CITY OF RYE

NOTICE

There will be a regular meeting of the City Council of the City of Rye on Wednesday, December 2, 2015, at 7:30 p.m. in Council Chambers at City Hall. *The Council will convene at 6:30 p.m. and it is expected they will adjourn into Executive Session at 6:31 p.m. to discuss litigation and personnel matters.*

AGENDA

1. Pledge of Allegiance

2. Roll Call

3. Resolution for the Mayor and Council to approve the appointment of the Police Commissioner of the City of Rye.

4. General Announcements.

5. Draft unapproved minutes of the Budget Workshop held November 16, 2015 and the Regular Meeting of the City Council held November 18, 2015.

6. Issues Update/Old Business.

7. Mayor and Council amendments to the proposed 2016 City of Rye Budget.
   Roll Call.

8. Public Hearing on the proposed 2016 Budget.

9. Continuation of Public Hearing to amend local law Chapter 197, "Zoning", of the Rye City Code by amending Section §197-2, "Districts, A: Residence Districts" to change the zoning designation of a property at 120 Old Post Road from the B-4, Office Building, District to a New RA-6, Active Senior Residence, District; and amending Section §197-86, "Tables of Regulations: Table A, Residence Districts – Area Yard, Height and Miscellaneous Regulations" to add the proposed RA-6 zone.

10. Discussion concerning the Pilot Study reducing the speed limit to 25 miles per hour on Stuyvesant Avenue and a recommendation regarding a permanent change in speed limit.

11. Residents may be heard on matters for Council consideration that do not appear on the agenda.

12. Resolution to approve a Memorandum of Agreement between the City of Rye and the City Manager regarding the carryover of accrued sick days.
    Roll Call.

13. Miscellaneous communications and reports.

14. New Business.

15. Adjournment.

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The next regular meeting of the City Council will be held on Wednesday, December 16, 2015 at 7:30 p.m.

** City Council meetings are available live on Cablevision Channel 75, Verizon Channel 39, and on the City Website, indexed by Agenda item, at www.ryeny.gov under “RyeTV Live”.

* Office Hours of the Mayor by appointment by emailing jsack@ryeny.gov or contacting the City Manager’s Office at (914) 967-7404.

CITY COUNCIL AGENDA

NO. 3 DEPT.: City Manager DATE: December 2, 2015

CONTACT: Marcus Serrano, City Manager

AGENDA ITEM: Resolution for the Mayor and Council to approve the appointment of the Police Commissioner of the City of Rye.

FOR THE MEETING OF:

December 2, 2015

RECOMMENDATION: That the Council consider the following resolution:

RESOLVED, that the City Council of the City of Rye hereby approves the appointment of the Police Commissioner of the City of Rye effective February 1, 2016.

IMPACT: ☐ Environmental X Fiscal ☐ Neighborhood ☐ Other:

BACKGROUND:

CITY COUNCIL AGENDA

NO. 5 DEPT.: City Clerk DATE: December 2, 2015

CONTACT: Carolyn D'Andrea, City Clerk

AGENDA ITEM Draft unapproved minutes of the Budget Workshop held November 16, 2015 and the Regular Meeting of the City Council held November 18, 2015.

FOR THE MEETING OF:
December 2, 2015
RYE CITY CODE,
CHAPTER
SECTION

RECOMMENDATION: That the Council approve the draft minutes.

IMPACT: ☐ Environmental ☐ Fiscal ☐ Neighborhood ☒ Other:

BACKGROUND: Approve the minutes of the Budget Workshop held November 16, 2015 and the Regular Meeting of the City Council held November 18, 2015, as attached.

DRAFT UNAPPROVED MINUTES of the Budget Workshop of the City Council of the City of Rye held in City Hall on November 16, 2015 at 7:30 P.M.

PRESENT:

JOSEPH A. SACK Mayor
KIRSTIN BUCCI
JULIE KILLIAN
TERRENCE McCARTNEY
RICHARD MECCA
RICHARD SLACK
Councilmembers

ABSENT: LAURA BRETT, Councilmember

1. Pledge of Allegiance

Mayor Sack called the meeting to order and invited the Council to join in the Pledge of Allegiance.

2. Roll Call

Mayor Sack asked the City Clerk to call the roll; a quorum was present to conduct official city business.

3. Discussion of the FY 2015 Budget

- **Rye Free Reading Room**

Mayor Sack stated that the proposed City budget for 2016 remains the same, but the Council understands that the library will be requesting further funding. He expressed the need to prioritize in the 2016 budget season.

Chris Shoemaker, Director of the Rye Free Reading Room, stated that the Library understands the realities of the budget pressures and rising costs. The Rye Free Reading Room appreciates the funding from the City that will enable them to sustain their operations. Mr. Shoemaker stated that the staff intends on presenting a case to the Council for more funding for 2016. The largest piece of the funding would be for Sunday service hours as a requested from the community. Mr. Shoemaker further stated that they have an active library in terms of audience and services provided, with a 7% increase of users this year. The library expanded the community programs in 2015, including those for teens and seniors. Further, they were able to expand their operating hours for the public, an increase of six hours more than 2012. Mr.

Shoemaker stated that for 2016, they would like to add another 5.5 hours per week to the operating schedule. The bulk of this would be Sunday hours. Mr. Shoemaker stated that for 2016, the library is asking for a $35,000 increase. They are also increasing the private funding through their auxiliary board and are not looking for the City to be the sole source of funding. Mr. Shoemaker stated that the Rye Free Reading Room is proud to rank third for program attendance in the county. The library has seen a demand for the programs that they provide to the community. Further, he stated that the library is staffed efficiently with 15 full time employees. He also stated that 70% of library's budget comes from public funding dollars. The hourly operating expenses have decreased through energy efficient measures. Mr. Shoemaker thanked the Council again for the funding from the City of Rye.

The Council discussed the request from the Rye Free Reading Room. Mayor Sack, upon reviewing the proposals, stated that the largest increase is personnel costs.

Mr. Shoemaker agreed with Mayor Sack and stated that the majority of the funding proposed is personnel costs due to the new proposed Sunday hours. He confirmed that the Sunday hours would be during the entirety of the year.

Councilwoman Bucci stated that she is in favor of providing the library with more funding. She pointed out that the City funds 70% of the library operations, whereas neighboring communities fund about 90%. She felt that opening on Sundays would be good for the community.

Councilman McCartney inquired on the personnel increases outside of the Sunday hours. Mr. Shoemaker responded that they are proposing for increased salaries for current personnel, and that the labor contract runs to 2017.

Councilman Slack inquired as to whether the library can take volunteers to run certain tasks of the library. Mr. Shoemaker responded and stated that the library currently uses high school students as volunteers. The current contract precludes volunteers from performing the same jobs as current personnel.

Councilwoman Killian inquired as to whether there are contributions for retirement medical expenses, and Mr. Shoemaker responded that there are not.

Mayor Sack thanked the Rye Free Reading Room for attending the meeting.

- **Police Department**

Joseph Fazzino, Acting City Comptroller, stated that the union contract expires December 31, 2015. Police overtime decreased for 2016 by $100,000.

Bill Pease, Police Commissioner, informed the Council that the number of summonses this year has increased due to the addition of an enforcement officer in the City. Mayor Sack inquired as to whether the department could provide enforcement numbers to the Council.

Tom Scappaticci of the Rye Police Department added that the revenue from false alarms are difficult to forecast.

Commissioner Pease stated that the department morale is up and the officers have been doing a great job.

Acting Comptroller Fazzino stated that the largest projected increase is retirement hospitalization.

The Council discussed more open issues. Councilwoman Killian praised the Police Department for their work with drug and alcohol abuse. Mayor Sack stated that the budget is important to understand in detail. He thanked the Police Department for attending the meeting.

- **Fire Department**

Chief Cotter, Chief Billington, Lt. Tietjen were present from the Rye Fire Department to discuss the proposed 2016 budget with the Council.

Mayor Sack stated that it was the intention of the Council to work with the Fire Department on improving operations and management of the paid staff and fully analyze the needs of the department.

City Manager Serrano stated that he has met with the department a number of times. There has been no contract since 2010 and it is the intention of the City to continue to work with the department on arriving at a resolution. The parties will be entering the arbitration process for the purpose of the resolving the contract. The City hopes reach a resolution with the Fire Department on management and personnel issues and policies.

Councilman Mecca reminded the staff and Council that last year, the City budgeted for one additional position. After the arbitration award is announced, the City can move forward.

The Council continued to discuss the issues presented. Mayor Sack stated he felt the City needed a paid full time person to manage the department. He thanked the department and stated that the Council appreciates the candor of the staff. It is not easy to balance competing interests. He stated the Council wants to continue to work with the department.

- **Boat Basin Fund**

City Manager Serrano stated that the Boat Basin Commission has worked hard this year. The Commission would like to discuss their future goals, policies and procedures. There is additional proposed revenue coming in from new policies. Everyone is working as a team to move forward and have financial strength for years to come.

Mr. Gregory Gavlik, Boat Basin Commissioner, stated that the main concerns for 2016 are liability, maintenance and finance. In terms of liability, in 2014 there were a number of thefts. The Commission has been exploring the need to expand security for the Boat Basin, and new measures have been implemented to improve the security system. The Commission realized during this process that the Boat Basin was subject to liability risks. The Commission is working to make the Boat Basin more secure and more compliant. In the process of rewriting the Boat Basin rules and regulations, the Commission plans on mandating insurance requirements. The Commission feels that the current mooring regulations are inadequate and they are looking to improve regulations. Second, Mr. Gavlik expressed that maintenance of the facilities is important. He explained that currently, more than 50 other entities use the Boat Basin. Maintenance has been overlooked for many years. Lastly, concerning finances, the Commission raised slip fees and ancillary fees. He stated the kayak program may be another source of revenue. Also, he told the Council that mooring fees were raised for the first time since 2002. With the City Manager's help, the Boat Basin will continue to raise money.

Mayor Sack mentioned that dredging is important, but costs a lot of money. The City has recently been able to afford it because of recent natural disasters. However, it has become increasingly difficult to dispose of the dredging materials. Mayor Sack stated he appreciates the desire to increase revenue, but the Boat Basin may not last.

Mr. Gavlick suggested there are other alternatives. The Boat Basin is surrounded by entities that do not currently contribute to the dredging. The Council continued to discuss the issue of dredging, maintenance and the costs associated with improvements.

Councilwoman Bucci stated that she appreciates that the Commission has identified the issues. The Council and staff then had further conversation about dredging and maintenance costs.

Mayor Sack stated that after the discussion, he encourages the City Manager to continue to talk to the Boat Basin Commission about increasing revenue.

- **Recreation Department**

City Manager Serrano introduced Sally Rogol, Recreation Superintendent and Ike Kuzio, Assistant Recreation Superintendent. He stated that the proposed 2016 budget is flat overall, with some increases concerning recreation fees.

Superintendent Rogol made a statement to the Council, and introduced the variety of annual recreation programs and camp programs. She stated it is the intention of the Recreation Department to keep programs and services affordable for all. There was a decrease in 2015 revenue with the addition of full-day kindergarten in the City. Superintendent Rogol then spoke about other programs and initiatives, including working alongside the Boat Basin to improve items there.

Councilman McCartney, liaison to the Recreation Department, told the Council that the Recreation Department efforts affect people in the community of all ages. As liaison, he has witnessed that the Recreation Department works hard on a daily basis to contribute to the quality of life in Rye. He stated that the Recreation Department should be commended for keeping its budget flat.

There was further discussion between the Council and staff. Superintendent Rogol reported that the department recovers 40% of its expenditures in revenue.

Councilman Slack commended the Recreation Department's work with the South East Consortium and the special needs members of the community. He stated that this piece of what the Recreation Department does is so important. He thanked the department and hopes that the City can find more ways to work with South East to continue to provide recreational services for special needs individuals.

Councilwoman Killian thanked the department in particular for its work with the seniors.

Mayor Sack thanked the Recreation Department for their attendance and presentation of the proposed 2016 budget.

The Council then discussed miscellaneous items, including a proposed increased to commuter parking by $100 per year. The proposed increase would result in approximately $90,000 of increased revenue collected in 2016 for 2017. The Council also discussed the possibility of selling permits at the snow lot.

4. Adjournment

Mayor Sack thanked the staff and Council for the budget session. Mayor Sack made a motion, seconded by Councilman McCartney and unanimously carried, to adjourn into executive session to discuss litigation matters at 9:30 P.M.

Respectfully submitted,

Carolyn E. D'Andrea
City Clerk

DRAFT UNAPPROVED MINUTES of the Regular Meeting of the City Council of the City of Rye held in City Hall on November 18, 2015 at 7:30 P.M.

PRESENT:

JOSEPH A. SACK Mayor
LAURA BRETT
KIRSTIN BUCCI
TERRENCE McCARTNEY
RICHARD MECCA
Councilmembers

ABSENT:

JULIE KILLIAN
RICHARD SLACK
Councilmembers

The Council convened at 6:30 P.M. Councilwoman Bucci made a motion, seconded by Councilman McCartney and unanimously carried to immediately adjourn into executive session to discuss litigation and personnel matters at 6:33 P.M. Councilwoman Brett made a motion, seconded by Councilman McCartney and unanimously carried, to adjourn the executive session at 7:34 PM. The regular meeting convened at 7:35 P.M.

1. Pledge of Allegiance.

Mayor Sack called the meeting to order and invited the Council to join in the Pledge of Allegiance.

2. Roll Call.

Mayor Sack asked the City Clerk to call the roll; a quorum was present to conduct official City business.

9. Consideration for the City Council to adopt Youth Sports Policies, Guidelines and Fees for the City of Rye Recreation Department.

This agenda item was taken out of order.

Councilman McCartney introduced Sally Rogol and Lisa Dempsey of the Recreation Department to provide the background on the issue which is before the City Council for approval. The process to reach this point has been more than one year. The policies have been vetted both informally and formally through a user group over the past year, in which everyone in community was invited to provide feedback and have an opportunity to be heard. The proposed policy has been posted on the website at www.ryeny.gov.

Ms. Dempsey thanked the Council for considering adopting the sports policy as recommended by the staff. The user group reviewed policies from both neighboring communities and on a national level to create this recommendation. The Recreation Department looks forward to a concrete policy so that rules and regulations are clear.

Mayor Sack asked for clarification regarding whether the school districts would be charged for use of the fields. Recreation Superintendent Rogol confirmed that language would be added to the policy that would exempt schools from being charged for use of the fields. She will send the amended language to the City Council once updated.

Mayor Sack proposed voting on the policy contingent on the language amendments discussed.

Councilman McCartney confirmed with Superintendent Rogol that entities giving private lessons while using the fields would share 20-25% of revenues with the City.

Mayor Sack thanked the group for its discussion and candor and resolution on the issue.

Councilman McCartney made a motion, seconded by Councilwoman Brett and unanimously carried, to adopt Youth Sports Policies, Guidelines and Fees for the City of Rye Recreation Department, as modified by the pending amended language.

ROLL CALL

AYES: Mayor Sack, Councilmembers Brett, Bucci, McCartney and Mecca
NAYS: None
ABSENT: Councilmembers Killian and Slack

3. General Announcements.

Councilman Mecca announced that Mistletoe Magic will be held on Sunday, November 29, 2015. Purchase Street will be closed for the hours of 11:00 A.M. to 5:00 P.M. He encouraged residents to bring their families to the event.

Councilman McCartney thanked everyone who attended the Veteran's Day ceremony on November 11, 2015. He thanked the speakers at the ceremony who gave very moving comments. He stated that these events are well-attended and the Council encourages residents to bring their families and children. He announced that a Memorial Day ceremony would be coming up in May 2016. Councilman McCartney also announced that the Turkey Run will be on Saturday, November 28, 2015. The early bird rates are good until November 20, 2015 and those interested may register on the recreation website. Further, he stated that the Holiday Bonfire and Sing Along is Sunday, December 6, 2015 at 5:00 P.M. at the Rye Recreation building. Lastly, he announced

that with respect to Rye Golf Club, the greens are still open and in good shape while the weather holds out.

4. Draft unapproved minutes of the regular meeting of the City Council held November 4, 2015 and the Budget Workshop held November 9, 2015.

Councilwoman Brett made a motion which was unanimously carried by the Council to approve the minutes of the regular meeting held on November 4, 2015 and the minutes of the Budget Workshop, held on November 9, 2015.

5. Issues Update/ Old Business

City Manager Serrano updated the Council on the proposed plans at the United Hospital site. He announced that there was a meeting on November 13, 2015 with the New York State Department of Transportation (NYSDOT) and engineers for the City, Rye Brook, and Port Chester.

Phil Grealy of Maser Consulting and traffic engineer for the City updated the Council on the status of the United Hospital project. The recent meeting held with NYSDOT brought the technical engineers together between the City and surrounding municipalities. The NYSDOT provided comments on the traffic impacts of the proposed projects. Mr. Grealy stated that the City's engineers renewed their concerns about potential traffic impacts. The Village of Port Chester's traffic engineer has not given his review letter yet. The applicant's proposed traffic mitigation plan will change based on the applicant's reevaluation of future traffic conditions. Mr. Grealy stated that one idea provided by the NYSDOT was to engage in both a pre and post-development study of traffic. There will be another meeting on December 4, 2015 to reconvene the engineers. Mr. Grealy anticipated that the applicant's traffic engineer would return with an updated study for review. One discussion item of note was the potential closing of High Street. The City's engineers also raised concerns regarding the applicant's representation that traffic would be mitigated due to a large number of anticipated trips using public transit. The City's engineers disagree with that representation, as the site is too far from the train station. Mr. Grealy stated that once the engineers receive Port Chester's consultant review letter, they will be able to comment and provide the Council with an update after the December 4, 2015 meeting.

Mayor Sack thanked Mr. Grealy for his report and subsequently invited the Council to update the community on any old business.

Councilman McCartney announced that TKI (TessenderloKerley, Inc.) settlements remain underway and he is hopeful to provide an update soon.

Mayor Sack announced that with regard to the Police Commissioner search, there has not been a selection yet, but the Council looks forward to meeting a future candidate.

6. Continuation of Public Hearing to amend local law Chapter 197, "Zoning", of the Rye City Code by amending Section §197-2, "Districts, A: Residence Districts" to change the zoning designation of a property at 120 Old Post Road from the B-4, Office Building, District to a New RA-6, Active Senior Residence, District; and amending Section §197-86, "Tables of Regulations: Table A, Residence Districts – Area Yard, Height and Miscellaneous Regulations" to add the proposed RA-6 zone.

Councilwoman Brett reviewed the background on the zoning change before the Council. The applicant has come to the Council asking for rezoning at the lot at 120 Old Post Road and has presented its proposal and renderings. Councilwoman Brett reminded the Council that the issue before them is the matter of rezoning. She stated that it seems that the current zoning is no longer economically feasible. The market for office space in Westchester County is declining, an issue that was considered before the Planning Commission. She stated that from the City's perspective, there has been a decrease from the tax base for office space. The questions that should be asked are twofold; the Council must first decide whether the change of use is appropriate, and second, the Council must analyze the effects of a change in use. She felt that the Council should consider the traffic and financial impacts. Councilwoman Brett further stated that the Council would be given a traffic update from its traffic engineers, Maser Consulting. She stated that the Council would also request an update on the fiscal aspect from the applicant. Further, the Council would inquire with the Corporation Counsel and City Manager on the next steps for tax issues to avoid a tax certiorari claim immediately following a zoning change.

City Manager Serrano announced that a traffic study that was completed and that there were new draft amendments to the zoning language. He introduced Phil Grealy of Maser Consulting, professional traffic engineering consultants for the City.

Mr. Grealy addressed the Council and stated that Maser Consulting reviewed the applicant's traffic studies. Maser's review was summarized in a letter in November 2015. The engineers focused on several items and concerns with the applicant's traffic studies. Mr. Grealy stated that there was no question that the traffic proposed would be less impactful than that of an office building. There are some issues in the surrounding areas with traffic and pedestrian safety. There were several issues presented in the report; one being whether a signal would be appropriate at the intersection of Playland Parkway and Old Post Road. Mr. Grealy stated that the engineers felt that there should not be a traffic signal. He further stated that there could be an extra lane to diffuse traffic into a two-lane approach to separate out right and left turns. In terms of pedestrians, Mr. Grealy stated they anticipated an increase in pedestrian traffic with the proposed type of use. Further, there are some areas that Maser has identified to improve gaps within the sidewalk system. One example is the sidewalk located on Theodore Fremd. He noted accidents identified in applicants report on Playland Parkway. This issue could be mitigated with some restriping.

Mr. Grealy further stated that another item to be considered was the opening of the emergency access point on the property. He felt that opening the access point would not result in a large traffic benefit. He stated that the amount of volume from the development would be relatively minor and opening the access points has a potential to create more volume at a point on

Old Post Road. Another issue is examining the prospect of a "right turn only" lane at the intersection where Boston Post Road meets Playland Parkway. Such an improvement would require further study. Mr. Grealy stated that the analysis is that sight distance could be handled, but traffic during peak times may be more difficult. They will need the county's guidance and approval on that issue.

Mr. Grealy then discussed other issues, including Thruway access, Playland Parkway and the Playland access road. He felt that further study was required to comment on these issues. Pedestrian improvements were also discussed, as well as a possible signal for the Thruway access road for the left-hand turn and pedestrian safety.

Mr. Grealy stated that Maser received correspondence from the Rye Traffic Committee who commented on the proposed traffic recommendations. The committee had some comments and concerns on sight lines and creating two lanes on the Playland access road approaching Old Post Road. The committee supports the consideration of the roundabout and pedestrian improvements. The committee did not comment on the left-hand turn issue at Boston Post Road. Mr. Grealy stated that if any of these proposals were pursued, there would need to be approval from the County. Mr. Grealy then acknowledged a letter from Mr. Van Der Wateren – who are opposed to a signal at Playland access road and Old Post Road. He clarified that the ultimate recommendation was not to create a signal at that location.

Councilwoman Brett summarized the recommendations as follows: a right-hand turn on the Playland access road, potentially introducing a signal on Old Post Road and a roundabout to be examined. Any changes will need approval from the County. She confirmed that it was the opinion of the City's traffic engineers that the potential rezoning would not have the same traffic impact as it is zoned currently. Mr. Grealy confirmed that Councilwoman Brett's summary was correct.

Councilman McCartney acknowledged a letter from Mr. Van Der Wateren who suggested implementing a lengthy right-hand turn lane. Mr. Grealy agreed that a right turn lane would be long, but acknowledged that the length of the turn lane was not something that was previously discussed.

Corporation Counsel Wilson told the Council that there was a draft text amendment to the proposed rezoning, which will be provided to the Council.

Jonathan Kraut, attorney for the applicant, stated that the City's traffic consultant reviewed the applicant's traffic reports. After considering the traffic impacts, Mr. Kraut stated that their proposal will be better than that of a fully-occupied office building. He brought up the issue of capital improvement funding, which the applicant agrees to. Mr. Kraut further stated that they have reviewed the text amendment which includes a per unit fee. As an update, Mr. Kraut told that Council that they understood from the last meeting that there was a concern about front yard setbacks. The applicant's proposed design includes a building set on the property in the shape of a diamond. Mr. Kraut then raised further issues, including working with the City Planner on the zoning language to reflect the Council's changes. He then stated that the Osborn raised points that

the applicant addressed at the last meeting. The applicant subsequently met with the Osborn, whose final concern was a side yard setback issue. Mr. Kraut handed a letter to the Council on an agreement between the applicant and the Osborn, promising to apply to the Planning Commission with a concept to mitigate the side yard issue. He represented that the Osborn was satisfied with this resolution and the applicant plans on moving forward with application as it currently is proposed. Mr. Kraut then discussed tax issues with respect to the property. He stated that Rye lost roughly 50% of the assessable value of this property over the last five years due to the decline of the value of the property.

Councilwoman Brett inquired as to the current assessment on the property. Mr. Kraut responded that it was $143,100. The present market value for 2014 is 7,492,000; the current tax bill is $135,000 and the anticipated approximate tax bill will be $615,896. Mr. Kraut confirmed that this figure would be the total tax bill for the entire property, and that roughly $100,000 of the $600,000 would be paid to the City.

Councilwoman Brett stated that the Council has received all of the requested information, and it is now up to the Council to now decide and vote on the rezoning. She praised the applicant for a good presentation on the value of that property. Further, she stated that at the last Council meeting, she expressed concerns for density on site. Councilwoman Brett then proposed a reduction in the FAR to 0.75, despite the current proposed project indicated an FAR of 0.78. There is concern about the density and number of units. The new zone proposes a greater density than any other in the community. She suggested a minimum lot size per family to mitigate this concern, or altering the number of bedrooms. Lastly, she stated that her preference was a reduction in the number of units.

