO PARKING ANY TIME (TWO–WAY ARROW)	12" X 18"	7'–0"

NASSAU COUNTY TRAFFIC NOTES

1. A COUNTY PERMIT IS REQUIRED TO CONSTRUCT CURBS / SIDEWALKS.
2. REPLACE ALL NON–APPROVED CURB CUTS WITH STANDARD COUNTY CURB (TYPE C), REPAIR ALL UPLIFT, DEPRESSED, CRACKED OR MISSING SIDEWALKS, CURB(S), AND ALL NON–ADA COMPLIANT RAMPS.
3. REFURBISH ALL PAVEMENT MARKINGS OR SIGNS THAT HAVE BEEN REMOVED/DAMAGED DURING CONSTRUCTION, (INCLUDING BUT NOT LIMITED TO EDGE LINES, HATCHING, ETC.) ACCORDING TO NASSAU COUNTY SPECIFICATIONS.
4. USE OF REGULATORY SIGNS AND/OR TURN RESTRICTIONS AND/OR PARKING RESTRICTIONS ON SITE PLANS SHALL BE PLACED/INSTALLED ACCORDING TO THE LATEST "NATIONAL MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND THE NEW YORK STATE SUPPLEMENT, AND THE APPLICANT SHALL HAVE THESE SIGNS ORDINANCED BY THE TOWN OF HEMPSTEAD.
5. IF NASSAU COUNTY HAS SIGNS THAT HAVE BEEN REMOVED / DAMAGED DURING CONSTRUCTION, (INCLUDING BUT NOT LIMITED TO REGULATORY SIGNS, WARNING SIGNS, ETC.) THEY SHALL BE INSTALLED / REPLACED ACCORDING TO NASSAU COUNTY SPECIFICATION.
6. IF ANY NASSAU COUNTY TRAFFIC EQUIPMENT AT THE LOCATION, (INCLUDING BUT NOT LIMITED TO TRAFFIC SIGNALS, PEDESTRIAN SIGNAL EQUIPMENT, TRAFFIC LOOP WIRE DETECTION, TRAFFIC PULLBOXES, TRAFFIC SIGNAL SYSTEMS INTERCONNECT, STREET LIGHTING, ETC.), IS DAMAGED ANYWAY DURING CONSTRUCTION, IT SHALL BE REPAIRED / REPLACED ACCORDING TO NASSAU COUNTY SPECIFICATIONS. ALL WORK SHALL BE PERFORMED BY A NASSAU COUNTY APPROVED TRAFFIC SIGNAL CONTRACTOR. THE CONTRACTOR SHALL NOTIFY SHEILA M. DUKACZ OF THE NASSAU COUNTY TRAFFIC SIGNAL CONSTRUCTION AND OPERATIONS UNIT AT 516–572–0465 EXT. 20958 IN ADVANCE OF THE WORK.
7. THE CONTRACTOR SHALL REGRADE ANY NASSAU COUNTY TRAFFIC SIGNAL PULLBOX COVERS IN THE WORK AREA USING SUITABLE BRICK AND MORTAR. THE CONTRACTOR SHALL LEAVE THE INSIDE BOTTOM OF ALL PULLBOXES CLEAN AND FREE OF DEBRIS AND MORTAR. THE TOPS OF THE COVERS SHALL BE LEFT CLEAN AND FREE OF CONCRETE. IF ANY PULLBOX IS REQUIRED, THE CONTRACTOR MUST NOTIFY SHEILA M. DUKACZ OF THE NASSAU COUNTY TRAFFIC SIGNAL CONSTRUCTION AND OPERATIONS UNIT AT 516–572–0465 EXT. 20958 IN ADVANCE OF THE WORK.
8. THE CONSTRACTOR SHALL HAVE ANY NASSAU COUNTY TRAFFIC LOOP REPLACED IF SCHEDULED TO BE DAMAGED DURING CONSTRUCTION. THE CONTRACTOR MUST HAVE AN APPROVED TRAFFIC SIGNAL CONTRACTOR PLACE THE SIGNAL IN RECALL OOPERATION IN ADVANCE OF THE WORK THAT WILL DAMAGE THE LOOP DETECTOR. THE NEW LOOP MUST BE REPLACED IMMEDIATELY BY AN APPROVED TRAFFIC SIGNAL CONTRACTOR AFTER THE AREA IS RESTORED. THE SIZE AND PLACEMENT OF THE NEW LOOP WILL BE DETERMINED BY NASSAU COUNTY. A NASSAU COUNTY INSPECTOR MUST BE PRESENT UPON REPLACEMENT. THE CONTRACTOR MUST NOTIFY SHEILA M. DUKACZ OF THE NASSAU COUNTY TRAFFIC SIGNAL CONSTRUCTION AND OPERATIONS UNIT AT 516–572–0465 EXT. 20958 IN ADVANCE OF THE WORK.
9. PRIOR TO CONSTRUCTION, A MARK OUT SHALL BE MADE FOR ALL UNDERGROUND UTILITIES, INCLUDING BUT NOT LIMITED TO UNDERGROUND TRAFFIC SIGNAL EQUIPMENT.
10. PRIOR TO ANY SCHEDULED LANE CLOSURES, THE CONTRACTOR MUST COMPLETE AND SUBMIT AN ONLINE ROAD/LANE CLOSURE NOTIFICATION FORM BY 3:00 PM THE EVENING PRIOR TO THE SCHEDULED CLOSURE. THE CONTRACTOR CAN COMPLETED THE FOR AT WWW.NASSAUCOUNTYNY.GOV/TRAFFICMANAGMENT, OR BY FAXING THE COMPLETED FOR TO THE TRAFFIC MANAGEMENT CENTER AT (516) 571–6882.
11. IF REQUIRED HANDICAP RAMP WORK IMPACTS ANY UTILITIES IN ANY WAY, INCLUDING RELOCATION, THE APPROPRIATE UTILITY COMPANY SHALL BE NOTIFIED PRIOR TO HANDICAP RAMP WORK BEGINNING.

LEGEND (PROPOSED)

BUILDING	
DOOR	
ASPHALT PAVEMENT	A
CONCRETE PAVEMENT	CP
CONCRETE WALK	CW
COLORED CONCRETE BANDING	CB
RETAINING WALL	RW
LANDSCAPING	L
PEDESTAL PAVER SYSTEM (ABOVE BELOW GRADE PARKING)	PP
GREEN ROOF LANDSCAPING (ABOVE BELOW GRADE PARKING)	GR
ACCESSIBLE RAMP	ARA
CONCRETE CURB	CC
FLUSH / DROP CONCRETE CURB	FC
SOLID PANEL FENCE	F
SIGN	
ACCESSIBLE PARKING SPACE	
SETBACK LINE	
SITE LINE	
16' TALL LIGHT POLE	
LIGHT BOLLARD	
DECORATIVE SECURITY BOLLARD	
SOLID PANEL FENCE	
MONUMENT	

GRAPHIC SCALE
20 0 10 20 40
(IN FEET)
HORIZ. 1 inch = 20 ft.

ZONING DATA

GENERAL BUSINESS DISTRICT – INCENTIVE OVERLAY DISTRICT

CODE / SECTION DESCRIPTION	REQUIRED / PERMITTED	PROPOSED
§ 265–91 (GENERAL BUSINESS) FRONT YARD SETBACK (ROCKAWAY TURNPIKE)	0 FEET MIN.	20.00 FEET
§ 265–91 (GENERAL BUSINESS) FRONT YARD SETBACK (PEARSALL AVENUE)	5 FEET MIN.	19.12 FEET (BLDG. 2)
§ 265–92 (GENERAL BUSINESS) SIDE YARD SETBACK	6 FEET MIN.	15 FEET (BLDG. 1)
§ 265–93 (GENERAL BUSINESS) REAR YARD SETBACK	6 FEET MIN.	24.67 FEET (BLDG. 3)
INCENTIVE OVERLAY DISTRICT MINIMUM LOT AREA	0.75 ACRES MIN.	2.498 ACRES
INCENTIVE OVERLAY DISTRICT – DENSITY 45 UNITS PER ACRE FOR PROPERTIES MORE THAN 1.0 ACRE AND LESS THAN 3.0 ACRES IN LAND AREA	112.4 TOTAL UNITS (45 x 2.498)	112 UNITS
INCENTIVE OVERLAY DISTRICT – BLDG. HEIGHT UP TO FOUR (4) STORIES OR 45 FEET IN HEIGHT PROPERTIES THAT ARE MORE THAN 1.0 ACRE AND LESS THAN 3.0 ACRES IN LAND AREA	FOUR STORIES / 45 FEET MAX HT.	FOUR STORIES / 45 FEET
INCENTIVE OVERLAY DISTRICT – BLDG. AREA 55% OF LOT AREA MAXIMUM	59,858.7 SQUARE FEET	49,289.6 SQUARE FEET

- SUBJECT PROPERTY IS LOCATED ON A CORNER HAVING TWO STREET FRONTAGES: 181.16 FEET ON ROCKAWAY TURNPIKE AND 635.42 FEET ON PEARSALL AVENUE
- ROCKAWAY TURNPIKE ABUTS THE VILLAGE BOUNDARY
- THE SUBJECT PROPERTY IS WHOLLY ZONED GENERAL BUSINESS DISTRICT

SUBJECT PROPERTY IS LOCATED WITHIN 0.75 MILES OF THE CEDARHURST LIRR STATION AND SATISFIES THE INCENTIVE OVERLAY DISTRICT CRITERIA.

PARKING CALCULATIONS 265-81 (OFF-STREET PARKING)

BUILDING 1:

- 2 – STUDIO & ONE–BEDROOM UNITS x 1.5 SPACES = 3.0 SPACES
- 28 – TWO–BEDROOM UNITS x 2.25 SPACES = 63.0 SPACES
- 4 – THREE–BEDROOM UNITS x 3 SPACES (1 PER BEDROOM) = 12.0 SPACES
- 5,082 SF COMMON SPACE (LOUNGES, CANTEEN, OFFICE, EXCLUDING LOBBY, HALLWAYS, AND RESIDENT–ONLY FITNESS x 1 SPACE PER EACH 200 SF = 25.4 SPACES

= 103.4 = 104 SPACES REQUIRED
113 SPACES PROVIDED

NOTES:
1. TOTAL PARKING COUNT IS INCLUSIVE OF 5 REQUIRED ADA PARKING SPACES: 4 LOCATED WITHIN THE STRUCTURED PARKING BELOW THE BUILDING FOOTPRINT AND 1 ON–GRADE.
2. PROVIDED PARKING INCLUDES 111 STRUCTURED PARKING SPACES BELOW THE BUILDING FOOTPRINT AND 2 ON–GRADE SPACES. REFER TO ARCHITECTURAL PLANS FOR STRUCTURED PARKING LAYOUT AND ADA PARKING DISTRIBUTION.

BUILDING 2:
- 1 – TWO–BEDROOM UNIT x 2.25 SPACES = 2.25 SPACES
- 37 – THREE BEDROOM UNITS x 3 SPACES = 111 SPACES

BUILDING 3:
- 40 ONE & TWO–BEDROOM UNITS x 2.25 SPACES = 90 SPACES
- 0 SF COMMON AREA EXCLUDING LOBBY, HALLS, RESIDENT FITNESS = 0 SPACES

= 203.3 = 204 SPACES REQUIRED
204 SPACES PROVIDED FOR BUILDINGS 2 & 3

NOTES:
1. BUILDINGS 2 & 3 SHARE STRUCTURED BELOW–GRADE PARKING SPACES.
2. TOTAL PARKING COUNT IS INCLUSIVE OF 10 ADA PARKING SPACES: 9 LOCATED WITHIN THE STRUCTURED PARKING BELOW THE BUILDING FOOTPRINTS (BUILDINGS 2 & 3) AND 1 ON–GRADE.
3. PROVIDED PARKING INCLUDES 194 STRUCTURED PARKING SPACES BELOW THE BUILDING FOOTPRINTS (BUILDINGS 2 & 3) AND 10 ON–GRADE SPACES. REFER TO ARCHITECTURAL PLANS FOR STRUCTURED PARKING LAYOUT AND ADA PARKING DISTRIBUTION.

* TOTAL REQUIRED PARKING FOR THIS SITE = 308 SPACES (104 + 204)
TOTAL PROVIDED PARKING FOR THIS SITE = 317 SPACES

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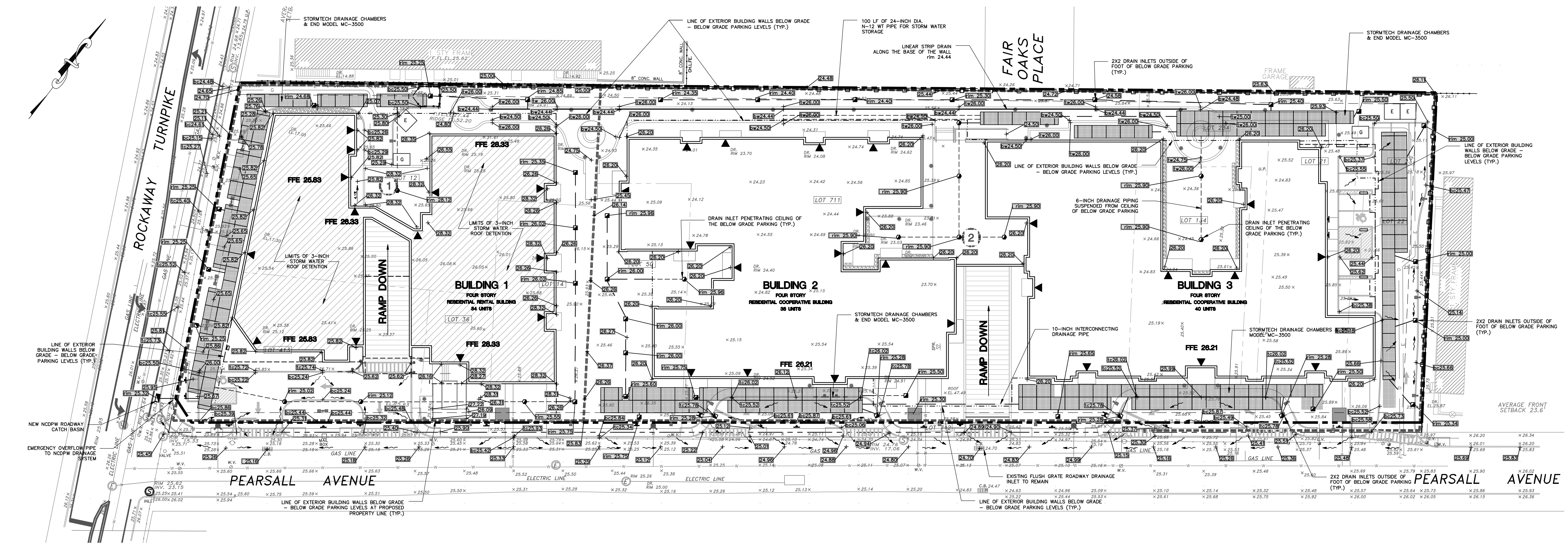
PROJECT NAME: PEARSALL ROCK, LLC

PROJECT LOCATION: PEARSALL AVENUE, INC. VILLAGE OF CEDARHURST
TOWN OF HEMPSTEAD, NASSAU COUNTY, NY

TITLE: SITE PLAN

DISCIPLINE: CIVIL

PROJECT ENGINEER: WCS	PROJECT NO. CE2906A	DRAWING NO. C–2
DESIGNED BY: WCS	JOB NO. CE2906A	
DRAWN BY: WCS	DATE: 05/06/2021	SHEET
CHECKED BY: KMM	SCALE: AS SHOWN	C–2 of 9



GRADING AND DRAINAGE NOTES

1. THESE PLANS REFERENCE A SURVEY PREPARED BY PERFECT POINT LAND SURVEYING, RT, LAST DATED MAY 29, 2018.
2. GENERAL CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE EXACT LOCATION, POINT OF ENTRY, SIZES AND DEPTHS OF UTILITIES, PIPING, DRYWELLS, ETC. PRIOR TO THE START OF WORK. THE GENERAL CONTRACTOR MUST CONTACT THE "ONE CALL" SYSTEM TO ENSURE THAT ALL UTILITIES ARE PROPERLY AND COMPLETELY MARKED OUT IN THE FIELD PRIOR TO ANY WORK AT THE SITE. ANY DISCREPANCIES BETWEEN THE FIELD LOCATIONS AND THE PLANS SHALL BE REPORTED TO THE ENGINEER IMMEDIATELY. THE GENERAL CONTRACTOR IS ADVISED THAT UTILITY INFORMATION SHOWN ON THIS PLAN IS A COMPILATION OF FIELD LOCATIONS AND RECORD DRAWINGS AND MUST BE CONFIRMED ACCORDINGLY. THE CONTRACTOR IS ALSO ADVISED THAT ALL SUCH UTILITIES DISTURBED DURING CONSTRUCTION MUST BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE.
3. THE CONTRACTOR SHALL NOTIFY APPROPRIATE UTILITY COMPANIES 48 HOURS BEFORE EXCAVATING, CUTTING, REMOVING OR TAPPING INTO ANY EXISTING UTILITY SERVICE.
4. THE CONTRACTOR IS RESPONSIBLE FOR REMOVAL OF ABANDONED UTILITY SERVICE CONNECTIONS AND THE INSTALLATION OF NEW SERVICE CONNECTIONS, AND SHALL COORDINATE ALL WORK WITH THE APPROPRIATE UTILITY COMPANY. REMOVAL OF EXISTING STRUCTURES SHALL BE IN CONFORMANCE WITH THE REGULATIONS OF ALL APPROPRIATE AGENCIES AND UTILITY COMPANIES. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS FOR DEMOLITION AND DISPOSAL OF EXISTING STRUCTURES AND MATERIALS.
5. ALL RIM ELEVATIONS FOR MANHOLES, CATCH BASINS, ETC. MUST BE VERIFIED AND ADJUSTED TO MEET FIELD CONDITIONS.
6. COMPACTING OF BACKFILL AROUND CATCHBASINS, MANHOLES AND SIMILAR STRUCTURES AND IN ALL PIPE TRENCH AREAS WILL BE REQUIRED.
7. AREAS BELOW PROPOSED UTILITY PIPES, DUCTS, RAMPS, STAIRS, RETAINING WALLS, STRUCTURES, ETC. SHALL BE COMPACTED TO 92% (95% IN VEHICULAR AREAS) OF MAXIMUM DRY DENSITY. IN AREAS WHERE THIS DENSITY IS NOT ACHIEVABLE, A GEOTEXTILE SUCH AS MIRAFI HP370 OR EQUAL SHOULD BE PLACED IN THE BOTTOM OF THE TRENCH AND UP THE SIDE WALLS TO A HEIGHT EQUAL TO THREE FEET ABOVE THE BOTTOM OF THE EXCAVATION. A CRUSHED STONE OR GRAVEL SUBBASE MATERIAL SHOULD BE PLACED IN THE TRENCH TO A HEIGHT OF THREE FEET AND COMPACTED. THE GEOTEXTILE SHOULD THEN BE BROUGHT OVER THE TOP OF THE AGGREGATE SUBBASE, TO MEET THE OUTSIDE OF THE PIPE OR STRUCTURE, OR OVER THE PIPE WHERE THE PIPE DIAMETER IS TWELVE INCHES OR LESS.
8. MASS GRADING FILL AREAS SHALL BE FIRST STRIPPED OF TOPSOIL AND MASS GRADING FILL SHALL BE GENERATED IN 6 INCH LIFTS, COMPACTED TO 95% STANDARD PROCTOR DENSITY.
9. THE INSTALLATION OF ALL HIGHWAY IMPROVEMENTS INCLUDING EXCAVATION, BACKFILL AND COMPACTION OF TRENCHES FOR SANITARY SEWERS AND UTILITIES SHALL BE SUPERVISED BY THE DEVELOPER'S PROFESSIONAL ENGINEER (LICENSED BY NEW YORK STATE OR A L.S. WITH A 7208N CERTIFICATE), WHO SHALL SUBMIT A SIGNED AND SEALED LETTER TO NASSAU COUNTY DEPARTMENT OF PUBLIC WORKS AND/OR THE VILLAGE OF CEDARHURST THAT THE IMPROVEMENTS HAVE BEEN INSTALLED TO THE APPLICABLE NEW YORK STATE, NASSAU COUNTY OR TOWN OF HEMPSTEAD SPECIFICATIONS. THE CERTIFICATION SHALL APPLY TO THE PROPOSED ROAD OPENINGS ON EXISTING STREETS. SAID WORK ON EXISTING STREET SHALL INCLUDE TRAFFIC MAINTENANCE AND THE PLACEMENT OF TEMPORARY AND FINAL PAVEMENT.
10. CONSTRUCTION SITE RUNOFF DOES NOT DIRECTLY CONTRIBUTE TO SURFACE WATERS. (CANALS, OPEN BAY, ETC.)
11. ALL DRYWELLS, LINEAR DRAINAGE CHAMBERS AND CATCH BASINS SHALL BE PRECAST, WITH PRECAST OPENINGS FOR DRAINAGE PIPE(S) AND SHALL CONFORM TO NASSAU COUNTY STANDARDS.
12. THE PROPOSED ON-SITE STORMWATER MANAGEMENT SYSTEM CONFORMS WITH THE NYS DEC PHASE II STORM WATER REGULATIONS.
13. ALL DRAINAGE STRUCTURES SHALL BE PRECAST, WITH PRECAST OPENINGS FOR DRAINAGE PIPE(S), AND SHALL CONFORM TO NASSAU COUNTY AND/OR VILLAGE OF CEDARHURST STANDARDS.
14. ALL STORM DRAINAGE PIPING TO BE 12"ø HIGH DENSITY POLYETHYLENE (HDPE) PIPE (UNLESS OTHERWISE NOTED ON PLAN). ALL ROOF DRAIN PIPING TO BE 8"ø DR-18 PIPE.
15. ALL ROOF RUNOFF FROM THE PROPOSED BUILDINGS TO BE PIPED DIRECTLY TO DRAINAGE CHAMBERS.
16. ALL DRAINAGE STRUCTURES (CATCH BASINS, DRAIN INLETS, MANHOLES, DRAINAGE CHAMBERS ETC.) SHALL BE OWNED AND MAINTAINED BY THE DEVELOPER / PROPERTY OWNERS.

NASSAU COUNTY DEPARTMENT OF HEALTH NOTES:

1. A PROFESSIONAL ENGINEER SHALL INSPECT THE CONSTRUCTION OF THE DRAINAGE STRUCTURES AND THE SANITARY SEWER AND SUBMIT A CERTIFICATION TOT EH NASSAU COUNTY HEALTH DEPARTMENT STATING THAT THE DRAINAGE FACILITIES AND SANITARY SEWERS WERE INSTALLED IN ACCORDANCE WITH THE APPROVED PLANS AND NASSAU COUNTY STANDARDS.

LEGEND PROPOSED

SPOT ELEVATION	10.20
FINISH FLOOR ELEV.	FFE 11.5
DRAINAGE INLET	
STORMTECH DRAINAGE CHAMBERS & END SECTIONS MODEL MC-3500	
DRAIN INLETS	
DRAIN INLETS ABOVE STRUCTURED BELOW GRADE PARKING	
ROOF DRAIN CLEAN OUT	
12-INCH ø HDPE STORM DRAINAGE PIPING	
6-INCH ø INTERNAL STORM DRAINAGE (SUSPENDED FROM CEILING OF BELOW GRADE PARKING)	
DRAINAGE TRIBUTARY NUMBER	#
DRAINAGE TRIBUTARY BOUNDARY	
TOP OF CURB	TC
BOTTOM OF CURB	BC
TOP OF WALL	TW
BOTTOM OF WALL	BW
FINISHED FLOOR	FFE
GARAGE FLOOR	GF
INVERT	INV.
ON-SITE HYDRANT	
SANITARY MANHOLE	
SANITARY CLEAN OUT	C.O.
SANITARY SEWER PIPING	S
WATER MAIN/SERVICE	W
GAS SERVICE	G
ELECTRIC SERVICE	E

DRAINAGE CALCULATIONS

Total Project Development Area - Required Storage	Area							
[illegible]	[illegible]	x	[illegible]	x	[illegible]	=	[illegible]	
Green Roof - Landscaping Above Below Grade Parking	[illegible]	x	[illegible]	x	[illegible]	=	[illegible]	
Landscaping	[illegible]	x	[illegible]	x	[illegible]	=	[illegible]	
Total Area	[illegible]			TOTAL STORAGE REQUIRED		=	[illegible]	
Tributary Area 1 - Building 1 - Required Storage								
[illegible]	[illegible]	x	[illegible]	x	[illegible]	=	[illegible]	
Green Roof - Landscaping Above Below Grade Parking	[illegible]	x	[illegible]	x	[illegible]	=	[illegible]	
Landscaping	[illegible]	x	[illegible]	x	[illegible]	=	[illegible]	
Total Area	[illegible]			TOTAL STORAGE REQUIRED		=	[illegible]	
Tributary Area 2 - Buildings 2 & 3 - Required Storage								
[illegible]	[illegible]	x	[illegible]	x	[illegible]	=	[illegible]	
Green Roof - Landscaping Above Below Grade Parking	[illegible]	x	[illegible]	x	[illegible]	=	[illegible]	
Landscaping	[illegible]	x	[illegible]	x	[illegible]	=	[illegible]	
Total Area	[illegible]			TOTAL STORAGE REQUIRED		=	[illegible]	
Tributary Area 1 - Building 1 - Provided Storage	Capacity (CF)		Quantity		Provided Storage			
[illegible]	[illegible]	x	[illegible]	=	[illegible]	CF		
[illegible]	[illegible]	x	[illegible]	=	[illegible]	CF		
	Depth (SF)		Area		Provided Storage			
[illegible]	[illegible]	x	[illegible]		[illegible]	CF		
Total Provided Storage					[illegible] CF			
Tributary Area 2 - Building 2 - Provided Storage	Capacity (CF)		Quantity		Provided Storage			
[illegible]	[illegible]	x	[illegible]	=	[illegible]	CF		
[illegible]	[illegible]	x	[illegible]	=	[illegible]	CF		
[illegible]	[illegible]	x	[illegible]	=	[illegible]	CF		
Total Provided Storage					25,140 CF			

ROOFTOP STORM WATER DETENTION:
3,563 CF OF DETENTION STORAGE PROVIDED WITH MAXIMUM OF 0.133 CFS RELEASE RATE.

GRAPHIC SCALE
20 0 10 20 40
(IN FEET)
HORIZ. 1 inch = 20 ft.

OWNER'S CERTIFICATION:
I CERTIFY THAT I HAVE READ OR HAVE BEEN ADVISED OF THE PERMIT CONDITIONS AND BELIEVE I UNDERSTAND THEM. I AM AWARE OF THE REQUIREMENTS OF THE SPDES GENERAL PERMIT NO. 0-15-002 FOR STORM WATER RUNOFF FROM THE CONSTRUCTION ACTIVITY AND WILL COMPLY WITH THE PREPARATION OF A NOTICE OF INTENT (NOI), SEDIMENTATION AND EROSION CONTROL PLAN AND STORM WATER POLLUTION AND PREVENTION PLAN.

OWNER: ____________________

NO.	DATE	REVISION DESCRIPTION	INT.

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www.Cameronengineering.com

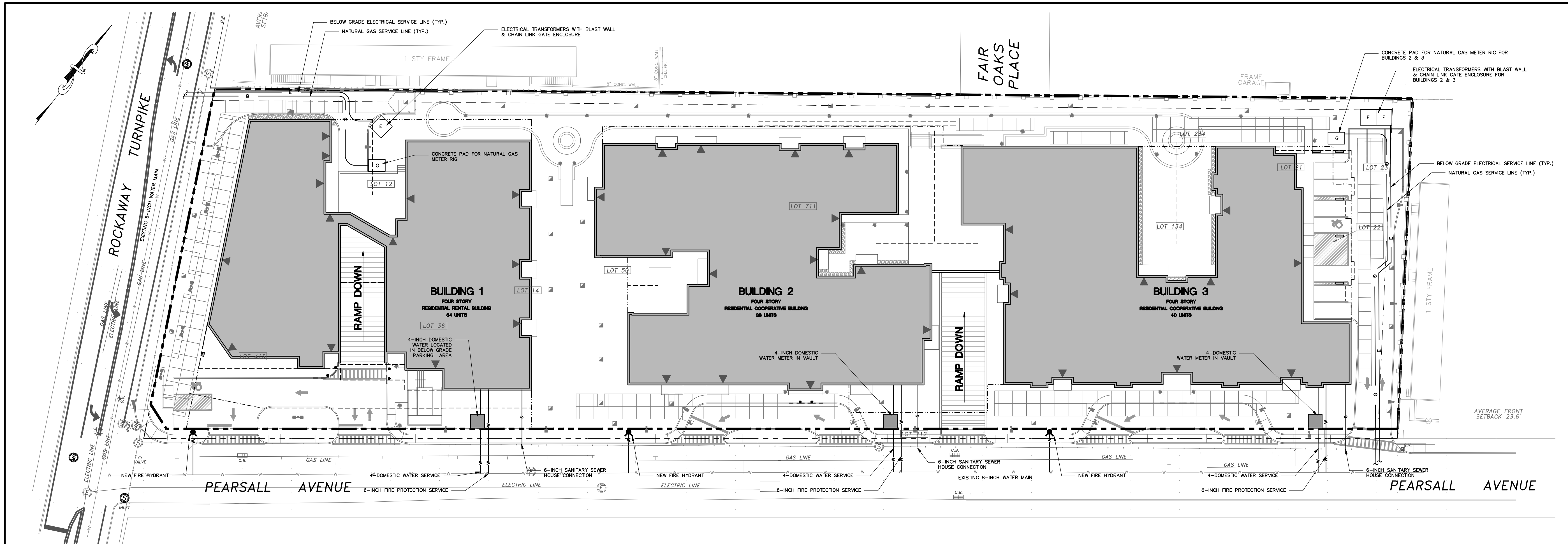
PROJECT NAME: PEARSALL ROCK, LLC

PROJECT LOCATION: PEARSALL AVENUE, INC. VILLAGE OF CEDARHURST TOWN OF HEMPSTEAD, NASSAU COUNTY, NY

TITLE: SITE GRADING AND DRAINAGE PLAN

DISCIPLINE: CIVIL

PROJECT ENGINEER: JDB	PROJECT NO. CE2906A	DRAWING NO.
DESIGNED BY: JDB	JOB NO. CE2906A	C-3
DRAWN BY: LMB	DATE: 05/06/2021	SHEET
CHECKED BY: AJK	SCALE: AS SHOWN	C-3 of 9



SANITARY SEWER NOTES

1. THIS PROPERTY IS LOCATED WITHIN THE NASSAU COUNTY SEWER AND STORM WATER RESOURCES DISTRICT.
2. THE DEVELOPER/CONTRACTOR SHALL INSTALL THE SANITARY SEWERS SERVICE IN ACCORDANCE WITH NCDPW STANDARD SPECIFICATIONS AND DETAILS FOR THE CONSTRUCTION OF SANITARY SEWERS, LATEST EDITION 2003, UNDER A PERMIT AND/OR SEWER AGREEMENT WITH THE COUNTY.
3. THE OWNER/BUILDER SHALL SECURE THE SERVICES OF A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF NEW YORK WITH EXPERIENCE IN THE FIELD OF SANITARY SEWER CONSTRUCTION. THAT ENGINEER WILL BE REQUIRED TO CERTIFY TO THE COUNTY OF NASSAU THAT THE CONSTRUCTION OF THE SANITARY SEWER SERVICE LINES AND STRUCTURES HAS BEEN INSPECTED AND INSTALLED IN CONFORMANCE WITH THE STANDARDS AND SPECIFICATIONS OF NASSAU COUNTY. THE ENGINEER SHALL FURNISH TWO (2) SETS OF CERTIFIED AS-BUILT DRAWINGS.
4. THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS A MINIMUM OF TWO (2) WORKING DAYS PRIOR TO WORK INVOLVING ANY SANITARY SEWER FACILITIES. NOTIFICATION IS TO BE MADE BY CALLING (516) 571-6841. ALL SUCH WORK MUST BE PERFORMED IN THE PRESENCE OF A NASSAU COUNTY INSPECTOR.
5. THE HORIZONTAL/VERTICAL SEPARATION OF SEWER AND DRAINAGE PIPE, AND WATER MAINS/SERVICES SHALL MEET OR EXCEED THE REQUIREMENTS OUTLINED IN THE RECOMMENDED STANDARDS FOR SEWAGE WORKS (TEN STATE STANDARDS), LATEST EDITION.
6. WHERE SANITARY OR HOUSE CONNECTION SEWERS CROSS OVER A DRAINAGE TRENCH AREA, THE SEWER SHALL BE REPLACED WITH DUCTILE IRON EXTENDING A MINIMUM OF FIVE (5) FEET EACH SIDE OF THE CROSSING TO UNDISTURBED SOIL. THE SAME REPLACEMENT SHALL APPLY FOR SEWERS UNDER A DRAINAGE TRENCH AREA WITHIN TWELVE (12) INCHES CLEARANCE, BOTTOM OF DRAIN TO TOP OF SEWER.
7. ALL PIPES, MANHOLES AND APPURTENANCES SHALL HAVE THE COUNTY APPROVAL STAMP THEREON OR WRITTEN CERTIFICATION ACCEPTABLE TO THE COUNTY BEFORE THE MATERIAL CAN BE INSTALLED.
8. THE MINIMUM/MAXIMUM HEIGHT LIMITS FOR BRICKWORK FOR NEW MANHOLES AREA FOUR (4) INCHES AND SIXTEEN (16) INCHES, RESPECTIVELY. ADJUSTMENTS TO CHIMNEY HEIGHT TO MEET THE LIMITS SHALL BE BY ALTERING THE PRECAST MANHOLE BARREL. ADDITIONAL REQUIREMENTS ARE:
   A. ONLY CONCRETE BRICK WILL BE USED FOR BRICKWORK.
   B. THE MANHOLE FRAME IS TO BE SET IN PORTLAND CEMENT CONCRETE. BRICK MOTAR WILL NTO BE PERMITTED.
   C. THE MANHOLE COVERS MUST BE AT FINISHED STREET GRADE. WARPING OR FEATHERING OF THE PAVEMENT TO MEET IMPROPERLY SET MANHOLES WILL NOT BE PERMITTED.
   D. THE MANHOLES AND COVERS MUST BE CLEAN AND FREE FROM ALL ROAD PAVING MATERIALS AND DEBRIS PRIOR TO PAINTING THE CASTINGS.
8. ALL CONNECTIONS TO MANHOLES MUST BE BY A FLEXIBLE RUBBER BOOT. IF THE BOOT IS NOT CAST IN, OR THE MANHOLE IS EXISTING, THE CONNECTION MUST BE BY THE KOR-N-SEAL METHOD.
9. THE CONTRACTOR SHALL COMPLY WITH ALL OSHA REQUIREMENTS FOR ENTRY INTO A CONFINED SPACE WHENEVER IT IS NECESSARY FOR A CONTRACTOR'S EMPLOYEE TO ENTER A NASSAU COUNTY SANITARY SEWER MANHOLE. THE MINIMUM REQUIREMENTS THE CONTRACTOR MUST COMPLY WITH ARE:
   A. CONTRACTOR ISSUED "ENTRY PERMIT".
   B. CONFINED SPACE ENTRY MONITOR TO TEST FOR TOXIC, EXPLOSIVE AND OXYGEN DEFICIENT ATMOSPHERE.
   C. CONFINED SPACE RESCUE AND RETRIEVAL EQUIPMENT.
   D. THE CONTRACTOR WILL NOT BE PERMITTED TO WORK IN A NASSAU COUNTY SANITARY SEWER MANHOLE UNLESS HE COMPLIES WITH ALL APPLICABLE OSHA REQUIREMENTS.
10. THE SANITARY SEWER SERVICE CONNECTIONS SERVICING THIS PROPERTY IS TO REMAIN PRIVATE. MAINTENANCE AND REPAIRS ARE THE SOLE RESPONSIBILITY OF THE DEVELOPER / OWNER.
11. GRAVITY SEWER MAINS AND MANHOLES SHALL BE OWNED AND MAINTAINED BY THE PROPERTY OWNERS.
12. ALL SANITARY SEWER HOUSE CONNECTION PIPING TO BE 6"ø PVC SDR-35 PIPE @ 1.0% MIN. SLOPE.
13. THE CROSSING OF WATER AND SEWER LINES SHALL BE AS FOLLOWS:
   13.1. SEWER LINES SHALL BE LAID BELOW THE WATER LINE AND PROVIDE A SEPARATION OF AT LEAST EIGHTEEN INCHES BETWEEN THE BOTTOM OF THE WATER LINE AND THE TOP OF THE SEWER LINE; AND
   13.2. SEWER LINE JOINTS SHALL BE AT LEAST TEN FEET FROM THE POINT OF CROSSING.
   13.3. WHEN THE LOCAL CONDITIONS PREVENT PLACEMENT OF THE WATER LINE ABOVE THE SEWER LINE,THE FOLLOWING ADDITIONAL CONDITIONS APPLY:
   13.4. A VERTICAL SEPARATION OF AT LEAST EIGHTEEN INCHES SHALL BE PROVIDED BETWEEN THE BOTTOM OF THE SEWER LINE AND THE TOP OF THE WATER LINE; AND
   13.5. WATER LINE JOINTS SHALL BE AT LEAST TEN FEET FROM THE POINT OF CROSSING; AND
   13.6. SEWER LINES SHALL BE CONSTRUCTED OF MATERIALS AND JOINTS THAT ARE IN ACCORDANCE WITH WATER MAIN STANDARDS OF CONSTRUCTION AND SHALL BE PRESSURE TESTED TO ASSURE WATER TIGHTNESS PRIOR TO BACKFILLING.