Councilwoman Bucci stated that she appreciates the applicant's changes that have been made.

Councilman McCartney stated that there is a need for seniors to be able to stay in Rye. This proposed project fills a niche within the City and he felt many people would take advantage of it. He further stated that the application is accessible to the public on the website. The property is going to be attractive and the applicant will have to work on the landscaping. Further, this property will be a tax benefit to balance the budget.

Councilman Mecca agreed with Councilwoman Brett on the issue of changing the FAR to 0.75 and increasing the size of units to three bedrooms.

Mayor Sack stated that there should be a proposal together to vote on at the next meeting. There has been lengthy public comment and a site visit, extensive traffic analysis and the possibility of an impact fee. This project does fit in Rye and fits a need within the community and this particular neighborhood. He further stated that the Council's objective is to come to a reasonable solution and consensus. He then asked the applicant for feedback on the proposed change to FAR and total number of units.

Mr. Kraut responded that the calculation which affectively reduces the total number of units may not be troublesome for the applicant, provided they can utilize the square footage. Concerning the FAR, the difference between the square footage at 0.78 and 0.75 brings the square footage from 237,000 to approximately 228,700. The change between the two is a rather small amount on the seven acres, but meaningful to the applicant. The applicant is requesting that the Council approve a change in FAR from 0.8 to 0.78, but they respect the Council's decision.

Emily Hurd, current Rye resident, then addressed the Council. She clarified with Councilwoman Brett's calculation of a 0.75 FAR by splitting the difference between the other senior housing FAR, 1.0, and a multifamily property which is 0.5.

Mayor Sack confirmed that there are multifamily structures in other zones that exceed their FAR.

Ms. Hurd then inquired as to whether HUD was aware of the property. She also stated that she understood that the Council is examining whether this is in the best interest for the City.

Mayor Sack responded that the Council acts with regard to the best interest of the City. It was a suggestion from the County to include an affordable housing unit, but the Council has recently approved affordable housing for seniors in close proximity to this property.

Councilwoman Brett stated that the City has mixed zoning in Rye throughout the community. The Council does not feel this project would have a discriminatory impact with regard to affordable housing, as this would be multi-family and close in proximity to two affordable housing districts.

Mayor Sack stated that the public hearing on this issue will be continued for a proposal on the Council's next agenda.

Mr. Kraut requested that any changes are done so forthwith to ensure that they are properly noticed for the next meeting.

Mayor Sack announced that the proposal will set the FAR at 0.75 despite the applicant's point, and the Council will allow for three bedroom units as opposed to just two bedroom units. The amended language will be posted to the website.

Councilwoman Brett made a motion, seconded by Councilman McCartney and unanimously carried, to continue the public hearing to December 2, 2015.

Joseph Murphy, a Rye resident, stated to the Council that he felt this project would be good for seniors and that the community supports this project.

7. Authorization for the City Manager to enter into an Inter-municipal Developer Agreement with Westchester County and Pawling Holdings, LLC for the City to construct the North Street sewer

line and other on-site infrastructure improvements for the Theodore Fremd Avenue and North Street affordable senior housing project.

City Manager Serrano opened the issue and stated that one of the major pending capital improvements is the sewer line. The County has drafted an intermunicipal (IMA) agreement regarding sewer improvements to receive funding. The City would be responsible for managing the project. The staff has worked hard to revise this agreement. Upon signing the agreement, the City can bid for a contractor. City Manager Serrano then introduced Anthony Zaino from Westchester County to explain the scope of the project.

Mr. Zaino explained to the Council that the proposed project would rebuild a sewer line near the railroad, to reroute that line through a different sewer district. The County's proposal is to provide $1 million of funding to the City. The City would act as administrator of the project, go out to bid and hire a contractor. The City Engineer would be responsible for developing an estimate for the project. Mr. Zaino further explained that a portion of the funding would be used for other public improvement projects on right of way and Theodore Fremd.

Mayor Sack confirmed that the County will be funding the project, and the City would be managing the project.

Councilman McCartney inquired as to the staff working on the initiative, and City Manager Serrano responded that the project manager would be Ryan Coyne, City Engineer.

Mayor Sack thanked City Manager Serrano, City Engineer Coyne and City Planner Miller for their efforts on this issue. He stated he was hopeful that the issue could be resolved at the subsequent Council meeting on December 2, 2015. Mayor Sack thanked Mr. Zaino for attending the meeting.

8. Presentation of a Proposal to collect baseline data on the deer population and Authorization for the City Manager to enter into an agreement with Hank C. Birdsall regarding same.

Mayor Sack stated that with regard to the deer population in Rye, the County is not being helpful. The deer overpopulation problem is significant in the City, and the County is in the best position to help with this problem. The County has a deer hunting program that they have already implemented in six other parks in the county. The City will need to initiate a project on its own. Mayor Sack then stated that it is important to continue to focus on the deer count to accurately determine how many deer there actually are as a benchmark. That way, the City can be effective when implementing a program. He then introduced the Deer Study Group.

City Manager Serrano agreed that it is important to quantify the problem. He introduced Hank C. Birdsall, who provided the City with a reasonable proposal which may be helpful to resolving the issue.

Mr. Birdsall stated to the Council that he was raised in the City and lived in Rye for 25 years. He has extensive education in the area of deer counting. He told the Council that he will

use the method of pellet counts and tracking. He spoke to the County and was given permission for this activity. Walking counts will provide a reading on the minimum number of deer. The pellet count will take place in April and the tracking will take place in late Fall.

Councilman McCartney asked how it is possible to know that one is not recounting the same deer over and over again. Mr. Birdsall responded that the scat pellet count method is very scientific. The count method is not as scientific, but it is helpful to counting minimums.

Councilman McCartney made a motion, seconded by Councilwoman Brett and unanimously carried, to authorize the City Manager to enter into an agreement with Hank C. Birdsall regarding his proposal to collect baseline data on the deer population.

ROLL CALL

AYES: Mayor Sack, Councilmembers Brett, Bucci, McCartney and Mecca
NAYS: None
ABSENT: Councilmembers Killian and Slack

10. Three appointments to the Rye Golf Club Commission for a three-year term expiring January 1, 2019.

Councilman McCartney read the election results for the Rye Golf Club Commission for new appointments. Those voted in were Peter Marshall, Angela Sposato, and Michelle Horgan. He welcomed them for the new term.

Councilman McCartney made a motion, seconded by Councilwoman Brett and unanimously carried, to appoint Peter Marshall, Angela Sposato and Michelle Horgan to the Rye Golf Club Commission, with a term expiring on January 1, 2019.

Mayor Sack added that the new Commission members have been involved and instrumental to helping the City in the past.

11. Residents may be heard on matters for Council consideration that do not appear on the agenda.

Mack Cunningham, 502 Forest Avenue, addressed the Council. He stated that he wanted to highlight issues in the budget for clarity and public discussion. Concerning the Dearborn Seawall project, he questioned where this issue was included within the budget. There is a relationship between the Town of Rye and the City of Rye on this issue with respect to capital contribution. He stated that Dearborn Avenue is 100% a City issue.

City Manager Serrano confirmed that there will be an intermunicipal agreement with the Town of Rye in which the City will be managing the project.

Mr. Cunningham then raised the issue of the traffic study for the site at United Hospital to follow the SEQRA filing.

City Manager Serrano responded that the work of the City's engineers is continuing with the Final Environmental Impact Statement (FEIS).

Mr. Cunningham inquired has to the extent of the study and asked if it included the 95 North access point. He felt that this would impact the traffic into Rye.

Mayor Sack confirmed that the City will include the traffic study funding as a line item to continue the ongoing study. He further stated that the Port Chester expert is currently in agreement with Rye's consultant. The City is hopeful that the applicant itself will begin to agree with the City's consultants. The City will continue to work with the DOT through the project.

Mr. Cunningham then raised the last mile project on I-287 and 95. The scope of work was developed many years ago.

City Manager Serrano stated that his impression was that the project is dead and the funding will be moving to the reconstruction of the Tappan Zee Bridge. Mr. Cunningham asked the City to follow up on this issue.

Mr. Cunningham expressed his concern over the City's technology budget over the last five years has increased by 30%. He suggested oversight of that department to ensure best practices.

Mr. Cunningham then raised the issue of the camera project. He provided the background to the Council and recommended that the City inquire as to the final cost for this project and how the fees will impact the relevant departments.

Mr. Cunningham lastly thanked the Mayor and Council for holding a workshop on the Boat Basin. In the short time that he has been involved with the Commission, the group has taken on tasks that are outside the typical roles of an advisory group. They have been identifying potential revenues for the City. One possible revenue source is the mooring fee. That fee would be deposited into a dredging fund exclusively as an initial step for dredging improvements. Mr. Cunningham noted that Row America in the Boat Basin only pays the City $5,000 year in City taxes and they do not contribute to the Boat Basin. He stated that the Commission feels that they should pay something back to the Boat Basin. One upcoming proposed fee is a wharf permit fee in 2016. Mr. Cunningham also noted that a dock is not considered an enhancement or improvement for assessment purposes. An entity at a dock may receive a benefit of the Boat Basin without contributing to the ongoing maintenance. Mr. Cunningham then stated that the Council deserves to look at the Boat Basin budget issues earnestly to consider adopting proposed changes.

Mayor Sack stated that the Council welcomes a recommendation from the City Manager regarding the proposed fees for the Boat Basin. He acknowledge Mr. Cunningham's comments.

Councilwoman Brett brought up the issue of underwater land grants, indicated by a survey, which give specific property owners the right to own and maintain a dock.

12. Miscellaneous communications and reports.

There was nothing discussed under this agenda item.

13. New Business.

There was nothing discussed under this agenda item.

14. Adjournment.

There being no further business to discuss at the open meeting, Councilwoman Brett made a motion, seconded by Councilman McCartney and unanimously carried, to adjourn the meeting into executive session to discuss personnel matters at 9:39 P.M.

Respectfully submitted,

Carolyn E. D'Andrea
City Clerk

CITY COUNCIL AGENDA

NO. 6 DEPT.: City Council DATE: December 2, 2015

CONTACT: Mayor Joseph A. Sack

AGENDA ITEM: Issues Update/Old Business

FOR THE MEETING OF:
December 2, 2015

RYE CITY CODE,
CHAPTER
SECTION

RECOMMENDATION: That an update be provided on outstanding issues or Old Business.

IMPACT: ☐ Environmental ☐ Fiscal ☐ Neighborhood ☐ Other:

BACKGROUND:

CITY COUNCIL AGENDA

NO. 7 DEPT.: City Council DATE: December 2, 2015
CONTACT: Mayor Joseph A. Sack

ACTION: Mayor and Council amendments to the proposed 2016 City of Rye Budget.

FOR THE MEETING OF:
December 2, 2015

RYE CITY CODE,
CHAPTER
SECTION

RECOMMENDATION: That the Mayor and the Council review and act on the proposed Budget modifications.

IMPACT: ☐ Environmental ☒ Fiscal ☐ Neighborhood ☐ Other:

BACKGROUND:

CITY COUNCIL AGENDA

NO. 8 DEPT.: City Manager's Office DATE: December 2, 2015

CONTACT: Marcus Serrano, City Manager

AGENDA ITEM: Public Hearing on the proposed 2016 City Budget.

FOR THE MEETING OF:

December 2, 2015

RYE CITY CODE,

CHAPTER

SECTION

RECOMMENDATION: That the Mayor and the Council conduct the Public Hearing on the proposed 2016 Rye City Budget.

IMPACT: ☐ Environmental ☒ Fiscal ☐ Neighborhood ☐ Other:

BACKGROUND:

The City Manager presented the budget on November 4th. The Council held Workshops on November 9th and 16th.

The proposed 2016 Budget is available on the City website www.ryeny.gov under City News: 2016 Proposed Budget.

The Budget adoption is scheduled for December 16, 2015.

CITY COUNCIL AGENDA

NO. 9 DEPT.: Planning DATE: December 2, 2015

CONTACT: Christian K. Miller, AICP, City Planner

AGENDA ITEM: Continuation of Public Hearing to amend local law Chapter 197, "Zoning", of the Rye City Code by amending Section §197-2, "Districts, A: Residence Districts" to change the zoning designation of a property at 120 Old Post Road from the B-4, Office Building, District to a New RA-6, Active Senior Residence, District; and amending Section §197-86, "Tables of Regulations: Table A, Residence Districts – Area Yard, Height and Miscellaneous Regulations" to add the proposed RA-6 zone.

FOR THE MEETING OF:

December 2, 2015

RYE CITY CODE,

CHAPTER 197

SECTION 7

RECOMMENDATION: That the City Council continue the Public Hearing to review the Planning Commission's advisory memorandum and the petitioner's amended submission.

IMPACT: ☒ Environmental ☐ Fiscal ☒ Neighborhood ☐ Other:

BACKGROUND: The City Council declared themselves Lead Agency under SEQRA at the October 8, 2014 City Council meeting and referred the petition of Old Post Road Associates to the Planning Commission for their review. Old Post Road Associates, LLC, seeks an amendment to the City Zoning Map to change the zoning district designation of an approximately 7.0-acre property located at the intersection of Old Post Road and Playland Access Drive. The request would change the zoning of the property from the B-4, *Office Building*, District to a new zone RA-6, *Active Senior Residence*, District. The petitioner is seeking to construct units of age-restricted housing limited to those individuals over age 55 who are not interested or in need of residing within a retirement community or nursing facility.

See attached Traffic Study submitted by the applicant, the Planning Commission advisory memorandum and applicant's amended petition with supporting documents.

HKP | HARFENIST KRAUT & PERLSTEIN LLP

LEO K. NAPIOR

DIRECT TEL.: 914-701-0800
MAIN FAX: 914-701-0808
LNAPIOR@HKPLAW.COM

November 13, 2015
VIA HAND DELIVERY

Mayor Joseph Sack and
Members of the City Council
1051 Boston Post Road
Rye, New York 10580

Re: ***Re-zoning of 120 Old Post Road***

Dear Mayor Sack and Members of the City Council:

As you know, we represent Old Post Road Associates, LLC (the "Petitioner"), in connection with a Petition for Zone Change, Zoning Map Amendment and Amendment to City of Rye Zoning Ordinance (the "Petition") for the above referenced property (the "Subject Property"). We respectfully enclose a revised proposed zoning table for your review and consideration concerning the Petition as requested at the last City Council meeting.

As was discussed at the last City Council meeting the Petition was heard, the Petitioner has revised the proposed zoning table to increase the front yard setback from Old Post Road to 150 feet. The Petitioner has also included a footnote providing for a permitted encroachment of a structure to no less than 100 feet from the Front Yard Line provided that the maximum encroachment of the structure shall be no more than 15% of the total standard front yard setback area. This would provide the ability to propose different building orientations on the Subject Property while also prohibiting the Petitioner or any future owner from locating a large portion of a structure within 100 feet of Old Post Road.

We look forward to presenting this information to the City Council and addressing any comments or questions of the Council or the public. Thank you for your attention to this matter.

Very Truly Yours,

HARFENIST KRAUT & PERLSTEIN LLP

By: _____
Leo K. Napior

Cc: Christian Miller, City Planner

Table No. 2. *Existing and Proposed Multi-Family Zoning Districts & Bulk Regulations*

4		5	6	7	8	9	10	11	12	13	14	15	16
					Minimum Yard Dimensions (feet)					Maximum Height		One-Story Accessory Structures	
District	Use	Maximum Ratio of Floor Area to Lot Area[j]	Minimum Size of Lot (AC or SF) per a. Family or Equiv.[a] or b. Nonresidential Use	Minimum Width (feet) [See § 197-36]	Front[b]	One Side [b][c]	Total of Two Side Yards	Rear[b]	Specified Distance (feet) as required in Column 2 (Uses)	(stories)	(feet)	Maximum Coverage of Required Rear Yard	Minimum Distance to Side Line (feet)
RA-1	Single-family house	0.40	5,000	50	25	8	20	30	40	2.5	35	30%	5
	Two-family house	0.40	5,000	60	25	8	20	30	--	2.5	35	30%	5
	Apartment house	0.40	5,000[e]	100	70	50	100	50	--	2.5	35	30%	10
RA-2	Single-family house	0.45	5,000	50	25	8	20	50	30	2.5	35	30%	5
	Two-family house	0.45	3,500	60	25	8	20	50	--	2.5	35	30%	5
	Apartment house	0.45	3,500[e]	100	25	20	50	40	--	2.5	35	30%	10
RA-3	Single-family house	0.50	5,000	50	25	8	20	30	20	2.5	35	35%	5
	Two-family house	0.50	3,000	60	25	8	20	30	--	2.5	35	35%	5
	Apartment house	0.50	2,500[e]	80	25	20	40	40	--	2.5	40	35%	10
RA-4	Single-family house	0.50	5,000	50	25	8	20	30	--	2.5	35	35%	5
	Two-family house	0.50	3,000	60	25	8	20	30	--	2.5	35	35%	5
	Apartment house	0.50	2,500[e]	80	25	20[d]	40[d]	40[d]	--	2.5[f]	35[f]	35%	10
RA-5	Apartments for senior citizens and handicapped persons	1.00	1 AC	80	25		40	40	--	4	50	35%	10
RA-6	**Apartments for active senior citizens**	**0.8**	**2,000**	**400**	**150 [k]**	**50**	**100**	**50**	**--**	**4**	**45**	**35%**	**10**

(a) Equivalent to one (1) family in computing minimum lot sizes:
[1] Hotels and lodging houses, each two (2) guest sleeping rooms.
[2] Hospitals and similar institutions, each two (2) hospital beds.
[3] Medical offices, each two (2) doctors plus three (3) other employees.
[4] Other nonresidential main uses not specifically provided for in this Table of Regulations or elsewhere in Chapter 197, each one thousand five hundred (1,500) square feet of floor space

(b) [1] Wherever a required yard abuts a street less than fifty (50) feet in width, the minimum yard dimension(s) shall be measured from a line of twenty-five (25) feet from parallel to the center line of said street.
[2] No building shall be nearer than one hundred (100) feet to center line of Post Road between Mamaroneck town line and Central Avenue.

(c) For corner lots, corner side yards at least one fifth (1/5) of the lot width at the location of the building, but need not be more than front yard minimum, except as provided in § 197-62. Permitted nonresidential main uses shall have minimum side yard one and one half (1 1/2) times width specified for a single-family house (See § 197-52).

(d) Twenty-five (25) feet for any side yard containing a driveway serving more than six (6) parking spaces. For a one-, two-, or three-family structure existing on effective date of Chapter 197 (August 9, 1956) and proposed for conversion for up to four (4) families, the Board of Appeals may reduce side yard requirement to eight (8) feet. For side yard requirements for other apartments, see See § 197-54. For spacing between buildings on the same lot, see § 197-70. For the rear and side yards of apartment houses adjoining the right-of-way of a railroad, a parkway or a limited access highway, see § 197-64.

(e) For usable open space requirement, see § 197-68

(f) For buildings in variable height apartment groups (a use permitted in RA-4 Districts subject to additional standards and requirements), see§ 197-13.

[g,h,i omitted]

(j) See § 197-43.1 for floor area ratio reductions for single-family residences on oversized properties in one-family districts.

(k) The required front yard setback can be reduced to no less than 100 feet, provided that the maximum permitted area of the encroachment of the structure into this reduced setback area shall be less than 15% of the total area between the Front Yard Line and the standard 150 foot setback.

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November 10, 2015

VIA UPS

Mr. Marcus Serrano
Rye City Manager
City Hall
1051 Boston Post Road
Rye, NY 10580

Re: 120 Old Post Road
Rye, New York
MC Project No. 15001874A

Dear Mr. Serrano:

As per the request of the City of Rye, Maser Consulting, P.A., has completed our review of the "Traffic Assessment and Impact Study" (TIS), dated November 2014 and "Analysis and Comparison of Potential Area Roadway Conditions," dated September 24, 2015, each prepared by Frederick P. Clark Associates, Inc. These two studies were completed with regard to the proposed senior housing development to be located at the above referenced location.

The following is a summary of our technical review comments pertaining to each of these documents and an outline of our recommendations.

A. Traffic Assessment and Impact Study

1. Background

This study was prepared to assess the impacts associated with the rezoning and reuse of a 7.0 acre parcel currently occupied by a 70,000 s.f. vacant office building. The building would be demolished and replaced with 135 unit age-restricted residential development. The access to the site is to remain essentially at the site's current location on Playland Access Drive, approximately 160 feet north of Old Post Road.

2. Base Traffic Volumes

The base traffic volumes were recorded in 2012 through 2014 at various locations for the AM and PM Peak Hours and were adjusted to reflect 2014 base traffic volumes. The AM Peak Hour Volumes were found to vary depending upon the location selected but generally occurred between 7:00 AM and 9:00 AM, however, the PM Peak Hour

Volumes were determined to occur between 4:45 PM and 5:45 PM. The highest volumes found at each intersection were used in the study.

Use of the base Peak Hour volumes as adjusted for at each location appear appropriate.

3. **Background Traffic Volumes**

The Traffic Impact Study also took into consideration other potential developments within the area including:

- 58 Attached Senior Residences at 150 North Street
- 1-Year Development Plan for Playland
- 5,000 s.f. of Vacant Spaces Reoccupied at 555 Theodore Fremd Avenue

The morning Peak Hour generated by the one year development program at Playland was not included in the projection of volumes that followed in the report. This was a reasonable assumption. The volumes included other development traffic and were analyzed for the 2016 Design Year.

While it is unlikely the 120 Post Road project will be completed and fully occupied by the 2016 Design Year, a delay in the completion occupancy to a later year or two will not significantly change the conclusions stated with the Traffic Impact Study.

4. **Accident Experience**

This TIS outlines the accident activity for the following:

a) At the intersection of Playland Access Road at Theodore Fremd Avenue.
b) At the Playland Parkway on/off ramp/residential office access and at the roadway section between each.
c) At the Old Post Road intersection with the site access drive, Playland Parkway Access Road / Playland Parkway Northbound on/off ramps and on those sections between each.

The report outlines each of the reported accidents from the three (3) year period between January 2011 and December 31, 2013. A total of 42 accidents were reported with most (18) occurring at the intersection of Playland Parkway Southbound (PPS) On/Off Ramp / Medical Office Access.

Generally, if a location exhibits less than an average of 5 accidents a year over a 3 year period, no further examination is necessary (except of course if fatalities occurred). In this case, only the location cited above met this threshold where 18 accidents occurred and where 8 were of the right angle variety; with 7 of those attributed to "Failure to Grant ROW."

No conclusions or recommendations to address this existing condition at the PPS On/Off Ramp and Medical Office access were offered in the Study. Perhaps a realignment of the PPS on/off ramp with the Medical Office access would improve conditions.

5. **Trip Generation**

With respect to traffic generation, the TIS utilized information contained in the Institute of Transportation Engineers (ITE) publication "Trip Generation," 9th Edition, 2012. According, the proposed development is expected to generate a total (entering plus exiting) of 27 and 34 vehicle trips during the Weekday Morning and weekday evening Peak Hours, respectively.

The current building use, if reoccupied (70,000 s.f. of office), would generate some 109 and 104 vehicle trip ends during the same peak weekday periods, respectively. Hence, an increase in trip generation between 82 and 70 over the proposed zoning condition for the Weekday Morning and Weekday Afternoon Peak Hours, respectively, could be anticipated if the reoccupancy were to occur instead of the proposed zoning.

The trip generation rates identified in the TIS are representative of what could be expected under either development scenario and the rezoning would generate less peak hour traffic than under existing reoccupancy.

6. **Trip Distribution**

The estimated site generated traffic was distributed on the roadway network as follows:

- 20% will arrive from the north on Playland Parkway from I-95
- 20% will arrive from the southwest on Theodore Fremd Avenue
- 20% will arrive from the northeast on Theodore Fremd Avenue
- 40% will arrive from the south on Playland Parkway access; with 20% from the northeast on Old Post Road and 20% from the southwest on Old Post Road

The exiting distributions vary from the entering distributions where 60% of the site exiting traffic will turn right out of the site and at Old Post Road 40% will turn left with

20% turning left again onto the Thruway Access Drive northbound towards the ramps to the Thruway entrance. Twenty percent (20%) will continue on Old Post Road to North Street. The remaining 20% will turn right off Playland Parkway access onto Old Post Road to Boston Post Road.

The exiting traffic that will turn left (40%) out of the site access will intersect with Theodore Fremd Avenue where it will then split 20% turning right and 20% turning to the left on Theodore Fremd Avenue.

We concur with these stated distributions.

7. **Capacity Analysis**

Capacity analyses were conducted at the following locations:

- Playland Parkway Access Drive/ Theodore Fremd Avenue
- Playland Parkway Access Drive/ Playland Parkway Off-Ramp / Medical Office Access
- Playland Parkway Access Drive/ Site Access
- Playland Parkway Access Drive/ Old Post Road
- Old Post Road/ NYS Thruway Access Drive

The analyses were completed for the 2016 Background Condition as well as for the 2016 Combined Conditions for each of the Peak Hours using the appropriate SYNCHRO 8.0 methodology.
Signalized intersection analysis was conducted at the intersection of Theodore Fremd Avenue with the Playland Parkway Access Drive. The remaining intersections were analyzed using unsignalized "Stop" control methodology. The results of the analyses produced for the two conditions suggest the following:

a) Theodore Fremd Avenue/ Playland Access Drive (signalized)
Background condition and overall Level of Service "B" will prevail during both the Weekday Morning and Weekday Afternoon Peak Hours.

Under the combined condition, the results indicate the intersection will continue to operate at an overall Level of Service "B" during the Weekday Afternoon period however, during the morning period, the Level of Service will change from "B" to "C" with an average vehicle delay increase of 0.3 seconds.

The analysis results for this location are reasonable.

b) Playland Access Drive/Playland Parkway Southbound Ramps/Medical Office Access (unsignalized)

Under the background condition, indicate that the critical movements on the ramp and access drive approaches to the intersection will operate at a Level of Service "E" and "C" or better during the morning and afternoon Peak Hour, respectively. Concurrently, the northbound and southbound critical movements on Playland Access Drive will operate at a Level of Service "A" during each of the Peak Hours.

Under the combined condition, the results of the unsignalized analysis indicate that similar Levels of Service for all movements will occur with slight increase in average vehicle delays of approximately 1.5 seconds.

This is acceptable as reduced Levels of Service can be expected during peak hours on minor intersection approaches. However, the existing accident condition is not considered nor is any mitigation suggested. Perhaps a realignment of one of the approaches would help this situation.

c) Playland Access Drive and Office Building Site Access (Unsignalized)

Under background conditions, the results of the analyses indicate that the critical movement will operate at Level of Service "B" or better during each of the Peak Hours.

Under the combined condition, the critical movements will continue to operate at Level of Service "B" or better during these two same Peak Hours. However, the eastbound right turn movement will change from a Level of Service "A" to "B" with an increase in average vehicle delay of 11.9 seconds.

The results of the analysis are reasonable.

d) Old Post Road and Playland Access Drive (Unsignalized)

Under the background condition, the southbound approach critical movements at the Playland Access Drive ("Stop" sign controlled) will operate at a Level of Service "F" and a Level of Service "D" during the Weekday Morning and Weekday Afternoon Peak Hours, respectively. Queue lengths are anticipated as 13 vehicles during the Peak Hours. It is suggested that field observations indicate similar queues and delays, although it is mentioned that these delays occur for less than 15 minutes during the peak periods.

This should not be considered an unusual circumstance for a limited time within the Peak Hour.

Under the combined condition, the results indicate that on the southbound approach (Playland Access Drive) the same Levels of Service will be maintained for each of the Peak Hours within an average vehicle delay of approximately 7.2 seconds. It is mentioned in the TIS that reuse of the existing building as offices would result in longer delays, however, no quantitative analysis of this condition was provided within the report to support this statement.

Based on the higher traffic generation expected with the reoccupancy of the office versus the proposed rezoning uses generation, this is a reasonable conclusion. (See also discussion below regarding separate right turn lane.)

e) Old Post Road and Thruway Access Drive (Unsignalized)
Under background conditions, the results of the analyses indicate that the southbound movements from the ramp are operating at Level of Service "F" and "D" during the Weekday Morning and Weekday Afternoon Peak Hours, respectively. The key through movements on Old Post Road are operating at a Level of Service "A" during each of these Peak Hours.

Under the combined condition, the analysis results indicate that the southbound approach Level of Service during each of the Peak Hours will remain the same. However, there will be an increase in average vehicle day of approximately 6 seconds. It is stated that a reoccupany of the existing building would increase delays.

As indicated for the prior condition, no evidence in support of that statement was provided, however, an increase in trip generation would suggest that this assertion is accurate.

The conclusions outlined in the report identify what could be expected and we are of the opinion that the conclusions drawn are accurate. However, on Page 20 of the report it is suggested that the current traffic control and pavement markings at each of the locations remain unchanged. This does little to address the deficiencies that currently exist and will continue to exist upon site redevelopment. It is further stated in the last paragraph of the findings that, "At the Old Post Road intersection at Playland Access Drive and Thruway Access Drive it is likely (sic) that either location would meet minimum standards for consideration for traffic signals." **We suggest**

that the word "likely" was intended to be "unlikely". Furthermore, it would have been beneficial if such an evaluation of those standards was provided to support this statement. To confirm such, a signal warrant analysis should be conducted at this location. (See below for further discussion of this location.)

B. Analysis and Comparison of Potential Area Road Conditions

Subsequent to the TIS preparation, a supplemental evaluation was conducted. This evaluation was undertaken at the request of the City Planner and City Engineer to identify potential benefits with and without off-site transportation improvements. The options presented included:

1. Constructing a right turn lane on the southern side of the Playland Access Drive along the site frontage. This lane will extend along the site frontage from the vicinity of the medical building access drive south to Old Post Road.

2. Convert the existing emergency access drive to 120 Old Post Road to a full movement driveway.

3. Modify the northbound Boston Post Road exit ramp to Playland Parkway to permit left turn lanes movement onto Playland Parkway northbound to access I-95.

4. Install a traffic signal at Old Post Road/Playland Parkway Access and/or install a second signal at the Old Post Road/Thruway Access Drive.

Option Comparison Results

1. Right Turn Lane

   The analysis and comparison conducted by F.P. Clark Associates for the this option indicated that Levels of Service at this intersection would improve from a Level of Service "F" to "E" with a reduction delay of some over 21 seconds per vehicle during the morning Peak Hour. During the afternoon Peak Hour, a Level of Service improvement from "D" to "C" with a reduction in vehicle delay of 5.4 seconds can be expected. Concurrently, with the new right turn movement, the intersection would operate at a Level of Service "B" and "A" during the Weekday Morning and Weekday Afternoon Peak Hours, respectively.

   The results of the analysis indicate a benefit would occur with the provision of a separate right turn lane at this location.

2. Emergency Access Reopening
   Analyses indicate that a reopening of the emergency access at Old Post Road would yield little or no benefit. As the development is expected to generate an insignificant level of additional traffic to the area roadways, the results essentially indicated no measurable improvement. In fact, a reanalysis was completed using the opening of the emergency access as well as the addition of the new separate right turn lane. Those analyses indicated the improvement in delay was actually the result of the right turn lane and not the inclusion of the second driveway.

   The provision of the right turn lane on Playland Parkway southbound approach is what results in the improved conditions and not the redistribution of the site entering and exiting traffic with the reopening of the emergency driveway.

3. Boston Post Road Ramp to Playland Parkway Northbound
   This is a much more significant capital improvement and assumes additional signing is provided on the northbound Boston Post Road in advance of a modification to the existing off ramp to Playland Parkway. This change would allow a left turn movement from this ramp (where currently only a right turn movement is allowed) to access Playland Parkway northbound. This alternate also assumed that the aforementioned right turn lane along the site frontage was also in place. With this geometric and operational change, it is anticipated that 106 and 62 vehicle trips traveling northbound on Boston Post Road would be diverted from Old Boston Post Road to the Parkway ramp to access the Thruway during Morning and Afternoon Peak Hours, respectively.

The result of the capacity analysis indicated that during the Weekday Morning Peak Hour, the southbound left turn movement from Playland Parkway Access Drive to Old Post Road would improve from a Level of Service "F" to "C" with a reduction in a delay of 32 seconds (because of reduced Old Post Road traffic). During the afternoon Peak Hour, the same approach lane would improve from a Level of Service "D" to "C" with a decrease of 9.2 seconds. The right turn lane would operate with a Level of Service "B" and "A" during the Weekday Morning and Weekday Afternoon Peak Hour, respectively. At the Old Post Road/Thruway Access Drive, the eastbound left turn movement from Old Post Road to Thruway ramp would improve from a Level of Service "B" to "A" during the Weekday Morning Peak Hour and remain a Level of Service "A" during the Weekday Afternoon Peak Hour. At the same time, the left turn movement from the off ramp from Playland Parkway at the same location would improve from a Level of Service "F" to "E" with a reduction of 63.9 seconds during the Weekday Morning Peak Hour and remain the same Level of Service "D" during the Weekday Afternoon Peak Hour with a delay of 8.8 seconds.

The report suggests that the greatest improvement in traffic flow and reduction of delay would occur during the Weekday Morning Peak Hour at both "Stop" sign controlled intersections at Old Post Road.

The report suggests that proper intersection sight distances could be achieved between the modified ramp and Playland Parkway. However, further evaluation of the ramp layout and pavement width would be required to finalize any lane use arrangements.

The shifting of certain traffic from Old Post Road destined for I-95 would decrease traffic volumes on Old Post Road and result in improvement to overall operations at the intersections along Old Post Road.

4. Installation of Traffic Signals on Old Post Road

   The comparison indicated that prior studies suggested that these intersections did not meet traffic signal warrants. This examination was undertaken to see what improvements would occur were signals installed. Notwithstanding the fact that it was found that warrants were not met, results of analysis did indicate that with signals installed at both intersections of Old Post Road with Playland Access Drive with the Thruway access ramps, would operate at a Level of Service "C" or better during both Weekday Morning and Weekday Afternoon Peak Hours and that with the installation of signals an elimination of current delays would found on the Playland Access Drive southbound approach during the Weekday Afternoon Peak Hour. The installation of a traffic signal at Old Post Road/Thruway Access Drive indicated a similar benefit of eliminating the Level of Service "F" on the off ramp approach to the intersection and significantly reducing delays during the Weekday Morning Peak Hour.

   The installation of traffic signals, while they may not be warranted based on volume warrant criteria, may significantly improve intersection Levels of Service because of the heavy turning movements. Such installation would require county approval. (See discussion below on left turn conditions at the Old Post Road and Thruway Access Drive intersection.)

The final comment presented in the comparison study suggest that the overall results indicated it would likely be beneficial to install both signals to operate in coordinated fashion and minimize delays on both side street approaches. Installation of signals would also result

in a benefit as there is currently limited sight distance when exiting that Thruway Access Drive and Playland Access Drive to Old Post Road.

A conclusion of the comparison report suggested that the greatest benefit would be to provide the right turn lane along the site frontage on Playland Access Drive.

We concur fully with this suggestion. We also concur with the suggestion that a second driveway to Old Post Road would have little benefit but, including this access would not, on the other hand, present any issues.

We agree that providing an alternate means for northbound Boston Post Road traffic to access Playland Parkway via a modified ramp system would improve operations along Old Post Road, however, this alternative would need further examination, may prove to be costly and will require county approval.

Finally, we do agree that the installation of traffic signal control at each of the intersections with Old Post Road, i.e., at the Playland Access Drive and Thruway Access Drive, would be beneficial in the sense that there would be significant reduction in delay. Furthermore, the limited sight distance issues could be mollified to a certain extent. However, this has to be balanced with known signal warrant criteria and with an understanding of the unique operation patterns particularly at the intersection of the Thruway Access Drive and Old Post Road, when during the peak hours the highest anticipated volume is the left turn movement from Old Post Road.

Maser Consulting has independently examined the effectiveness of providing signalization modification to operations the Thruway Access Drive/Old Post Road intersection where currently the northbound left turn volume from Old Post Road onto the Thruway access ramp equals over 500 vehicles during the Weekday Morning Peak Hour and some 400+ vehicles during the Weekday Afternoon Peak Hour. Our analysis, using the "All-Way Stop" control indicated that the eastbound approach (Thruway Access Drive) would operate at a Level of Service "B" while the northbound approach would operate at a Level of Service "F" (heavy left turn) and the southbound approach at a Level of Service "B" during the Weekday Morning Peak Hour and would operate at a Level of Service "A" on the eastbound approach, a Level of Service "C" on the northbound approach and a Level of Service "B" on the southbound approach during the Weekday Afternoon Peak Hour. To reiterate, this analysis is based on an "All-Way Stop" control.

Our conclusions were similar to the F.P. Clark conclusions concerning the signalization where during the AM Peak Hour and overall Level of Service "C" could be expected at this location while during the afternoon Peak Hour an overall Level of Service "B" could be expected during the PM Peak Hour.

We also reviewed the left turn lane warrants at this location. Our analysis indicated that with the turning volumes in the order 500 vehicles per hour and with advancing volumes in the order of 300 vehicles per hour, the left turn warrants would be met. Unfortunately, we do not believe ample room is available to install a northbound left turn lane on Old Post Road on its approach to the Thruway Access Drive, but this analysis does support the need for some mitigation in this area.

It is our considered professional opinion that the installation of a traffic signal at the intersection of Old Post Road and Thruway Access Drive be implemented and that the intersection of Old Post Road and Playland Parkway Access Drive be modified to include a separate right turn lane on the Playland Parkway Access Drive approach.

Geometric movements will require approval of the Westchester County Department of Public Works. We have attached for your information copies of these analyses.

C. Other Potential Improvements

There are other issues present in the area that could be addressed to improve other traffic and pedestrian conditions in the area include:

- Pedestrian improvements in the form of sidewalk installation along Playland Access Drive (west side) between the site access, Theall Rd. and Theodore Fremd Avenue. The substandard sidewalk is located south of the site driveway and extends to Old Post Road. This should also be upgraded to 5' foot sidewalks with appropriate ADA ramping. This would provide a complete link for pedestrians between Old Post Road and Theodore Fremd Avenue.

- Along Old Post Road and North Street substandard sidewalks currently exist. These should be replaced and brought up to standard. We understand that the sidewalk along North Street and east of Playland Access Drive on Theodore Fremd Avenue into the Rye CBD are scheduled to be replaced by a Westchester County funded project. The new sidewalk mentioned above, close to the site, could proceed or be completed concurrently with the County project to complete access to the CBD.

- Investigate the possibility of replacing the Playland Parkway Ramp intersection with the Playland Access Drive and with the Thruway Access Driveway with a roundabout should be investigated further. Perhaps a more thorough examination of this alternate treatment will be forthcoming. This would be considered a substantial modification that would require extensive review and input from a number of agencies not to mention considerable funding for design and implementation.

- In close proximity to 120 Old Post Road project site is the intersection of Old Post Road with Boston Post Road. Traffic traveling through this uniquely designed location is serviced by antiquated signal equipment. A modification to the intersection geometry/lane use assignments and traffic control measures appear warranted. A detailed examination of available right of way and intersection approach grades will be required. Any solution should consider pedestrian accessibility.

With the additional pedestrian activity generated by the development, these improvements should be considered.

D. Summary

In conclusion, it is our opinion that the evaluations presented in the Traffic Impact Study as well as in the Comparison Analysis have provided valuable insight into potential future operations. However, we believe that the additional improvements mentioned above that were not identified in either report would be of value to residents of the new senior housing facility as well as area residents to address existing conditions and/or to accommodate the expected increased pedestrian activity associated with the development.

Below is a summary of those items that we believe will not only benefit residents of 120 Old Post Road, should it be redeveloped, but also would address current deficiencies and therefore, would benefit the general traveling public as well:

1) Signalize Intersection of Old Post Road/Thruway Access
2) Construct Separate right turn lane on Playland Parkway Drive approach to Old Post Road
3) Construct/replace sidewalks along Playland Parkway Access between Old Post Road, Theall Rd. and Theodore Fremd Avenue
4) Realign Playland Parkway Ramps with the Medical Office access as a means towards a possible reduction in accidents at this location. It is understood that the Applicant does not own or have any control of the Medical Office access.

5) Consideration should be given to preparing Preliminary Design Documents for a roundabout to replace Playland Parkway Ramp to Playland Parkway Access Drive and Thruway Access Drive. This should consider Items 2, 3 and 4 listed above as each of these modifications would be impacted by such a change.

We trust the above is sufficient for your needs. If you have any questions on the attached or require additional information, please do not hesitate to contact me.

Very truly yours,

MASER CONSULTING P.A.

A. Peter Russillo, P.E., PTOE
Associate/Senior Project Manager

APR/jr
Enclosures
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Phone: Fax:
E-Mail:

ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: Michael Amendola
Agency/Co.: Maser Consulting P.A.
Date Performed: 10/1/2015
Analysis Time Period: AM Peak Hour
Intersection:
Jurisdiction:
Units: U. S. Customary
Analysis Year: 2016
Project ID: 15001515A
East/West Street: NYS Thruway Access Drive
North/South Street: Old Post Road

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	47	0	139	0	0	0	526	78	0	0	163	112
% Thrus Left Lane												

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LR				LT		TR	
PHF	0.89				0.89		0.89	
Flow Rate	208				678		308	
% Heavy Veh	2				2		2	
No. Lanes	1				1		1	
Opposing-Lanes	0				1		1	
Conflicting-lanes	1				1		1	
Geometry group	1				1		1	

Duration, T 0.25 hrs.

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	208				678		308	
Left-Turn	52				591		0	
Right-Turn	156				0		125	
Prop. Left-Turns	0.3				0.9		0.0	
Prop. Right-Turns	0.8				0.0		0.4	
Prop. Heavy Vehicle	0.0				0.0		0.0	
Geometry Group	1				1		1	
Adjustments Exhibit 17-33:								
hLT-adj	0.2				0.2		0.2	

hRT-adj	-0.6	-0.6	-0.6
hHV-adj	1.7	1.7	1.7
hadj, computed	-0.4	0.2	-0.2

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	208				678		308	
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.18				0.60		0.27	
hd, final value	6.02				5.24		5.34	
x, final value	0.35				0.99		0.46	
Move-up time, m	2.0				2.0		2.0	
Service Time	4.0				3.2		3.3	

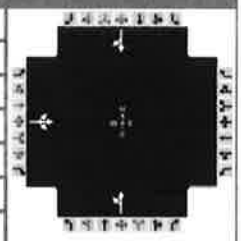
Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	208				678		308	
Service Time	4.0				3.2		3.3	
Utilization, x	0.35				0.99		0.46	
Dep. headway, hd	6.02				5.24		5.34	
Capacity	458				687		558	
Delay	12.19				53.66		12.74	
LOS	B				F		B	
Approach:								
Delay	12.19				53.66		12.74	
LOS	B				F		B	

Intersection Delay 35.88 Intersection LOS E

2010 HCS Signalized Intersection Results Summary

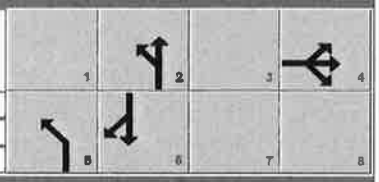
General Information				Intersection Information	
Agency	Maser Consulting P.A.			Duration, h	0.25
Analyst		Analysis Date	Oct 1, 2015	Area Type	Other
Jurisdiction		Time Period	AM Peak Hour	PHF	0.89
Intersection	NYS Thruway Access Drive	Analysis Year	2015	Analysis Period	1> 7:00
File Name	151001_MA_AM2016_OldPostRoad&NYSThruwayAccessDrive.xus				
Project Description	AM Peak Hour				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	47	0	139				526	78			163	112

Signal Information			
Cycle, s	90.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	30.0	30.1	14.9	0.0	0.0	0.0	
Yellow	4.0	4.0	4.0	0.0	0.0	0.0	
Red	1.0	1.0	1.0	0.0	0.0	0.0	



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	4	4	0		2	2	1	6
Case Number	12.0	12.0	0.0		14.0	14.0	0.0	4.0
Phase Duration, s	19.9	19.9	0.0		90.0	90.0	0.0	55.0
Change Period, ($Y+R_c$), s	5.0	5.0	0.0		5.0	5.0	5.0	5.0
Max Allow Headway (*MAH*), s	3.4	3.4	0.0		0.0	0.0	0.0	0.0
Queue Clearance Time (g_s), s	12.8	12.8						
Green Extension Time (g_e), s	0.1	0.1	0.0		0.0	0.0	0.0	0.0
Phase Call Probability	0.99	0.99						
Max Out Probability	1.00	1.00						

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	7	4	14	3	8	18	5	2	12	1	6	16
Adjusted Flow Rate (*v*), veh/h	209	0	0	0			679	0	0	0	0	309
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1656	0	0	0			889	0	0	0	0	1736
Queue Service time (g_s), s	10.8	0.0	0.0	0.0			26.9	0.0	0.0	0.0	0.0	13.0
Cycle Queue Clearance Time (g_c), s	10.8	0.0	0.0	0.0			26.9	0.0	0.0	0.0	0.0	13.0
Capacity (*c*), veh/h	275						717	0				580
Volume-to-Capacity Ratio (*X*)	0.761	0.000	0.000	0.000			0.947	0.000	0.000	0.000	0.000	0.533
Available Capacity (c_a), veh/h	276						717					580
Back of Queue (*Q*), veh/ln	5.1						14.7					5.7
Overflow Queue (Q_3), veh/ln	0.0	0.0	0.0				0.0	0.0	0.0		0.0	0.0
Queue Storage Ratio (*RQ*)	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0
Uniform Delay (d_1), s/veh	35.8						20.8					24.3
Incremental Delay (d_2), s/veh	10.5	0.0	0.0	0.0			22.8	0.0	0.0	0.0	0.0	3.5
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0				0.0	0.0	0.0		0.0	0.0
Control Delay (*d*), s/veh	46.4						43.7					27.7
Level of Service (LOS)	D						D					C
Approach Delay, s/veh / LOS	46.4	D		0.0			43.7	D		27.7	C	
Intersection Delay s/veh / LOS	40.0						D					

MultiModal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.1	B	2.1	B	1.8	A	1.4	A
Bicycle LOS Score / LOS	0.8	A			1.6	A	1.0	A

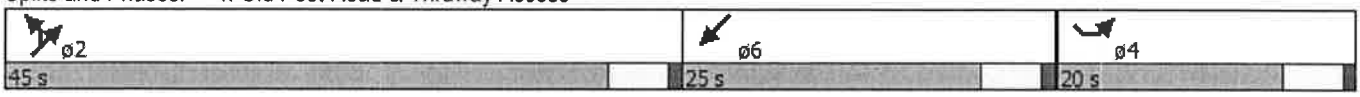
Lane Group	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations						
Volume (vph)	47	139	526	78	163	112
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.899				0.945	
Flt Protected	0.987			0.958		
Satd. Flow (prot)	1653	0	0	1785	1760	0
Flt Permitted	0.987			0.958		
Satd. Flow (perm)	1653	0	0	1785	1760	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	141				35	
Link Speed (mph)	30			30	30	
Link Distance (ft)	316			332	268	
Travel Time (s)	7.2			7.5	6.1	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	53	156	591	88	183	126
Shared Lane Traffic (%)						
Lane Group Flow (vph)	209	0	0	679	309	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Number of Detectors	1		1	2	2	
Detector Template	Left		Left	Thru	Thru	
Leading Detector (ft)	20		20	100	100	
Trailing Detector (ft)	0		0	0	0	
Detector 1 Position(ft)	0		0	0	0	
Detector 1 Size(ft)	20		20	6	6	
Detector 1 Type	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel						
Detector 1 Extend (s)	0.0		0.0	0.0	0.0	
Detector 1 Queue (s)	0.0		0.0	0.0	0.0	
Detector 1 Delay (s)	0.0		0.0	0.0	0.0	
Detector 2 Position(ft)				94	94	
Detector 2 Size(ft)				6	6	
Detector 2 Type				Cl+Ex	Cl+Ex	
Detector 2 Channel						
Detector 2 Extend (s)				0.0	0.0	
Turn Type	Prot		Split	NA	NA	
Protected Phases	4		2	2	6	
Permitted Phases						
Detector Phase	4		2	2	6	
Switch Phase						
Minimum Initial (s)	4.0		4.0	4.0	4.0	
Minimum Split (s)	10.0		10.0	10.0	21.0	