NASSAU COUNTY DEPARTMENT OF HEALTH NOTES:

1. A PROFESSIONAL ENGINEER SHALL INSPECT THE CONSTRUCTION OF THE DRAINAGE STRUCTURES AND THE SANITARY SEWER AND SUBMIT A CERTIFICATION TOT EH NASSAU COUNTY HEALTH DEPARTMENT STATING THAT THE DRAINAGE FACILITIES AND SANITARY SEWERS WERE INSTALLED IN ACCORDANCE WITH THE APPROVED PLANS AND NASSAU COUNTY STANDARDS.

WATER NOTES

1. ALL WATER SERVICE VALVES SHALL BE RESILIENT WEDGE GATE VALVES (R.W.G.V.)
2. PRIOR TO CONSTRUCTION, THE CONTRACTOR IS RESPONSIBLE FOR THE LOCATION, SIZE AND ELEVATION OF ALL UNDERGROUND UTILITIES.
3. THE CONTRACTOR SHALL VISIT THE SITE TO PERFORM AND UNDERTAKE, AT HIS SOLE COST, ANY MEASURES NECESSARY TO FAMILIARIZE HIMSELF WITH ALL LOCAL CONDITIONS WHICH COULD AFFECT THE EXECUTION OF COMPLETION OF THE WORK.
4. ACCEPTANCE OF THE CONTRACT IS A CERTIFICATION BY THE CONTRACTOR THAT THESE PLANS AND THE APPROPRIATE SPECIFICATIONS ARE COMPLETE AND CORRECT
5. THE CONTRACTOR SHALL BE LIABLE AND RESPONSIBLE FOR UNANTICIPATED CONDITIONS, WORK, AND COSTS ASSOCIATED WITH THIS PROJECT.
6. ALL DOMESTIC WATER SERVICE CONNECTIONS TO THE BUILDINGS SHALL BE 4-INCH DIAMETER DUCTILE IRON PIPE PIPE AND ALL FIRE SERVICES SHALL BE 6-INCH DUCTILE IRON PIPE.
7. AN INTERNAL 6-INCH DCDA SHALL BE PROVIDED ON THE FIRE SERVICES IN EACH BUILDING AND SHALL BE INSTALLED IN ACCORDANCE WITH APPLICABLE RULES AND REGULATIONS OF NEW YORK AMERICAN WATER AND NASSAU COUNTY HEALTH DEPARTMENT. AN INTERNAL 4-INCH RPZ SHALL BE PROVIDED FOR ALL DOMESTIC WATER SERVICES AND SHALL BE INSTALLED IN ACCORDANCE WITH APPLICABLE RULES AND REGULATIONS OF NEW YORK AMERICAN WATER AND NASSAU COUNTY HEALTH DEPARTMENT.

CONTRACTOR NOTES

1. PRIOR TO CONSTRUCTION, THE CONTRACTOR IS RESPONSIBLE FOR THE LOCATION, SIZE, AND ELEVATION OF ALL UNDERGROUND UTILITIES.
2. THE CONTRACTOR SHALL VISIT THE SITE TO PERFORM AND UNDERTAKE, AT HIS SOLE COST, ANY MEASURE NECESSARY TO FAMILIARIZE HIMSELF WITH ALL LOCAL CONDITIONS WHICH COULD AFFECT THE EXECUTION OR COMPLETION OF THE WORK.
3. ACCEPTANCE OF THE CONTRACT IS A CERTIFICATION BY THE CONTRACTOR THAT THESE PLANS AND THE APPROPRIATE SPECIFICATIONS ARE COMPLETE AND CORRECT.
4. THE CONTRACTOR SHALL BE LIABLE AND RESPONSIBLE FOR UNANTICIPATED CONDITIONS, WORK, AND COSTS ASSOCIATED WITH THIS PROJECT.

LEGEND PROPOSED

FINISH FLOOR ELEV.	FFE 11.5
INVERT	INV.
ON-SITE HYDRANT	
SANITARY MANHOLE	
SANITARY CLEAN OUT	C.O.
SANITARY SEWER PIPING	—— S ——
WATER MAIN/SERVICE	—— W ——
GAS SERVICE	—— G ——
ELECTRIC SERVICE	—— E ——
DRAINAGE INLET	
STORMTECH DRAINAGE CHAMBERS & END SECTIONS MODEL MC-3500	
DRAIN INLETS	
HDPE STORM PIPING	—— D ——
HDPE ROOF DRAIN PIPING	—— RD ——

GRAPHIC SCALE

20 0 10 20 40

(IN FEET)
HORIZ. 1 inch = 20 ft.

NO.	DATE	REVISION DESCRIPTION	INT.

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Corporate Seal Initiated 1996 State of New York
www.Cameronengineering.com

PROJECT NAME: PEARSALL ROCK, LLC

PROJECT LOCATION: PEARSALL AVENUE, INC. VILLAGE OF CEDARHURST TOWN OF HEMPSTEAD, NASSAU COUNTY, NY

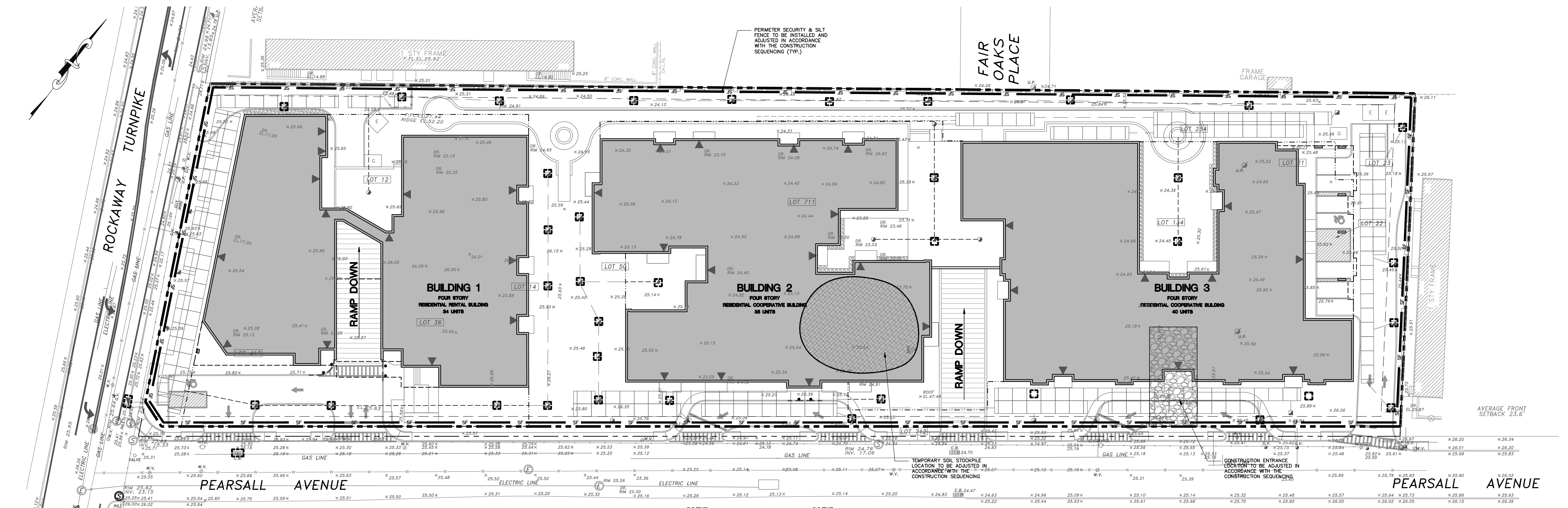
TITLE: SITE UTILITIES PLAN

DISCIPLINE: CIVIL

PROJECT ENGINEER: JDB	PROJECT NO. CE2906A
DESIGNED BY: JDB	JOB NO. CE2906A
DRAWN BY: LMB	DATE: 05/06/2021
CHECKED BY: AJK	SCALE: AS SHOWN

DRAWING NO. C-4

SHEET C-4 of 9



SEDIMENT & EROSION CONTROL NOTES

1. EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO THE START OF CONSTRUCTION. ADDITIONAL EROSION CONTROL MAY BE NECESSARY, BASED UPON FIELD CONDITIONS THAT MAY DEVELOP AS CONSTRUCTION PROGRESSES AND AS MAY BE REQUIRED BY THE TOWN OF HEMPSTEAD. THE FOLLOWING GENERAL CONDITIONS SHALL BE OBSERVED.

   A. EXISTING VEGETATION TO REMAIN SHALL BE PROTECTED AND REMAIN UNDISTURBED.
   B. CLEARING AND GRADING SHALL BE SCHEDULED SO AS TO MINIMIZE THE SIZE OF EXPOSED AREAS AND THE LENGTH OF TIME THAT AREAS ARE EXPOSED.
   C. THE LENGTH AND STEEPNESS OF CLEARED SLOPES SHALL BE MINIMIZED TO REDUCE RUNOFF VELOCITIES AND QUANTITIES.
   D. RUNOFF SHALL BE DIVERTED AWAY FROM CLEARED SLOPES.
   E. SEDIMENT SHALL BE TRAPPED ON THE SITE. SPECIFIC METHODS AND MATERIALS EMPLOYED IN THE INSTALLATION AND MAINTENANCE OF EROSION CONTROL MEASURES SHALL CONFORM TO THE "NEW YORK GUIDELINES FOR URBAN EROSION AND SEDIMENT CONTROL".

2. SEDIMENT BARRIERS (SILT FENCE, HAY BALES OR APPROVED EQUAL) SHALL BE INSTALLED PRIOR TO ANY GRADING WORK ALONG THE LIMITS OF DISTURBANCES AND SHOULD BE MAINTAINED FOR THE DURATION OF THE WORK. NO SEDIMENT FROM THE SITE SHALL BE PERMITTED TO WASH ONTO ADJACENT PROPERTIES, WETLANDS OR ROADS.

3. GRADED AND STRIPPED AREAS AND STOCKPILES SHALL BE KEPT STABILIZED THROUGH THE USE OF TEMPORARY SEEDING AS REQUIRED. SEED MIXTURES SHALL BE IN ACCORDANCE WITH SOIL CONSERVATION SERVICE RECOMMENDATIONS.

4. DRAINAGE INLETS INSTALLED AS PART OF THE PROJECT SHALL BE PROTECTED FROM SEDIMENT BUILDUP THROUGH THE USE OF SEDIMENT BARRIERS, SEDIMENT TRAPS, ETC., AS REQUIRED.

5. PROPER MAINTENANCE OF EROSION CONTROL MEASURES IS TO BE PERFORMED AS INDICATED BY PERIODIC INSPECTION AND AFTER HEAVY OR PROLONGED STORMS. MAINTENANCE MEASURES INCLUDE, BUT ARE NOT LIMITED TO, CLEANING OF SEDIMENT BASINS OR TRAPS, CLEANING OR REPAIR OF SEDIMENT BARRIERS, CLEANING AND REPAIR OF BERMS AND DIVERSIONS AND CLEANING AND REPAIR OF INLET PROTECTION.

6. APPROPRIATE MEANS SHALL BE USED TO CONTROL DUST DURING CONSTRUCTION.

7. A STABILIZED CONSTRUCTION ENTRANCE SHALL BE MAINTAINED TO PREVENT SOIL AND LOOSE DEBRIS FROM BEING TRACKED ONTO LOCAL ROADS. THE CONSTRUCTION ENTRANCE SHALL BE MAINTAINED UNTIL THE SITE IS PERMANENTLY STABILIZED.

8. SEDIMENT BARRIERS AND OTHER EROSION CONTROL MEASURES SHALL REMAIN IN PLACE UNTIL UPLAND DISTURBED AREAS ARE PERMANENTLY STABILIZED (SEE GRADING NOTE NUMBER 1). AFTER PERMANENT STABILIZATION, PAVED AREAS SHALL BE CLEANED AND DRAINAGE SYSTEMS CLEANED AND FLUSHED AS NECESSARY.

9. SILTFENCE TO BE INSTALLED AROUND ALL MATERIAL STOCKPILING AREAS.

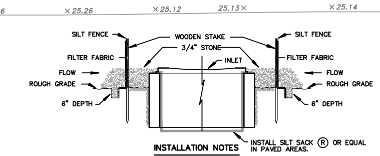
LEGEND (PROPOSED)

- TEMPORARY GRAVEL CONSTRUCTION ENTRANCE
- SILT FENCE
- INLET PROTECTION
- MATERIAL STOCKPILE AREA

GRAPHIC SCALE

0 20 40

(IN FEET)
HORIZ. 1 inch = 20 ft.



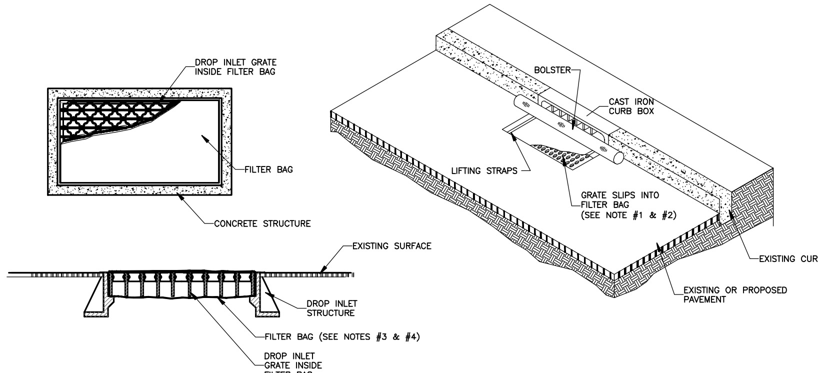
INSTALLATION NOTES

SILT FENCE

1. EXCAVATE A 6 INCH x 6 INCH TRENCH, OFFSET APPROXIMATELY 2 FEET FROM THE INLET PERIMETER.
2. UNROLL A SECTION AT A TIME AND POSITION THE POSTS AGAINST THE BACK (DOWNSTREAM) WALL OF THE TRENCH (NET SIDE AWAY FROM DIRECTION OF FLOW).
3. DRIVE THE POST INTO THE GROUND UNTIL THE NETTING IS APPROXIMATELY 2 INCHES FROM THE TRENCH BOTTOM.
4. LAY THE TOE-IN FLAP OF FABRIC ONTO THE UNDISTURBED BOTTOM OF THE TRENCH, BACKFILL THE TRENCH AND TAMP THE SOIL. STEEPER SLOPES REQUIRE AN INTERCEPT TRENCH.
5. JOIN SECTIONS AS SHOWN ABOVE. SUPPLEMENT WITH GRAVEL, PILED AGAINST THE FENCE.

INLET PROTECTION

SCALE: NTS

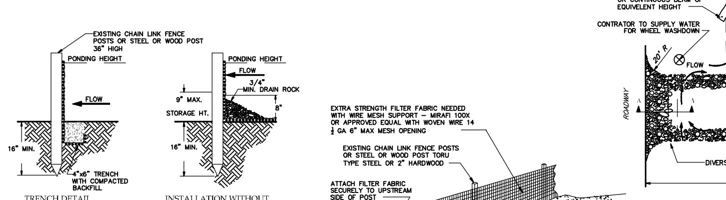


NOTES:

1. MAINTENANCE: WITH A STIFF BRISTLE BROOM, SWEEP SILT AND OTHER DEBRIS OFF SURFACE AFTER EACH EVENT.
2. INSTALLATION:
   a. STAND GRATE ON END
   b. SLIDE THE SILT BAG ON WITH THE DAM ON TOP OF THE GRATE PULL ALL EXCESS DOWN
   c. LAY THE UNIT ON ITS SIDE AND CAREFULLY TUCK THE FLAP IN
   d. PRESS THE VELCRO STRIPS TOGETHER
   e. INSTALL THE UNIT MAKING SURE THE FRONT EDGE OF GRATE IS INSERTED IN THE FRAME FIRST THEN LOWER IT BACK IN PLACE
   f. PRESS THE VELCRO DOTS THAT ARE LOCATED UNDER THE LIFTING STRAPS TOGETHER, THIS INSURES THAT THE STRAPS REMAIN FLUSH WITH THE GUTTER
3. INSTALLATION:
   a. STAND GRATE ON END
   b. PLACE THE SILT BAG OVER GRATE
   c. FLIP THE GRATE OVER SO THAT THE OPEN END IS UP
   d. PULL UP THE SLACK AND TUCK THE FLAP IN
   e. BE SURE THAT THE END OF THE GRATE IS COMPLETELY COVERED BY THE FLAP OR THE DANDY BAG WILL NOT FIT PROPERLY.
   f. WHILE HOLDING THE HANDLES, CAREFULLY PLACE DANDY BAG WITH THE GRATE INSERTTED INTO THE CATCH BASIN FRAME SO THAT THE RED DOT ON THE TOP OF THE DANDY BAG IS VISIBLE
4. MAINTENANCE: WITH A STIFF BRISTLE BROOM, SWEEP SILT AND OTHER DEBRIS OFF SURFACE AFTER EACH EVENT.
5. PRIOR AMD/OR DURING THE COURSE OF CONSTRUCTION, THE CONTRACTOR SHALL COMPPLY WITH ALL ADDITIONAL MEASURES DEEMED NESSARY BY THE ENGINEER AND SHALL BE RESPONSIBLE FOR MAINTAINING ALL EROSION AND SEDIMENT CONTROL DEVICES.
6. ALL DEBRIS OR EXCESS MATERIALS FROM CONSTRUCTION OF THIS PROJECT SHALL BE IMMEDIATELY AND COMPLETELY REMOVED FROM THE PROJECT AREA.
7. ALL INLET SEDIMENT CONTROL DEVICES AT EACH LOCATION SHALL BE INSTAHHED PRIOR TO COMMENCING ANY PAVEMENT WORK IN THAT LOCATION OR AS OTHERWISE DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL MAINTAIN ALL SEDIMENT CONTROLS AND REMOVE COLLECTED SEDIMENT ON A WEEKLY BASIS OR AS DIRECTED BY THE ENGINEER. COLLECTED MATERIAL SHALL BE DISPOSED OF PROPERLY TO AN OFF-SITE LOCATION AS DIRECTED BY THE ENGINEER.
8. ALL SEDIMENT CONTROL DEVICES SHALL BE REMOVED FROM THE SITE AFTER CONSTRUCTION IS COMPLETED.
9. MATERIAL SHALL BE DANDY BAG AS MANUFACTURED BY DANDY PRODUCT, INC. P.O. BOX 1980, WESTERVILLE OHIO 43086. PHONE 1-800-591-2284 OR APPROVED EQUIVALENT.
10. FILTER BAG SHALL BE REPLACED WHEN IT LOSES ITS ABILITY TO PREVENT SEDIMENT INFILTRATION AS DETERMINED BY THE ENGINEER. NO ADDITIONAL PAYMENT SHALL BE MADE FOR REPLACEMENTS.

TEMPORARY SEDIMENT FILTER BAG FOR DRAINAGE STRUCTURES IN RIGHT-OF-WAY

SCALE: NTS

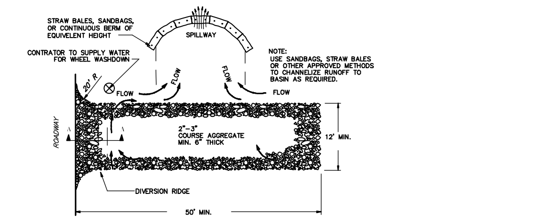


NOTES:

1. SILT FENCE SHALL BE PLACED ON SLOPE CONTOURS TO MAXIMIZE PONDING EFFICIENCY.
2. INSPECT AND REPAIR FENCE AFTER EACH STORM EVENT AND REMOVE SEDIMENT WHEN NECESSARY. 9" MAXIMUM RECOMMENDED STORAGE HEIGHT.
3. REMOVED SEDIMENT SHALL BE DEPOSITED TO AN AREA THAT WILL NOT CONTRIBUTE SEDIMENT OFF-SITE AND CAN BE PERMANENTLY STABILIZED.
4. WHERE POSSIBLE ATTACH SILT FENCE TO EXISTING CHAIN LINK FENCE.

SILT FENCE DETAIL

SCALE: NTS



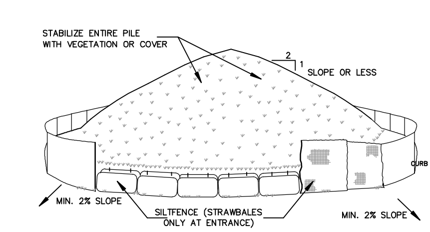
NOTES:

1. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAYS. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.
2. WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY.
3. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.

(CONTRACTOR TO MAINTAIN)

EXISTING TEMPORARY GRAVEL CONSTRUCTION ENTRANCE/EXIT DETAIL

SCALE: NTS

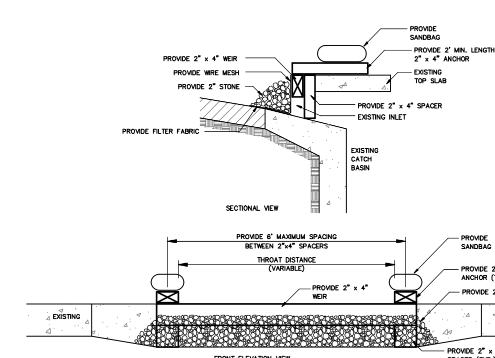


NOTES:

1. AREA CHOSEN FOR STOCKPILING OPERATIONS SHALL BE DRY AND STABLE.
2. MAXIMUM SLOPE OF STOCKPILE SHALL BE 1:2.
3. UPON COMPLETION OF SOIL STOCKPILING, EACH PILE SHALL BE SURROUNDED WITH SILT FENCING, THEN STABILIZED WITH VEGETATION OR COVERED.
4. SEE DETAIL FOR INSTALLATION OF SILT FENCE.

SOIL STOCKPILING

SCALE: NTS



NOTES:

1. FILTER FABRIC SHALL HAVE AN AOS OF 40-85.
2. WOODEN FRAME SHALL BE CONSTRUCTED OF 2" x 4" CONSTRUCTION GRADE LUMBER.
3. WIRE MESH ACROSS THROAT SHALL BE A CONTINUOUS PIECE HAVING A MINIMUM WIDTH OF 30 INCHES AND HAVING A LENGTH 4 FEET LONGER THAN THE CATCH BASIN THROAT. IT SHALL BE SHAPED AND SECURELY NAILED TO THE 2" x 4" WEIR.
4. THE WEIR SHALL BE SECURELY NAILED TO 2" x 4" SPACERS 9 INCHES LONG SPACED NO MORE THAN 6 FEET APART.
5. THE ASSEMBLY SHALL BE PLACED AGAINST THE INLET AND SECURED BY 2" x 4" ANCHORS 2 FEET LONG EXTENDING ACROSS THE TOP OF THE INLET AND HELD IN PLACE BY SANDBAGS OR OTHER WEIGHTS DESIGNATED BY THE OWNER'S REPRESENTATIVE.

CURB INLET EROSION & SEDIMENT CONTROL DETAIL

SCALE: NTS

NO.	DATE	REVISION DESCRIPTION	INT.

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CAMERON ENGINEERING & ASSOCIATES, LLP

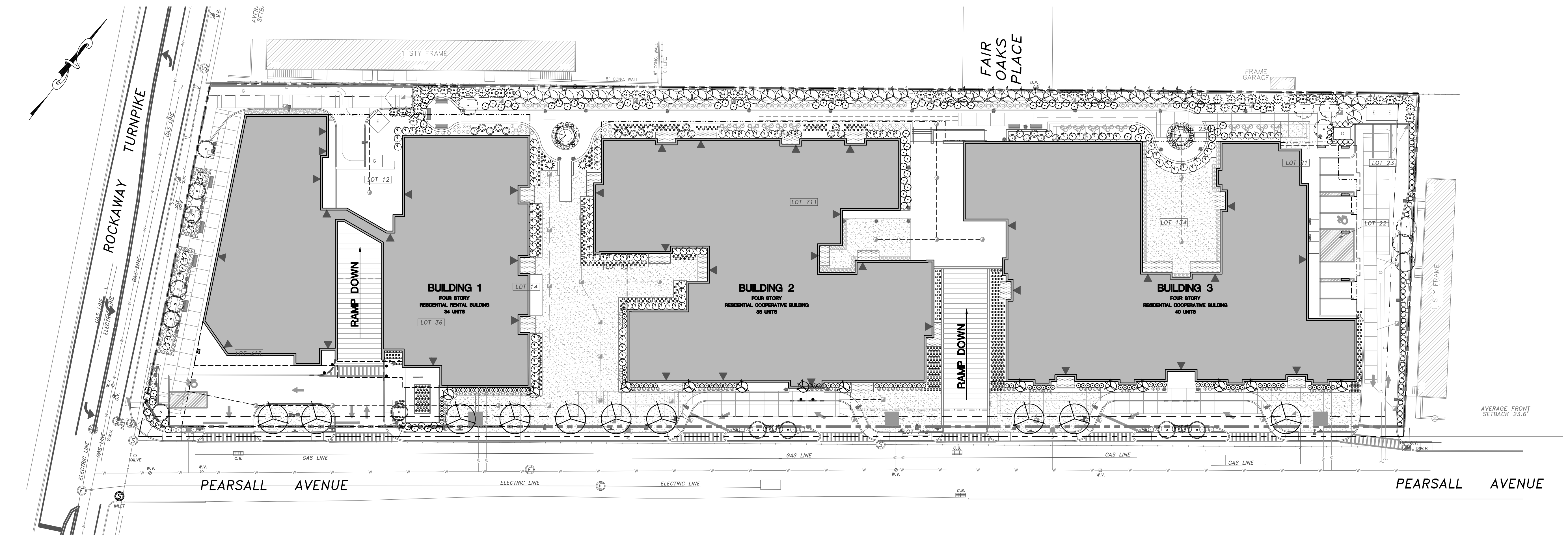
PROJECT NAME: PEARSALL ROCK, LLC

PROJECT LOCATION: PEARSALL AVENUE, INC. VILLAGE OF CEDARHURST TOWN OF HEMPSTEAD, NASSAU COUNTY, NY

TITLE: SEDIMENT & EROSION CONTROL PLAN

DISCIPLINE: CIVIL

PROJECT ENGINEER: JDB	PROJECT NO. CE2906A	DRAWING NO. C-5
DESIGNED BY: JDB	JOB NO. CE2906A	
DRAWN BY: LMB	DATE: 05/06/2021	SHEET
CHECKED BY: AJK	SCALE: AS SHOWN	C-5 of 9



PLANTING NOTES

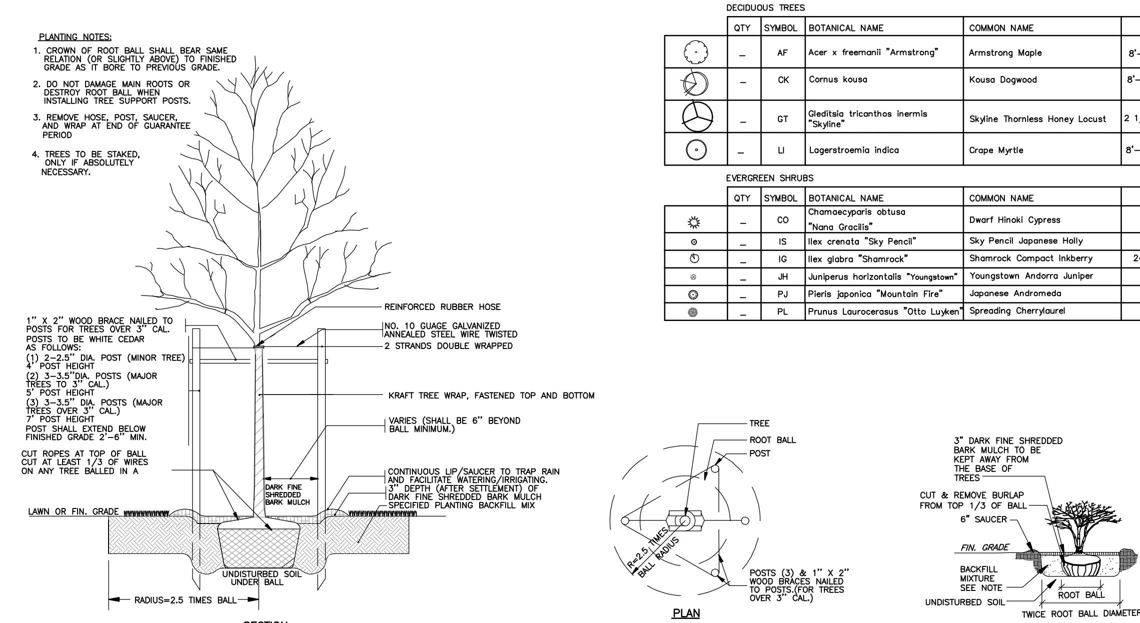
1. ALL PLANT MATERIAL SUPPLIED AND INSTALLED SHALL BE IN ACCORDANCE WITH CURRENT A.A.N. (AMERICAN ASSOCIATION OF NURSERYMEN), AND ACCEPTED INDUSTRY STANDARDS.
2. NO SUBSTITUTION OF MATERIAL SHALL BE MADE WITHOUT THE APPROVAL OF THE OWNER, AND THE ENGINEER.
3. BACKFILL ALL PLANT PITS WITH A BACKFILL MIXTURE OF TOPSOIL AND PROPER AMOUNTS OF FERTILIZER.
4. ALL MAJOR, MINOR, AND EVERGREEN TREES SHALL BE PROPERLY STAKED OR ANCHORED ONLY IF ABSOLUTELY NECESSARY. IF STAKING IS NECESSARY GUY WIRES TO BE LEFT LOOSE AND STAKES AND WIRES TO BE REMOVED AT END OF GUARANTEE PERIOD.
5. CULTIVATE AND RAKE OVER FINISHED PLANTING AREA AND LEAVE IN AN ORDERLY CONDITION.
6. FORM A SHALLOW BASIN AROUND EACH PLANT SO AS TO HOLD WATER AND MULCH.
7. ALL TREE AND SHRUB AREAS TO BE MULCHED AS SHOWN ON THE PLANS WITH A MINIMUM OF 3" SHREDDED BARK MULCH.
8. REMOVE FROM ALL PLANT MATERIAL, BROKEN OR BRUISED BRANCHES WITH A CLEAN CUT.
9. AT THE TIME OF PLANTING, THE SOIL AROUND EACH PLANT SHALL BE THOROUGHLY SATURATED WITH WATER AND AS MANY TIMES LATER AS SEASON CONDITIONS REQUIRE FOR THE ENTIRE MAINTENANCE PERIOD.
10. ALL LAWN AREAS TO BE TOPSOILED WITH A MINIMUM OF 4" TOPSOIL AND SODDED AS DIRECTED BY THE OWNER OR AS SHOWN ON THE PLANS.
11. GROUND LIMESTONE SHALL BE EVENLY APPLIED AT THE RATE REQUIRED TO BRING THE SEED/SOD BED TO A PH READING OF BETWEEN 6.0 AND 7.0. THE LIMESTONE SHALL BE LIGHTLY WORKED INTO THE TOP THREE INCHES OF SOIL.
12. COMMERCIAL FERTILIZER SHALL BE EVENLY APPLIED TO THE SEED/SOD BED AT THE RATE OF 1,000 LBS. PER ACRE AND INCORPORATED INTO THE TOP THREE INCHES OF SOIL. THE ELEMENTS OF THE FERTILIZER MAY BE ORGANIC, INORGANIC OR A COMBINATION.
13. PRE-EMERGENT WEED CONTROL SHALL BE APPLIED TO ALL AREAS FOR PLANTING INCLUDING TREES, SHRUBS, GROUND COVER AND SEEDED AREAS. IF SEEDING OF LAWN AREAS IS REQUIRED, WEED CONTROL APPLIED MUST PERMIT IMMEDIATE SEEDING OF PERMANENT GRASSES.
14. ALL LANDSCAPING AS SHOWN ON THE APPROVED SITE PLAN SHALL BE MAINTAINED IN A VIGOROUS GROWING CONDITION THROUGHOUT THE LIFE OF THE PROJECT. ANY PLANTS NOT SO MAINTAINED SHALL BE REPLACED WITH HEALTHY NEW PLANTS OF COMPARABLE SIZE, TYPE AND QUALITY AT THE BEGINNING OF THE NEXT IMMEDIATELY FOLLOWING GROWING SEASON.
15. TOPSOIL FOR PLANTING AND SEED AREAS TO BE IMPORTED AS REQUIRED. AT NO ADDITIONAL COST TO THE OWNER.
16. PLANT SAVER, MANUFACTURED BY PLANT HEALTH CARE, INC. TO BE ADDED AT TIME OF PLANTING AND ACCORDING TO MANUFACTURERS SPECIFICATIONS IN ALL PLANTED AREAS EXCEPT TREE PLANTINGS. TREE PLANTINGS TO INCLUDE TREE SAVER, MANUFACTURED BY PLANT HEALTH CARE, INC. TO BE ADDED AT TIME OF PLANTING AND ACCORDING TO MANUFACTURERS SPECIFICATIONS.

AUTOMATIC IRRIGATION NOTES

1. ALL LANDSCAPED AREAS SHALL BE PROVIDED WITH AN AUTOMATIC UNDERGROUND HIGH EFFICIENCY IRRIGATION SYSTEM. INSTALLATION OF IRRIGATION SYSTEM TO BE COORDINATED WITH INSTALLATION OF LANDSCAPE MATERIAL. CONTRACTOR TO SUBMIT DIAGRAMMATIC LAYOUT (SHOP DRAWING) PRIOR TO INSTALLATION.
2. ALL LANDSCAPED AREAS SHALL BE PART OF AUTOMATIC IRRIGATION SYSTEM.
3. IRRIGATION SYSTEM TO INCLUDE MULTI-ZONE SMART CONTROLLER CAPABLE OF MONITORING CLIMATIC CONDITIONS, AND RAIN SENSOR EQUIPPED TO DETECT RAINFALL AND SOIL MOISTURE CONDITIONS.
4. ALL IRRIGATION HEADS TO BE HIGH EFFICIENCY.
5. LANDSCAPE/IRRIGATION CONTRACTOR TO PROVIDE AND COORDINATE INSTALLATION LOCATIONS OF ALL SLEEVING REQUIRED.
6. CONTRACTOR TO PROVIDE (2) 4"ø SDR-35 PVC SLEEVES BELOW PAVEMENT TO ALL LANDSCAPED ISLANDS, TREE PITS, LANDSCAPED PARKING MEDIANS, ECT. SLEEVES TO PROJECT 12" MINIMUM INTO LANDSCAPED AREAS.