Lane Group	SEL	SER	NEL	NET	SWT	SWR
Total Split (s)	**20.0**		**45.0**	**45.0**	**25.0**	
Total Split (%)	22.2%		50.0%	50.0%	27.8%	
Maximum Green (s)	**15.0**		**40.0**	**40.0**	**20.0**	
Yellow Time (s)	4.0		4.0	4.0	4.0	
All-Red Time (s)	**1.0**		**1.0**	**1.0**	**1.0**	
Lost Time Adjust (s)	0.0			0.0	0.0	
Total Lost Time (s)	**5.0**			**5.0**	**5.0**	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	2.0		2.0	2.0	2.0	
Recall Mode	None		None	None	None	
Walk Time (s)					5.0	
Flash Dont Walk (s)					**11.0**	
Pedestrian Calls (#/hr)					0	
v/c Ratio	**0.66**			**0.86**	**0.75**	
Control Delay	23.4			32.3	37.8	
Queue Delay	**0.0**			**0.0**	**0.0**	
Total Delay	23.4			32.3	37.8	
Queue Length 50th (ft)	**30**			**261**	**117**	
Queue Length 95th (ft)	99			#537	#257	
Internal Link Dist (ft)	**236**			**252**	**188**	
Turn Bay Length (ft)						
Base Capacity (vph)	**479**			**1064**	**549**	
Starvation Cap Reductn	0			0	0	
Spillback Cap Reductn	**0**			**0**	**0**	
Storage Cap Reductn	0			0	0	
Reduced v/c Ratio	**0.44**			**0.64**	**0.56**	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 71.3
Natural Cycle: 60
Control Type: Actuated-Uncoordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 4: Old Post Road & Thruway Access



Movement	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations						
Volume (veh/h)	47	139	526	78	163	112
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	1900	1863	1863	1900
Adj Flow Rate, veh/h	53	156	591	88	183	126
Adj No. of Lanes	0	0	0	1	1	0
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	2	2	2	2
Cap, veh/h	63	186	657	98	215	148
Arrive On Green	0.15	0.15	0.42	0.42	0.21	0.21
Sat Flow, veh/h	411	1210	1554	231	1029	709
Grp Volume(v), veh/h	210	0	679	0	0	309
Grp Sat Flow(s),veh/h/ln	1629	0	1785	0	0	1738
Q Serve(g_s), s	8.7	0.0	24.7	0.0	0.0	11.9
Cycle Q Clear(g_c), s	8.7	0.0	24.7	0.0	0.0	11.9
Prop In Lane	0.25	0.74	0.87			0.41
Lane Grp Cap(c), veh/h	250	0	755	0	0	363
V/C Ratio(X)	0.84	0.00	0.90	0.00	0.00	0.85
Avail Cap(c_a), veh/h	351	0	1025	0	0	499
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	28.7	0.0	18.7	0.0	0.0	26.5
Incr Delay (d2), s/veh	8.9	0.0	7.0	0.0	0.0	7.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.5	0.0	13.5	0.0	0.0	6.4
LnGrp Delay(d),s/veh	37.5	0.0	25.8	0.0	0.0	34.2
LnGrp LOS	D		C			C
Approach Vol, veh/h	210			679	309	
Approach Delay, s/veh	37.5			25.8	34.2	
Approach LOS	D			C	C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		34.4		15.7		19.5		
Change Period (Y+Rc), s		5.0		5.0		5.0		
Max Green Setting (Gmax), s		40.0		15.0		20.0		
Max Q Clear Time (g_c+I1), s		26.7		10.7		13.9		
Green Ext Time (p_c), s		2.8		0.1		0.6		

Intersection Summary	
HCM 2010 Ctrl Delay	30.0
HCM 2010 LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

HCS+: Unsignalized Intersections Release 5.6

Phone: Fax:
E-Mail:

ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: Michael Amendola
Agency/Co.: Maser Consulting P.A.
Date Performed: 10/1/2015
Analysis Time Period: PM Peak Hour
Intersection:
Jurisdiction:
Units: U. S. Customary
Analysis Year: 2016
Project ID: 15001515A
East/West Street: NYS Thruway Access Drive
North/South Street: Old Post Road

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	33	0	54	0	0	0	422	107	0	0	152	134
% Thrus Left Lane												

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LR				LT		TR	
PHF	0.87				0.87		0.87	
Flow Rate	99				607		328	
% Heavy Veh	2				2		2	
No. Lanes	1				1		1	
Opposing-Lanes	0				1		1	
Conflicting-lanes	1				1		1	
Geometry group	1				1		1	

Duration, T 0.25 hrs.

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	99				607		328	
Left-Turn	37				485		0	
Right-Turn	62				0		154	
Prop. Left-Turns	0.4				0.8		0.0	
Prop. Right-Turns	0.6				0.0		0.5	
Prop. Heavy Vehicle	0.0				0.0		0.0	
Geometry Group	1				1		1	
Adjustments Exhibit 17-33:								
hLT-adj	0.2				0.2		0.2	

hRT-adj	-0.6	-0.6	-0.6
hHV-adj	1.7	1.7	1.7
hadj, computed	-0.3	0.2	-0.2

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	99				607		328	
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.09				0.54		0.29	
hd, final value	5.78				4.79		4.68	
x, final value	0.16				0.81		0.43	
Move-up time, m	2.0				2.0		2.0	
Service Time	3.8				2.8		2.7	

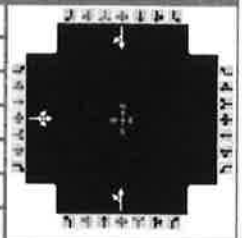
Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	99				607		328	
Service Time	3.8				2.8		2.7	
Utilization, x	0.16				0.81		0.43	
Dep. headway, hd	5.78				4.79		4.68	
Capacity	349				746		578	
Delay	9.88				24.61		11.13	
LOS	A				C		B	
Approach:								
Delay	9.88				24.61		11.13	
LOS	A				C		B	

Intersection Delay 18.93 Intersection LOS C

2010 HCS Signalized Intersection Results Summary

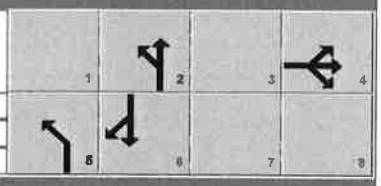
General Information				Intersection Information	
Agency	Maser Consulting P.A.			Duration, h	0.25
Analyst		Analysis Date	Oct 1, 2015	Area Type	Other
Jurisdiction		Time Period	PM Peak Hour	PHF	0.87
Intersection	NYS Thruway Access Drive	Analysis Year	2016	Analysis Period	1> 7:00
File Name	151001_MA_PM2016_OldPostRoad&NYSThruwayAccessDrive.xus				
Project Description	PM Peak Hour				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	33	0	54				422	107			152	134

Signal Information			
Cycle, s	90.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	30.0	31.2	13.8	0.0	0.0	0.0	
Yellow	4.0	4.0	4.0	0.0	0.0	0.0	
Red	1.0	1.0	1.0	0.0	0.0	0.0	



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	4	4	0		2	2	1	6
Case Number	12.0	12.0	0.0		14.0	14.0	0.0	4.0
Phase Duration, s	18.8	18.8	0.0		90.0	90.0	0.0	55.0
Change Period, ($Y+R_c$), s	5.0	5.0	0.0		5.0	5.0	5.0	5.0
Max Allow Headway (*MAH*), s	3.3	3.3	0.0		0.0	0.0	0.0	0.0
Queue Clearance Time (g_s), s	6.8	6.8						
Green Extension Time (g_e), s	0.1	0.1	0.0		0.0	0.0	0.0	0.0
Phase Call Probability	0.92	0.92						
Max Out Probability	0.00	0.00						

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	7	4	14	3	8	18	5	2	12	1	6	16
Adjusted Flow Rate (*v*), veh/h	100	0	0	0			608	0	0	0	0	329
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1680	0	0	0			898	0	0	0	0	1718
Queue Service time (g_s), s	4.8	0.0	0.0	0.0			21.4	0.0	0.0	0.0	0.0	13.9
Cycle Queue Clearance Time (g_c), s	4.8	0.0	0.0	0.0			21.4	0.0	0.0	0.0	0.0	13.9
Capacity (*c*), veh/h	257						720	0				596
Volume-to-Capacity Ratio (*X*)	0.389	0.000	0.000	0.000			0.844	0.000	0.000	0.000	0.000	0.551
Available Capacity (c_a), veh/h	280						720					596
Back of Queue (*Q*), veh/ln	2.0						10.2					6.1
Overflow Queue (Q_3), veh/ln	0.0	0.0	0.0				0.0	0.0	0.0		0.0	0.0
Queue Storage Ratio (*RQ*)	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0
Uniform Delay (d_1), s/veh	34.3						18.5					23.7
Incremental Delay (d_2), s/veh	0.4	0.0	0.0	0.0			11.6	0.0	0.0	0.0	0.0	3.6
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0				0.0	0.0	0.0		0.0	0.0
Control Delay (*d*), s/veh	34.7						30.1					27.4
Level of Service (LOS)	C						C					C
Approach Delay, s/veh / LOS	34.7	C		0.0			30.1	C		27.4	C	
Intersection Delay s/veh / LOS	29.7						C					

MultiModal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.1	B	2.1	B	1.8	A	1.4	A
Bicycle LOS Score / LOS	0.7	A			1.5	A	1.0	A

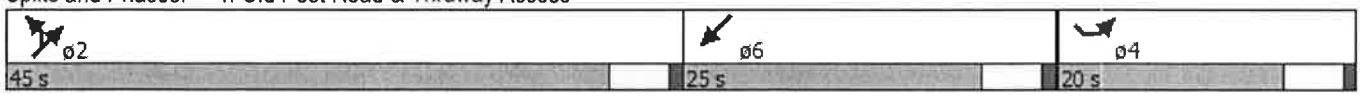
Lane Group	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations						
Volume (vph)	33	54	422	107	152	134
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.916				0.937	
Flt Protected	0.981			0.962		
Satd. Flow (prot)	1674	0	0	1792	1745	0
Flt Permitted	0.981			0.962		
Satd. Flow (perm)	1674	0	0	1792	1745	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	62				45	
Link Speed (mph)	30			30	30	
Link Distance (ft)	316			332	268	
Travel Time (s)	7.2			7.5	6.1	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Adj. Flow (vph)	38	62	485	123	175	154
Shared Lane Traffic (%)						
Lane Group Flow (vph)	100	0	0	608	329	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Number of Detectors	1		1	2	2	
Detector Template	Left		Left	Thru	Thru	
Leading Detector (ft)	20		20	100	100	
Trailing Detector (ft)	0		0	0	0	
Detector 1 Position(ft)	0		0	0	0	
Detector 1 Size(ft)	20		20	6	6	
Detector 1 Type	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel						
Detector 1 Extend (s)	0.0		0.0	0.0	0.0	
Detector 1 Queue (s)	0.0		0.0	0.0	0.0	
Detector 1 Delay (s)	0.0		0.0	0.0	0.0	
Detector 2 Position(ft)				94	94	
Detector 2 Size(ft)				6	6	
Detector 2 Type				Cl+Ex	Cl+Ex	
Detector 2 Channel						
Detector 2 Extend (s)				0.0	0.0	
Turn Type	Prot		Split	NA	NA	
Protected Phases	4		2	2	6	
Permitted Phases						
Detector Phase	4		2	2	6	
Switch Phase						
Minimum Initial (s)	4.0		4.0	4.0	4.0	
Minimum Split (s)	10.0		10.0	10.0	21.0	

Lane Group	SEL	SER	NEL	NET	SWT	SWR
Total Split (s)	20.0		45.0	45.0	25.0	
Total Split (%)	22.2%		50.0%	50.0%	27.8%	
Maximum Green (s)	15.0		40.0	40.0	20.0	
Yellow Time (s)	4.0		4.0	4.0	4.0	
All-Red Time (s)	1.0		1.0	1.0	1.0	
Lost Time Adjust (s)	0.0			0.0	0.0	
Total Lost Time (s)	5.0			5.0	5.0	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	2.0		2.0	2.0	2.0	
Recall Mode	None		None	None	None	
Walk Time (s)					5.0	
Flash Dont Walk (s)					11.0	
Pedestrian Calls (#/hr)					0	
v/c Ratio	0.41			0.80	0.70	
Control Delay	21.5			25.9	30.7	
Queue Delay	0.0			0.0	0.0	
Total Delay	21.5			25.9	30.7	
Queue Length 50th (ft)	14			203	103	
Queue Length 95th (ft)	61			361	#244	
Internal Link Dist (ft)	236			252	188	
Turn Bay Length (ft)						
Base Capacity (vph)	508			1200	672	
Starvation Cap Reductn	0			0	0	
Spillback Cap Reductn	0			0	0	
Storage Cap Reductn	0			0	0	
Reduced v/c Ratio	0.20			0.51	0.49	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 62.3
Natural Cycle: 60
Control Type: Actuated-Uncoordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 4: Old Post Road & Thruway Access



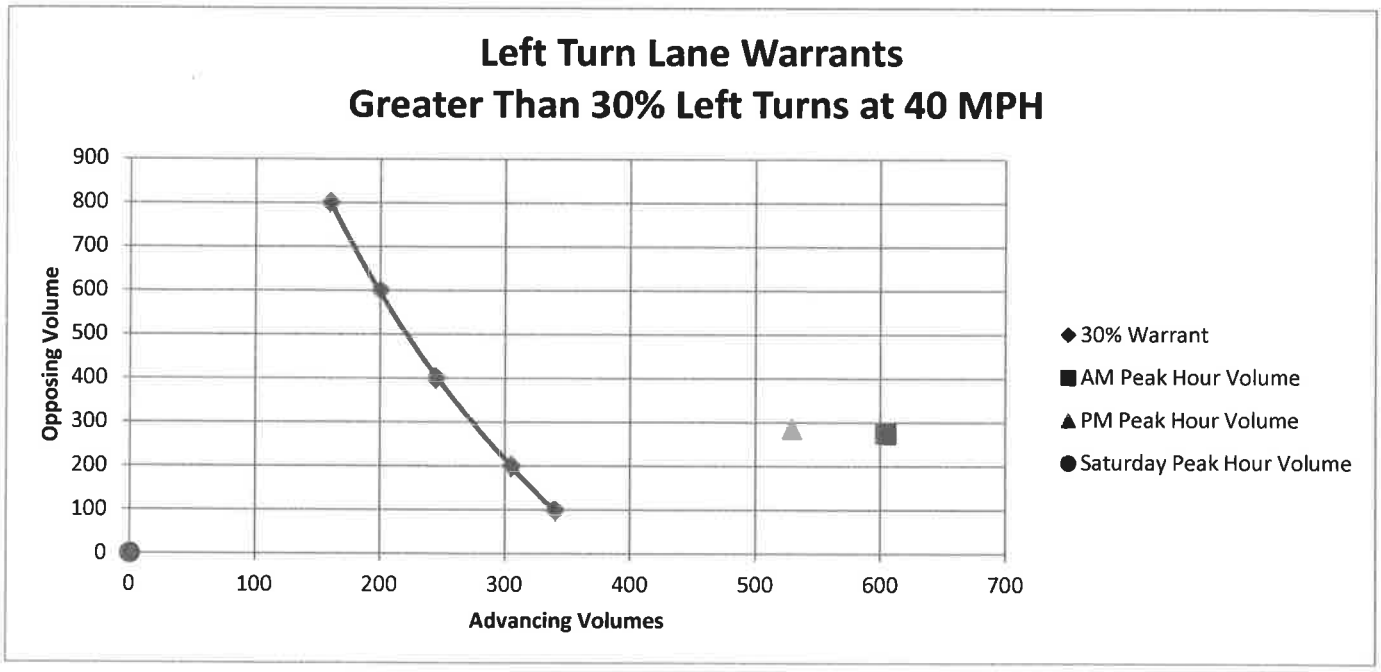
Movement	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations						
Volume (veh/h)	33	54	422	107	152	134
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	1900	1863	1863	1900
Adj Flow Rate, veh/h	38	62	485	123	175	154
Adj No. of Lanes	0	0	0	1	1	0
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	0	2	2	2	2
Cap, veh/h	48	78	572	145	215	189
Arrive On Green	0.08	0.08	0.40	0.40	0.23	0.23
Sat Flow, veh/h	622	1014	1429	362	915	805
Grp Volume(v), veh/h	101	0	608	0	0	329
Grp Sat Flow(s),veh/h/ln	1653	0	1791	0	0	1721
Q Serve(g_s), s	3.1	0.0	16.0	0.0	0.0	9.4
Cycle Q Clear(g_c), s	3.1	0.0	16.0	0.0	0.0	9.4
Prop In Lane	0.38	0.61	0.80			0.47
Lane Grp Cap(c), veh/h	127	0	717	0	0	404
V/C Ratio(X)	0.79	0.00	0.85	0.00	0.00	0.82
Avail Cap(c_a), veh/h	477	0	1378	0	0	662
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	23.6	0.0	14.2	0.0	0.0	18.8
Incr Delay (d2), s/veh	4.2	0.0	1.1	0.0	0.0	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	0.0	8.0	0.0	0.0	4.7
LnGrp Delay(d),s/veh	27.8	0.0	15.3	0.0	0.0	20.4
LnGrp LOS	C		B			C
Approach Vol, veh/h	101			608	329	
Approach Delay, s/veh	27.8			15.3	20.4	
Approach LOS	C			B	C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		25.8		9.0		17.2		
Change Period (Y+Rc), s		5.0		5.0		5.0		
Max Green Setting (Gmax), s		40.0		15.0		20.0		
Max Q Clear Time (g_c+I1), s		18.0		5.1		11.4		
Green Ext Time (p_c), s		2.8		0.1		0.9		

Intersection Summary	
HCM 2010 Ctrl Delay	18.1
HCM 2010 LOS	B

Notes

User approved volume balancing among the lanes for turning movement.


Left Turn Lane Warrants
Greater Than 30% Left Turns at 40 MPH
Opposing Volume
900
800
700
600
500
400
300
200
100
0
0
100
200
300
400
500
600
700
Advancing Volumes
30% Warrant
AM Peak Hour Volume
PM Peak Hour Volume
Saturday Peak Hour Volume

LEFT TURN LANE WARRANTS FOR 40 MPH OPERATING SPEED

	Eastbound NYS Thruway Access Drive			Westbound			Northbound Old Post Road			Southbound Old Post Road		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
AM Peak Hour	47	-	139	-	-	-	526	78	-	-	163	112
PM Peak Hour	33	-	54	-	-	-	422	107	-	-	152	134
Saturday Peak Hour	-	-	-	-	-	-	-	-	-	-	-	-

Northbound Left Turn Calcs			
Opposing	Advancing	Left Turns	% Left Turns
275	604	526	87%
286	529	422	80%
0	0	-	#VALUE!

0-5% Left Turns		5-10% Left Turns		10-20% Left Turns		20-30% Left Turns		30-100% Left Turns	
Opposing	Advancing	Opposing	Advancing	Opposing	Advancing	Opposing	Advancing	Opposing	Advancing
0	0	0	0	0	0	0	0	275	604
0	0	0	0	0	0	0	0	286	529
#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!

FREDERICK P. CLARK ASSOCIATES, INC.
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September 24, 2015

Rye City Council
1051 Boston Post Road
Rye, New York 10580

Subject: **Analysis and Comparison of Potential Area Roadway Conditions – Proposed Senior Housing Development, 120 Old Post Road, Rye, New York**

Dear Mayor Joseph Sack and Members of the Council:

As requested by the City Planner and Engineer at a recent meeting, we have conducted analyses of each of the existing traffic patterns surrounding the project site at 120 Old Post Road to provide the City with a comparison to identify potential benefits with and without off-site transportation improvements and, in one case, a modification to access to the subject property.

Project Description

The proposal is to demolish the existing, vacant office building located on the subject property and construct a senior housing development comprising approximately 135 units. Access will be maintained in proximity to the existing site driveway to Playland Access Drive.

We understand there is a concern over traffic congestion currently found on adjacent and nearby roadways in proximity to the subject property during peak hours between 8:00 to 9:00 A.M. and 5:00 to 6:00 P.M. It should be noted that in the pre- and post-build conditions of the proposed project the subject property has a minimal impact on the existing traffic patterns and that the conversion of the property to an age-restricted multi-family development will generate less traffic than a fully tenanted office building. Notwithstanding the foregoing, the City is interested in investigating possible mitigation to address current traffic congestion and has requested that as part of this review for the proposed residential development of the subject property, these options be investigated to determine potential benefits, if any, on each of these items.

Possible Transportation Improvements

The following options were considered and included in this analysis:

1. Construct a right turn lane on the southern side of Playland Access Drive along the site frontage from the intersection with Old Post Road to the vicinity of the Medical Building Access Drive;

2. Convert the existing Emergency Access Drive to the site to a full-movement access drive – in addition to maintaining the existing site access drive to Playland Access Drive; and,

3. Modify the northbound Boston Post Road exit ramp to Playland Parkway to permit left turn movements on Playland Parkway to access Interstate 95.

4. Install a traffic signal at the Old Post Road/Playland Access Drive and/or install a second traffic signal at the Old Post Road/Thruway Access Drive.

Analysis and Comparison

1. *Added Right Turn Lane* – Field observations and the results of analyses of the southbound approach of Playland Access Drive to Old Post Road indicate motorists experience traffic delays during peak hours. If a separate right turn lane was to be constructed on the southbound approach beginning at Old Post Road and terminating approximately 350 Feet to the north towards the medical building driveway, the results of the analysis indicate that during the weekday morning peak hour the Level of Service would improve from Level of Service "F" to "E," with a reduction of delay of an average of 21.1 seconds per vehicle. During the afternoon peak hour this same movement would show an improvement in Level of Service from "D" to "C" and a reduction in average vehicle delay per vehicle of 5.4 seconds. The new right turn movement would operate at Level of Service "B" and "A" during the weekday morning and weekday afternoon peak hours, respectively.

Table 1 provides a more detailed summary of the results of this analysis and the comparison noted above. The results of the analysis clearly indicate a benefit, with the construction of a separate right turn lane along the site's frontage to address current traffic congestion. Capacity analysis worksheets are included in the Appendix of this report.

2. *Open Emergency Access Drive* – This analysis assumes a conversion of the current emergency access only driveway from the subject property to Old Post Road to full-time use. To determine the appropriate shift of site traffic a new distribution pattern for site traffic was developed and graphically illustrated in Figure 1. Figures 2 and 3 show the redistribution of site traffic generation and assignment for the weekday morning and weekday afternoon peak hours, respectively. Figures 4 and 5 graphically illustrate the new combined traffic volumes for the weekday morning and weekday afternoon peak hours, respectively, with the new driveway.

   The results of the analyses and comparison to a background condition indicate little or no benefit by permitting a second access drive to the site to Old Post Road. The nearby intersections would continue to operate at the same Levels of Service and essentially the same delay.

   The development is expected to generate an insignificant level of additional traffic added to area roadways and; therefore, the results of the analysis, as presented in Table 2, indicates no measurable improvement. Capacity analysis worksheets for this condition are included in the Appendix of this report.

   A second analysis was completed with the construction of the right turn lane noted above and with a provision to provide a second access drive to the subject property via the existing emergency access drive to Old Post Road. Results of the analysis at the Old Post Road/Playland Access Drive indicate any benefit is the result of the additional lane and not the second driveway. The approach would operate at a Level of Service "D," which represents an improvement from Level of Service "F" and a reduction in average vehicle delay of 22.0 seconds. During the afternoon peak hour the Level of Service would remain the same at "D" and with a minimal reduction of delay of 6.1 seconds.

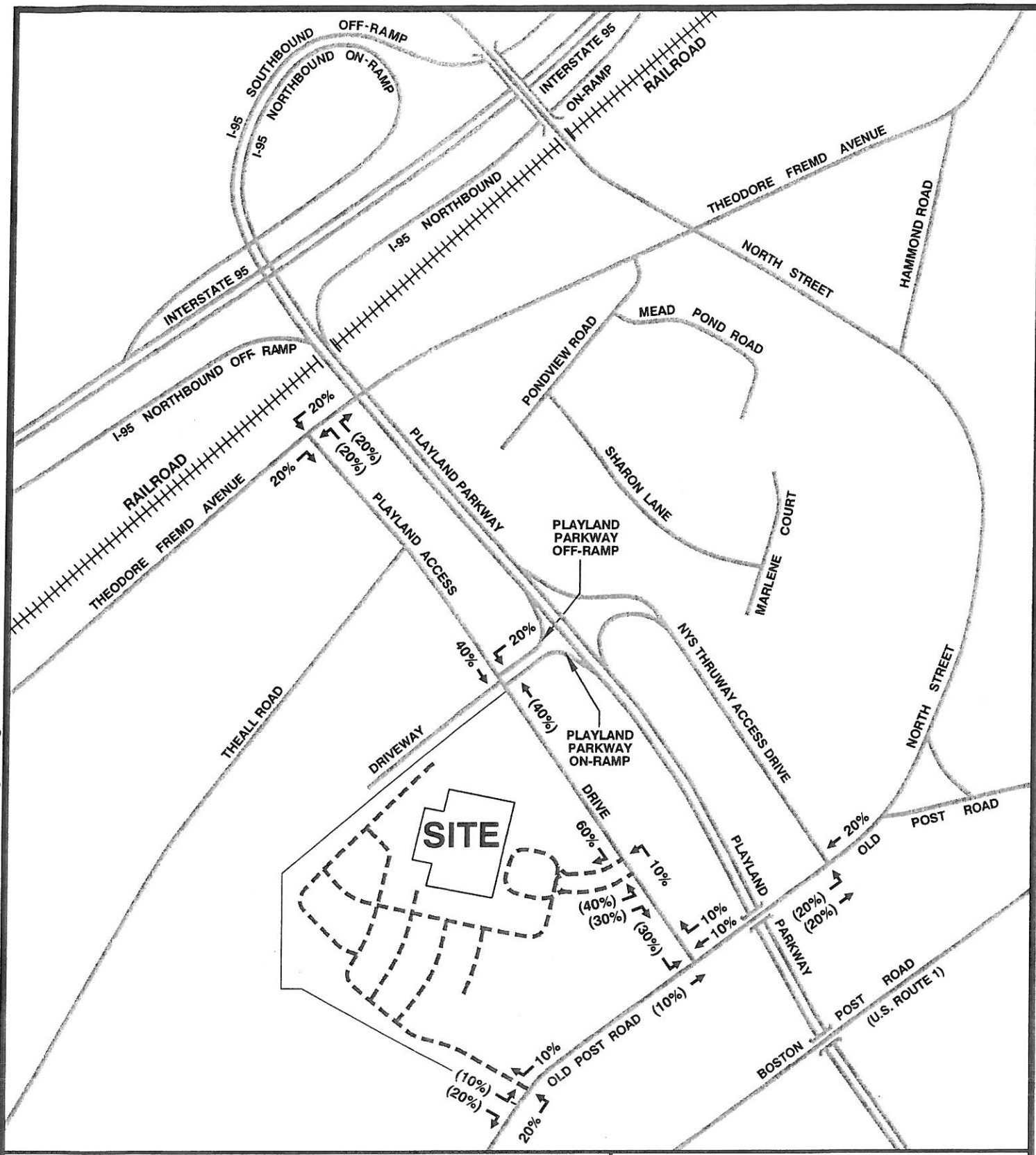
Table 1
2016 FUTURE CONDITIONS WITH SOUTHBOUND RIGHT TURN POCKET – MEASURE OF EFFECTIVENESS (MOE) AND IMPACT ASSESSMENT – PEAK HOURS
Age-Restricted Residential Development
120 Old Post Road
Rye, New York

INTERSECTION	CONTROL TYPE	STORAGE/ LINK LENGTH	PHYSICAL UNITS	2016 BACKGROUND CONDITIONS						2016 COMBINED CONDITIONS WITH SOUTHBOUND RIGHT TURN POCKET						PROJECT IMPACTS			
				Weekday Morning			Weekday Afternoon			Weekday Morning			Weekday Afternoon			Weekday Morning		Weekday Afternoon	
				LOS/ Delay	V/C Ratio	Queue Length (Veh)	LOS/ Delay	V/C Ratio	Queue Length (Veh)	LOS/ Delay	V/C Ratio	Queue Length (Veh)	LOS/ Delay	V/C Ratio	Queue Length (Veh)	Change in LOS	Project Delay (Seconds)	Change in LOS	Project Delay (Seconds)
Playland Access Drive at	TWSC	5.2	EB Ln	B/12.4	0.00	0	B/11.4	0.01	0	B/11.2	0.03	0.1	B/11.0	0.03	0.1	No	-1.2	No	-0.4
Office Building Access Drive		4.4	NB L	A/8.3	0.00	0	A/8.3	0.00	0	A/8.3	0.01	0	A/8.3	0.01	0	No	0.0	No	0.0
Old Post Road at Playland Access Drive	TWSC	39	EB L	A/8.0	0.02	0.1	A/7.7	0.01	0	A/8.0	0.02	0.1	A/7.7	0.01	0	No	0.0	No	0.0
		4.4	SB Ln1	F/56.6	0.95	**11.9**	D/28.5	0.79	**7.6**	E/35.5	0.76	**6.4**	C/23.1	0.67	**5**	F – E	-21.1	D – C	-5.4
		4.4	SB Ln2	--	--	--	--	--	--	B/11.0	0.22	0.8	A/9.9	0.15	0.5	--	--	--	--

Notes:

- Synchro 8.0/HCM 2010 results is used for unsignalized capacity analysis.
- Level of Service determining parameter is called the service measure.
- TWSC = Two-Way STOP Control.
- For TWSC Intersections: Level of Service/Average Control delay per vehicle (seconds/vehicle).
- V/C ratio indicates the amount of congestion for each Movement. Any V/C ratio greater than or equal to one indicates that the Movement is operating at above capacity.
- Synchro 8.0 Macroscopic model is used for storage/queue analysis.
- The Queue Length rows show the 95th percentile maximum queue length in vehicles.
- The Queue Length is for each lane. The total queue length is divided by the number of lanes and the lane utilization factor.
- The 95th percentile queue is the maximum back of the queue with the 95th percentile traffic volumes.
- **Bolded** 95th percentile queue exceeds the storage available.
- Physical Units consist of the following:
    1. Movement for TWSC Intersections.

NB = Northbound EB = Eastbound SB = Southbound WB = Westbound
L = Left Turn T = Through R = Right Turn



SITE TRAFFIC
Enter 00%
Exit (00%)

LEGEND
SITE ACCESS DRIVE

SITE TRAFFIC DISTRIBUTION

AGE-RESTRICTED RESIDENTIAL DEVELOPMENT
120 Old Post Road
Rye, New York

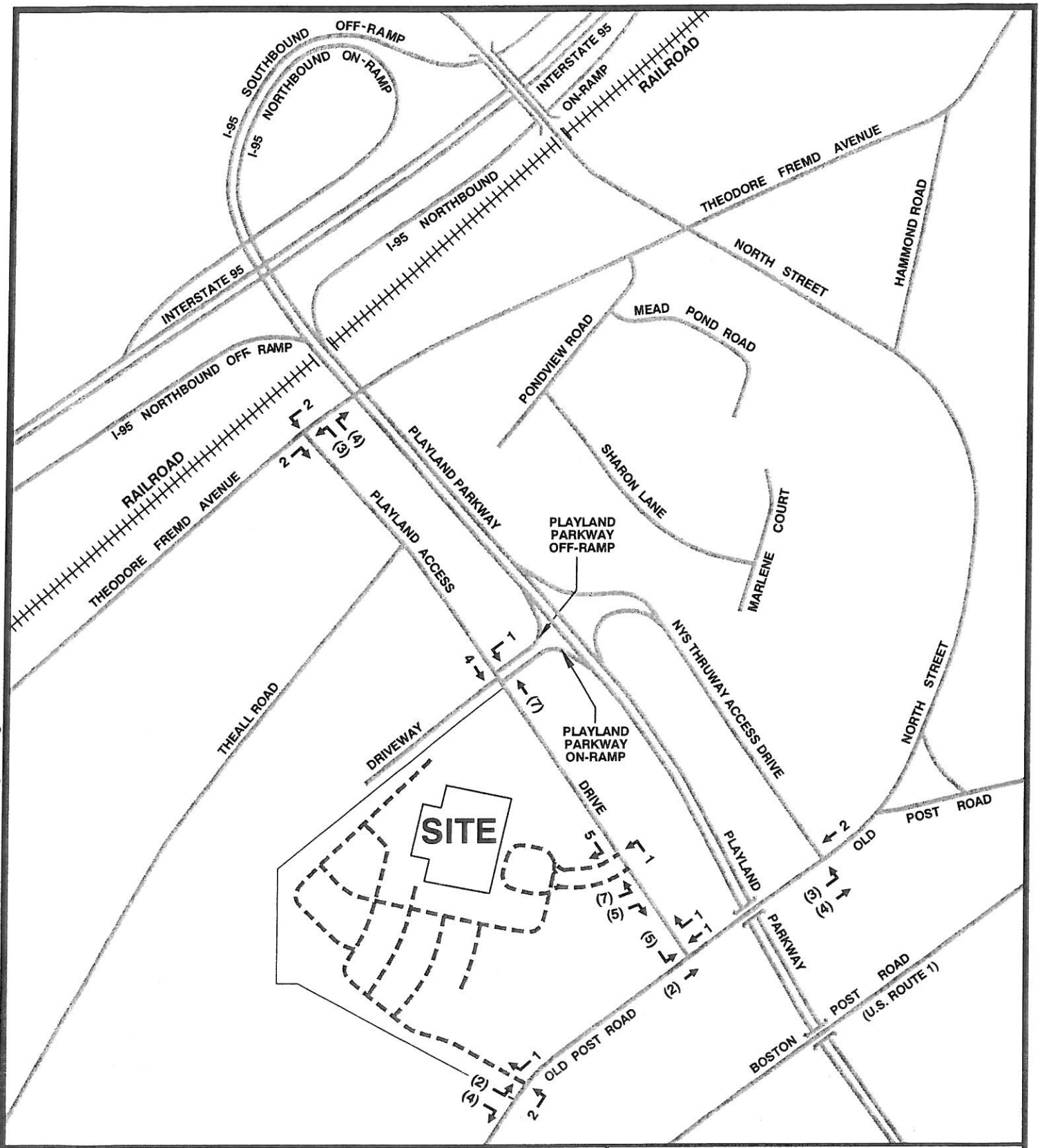
N

FREDERICK P. CLARK ASSOCIATES, INC.
PLANNING, TRANSPORTATION, ENVIRONMENT AND DEVELOPMENT
RYE, NEW YORK FAIRFIELD, CONNECTICUT

Not to Scale Date: 8/25/15

1

File: G:\760.004 120 Old Post Road, Rye\Additional Analysis - 7-29-15\Scenario 2\AutoCad\Figures\Fig 1



SITE TRAFFIC
Enter 9
Exit (18)
Total 27 Vehicle Trip Ends

LEGEND
SITE ACCESS DRIVE

SITE TRAFFIC GENERATION AND ASSIGNMENT WEEKDAY MORNING PEAK HOUR

AGE-RESTRICTED RESIDENTIAL DEVELOPMENT
120 Old Post Road
Rye, New York

N

FREDERICK P. CLARK ASSOCIATES, INC.
PLANNING, TRANSPORTATION, ENVIRONMENT AND DEVELOPMENT
RYE, NEW YORK FAIRFIELD, CONNECTICUT

2

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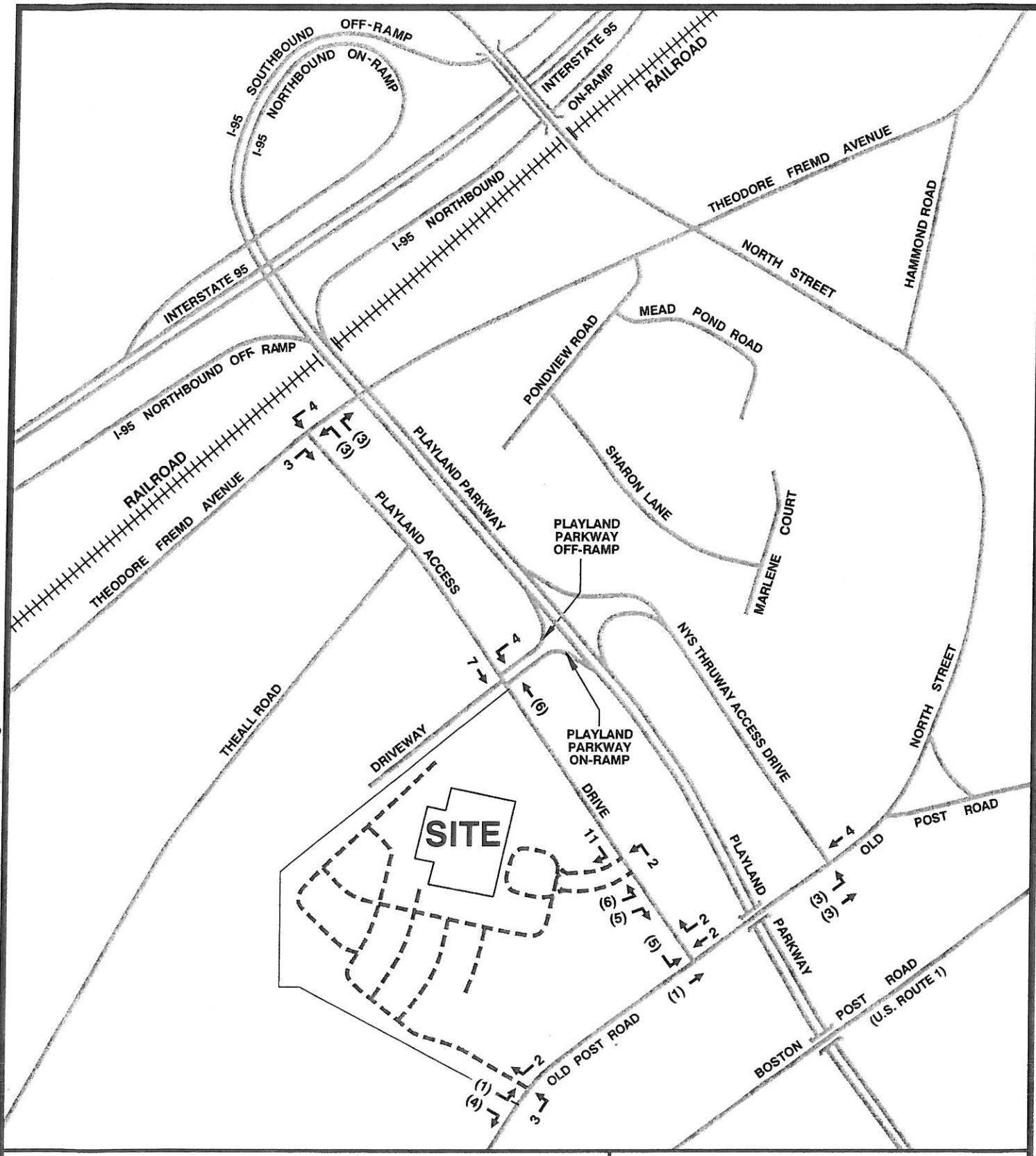

SITE TRAFFIC
Enter 18
Exit (16)
Total 34 Vehicle Trip Ends

LEGEND
SITE ACCESS DRIVE

SITE TRAFFIC GENERATION AND ASSIGNMENT WEEKDAY AFTERNOON PEAK HOUR

AGE-RESTRICTED RESIDENTIAL DEVELOPMENT
120 Old Post Road
Rye, New York

N

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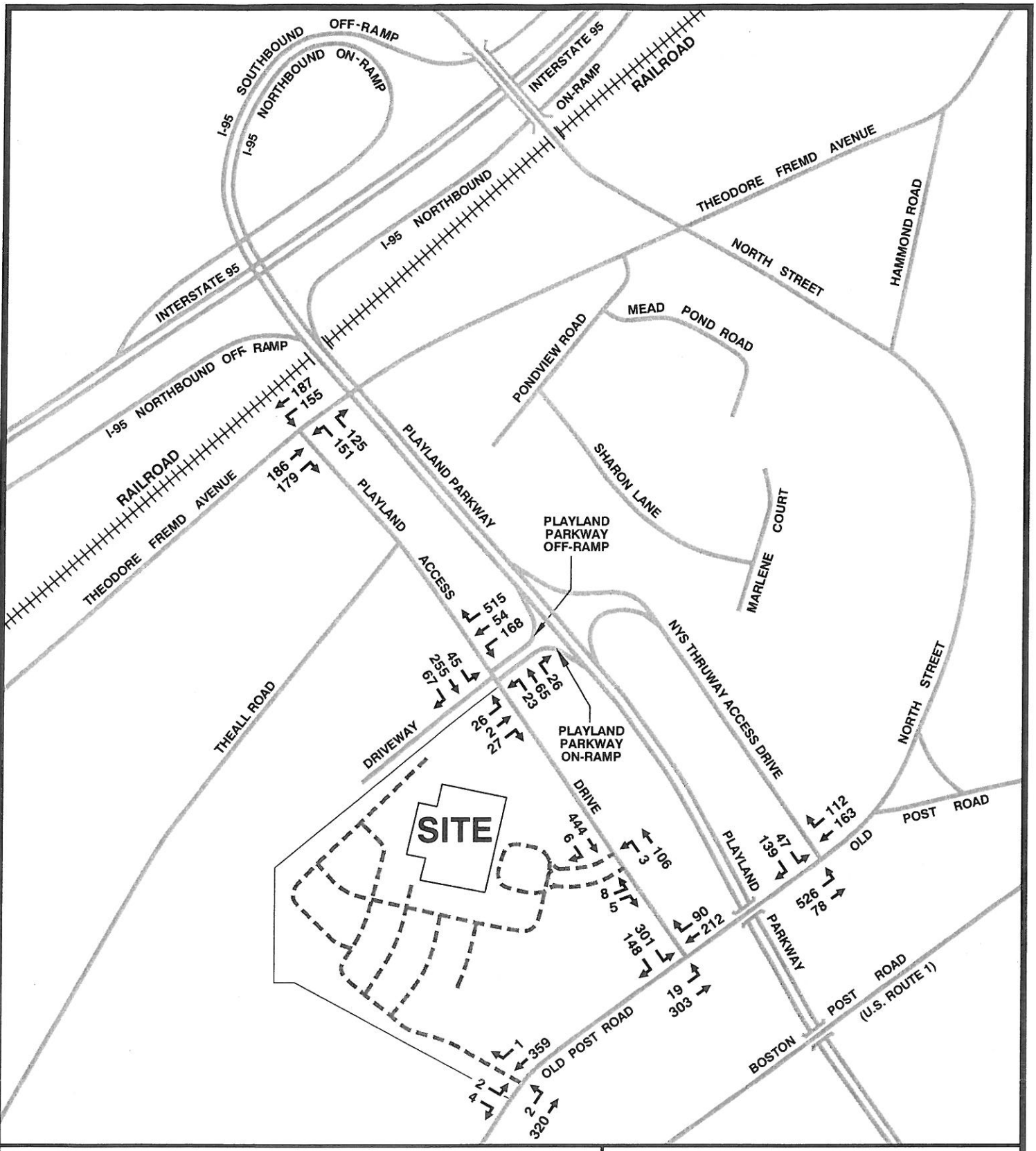

Note: The 2016 Combined Traffic Volumes include the 2016 Background Traffic Volumes and the Site Traffic Generation.

LEGEND

SITE ACCESS DRIVE

2016 COMBINED TRAFFIC VOLUMES
WEEKDAY MORNING PEAK HOUR

AGE-RESTRICTED RESIDENTIAL DEVELOPMENT
120 Old Post Road
Rye, New York

N

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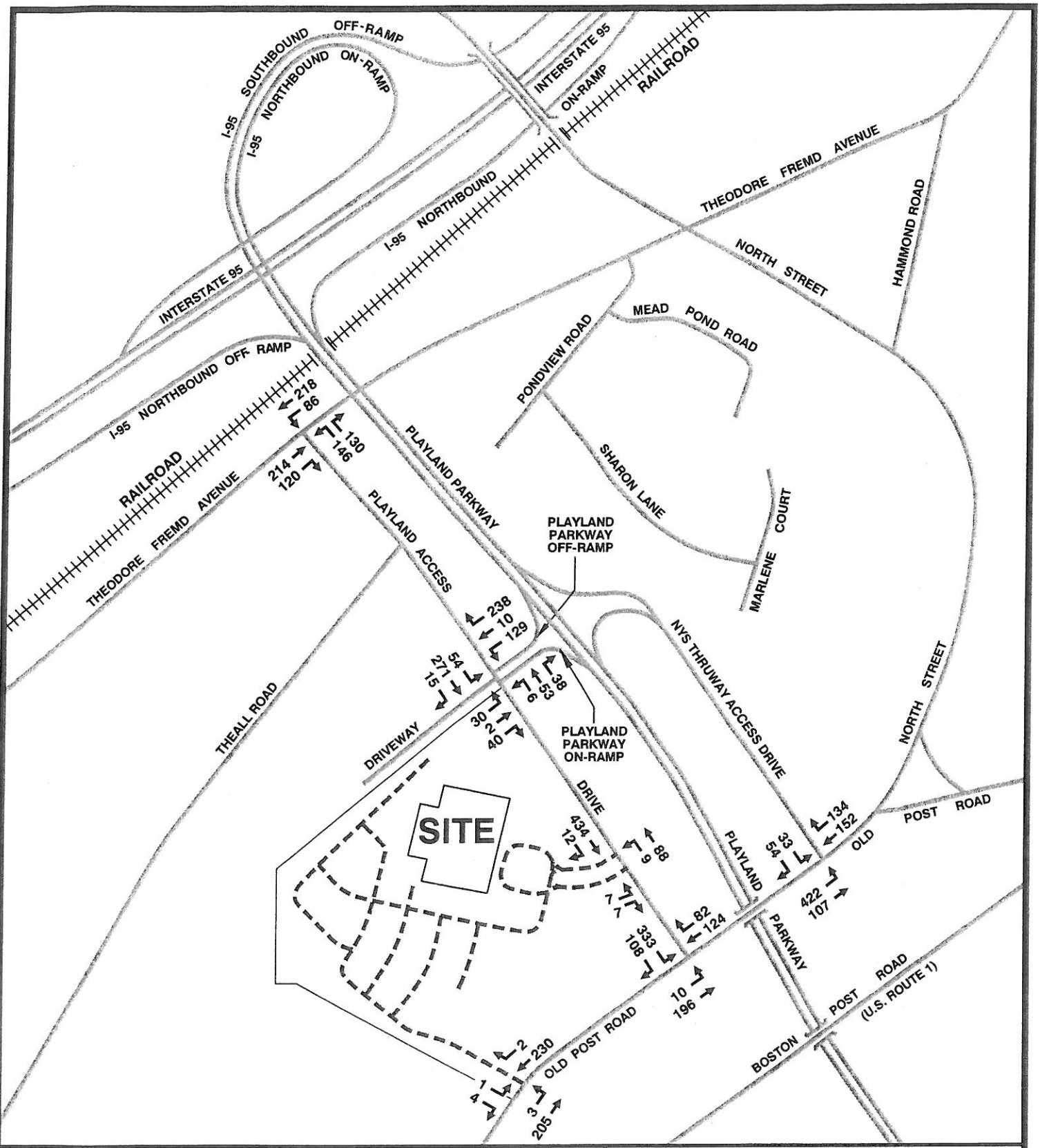

Note: The 2016 Combined Traffic Volumes include the 2016 Background Traffic Volumes and the Site Traffic Generation.