MULCH NOTES

1. ALL MULCH SHALL BE PRIMARILY COMPOSED OF SHREDDED HARDWOOD BARK. A WRITTEN CERTIFICATION AND SAMPLE OF MATERIAL COMPOSITION SHALL BE SUBMITTED TO OWNERS REPRESENTATIVE FOR APPROVAL PRIOR TO CONSTRUCTION.
2. THE WRITTEN CERTIFICATION FURNISHED SHALL SPECIFICALLY NOTE THAT MULCH SUPPLIED CONTAINS NONE OF THE FOLLOWING:
   A) GROUND RECYCLED PALLETS
   B) CHEMICAL TREATMENTS OR RESIDUES



TREE & SHRUB PLANTING DETAIL

SCALE: NTS

PLANTING SCHEDULE

EVERGREEN TREES

	QTY	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	SPACING	COMMENTS
	–	CL	Cupressocyparis leylandii	Leyland Cypress	8'–10' ht.	AS SHOWN	B&B
	–	CO	Chamaecyparis obtusa 'Gracilis'	Hinoki Cypress	8'–10' ht.	AS SHOWN	B&B
	–	JC–1	Juniperus chinensis 'Hetzi columnaris'	Hetzi Columnaris Juniper	5'–6' HT.	AS SHOWN	B&B
	–	TX	Taxus media 'Viridis'	Fastigiata Yew	3.5'–4' HT.	AS SHOWN	B&B

DECIDUOUS TREES

	QTY	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	SPACING	COMMENTS
	–	AF	Acer x freemanii "Armstrong"	Armstrong Maple	8'–10' ht., b&b	AS SHOWN	B&B
	–	CK	Cornus kousa	Kousa Dogwood	8'–10' ht., b&b	AS SHOWN	B&B
	–	GT	Gleditsia tricanthos inermis "Skyline"	Skyline Thornless Honey Locust	2 1/2" –3" cal.	AS SHOWN	B&B
	–	LI	Lagerstroemia indica	Crape Myrtle	8'–10' ht., b&b	AS SHOWN	Multi Stem Crimson Flowers

EVERGREEN SHRUBS

	QTY	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	SPACING	COMMENTS
	–	CO	Chamaecyparis obtusa "Nana Gracilis"	Dwarf Hinoki Cypress	3'–4' ht.	AS SHOWN	Boxed Specimen
	–	IS	Ilex crenata "Sky Pencil"	Sky Pencil Japanese Holly	3'–4' ht.	AS SHOWN	Container
	–	IG	Ilex glabra "Shamrock"	Shamrock Compact Inkberry	24"–30" ht.	AS SHOWN	Container
	–	JH	Juniperus horizontalis "Youngstown"	Youngstown Andorra Juniper	#3 cont.	AS SHOWN	Container
	–	PJ	Pieris japonica "Mountain Fire"	Japanese Andromeda	#5 cont.	AS SHOWN	Container
	–	PL	Prunus Laurocerasus "Otto Luyken"	Spreading Cherrylaurel	#5 cont.	AS SHOWN	Container

DECIDUOUS SHRUBS

	QTY	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	SPACING	COMMENTS
	–	HM	Hydrangea macrophylla 'All Summer Beauty'	Hydrangea macrophylla 'All Summer Beauty'	#5 cont.	AS SHOWN	
	–	RK	Rosa "Knockout"	Knockout Rose	#5 cont.	AS SHOWN	

PERENNIALS & GRASSES

	QTY	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	SPACING	COMMENTS
	–	AD	Astilibe arendsii 'Deutschland'	False Spirea – 'Deutschland'	#2 cont.	18" O.C.	
	–	HS	Hemerocallis "Stella D'oro"	Stella D'oro Daylily	#2 cont.	18" O.C.	
	–	HB	Hosta x 'Blue Cadet'	Hosta	#2 cont.	18" O.C.	
	–	LM	Liriope muscari 'Big Blue'	Liriope	#1 cont.	12" O.C.	
	–	PA	Pennisetum alopecuroides 'Hameln'	Dwarf Fountain Grass	#5 cont.	24" O.C.	
	–	PS	Pennisetum setaceum 'Rubrum'	Purple Leaved Fountain Grass	#5 cont.	24" O.C.	

FERNS

	QTY	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	SPACING	COMMENTS
	–	AF	Athyrium filix-femina	Lady Fern	#2 cont.	18" O.C.	
	–	AP	Athyrium var. pictum	Japanese Painted Fern	#2 cont.	18" O.C.	

Seeded Lawn Area

- SYMBOLS SHOWN ON PLAN SHALL GOVERN OVER QUANTITIES SHOWN ON PLANT SCHEDULE.
- MINIMUM BRANCH HEIGHT MEASURED FROM GRADE TO LOWEST BRANCH CROTCH.

GRAPHIC SCALE

20 0 10 20 40

(IN FEET)
HORIZ. 1 inch = 20 ft.

NO.	DATE	REVISION DESCRIPTION	INT.

CAMERON ENGINEERING & ASSOCIATES, LLP
177 Crossways Park Drive, Woodbury, NY 11797 T: (516) 827-4900
1411 Broadway, Suite 610, New York, NY 10018 T: (212) 324-4000
303 Tarrytown Road, 1st Floor, White Plains, NY 10603 T: (914) 721-8300
Corporate Seal Initiated 1996 State of New York
www.Cameronengineering.com

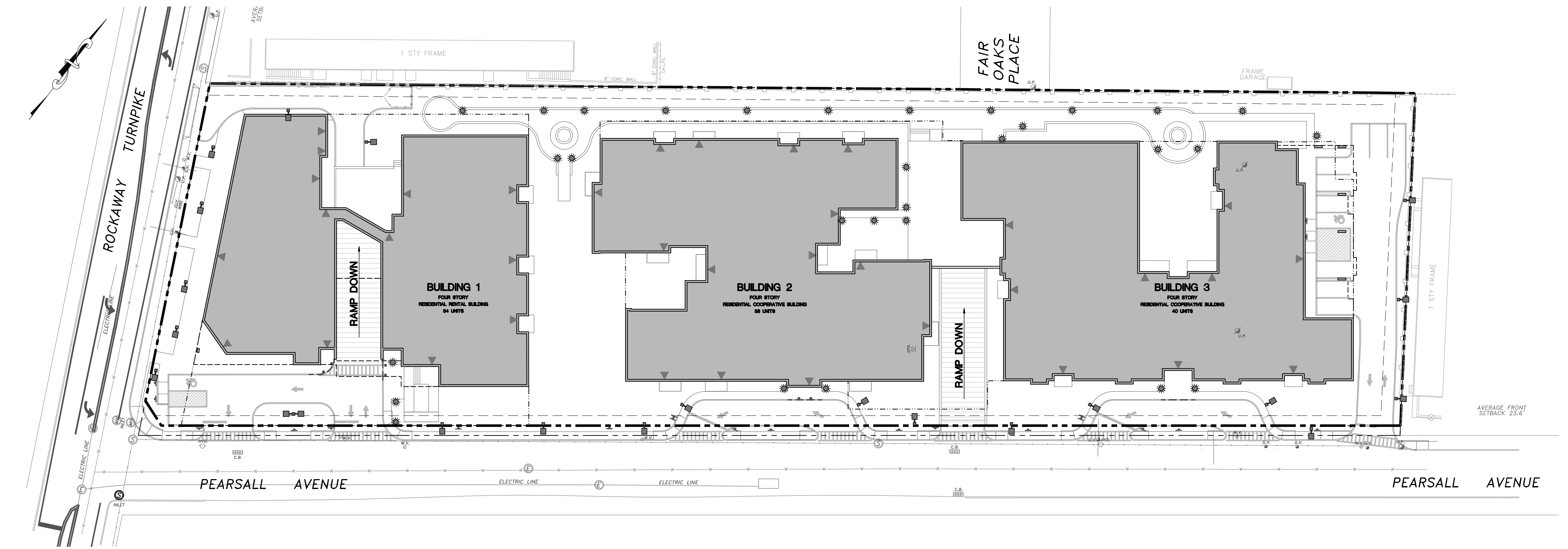
PROJECT NAME: PEARSALL ROCK, LLC

PROJECT LOCATION: PEARSALL AVENUE, INC. VILLAGE OF CEDARHURST TOWN OF HEMPSTEAD, NASSAU COUNTY, NY

TITLE: LANDSCAPE PLANTING PLAN

DISCIPLINE: CIVIL

PROJECT ENGINEER: JDB	PROJECT NO. CE2906A	DRAWING NO. C-6
DESIGNED BY: JDB	JOB NO. CE2906A	
DRAWN BY: LMB	DATE: 05/06/2021	SHEET
CHECKED BY: AJK	SCALE: AS SHOWN	C-6 of 9



SITE LIGHTING NOTES

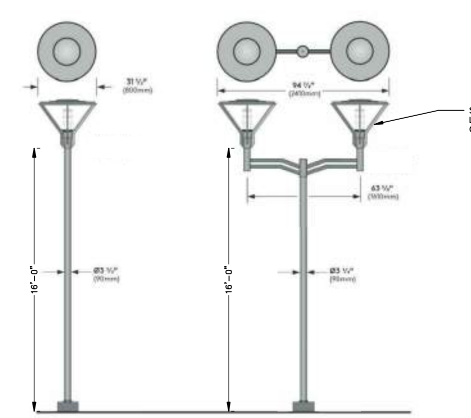
1. LIGHTING SHALL BE DIRECTED AS NOT TO SHINE ONTO NEIGHBORING PROPERTIES, OR PUBLIC RIGHT-OF-WAY. SHIELDS SHALL BE PROVIDED AS NECESSARY. NOT MORE THAN 1.0 FOOTCANDLE MAY PROTRUDE MORE THAN 10 FEET ONTO ADJACENT PROPERTY.
2. CONTRACTOR SHALL REFER TO ELECTRICAL DRAWINGS FOR ELECTRICAL/CIRCUIT INFORMATION FOR PROPOSED LIGHTING FIXTURES.
3. CONTRACTOR SHALL USE THIS PLAN FOR THE EXACT NUMBER AND LOCATION OF EXTERIOR LIGHTING FIXTURES. IF FIELD CONDITIONS AND ELECTRICAL DRAWINGS DIFFER FROM THIS DRAWING, THE CONTRACTOR SHALL NOTIFY OWNER'S REPRESENTATIVE IMMEDIATELY.
4. CENTER OF ALL PROPOSED PARKING LOT LIGHT POLES SHALL BE ALIGNED WITH PARKING SPACE STRIPING WHERE APPLICABLE, AND/OR BE PLACED IN THE CENTER OF THE CURB ISLAND THAT IT IS LOCATED WITHIN. A 2'-6" MINIMUM CLEARANCE SHALL BE PROVIDED FROM EDGE OF LIGHT POLES TO FACE OF CURB.
5. ILLUMINATION LEVELS ON THIS PLAN HAVE BEEN CALCULATED FOR PROPOSED LIGHTS ONLY. ACTUAL ILLUMINATION LEVELS IN THE FIELD MAY DIFFER FROM THOSE DEPICTED ON THE PLAN DUE TO INTERFERENCE FROM EXISTING/AMBIENT LIGHTING WHOSE ILLUMINATION LEVELS ARE NOT REFLECTED ON THIS PLAN.

LEGEND

DOUBLE LIGHT FIXTURE

SINGLE LIGHT FIXTURE

LIGHT BOLLARD



SITE LIGHTING FIXTURE

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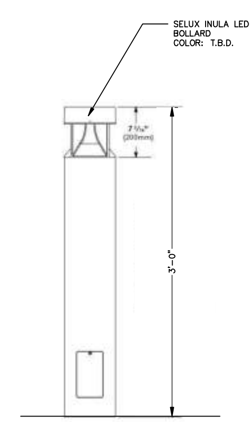

LIGHT BOLLARD

SCALE: NTS

GRAPHIC SCALE

20 0 10 20 40

(IN FEET)

HORIZ. 1 inch = 20 ft.

NO.	DATE	REVISION DESCRIPTION	INT.

CAMERON ENGINEERING & ASSOCIATES, LLP
177 Crossways Park Drive, Woodbury, NY 11797 T: (516) 827-4900
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303 Tarrytown Road, 1st Floor, White Plains, NY 10603 T: (914) 721-8300
Corporate Seal Initiated 1996 State of New York
www.Cameronengineering.com

PROJECT NAME:
PEARSALL ROCK, LLC

PROJECT LOCATION:
PEARSALL AVENUE, INC. VILLAGE OF CEDARHURST
TOWN OF HEMPSTEAD, NASSAU COUNTY, NY

TITLE:
SITE LIGHTING PLAN

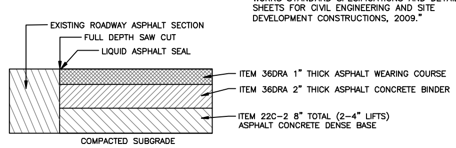
DISCIPLINE:
CIVIL

PROJECT ENGINEER: JDB
DESIGNED BY: JDB
DRAWN BY: LMB
CHECKED BY: AJK

PROJECT NO. CE2906A
JOB NO. CE2906A
DATE: 05/06/2021
SCALE: AS SHOWN

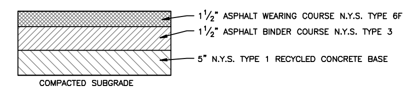
DRAWING NO.
C-7
SHEET
C-7 of 9

NOTE:
1. FULL DEPTH SAWCUT AS SHOWN ON PLANS
2. ALL WORK WITHIN NASSAU COUNTY RIGHT OF WAY SHALL BE IN ACCORDANCE WITH THE "COUNTY OF NASSAU DEPARTMENT OF PUBLIC WORKS STANDARD SPECIFICATIONS AND DETAIL SHEETS FOR CIVIL ENGINEERING AND SITE DEVELOPMENT CONSTRUCTIONS, 2009."



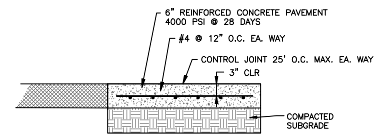
NASSAU COUNTY & VILLAGE R.O.W. ASPHALT PAVEMENT

SCALE: NTS



ON-SITE ASPHALT PAVEMENT

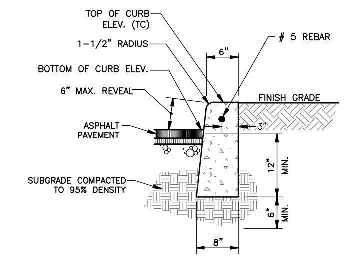
SCALE: NTS

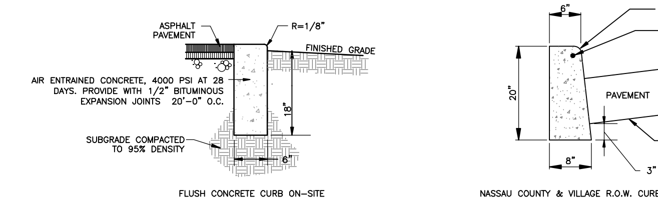


HEAVY DUTY CONCRETE DETAIL

SCALE: NTS

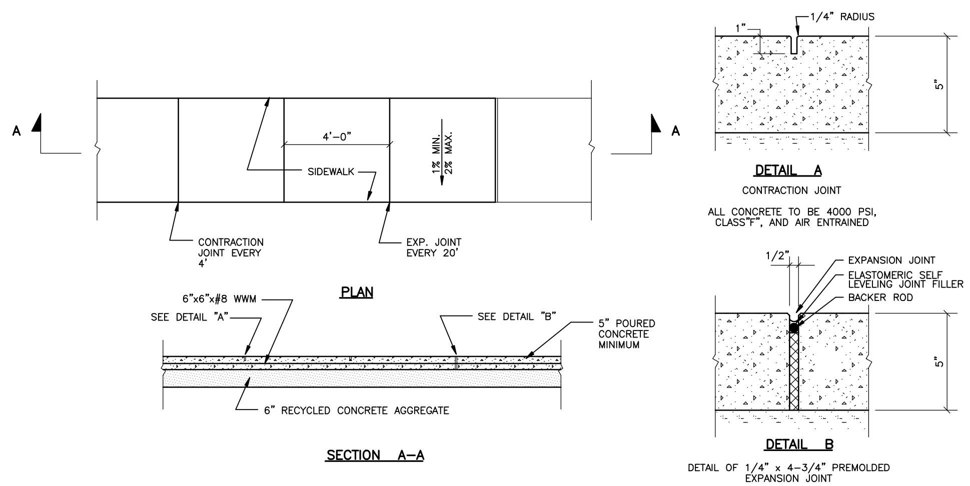
NOTES:
1. CONCRETE SHALL BE 4,000 PSI AT 28 DAYS.
2. ANY EXCAVATION BELOW DESIRED GRADE DUE TO OVER EXCAVATION OR WET SOIL CONDITIONS SHALL BE BACKFILLED WITH 3/4" CLEAN CRUSHED STONE. ALL SUBGRADES SHALL BE APPROVED BY THE ENGINEER PRIOR TO POURING.
3. EXPANSION JOINTS SHALL BE PROVIDED AT EQUAL DISTANCES OF NOT MORE THAN 20', ALL PC AND PT POINTS, AND ALL STORM SEWER INLETS. JOINTS SHALL BE FILLED WITH PERFORMED EXPANSION JOINT FILLED, 1/2" THICK, THE JOINT SHALL BE RECESSED 1/4" FROM THE TOP AND FRONT OF THE CURB.





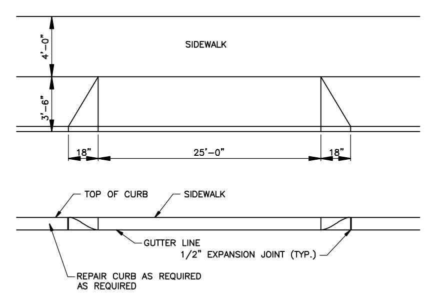
CONCRETE CURBS

SCALE: NTS



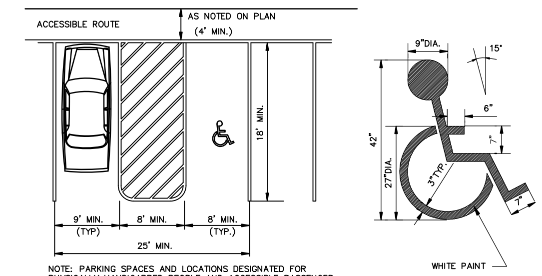
CONCRETE SIDEWALK DETAIL (ITEM 27)

SCALE: NTS



N.C. R.O.W. CONCRETE DRIVEWAY APRON (ITEM 27)

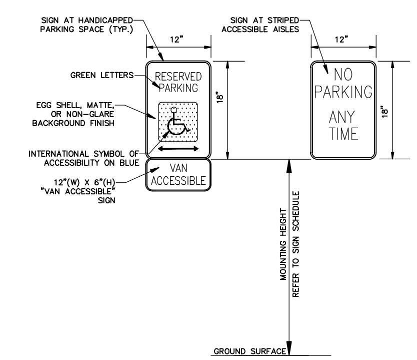
SCALE: NTS



NOTE: PARKING SPACES AND LOCATIONS DESIGNATED FOR PHYSICALLY HANDICAPPED PEOPLE AND ACCESSIBLE PASSENGER LOADING ZONES THAT SERVE A PARTICULAR BUILDING SHALL COMPLY WITH A.N.S.I. STANDARDS, A.D.A. GUIDELINES, AND ALL APPLICABLE RULES AS REQUIRED BY THE TOWN OF HEMPSTEAD.

ADA PARKING STALL DETAILS

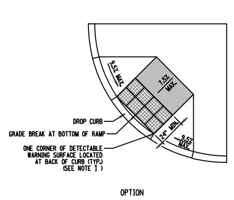
SCALE: NTS



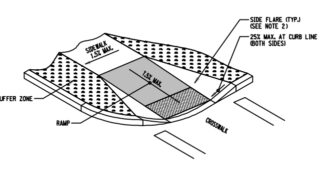
ADA PARKING SIGN DETAIL

SCALE: NTS

NOTES
1. SOME DETECTABLE WARNING PRODUCTS REQUIRE A CONCRETE BORDER FOR PROPER INSTALLATION. IF REQUIRED, THE BORDER SHALL NOT EXCEED 2". WHERE THE BACK OF CURB EDGE IS TOOLED TO PROVIDE A RADIUS, THE BORDER DIMENSION SHALL BE MEASURED FROM THE INSIDE EDGE OF THE CURB RADIUS.
2. RAMP SIDE OPTIONS ARE DETAILED ON SHEET 3 OF 9 OF NEW YORK STATE DEPARTMENT OF TRANSPORTATION SIDEWALK AND CURB RAMP DETAILS FOR USE WITHIN THE BUFFER ZONE. WHERE A PEDESTRIAN CIRCULATION PATH CROSSES THE CURB RAMP, FLARED SIDES SHALL BE INSTALLED WITH A MAXIMUM SLOPE OF 9.5% FOR DESIGN AND LAYOUT, AND 10% MAXIMUM FOR WORK ACCEPTANCE. THE SLOPE OF FLARED SIDES IS MEASURED PARALLEL TO THE CURB LINE.



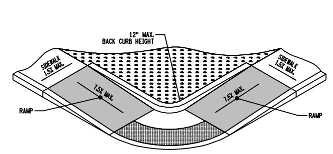
OPTION



OPTION A: FLARED CONCRETE

TYPE 1A ADA ACCESSIBLE CURB RAMP

1. WHERE A CHANGE IN DIRECTION IS REQUIRED TO UTILIZE A CURB RAMP. A TURNING SPACE SHALL BE PROVIDED AT THE BASE OR THE TOP OF CURB RAMP AS APPLICABLE. TURNING SPACES SHALL BE PERMITTED TO OVERLAP CLEAR SPACES.
2. TURNING SPACES SHALL NOT BE DESIGNED WITH CROSS SLOPE GREATER THAN 1.5% IN ANY DIRECTION. WHILE PROVIDING POSITIVE DRAINAGE. THE MAXIMUM CROSS SLOPE FOR WORK ACCEPTANCE IS 2.0%. A NONSTANDARD FEATURE JUSTIFICATION IS REQUIRED WH£RE TURNING SPACES EXCEED 2.0% IN ANY DIRECTION.
3. BEYOND THE BOTTOM GRADE BREAK, A CLEAR SPACE OF 4'-0"x 4'-0"MINIMUM SHALL BE PROVIDED WITHIN THE WIDTH OF THE PEDESTRIAN CROSSWALK, AND OUTSIDE THE PARALLEL VEHICLE TRAVEL LANE. THE CLEAR SPACE MAY OVERLAP TURNING SPACES, DETECTABLE WARNING SURFACES, AND DROP CURBS.



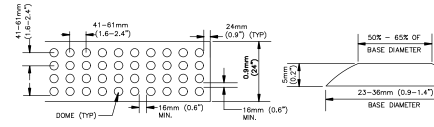
OPTION B: BACK CURB

PARALLEL RAMP BACK TREATMENTS

TYPE 9B ADA ACCESSIBLE CURB RAMP

ACCESSIBLE RAMP DETAIL (ITEM 27)

SCALE: NTS



GENERAL NOTES:

THE DETAILS PROVIDED ARE NOT TO SCALE. THE QUANTITY OF DOMES DEPICTED ON THE DETECTABLE WARNING FIELD (THE DOMES AND THE ENTIRE 610 mm [24 IN] LEVEL SURFACE) IS FOR ILLUSTRATION ONLY. THE SIZE OF THE DETECTABLE WARNING FIELD SHALL BE 610 mm (24 IN.) IN THE DIRECTION OF TRAVEL AND SHALL EXTEND THE FULL WIDTH OF THE CURB RAMP, EXCLUSIVE OF SIDE FLARES.

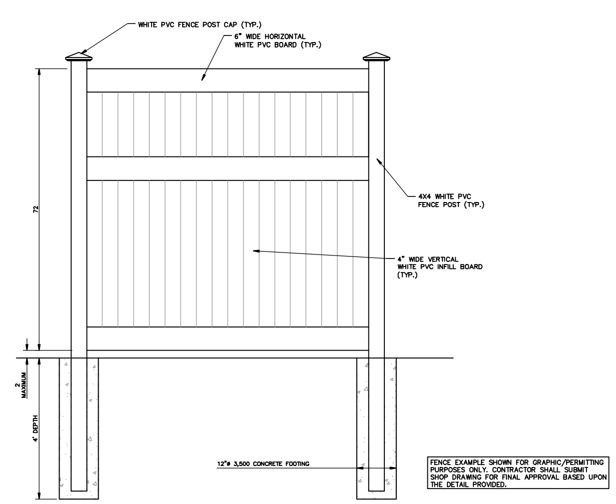
DETECTABLE WARNINGS SHALL BE LOCATED SO THAT THE EDGE OF THE WARNING NEAREST TO THE ROADWAY IS 150 mm (5.9 IN.) TO 225 mm (8.9 IN.) FROM THE EDGE OF THE ROADWAY OR FROM THE FACE OF THE DROPPED CURB.

DOMES SHALL BE ALIGNED ON A SQUARE GRID IN THE PREDOMINANT DIRECTION OF TRAVEL.

THE DETECTABLE WARNING FIELD SHALL BE WHITE.

DETECTABLE WARNING FIELD (ITEM 27DB)

SCALE: NTS



6' SOLID PANEL FENCE

SCALE: NTS

NO.	DATE	REVISION DESCRIPTION	INT.

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CAMERON ENGINEERING & ASSOCIATES, LLP

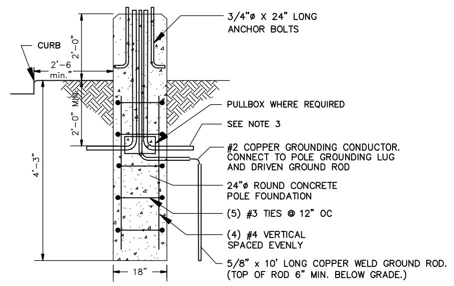
PROJECT NAME: PEARSALL ROCK, LLC

PROJECT LOCATION: PEARSALL AVENUE, INC. VILLAGE OF CEDARHURST TOWN OF HEMPSTEAD, NASSAU COUNTY, NY

TITLE: SITE DETAILS - SHEET 1

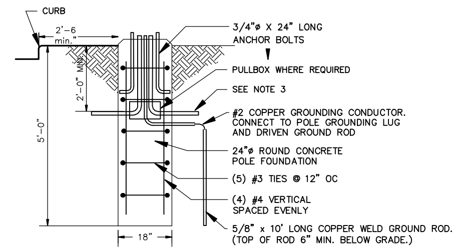
DISCIPLINE: CIVIL

PROJECT ENGINEER: JDB	PROJECT NO. CE2906A	DRAWING NO.	C-8
DESIGNED BY: JDB	JOB NO. CE2906A		
DRAWN BY: LMB	DATE: 05/06/2021	SHEET	
CHECKED BY: AJK	SCALE: AS SHOWN	C-8 of 9	



NOTES

1. CONCRETE TO BE AIR ENTRAINE4000 PSI @ 28 DAYS.
2. CONTRACTOR TO VERIFY ANCHOR BOLT PATTERN, PROJECTION AND SIZE PRIOR TO FABRICATION AND INSTALLATION.
3. PROVIDE BUSHED RIGID CONDUITS SIZED AS REQUIRED FOR BRANCH CIRCUIT & GROUNDING CONDUCTOR. PROVIDE CONDUIT CAP ON CONDUIT RESERVED FOR FUTURE USE.
4. ANCHOR BOLT ASSEMBLE TO BE PROVIDED BY POLE MFG. INSTALL ACCORDING TO MFG. TEMPLATE.
5. PROVIDE HOR. & VERT. REINFORCING STEEL PER SCHEDULE FOR FIXTURE TYPE. 3" MIN. CONCRETE COVER ON BARS & TIES. FOOTING SHALL BE FORMED WHERE SOIL CONDITIONS REQUIRE.

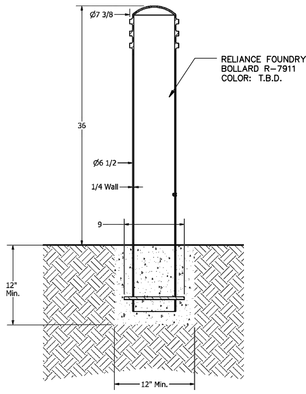


NOTES

1. CONCRETE TO BE AIR ENTRAINE4000 PSI @ 28 DAYS.
2. CONTRACTOR TO VERIFY ANCHOR BOLT PATTERN, PROJECTION AND SIZE PRIOR TO FABRICATION AND INSTALLATION.
3. PROVIDE BUSHED RIGID CONDUITS SIZED AS REQUIRED FOR BRANCH CIRCUIT & GROUNDING CONDUCTOR. PROVIDE CONDUIT CAP ON CONDUIT RESERVED FOR FUTURE USE.
4. ANCHOR BOLT ASSEMBLE TO BE PROVIDED BY POLE MFG. INSTALL ACCORDING TO MFG. TEMPLATE.
5. PROVIDE HOR. & VERT. REINFORCING STEEL PER SCHEDULE FOR FIXTURE TYPE. 3" MIN. CONCRETE COVER ON BARS & TIES. FOOTING SHALL BE FORMED WHERE SOIL CONDITIONS REQUIRE.

STANDARD LIGHT POLE BASE DETAILS

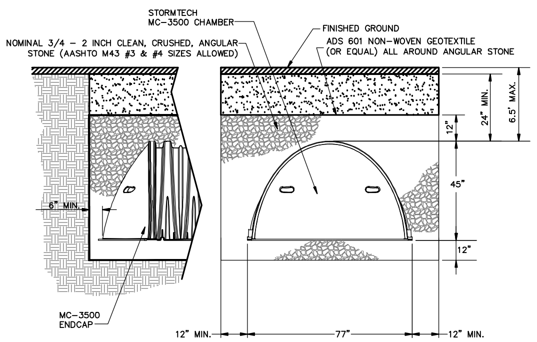
SCALE: NTS



SECTION A-A

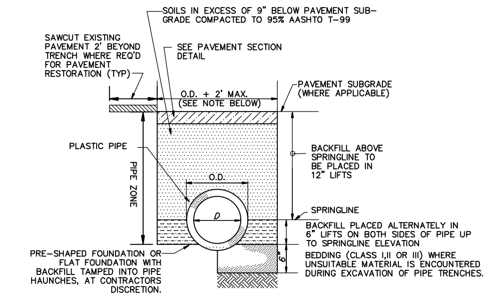
BOLLARD

SCALE: NTS



STORMWATER CHAMBER

SCALE: NTS



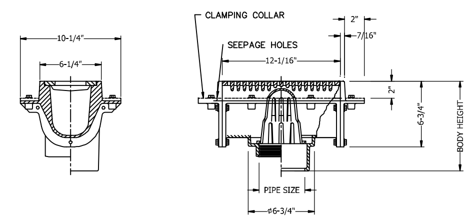
NOTES:

1. CLASS I, II, III OR IV COMPACTED BACKFILL MATERIAL REQUIRED IN ALL PIPE ZONES, PER USCS (UNIFIED SOIL CLASSIFICATION SYSTEM).
2. IF DEPTH OF TRENCH EXCEEDS 5', THE CONTRACTOR MUST PROVIDE SHEETING AND BRACING OR A SHEETING BOX IN ACCORDANCE WITH OSHA REGULATIONS. AS AN ALTERNATIVE, IF PERMITTED BY THE ENGINEER, THE TRENCH WALLS MAY BE CUT BACK TO A 1:1 SLOPE OR THE NATURAL ANGLE OF REPOSE FOR THE SOIL, WHICHEVER IS GREATER.

WHERE PIPE IS INSTALLED WITH LESS THAN 3' OF COVER, ALL BACKFILL MATERIAL THROUGHOUT THE PIPE ZONE IS TO BE CLASS I MATERIAL.

PIPE TRENCH DETAIL

SCALE: NTS



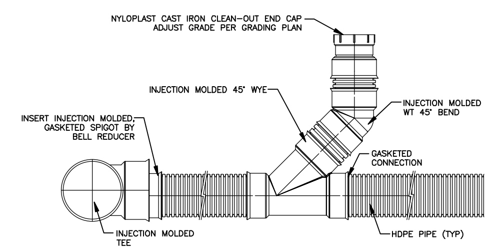
A Pipe Size	Approx. Wt. Lbs.	Grate Open Area Sq. In.
4"	35	14"

ENGINEERING SPECIFICATION: ZURN Z664

6" WIDE TOP MODULAR TRENCH DRAIN, DURA-COATED CAST IRON DRAIN SECTION WITH BOTTOM OUTLET AND SECONDARY DOME STRAINER. BOTH 12 [305] LONG OUTLET AND EXTENSION MODULES ARE COMPLETE WITH INTEGRAL SEEPAGE PAN AND LOOSE HEAVY-DUTY SLOTTED HEEL-PROOF GRATE.

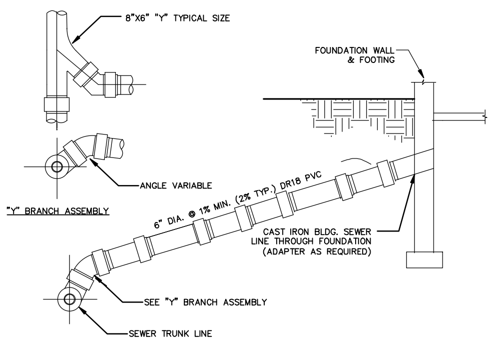
DRAIN INLET IN LANDSCAPE AREAS ABOVE BELOW GRADE PARKING

SCALE: NTS



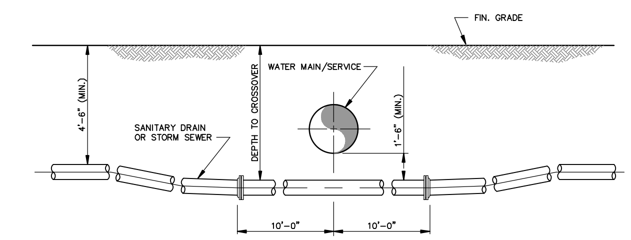
STORM DRAIN CLEANOUT

SCALE: NTS



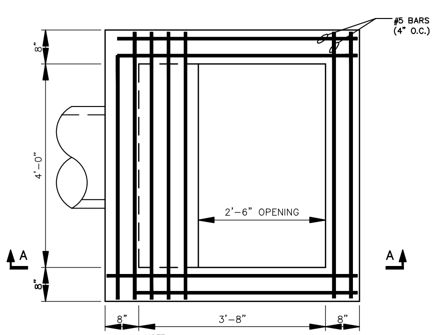
SANITARY SEWER HOUSE CONNECTION

SCALE: NTS



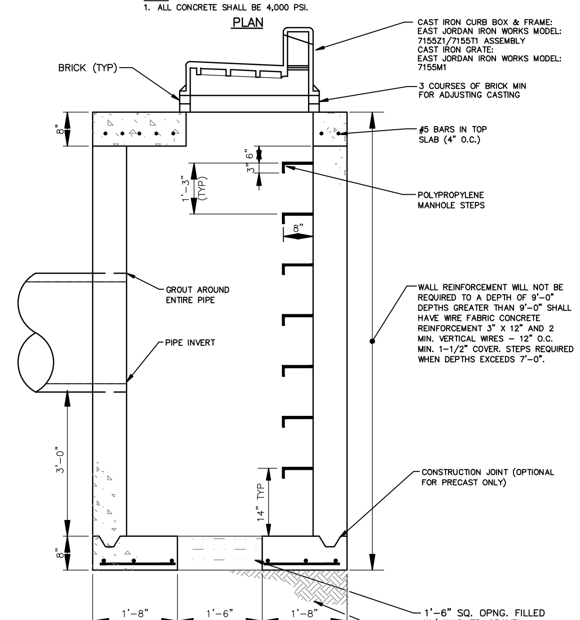
UTILITY CROSSING

SCALE: NTS



NOTE:
1. ALL CONCRETE SHALL BE 4,000 PSI.

PLAN



SECTION A-A

CATCH BASIN

SCALE: NTS

NO.	DATE	REVISION DESCRIPTION	INT.

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CAMERON ENGINEERING & ASSOCIATES, LLP

PROJECT NAME: PEARSALL ROCK, LLC

PROJECT LOCATION: PEARSALL AVENUE, INC. VILLAGE OF CEDARHURST TOWN OF HEMPSTEAD, NASSAU COUNTY, NY

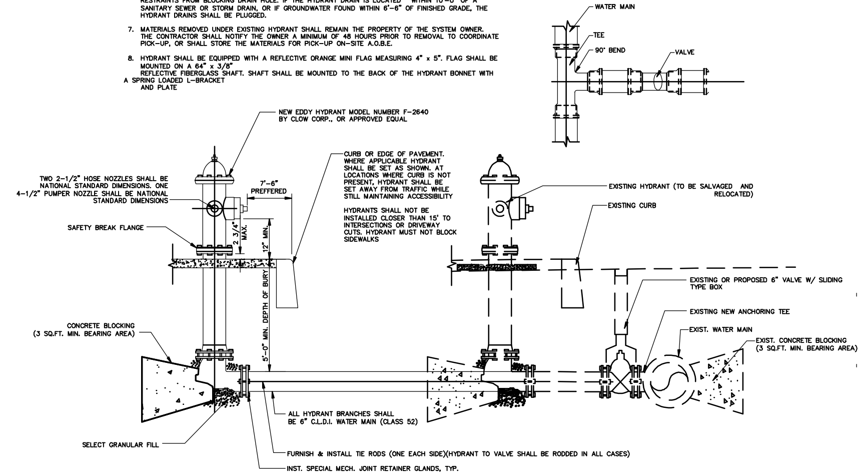
TITLE: SITE DETAILS - SHEET 2

DISCIPLINE: CIVIL

PROJECT ENGINEER:	PROJECT NO.	DRAWING NO.
JDB	CE2906A	
DESIGNED BY: JDB	JOB NO. CE2906A	C-8
DRAWN BY: LMB	DATE: 05/06/2021	SHEET
CHECKED BY: AJK	SCALE: AS SHOWN	C-8 of 9

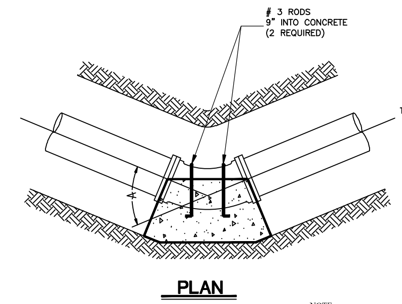
NOTES:

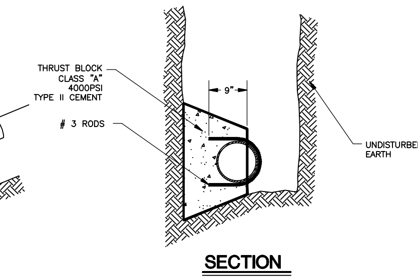
1. THE GROUND LINE MARKED ON THE HYDRANT, OR IDENTIFIED BY THE MANUFACTURERS USING AN OFFSET FROM A KNOWN POINT ON THE HYDRANT, SHALL BE WITHIN 1" ABOVE OR BELOW FINISHED GRADE. THE HYDRANT SHALL BE INSTALLED SO THAT NO PORTION OF THE LOWER BARREL EXTENDS MORE THAN 4" ABOVE FINISHED GRADE, MEASURED OVER 5'–0" HORIZANTAL SPAN. ALL MATERIAL SHALL BE IN ACCORDANCE WITH AWWA SPECIFICATIONS.
2. BACKFILL AROUND THE TOP OF THE LOWER BARREL SHALL BE COMPACTED TO A MINIMUM DENSITY OF 90% PROCTOR OR A 2'x2' IN CONCRETE COLLAR SHALL BE CAST AROUND THE BARREL IN ORDER TO PREVENT MOVEMENT OF THE SHOE.
3. LATERALS FOR HYDRANTS USING ANCHOR PIPES SHALL BE SINGLE PIECE, UNLESS MORE THAN A FULL LENGTH OF ANCHOR PIPE IS REQUIRED. LATERALS FOR HYDRANTS USING THRUST RESTRAINT PROVIDED BY MEANS OTHER THAN AN ANCHOR PIPE SHALL BE SINGLE PIECE, UNLESS MORE THAN A FULL LENGTH (18'–0") OF PIPE IS REQUIRED.
4. NEW WATER MAINS INSTALLED PARALLEL TO STORM AND/OR SANITARY CONDUITS SHALL HAVE A MINIMUM OF 10'–0" HORIZONTAL SEPERATION WHENEVER POSSIBLE. WHEN 10'–0" SEPARATION CANNOT BE MAINTAINED, A VERTICAL SEPERATION OF AT LEAST 1'–6" BETWEEN BOTTOM OF THE WATER MAIN AND TOP OF THE SEWER PIPE SHALL BE MAINTAINED. IF NEITHER HORIZONTAL OR VERTICAL SEPERATION CAN BE MAINTAINED, THE WATER AND THE SEWER SHALL BE CONSTRUCTED AS SHOWN ON THE CONTRACT PLANS AND APPROVED BY THE ENGINEER.
5. THE RELOCATION OF AN EXISTING HYDRANT SHALL INCLUDE THE INSTALLATION LENGTH OF ANCHOR PIPE UP TO 6'–6" LONG, INSTALLED AT ANY POINT BETWEEN THE MAIN AND THE HYDRANT.
6. THRUST RESTRAINS SHALL BE PROVIDED AS FOR A DEAD END AND AS REQUIRED BY THE ENGINEER. THE HYDRANT DRAIN HOLE SHALL BE KEPT UNOBSTRUCTED, CARE SHALL BE USED TO KEEP THRUST RESTRAINTS FROM BLOCKING DRAIN HOLE. IF THE HYDRANT DRAIN IS LOCATED WITHIN 10'–0" OF A SANITARY SEWER OR STORM DRAIN, OR IF GROUNDWATER FOUND WITHIN 6'–6" OF FINISHED GRADE, THE HYDRANT DRAINS SHALL BE PLUGGED.
7. MATERIALS REMOVED UNDER EXISTING HYDRANT SHALL REMAIN THE PROPERTY OF THE SYSTEM OWNER. THE CONTRACTOR SHALL NOTIFY THE OWNER A MINIMUM OF 48 HOURS PRIOR TO REMOVAL TO COORDINATE PICK-UP, OR SHALL STORE THE MATERIALS FOR PICK-UP ON-SITE A.O.B.E.
8. HYDRANT SHALL BE EQUIPPED WITH A REFLECTIVE ORANGE MINI FLAG MEASURING 4" x 5". FLAG SHALL BE MOUNTED ON A 64" x 3/8" REFLECTIVE FIBERGLASS SHAFT. SHAFT SHALL BE MOUNTED TO THE BACK OF THE HYDRANT BONNET WITH A SPRING LOADED L-BRACKET AND PLATE



STANDARD LIGHT POLE BASE DETAILS

SCALE: NTS





NOTE:
THRUST BLOCK TO BEAR ON UNDISTURBED SOIL

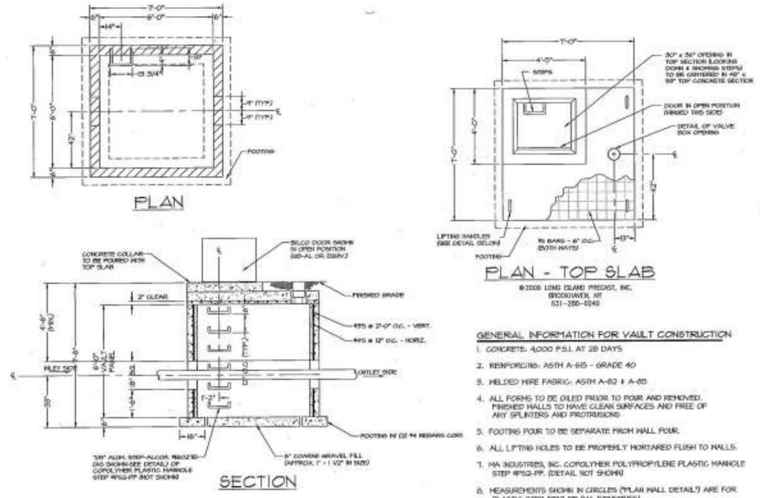
NOTE: MAX. TEXT PRESSURE 200 PSI

PIPE SIZE	DEAD END OR TEE	90° BEND	45° BEND	22–½" BEND
4"	1 ½	2	1	½
6"	3	4	2 ½	1 ½
8"	5	7	4	2
10"	7	10	5	2 ½
12"	10	15	7 ½	4
16",20",24"	16	24	12	6

NOTE: THRUST BLOCK BEARING AREA SQUARE FOOT BEARING AREA OF BLOCKING ON UNDISTURBED EARTH

CONCRETE THRUST BLOCK

SCALE: NTS



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BROOKHAVEN, NY
631-286-0240

GENERAL INFORMATION FOR VAULT CONSTRUCTION

1. CONCRETE: 4,000 P.S.I. AT 28 DAYS
2. REINFORCING: ASTM A-615 - GRADE 40
3. WELDED WIRE FABRIC: ASTM A-82 & A-85
4. ALL FORMS TO BE OILED PRIOR TO POUR AND REMOVED. FINISHED WALLS TO HAVE CLEAN SURFACES AND FREE OF ANY SPLINTERS AND PROTRUSIONS
5. FOOTING POUR TO BE SEPARATE FROM WALL POUR.
6. ALL LIFTING HOLES TO BE PROPERLY MORTARED FLUSH TO WALLS.
7. MA INDUSTRIES, INC. COPOLYMER POLYPROPYLENE PLASTIC MANHOLE STEP #PS2-PF. (DETAIL NOT SHOWN)
8. MEASUREMENTS SHOWN IN CIRCLES ("PLAN WALL DETAIL") ARE FOR PLASTIC STEP #PS2-PF (MA INDUSTRIES)

DT-201 WATER METER PIT

SCALE: NTS

NO.	DATE	REVISION DESCRIPTION	INT.

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CAMERON ENGINEERING & ASSOCIATES, LLP

PROJECT NAME: PEARSALL ROCK, LLC

PROJECT LOCATION: PEARSALL AVENUE, INC. VILLAGE OF CEDARHURST TOWN OF HEMPSTEAD, NASSAU COUNTY, NY

TITLE: SITE DETAILS – SHEET 3

DISCIPLINE: CIVIL

PROJECT ENGINEER: JDB	PROJECT NO. CE2906A	DRAWING NO. C-9
DESIGNED BY: JDB	JOB NO. CE2906A	
DRAWN BY: LMB	DATE: 05/06/2021	
CHECKED BY: AJK	SCALE: AS SHOWN	SHEET C-9 of 9

RESIDENTIAL AREAS

RESIDENT COMMON /AMENITY AREAS

CIRCULATION / EGRESS

OFFICE

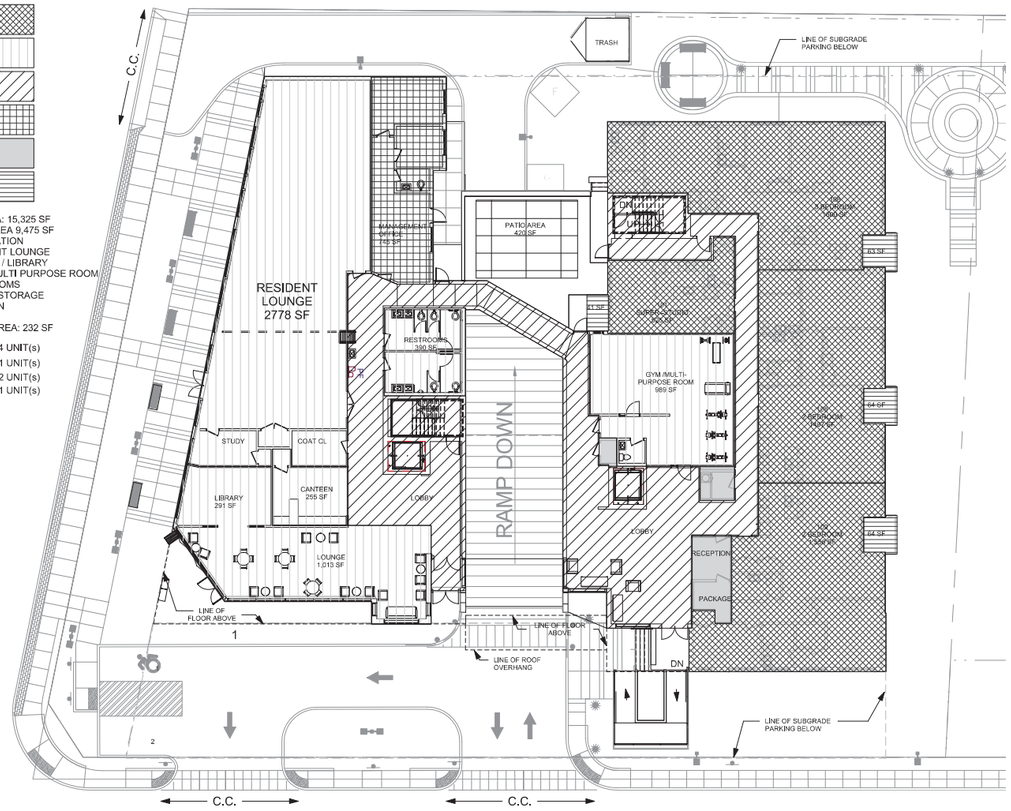
UTILITY / STORAGE / SERVICE

BALCONY AREA

1. GROSS INTERIOR FLOOR AREA: 15,325 SF
2. GROSS INTERIOR COMMON AREA 9,475 SF
   - A. 3491.5 SF CIRCULATION
   - B. 2,778 SF RESIDENT LOUNGE
   - C. 1304 SF LOUNGE / LIBRARY
   - D. 989 GYM / MULTI PURPOSE ROOM
   - E. 390 SF RESTROOMS
   - F. 267.5 SF UTILITY/STORAGE
   - G. 255 SF C CANTEEN
3. GROSS OFFICE AREA: 745 SF
4. GROSS EXTERIOR BALCONY AREA: 232 SF

TOTAL RESIDENTIAL UNITS = 4 UNIT(s)

STUDIO UNITS = 1 UNIT(s)
2 BEDROOM UNITS = 2 UNIT(s)
3 BEDROOM UNITS = 1 UNIT(s)

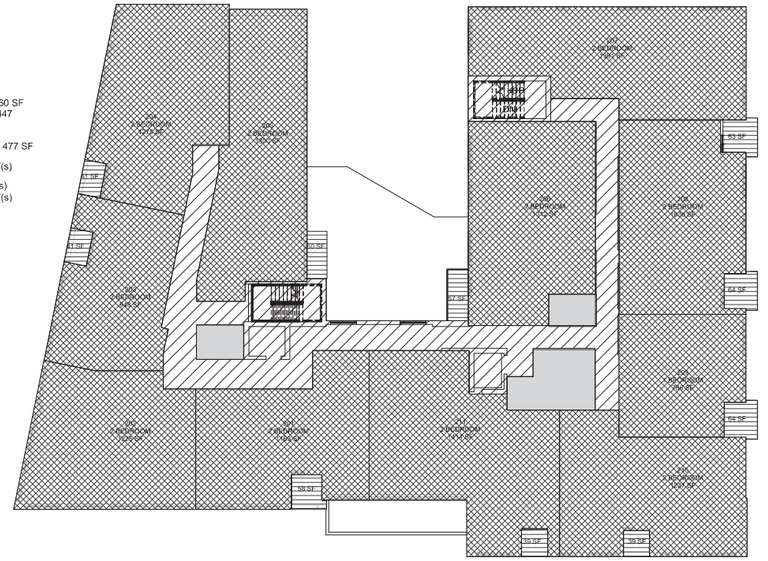


② GROUND FLR
1/16" = 1'-0"

1. GROSS INTERIOR FLOOR AREA: 15,860 SF
2. GROSS INTERIOR COMMON AREA:2,447
   - A. 2025 SF CIRCULATOIN
   - B. 422 SF UTILITY/STORAGE
3. GROSS EXDTERIOR BALCONY AREA: 477 SF

TOTAL RESIDENTIAL UNITS = 11 UNIT(s)

1 BEDROOM UNITS = 1 UNIT(s)
2 BEDROOM UNITS = 10 UNIT(s)

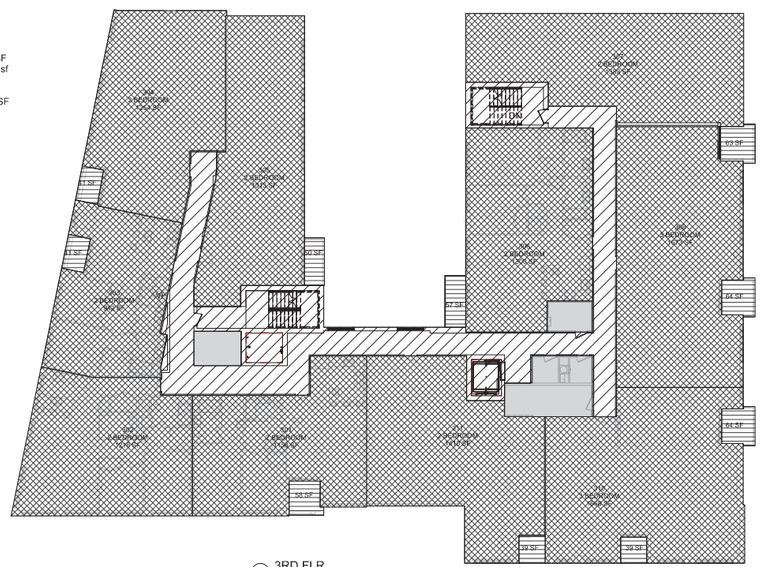


① 2ND FLR
1/16" = 1'-0"

1. GROSS INTERIOR FLOOR AREA: 15,860 SF
2. GROSS INTERIOR COMMON AREA: 2,514 sf
   - A. 2,100 SF CIRCULATION
   - B. 414 SF UTILITY/STORAGE
3. GROSS EXTERIOR BALCONY AREA: 477 SF

TOTAL RESIDENTIAL UNITS = 10 UNIT(s)

2 BEDROOM UNITS = 8 UNIT(s)
3 BEDROOM UNITS = 2 UNIT(s)

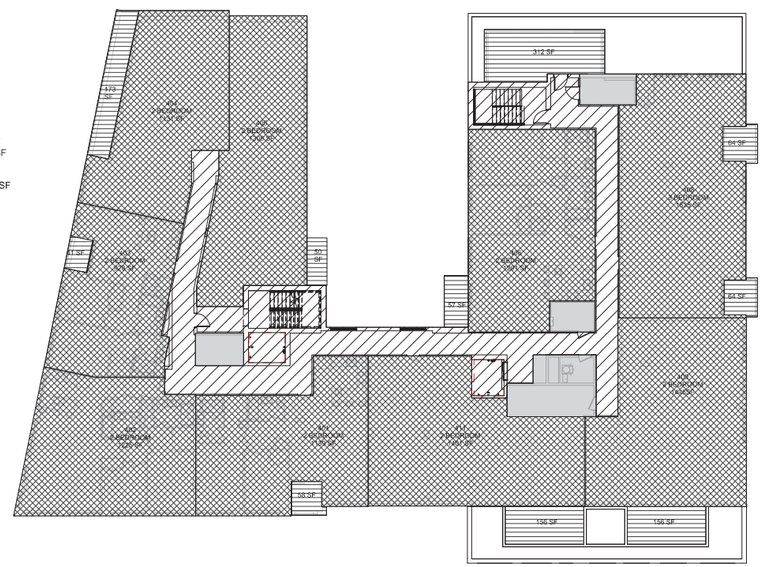


③ 3RD FLR
1/16" = 1'-0"

1. GROSS INTERIOR FLOOR AREA: 14,210 SF
2. GROSS INTERIOR COMMON AREA: 2,595 SF
   - A. 2,149 SF CIRCULATION
   - B. 521 SF UTILITY/STORAGE
3. GROSS EXTERIOR BALCONY AREA: 1,131 SF

TOTAL RESIDENTIAL UNITS = 9 UNIT(s)

2 BEDROOM UNITS = 8 UNIT(s)
3 BEDROOM UNITS = 1 UNIT(s)



④ 4TH FLR
1/16" = 1'-0"

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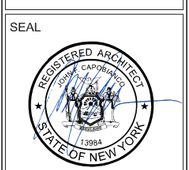
BY	REVISIONS	DATE
		5/6/2021

HML DEVELOPMENTS / SLCE CONSTRUCTION MNGT

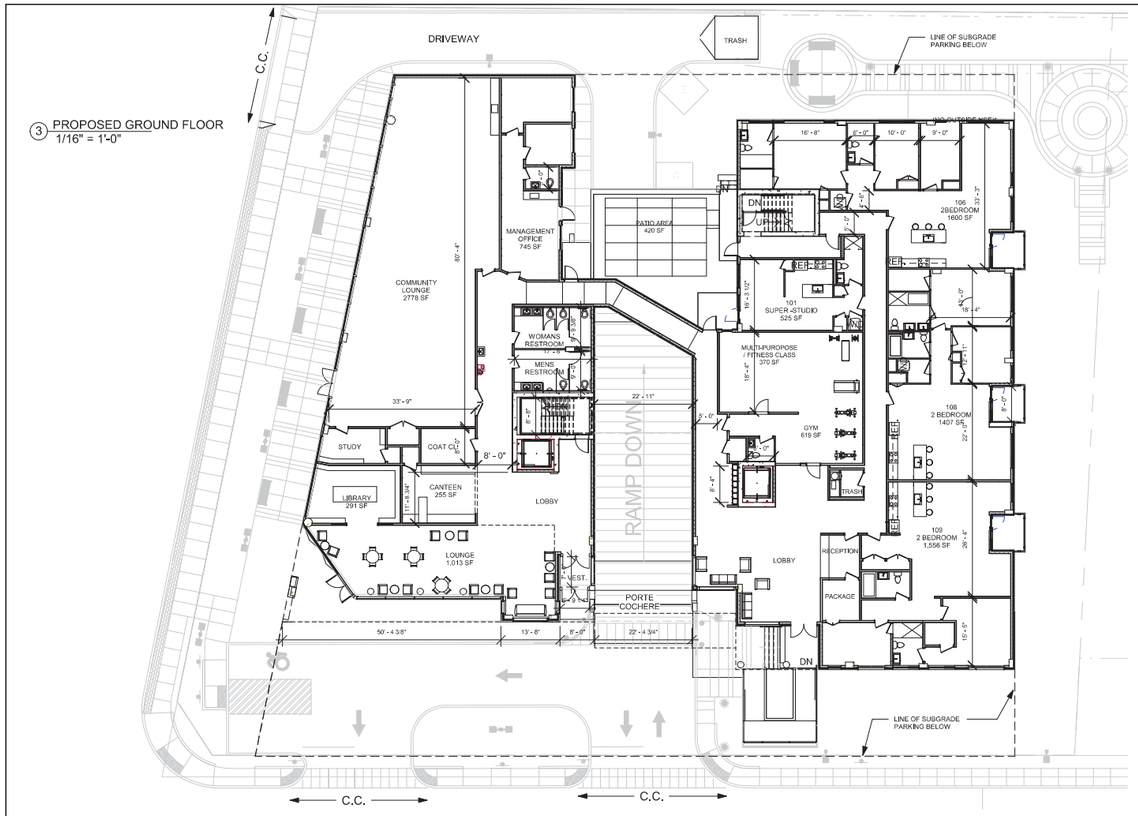
PROPOSED RESIDENTIAL DEVELOPMENT WITH RESIDENT COMMUNITY FACILITIES
312-318 PEARSALL AVENUE
CEDARHURST, NY 11516

SEAL

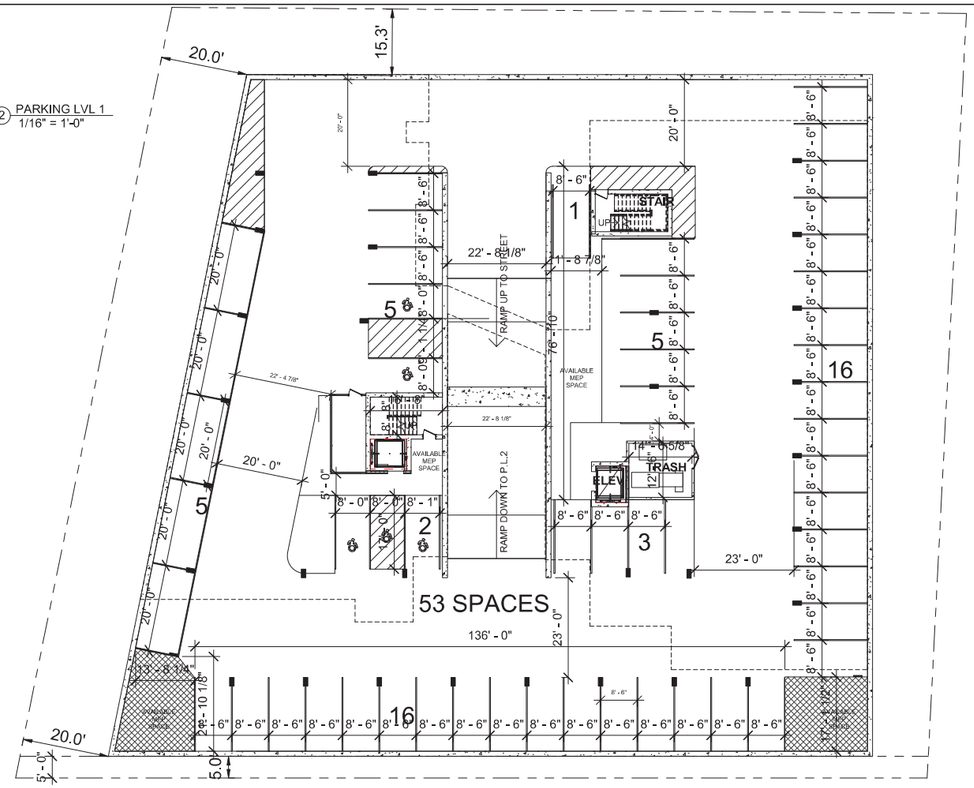


TITLE
FLOOR PLANS WITH GROSS AREA CALCULATOINS

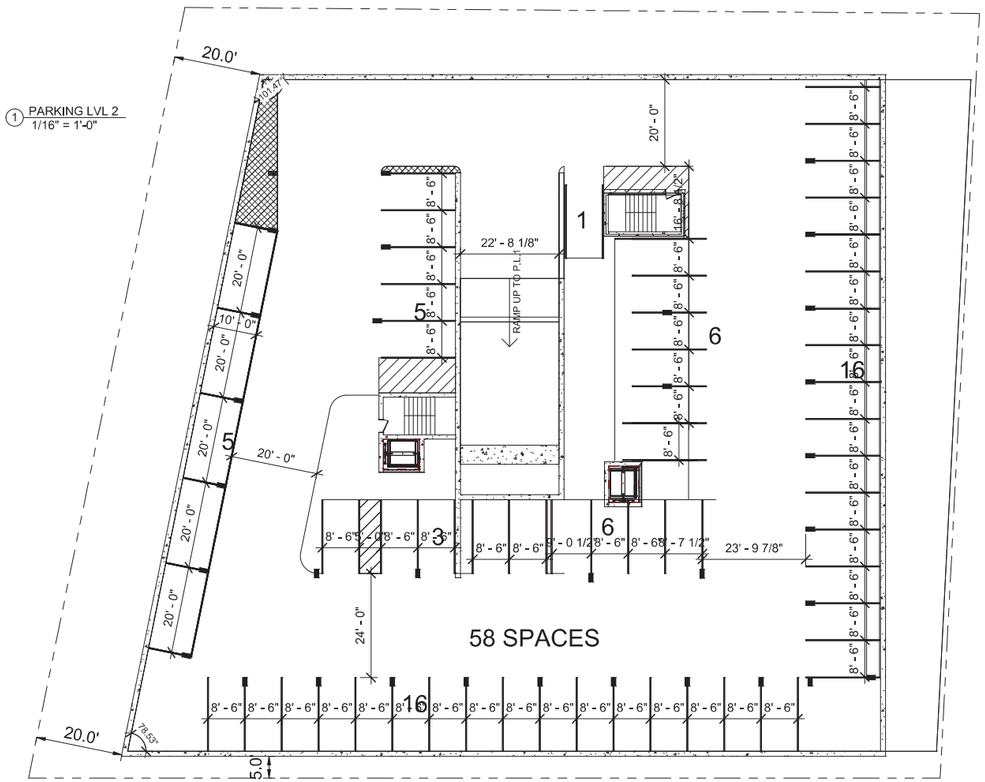
DATE: Issue Date	SCALE: 1/16" = 1'-0"
DRAWN BY: Author	CHECKED BY: Checker
JOB #:	SHEET # B.1-1



3 PROPOSED GROUND FLOOR
1/16" = 1'-0"



2 PARKING LVL 1
1/16" = 1'-0"



1 PARKING LVL 2
1/16" = 1'-0"

REQUIRED		
RESIDENT LOUNG	- 2,778/200	= 13,89 SPACES
LIBRARY/LOUNG / GYM /MULTI-	- 1,304/200	= 6.52 SPACES
PURPOSE ROOM *	-989/200	=4.94 SPACES
CANTEEN	-255/200	=1.27 SPACES
OFFICE	-745/200	=3.72 SPACES

NON-RESIDENTIAL SPACE: 1 SPACE PER 200 S.F. X (2,778 (LOUNGE) + 1,304 (LIBRARY/LOUNGE) + 255 (CANTEEN) + 745 (MANAGEMENT OFFICE) = 5,082] = 25.4 = 26 SPACES
989 S.F. GYM IS EXCLUDED

1,5 SPACES FOR EACH STUDIO OR ONE BEDROOM UNIT X 2 = 3 SPACES
2.25 SPACES FOR EACH TWO BEDROOM UNIT X 28 = 63 SPACES
1 SPACE PER BEDROOM FOR THREE OR MORE BEDROOMS X 4 3-BEDROOM UNITS = 12 SPACES

78 RESIDENTIAL SUBTOTAL
TOTAL REQUIRED: 78 + 26 = 104
TOTAL PROVIDED: 113 (EXCEED BY 9)

(5 ADA SPACE REQUIRED)

PROVIDED	
U.G. PARKING LVL 1 (4 ADA)	= 53 SPACES
U.G. PARKING LVL 2 (0 ADA)	= 58 SPACES
ON GRADE (1 ADA)	= 2 SPACES
TOTAL ON SITE	**= 113 SPACES**

* IT IS THE APPLICANT'S INTERPRETATION THAT VILLAGE CODE CONSIDERS BUILDING 1 COMMUNITY SPACE AND GYM AS SEPARATE SQUARE FOOTAGE FOR PARKING PURPOSES. HOWEVER, THESE USES WILL NOT GENERATE ADDITIONAL PARKING DEMAND AS THEY WOULD BE OPEN TO RESIDENTS ONLY.

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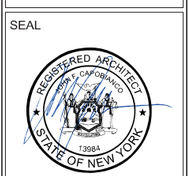
BY	REVISIONS	DATE

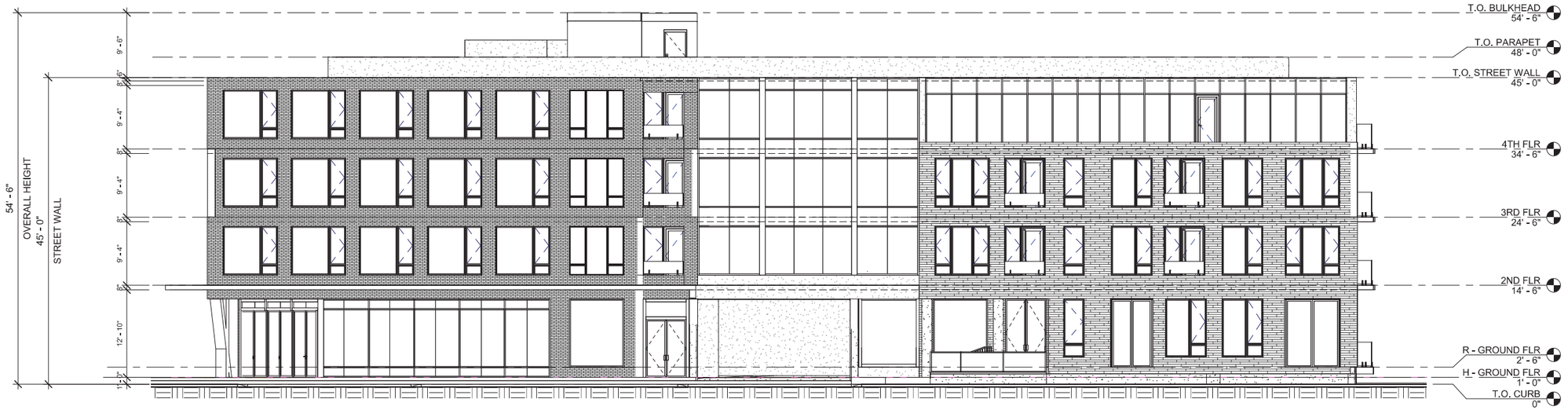
HML DEVELOPMENTS / SLCE CONSTRUCTION MNGT
PROPOSED RESIDENTIAL DEVELOPMENT WITH
RESIDENT COMMUNITY FACILITIES
312-318 PEARSALL ACE
CEDARHURST, NY 11516

SEAL



TITLE
PARKING GARAGE PLAN
LVL 2

DATE: Issue Date	SCALE: 1/16" = 1'-0"
DRAWN BY: Author	CHECKED BY: Checker
JOB #:	SHEET # B.1-2



1 FRONT ELEVATION - PEARSALL AVE
1/8" = 1'-0"

2 FRONT ELEVATION ON ROCKAWAY
1/8" = 1'-0"

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BY	REVISIONS	DATE

HML DEVELOPMENTS / SLCE CONSTRUCTION MNGT

PROPOSED RESIDENTIAL DEVELOPMENT WITH
RESIDENT COMMUNITY FACILITIES
312-318 PEARSALL ACE
CEDARHURST, NY 11516

SEAL

REGISTERED ARCHITECT
JOHN F. CAPOBIANCO
13984
STATE OF NEW YORK

TITLE
ELEVATIONS

DATE: Issue Date	SCALE: 1/8" = 1'-0"
DRAWN BY: Author	CHECKED BY: Checker
JOB #:	SHEET # B.1-3

1 RIGHT ELEVATION
1/8" = 1'-0"

2 REAR ELEVATION
1/8" = 1'-0"

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BY	REVISIONS	DATE

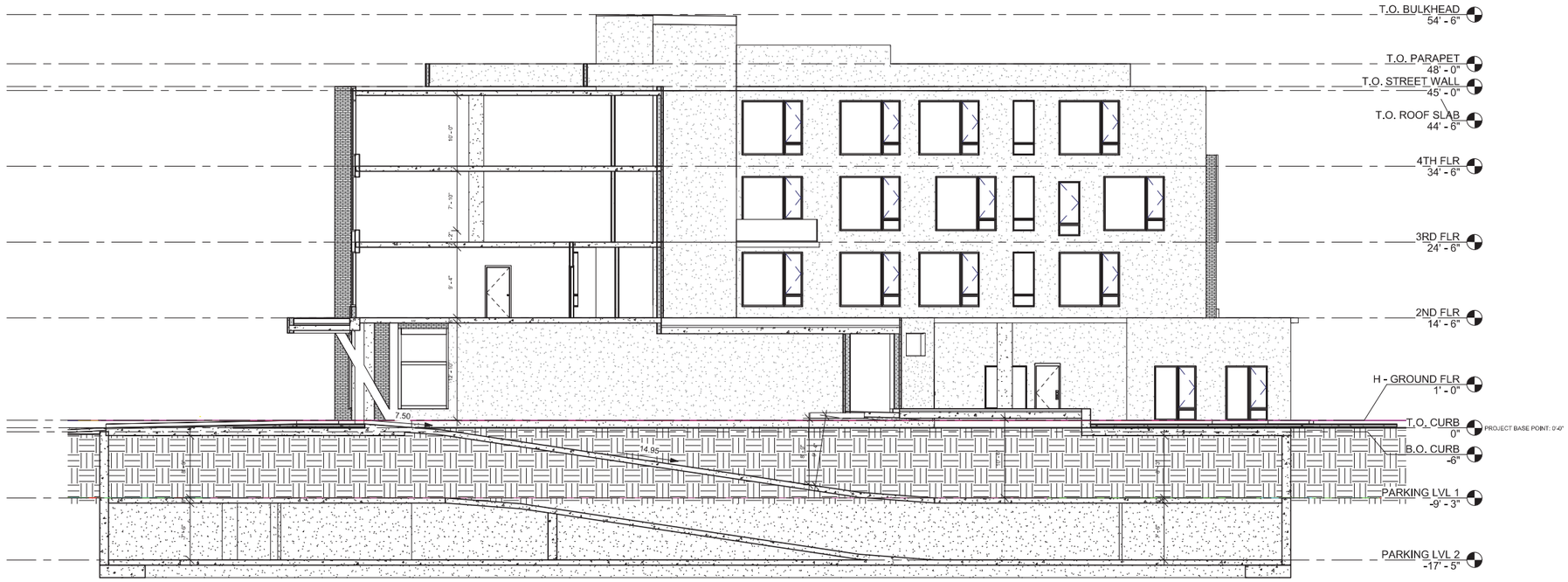
HML DEVELOPMENTS / SLCE CONSTRUCTION MNGT