LEGEND

SITE ACCESS DRIVE

2016 COMBINED TRAFFIC VOLUMES
WEEKDAY AFTERNOON PEAK HOUR

AGE-RESTRICTED RESIDENTIAL DEVELOPMENT
120 Old Post Road
Rye, New York

N

FREDERICK P. CLARK ASSOCIATES, INC.
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Table 2
2016 FUTURE CONDITIONS WITH SECOND SITE ACCESS DRIVE – MEASURE OF EFFECTIVENESS (MOE) AND IMPACT ASSESSMENT – PEAK HOURS
Age-Restricted Residential Development
120 Old Post Road
Rye, New York

INTERSECTION	CONTROL TYPE	STORAGE/ LINK LENGTH	PHYSICAL UNITS	2016 BACKGROUND CONDITIONS						2016 COMBINED CONDITIONS WITH SECOND SITE ACCESS DRIVE						PROJECT IMPACTS			
				Weekday Morning			Weekday Afternoon			Weekday Morning			Weekday Afternoon			Weekday Morning		Weekday Afternoon	
				LOS/ Delay	V/C Ratio	Queue Length (Feet)	LOS/ Delay	V/C Ratio	Queue Length (Feet)	LOS/ Delay	V/C Ratio	Queue Length (Feet)	LOS/ Delay	V/C Ratio	Queue Length (Feet)	Change in LOS	Project Delay (Seconds)	Change in LOS	Project Delay (Seconds)
Playland Access Drive at	TWSC	5.2	EB Ln	B/12.4	0.00	0	B/11.4	0.01	0	B/12.1	0.03	0.1	B/11.9	0.03	0.1	No	-0.3	No	0.5
Office Building Access Drive		4.4	NB L	A/8.3	0.00	0	A/8.3	0.00	0	A/8.3	0.00	0	A/8.3	0.00	0	No	0.0	No	0.0
Old Post Road at Playland	TWSC	39	EB L	A/8.0	0.02	0.1	A/7.7	0.01	0	A/8.0	0.02	0.1	A/7.7	0.01	0	No	0.0	No	0.0
Access Drive		4.4	SB Ln1	F/56.6	0.95	**11.9**	D/28.5	0.79	**7.6**	F/60.8	0.97	**12.5**	D/29.9	0.80	**8**	No	4.2	No	1.3
Old Post Road at Site	TWSC	20.8	EB L	N/A	N/A	N/A	N/A	N/A	N/A	A/8.1	0.00	0	A/7.7	0.00	0	N/A	N/A	N/A	N/A
Access Drive		4	SB Ln1							B/11.9	0.01	0	B/10.0	0.01	0				

Notes:

- Synchro 8.0/HCM 2010 results is used for unsignalized capacity analysis.
- Level of Service determining parameter is called the service measure.
- TWSC = Two-Way STOP Control.
- For TWSC Intersections: Level of Service/Average Control delay per vehicle (seconds/vehicle).
- V/C ratio indicates the amount of congestion for each Movement. Any V/C ratio greater than or equal to one indicates that the Movement is operating at above capacity.
- Synchro 8.0 Macroscopic model is used for storage/queue analysis.
- The Queue Length rows show the 95th percentile maximum queue length in vehicles.
- The Queue Length is for each lane. The total queue length is divided by the number of lanes and the lane utilization factor.
- The 95th percentile queue is the maximum back of the queue with the 95th percentile traffic volumes.
- **Bolded** 95th percentile queue exceeds the storage available.
- Physical Units consist of the following:
    1. Movement for TWSC Intersections.

NB = Northbound EB = Eastbound SB = Southbound WB = Westbound
L = Left Turn T = Through R = Right Turn

The right turn lane would operate at Level of Service "B" and "A" during the weekday morning and weekday afternoon peak hours, respectively. This would indicate a significant improvement, with the right turn lane constructed. Table 3 provides a more detailed summary of the results of the analysis. The capacity analysis worksheets are included in the Appendix of this report.

3. *Playland Parkway Ramp* – This analysis assumes additional signing is provided on northbound Boston Post Road, with the modification of the existing off ramp to Playland Parkway to access Playland to permit a left turn movement from this ramp to access Playland Parkway and Interstate 95. As part of this analysis the right turn lane addition along the site frontage along Playland Access Drive is included.

To develop an assumption of a diversion of current traffic volumes, which is unrelated to site traffic from Boston Post Road from the south, an evaluation of current traffic volumes on Old Post Road at the intersection with Playland Access Drive and the Thruway Access Drive intersections was completed for both peak hours. This option could shift 106 and 62 vehicle trips traveling northbound on Boston Post Road from using Old Post Road to access the New York State Thruway Access Drive to this existing ramp to Playland Parkway during the two peak hours. See Figures 6 and 7.

An analysis of providing a left turn movement from the off-ramp from Boston Post Road to Playland Parkway was completed to determine the potential impacts to Old Post Road intersections. The results of this analysis indicate that during the weekday morning peak hour the southbound left turn movement from Playland Access Drive would improve from Level of Service "F" to "C" and result in an reduction in delay of 32.0 seconds. During the afternoon peak hour the same approach lane there will be improvement from Level of Service "D" to "C" and a decrease in average vehicle delay of 9.2 seconds. The right turn lane would operate at Level of Service "B" and "A" during the weekday morning and afternoon peak hours, respectively.

At the Old Post Road/Thruway Access Drive the eastbound left turn movement from Old Post Road to the Thruway ramp would improve from Level of Service

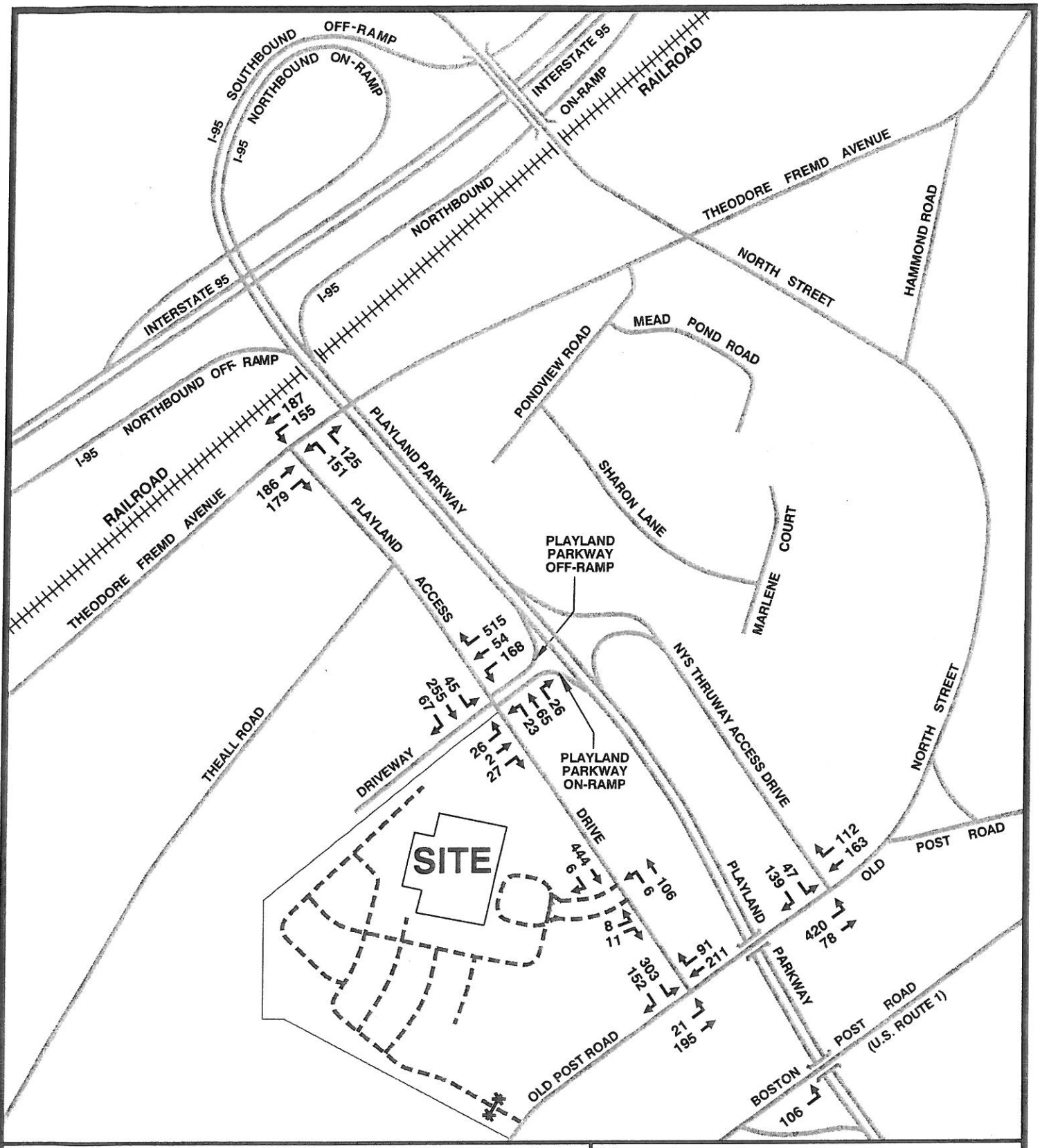
Table 3
2016 FUTURE CONDITIONS WITH SECOND SITE ACCESS DRIVE AND SOUTHBOUND RIGHT TURN POCKET – MEASURE OF EFFECTIVENESS (MOE) AND IMPACT ASSESSMENT – PEAK HOURS
Age-Restricted Residential Development
120 Old Post Road
Rye, New York

				2016 BACKGROUND CONDITIONS						2016 COMBINED CONDITIONS WITH SECOND SITE ACCESS DRIVE AND SOUTHBOUND RIGHT TURN POCKET						PROJECT IMPACTS			
				Weekday Morning			Weekday Afternoon			Weekday Morning			Weekday Afternoon			Weekday Morning		Weekday Afternoon	
INTERSECTION	CONTROL TYPE	STORAGE/ LINK LENGTH	PHYSICAL UNITS	LOS/ Delay	V/C Ratio	Queue Length (Feet)	LOS/ Delay	V/C Ratio	Queue Length (Feet)	LOS/ Delay	V/C Ratio	Queue Length (Feet)	LOS/ Delay	V/C Ratio	Queue Length (Feet)	Change in LOS	Project Delay (Seconds)	Change in LOS	Project Delay (Seconds)
Playland Access Drive at Office Building Access Drive	TWSC	5.2 4.4	EB Ln NB L	B/12.4 A/8.3	0.00 0.00	0 0	B/11.4 A/8.3	0.01 0.00	0 0	B/11.7 A/8.3	0.02 0.00	0.1 0	B/11.3 A/8.3	0.03 0.00	0.1 0	No No	-0.7 0.0	No No	-0.1 0.0
Old Post Road at Playland Access Drive	TWSC	39 4.4 4.4	EB L SB Ln1 SB Ln2	A/8.0 F/56.6 --	0.02 0.95 --	0.1 **11.9** --	A/7.7 D/28.5 --	0.01 0.79 --	0 **7.6** --	A/8.0 D/34.6 B/11.0	0.02 0.76 0.21	0.1 **6.3** 0.8	A/7.7 A/22.5 A/9.9	0.01 0.66 0.14	0 **4.8** 0.5	No F – D --	0.0 -22.0 --	No D – C --	0.0 -6.1 --
Old Post Road at Site Access Drive	TWSC	20.8 4	EB L SB Ln1	N/A	N/A	N/A	N/A	N/A	N/A	A/8.1 B/11.9	0.00 0.01	0 0	A/7.7 B/10.0	0.00 0.01	0 0	N/A	N/A	N/A	N/A

Notes:

- Synchro 8.0/HCM 2010 results is used for unsignalized capacity analysis.
- Level of Service determining parameter is called the service measure.
- TWSC = Two-Way STOP Control.
- For TWSC Intersections: Level of Service/Average Control delay per vehicle (seconds/vehicle).
- V/C ratio indicates the amount of congestion for each Movement. Any V/C ratio greater than or equal to one indicates that the Movement is operating at above capacity.
- Synchro 8.0 Macroscopic model is used for storage/queue analysis.
- The Queue Length rows show the 95th percentile maximum queue length in vehicles.
- The Queue Length is for each lane. The total queue length is divided by the number of lanes and the lane utilization factor.
- The 95th percentile queue is the maximum back of the queue with the 95th percentile traffic volumes.
- **Bolded** 95th percentile queue exceeds the storage available.
- Physical Units consist of the following:
    1. Movement for TWSC Intersections.

NB = Northbound EB = Eastbound SB = Southbound WB = Westbound
L = Left Turn T = Through R = Right Turn



Note: The 2016 Combined Traffic Volumes include the 2016 Background Traffic Volumes and the Site Traffic Generation.

LEGEND

- SITE ACCESS DRIVE
- CLOSED SITE ACCESS DRIVE

2016 COMBINED TRAFFIC VOLUMES
WEEKDAY MORNING PEAK HOUR

AGE-RESTRICTED RESIDENTIAL DEVELOPMENT
120 Old Post Road
Rye, New York

N

FREDERICK P. CLARK ASSOCIATES, INC.
PLANNING, TRANSPORTATION, ENVIRONMENT AND DEVELOPMENT
RYE, NEW YORK FAIRFIELD, CONNECTICUT

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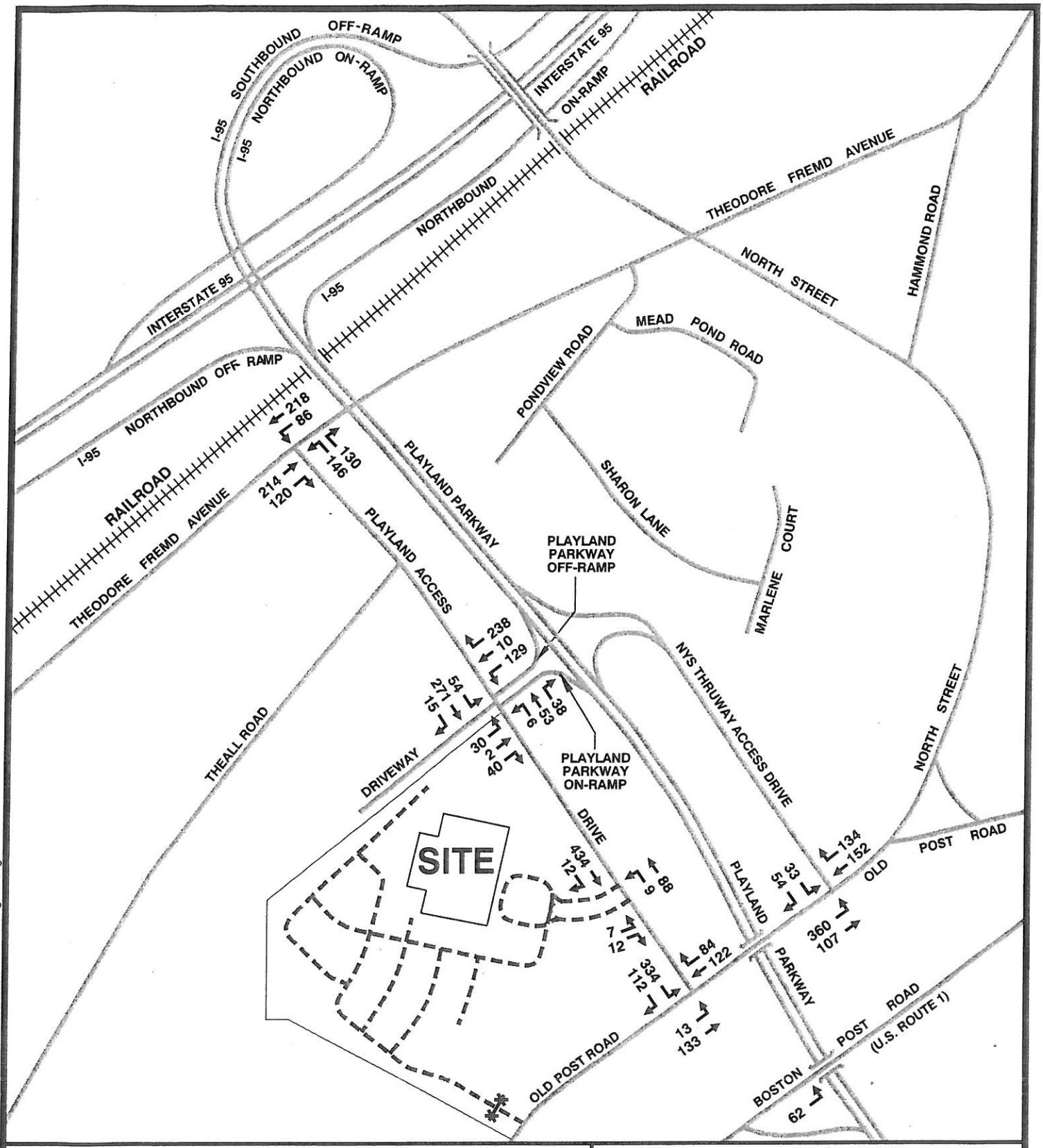

Note: The 2016 Combined Traffic Volumes include the 2016 Background Traffic Volumes and the Site Traffic Generation.

LEGEND

- SITE ACCESS DRIVE
- CLOSED SITE ACCESS DRIVE

2016 COMBINED TRAFFIC VOLUMES
WEEKDAY AFTERNOON PEAK HOUR

AGE-RESTRICTED RESIDENTIAL DEVELOPMENT
120 Old Post Road
Rye, New York

N

FREDERICK P. CLARK ASSOCIATES, INC.
PLANNING, TRANSPORTATION, ENVIRONMENT AND DEVELOPMENT
RYE, NEW YORK FAIRFIELD, CONNECTICUT

Not to Scale **Date: 8/25/15**

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"B" to "A" during the weekday morning peak hour and remain at Level of Service "A" during the weekday afternoon peak hour. The left turn movement from the off-ramp from Playland Parkway at this location would improve from Level of Service "F" to "E" and reduction in delay of 63.9 seconds during the weekday morning peak hour and remain the same Level of Service "D" during the afternoon peak hour, with reduction in delay of 8.8 seconds. The results of this analysis indicate the greatest improvement in traffic flow and reduction in delay would occur during the weekday morning peak hour at both STOP sign controlled intersections on Old Post Road. Table 4 provides a more detailed summary of the results of this analysis. The capacity analysis worksheets are included in the Appendix of this report. Photographs of the intersection are included in the Appendix of this report.

At the Old Post Road/Thruway Access Drive there would be an improvement in reduction in delay from the ramp to Old Post Road with an improvement in Level of Service from "F" to "D" and a reduction in delay of 22.2 seconds during the weekday morning peak hour. During the afternoon peak hour the left turn movement from Playland Access Drive would operate at Level of Service "C" with a reduction in delay of 6.1 seconds.

Based on a field investigation and evaluation of the possible conversion of the off-ramp from Boston Post Road northbound to Playland Parkway both eastbound and westbound, a Speed Study was conducted of motorists traveling on Playland Parkway to determine the average speed and 85th percentile speed of motorists traveling to determine if adequate intersection sight distance (ISD) is currently available at this location. It was determined that the average speed of motorists traveling both eastbound and westbound on Playland Parkway at the location of the ramp noted above was 38 miles per hour. The 85th percentile speed of motorists traveling on this same section of Playland Parkway and used to determine if adequate ISD is available was found to be 44 and 46 miles per hour for eastbound and westbound movements, respectively.

Based on criteria followed by the Westchester County Department of Public Works, for the identified 85th percentile speed of motorists traveling on this section of Playland Parkway the desirable distance needed for a left turn from the

Table 4
2016 FUTURE CONDITIONS WITH U.S. ROUTE 1 ACCESS TO PLAYLAND PARKWAY WESTBOUND AND SOUTHBOUND RIGHT TURN POCKET – MEASURE OF EFFECTIVENESS (MOE) AND IMPACT ASSESSMENT – PEAK HOURS
Age-Restricted Residential Development
120 Old Post Road
Rye, New York

INTERSECTION	CONTROL TYPE	STORAGE/ LINK LENGTH	PHYSICAL UNITS	2016 BACKGROUND CONDITIONS						2016 COMBINED CONDITIONS WITH U.S. ROUTE 1 ACCESS TO PLAYLAND PARKWAY AND SOUTHBOUND RIGHT TURN POCKET						PROJECT IMPACTS			
				Weekday Morning			Weekday Afternoon			Weekday Morning			Weekday Afternoon			Weekday Morning		Weekday Afternoon	
				LOS/ Delay	V/C Ratio	Queue Length (Feet)	LOS/ Delay	V/C Ratio	Queue Length (Feet)	LOS/ Delay	V/C Ratio	Queue Length (Feet)	LOS/ Delay	V/C Ratio	Queue Length (Feet)	Change in LOS	Project Delay (Seconds)	Change in LOS	Project Delay (Seconds)
Playland Access Drive at	TWSC	5.2	EB Ln	B/12.4	0.00	0	B/11.4	0.01	0	B/11.2	0.03	0.1	B/11.0	0.03	0.1	No	1.2	No	-0.4
Office Building Access Drive		4.4	NB L	A/8.3	0.00	0	A/8.3	0.00	0	A/8.3	0.01	0	A/8.3	0.01	0	No	0.0	No	0.1
Old Post Road at Playland Access Drive	TWSC	39	EB L	A/8.0	0.02	0.1	A/7.7	0.01	0	A/8.0	0.02	0.1	A/7.7	0.01	0	No	0.0	No	0.0
		4.4	SB Ln1	F/56.6	0.95	**11.9**	D/28.5	0.79	**7.6**	C/24.6	0.65	**4.7**	C/19.3	0.61	4.1	F – C	-32.0	D – C	-9.2
		4.4	SB Ln2	--	--	--	--	--	--	B/11.0	0.22	0.8	A/9.9	0.15	0.5	--	--	--	--
Old Post Road at Thruway Access Drive	TWSC	9.6	EB L	B/10.4	0.47	2.6	A/9.8	0.39	1.9	A/9.6	0.38	1.8	A/9.4	0.34	1.5	B – A	-0.8	No	-0.4
		37	SB Ln	F/101.3	0.97	8.5	D/34.8	0.46	2.2	E/37.4	0.67	4.5	D/26.0	0.37	1.6	F – E	-63.9	No	-8.8

Notes:

- Synchro 8.0/HCM 2010 results is used for unsignalized capacity analysis.
- Level of Service determining parameter is called the service measure.
- TWSC = Two-Way STOP Control.
- For TWSC Intersections: Level of Service/Average Control delay per vehicle (seconds/vehicle).
- V/C ratio indicates the amount of congestion for each Movement. Any V/C ratio greater than or equal to one indicates that the Movement is operating at above capacity.
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- **Bolded** 95th percentile queue exceeds the storage available.
- Physical Units consist of the following:
    1. Movement for TWSC Intersections.

NB = Northbound EB = Eastbound SB = Southbound WB = Westbound
L = Left Turn T = Through R = Right Turn

ramp was found to be 512 feet and for a right turn movement the desirable ISD was determined to be 421 feet. Based on field observations the available ISD is well above the needed distance, with several hundred feet provided in both directions.

A further evaluation of the ramp layout and pavement width is needed to finalize lane arrangement. The ramp should be controlled with a STOP sign and lane description (right and left turns) and appropriate INTERSECTION WARNING signs should be installed on Playland Parkway.

The shifting of traffic in general from Old Post Road traveling to the Interstate 95 ramps via the Playland Parkway and shifted to Boston Post Road and directly to Playland Parkway would decrease traffic volumes on Old Post Road and improve overall operation with the intersections along Old Post Road. Results of the analysis show a benefit of providing this new connection to by-pass using Old Post Road. Table A-1 shows the results of the Speed Study on Playland Parkway. Table A-2 provides a summary of the ISD analysis, for reference purposes. Both tables are included in the Appendix of this report.

4. *Installation of Traffic Signals on Old Post Road* – This analysis was completed to determine the benefit of the installation of traffic signals at Old Post Road/Playland Access Drive intersection and a further benefit, if any, with the installation of a traffic signal at the Old Post Road Thruway Access Drive. Note that previous Studies indicated that these intersections did <u>not</u> meet traffic signal warrants.

Previous traffic signal warrant analyses conducted by our office for the previous proposal for a Hotel on the subject property indicated that warrants were not met for the unsignalized intersection of Old Post Road at Playland Access Drive. These analyses were conducted based on traffic volumes obtained in May 2012 for existing conditions and for a future condition, with the Hotel. In both cases the traffic signal warrants, which are required for an 8-hour period, were not met based on the Minimum Traffic Volumes (Warrant #1, Condition A) necessary or Interruption of Continuous Traffic (Warrant #1, Condition B) based on the minimum criteria for volumes at this intersection.

It was found that for Warrant #1, Condition A, which is Minimum Traffic Volumes, Warrants were not met for any of the 8-hours since the hourly volumes on Old Post Road were too low for each of the 8-hours. For Warrant #1, Condition B, which is the Interruption of Traffic warrant, again the analysis results indicate that none of the 8-hours met the warrants. The two-way volume on Old Post Road is significantly below the minimum standard to consider a traffic signal control.

The analysis indicated that hourly traffic volumes were too low on Old Post Road and did not meet the minimum requirements for consideration.

Since the results of the warrant analyses indicate that not only the warrants are not met, but the warrants are not close to meeting the minimum criteria and ..it is very unlikely with any scenario for land use of the subject property, including the proposal for Senior Housing, or re-occupancy as an office building would indicate that volumes would increase to meet the criteria to install a traffic signal. See attached Tables 7 and 8 from the other report.

The criteria set forth in the Manual of Uniform Traffic Control Devices (MUTCD) 2009 is followed by the New York State Department of Transportation (NYSDOT), Westchester County Department of Public Works (WCDPW) and the City of Rye.

The previous warrants completed and referenced above and submitted to the City as part of the Traffic Study completed for the Hotel in 2012 are attached for reference purposes. Although a traffic signal warrant analysis was not completed for the Old Post Road/New York State Thruway Access Drive intersection it is likely the results would be very similar.