PROPOSED RESIDENTIAL DEVELOPMENT WITH
RESIDENT COMMUNITY FACILITIES
312-318 PEARSALL ACE
CEDARHURST, NY 11516

SEAL

TITLE
ELEVATIONS

DATE: Issue Date	SCALE: 1/8" = 1'-0"
DRAWN BY: Author	CHECKED BY: Checker
JOB #:	SHEET # B.1-4



AA CROSS SECTION -AA
1/8" = 1'-0"

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BY	REVISIONS	DATE

HML DEVELOPMENTS / SLCE CONSTRUCTION MNGT

PROPOSED RESIDENTIAL DEVELOPMENT WITH RESIDENT COMMUNITY FACILITIES
312-318 PEARSALL ACE
CEDARHURST, NY 11516

SEAL

REGISTERED ARCHITECT
JOHN F. CAPOBIANCO
13984
STATE OF NEW YORK

TITLE
BUILDING SECTIONS

DATE: Issue Date	**SCALE:** 1/8" = 1'-0"
DRAWN BY: Author	**CHECKED BY:** Checker
JOB #:	**SHEET #** B.1-5

RESIDENTIAL AREAS

RESIDENT AMENITY AREAS

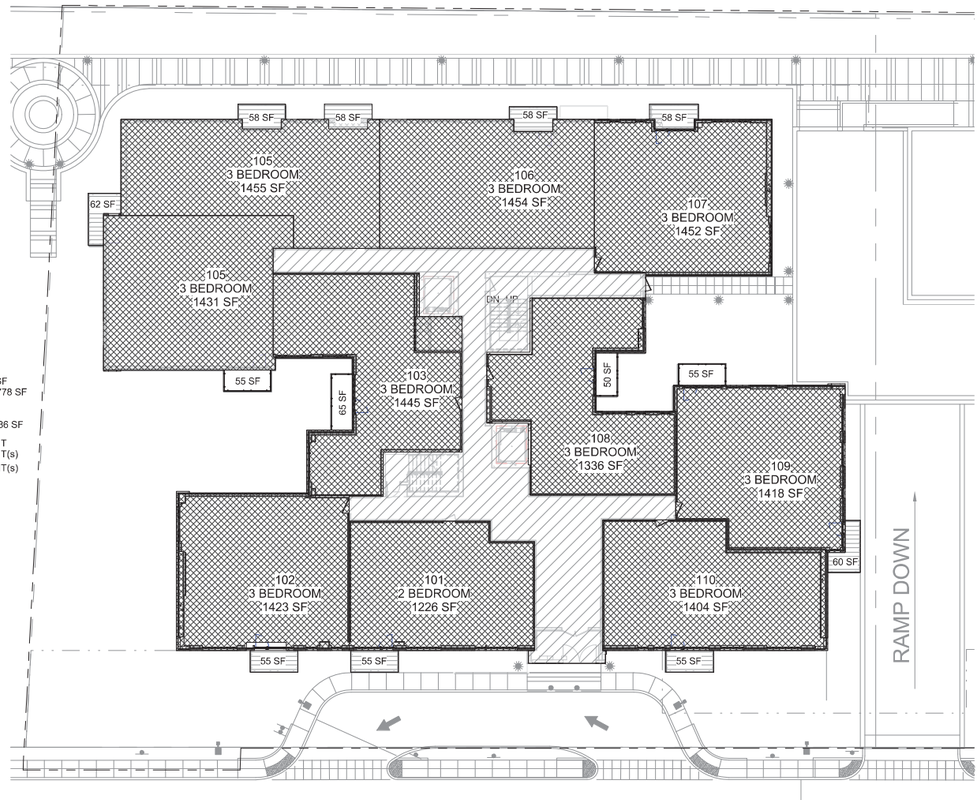
CIRCULATOIN / EGRESS

UTILITY / STORAGE / SERVICE

BALCONY

GREEN ROOF AREA

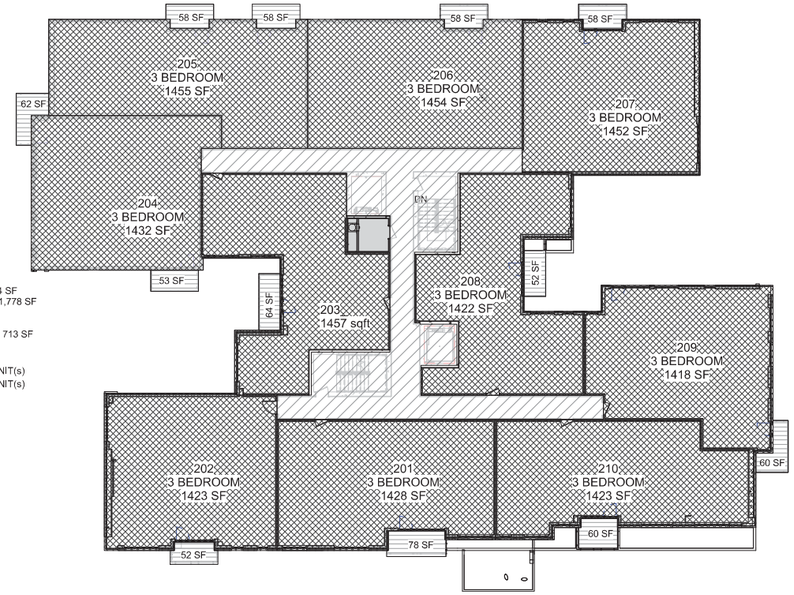
NO ACCESS AREA



1 GROUND FLR
1/16" = 1'-0"

1. GROSS INTERIOR AREA: 16,646 SF
2. GROSS INTERIOR COMMON AREA: 1,778 SF
   A. 2,503 SF CIRCULATOIN
   B. 86 SF UTILITY/STORAGE
3. GROSS EXTERIOR BALCONY AREA: 686 SF

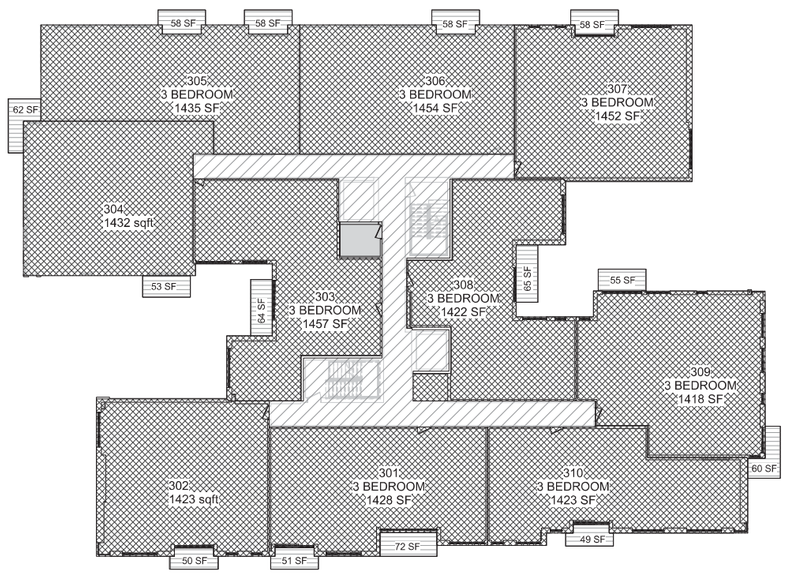
2 BEDROOM UNITS = 1 UNIT
3 BEDROOM UNITS = 9 UNIT(s)
TOTAL RESIDENTIAL UNITS = 10 UNIT(s)



3 2ND FLR
1/16" = 1'-0"

1. GROSS INTERIOR AREA: 16,154 SF
2. GROSS INTERIOR COMMON AREA: 1,778 SF
   A. 1,692 SF CIRCULATOIN
   B. 86 SF UTILITY/STORAGE
3. GROSS EXTERIOR BALCONY AREA: 713 SF

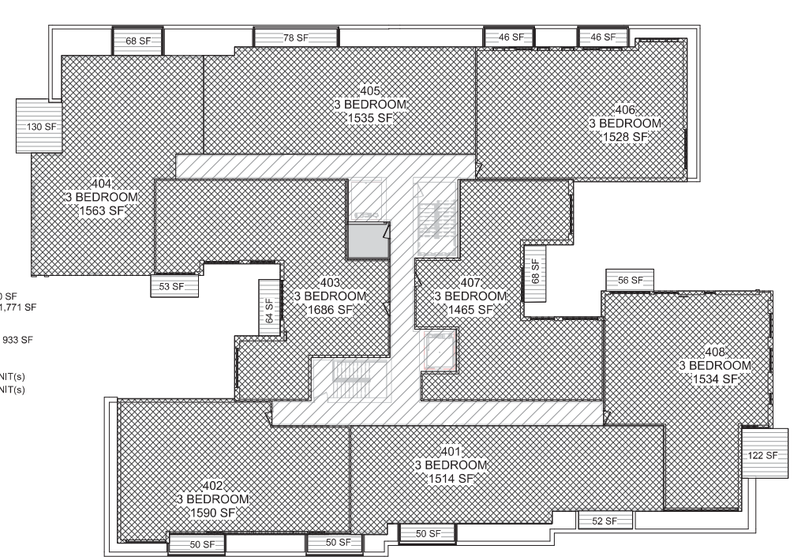
3 BEDROOM UNITS = 10 UNIT(s)
TOTAL RESIDENTIAL UNITS = 10 UNIT(s)



4 3RD FLR
1/16" = 1'-0"

1. GROSS INTERIOR AREA: 16,121 SF
2. GROSS INTERIOR COMMON AREA: 1,774SF
   A. 1,692 SF CIRCULATOIN
   B. 82 SF UTILITY/STORAGE
3. GROSS EXTERIOR BALCONY AREA: 686 SF

3 BEDROOM UNITS = 10 UNIT(s)
TOTAL RESIDENTIAL UNITS = 10 UNIT(s)



5 4TH FLR
1/16" = 1'-0"

1. GROSS INTERIOR AREA: 14,350 SF
2. GROSS INTERIOR COMMON AREA: 1,771 SF
   A. 1,686 SF CIRCULATOIN
   B. 85 SF UTILITY/STORAGE
3. GROSS EXTERIOR BALCONY AREA: 933 SF

3 BEDROOM UNITS = 8 UNIT(s)
TOTAL RESIDENTIAL UNITS = 8 UNIT(s)

16,646 SF + 16,154 SF + 16,121 + 14,350

GROSS INTERIOR AREA =	63,271 SF
TOTAL # OF RESIDENTIAL UNITS =	38 UNIT(s)
TWO BEDROOM UNITS =	1 UNIT(s)
THREE BEDROOM UNITS =	37 UNIT(s)

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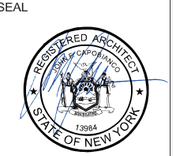
BY	REVISIONS	DATE

HML DEVELOPMENT / SLCE CONSTRUCTION MNGT

PROPOSED NEW 4 STORY MULTI-FAMILY BLDG
w/ UNDERGROUND PARKING

SEAL



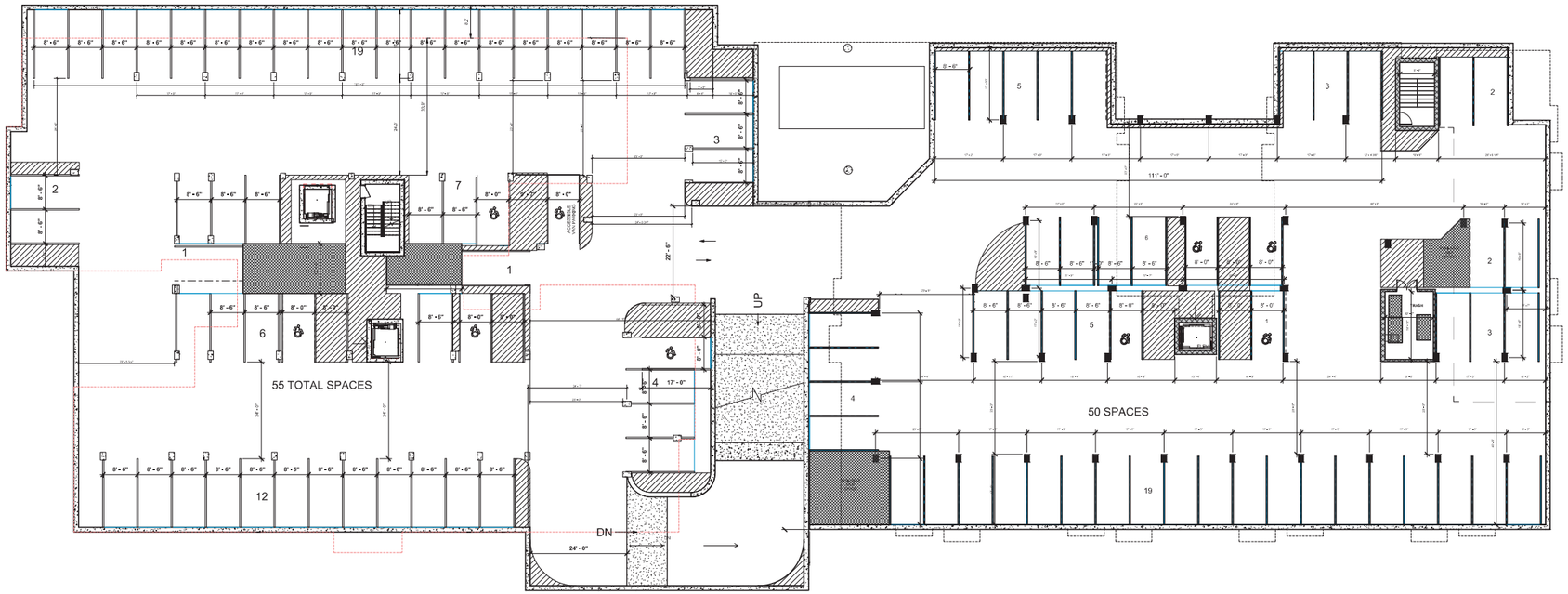
TITLE
AREA PLANS

DATE: Issue Date	SCALE: As indicated
DRAWN BY: Author	CHECKED BY: Checker
JOB #:	SHEET # B.2-1

BUILDING # 2&3

REQUIRED		
2 BEDRM	-41x2.25 = 92.3=	93 SPACES
3 BEDRM	- 37x3= 111	= 111 SPACES
TOTAL REQ'D	=	204
(5 ADA SPACE REQUIRED)		

PROVIDED	
U.G. PARKING LVL 1 (9 ADA)	=105 SPACES
U.G. PARKING LVL 2 (0 ADA)	= 89 SPACES
ON GRADE (1 ADA)	= 10 SPACES
TOTAL ON SITE	**= 204 SPACES**



1 PARKING GARAGE LVL 1
1/16" = 1'-0"

1 PARKING GARAGE LVL 2
1/16" = 1'-0"

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BY	REVISIONS	DATE

HML DEVELOPMENT / SLCE CONSTRUCTION MNGT
BUILDING 2 & BUILDING 3
UNDER GROUND PARKING
PEARSALL AVE
CEDARHURST, NY 11516

SEAL

REGISTERED ARCHITECT
JOHN F. CAPOBIANCO
13984
STATE OF NEW YORK

TITLE
PARKING LVL 1 & 2

DATE: Issue Date	**SCALE:** 1/8" = 1'-0"
DRAWN BY: Author	**CHECKED BY:** Checker
JOB #:	**SHEET #** B.2-2

RESIDENTIAL AREAS

RESIDENT AMENITY AREAS

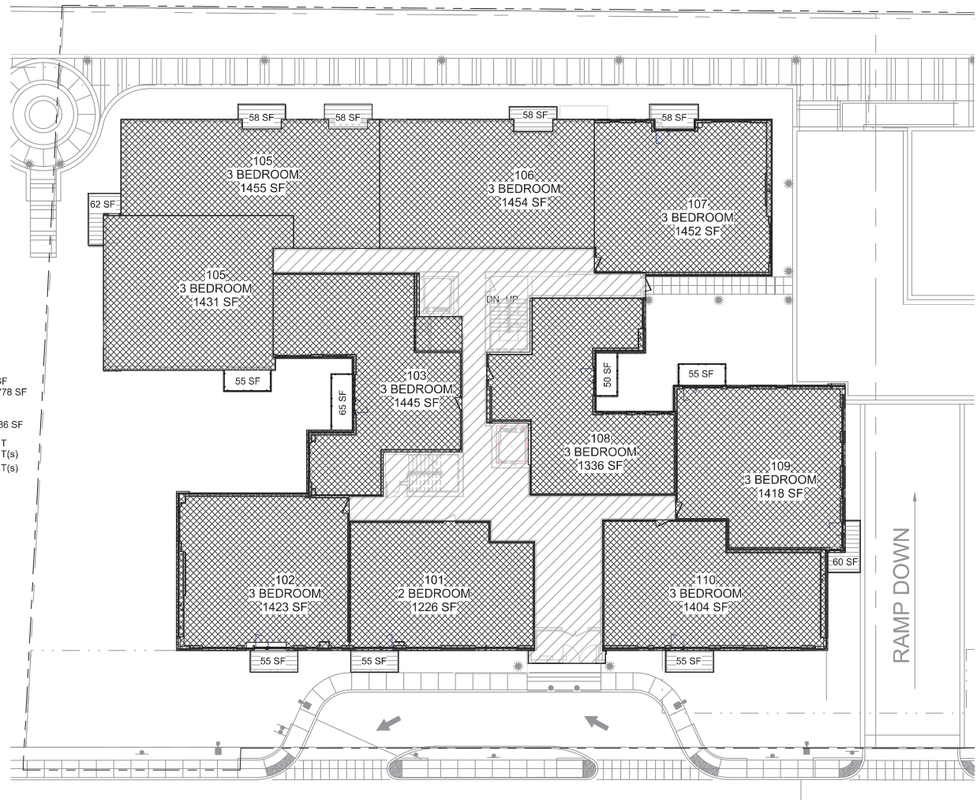
CIRCULATOIN / EGRESS

UTILITY / STORAGE / SERVICE

BALCONY

GREEN ROOF AREA

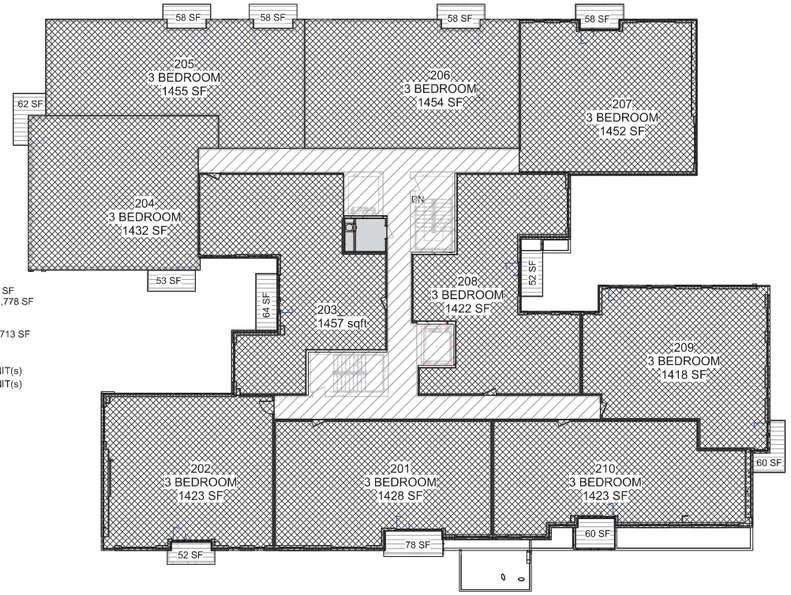
NO ACCESS AREA



1 GROUND FLR
1/16" = 1'-0"

1. GROSS INTERIOR AREA: 16,646 SF
2. GROSS INTERIOR COMMON AREA: 1,778 SF
   A. 2,503 SF CIRCULATOIN
   B. 86 SF UTILITY/STORAGE
3. GROSS EXTERIOR BALCONY AREA: 686 SF

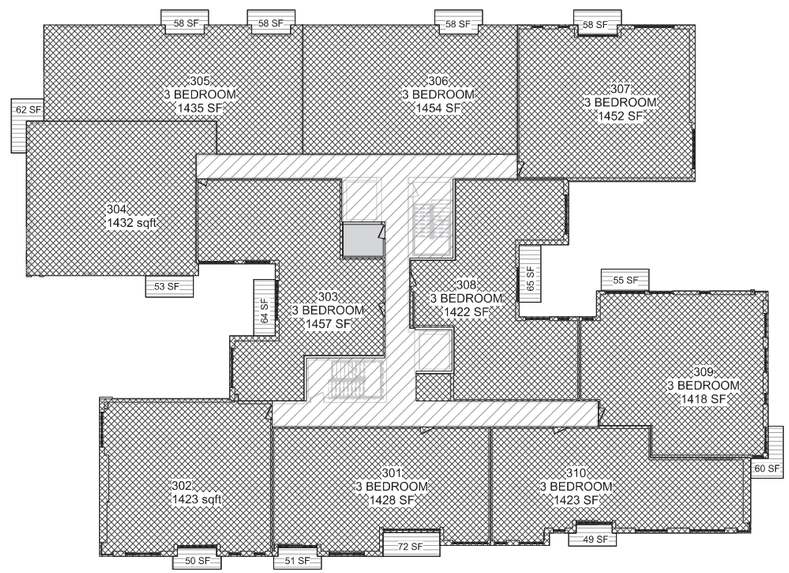
2 BEDROOM UNITS = 1 UNIT
3 BEDROOM UNITS = 9 UNIT(s)
TOTAL RESIDENTIAL UNITS = 10 UNIT(s)



3 2ND FLR
1/16" = 1'-0"

1. GROSS INTERIOR AREA: 16,154 SF
2. GROSS INTERIOR COMMON AREA: 1,778 SF
   A. 1,692 SF CIRCULATOIN
   B. 86 SF UTILITY/STORAGE
3. GROSS EXTERIOR BALCONY AREA: 713 SF

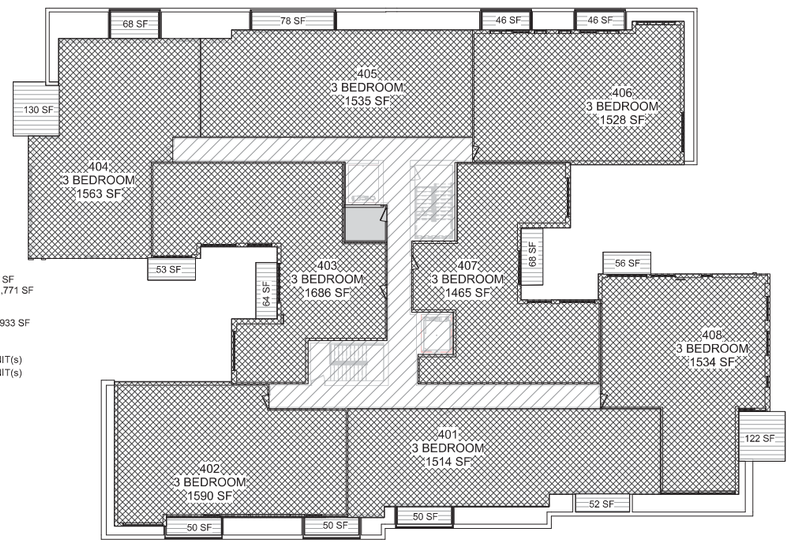
3 BEDROOM UNITS = 10 UNIT(s)
TOTAL RESIDENTIAL UNITS = 10 UNIT(s)



4 3RD FLR
1/16" = 1'-0"

1. GROSS INTERIOR AREA: 16,121 SF
2. GROSS INTERIOR COMMON AREA: 1,774SF
   A. 1,692 SF CIRCULATOIN
   B. 82 SF UTILITY/STORAGE
3. GROSS EXTERIOR BALCONY AREA: 686 SF

3 BEDROOM UNITS = 10 UNIT(s)
TOTAL RESIDENTIAL UNITS = 10 UNIT(s)



5 4TH FLR
1/16" = 1'-0"

1. GROSS INTERIOR AREA: 14,350 SF
2. GROSS INTERIOR COMMON AREA: 1,771 SF
   A. 1,686 SF CIRCULATOIN
   B. 85 SF UTILITY/STORAGE
3. GROSS EXTERIOR BALCONY AREA: 933 SF

3 BEDROOM UNITS = 8 UNIT(s)
TOTAL RESIDENTIAL UNITS = 8 UNIT(s)

16,646 SF + 16,154 SF + 16,121 + 14,350

GROSS INTERIOR AREA =	63,271 SF
TOTAL # OF RESIDENTIAL UNITS =	38 UNIT(s)
TWO BEDROOM UNITS =	1 UNIT(s)
THREE BEDROOM UNITS =	37 UNIT(s)

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BY	REVISIONS	DATE

HML DEVELOPMENT / SLCE CONSTRUCTION MNGT

PROPOSED NEW 4 STORY MULTI-FAMILY BLDG
w/ UNDERGROUND PARKING

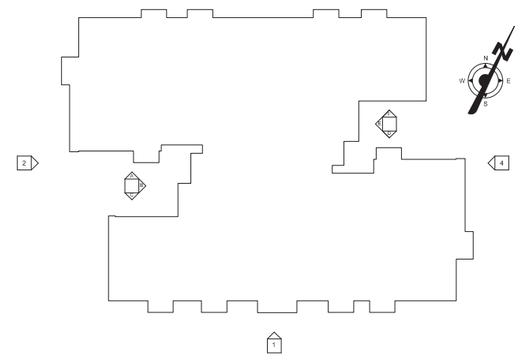
SEAL

TITLE
AREA PLANS

DATE: Issue Date	SCALE: As indicated
DRAWN BY: Author	CHECKED BY: Checker
JOB #:	SHEET # B.2-1

1 FRONT ELEVATION
1/8" = 1'-0"

2 LEFT ELEVATION
1/8" = 1'-0"



PEARSALL AVE

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BY	REVISIONS	DATE

HML DEVELOPMENT / SLCE CONSTRUCTION MNGT

PROPOSED NEW 4 STORY MULTI-FAMILY BLDG
w/ UNDERGROUND PARKING

SEAL

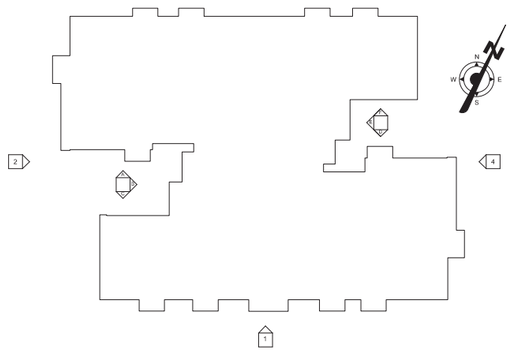
REGISTERED ARCHITECT
JOHN F. CAPOBIANCO
STATE OF NEW YORK
13984

TITLE
ELEVATIONS

DATE: Issue Date	SCALE: As indicated
DRAWN BY: Author	CHECKED BY: Checker
JOB #:	SHEET # B.2-3

1 REAR ELEVATION
1/8" = 1'-0"

2 RIGHT ELEVATION
1/8" = 1'-0"



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BY	REVISIONS	DATE

HML DEVELOPMENT / SLCE CONSTRUCTION MNGT

PROPOSED NEW 4 STORY MULTI-FAMILY BLDG
w/ UNDERGROUND PARKING

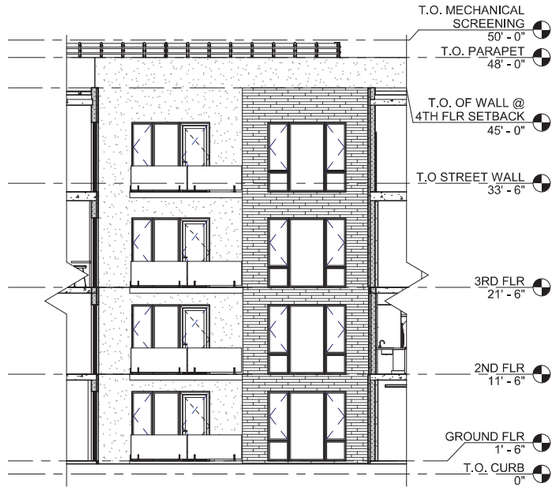
SEAL

REGISTERED ARCHITECT
JOHN F. CAPOBIANCO
13984
STATE OF NEW YORK

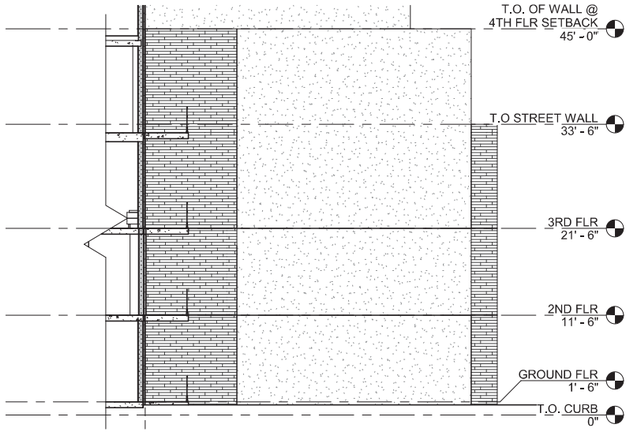
TITLE
ELEVATIONS

DATE: Issue Date	SCALE: As indicated
DRAWN BY: Author	CHECKED BY: Checker
JOB #:	SHEET # B.2-4

A WEST COURT YARD - NORTH ELEV
1/8" = 1'-0"

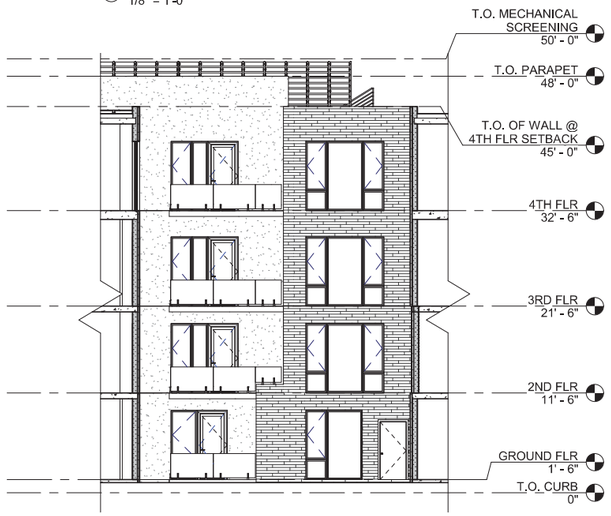


B WEST COURT YARD - EAST ELEV
1/8" = 1'-0"

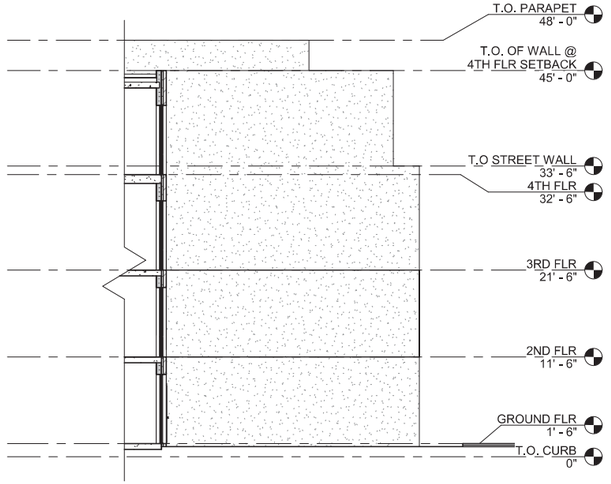


C WEST COURT YARD - SOUTH ELEV
1/8" = 1'-0"

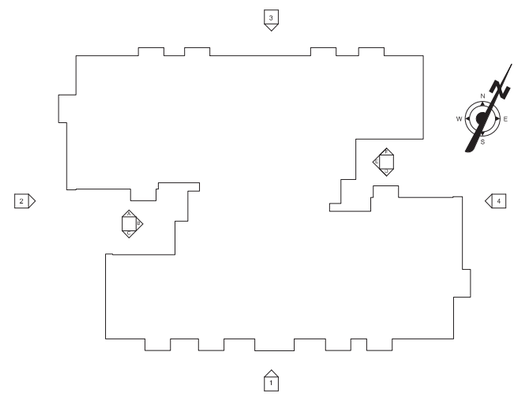
D EAST COURT YARD - SOUTH ELEV
1/8" = 1'-0"



E EAST COURT YARD - WEST ELEV
1/8" = 1'-0"



F EAST COURT YARD - NORTH ELEV
1/8" = 1'-0"



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BY	REVISIONS	DATE

HML DEVELOPMENT / SLCE CONSTRUCTION MNGT

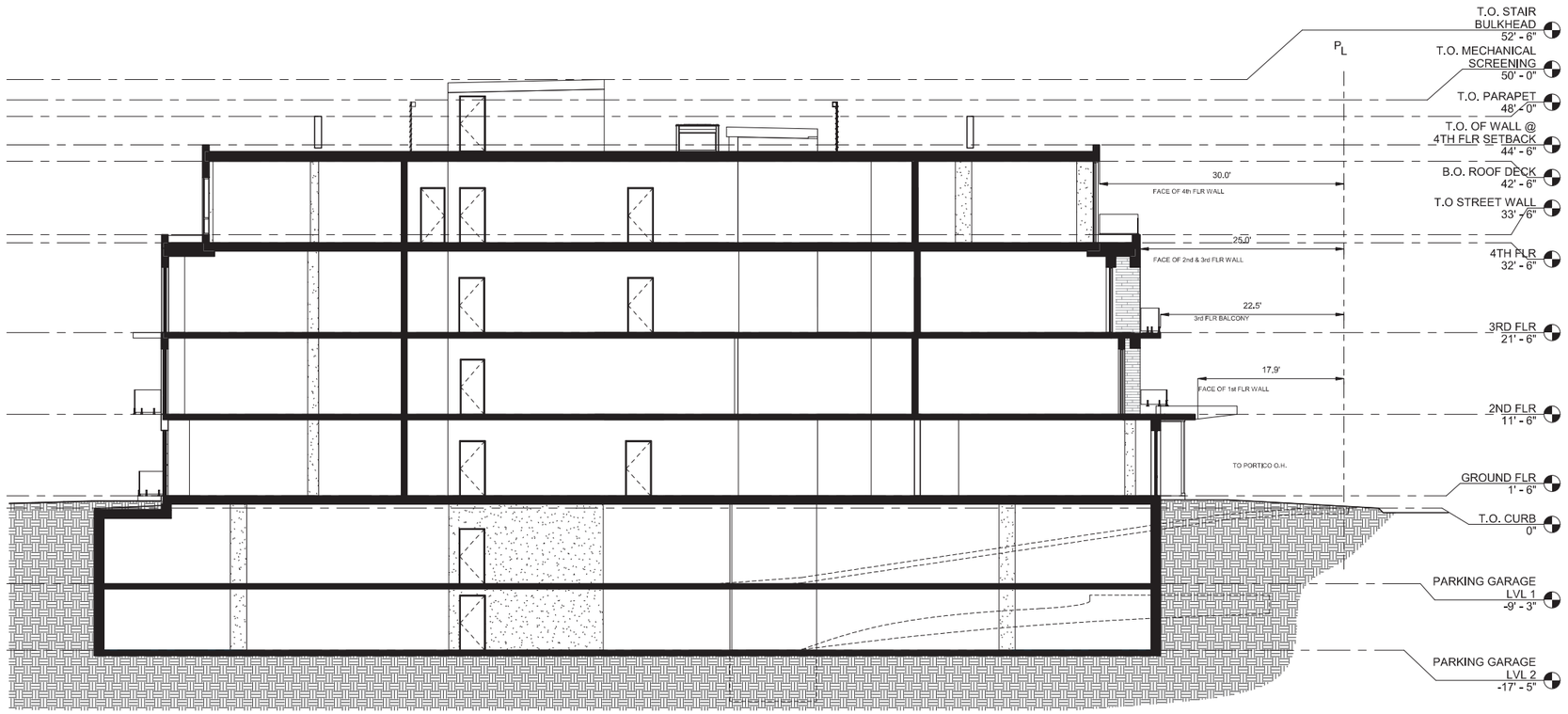
PROPOSED NEW 4 STORY MULTI-FAMILY BLDG
w/ UNDERGROUND PARKING

SEAL

REGISTERED ARCHITECT
JOHN F. CAPOBIANCO
13984
STATE OF NEW YORK

TITLE
ELEVATIONS

DATE: Issue Date	SCALE: As indicated
DRAWN BY: Author	CHECKED BY: Checker
JOB #:	SHEET # B.2-5