Notwithstanding the foregoing, the results of analysis further indicate that with traffic signals installed at both intersections noted above, both intersections would operate at Level of Service "C" or better during both the weekday morning and weekday afternoon peak hours and eliminate the current delays found on the Playland Access Drive southbound approach during the weekday afternoon peak hour. Installation of a traffic signal at the Old Post Road/Thruway Access Drive

Table 7
TRAFFIC SIGNAL WARRANT ANALYSIS – OLD POST ROAD AT PLAYLAND ACCESS DRIVE –
2012 EXISTING CONDITIONS
Office to Hotel Building Conversion
120 Old Post Road
Rye, New York

HOUR	MAJOR STREET TWO –WAY APPROACHES VOLUMES – OLD POST ROAD	MINOR STREET ONE-WAY VOLUMES (PLAYLAND ACCESS DRIVE)	SIGNAL WARRANT			
			Warrant #1 Condition A	Warrant #1 Condition B	Warrant #2	Warrant # 3
7 – 8 A.M.	369	354	No	No	No	No
8 – 9 A.M.	495	401	No	No	Yes	No
9 – 10 A.M.	324	319	No	No	No	No
10 – 11 A.M.	243	268	No	No	No	No
11 A.M. – 12 Noon	253	255	No	No	No	No
12 Noon – 1 P.M.	325	306	No	No	No	No
1 – 2 P.M.	315	339	No	No	No	No
2 – 3 P.M.	336	354	No	No	No	No
3 – 4 P.M.	436	458	No	No	No	No
4 – 5 P.M.	389	485	No	No	No	No
5 – 6 P.M.	309	506	No	No	No	No
6 – 7 P.M.	282	437	No	No	No	No
Hours Met	--	--	0	0	1	0
Hours Needed	--	--	8	8	4	1
Warrant Met	--	--	No	No	No	No

Notes:

- Major Street: Number of lanes moving traffic on each approach is one.
- Minor Street: Number of lanes moving traffic is one.
- Warrant #1, Condition A: Minimum Vehicle Volume – 500 vehicles (two-way) on Old Post Road and 150 vehicles (one-way) on Playland Access Drive – Major and Minor road volumes are for the same eight consecutive hours.
- Warrant #1, Condition B: Interruption of Continuous Traffic – 750 vehicles (two-way) on Old Post Road and 75 vehicles (one-way) on Playland Access Drive. Major and Minor Road volumes are for the same eight consecutive hours.
- Warrant #2: Four-Hour Vehicular Volume – Refer to Figure 4C-1, Warrant 2, Four-Hour Vehicular Volume, MUTCD page 440.
- Warrant #3: Peak Hour – Refer to Figure 4C-3, Warrant 3, Peak Hour, MUTCD page 441.

Source:

- Manual on Uniform Traffic Control Devices for Streets and Highways, published by the Federal Highway Administration in 2009.

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Table 8
TRAFFIC SIGNAL WARRANT ANALYSIS – OLD POST ROAD AT PLAYLAND ACCESS DRIVE –
2013 FUTURE CONDITIONS
Office to Hotel Building Conversion
120 Old Post Road
Rye, New York

HOUR	MAJOR STREET TWO –WAY APPROACHES VOLUMES – OLD POST ROAD	MINOR STREET ONE-WAY VOLUMES (PLAYLAND ACCESS DRIVE)	SIGNAL WARRANT			
			Warrant #1 Condition A	Warrant #1 Condition B	Warrant #2	Warrant # 3
7 – 8 A.M.	382	388	No	No	No	No
8 – 9 A.M.	513	440	Yes	No	Yes	Yes
9 – 10 A.M.	336	350	No	No	No	No
10 – 11 A.M.	252	294	No	No	No	No
11 A.M. – 12 Noon	262	280	No	No	No	No
12 Noon – 1 P.M.	337	336	No	No	No	No
1 – 2 P.M.	327	389	No	No	No	No
2 – 3 P.M.	349	406	No	No	No	No
3 – 4 P.M.	453	526	No	No	Yes	Yes
4 – 5 P.M.	404	557	No	No	Yes	No
5 – 6 P.M.	321	581	No	No	No	No
6 – 7 P.M.	293	502	No	No	No	No
Hours Met	--	--	1	0	3	2
Hours Needed	--	--	8	8	4	1
Warrant Met	--	--	No	No	No	Yes

Notes:

- Major Street: Number of lanes moving traffic on each approach is one.
- Minor Street: Number of lanes moving traffic is one.
- Warrant #1, Condition A: Minimum Vehicle Volume – 500 vehicles (two-way) on Old Post Road and 150 vehicles (one-way) on Playland Access Drive – Major and Minor road volumes are for the same eight consecutive hours.
- Warrant #1, Condition B: Interruption of Continuous Traffic – 750 vehicles (two-way) on Old Post Road and 75 vehicles (one-way) on Playland Access Drive. Major and Minor Road volumes are for the same eight consecutive hours.
- Warrant #2: Four-Hour Vehicular Volume – Refer to Figure 4C-1, Warrant 2, Four-Hour Vehicular Volume, MUTCD page 440.
- Warrant #3: Peak Hour – Refer to Figure 4C-3, Warrant 3, Peak Hour, MUTCD page 441.

Source:

- Manual on Uniform Traffic Control Devices for Streets and Highways, published by the Federal Highway Administration in 2009.

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indicates a similar benefit of eliminating the Level of Service "F" on the off-ramp approach to the intersection and reducing delays significantly during the weekday morning peak hour. Table 5 provides the results. Worksheets are included.

Table 6 provides an analysis if a traffic signal was installed only at the Old Post Road/Playland Access Drive. Results of this analysis indicate it would operate at an overall Level of Service "B" during both peak hours and result in a similar benefit during the weekday morning peak hour.

The overall results of the analysis indicate that it would likely be beneficial to install both traffic signals so that they operate in a coordinated fashion and minimize delays on both side street approaches. Installation of traffic signals at both locations would also result in a benefit due to the limited sight distance when exiting the Thruway ramp and also minimizing the limited sight distance exiting Playland Access Drive at Old Post Road. Capacity analysis worksheets for each of these analyses are included in the Appendix of this report.

Findings

Although the existing condition of the property as a largely vacant office building is not contributing to the existing traffic patterns and the post-build condition would be an improvement over a fully tenanted office building, the results of these analyses, as described above, indicate the greatest benefit would be to provide the right turn lane along the site's frontage on Playland Access Drive. It results in an improvement in Levels of Service and reduction in delay during both the weekday morning and weekday afternoon peak hours.

The provision of providing a second driveway to the site directly to Old Post Road does not necessarily indicate a significant benefit and reduction in delay on area roads. This is due to the low site traffic generation as part of the redevelopment of the subject property.

Providing an alternative to motorists traveling northbound on Boston Post Road to access Playland Parkway, it would remove traffic from Old Post Road, with an improvement in Levels of Service and a reduction in delay at the STOP sign approach of Playland Access Drive to Old Post Road and the same at the Thruway Access Drive southbound approach

Table 5
2016 FUTURE CONDITIONS WITH TRAFFIC SIGNALS AND RIGHT TURN POCKET – MEASURE OF EFFECTIVENESS (MOE) AND IMPACT ASSESSMENT – PEAK HOURS
Age-Restricted Residential Development
120 Old Post Road
Rye, New York

	2016 BACKGROUND CONDITIONS									2016 COMBINED CONDITIONS WITH TRAFFIC SIGNALS AND RIGHT TURN POCKET										PROJECT IMPACTS			
				Weekday Morning			Weekday Afternoon						Weekday Morning			Weekday Afternoon			Weekday Morning		Weekday Afternoon	
INTERSECTION	CONTROL TYPE	STORAGE/ LINK LENGTH	PHYSICAL UNITS	LOS/ Delay	V/C Ratio	Queue Length (Veh)	LOS/ Delay	V/C Ratio	Queue Length (Veh)	CONTROL TYPE	STORAGE/ LINK LENGTH	PHYSICAL UNITS	LOS/ Delay	V/C Ratio	Queue Length (Feet)	LOS/ Delay	V/C Ratio	Queue Length (Feet)	Change in LOS	Project Delay (Seconds)	Change in LOS	Project Delay (Seconds)
Playland Access Drive at	TWSC	5.2	EB Ln	B/12.4	0.00	0	B/11.4	0.01	0	TWSC	5.2	EB Ln	B/11.2	0.03	0.1	B/11.0	0.03	0.1	No	-1.2	No	-0.4
Office Building Access Drive		4.4	NB L	A/8.3	0.00	0	A/8.3	0.00	0		4.4	NB L	A/8.3	0.01	0	A/8.3	0.01	0	No	0.0	No	0.0
Old Post Road at Playland	TWSC	39	EB L	A/8.0	0.02	0.1	A/7.7	0.01	0	Traffic	975	EB LT	C/21.4	0.53	202	B/16.6	0.36	121	A – C	13.4	A – B	8.9
Access Drive		--	--	--	--	--	--	--	--	Signal	--	APP.	C/21.4	--	--	B/16.6	--	--	--	--	--	--
		--	--	--	--	--	--	--	--		285	WB LT	A/7.7	0.44	68	A/6.7	0.34	49	--	--	--	--
		--	--	--	--	--	--	--	--		--	APP.	A/7.7	--	--	A/6.7	--	--	--	--	--	--
		4.4	SB Ln	F/56.6	0.95	**11.9**	D/28.5	0.79	**7.6**		110	SB L	D/44.7	0.77	**286**	D/47.5	0.86	**313**	F – D	-11.9	No	19.0
		4.4	--	--	--	--	--	--	--		110	R	A/2.7	0.25	19	A/2.6	0.20	17	--	--	--	--
		--	--	--	--	--	--	--	--		--	APP.	C/30.7	--	--	D/36.3	--	--	--	--	--	--
		--	--	--	--	--	--	--	--		--	Overall	C/21.6	--	--	C/24.4	--	--	--	--	--	--
Old Post Road at Thruway	TWSC	9.6	EB L	B/10.4	0.47	2.6	A/9.8	0.39	1.9	Traffic	240	EB LT	C/21.0	0.86	**308**	B/13.4	0.75	108	B – C	10.6	A – B	3.6
Access Drive		--	--	--	--	--	--	--	--	Signal	--	APP.	C/21.0	--	--	B/13.4	--	--	--	--	--	--
		--	--	--	--	--	--	--	--		285	WB LT	C/31.7	0.67	230	C/31.0	0.70	208	--	--	--	--
		--	--	--	--	--	--	--	--		--	APP.	C/31.7	--	--	C/31.0	--	--	--	--	--	--
		37	SB Ln	F/101.3	0.97	8.5	D/34.8	0.46	2.2		925	SB LR	B/16.7	0.59	82	B/19.6	0.40	55	F – B	84.6	D – B	-15.2
		--	--	--	--	--	--	--	--		--	APP.	B/16.7	--	--	B/19.6	--	--	--	--	--	--
		--	--	--	--	--	--	--	--		--	Overall	C/23.0	--	--	B/19.6	--	--	--	--	--	--

Notes:

- Synchro 8.0 is used for traffic signal capacity analysis.
- Synchro 8.0/HCM 2010 results is used for unsignalized capacity analysis.
- Level of Service determining parameter is called the service measure.
- TWSC = Two-Way STOP Control.
- For TWSC Intersections: Level of Service/Average Control delay per vehicle (seconds/vehicle).
- V/C ratio indicates the amount of congestion for each Movement. Any V/C ratio greater than or equal to one indicates that the Movement is operating at above capacity.
- Synchro 8.0 Macroscopic model is used for storage/queue analysis.
- The Queue Length rows show the 95th percentile maximum queue length in feet.
- The Queue Length is for each lane. The total queue length is divided by the number of lanes and the lane utilization factor.
- The 95th percentile queue is the maximum back of the queue with the 95th percentile traffic volumes.
- **Bolded** 95th percentile queue exceeds the storage available.
- Physical Units consist of the following:
  1. Lane Group and Intersection Overall for Traffic Signal Controlled Intersections.
  2. Movement for TWSC Intersections.

NB = Northbound EB = Eastbound SB = Southbound WB = Westbound
L = Left Turn T = Through R = Right Turn APP. = Approach

Table 6
2016 FUTURE CONDITIONS WITH TRAFFIC SIGNAL AND RIGHT TURN POCKET – MEASURE OF EFFECTIVENESS (MOE) AND IMPACT ASSESSMENT – PEAK HOURS
Age-Restricted Residential Development
120 Old Post Road
Rye, New York

				2016 BACKGROUND CONDITIONS						2016 COMBINED CONDITIONS WITH TRAFFIC SIGNAL AND RIGHT TURN POCKET									PROJECT IMPACTS			
				Weekday Morning			Weekday Afternoon						Weekday Morning			Weekday Afternoon			Weekday Morning		Weekday Afternoon	
INTERSECTION	CONTROL TYPE	STORAGE/ LINK LENGTH	PHYSICAL UNITS	LOS/ Delay	V/C Ratio	Queue Length (Veh)	LOS/ Delay	V/C Ratio	Queue Length (Veh)	CONTROL TYPE	STORAGE/ LINK LENGTH	PHYSICAL UNITS	LOS/ Delay	V/C Ratio	Queue Length (Feet)	LOS/ Delay	V/C Ratio	Queue Length (Feet)	Change in LOS	Project Delay (Seconds)	Change in LOS	Project Delay (Seconds)
Playland Access Drive at Office Building Access Drive	TWSC	5.2 4.4	EB Ln NB L	B/12.4 A/8.3	0.00 0.00	0 0	B/11.4 A/8.3	0.01 0.00	0 0	TWSC	5.2 4.4	EB Ln NB L	B/11.2 A/8.3	0.03 0.01	0.1 0	B/11.0 A/8.3	0.03 0.01	0.1 0	No No	-1.2 0.0	No No	-0.4 0.0
Old Post Road at Playland Access Drive	TWSC	39 -- -- -- 4.4 -- -- --	EB L -- -- -- SB Ln -- -- --	A/8.0 -- -- -- F/56.6 -- -- --	0.02 -- -- -- 0.95 -- -- --	0.1 -- -- -- **11.9** -- -- --	A/7.7 -- -- -- D/28.5 -- -- --	0.01 -- -- -- 0.79 -- -- --	0 -- -- -- **7.6** -- -- --	Traffic Signal	975 -- 285 -- 110 110 -- --	EB LT APP. WB LT APP. SB L R APP. Overall	A/9.6 A/9.6 B/19.4 B/19.4 C/28.4 A/2.0 B/19.6 B/16.5	0.41 -- 0.56 -- 0.73 0.19 -- --	117 -- 158 -- **171** 21 -- --	A/9.5 A/9.5 B/14.5 B/14.5 B/15.9 A/1.7 B/12.3 B/12.4	0.26 -- 0.47 -- 0.59 0.13 -- --	61 -- 94 -- **157** 16 -- --	No -- -- -- F – C -- -- --	1.6 -- -- -- -28.2 -- -- --	No -- -- -- D – B -- -- --	1.8 -- -- -- -12.6 -- -- --

Notes:

- Synchro 8.0 is used for traffic signal capacity analysis.
- Synchro 8.0/HCM 2010 results is used for unsignalized capacity analysis.
- Level of Service determining parameter is called the service measure.
- TWSC = Two-Way STOP Control.
- For TWSC Intersections: Level of Service/Average Control delay per vehicle (seconds/vehicle).
- V/C ratio indicates the amount of congestion for each Movement. Any V/C ratio greater than or equal to one indicates that the Movement is operating at above capacity.
- Synchro 8.0 Macroscopic model is used for storage/queue analysis.
- The Queue Length rows show the 95th percentile maximum queue length in feet.
- The Queue Length is for each lane. The total queue length is divided by the number of lanes and the lane utilization factor.
- The 95th percentile queue is the maximum back of the queue with the 95th percentile traffic volumes.
- **Bolded** 95th percentile queue exceeds the storage available.
- Physical Units consist of the following:
  1. Lane Group and Intersection Overall for Traffic Signal Controlled Intersections.
  2. Movement for TWSC Intersections.

NB = Northbound EB = Eastbound SB = Southbound WB = Westbound
L = Left Turn T = Through R = Right Turn APP. = Approach

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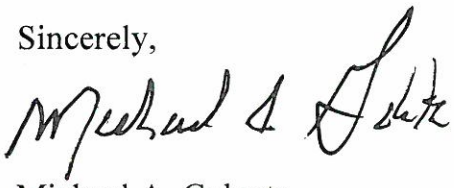
to Old Post Road. Therefore, the provision of providing an alternative for commuters to access Playland Parkway and travel to the New York State Thruway would result in a benefit to overall traffic conditions along Old Post Road.

The analysis with traffic signal control indicate significant benefits and a reduction in delay at the STOP sign approaches.

Sincerely,



Michael A. Galante
Executive Vice President

Enclosure

cc: Alan Weisman
Jonathan Kraut, Esq.

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TABLES

Table A-1
SPEED STUDY – OFF-PEAK HOURS
Age-Restricted Residential Development
120 Old Post Road
Rye, New York

	SPEED STUDY RESULTS – PLAYLAND PARKWAY AT RAMP FROM U.S. ROUTE 1	
	Eastbound	Westbound
	44	32
	34	47
	40	40
	39	26
	37	34
	30	31
	45	34
	31	38
	24	51
	32	34
	40	40
	33	41
	46	30
	37	33
	31	48
	38	41
	33	41
	40	28
	48	29
	37	39
	43	38
	44	45
	38	34
	35	34
	40	41
	33	38
	36	44
	41	47
	31	37
	43	46
Average Speed	38	38
85^{TH} Percentile Speed	44	46

Source: Speed Study conducted by portable radar speed gun by Frederick P. Clark Associates, Inc., on Friday, August 07, 2015 between 12:30 and 1:15 P.M.

Table A-2
INTERSECTION SIGHT DISTANCE ANALYSIS
Age-Restricted Residential Development
120 Old Post Road
Rye, New York

INTERSECTION SIGHT DISTANCE (ISD) ANALYSIS							
	Left Turn From Stop				Right Turn From Stop		
	Distance Available (Feet)		Distance Desirable (Feet)			Distance Desirable (Feet)	
			Posted Speed	Measured Speed	Distance Available(Feet)	Posted Speed	Measured Speed
INTERSECTION	Left	Right	30 MPH	46 MPH	Left	30 MPH	44 MPH
Playland Parkway at Ramp from U.S. Route 1	Adequate ISD Available		335	512	Adequate ISD Available	290	421

Notes:

- Intersection Sight Distance (ISD) desirable are from the Minimum Acceptable Sight Distances Table provided on the Intersection Sight Distance Requirement Form prepared by Westchester County Department of Public Works (WCDPW).
- The posted speed limit is 30 miles per hour on Playland Parkway.
- The operational speed (85^{th} percentile speed) was measured to be 44 miles per hour in the eastbound direction and 46 miles per hour in the westbound direction from Speed Study conducted by portable radar speed gun by Frederick P. Clark Associates, Inc., on Friday, August 07, 2015 between 12:30 and 1:15 P.M.

PHOTOGRAPHS

Playland Parkway at Ramp from U.S. Route 1 Looking West

Playland Parkway at Ramp from U.S. Route 1 Looking East

Playland Parkway at Ramp from U.S. Route 1 Looking West at 15 Feet from Edge of Pavement

Playland Parkway at Ramp from U.S. Route 1 Looking East at 15 Feet from Edge of Pavement

BACKGROUND

Intersection

Int Delay, s/veh 0.1

Movement	SET	SER	NWL	NWT	NEL	NER
Vol, veh/h	444	1	2	106	1	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	453	1	2	108	1	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	454	0	566	454
Stage 1	-	-	-	-	454	-
Stage 2	-	-	-	-	112	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1107	-	486	606
Stage 1	-	-	-	-	640	-
Stage 2	-	-	-	-	913	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1107	-	485	606
Mov Cap-2 Maneuver	-	-	-	-	485	-
Stage 1	-	-	-	-	640	-
Stage 2	-	-	-	-	911	-

Approach	SE	NW	NE
HCM Control Delay, s	0	0.2	12.4
HCM LOS			B

Minor Lane/Major Mvmt	NELn1	NWL	NWT	SET	SER
Capacity (veh/h)	485	1107	-	-	-
HCM Lane V/C Ratio	0.002	0.002	-	-	-
HCM Control Delay (s)	12.4	8.3	0	-	-
HCM Lane LOS	B	A	A	-	-
HCM 95th %tile Q(veh)	0	0	-	-	-

Intersection

Int Delay, s/veh 24.1

Movement	SEL	SER	NEL	NET	SWT	SWR
Vol, veh/h	296	148	19	301	211	89
Conflicting Peds, #/hr	0	0	7	0	0	7
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	93	93	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	322	161	20	324	220	93

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	631	273	313	0	-	0
Stage 1	266	-	-	-	-	-
Stage 2	365	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	445	766	1247	-	-	-
Stage 1	779	-	-	-	-	-
Stage 2	702	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	436	762	1240	-	-	-
Mov Cap-2 Maneuver	436	-	-	-	-	-
Stage 1	779	-	-	-	-	-
Stage 2	688	-	-	-	-	-

Approach	SE	NE	SW
HCM Control Delay, s	56.6	0.5	0
HCM LOS	F		

Minor Lane/Major Mvmt	NEL	NET	SELn1	SWT	SWR
Capacity (veh/h)	1240	-	509	-	-
HCM Lane V/C Ratio	0.016	-	0.948	-	-
HCM Control Delay (s)	8	0	56.6	-	-
HCM Lane LOS	A	A	F	-	-
HCM 95th %tile Q(veh)	0.1	-	11.9	-	-

Intersection

Int Delay, s/veh 23

Movement	SEL	SER	NEL	NET	SWT	SWR
Vol, veh/h	47	139	523	74	161	112
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	89	89	89	89	89	89
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	53	156	588	83	181	126

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1502	244	307	0	-	0
Stage 1	244	-	-	-	-	-
Stage 2	1258	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	134	795	1254	-	-	-
Stage 1	797	-	-	-	-	-
Stage 2	268	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	68	795	1254	-	-	-
Mov Cap-2 Maneuver	68	-	-	-	-	-
Stage 1	797	-	-	-	-	-
Stage 2	136	-	-	-	-	-

Approach	SE	NE	SW
HCM Control Delay, s	101.3	9.1	0
HCM LOS	F		

Minor Lane/Major Mvmt	NEL	NET	SELn1	SWT	SWR
Capacity (veh/h)	1254	-	215	-	-
HCM Lane V/C Ratio	0.469	-	0.972	-	-
HCM Control Delay (s)	10.4	0	101.3	-	-
HCM Lane LOS	B	A	F	-	-
HCM 95th %tile Q(veh)	2.6	-	8.5	-	-

Intersection

Int Delay, s/veh 0.1

Movement	SET	SER	NWL	NWT	NEL	NER
Vol, veh/h	434	1	2	88	1	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
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, %	2	2	2	2	2	2
Mvmt Flow	452	1	2	92	1	2

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	453	0	549	453
Stage 1	-	-	-	-	453	-
Stage 2	-	-	-	-	96	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1108	-	497	607
Stage 1	-	-	-	-	640	-
Stage 2	-	-	-	-	928	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1108	-	496	607
Mov Cap-2 Maneuver	-	-	-	-	496	-
Stage 1	-	-	-	-	640	-
Stage 2	-	-	-	-	926	-

Approach	SE	NW	NE
HCM Control Delay, s	0	0.2	11.4
HCM LOS			B

Minor Lane/Major Mvmt	NELn1	NWL	NWT	SET	SER
Capacity (veh/h)	565	1108	-	-	-
HCM Lane V/C Ratio	0.006	0.002	-	-	-
HCM Control Delay (s)	11.4	8.3	0	-	-
HCM Lane LOS	B	A	A	-	-
HCM 95th %tile Q(veh)	0	0	-	-	-

Intersection

Int Delay, s/veh 14.8

Movement	SEL	SER	NEL	NET	SWT	SWR
Vol, veh/h	328	108	10	195	122	80
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	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	373	123	11	222	139	91

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	428	184	230	0	-	0
Stage 1	184	-	-	-	-	-
Stage 2	244	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	584	858	1338	-	-	-
Stage 1	848	-	-	-	-	-
Stage 2	797	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	579	858	1338	-	-	-
Mov Cap-2 Maneuver	579	-	-	-	-	-
Stage 1	848	-	-	-	-	-
Stage 2	790	-	-	-	-	-