1 Section 3
1/8" = 1'-0"

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BY	REVISIONS	DATE

HML DEVELOPMENT / SLCE CONSTRUCTION MNGT

PROPOSED NEW 4 STORY MULTI-FAMILY BLDG
w/ UNDERGROUND PARKING

SEAL

REGISTERED ARCHITECT
JOHN F. CAPOBIANCO
STATE OF NEW YORK
13984

TITLE
BUILDING SECTIONS

DATE: Issue Date	SCALE: 1/8" = 1'-0"
DRAWN BY: Author	CHECKED BY: Checker
JOB #:	SHEET # B.2-6

RESIDENTIAL AREAS

RESIDENT COMMON /AMENITY AREAS

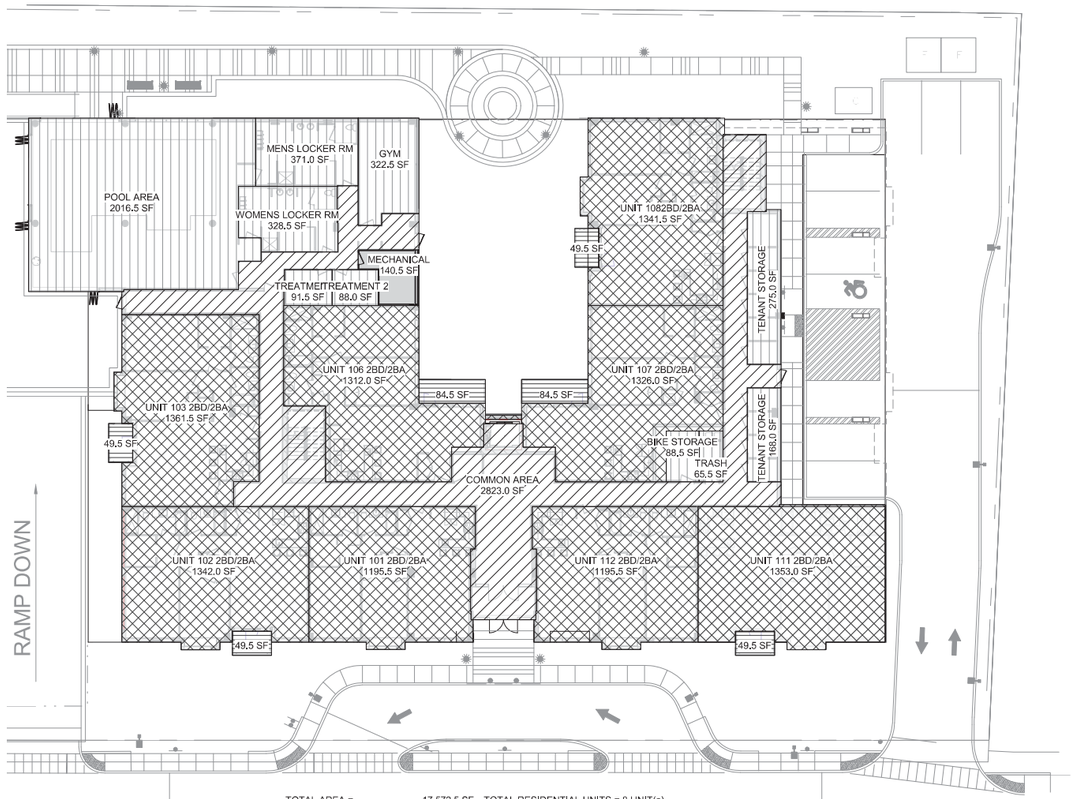
CIRCULATOIN / EGRESS

UTILITY / STORAGE / SERVICE

BALCONY

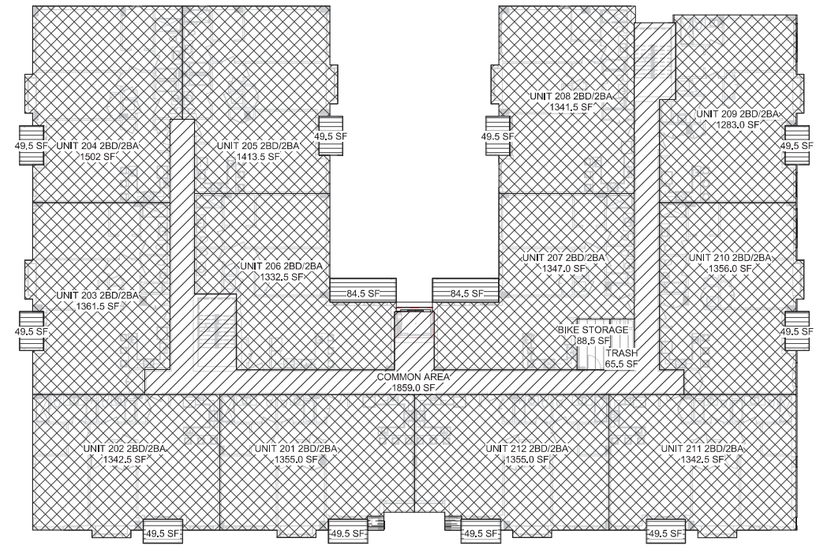
GREEN ROOF AREA

NO ACCESS AREA



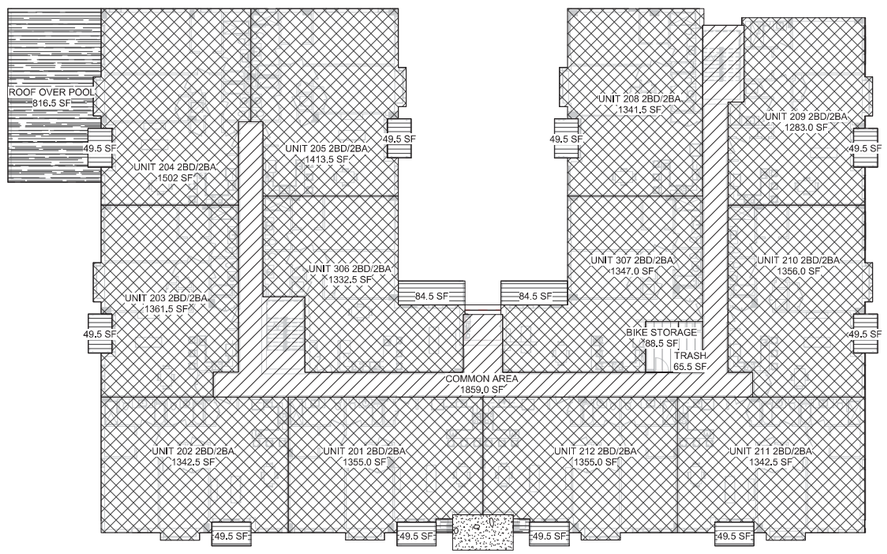
TOTAL AREA =	17,572,5 SF	TOTAL RESIDENTIAL UNITS =	8 UNIT(s)
GROSS INTERIOR AREA	17,205.5 SF	2 BEDROOM UNITS =	8 UNIT(s)
COMMON AREAS =	2,823,0 SF		
AMENITY AREAS =	3,815,0 SF		
MECHANICAL AREAS =	140,5 SF		
2 BEDROOM UNITS =	10,427.0 SF		
PORCH PATIO AREAS =	367,0 SF		

1 GROUND FLR
1/16" = 1'-0"



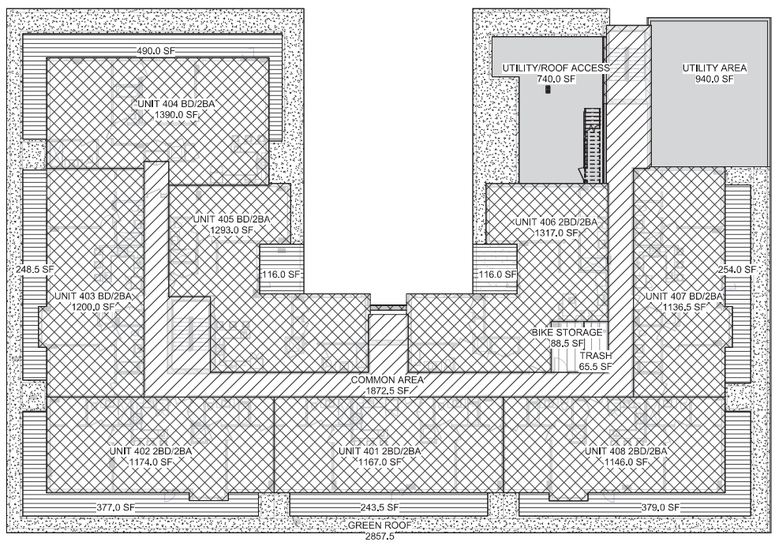
TOTAL AREA =	19,033.5 SF	TOTAL RESIDENTIAL UNITS =	12 UNIT(s)
GROSS INTERIOR AREA	18,345 SF	2 BEDROOM UNITS =	12 UNIT(s)
COMMON AREAS =	1859,0 SF		
AMENITY AREAS =	154,0 SF		
2 BEDROOM UNITS =	16,332,0 SF		
PORCH PATIO AREAS =	664,0 SF		
NO ACCESS AREAS =	24.5 SF		

3 3RD FLR
1/16" = 1'-0"



TOTAL AREA =	19,850.0 SF	TOTAL RESIDENTIAL UNITS =	12 UNIT(s)
GROSS INTERIOR AREA =	18,345 SF	2 BEDROOM UNITS =	12 UNIT(s)
COMMON AREAS =	1859.0 SF		
AMENITY AREAS =	154,0 SF		
2 BEDROOM UNITS =	16,332,0 SF		
PORCH PATIO AREAS =	664,0 SF		
NO ACCESS AREAS =	841.0 SF		
GREEN ROOF AREAS =	111 SF		

2 2ND FLR
1/16" = 1'-0"



TOTAL AREA =	18,611.5 SF	TOTAL RESIDENTIAL UNITS =	8 UNIT(s)
GROSS INTERIOR AREA=	13,530 SF	2 BEDROOM UNITS =	8 UNIT(s)
COMMON AREAS =	1872,5 SF		
AMENITY AREAS =	154,0 SF		
MECHANICAL AREAS =	1680,0 SF		
2 BEDROOM UNITS =	9,823,5 SF		
PORCH PATIO AREAS =	2,224,0 SF		
GREEN ROOF AREAS =	2857,5 SF		

4 4TH FLR
1/16" = 1'-0"

TOTAL GROSS BUILDING AREA =	67,426 SF
TOTAL # OF RESIDENTIAL UNITS =	40 UNIT(s)
TWO BEDROOM UNITS =	40 UNIT(s)

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BY	REVISIONS	DATE

HML DEVELOPMENT / SLCE CONSTRUCTION MNGT
PROPOSED NEW 4 STORY MULTI-FAMILY BLDG
w/ UNDERGROUND PARKING
PEARSALL AVE
CEDARHURST, NY 11516

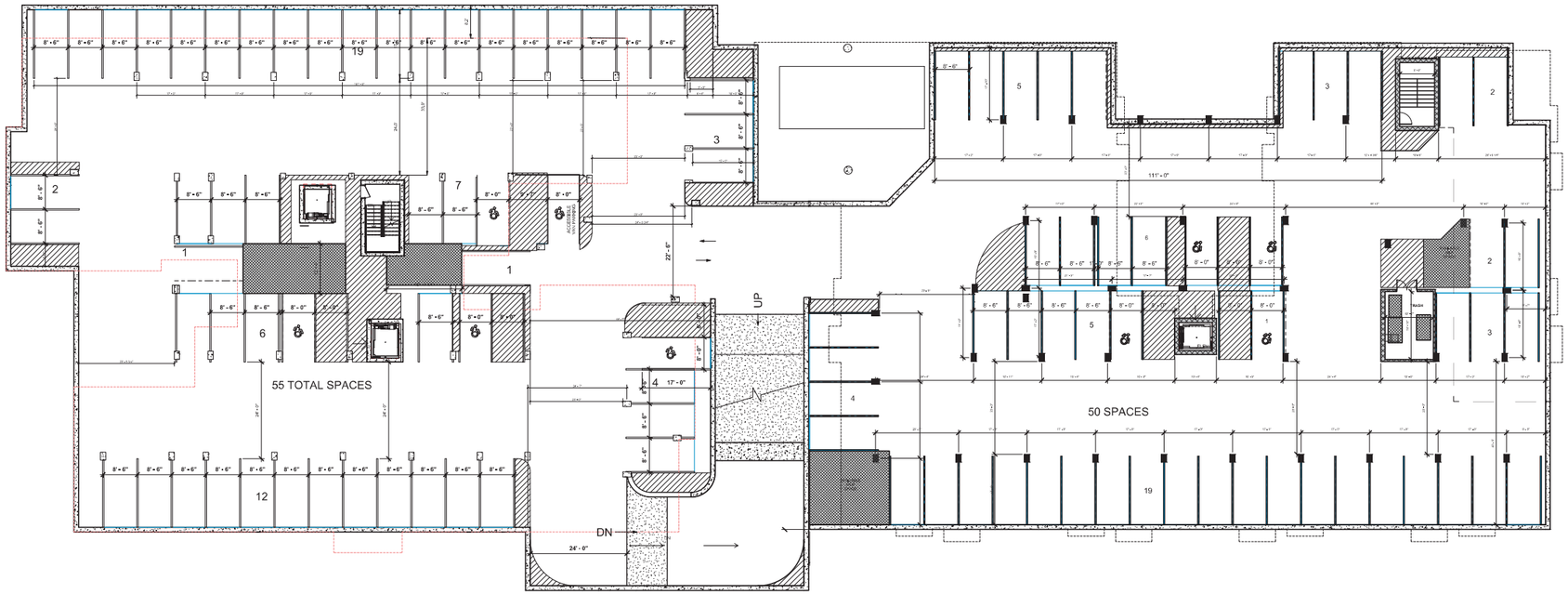
SEAL

TITLE
FLOOR PLANS

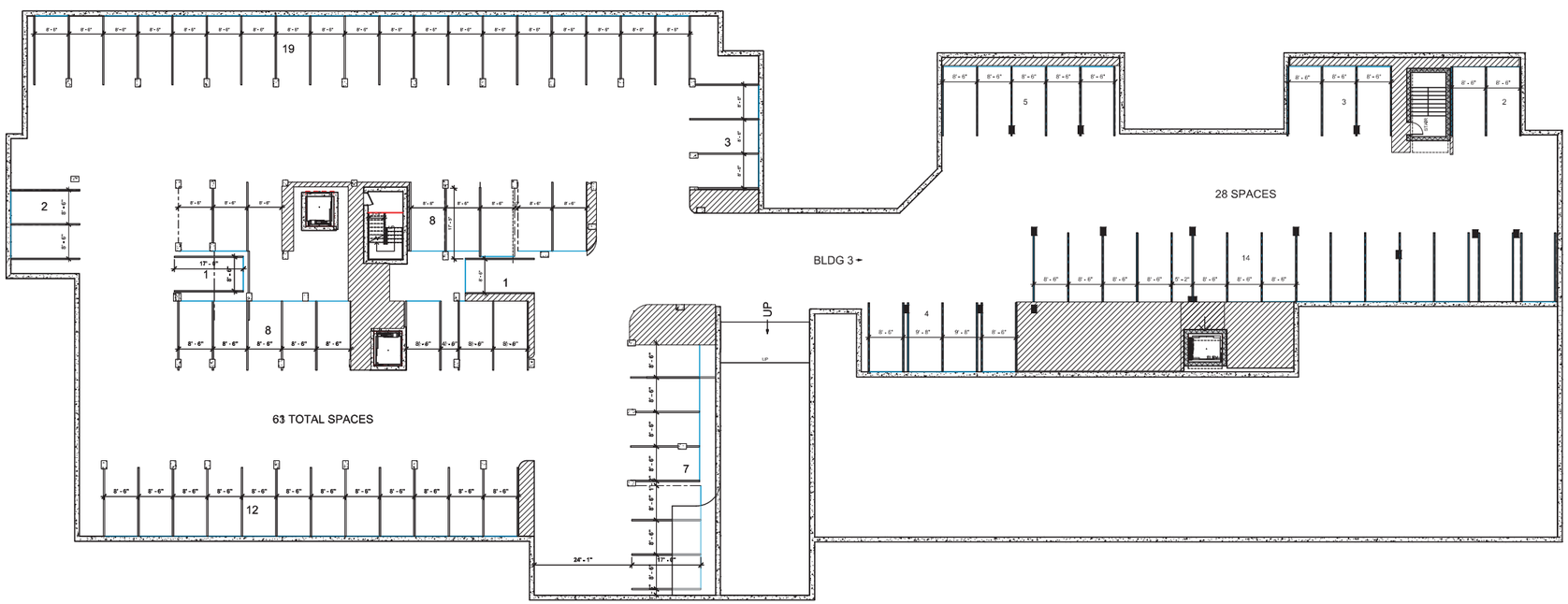
DATE: Issue Date	SCALE: As indicated
DRAWN BY: Author	CHECKED BY: Checker
JOB #:	SHEET # B.3-1

BUILDING # 2&3

	REQUIRED	
2 BEDRM	-41x2.25 = 92.3=	93 SPACES
3 BEDRM	- 37x3= 111	= 111 SPACES
TOTAL REQ'D	=	204
(5 ADA SPACE REQUIRED).		
PROVIDED		
U.G. PARKING LVL 1 (9 ADA)	=	105 SPACES
U.G. PARKING LVL 2 (0 ADA)	=	89 SPACES
ON GRADE (1 ADA)	=	10 SPACES
TOTAL ON SITE	=	204 **SPACES**



1 PARKING GARAGE LVL 1
1/16" = 1'-0"



1 PARKING GARAGE LVL 2
1/16" = 1'-0"

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BY	REVISIONS	DATE

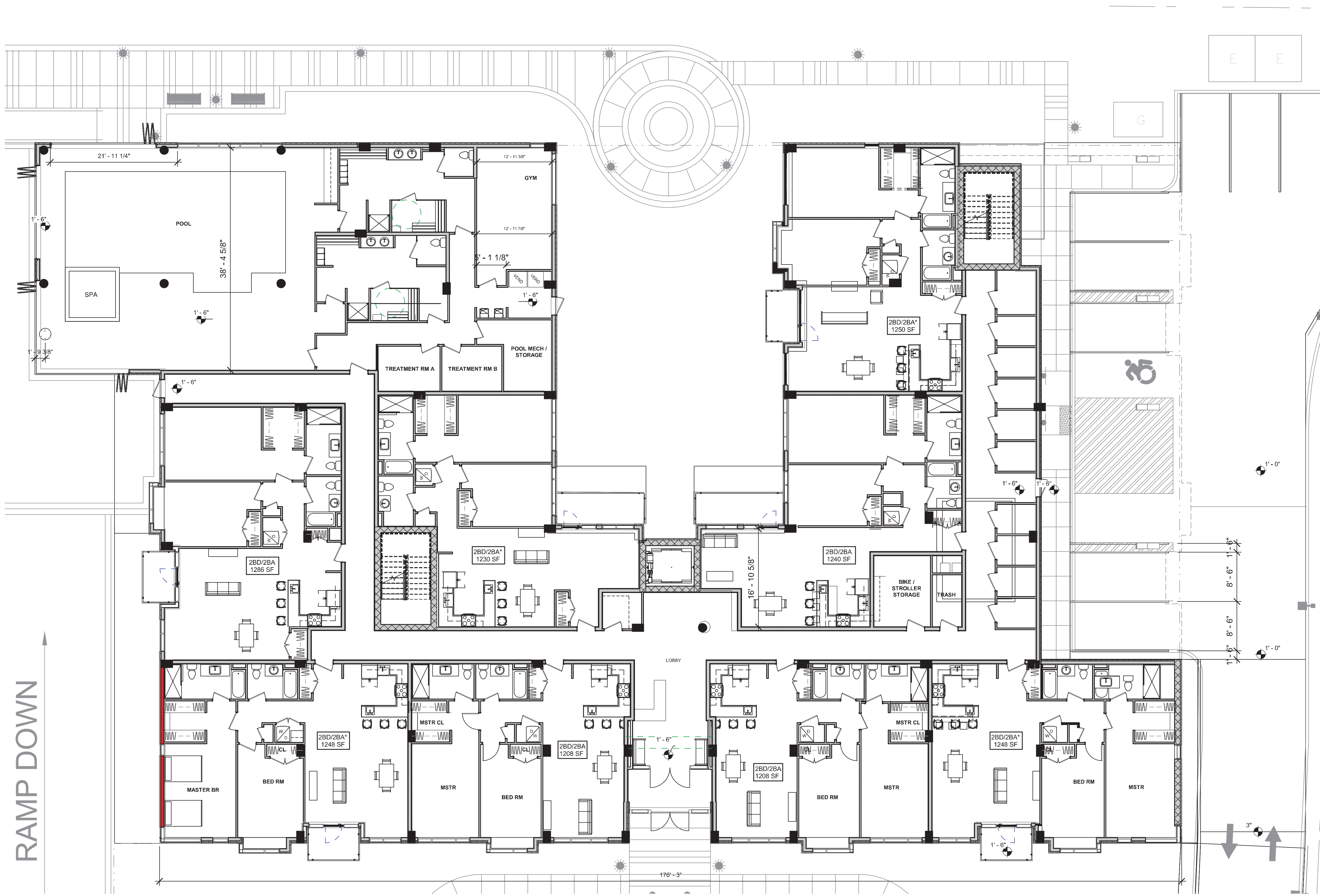
HML DEVELOPMENT / SLCE CONSTRUCTION MNGT
BUILDING 2 & BUILDING 3
UNDER GROUND PARKING
PEARSALL AVE
CEDARHURST, NY 11516

SEAL

REGISTERED ARCHITECT
JOHN F. CAPOBIANCO
13984
STATE OF NEW YORK

TITLE
PARKING LVL 1 & 2

DATE: Issue Date	**SCALE:** 1/8" = 1'-0"
DRAWN BY: Author	**CHECKED BY:** Checker
JOB #:	**SHEET #** B.3-2



1 GROUND FLR
1/8" = 1'-0"

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HML DEVELOPMENT / SLCE CONSTRUCTION MNGT

PROPOSED NEW 4 STORY MULTI-FAMILY BLDG
w/ UNDERGROUND PARKING

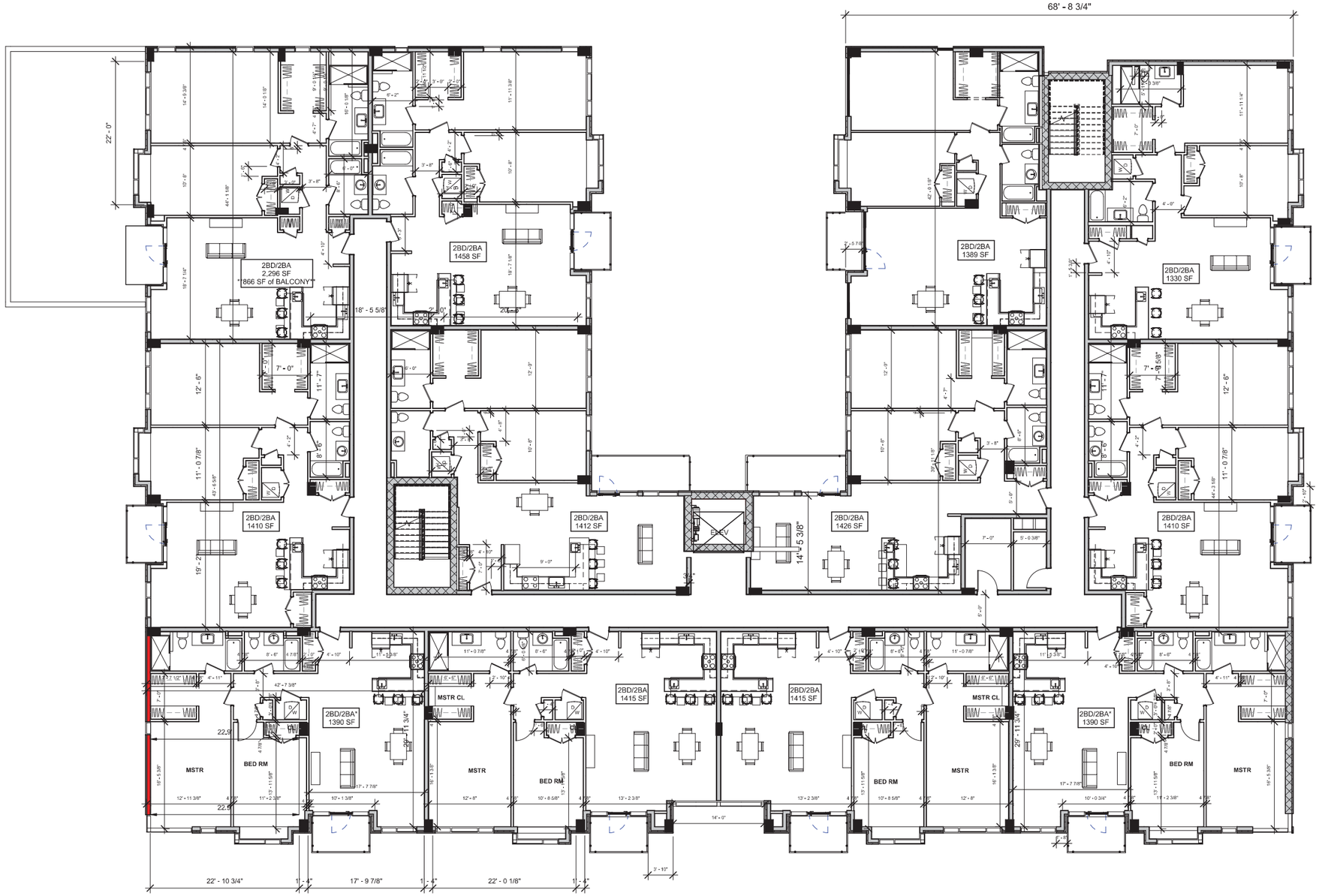
PEARSALL AVE
CEDARHURST, NY 11516

SEAL

TITLE
GROUND FLOOR PLAN

DATE: Issue Date | SCALE: 1/8" = 1'-0"
DRAWN BY: Author | CHECKED BY: Checker
JOB #: | SHEET #

B.3-3



1 2ND FLR
1/8" = 1'-0"

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BY	REVISIONS	DATE

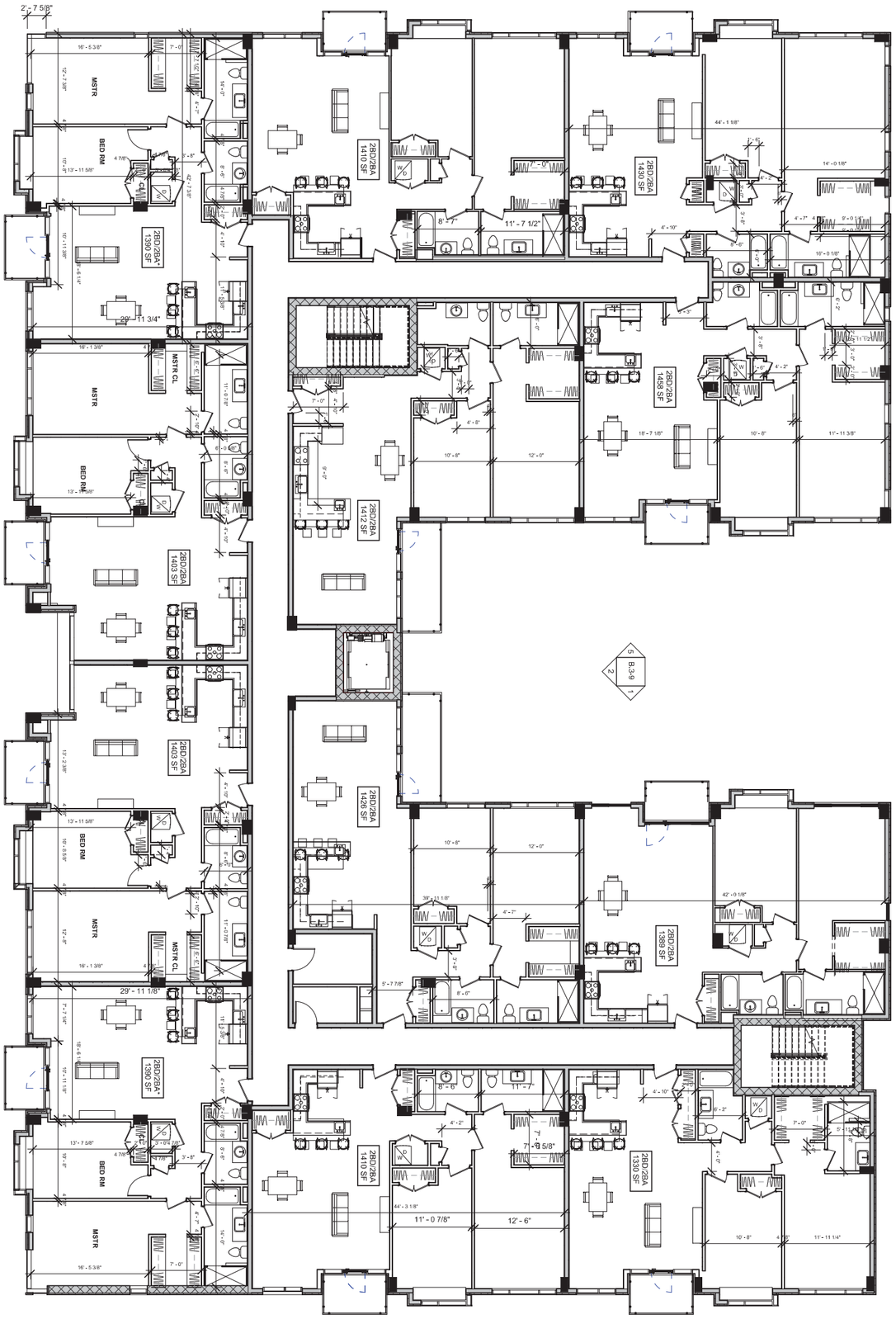
HML DEVELOPMENT / SLCE CONSTRUCTION MNGT
PROPOSED NEW 4 STORY MULTI-FAMILY BLDG
w/ UNDERGROUND PARKING
PEARSALL AVE
CEDARHURST, NY 11516

SEAL

REGISTERED ARCHITECT JOHN F. CAPOBIANCO 13984 STATE OF NEW YORK

TITLE
SECOND FLOOR PLAN

DATE: Issue Date	SCALE: 1/8" = 1'-0"
DRAWN BY: Author	CHECKED BY: Checker
JOB #:	SHEET # B.3-4



1 3RD FLR
1/8" = 1'-0"

HML DEVELOPMENT / SLCE CONSTRUCTION MNGT

PROPOSED NEW 4 STORY MULTI-FAMILY BLDG.
w/ UNDERGROUND PARKING

PEARSALL AVE
CEDARHURST, NY 11516

BY	REVISIONS	DATE

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Architect . Interior Design . Planning . A.I.A.
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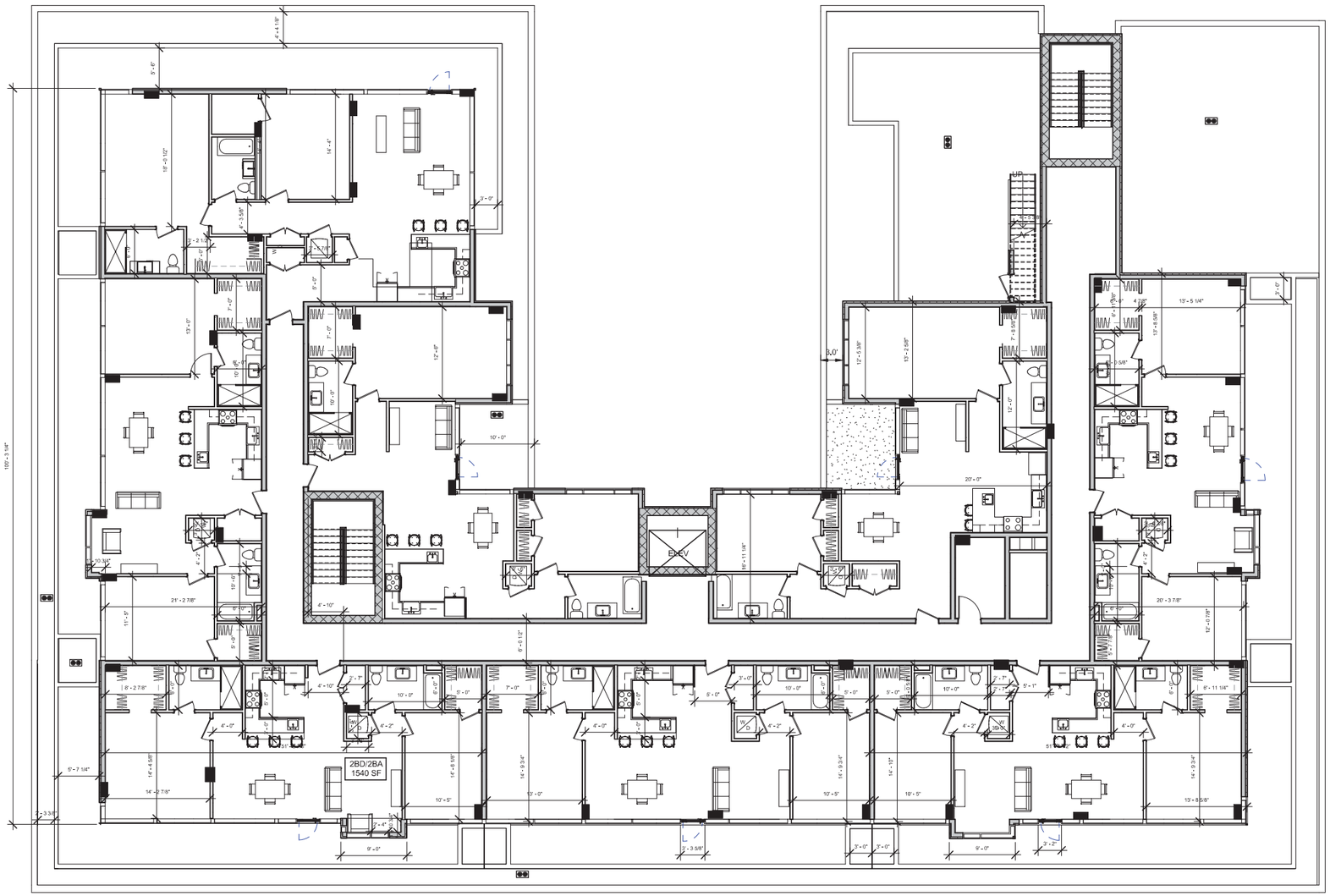
SEAL

STATE OF NEW YORK — REGISTERED ARCHITECT — JOHN F. CAPOBIANCO — 029864

TITLE
THIRD FLOOR PLAN

DATE: Issue Date
SCALE: 1/8" = 1'-0"
DRAWN BY: Author
CHECKED BY: Checker
JOB #:
SHEET #
B.3-5



1 4TH FLR
1/8" = 1'-0"

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BY	REVISIONS	DATE

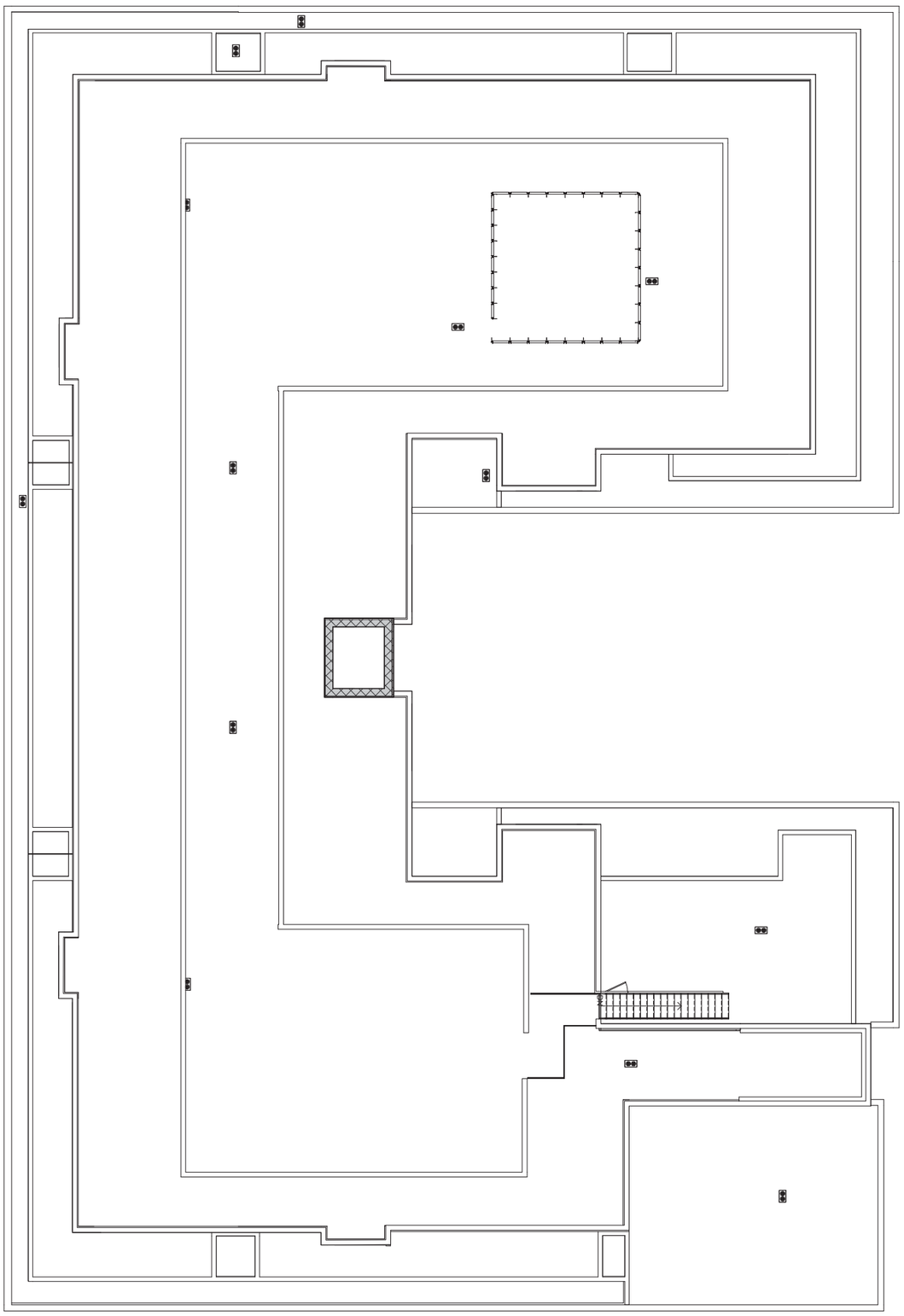
HML DEVELOPMENT / SLCE CONSTRUCTION MNGT
PROPOSED NEW 4 STORY MULTI-FAMILY BLDG
w/ UNDERGROUND PARKING
PEARSALL AVE
CEDARHURST, NY 11516

SEAL

REGISTERED ARCHITECT
JOHN F. CAPOBIANCO
STATE OF NEW YORK
13984

TITLE
FOURTH FLOOR PLAN

DATE: Issue Date	SCALE: 1/8" = 1'-0"
DRAWN BY: Author	CHECKED BY: Checker
JOB #:	SHEET # B.3-6



HML DEVELOPMENT / SLCE CONSTRUCTION MNGT

PROPOSED NEW 4 STORYMULTI-FAMILY BLDG
w/ UNDERGROUND PARKING

PEARSALL AVE
CEDARHURST, NY 11516

TITLE
ROOF PLAN

DATE: Issue Date
DRAWN BY: Author
CHECKED BY: Checker
SCALE: 1/8" = 1'-0"
JOB #:
SHEET #
B.3-7

SEAL

REGISTERED ARCHITECT
JOHN F. CAPOBIANCO
STATE OF NEW YORK
11096

BY	REVISIONS	DATE

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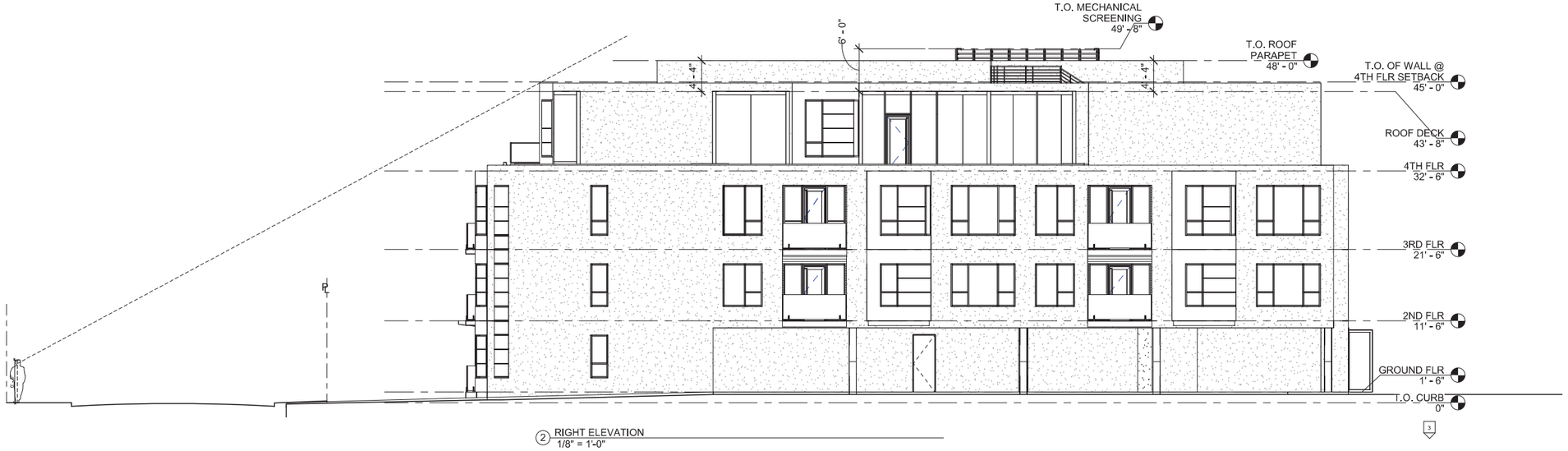
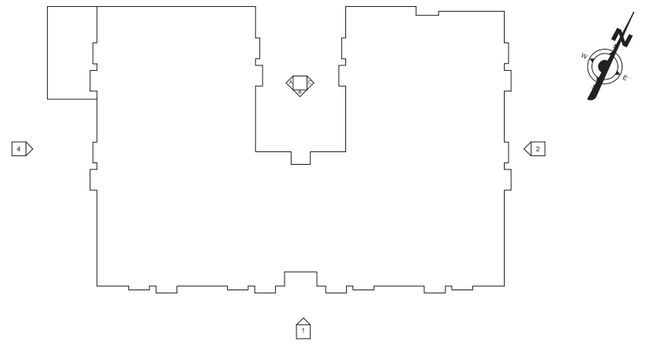
1 FRONT ELEVATION
1/8" = 1'-0"



2 RIGHT ELEVATION
1/8" = 1'-0"



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BY	REVISIONS	DATE

HML DEVELOPMENT / SLCE CONSTRUCTION MNGT
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w/ UNDERGROUND PARKING
PEARSALL AVE
CEDARHURST, NY 11516

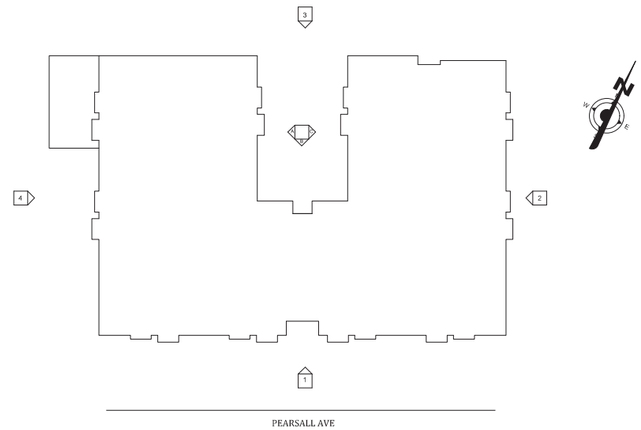
SEAL

REGISTERED ARCHITECT
JOHN F. CAPOBIANCO
13984
STATE OF NEW YORK

TITLE
ELEVATIONS

DATE: Issue Date	**SCALE:** As indicated
DRAWN BY: Author	**CHECKED BY:** Checker
JOB #:	**SHEET #** B.3-8

3 REAR ELEVATION
1/8" = 1'-0"



4 LEFT ELEVATION
1/8" = 1'-0"

1 COURT YARD - EAST ELEV
1/8" = 1'-0"

2 COURT YARD - SOUTH ELEV
1/8" = 1'-0"

5 COURT YARD - WEST ELEV
1/8" = 1'-0"

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BY	REVISIONS	DATE

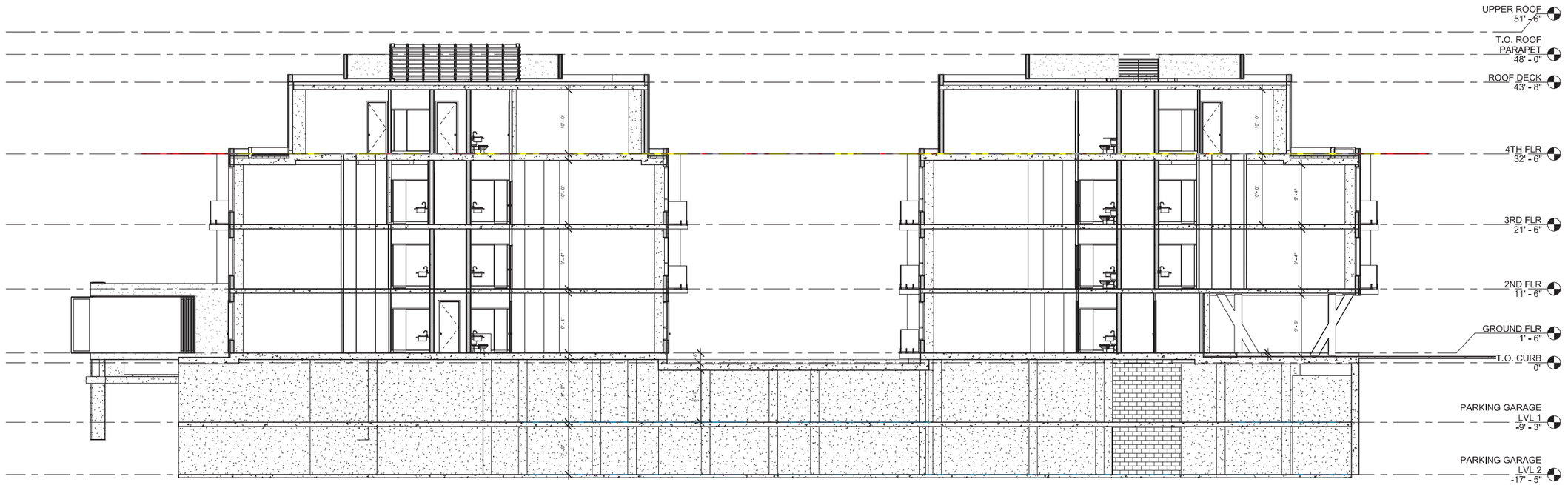
HML DEVELOPMENT / SLCE CONSTRUCTION MNGT
PROPOSED NEW 4 STORY MULTI FAMILY BLDG
w/ UNDERGROUND PARKING
PEARSALL AVE
CEDARHURST, NY 11516

SEAL

REGISTERED ARCHITECT JOHN F. CAPOBIANCO 13964 STATE OF NEW YORK

TITLE
ELEVATIONS

DATE: Issue Date	SCALE: As indicated
DRAWN BY: Author	CHECKED BY: Checker
JOB #:	SHEET # B.3-9



② Section 21
1/8" = 1'-0"

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BY	REVISIONS	DATE

HML DEVELOPMENT / SLCE CONSTRUCTION MNGT
PROPOSED NEW 4 STORY MULTI FAMILY BLDG
w/ UNDERGROUND PARKING
PEARSALL AVE
CEDARHURST, NY 11516

SEAL

TITLE
WALL SECTION

DATE: Issue Date	SCALE: 1/8" = 1'-0"
DRAWN BY: Author	CHECKED BY: Checker
JOB #:	SHEET # B.3-10

Appendix E

Full Environmental Assessment Form

Instructions for Completing Part 1

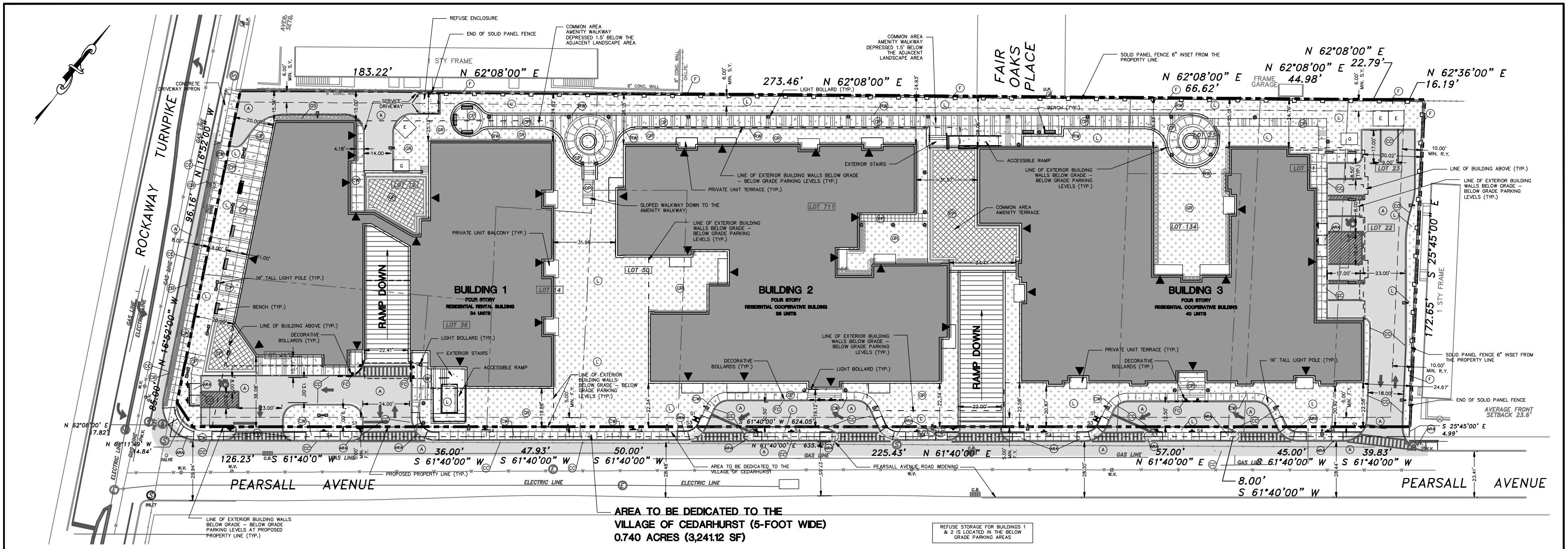
Part 1 is to be completed by the applicant or project sponsor. Responses become part of the application for approval or funding, are subject to public review, and may be subject to further verification.

Complete Part 1 based on information currently available. If additional research or investigation would be needed to fully respond to any item, please answer as thoroughly as possible based on current information; indicate whether missing information does not exist, or is not reasonably available to the sponsor; and, when possible, generally describe work or studies which would be necessary to update or fully develop that information.

Applicants/sponsors must complete all items in Sections A & B. In Sections C, D & E, most items contain an initial question that must be answered either "Yes" or "No". If the answer to the initial question is "Yes", complete the sub-questions that follow. If the answer to the initial question is "No", proceed to the next question. Section F allows the project sponsor to identify and attach any additional information. Section G requires the name and signature of the applicant or project sponsor to verify that the information contained in Part 1is accurate and complete.

A. Project and Applicant/Sponsor Information.

Name of Action or Project: Proposed Incentive Overlay District and Pearsall Avenue Development Project		
Project Location (describe, and attach a general location map): Pearsall Avenue, Village of Cedarhurst, Nassau County, New York (Sec. 39, Blk. 424, Lots 12, 14, 21, 22, 23, 36, 50, 134, 234, 413, 711 & 712)		
Brief Description of Proposed Action (include purpose or need): The Proposed Action includes: 1) the adoption of a zoning overlay district applicable to any property or assemblages which are at least 0.75 acres in area, located on a corner having two street frontages, with at least one side abutting the Village boundary, and which are wholly zoned General Business District or are Village-owned; and 2) the approval of a site plan for the following Proposed Project. The Proposed Project involves the construction of a 3-building mixed-use residential development on 2.5 acres, located at the northeast corner of Pearsall Avenue and Rockaway Turnpike. Building 1 would consist of a 4-story mixed-use building, which would include ground floor amenity space and 34 residential units. Building 2 would consist of a 4-story multi-family residential building with 38 units, and Building 3 would consist of a 4-story multi-family residential building with 40 units. Total building area is 49,543.5 square feet. There would be 113 on-site parking spaces provided for Building 1 and 204 on-site parking spaces provided for Buildings 2 and 3, for a total of 317 provided parking spaces. NOTE: EAF responses below provide calculations for the Proposed Project; NOT for all eligible sites under the Incentive Overlay District.		
Name of Applicant/Sponsor: Pearsall Rock LLC	Telephone: (718) 702-1530 E-Mail:	
Address: 177 Concord Street		
City/PO: Brooklyn	State: NY	Zip Code: 11201
Project Contact (if not same as sponsor; give name and title/role): same as above	Telephone: E-Mail:	
Address:		
City/PO:	State:	Zip Code:
Property Owner (if not same as sponsor): same as above	Telephone: E-Mail:	
Address:		
City/PO:	State:	Zip Code:



SITE DATA

1. SITE LOCATION: 312–318 and 350–362 PEARSALL AVENUE
   210 and 218–220 ROCKAWAY TURNPIKE
   INC. VILLAGE OF CEDARHURST
   TOWN OF HEMPSTEAD
   NASSAU COUNTY, NEW YORK
2. OWNER: PEARSALL ROCK, LLC
   177 CONCORD STREET
   BROOKLYN, NY 11201
3. APPLICANT: PEARSALL ROCK, LLC
   177 CONCORD STREET
   BROOKLYN, NY 11201
4. NASSAU COUNTY TAX MAP: SECTION 39, BLOCK 424, LOTS 12, 14, 21, 22, 23, 36, 50, 134, 234, 413, 711 & 712
5. ZONING DISTRICT: GENERAL BUSINESS DISTRICT – INCENTIVE OVERLAY DISTRICT
6. TOTAL SITE AREA: 108,834 SF (2.498 ACRES)
7. SERVICES
   SCHOOL DISTRICT: LAWRENCE UNION FREE SCHOOL DISTRICT (UFSD)
   WATER DISTRICT: NEW YORK AMERICAN WATER
   FIRE DISTRICT: LAWRENCE – CEDARHURST FIRE DEPARTMENT
   POLICE PRECINCT: NASSAU COUNTY POLICE DEPARTMENT, 4TH PRECINCT
   SEWER DISTRICT: NASSAU COUNTY (CEDARHURST) – BAY PARK WATER POLLUTION CONTROL PLANT
   POST OFFICE: CEDARHURST, NY 11516
8. FLOOD HAZARDOUS ZONE: PANEL 36059C0301G / ZONE X

TRAFFIC AND PARKING SIGN SCHEDULE

SIGN SYMBOL	SIGN	MUTCD	LEGEND	SIZE	MOUNTING HEIGHT
S–1	STOP	R1–1	STOP	30" X 30"	7'–0"
S–2	RESERVED PARKING	R7–8	HANDICAPPED PARKING	12" X 18"	7'–0"
S–3	DO NOT ENTER	R5–1	DO NOT ENTER	30" X 30"	7'–0"
S–4	NO PARKING ANY TIME	R7–1 (MOD)	NO PARKING ANY TIME (TWO–WAY ARROW)	12" X 18"	7'–0"

GENERAL NOTES

1. THESE PLANS REFERENCE A SURVEY PREPARED BY PERFECT POINT LAND SURVEYING, RT, LAST DATED MAY 29, 2018.
2. ALL WORK SHALL COMPLY WITH APPLICABLE FEDERAL, STATE AND LOCAL CODES, REGULATORY AGENCIES AND THE INCORPORATED VILLAGE OF CEDARHURST. THE CONTRACTOR SHALL NOTIFY/COORDINATE WITH THE VILLAGE OF CEDARHURST FOR SITE IMPROVEMENTS INSTALLATION AND CONFORMANCE TO VILLAGE STANDANRDS AND SPECIFICATIONS FOR ALL WORK.
3. ALL WORK, WHETHER SHOWN OR INFERRED, UNLESS SPECIFICALLY QUESTIONED, SHALL BE CONSIDERED FULLY UNDERSTOOD IN ALL RESPECTS BY THE CONTRACTOR, AND THE CONTRACTOR SHALL THEREBY BE RESPONSIBLE FOR ANY INTERPRETATIONS OR CONSEQUENCES THEREOF FOR ALL WORK ON ALL DRAWINGS.
4. THE OWNER'S REPRESENTATIVE SHALL BE NOTIFIED OF ANY DISCREPANCIES OR OMISSIONS WHICH COULD INTERFERE WITH THE SATISFACTORY COMPLETION OF THE WORK, PRIOR TO THE START OF ANY AND ALL WORK.
5. INSTALL WORK SO AS TO BE READILY ACCESSIBLE FOR OPERATING, MAINTENANCE AND REPAIR. MINOR DEVIATIONS FROM DRAWINGS, WITH NO MATERIAL COMPROMISE IN QUALITY, MAY BE MADE TO ACCOMPLISH THIS, BUT CHANGES OF MAGNITUDE AND/OR CHANGES WHICH RESULT IN EXTRA COST SHALL NOT BE MADE WITHOUT EXPRESSED APPROVAL.
6. THE CONTRACTOR SHALL IN ALL RESPECTS COMPLY WITH ALL REGULATIONS OF THE OWNER. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN SUCH REGULATIONS FROM THE OWNER. IN THE EVENT OF CONFLICT BETWEEN REGULATIONS AND OTHER CONTRACT DOCUMENTS, THE OWNER'S REPRESENTATIVE AND OWNER SHALL BE CONSULTED PRIOR TO THE START OF ANY AND ALL WORK.
7. THE OWNER RESERVES THE RIGHT TO LET OTHER CONTRACTS IN CONNECTION WITH THE WORK OF THIS PROJECT. THE CONTRACTOR SHALL COOPERATE WITH OTHER CONTRACTORS AS REQUIRED TO CONFORM TO THE GENERAL CONSTRUCTION SCHEDULE AND SHALL AFFORD OTHER CONTRACTORS REASONABLE OPPORTUNITY FOR THE INTRODUCTION AND STORAGE OF THEIR MATERIALS AND EQUIPMENT AND THE EXECUTION OF THEIR WORK.
8. THE CONTRACTOR AND EACH SUBCONTRACTOR SHALL BE RESPONSIBLE FOR REVIEWING ALL DRAWINGS AND SPECIFICATIONS, AND NOTING ALL APPLICABLE WORK AS SHOWN OR INFERRED. ALL WORK AS SHOWN OR INFERRED SHALL BE INCLUDED IN THE COSTS.
9. THE CONTRACTOR SHALL FIRST COORDINATE AND THEN SUBMIT ALL SUBCONTRACTORS' SHOP DRAWINGS TO THE OWNER'S REPRESENTATIVE FOR REVIEW PRIOR TO WORK BEING PERFORMED.
10. ALL WORK SHALL CONFORM TO THE DRAWINGS AND SPECIFICATIONS AND SHALL BE OF NEW AND BEST QUALITY. NO MATERIAL SUBSTITUTIONS SHALL BE MADE, EXCEPT BY WRITTEN APPROVAL OF THE OWNER'S REPRESENTATIVE IN RESPONSE TO THE CONTRACTOR'S WRITTEN REQUEST.
11. ALL MANUFACTURED ARTICLES, MATERIALS AND EQUIPMENT SHALL BE SUPPLIED, INSTALLED, CONNECTED, ERECTED, USED, CLEANED AND CONDITIONED AS DIRECTED BY THE MANUFACTURERS, UNLESS OTHERWISE SPECIFIED ON THE DRAWINGS.
12. THE CONTRACTOR SHALL REPAIR AND RESTORE TO ORIGINAL CONDITION ANY EXISTING EQUIPMENT OR MATERIALS DAMAGED IN THE PROCESS OF INSTALLATION, AND DEMOLITION TO THE SATISFACTION OF THE OWNER'S REPRESENTATIVE AND AT NO ADDITIONAL COST TO THE OWNER.
13. THE CONTRACTOR SHALL MAKE REPAIRS USING THE SAME MATERIALS, AT THE CONTRACTOR'S COST.
14. THE CONTRACTOR SHALL INCUR ALL COSTS AND BURDENS ASSOCIATED WITH LOST, STOLEN OR DAMAGED EQUIPMENT AND MATERIALS.
15. THE UTILITIES AND SERVICES IN THE CONSTRUCTION AREA, AS SHOWN ON THE CONTRACT DRAWINGS ARE AT THE APPROXIMATE LOCATIONS FURNISHED BY THE VARIOUS UTILITIES CONCERNED AND/OR AS SHOWN ON RECORD DESIGN DOCUMENTS. WHENEVER EXISTING IMPROVEMENT INFORMATION IS EITHER INDICATED ON THE DRAWINGS OR SUPPLIED TO THE CONTRACTOR AT A LATER DATE, IT IS UNDERSTOOD THAT SUCH INFORMATION IS FURNISHED IN GOOD FAITH FOR THE CONTRACTOR'S CONVENIENCE. THE CONTRACTOR MUST INTERPRET THIS INFORMATION ACCORDING TO HIS OWN JUDGMENT, AND MUST MAKE HIS OWN DETERMINATIONS REGARDING THE LOCATION OF ALL IMPROVEMENTS. NO CLAIM WILL BE ALLOWED BECAUSE OF INCORRECT, INCOMPLETE OR OMITTED EXISTING IMPROVEMENTS INFORMATION.
16. ALL WORK, MATERIALS, SPECIFICATIONS, REGULATIONS, RULES, PERMITS, ETC., OF ALL STATE, COUNTY AND LOCAL GOVERNMENTS AND ALL UTILITY AGENCIES SHALL BE FOLLOWED BY THE CONTRACTOR.
17. THE CONTRACTOR'S ATTENTION IS DIRECTED TO THE STATE OF NEW YORK DEPARTMENT OF LABOR, BOARD OF STANDARDS AND APPEALS INDUSTRIAL CODE RULE 53 – "CONSTRUCTION, EXCAVATION UNDERGROUND FACILITIES" EFFECTIVE APRIL 1, 1975. AND, DEMOLITION OPERATIONS AT OR NEAR THE CONTRACT WILL BE REQUIRED TO COMPLY WITH ALL APPLICABLE REQUIREMENTS OF INDUSTRIAL CODE 53.
18. UTILITY FORCES, CONTRACTORS, OR OTHER PARTIES MAY BE EXPECTED TO BE WORKING WITHIN THE CONTRACT AREA DURING THE CONTRACT. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE HIS WORK UNDER THIS CONTRACT WITH THE WORK BEING DONE BY OTHERS IN ORDER THAT THE CONSTRUCTION MAY PROCEED IN AN EFFICIENT AND LOGICAL MANNER.
19. THE CONTRACTOR SHALL RESTORE ALL DISTURBED EXISTING FEATURES TO A CONDITION EQUAL TO OR BETTER THAN CURRENTLY EXISTED.
20. THE CONTRACTOR SHALL COMPLY WITH THE LATEST OSHA CONFINED SPACE ENTRY REQUIREMENTS (29 CFR PART 1910)
21. EACH CONTRACTOR IS CAUTIONED TO AVOID DISTURBING ANY FENCES, SHRUBS, TREES, ETC., THAT ARE ADJACENT TO HIS CONSTRUCTION WITHOUT WRITTEN PERMISSION FROM THE ENGINEER. AS ORDERED BY THE ENGINEER, THE COST OF REPAIRING OR ADJUSTING ANY SUCH DISTURBED AREAS WILL BE AT THE CONTRACTOR'S OWN EXPENSE. IN THE EVENT THAT TREES ARE ENDANGERED, THE CONTRACTOR WILL TAKE ALL PRECAUTIONS TO PROTECT THEM, AS DIRECTED BY THE ENGINEER. PAYMENT FOR ANY NECESSARY WORK SHALL BE INCLUDED IN THE VARIOUS CONTRACT ITEMS.
22. IT SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO COORDINATE THE ACTIVITIES OF ANY SUBCONTRACTOR, CONTRACTOR, OWNER CONTRACTED TRADESMAN, MUNICIPAL EMPLOYEES, UTILITIES, ETC., INVOLVED IN THE OVERALL SCOPE OF THE PROJECT, INCLUDING UNAWARDED ALTERNATE WORK, AS PREVIOUSLY DESCRIBED, AT NO COST TO THE OWNER. THE GENERAL CONTRACTOR WILL PREPARE A PROJECT SCHEDULE INCLUDING THE WORK OF ALL OTHER CONTRACTORS.
23. BECAUSE THE PROPOSED IMPROVEMENTS ARE TO ENHANCE THE ASPECTS OF THE SITES, THE CONTRACTOR IS NOTIFIED THAT THE GENERAL PUBLIC, SOME OF WHOM MAY BE POTENTIAL VANDALS, WILL BE IN THE AREA AT ANY HOUR. EACH CONTRACTOR SHALL PROTECT, AT ALL TIMES, THE PUBLIC AND HIS WORK FROM HARM. EACH CONTRACTOR SHALL BEAR ALL RESPONSIBILITY FOR HARM TO THE PUBLIC AND DAMAGE TO HIS EQUIPMENT, TOOLS AND MATERIALS.

NASSAU COUNTY TRAFFIC NOTES

1. A COUNTY PERMIT IS REQUIRED TO CONSTRUCT CURBS / SIDEWALKS.
2. REPLACE ALL NON–APPROVED CURB CUTS WITH STANDARD COUNTY CURB (TYPE C), REPAIR ALL UPLIFT, DEPRESSED, CRACKED OR MISSING SIDEWALKS, CURB(S), AND ALL NON–ADA COMPLIANT RAMPS.
3. REFURBISH ALL PAVEMENT MARKINGS OR SIGNS THAT HAVE BEEN REMOVED/DAMAGED DURING CONSTRUCTION, (INCLUDING BUT NOT LIMITED TO EDGE LINES, HATCHING, ETC.) ACCORDING TO NASSAU COUNTY SPECIFICATIONS.
4. USE OF REGULATORY SIGNS AND/OR TURN RESTRICTIONS AND/OR PARKING RESTRICTIONS ON SITE PLANS SHALL BE PLACED/INSTALLED ACCORDING TO THE LATEST "NATIONAL MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND THE NEW YORK STATE SUPPLEMENT, AND THE APPLICANT SHALL HAVE THESE SIGNS ORDINANCED BY THE TOWN OF HEMPSTEAD.
5. IF NASSAU COUNTY HAS SIGNS THAT HAVE BEEN REMOVED / DAMAGED DURING CONSTRUCTION, (INCLUDING BUT NOT LIMITED TO REGULATORY SIGNS, WARNING SIGNS, ETC.) THEY SHALL BE INSTALLED / REPLACED ACCORDING TO NASSAU COUNTY SPECIFICATION.
6. IF ANY NASSAU COUNTY TRAFFIC EQUIPMENT AT THE LOCATION, (INCLUDING BUT NOT LIMITED TO TRAFFIC SIGNALS, PEDESTRIAN SIGNAL EQUIPMENT, TRAFFIC LOOP WIRE DETECTION, TRAFFIC PULLBOXES, TRAFFIC SIGNAL SYSTEMS INTERCONNECT, STREET LIGHTING, ETC.), IS DAMAGED ANYWAY DURING CONSTRUCTION, IT SHALL BE REPAIRED / REPLACED ACCORDING TO NASSAU COUNTY SPECIFICATIONS. ALL WORK SHALL BE PERFORMED BY A NASSAU COUNTY APPROVED TRAFFIC SIGNAL CONTRACTOR. THE CONTRACTOR SHALL NOTIFY SHEILA M. DUKACZ OF THE NASSAU COUNTY TRAFFIC SIGNAL CONSTRUCTION AND OPERATIONS UNIT AT 516–572–0465 EXT. 20958 IN ADVANCE OF THE WORK.
7. THE CONTRACTOR SHALL REGRADE ANY NASSAU COUNTY TRAFFIC SIGNAL PULLBOX COVERS IN THE WORK AREA USING SUITABLE BRICK AND MORTAR. THE CONTRACTOR SHALL LEAVE THE INSIDE BOTTOM OF ALL PULLBOXES CLEAN AND FREE OF DEBRIS AND MORTAR. THE TOPS OF THE COVERS SHALL BE LEFT CLEAN AND FREE OF CONCRETE. IF ANY PULLBOX IS REQUIRED, THE CONTRACTOR MUST NOTIFY SHEILA M. DUKACZ OF THE NASSAU COUNTY TRAFFIC SIGNAL CONSTRUCTION AND OPERATIONS UNIT AT 516–572–0465 EXT. 20958 IN ADVANCE OF THE WORK.
8. THE CONSTRACTOR SHALL HAVE ANY NASSAU COUNTY TRAFFIC LOOP REPLACED IF SCHEDULED TO BE DAMAGED DURING CONSTRUCTION. THE CONTRACTOR MUST HAVE AN APPROVED TRAFFIC SIGNAL CONTRACTOR PLACE THE SIGNAL IN RECALL OOPERATION IN ADVANCE OF THE WORK THAT WILL DAMAGE THE LOOP DETECTOR. THE NEW LOOP MUST BE REPLACED IMMEDIATELY BY AN APPROVED TRAFFIC SIGNAL CONTRACTOR AFTER THE AREA IS RESTORED. THE SIZE AND PLACEMENT OF THE NEW LOOP WILL BE DETERMINED BY NASSAU COUNTY. A NASSAU COUNTY INSPECTOR MUST BE PRESENT UPON REPLACEMENT. THE CONTRACTOR MUST NOTIFY SHEILA M. DUKACZ OF THE NASSAU COUNTY TRAFFIC SIGNAL CONSTRUCTION AND OPERATIONS UNIT AT 516–572–0465 EXT. 20958 IN ADVANCE OF THE WORK.
9. PRIOR TO CONSTRUCTION, A MARK OUT SHALL BE MADE FOR ALL UNDERGROUND UTILITIES, INCLUDING BUT NOT LIMITED TO UNDERGROUND TRAFFIC SIGNAL EQUIPMENT.
10. PRIOR TO ANY SCHEDULED LANE CLOSURES, THE CONTRACTOR MUST COMPLETE AND SUBMIT AN ONLINE ROAD/LANE CLOSURE NOTIFICATION FORM BY 3:00 PM THE EVENING PRIOR TO THE SCHEDULED CLOSURE. THE CONTRACTOR CAN COMPLETED THE FOR AT WWW.NASSAUCOUNTYNY.GOV/TRAFFICMANAGMENT, OR BY FAXING THE COMPLETED FOR TO THE TRAFFIC MANAGEMENT CENTER AT (516) 571–6882.
11. IF REQUIRED HANDICAP RAMP WORK IMPACTS ANY UTILITIES IN ANY WAY, INCLUDING RELOCATION, THE APPROPRIATE UTILITY COMPANY SHALL BE NOTIFIED PRIOR TO HANDICAP RAMP WORK BEGINNING.

LEGEND (PROPOSED)

BUILDING	
DOOR	
ASPHALT PAVEMENT	(A)
CONCRETE PAVEMENT	(CP)
CONCRETE WALK	(CW)
COLORED CONCRETE BANDING	(CB)
RETAINING WALL	(RW)
LANDSCAPING	(L)
PEDESTAL PAVER SYSTEM (ABOVE BELOW GRADE PARKING)	(PP)
GREEN ROOF LANDSCAPING (ABOVE BELOW GRADE PARKING)	(GR)
ACCESSIBLE RAMP	(ARA)
CONCRETE CURB	(CC)
FLUSH / DROP CONCRETE CURB	(FC)
SOLID PANEL FENCE	(F)
SIGN	
ACCESSIBLE PARKING SPACE	
SETBACK LINE	
SITE LINE	
16' TALL LIGHT POLE	
LIGHT BOLLARD	
DECORATIVE SECURITY BOLLARD	
SOLID PANEL FENCE	
MONUMENT	

ZONING DATA

GENERAL BUSINESS DISTRICT – INCENTIVE OVERLAY DISTRICT

CODE / SECTION DESCRIPTION	REQUIRED / PERMITTED	PROPOSED
§ 265–91 (GENERAL BUSINESS) FRONT YARD SETBACK (ROCKAWAY TURNPIKE)	0 FEET MIN.	20.00 FEET
§ 265–91 (GENERAL BUSINESS) FRONT YARD SETBACK (PEARSALL AVENUE)	5 FEET MIN.	19.12 FEET (BLDG. 2)
§ 265–92 (GENERAL BUSINESS) SIDE YARD SETBACK	6 FEET MIN.	15 FEET (BLDG. 1)
§ 265–93 (GENERAL BUSINESS) REAR YARD SETBACK	6 FEET MIN.	24.67 FEET (BLDG. 3)
INCENTIVE OVERLAY DISTRICT MINIMUM LOT AREA	0.75 ACRES MIN.	2.498 ACRES
INCENTIVE OVERLAY DISTRICT – DENSITY 45 UNITS PER ACRE FOR PROPERTIES MORE THAN 1.0 ACRE AND LESS THAN 3.0 ACRES IN LAND AREA	112.4 TOTAL UNITS (45 x 2.498)	112 UNITS
INCENTIVE OVERLAY DISTRICT – BLDG. HEIGHT UP TO FOUR (4) STORIES OR 45 FEET IN HEIGHT PROPERTIES THAT ARE MORE THAN 1.0 ACRE AND LESS THAN 3.0 ACRES IN LAND AREA	FOUR STORIES / 45 FEET MAX HT.	FOUR STORIES / 45 FEET
INCENTIVE OVERLAY DISTRICT – BLDG. AREA 55% OF LOT AREA MAXIMUM	59,858.7 SQUARE FEET	49,289.6 SQUARE FEET

- SUBJECT PROPERTY IS LOCATED ON A CORNER HAVING TWO STREET FRONTAGES: 181.16 FEET ON ROCKAWAY TURNPIKE AND 635.42 FEET ON PEARSALL AVENUE
- ROCKAWAY TURNPIKE ABUTS THE VILLAGE BOUNDARY
- THE SUBJECT PROPERTY IS WHOLLY ZONED GENERAL BUSINESS DISTRICT

SUBJECT PROPERTY IS LOCATED WITHIN 0.75 MILES OF THE CEDARHURST LIRR STATION AND SATISFIES THE INCENTIVE OVERLAY DISTRICT CRITERIA.

PARKING CALCULATIONS 265-81 (OFF-STREET PARKING)

BUILDING 1:

- 2 – STUDIO & ONE–BEDROOM UNITS x 1.5 SPACES = 3.0 SPACES
- 28 – TWO–BEDROOM UNITS x 2.25 SPACES = 63.0 SPACES
- 4 – THREE–BEDROOM UNITS x 3 SPACES (1 PER BEDROOM) = 12.0 SPACES
- 5,082 SF COMMON SPACE (LOUNGES, CANTEEN, OFFICE, EXCLUDING LOBBY, HALLWAYS, AND RESIDENT–ONLY FITNESS x 1 SPACE PER EACH 200 SF = 25.4 SPACES

= 103.4 = 104 SPACES REQUIRED

113 SPACES PROVIDED

NOTES:

1. TOTAL PARKING COUNT IS INCLUSIVE OF 5 REQUIRED ADA PARKING SPACES: 4 LOCATED WITHIN THE STRUCTURED PARKING BELOW THE BUILDING FOOTPRINT AND 1 ON–GRADE.
2. PROVIDED PARKING INCLUDES 111 STRUCTURED PARKING SPACES BELOW THE BUILDING FOOTPRINT AND 2 ON–GRADE SPACES. REFER TO ARCHITECTURAL PLANS FOR STRUCTURED PARKING LAYOUT AND ADA PARKING DISTRIBUTION.

BUILDING 2:

- 1 – TWO–BEDROOM UNIT x 2.25 SPACES = 2.25 SPACES
- 37 – THREE BEDROOM UNITS x 3 SPACES = 111 SPACES

BUILDING 3:

- 40 ONE & TWO–BEDROOM UNITS x 2.25 SPACES = 90 SPACES
- 0 SF COMMON AREA EXCLUDING LOBBY, HALLS, RESIDENT FITNESS = 0 SPACES

= 203.3 = 204 SPACES REQUIRED

204 SPACES PROVIDED FOR BUILDINGS 2 & 3

NOTES:

1. BUILDINGS 2 & 3 SHARE STRUCTURED BELOW–GRADE PARKING SPACES.
2. TOTAL PARKING COUNT IS INCLUSIVE OF 10 ADA PARKING SPACES: 9 LOCATED WITHIN THE STRUCTURED PARKING BELOW THE BUILDING FOOTPRINTS (BUILDINGS 2 & 3) AND 1 ON–GRADE.
3. PROVIDED PARKING INCLUDES 194 STRUCTURED PARKING SPACES BELOW THE BUILDING FOOTPRINTS (BUILDINGS 2 & 3) AND 10 ON–GRADE SPACES. REFER TO ARCHITECTURAL PLANS FOR STRUCTURED PARKING LAYOUT AND ADA PARKING DISTRIBUTION.

* TOTAL REQUIRED PARKING FOR THIS SITE = 308 SPACES (104 + 204)

TOTAL PROVIDED PARKING FOR THIS SITE = 317 SPACES

GRAPHIC SCALE
(IN FEET)
HORIZ. 1 inch = 20 ft.

NO.	DATE	REVISION DESCRIPTION	INT.

CAMERON ENGINEERING & ASSOCIATES, LLP
177 Crossways Park Drive, Woodbury, NY 11797 T: (516) 827-4900
1411 Broadway, Suite 610, New York, NY 10018 T: (212) 321-3000
303 Tarrytown Road, 1st Floor, White Plains, NY 10603 T: (914) 721-8300
Corporate Seal Initiated 1996 State of New York
www.Cameronengineering.com

PROJECT NAME: PEARSALL ROCK, LLC
PROJECT LOCATION: PEARSALL AVENUE, INC. VILLAGE OF CEDARHURST TOWN OF HEMPSTEAD, NASSAU COUNTY, NY
TITLE: SITE PLAN
DISCIPLINE: CIVIL

PROJECT ENGINEER: WCS	PROJECT NO. CE2906A
DESIGNED BY: WCS	JOB NO. CE2906A
DRAWN BY: WCS	DATE: 05/06/2021
CHECKED BY: KMM	SCALE: AS SHOWN

DRAWING NO. C–2
SHEET C–2 of 9

B. Government Approvals

B. Government Approvals, Funding, or Sponsorship. ("Funding" includes grants, loans, tax relief, and any other forms of financial assistance.)

Government Entity	If Yes: Identify Agency and Approval(s) Required	Application Date (Actual or projected)
a. City Counsel, Town Board, ☑Yes ☐No or **Village Board of Trustees**	Adoption of Incentive Overlay District, Zoning Incentives Approval	Spring 2021
b. City, Town or **Village Planning Board** or Commission ☑Yes ☐No	Site Plan Approval	Spring 2021
c. City, Town or Village Zoning Board of Appeals ☐Yes ☑No		
d. Other local agencies ☐Yes ☑No		
e. County agencies ☑Yes ☐No	Nassau Co. Planning Comm. - Section 239-m Review & Section 239-n Review; Nassau Co. DPW - Section 239-f Review;	(Spring 2021)
f. Regional agencies ☐Yes ☑No		
g. State agencies ☐Yes ☑No		
h. Federal agencies ☐Yes ☑No		

i. Coastal Resources.

i. Is the project site within a Coastal Area, or the waterfront area of a Designated Inland Waterway? ☐Yes ☑No

ii. Is the project site located in a community with an approved Local Waterfront Revitalization Program? ☐Yes ☑No

iii. Is the project site within a Coastal Erosion Hazard Area? ☐Yes ☑No

C. Planning and Zoning

C.1. Planning and zoning actions.

Will administrative or legislative adoption, or amendment of a plan, local law, ordinance, rule or regulation be the only approval(s) which must be granted to enable the proposed action to proceed? ☐Yes ☑No

- **If Yes,** complete sections C, F and G.
- **If No,** proceed to question C.2 and complete all remaining sections and questions in Part 1

C.2. Adopted land use plans.

a. Do any municipally- adopted (city, town, village or county) comprehensive land use plan(s) include the site where the proposed action would be located? ☑Yes ☐No

If Yes, does the comprehensive plan include specific recommendations for the site where the proposed action would be located? ☐Yes ☑No

b. Is the site of the proposed action within any local or regional special planning district (for example: Greenway; Brownfield Opportunity Area (BOA); designated State or Federal heritage area; watershed management plan; or other?) ☐Yes ☑No

If Yes, identify the plan(s):

_____

_____

_____

c. Is the proposed action located wholly or partially within an area listed in an adopted municipal open space plan, or an adopted municipal farmland protection plan? ☐Yes ☑No

If Yes, identify the plan(s):

_____

_____

_____

C.3. Zoning

a. Is the site of the proposed action located in a municipality with an adopted zoning law or ordinance. ☑ Yes ☐ No
If Yes, what is the zoning classification(s) including any applicable overlay district?
General Business

b. Is the use permitted or allowed by a special or conditional use permit? (Note: Use is permitted with the adoption of the proposed incentive overlay district.) ☑ Yes ☐ No

c. Is a zoning change requested as part of the proposed action? ☑ Yes ☐ No
If Yes,
i. What is the proposed new zoning for the site? General Business District with application of the proposed incentive overlay district.

C.4. Existing community services.

a. In what school district is the project site located? Lawrence Union Free School District (UFSD)

b. What police or other public protection forces serve the project site?
Nassau County Police Department, 4th Precinct

c. Which fire protection and emergency medical services serve the project site?
Lawrence-Cedarhurst Fire Department

d. What parks serve the project site?
Cedarhurst Park (257 Cedarhurst Avenue)

D. Project Details

D.1. Proposed and Potential Development

a. What is the general nature of the proposed action (e.g., residential, industrial, commercial, recreational; if mixed, include all components)? Mixed-Use/Multi-Family Residential

b. a. Total acreage of the site of the proposed action? 2.5 acres
b. Total acreage to be physically disturbed? 2.5 acres
c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? 2.5 acres

c. Is the proposed action an expansion of an existing project or use? ☐ Yes ☑ No
i. If Yes, what is the approximate percentage of the proposed expansion and identify the units (e.g., acres, miles, housing units, square feet)? % _____ Units: _____

d. Is the proposed action a subdivision, or does it include a subdivision? ☐ Yes ☑ No
If Yes,
i. Purpose or type of subdivision? (e.g., residential, industrial, commercial; if mixed, specify types)
ii. Is a cluster/conservation layout proposed? ☐ Yes ☐ No
iii. Number of lots proposed? _____
iv. Minimum and maximum proposed lot sizes? Minimum _____ Maximum _____

e. Will the proposed action be constructed in multiple phases? ☐ Yes ☑ No
i. If No, anticipated period of construction: 18 months
ii. If Yes:
- Total number of phases anticipated _____
- Anticipated commencement date of phase 1 (including demolition) _____ month _____ year
- Anticipated completion date of final phase _____ month _____year
- Generally describe connections or relationships among phases, including any contingencies where progress of one phase may determine timing or duration of future phases: _____

f. Does the project include new residential uses? ☑ Yes ☐ No

If Yes, show numbers of units proposed.

	One Family	Two Family	Three Family	Multiple Family (four or more)
Initial Phase	_____	_____	_____	112 units
At completion of all phases	_____	_____	_____	112 units

g. Does the proposed action include new non-residential construction (including expansions)? ☐ Yes ☑ No

If Yes,

i. Total number of structures _____

ii. Dimensions (in feet) of largest proposed structure: _____height; _____width; and _____ length

iii. Approximate extent of building space to be heated or cooled: _____ square feet

h. Does the proposed action include construction or other activities that will result in the impoundment of any liquids, such as creation of a water supply, reservoir, pond, lake, waste lagoon or other storage? ☐ Yes ☑ No

If Yes,

i. Purpose of the impoundment: _____

ii. If a water impoundment, the principal source of the water: ☐ Ground water ☐ Surface water streams ☐ Other specify:

_____

iii. If other than water, identify the type of impounded/contained liquids and their source.

_____

iv. Approximate size of the proposed impoundment. Volume: _____ million gallons; surface area: _____ acres

v. Dimensions of the proposed dam or impounding structure: _____ height; _____ length

vi. Construction method/materials for the proposed dam or impounding structure (e.g., earth fill, rock, wood, concrete):

_____

D.2. Project Operations

a. Does the proposed action include any excavation, mining, or dredging, during construction, operations, or both? (Not including general site preparation, grading or installation of utilities or foundations where all excavated materials will remain onsite) ☐ Yes ☑ No

If Yes:

i .What is the purpose of the excavation or dredging? _____

ii. How much material (including rock, earth, sediments, etc.) is proposed to be removed from the site?

- Volume (specify tons or cubic yards): _____
- Over what duration of time? _____

iii. Describe nature and characteristics of materials to be excavated or dredged, and plans to use, manage or dispose of them.

_____

_____

i*v.* Will there be onsite dewatering or processing of excavated materials? ☐ Yes ☐ No

If yes, describe. _____

_____

v. What is the total area to be dredged or excavated? _____acres

vi. What is the maximum area to be worked at any one time? _____ acres

vii. What would be the maximum depth of excavation or dredging? _____ feet

viii. Will the excavation require blasting? ☐ Yes ☐ No

ix. Summarize site reclamation goals and plan: _____

_____

_____

b. Would the proposed action cause or result in alteration of, increase or decrease in size of, or encroachment into any existing wetland, waterbody, shoreline, beach or adjacent area? ☐ Yes ☑ No

If Yes:

i. Identify the wetland or waterbody which would be affected (by name, water index number, wetland map number or geographic description): _____

_____

ii. Describe how the proposed action would affect that waterbody or wetland, e.g. excavation, fill, placement of structures, or alteration of channels, banks and shorelines. Indicate extent of activities, alterations and additions in square feet or acres:

_____

_____

_____

_____

iii. Will the proposed action cause or result in disturbance to bottom sediments? ☐ Yes ☐ No

If Yes, describe: _____

iv. Will the proposed action cause or result in the destruction or removal of aquatic vegetation? ☐ Yes ☐ No

If Yes:

- acres of aquatic vegetation proposed to be removed: _____
- expected acreage of aquatic vegetation remaining after project completion: _____
- purpose of proposed removal (e.g. beach clearing, invasive species control, boat access): _____

_____

- proposed method of plant removal: _____
- if chemical/herbicide treatment will be used, specify product(s): _____

v. Describe any proposed reclamation/mitigation following disturbance: _____

_____

c. Will the proposed action use, or create a new demand for water? ☑ Yes ☐ No

If Yes:

i. Total anticipated water usage/demand per day: 37,660 gallons/day Source: County of Nassau Department of Public Works, "Minimum Design Sewage Flow Rates."

ii. Will the proposed action obtain water from an existing public water supply? ☑ Yes ☐ No

If Yes:

- Name of district or service area: New York American Water District
- Does the existing public water supply have capacity to serve the proposal? ☑ Yes ☐ No
- Is the project site in the existing district? ☑ Yes ☐ No
- Is expansion of the district needed? ☐ Yes ☑ No
- Do existing lines serve the project site? ☑ Yes ☐ No

iii. Will line extension within an existing district be necessary to supply the project? ☐ Yes ☑ No

If Yes:

- Describe extensions or capacity expansions proposed to serve this project: _____

_____

- Source(s) of supply for the district: _____

iv. Is a new water supply district or service area proposed to be formed to serve the project site? ☐ Yes ☑ No

If, Yes:

- Applicant/sponsor for new district: _____
- Date application submitted or anticipated: _____
- Proposed source(s) of supply for new district: _____

v. If a public water supply will not be used, describe plans to provide water supply for the project: _____

_____

vi. If water supply will be from wells (public or private), what is the maximum pumping capacity: _____ gallons/minute.

d. Will the proposed action generate liquid wastes? ☑ Yes ☐ No

If Yes:

i. Total anticipated liquid waste generation per day: 37,660 gallons/day Source: County of Nassau Department of Public Works, "Minimum Design Sewage Flow Rates."

ii. Nature of liquid wastes to be generated (e.g., sanitary wastewater, industrial; if combination, describe all components and approximate volumes or proportions of each): _____

Sanitary wastewater.

_____

iii. Will the proposed action use any existing public wastewater treatment facilities? ☑ Yes ☐ No

If Yes:

- Name of wastewater treatment plant to be used: Bay Park Sewage Treatment Plant
- Name of district: Cedarhurst (Nassau County)
- Does the existing wastewater treatment plant have capacity to serve the project? ☑ Yes ☐ No
- Is the project site in the existing district? ☑ Yes ☐ No
- Is expansion of the district needed? ☐ Yes ☑ No

- Do existing sewer lines serve the project site? ☑ Yes ☐ No
- Will a line extension within an existing district be necessary to serve the project? ☐ Yes ☑ No

  If Yes:
  - Describe extensions or capacity expansions proposed to serve this project: _____

iv. Will a new wastewater (sewage) treatment district be formed to serve the project site? ☐ Yes ☑ No

If Yes:
- Applicant/sponsor for new district: _____
- Date application submitted or anticipated: _____
- What is the receiving water for the wastewater discharge? _____

v. If public facilities will not be used, describe plans to provide wastewater treatment for the project, including specifying proposed receiving water (name and classification if surface discharge or describe subsurface disposal plans):

_____

vi. Describe any plans or designs to capture, recycle or reuse liquid waste: _____

e. Will the proposed action disturb more than one acre and create stormwater runoff, either from new point sources (i.e. ditches, pipes, swales, curbs, gutters or other concentrated flows of stormwater) or non-point source (i.e. sheet flow) during construction or post construction? ☑ Yes ☐ No

If Yes:

i. How much impervious surface will the project create in relation to total size of project parcel?

_____ Square feet or 1.7 acres (impervious surface)

_____ Square feet or 2.5 acres (parcel size)

ii. Describe types of new point sources. Runoff from new impervious surfaces (newly constructed buildings, parking areas, driveways, walkways)

iii. Where will the stormwater runoff be directed (i.e. on-site stormwater management facility/structures, adjacent properties, groundwater, on-site surface water or off-site surface waters)?

On-site stormwater capture through catch basins located in paved areas. All stormwater received in the various inlets are conveyed to drywell structures for extended detention and ultimately infiltration for groundwater recharge.

- If to surface waters, identify receiving water bodies or wetlands: _____
- Will stormwater runoff flow to adjacent properties? ☐ Yes ☑ No

iv. Does the proposed plan minimize impervious surfaces, use pervious materials or collect and re-use stormwater? ☑ Yes ☐ No

f. Does the proposed action include, or will it use on-site, one or more sources of air emissions, including fuel combustion, waste incineration, or other processes or operations? ☐ Yes ☑ No

If Yes, identify:

i. Mobile sources during project operations (e.g., heavy equipment, fleet or delivery vehicles)

ii. Stationary sources during construction (e.g., power generation, structural heating, batch plant, crushers)

iii. Stationary sources during operations (e.g., process emissions, large boilers, electric generation)

g. Will any air emission sources named in D.2.f (above), require a NY State Air Registration, Air Facility Permit, or Federal Clean Air Act Title IV or Title V Permit? ☐ Yes ☑ No

If Yes:

i. Is the project site located in an Air quality non-attainment area? (Area routinely or periodically fails to meet ambient air quality standards for all or some parts of the year) ☐ Yes ☐ No

ii. In addition to emissions as calculated in the application, the project will generate:
- _____Tons/year (short tons) of Carbon Dioxide (CO_2)
- _____Tons/year (short tons) of Nitrous Oxide (N_2O)
- _____Tons/year (short tons) of Perfluorocarbons (PFCs)
- _____Tons/year (short tons) of Sulfur Hexafluoride (SF_6)
- _____Tons/year (short tons) of Carbon Dioxide equivalent of Hydroflourocarbons (HFCs)
- _____Tons/year (short tons) of Hazardous Air Pollutants (HAPs)

h. Will the proposed action generate or emit methane (including, but not limited to, sewage treatment plants, landfills, composting facilities)? ☐Yes ☑No

If Yes:

i. Estimate methane generation in tons/year (metric): _____

ii. Describe any methane capture, control or elimination measures included in project design (e.g., combustion to generate heat or electricity, flaring): _____

_____

i. Will the proposed action result in the release of air pollutants from open-air operations or processes, such as quarry or landfill operations? ☐Yes ☑No

If Yes: Describe operations and nature of emissions (e.g., diesel exhaust, rock particulates/dust):

_____

_____

j. Will the proposed action result in a substantial increase in traffic above present levels or generate substantial new demand for transportation facilities or services? ☐Yes ☑No

If Yes:

i. When is the peak traffic expected (Check all that apply): ☐ Morning ☐ Evening ☐Weekend ☐ Randomly between hours of _____ to _____.

ii. For commercial activities only, projected number of truck trips/day and type (e.g., semi trailers and dump trucks): _____

_____

iii. Parking spaces: Existing _____ Proposed _____ Net increase/decrease _____

iv. Does the proposed action include any shared use parking? ☐Yes ☐No

v. If the proposed action includes any modification of existing roads, creation of new roads or change in existing access, describe:

_____

vi. Are public/private transportation service(s) or facilities available within ½ mile of the proposed site? ☐Yes ☐No

vii Will the proposed action include access to public transportation or accommodations for use of hybrid, electric or other alternative fueled vehicles? ☐Yes ☐No

viii. Will the proposed action include plans for pedestrian or bicycle accommodations for connections to existing pedestrian or bicycle routes? ☐Yes ☐No

k. Will the proposed action (for commercial or industrial projects only) generate new or additional demand for energy? ☐Yes ☐No

If Yes:

i. Estimate annual electricity demand during operation of the proposed action: _____

_____

ii. Anticipated sources/suppliers of electricity for the project (e.g., on-site combustion, on-site renewable, via grid/local utility, or other):

_____

iii. Will the proposed action require a new, or an upgrade, to an existing substation? ☐Yes ☐No

l. Hours of operation. Answer all items which apply.

i. During Construction:

- Monday - Friday: 8:00 a.m. - 5:00 p.m.
- Saturday: 9:00 a.m. - 4:00 p.m.
- Sunday: N/A
- Holidays: N/A

ii. During Operations:

- Monday - Friday: N/A
- Saturday: N/A
- Sunday: N/A
- Holidays: N/A

m. Will the proposed action produce noise that will exceed existing ambient noise levels during construction, operation, or both? ☑ Yes ☐ No

If yes:

i. Provide details including sources, time of day and duration:

Temporary noise from construction equipment/machinery (limited to the hours above)

ii. Will the proposed action remove existing natural barriers that could act as a noise barrier or screen? ☐ Yes ☑ No

Describe: _____

n. Will the proposed action have outdoor lighting? ☑ Yes ☐ No

If yes:

i. Describe source(s), location(s), height of fixture(s), direction/aim, and proximity to nearest occupied structures:

Building or ground mounted lighting typical for a multi-family residential development.

ii. Will proposed action remove existing natural barriers that could act as a light barrier or screen? ☐ Yes ☑ No

Describe: _____

o. Does the proposed action have the potential to produce odors for more than one hour per day? ☐ Yes ☑ No

If Yes, describe possible sources, potential frequency and duration of odor emissions, and proximity to nearest occupied structures: _____

p. Will the proposed action include any bulk storage of petroleum (combined capacity of over 1,100 gallons) or chemical products 185 gallons in above ground storage or any amount in underground storage? ☐ Yes ☑ No

If Yes:

i. Product(s) to be stored _____

ii. Volume(s) _____ per unit time _____ (e.g., month, year)

iii. Generally, describe the proposed storage facilities:_____

q. Will the proposed action (commercial, industrial and recreational projects only) use pesticides (i.e., herbicides, insecticides) during construction or operation? ☐ Yes ☐ No

If Yes:

i. Describe proposed treatment(s):

ii. Will the proposed action use Integrated Pest Management Practices? ☐ Yes ☐ No

r. Will the proposed action (commercial or industrial projects only) involve or require the management or disposal of solid waste (excluding hazardous materials)? ☐ Yes ☐ No

If Yes:

i. Describe any solid waste(s) to be generated during construction or operation of the facility:

- Construction: _____ tons per _____ (unit of time)
- Operation : _____ tons per _____ (unit of time)

ii. Describe any proposals for on-site minimization, recycling or reuse of materials to avoid disposal as solid waste:

- Construction: _____
- Operation: _____

iii. Proposed disposal methods/facilities for solid waste generated on-site:

- Construction: _____
- Operation: _____

s. Does the proposed action include construction or modification of a solid waste management facility? ☐ Yes ☑ No

If Yes:

i. Type of management or handling of waste proposed for the site (e.g., recycling or transfer station, composting, landfill, or other disposal activities): _____

ii. Anticipated rate of disposal/processing:

- _____ Tons/month, if transfer or other non-combustion/thermal treatment, or
- _____ Tons/hour, if combustion or thermal treatment

iii. If landfill, anticipated site life: _____ years

t. Will the proposed action at the site involve the commercial generation, treatment, storage, or disposal of hazardous waste? ☐ Yes ☑ No

If Yes:

i. Name(s) of all hazardous wastes or constituents to be generated, handled or managed at facility: _____

_____

_____

ii. Generally describe processes or activities involving hazardous wastes or constituents: _____

_____

_____

iii. Specify amount to be handled or generated _____ tons/month

iv. Describe any proposals for on-site minimization, recycling or reuse of hazardous constituents: _____

_____

_____

v. Will any hazardous wastes be disposed at an existing offsite hazardous waste facility? ☐ Yes ☐ No

If Yes: provide name and location of facility: _____

_____

If No: describe proposed management of any hazardous wastes which will not be sent to a hazardous waste facility:

_____

_____

E. Site and Setting of Proposed Action

E.1. Land uses on and surrounding the project site

a. Existing land uses.

i. Check all uses that occur on, adjoining and near the project site.

☐ Urban ☑ Industrial ☑ Commercial ☑ Residential (suburban) ☐ Rural (non-farm)

☐ Forest ☐ Agriculture ☐ Aquatic ☐ Other (specify): _____

ii. If mix of uses, generally describe:

_____

_____

b. Land uses and covertypes on the project site.

Land use or Covertype	Current Acreage	Acreage After Project Completion	Change (Acres +/-)
• Roads, buildings, and other paved or impervious surfaces	2.2	1.7	-0.5
• Forested	0	0	0
• Meadows, grasslands or brushlands (non-agricultural, including abandoned agricultural)	0	0	0
• Agricultural (includes active orchards, field, greenhouse etc.)	0	0	0
• Surface water features (lakes, ponds, streams, rivers, etc.)	0	0	0
• Wetlands (freshwater or tidal)	0	0	0
• Non-vegetated (bare rock, earth or fill)	0	0	0
• Other Describe: Manicured landscaping	0.3	0.8	+0.5

c. Is the project site presently used by members of the community for public recreation? ☐ Yes ☑ No

i. If Yes: explain: _____

d. Are there any facilities serving children, the elderly, people with disabilities (e.g., schools, hospitals, licensed day care centers, or group homes) within 1500 feet of the project site? ☑ Yes ☐ No

If Yes,

i. Identify Facilities:

Long Island Child Development Center (385 Pearsall Ave. #1), 5 Towns Community Center (270 Lawrence Ave.), Hebrew Academy of the 5 Towns (189 Central Ave.), The Brandeis School (25 Frost Lane), Rambam Mesivta (high school) (15 Frost Lane)

e. Does the project site contain an existing dam? ☐ Yes ☑ No

If Yes:

i. Dimensions of the dam and impoundment:

- Dam height: _____ feet
- Dam length: _____ feet
- Surface area: _____ acres
- Volume impounded: _____ gallons OR acre-feet

ii. Dam's existing hazard classification: _____

iii. Provide date and summarize results of last inspection:

_____

_____

f. Has the project site ever been used as a municipal, commercial or industrial solid waste management facility, or does the project site adjoin property which is now, or was at one time, used as a solid waste management facility? ☐ Yes ☑ No

If Yes:

i. Has the facility been formally closed? ☐ Yes ☐ No

- If yes, cite sources/documentation: _____

ii. Describe the location of the project site relative to the boundaries of the solid waste management facility:

_____

_____

iii. Describe any development constraints due to the prior solid waste activities: _____

_____

g. Have hazardous wastes been generated, treated and/or disposed of at the site, or does the project site adjoin property which is now or was at one time used to commercially treat, store and/or dispose of hazardous waste? ☐ Yes ☑ No

If Yes:

i. Describe waste(s) handled and waste management activities, including approximate time when activities occurred:

_____

_____

h. Potential contamination history. Has there been a reported spill at the proposed project site, or have any remedial actions been conducted at or adjacent to the proposed site? ☐ Yes ☑ No

If Yes:

i. Is any portion of the site listed on the NYSDEC Spills Incidents database or Environmental Site Remediation database? Check all that apply: ☐ Yes ☐ No

☐ Yes – Spills Incidents database Provide DEC ID number(s): _____

☐ Yes – Environmental Site Remediation database Provide DEC ID number(s): _____

☐ Neither database

ii. If site has been subject of RCRA corrective activities, describe control measures:_____

_____

_____

iii. Is the project within 2000 feet of any site in the NYSDEC Environmental Site Remediation database? ☐ Yes ☑ No

If yes, provide DEC ID number(s): _____

iv. If yes to (i), (ii) or (iii) above, describe current status of site(s):

_____

_____

v. Is the project site subject to an institutional control limiting property uses? ☐ Yes ☐ No

- If yes, DEC site ID number: _____
- Describe the type of institutional control (e.g., deed restriction or easement): _____
- Describe any use limitations: _____
- Describe any engineering controls: _____
- Will the project affect the institutional or engineering controls in place? ☐ Yes ☐ No
- Explain: _____

E.2. Natural Resources On or Near Project Site

a. What is the average depth to bedrock on the project site? N/A feet

b. Are there bedrock outcroppings on the project site? ☐ Yes ☑ No
If Yes, what proportion of the site is comprised of bedrock outcroppings? _____%

c. Predominant soil type(s) present on project site: UrB 100 %
_____ _____%
_____ _____%

d. What is the average depth to the water table on the project site? Average: 20± feet

e. Drainage status of project site soils:
☑ Well Drained: 100 % of site
☐ Moderately Well Drained: _____% of site
☐ Poorly Drained _____% of site

f. Approximate proportion of proposed action site with slopes:
☑ 0-10%: 100 % of site
☐ 10-15%: _____% of site
☐ 15% or greater: _____% of site

g. Are there any unique geologic features on the project site? ☐ Yes ☑ No
If Yes, describe: _____

h. Surface water features.

i. Does any portion of the project site contain wetlands or other waterbodies (including streams, rivers, ponds or lakes)? ☐ Yes ☑ No

ii. Do any wetlands or other waterbodies adjoin the project site? ☐ Yes ☑ No

If Yes to either *i* or *ii*, continue. If No, skip to E.2.i.

iii. Are any of the wetlands or waterbodies within or adjoining the project site regulated by any federal, state or local agency? ☐ Yes ☐ No

iv. For each identified regulated wetland and waterbody on the project site, provide the following information:

- Streams: Name _____ Classification _____
- Lakes or Ponds: Name _____ Classification _____
- Wetlands: Name _____ Approximate Size _____
- Wetland No. (if regulated by DEC) _____

v. Are any of the above water bodies listed in the most recent compilation of NYS water quality-impaired waterbodies? ☐ Yes ☐ No

If yes, name of impaired water body/bodies and basis for listing as impaired: _____

i. Is the project site in a designated Floodway? ☐ Yes ☑ No

j. Is the project site in the 100-year Floodplain? ☐ Yes ☑ No

k. Is the project site in the 500-year Floodplain? ☐ Yes ☑ No

l. Is the project site located over, or immediately adjoining, a primary, principal or sole source aquifer? ☑ Yes ☐ No
If Yes:

i. Name of aquifer: Nassau-Suffolk Sole Source Aquifer

m. Identify the predominant wildlife species that occupy or use the project site: area has been completely cleared and previously developed

n. Does the project site contain a designated significant natural community? ☐ Yes ☑ No

If Yes:

i. Describe the habitat/community (composition, function, and basis for designation): _____

ii. Source(s) of description or evaluation: _____

iii. Extent of community/habitat:

- Currently: _____ acres
- Following completion of project as proposed: _____ acres
- Gain or loss (indicate + or -): _____ acres

o. Does project site contain any species of plant or animal that is listed by the federal government or NYS as endangered or threatened, or does it contain any areas identified as habitat for an endangered or threatened species? ☐ Yes ☑ No

If Yes:

i. Species and listing (endangered or threatened): _____

p. Does the project site contain any species of plant or animal that is listed by NYS as rare, or as a species of special concern? ☐ Yes ☑ No

If Yes:

i. Species and listing: _____

q. Is the project site or adjoining area currently used for hunting, trapping, fishing or shell fishing? ☐ Yes ☑ No

If yes, give a brief description of how the proposed action may affect that use: _____

E.3. Designated Public Resources On or Near Project Site

a. Is the project site, or any portion of it, located in a designated agricultural district certified pursuant to Agriculture and Markets Law, Article 25-AA, Section 303 and 304? ☐ Yes ☑ No

If Yes, provide county plus district name/number: _____

b. Are agricultural lands consisting of highly productive soils present? ☐ Yes ☑ No

i. If Yes: acreage(s) on project site? _____

ii. Source(s) of soil rating(s): _____

c. Does the project site contain all or part of, or is it substantially contiguous to, a registered National Natural Landmark? ☐ Yes ☑ No

If Yes:

i. Nature of the natural landmark: ☐ Biological Community ☐ Geological Feature

ii. Provide brief description of landmark, including values behind designation and approximate size/extent: _____

d. Is the project site located in or does it adjoin a state listed Critical Environmental Area? ☐ Yes ☑ No

If Yes:

i. CEA name: _____

ii. Basis for designation: _____

iii. Designating agency and date: _____

e. Does the project site contain, or is it substantially contiguous to, a building, archaeological site, or district which is listed on the National or State Register of Historic Places, or that has been determined by the Commissioner of the NYS Office of Parks, Recreation and Historic Preservation to be eligible for listing on the State Register of Historic Places? ☐ Yes ☑ No

If Yes:

i. Nature of historic/archaeological resource: ☐ Archaeological Site ☐ Historic Building or District

ii. Name: _____

iii. Brief description of attributes on which listing is based:

_____

f. Is the project site, or any portion of it, located in or adjacent to an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory? ☑ Yes ☐ No

g. Have additional archaeological or historic site(s) or resources been identified on the project site? ☐ Yes ☑ No

If Yes:

i. Describe possible resource(s): _____

ii. Basis for identification: _____

h. Is the project site within fives miles of any officially designated and publicly accessible federal, state, or local scenic or aesthetic resource? ☐ Yes ☑ No

If Yes:

i. Identify resource: _____

ii. Nature of, or basis for, designation (e.g., established highway overlook, state or local park, state historic trail or scenic byway, etc.): _____

iii. Distance between project and resource: _____ miles.

i. Is the project site located within a designated river corridor under the Wild, Scenic and Recreational Rivers Program 6 NYCRR 666? ☐ Yes ☑ No

If Yes:

i. Identify the name of the river and its designation: _____

ii. Is the activity consistent with development restrictions contained in 6NYCRR Part 666? ☐ Yes ☐ No

F. Additional Information

Attach any additional information which may be needed to clarify your project.

If you have identified any adverse impacts which could be associated with your proposal, please describe those impacts plus any measures which you propose to avoid or minimize them.

Please refer to the ***Expanded Environmental Assessment: Proposed Incentive Overlay District and Pearsall Avenue Development Project***

G. Verification

I certify that the information provided is true to the best of my knowledge.

Applicant/Sponsor Name Cameron Engineering Date May 7, 2021

Signature David J. Tepper Title Senior Planner

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