Approach	SE	NE	SW
HCM Control Delay, s	28.5	0.4	0
HCM LOS	D		

Minor Lane/Major Mvmt	NEL	NET	SELn1	SWT	SWR
Capacity (veh/h)	1338	-	630	-	-
HCM Lane V/C Ratio	0.008	-	0.786	-	-
HCM Control Delay (s)	7.7	0	28.5	-	-
HCM Lane LOS	A	A	D	-	-
HCM 95th %tile Q(veh)	0	-	7.6	-	-

Intersection

Int Delay, s/veh 8

Movement	SEL	SER	NEL	NET	SWT	SWR
Vol, veh/h	33	54	419	104	148	134
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	87	87	87	87	87	87
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	38	62	482	120	170	154

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1330	247	324	0	-	0
Stage 1	247	-	-	-	-	-
Stage 2	1083	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	171	792	1236	-	-	-
Stage 1	794	-	-	-	-	-
Stage 2	325	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	100	792	1236	-	-	-
Mov Cap-2 Maneuver	100	-	-	-	-	-
Stage 1	794	-	-	-	-	-
Stage 2	189	-	-	-	-	-

Approach	SE	NE	SW
HCM Control Delay, s	34.8	7.8	0
HCM LOS	D		

Minor Lane/Major Mvmt	NEL	NET	SELn1	SWT	SWR
Capacity (veh/h)	1236	-	218	-	-
HCM Lane V/C Ratio	0.39	-	0.459	-	-
HCM Control Delay (s)	9.8	0	34.8	-	-
HCM Lane LOS	A	A	D	-	-
HCM 95th %tile Q(veh)	1.9	-	2.2	-	-

SCENARIO 1

Intersection

Int Delay, s/veh 0.4

Movement	SET	SER	NWL	NWT	NEL	NER
Vol, veh/h	444	6	6	106	8	11
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	453	6	6	108	8	11

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	459	0	576	230
Stage 1	-	-	-	-	456	-
Stage 2	-	-	-	-	120	-
Critical Hdwy	-	-	4.14	-	6.63	6.93
Critical Hdwy Stg 1	-	-	-	-	5.83	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	2.22	-	3.519	3.319
Pot Cap-1 Maneuver	-	-	1098	-	463	773
Stage 1	-	-	-	-	606	-
Stage 2	-	-	-	-	905	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1098	-	460	773
Mov Cap-2 Maneuver	-	-	-	-	460	-
Stage 1	-	-	-	-	606	-
Stage 2	-	-	-	-	900	-

Approach	SE	NW	NE
HCM Control Delay, s	0	0.4	11.2
HCM LOS			B

Minor Lane/Major Mvmt	NELn1	NWL	NWT	SET	SER
Capacity (veh/h)	601	1098	-	-	-
HCM Lane V/C Ratio	0.032	0.006	-	-	-
HCM Control Delay (s)	11.2	8.3	0	-	-
HCM Lane LOS	B	A	A	-	-
HCM 95th %tile Q(veh)	0.1	0	-	-	-

Intersection	
Int Delay, s/veh	11.8

Movement	SEL	SER	NEL	NET	SWT	SWR
Vol, veh/h	303	152	21	301	211	91
Conflicting Peds, #/hr	0	0	7	0	0	7
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	93	93	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	329	165	23	324	220	95

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	636	274	315	0	-	0
Stage 1	267	-	-	-	-	-
Stage 2	369	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	442	765	1245	-	-	-
Stage 1	778	-	-	-	-	-
Stage 2	699	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	432	761	1238	-	-	-
Mov Cap-2 Maneuver	432	-	-	-	-	-
Stage 1	778	-	-	-	-	-
Stage 2	683	-	-	-	-	-

Approach	SE	NE	SW
HCM Control Delay, s	27.3	0.5	0
HCM LOS	D		

Minor Lane/Major Mvmt	NEL	NET	SELn1	SELn2	SWT	SWR
Capacity (veh/h)	1238	-	432	761	-	-
HCM Lane V/C Ratio	0.018	-	0.762	0.217	-	-
HCM Control Delay (s)	8	0	35.5	11	-	-
HCM Lane LOS	A	A	E	B	-	-
HCM 95th %tile Q(veh)	0.1	-	6.4	0.8	-	-

Intersection

Int Delay, s/veh 0.5

Movement	SET	SER	NWL	NWT	NEL	NER
Vol, veh/h	434	12	9	88	7	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
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, %	2	2	2	2	2	2
Mvmt Flow	452	12	9	92	7	12

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	465	0	568	232
Stage 1	-	-	-	-	458	-
Stage 2	-	-	-	-	110	-
Critical Hdwy	-	-	4.14	-	6.63	6.93
Critical Hdwy Stg 1	-	-	-	-	5.83	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	2.22	-	3.519	3.319
Pot Cap-1 Maneuver	-	-	1093	-	468	771
Stage 1	-	-	-	-	604	-
Stage 2	-	-	-	-	914	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1093	-	464	771
Mov Cap-2 Maneuver	-	-	-	-	464	-
Stage 1	-	-	-	-	604	-
Stage 2	-	-	-	-	906	-

Approach	SE	NW	NE
HCM Control Delay, s	0	0.8	11
HCM LOS			B

Minor Lane/Major Mvmt	NELn1	NWL	NWT	SET	SER
Capacity (veh/h)	620	1093	-	-	-
HCM Lane V/C Ratio	0.032	0.009	-	-	-
HCM Control Delay (s)	11	8.3	0	-	-
HCM Lane LOS	B	A	A	-	-
HCM 95th %tile Q(veh)	0.1	0	-	-	-

Intersection

Int Delay, s/veh 10.4

Movement	SEL	SER	NEL	NET	SWT	SWR
Vol, veh/h	334	112	13	195	122	84
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	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	380	127	15	222	139	95

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	437	186	234	0	-	0
Stage 1	186	-	-	-	-	-
Stage 2	251	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	577	856	1333	-	-	-
Stage 1	846	-	-	-	-	-
Stage 2	791	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	569	856	1333	-	-	-
Mov Cap-2 Maneuver	569	-	-	-	-	-
Stage 1	846	-	-	-	-	-
Stage 2	781	-	-	-	-	-

Approach	SE	NE	SW
HCM Control Delay, s	19.8	0.5	0
HCM LOS	C		

Minor Lane/Major Mvmt	NEL	NET	SELn1	SELn2	SWT	SWR
Capacity (veh/h)	1333	-	569	856	-	-
HCM Lane V/C Ratio	0.011	-	0.667	0.149	-	-
HCM Control Delay (s)	7.7	0	23.1	9.9	-	-
HCM Lane LOS	A	A	C	A	-	-
HCM 95th %tile Q(veh)	0	-	5	0.5	-	-

SCENARIO 2

Intersection

Int Delay, s/veh 0.3

Movement	SET	SER	NWL	NWT	NEL	NER
Vol, veh/h	444	6	3	106	8	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	453	6	3	108	8	5

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	459	0	570	456
Stage 1	-	-	-	-	456	-
Stage 2	-	-	-	-	114	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1102	-	483	604
Stage 1	-	-	-	-	638	-
Stage 2	-	-	-	-	911	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1102	-	482	604
Mov Cap-2 Maneuver	-	-	-	-	482	-
Stage 1	-	-	-	-	638	-
Stage 2	-	-	-	-	908	-

Approach	SE	NW	NE
HCM Control Delay, s	0	0.2	12.1
HCM LOS			B

Minor Lane/Major Mvmt	NELn1	NWL	NWT	SET	SER
Capacity (veh/h)	523	1102	-	-	-
HCM Lane V/C Ratio	0.025	0.003	-	-	-
HCM Control Delay (s)	12.1	8.3	0	-	-
HCM Lane LOS	B	A	A	-	-
HCM 95th %tile Q(veh)	0.1	0	-	-	-

Intersection

Int Delay, s/veh 26

Movement	SEL	SER	NEL	NET	SWT	SWR
Vol, veh/h	301	148	19	303	212	90
Conflicting Peds, #/hr	0	0	7	0	0	7
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	93	93	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	327	161	20	326	221	94

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	635	275	315	0	-	0
Stage 1	268	-	-	-	-	-
Stage 2	367	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	443	764	1245	-	-	-
Stage 1	777	-	-	-	-	-
Stage 2	701	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	434	760	1238	-	-	-
Mov Cap-2 Maneuver	434	-	-	-	-	-
Stage 1	777	-	-	-	-	-
Stage 2	687	-	-	-	-	-

Approach	SE	NE	SW
HCM Control Delay, s	60.8	0.5	0
HCM LOS	F		

Minor Lane/Major Mvmt	NEL	NET	SELn1	SWT	SWR
Capacity (veh/h)	1238	-	505	-	-
HCM Lane V/C Ratio	0.017	-	0.966	-	-
HCM Control Delay (s)	8	0	60.8	-	-
HCM Lane LOS	A	A	F	-	-
HCM 95th %tile Q(veh)	0.1	-	12.5	-	-

Intersection

Int Delay, s/veh 0.2

Movement	SEL	SER	NEL	NET	SWT	SWR
Vol, veh/h	2	4	2	320	359	1
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, %	2	2	2	2	2	2
Mvmt Flow	2	4	2	348	390	1

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	743	391	391	0	-	0
Stage 1	391	-	-	-	-	-
Stage 2	352	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	383	658	1168	-	-	-
Stage 1	683	-	-	-	-	-
Stage 2	712	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	382	658	1168	-	-	-
Mov Cap-2 Maneuver	382	-	-	-	-	-
Stage 1	683	-	-	-	-	-
Stage 2	711	-	-	-	-	-

Approach	SE	NE	SW
HCM Control Delay, s	11.9	0.1	0
HCM LOS	B		

Minor Lane/Major Mvmt	NEL	NET	SELn1	SWT	SWR
Capacity (veh/h)	1168	-	530	-	-
HCM Lane V/C Ratio	0.002	-	0.012	-	-
HCM Control Delay (s)	8.1	0	11.9	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Intersection

Int Delay, s/veh 0.4

Movement	SET	SER	NWL	NWT	NEL	NER
Vol, veh/h	434	12	4	88	7	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
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, %	2	2	2	2	2	2
Mvmt Flow	452	12	4	92	7	7

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	465	0	558	458
Stage 1	-	-	-	-	458	-
Stage 2	-	-	-	-	100	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1096	-	491	603
Stage 1	-	-	-	-	637	-
Stage 2	-	-	-	-	924	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1096	-	489	603
Mov Cap-2 Maneuver	-	-	-	-	489	-
Stage 1	-	-	-	-	637	-
Stage 2	-	-	-	-	920	-

Approach	SE	NW	NE
HCM Control Delay, s	0	0.4	11.9
HCM LOS			B

Minor Lane/Major Mvmt	NELn1	NWL	NWT	SET	SER
Capacity (veh/h)	540	1096	-	-	-
HCM Lane V/C Ratio	0.027	0.004	-	-	-
HCM Control Delay (s)	11.9	8.3	0	-	-
HCM Lane LOS	B	A	A	-	-
HCM 95th %tile Q(veh)	0.1	0	-	-	-

Intersection

Int Delay, s/veh 15.6

Movement	SEL	SER	NEL	NET	SWT	SWR
Vol, veh/h	333	108	10	196	124	82
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	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	378	123	11	223	141	93

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	433	188	234	0	-	0
Stage 1	188	-	-	-	-	-
Stage 2	245	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	580	854	1333	-	-	-
Stage 1	844	-	-	-	-	-
Stage 2	796	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	575	854	1333	-	-	-
Mov Cap-2 Maneuver	575	-	-	-	-	-
Stage 1	844	-	-	-	-	-
Stage 2	789	-	-	-	-	-

Approach	SE	NE	SW
HCM Control Delay, s	29.9	0.4	0
HCM LOS	D		

Minor Lane/Major Mvmt	NEL	NET	SELn1	SWT	SWR
Capacity (veh/h)	1333	-	625	-	-
HCM Lane V/C Ratio	0.009	-	0.802	-	-
HCM Control Delay (s)	7.7	0	29.9	-	-
HCM Lane LOS	A	A	D	-	-
HCM 95th %tile Q(veh)	0	-	8	-	-

Intersection

Int Delay, s/veh 0.2

Movement	SEL	SER	NEL	NET	SWT	SWR
Vol, veh/h	1	4	3	205	230	2
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, %	2	2	2	2	2	2
Mvmt Flow	1	4	3	223	250	2

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	480	251	252	0	-	0
Stage 1	251	-	-	-	-	-
Stage 2	229	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	545	788	1313	-	-	-
Stage 1	791	-	-	-	-	-
Stage 2	809	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	543	788	1313	-	-	-
Mov Cap-2 Maneuver	543	-	-	-	-	-
Stage 1	791	-	-	-	-	-
Stage 2	807	-	-	-	-	-

Approach	SE	NE	SW
HCM Control Delay, s	10	0.1	0
HCM LOS	B		

Minor Lane/Major Mvmt	NEL	NET	SELn1	SWT	SWR
Capacity (veh/h)	1313	-	723	-	-
HCM Lane V/C Ratio	0.002	-	0.008	-	-
HCM Control Delay (s)	7.7	0	10	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

SCENARIO 3

Intersection

Int Delay, s/veh 0.3

Movement	SET	SER	NWL	NWT	NEL	NER
Vol, veh/h	444	6	3	106	8	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	453	6	3	108	8	5

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	459	0	570	230
Stage 1	-	-	-	-	456	-
Stage 2	-	-	-	-	114	-
Critical Hdwy	-	-	4.14	-	6.63	6.93
Critical Hdwy Stg 1	-	-	-	-	5.83	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	2.22	-	3.519	3.319
Pot Cap-1 Maneuver	-	-	1098	-	467	773
Stage 1	-	-	-	-	606	-
Stage 2	-	-	-	-	910	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1098	-	466	773
Mov Cap-2 Maneuver	-	-	-	-	466	-
Stage 1	-	-	-	-	606	-
Stage 2	-	-	-	-	907	-

Approach	SE	NW	NE
HCM Control Delay, s	0	0.2	11.7
HCM LOS			B

Minor Lane/Major Mvmt	NELn1	NWL	NWT	SET	SER
Capacity (veh/h)	550	1098	-	-	-
HCM Lane V/C Ratio	0.024	0.003	-	-	-
HCM Control Delay (s)	11.7	8.3	0	-	-
HCM Lane LOS	B	A	A	-	-
HCM 95th %tile Q(veh)	0.1	0	-	-	-

Intersection

Int Delay, s/veh 11.5

Movement	SEL	SER	NEL	NET	SWT	SWR
Vol, veh/h	301	148	19	303	212	90
Conflicting Peds, #/hr	0	0	7	0	0	7
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	93	93	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	327	161	20	326	221	94

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	635	275	315	0	-	0
Stage 1	268	-	-	-	-	-
Stage 2	367	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	443	764	1245	-	-	-
Stage 1	777	-	-	-	-	-
Stage 2	701	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	434	760	1238	-	-	-
Mov Cap-2 Maneuver	434	-	-	-	-	-
Stage 1	777	-	-	-	-	-
Stage 2	687	-	-	-	-	-

Approach	SE	NE	SW
HCM Control Delay, s	26.8	0.5	0
HCM LOS	D		

Minor Lane/Major Mvmt	NEL	NET	SELn1	SELn2	SWT	SWR
Capacity (veh/h)	1238	-	434	760	-	-
HCM Lane V/C Ratio	0.017	-	0.754	0.212	-	-
HCM Control Delay (s)	8	0	34.6	11	-	-
HCM Lane LOS	A	A	D	B	-	-
HCM 95th %tile Q(veh)	0.1	-	6.3	0.8	-	-

Intersection

Int Delay, s/veh 0.2

Movement	SEL	SER	NEL	NET	SWT	SWR
Vol, veh/h	2	4	2	320	359	1
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, %	2	2	2	2	2	2
Mvmt Flow	2	4	2	348	390	1

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	743	391	391	0	-	0
Stage 1	391	-	-	-	-	-
Stage 2	352	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	383	658	1168	-	-	-
Stage 1	683	-	-	-	-	-
Stage 2	712	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	382	658	1168	-	-	-
Mov Cap-2 Maneuver	382	-	-	-	-	-
Stage 1	683	-	-	-	-	-
Stage 2	711	-	-	-	-	-

Approach	SE	NE	SW
HCM Control Delay, s	11.9	0.1	0
HCM LOS	B		

Minor Lane/Major Mvmt	NEL	NET	SELn1	SWT	SWR
Capacity (veh/h)	1168	-	530	-	-
HCM Lane V/C Ratio	0.002	-	0.012	-	-
HCM Control Delay (s)	8.1	0	11.9	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Intersection

Int Delay, s/veh 0.4

Movement	SET	SER	NWL	NWT	NEL	NER
Vol, veh/h	434	12	4	88	7	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
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, %	2	2	2	2	2	2
Mvmt Flow	452	12	4	92	7	7

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	465	0	558	232
Stage 1	-	-	-	-	458	-
Stage 2	-	-	-	-	100	-
Critical Hdwy	-	-	4.14	-	6.63	6.93
Critical Hdwy Stg 1	-	-	-	-	5.83	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	2.22	-	3.519	3.319
Pot Cap-1 Maneuver	-	-	1093	-	475	771
Stage 1	-	-	-	-	604	-
Stage 2	-	-	-	-	923	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1093	-	473	771
Mov Cap-2 Maneuver	-	-	-	-	473	-
Stage 1	-	-	-	-	604	-
Stage 2	-	-	-	-	919	-

Approach	SE	NW	NE
HCM Control Delay, s	0	0.4	11.3
HCM LOS			B

Minor Lane/Major Mvmt	NELn1	NWL	NWT	SET	SER
Capacity (veh/h)	586	1093	-	-	-
HCM Lane V/C Ratio	0.025	0.004	-	-	-
HCM Control Delay (s)	11.3	8.3	0	-	-
HCM Lane LOS	B	A	A	-	-
HCM 95th %tile Q(veh)	0.1	0	-	-	-

Intersection

Int Delay, s/veh 10.1

Movement	SEL	SER	NEL	NET	SWT	SWR
Vol, veh/h	333	108	10	196	124	82
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	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	378	123	11	223	141	93

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	433	188	234	0	-	0
Stage 1	188	-	-	-	-	-
Stage 2	245	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	580	854	1333	-	-	-
Stage 1	844	-	-	-	-	-
Stage 2	796	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	575	854	1333	-	-	-
Mov Cap-2 Maneuver	575	-	-	-	-	-
Stage 1	844	-	-	-	-	-
Stage 2	789	-	-	-	-	-

Approach	SE	NE	SW
HCM Control Delay, s	19.4	0.4	0
HCM LOS	C		

Minor Lane/Major Mvmt	NEL	NET	SELn1	SELn2	SWT	SWR
Capacity (veh/h)	1333	-	575	854	-	-
HCM Lane V/C Ratio	0.009	-	0.658	0.144	-	-
HCM Control Delay (s)	7.7	0	22.5	9.9	-	-
HCM Lane LOS	A	A	C	A	-	-
HCM 95th %tile Q(veh)	0	-	4.8	0.5	-	-

Intersection

Int Delay, s/veh 0.2

Movement	SEL	SER	NEL	NET	SWT	SWR
Vol, veh/h	1	4	3	205	230	2
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, %	2	2	2	2	2	2
Mvmt Flow	1	4	3	223	250	2

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	480	251	252	0	-	0
Stage 1	251	-	-	-	-	-
Stage 2	229	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	545	788	1313	-	-	-
Stage 1	791	-	-	-	-	-
Stage 2	809	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	543	788	1313	-	-	-
Mov Cap-2 Maneuver	543	-	-	-	-	-
Stage 1	791	-	-	-	-	-
Stage 2	807	-	-	-	-	-

Approach	SE	NE	SW
HCM Control Delay, s	10	0.1	0
HCM LOS	B		

Minor Lane/Major Mvmt	NEL	NET	SELn1	SWT	SWR
Capacity (veh/h)	1313	-	723	-	-
HCM Lane V/C Ratio	0.002	-	0.008	-	-
HCM Control Delay (s)	7.7	0	10	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

SCENARIO 4

Intersection

Int Delay, s/veh 0.4

Movement	SET	SER	NWL	NWT	NEL	NER
Vol, veh/h	444	6	6	106	8	11
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	453	6	6	108	8	11

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	459	0	576	230
Stage 1	-	-	-	-	456	-
Stage 2	-	-	-	-	120	-
Critical Hdwy	-	-	4.14	-	6.63	6.93
Critical Hdwy Stg 1	-	-	-	-	5.83	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	2.22	-	3.519	3.319
Pot Cap-1 Maneuver	-	-	1098	-	463	773
Stage 1	-	-	-	-	606	-
Stage 2	-	-	-	-	905	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1098	-	460	773
Mov Cap-2 Maneuver	-	-	-	-	460	-
Stage 1	-	-	-	-	606	-
Stage 2	-	-	-	-	900	-

Approach	SE	NW	NE
HCM Control Delay, s	0	0.4	11.2
HCM LOS			B

Minor Lane/Major Mvmt	NELn1	NWL	NWT	SET	SER
Capacity (veh/h)	601	1098	-	-	-
HCM Lane V/C Ratio	0.032	0.006	-	-	-
HCM Control Delay (s)	11.2	8.3	0	-	-
HCM Lane LOS	B	A	A	-	-
HCM 95th %tile Q(veh)	0.1	0	-	-	-

Intersection

Int Delay, s/veh 9.7

Movement	SEL	SER	NEL	NET	SWT	SWR
Vol, veh/h	303	152	21	195	211	91
Conflicting Peds, #/hr	0	0	7	0	0	7
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	93	93	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	329	165	23	210	220	95

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	522	274	315	0	-	0
Stage 1	267	-	-	-	-	-
Stage 2	255	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	515	765	1245	-	-	-
Stage 1	778	-	-	-	-	-
Stage 2	788	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	504	761	1238	-	-	-
Mov Cap-2 Maneuver	504	-	-	-	-	-
Stage 1	778	-	-	-	-	-
Stage 2	771	-	-	-	-	-

Approach	SE	NE	SW
HCM Control Delay, s	20.1	0.8	0
HCM LOS	C		

Minor Lane/Major Mvmt	NEL	NET	SELn1	SELn2	SWT	SWR
Capacity (veh/h)	1238	-	504	761	-	-
HCM Lane V/C Ratio	0.018	-	0.653	0.217	-	-
HCM Control Delay (s)	8	0	24.6	11	-	-
HCM Lane LOS	A	A	C	B	-	-
HCM 95th %tile Q(veh)	0.1	-	4.7	0.8	-	-

Intersection

Int Delay, s/veh 11.5

Movement	SEL	SER	NEL	NET	SWT	SWR
Vol, veh/h	47	139	420	78	163	112
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	89	89	89	89	89	89
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	53	156	472	88	183	126

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1277	246	309	0	-	0
Stage 1	246	-	-	-	-	-
Stage 2	1031	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	184	793	1252	-	-	-
Stage 1	795	-	-	-	-	-
Stage 2	344	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	111	793	1252	-	-	-
Mov Cap-2 Maneuver	111	-	-	-	-	-
Stage 1	795	-	-	-	-	-
Stage 2	208	-	-	-	-	-

Approach	SE	NE	SW
HCM Control Delay, s	37.4	8.1	0
HCM LOS	E		

Minor Lane/Major Mvmt	NEL	NET	SELn1	SWT	SWR
Capacity (veh/h)	1252	-	311	-	-
HCM Lane V/C Ratio	0.377	-	0.672	-	-
HCM Control Delay (s)	9.6	0	37.4	-	-
HCM Lane LOS	A	A	E	-	-
HCM 95th %tile Q(veh)	1.8	-	4.5	-	-

Intersection

Int Delay, s/veh 0.5

Movement	SET	SER	NWL	NWT	NEL	NER
Vol, veh/h	434	12	9	88	7	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
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, %	2	2	2	2	2	2
Mvmt Flow	452	12	9	92	7	12

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	465	0	568	232
Stage 1	-	-	-	-	458	-
Stage 2	-	-	-	-	110	-
Critical Hdwy	-	-	4.14	-	6.63	6.93
Critical Hdwy Stg 1	-	-	-	-	5.83	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	2.22	-	3.519	3.319
Pot Cap-1 Maneuver	-	-	1093	-	468	771
Stage 1	-	-	-	-	604	-
Stage 2	-	-	-	-	914	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1093	-	464	771
Mov Cap-2 Maneuver	-	-	-	-	464	-
Stage 1	-	-	-	-	604	-
Stage 2	-	-	-	-	906	-

Approach	SE	NW	NE
HCM Control Delay, s	0	0.8	11
HCM LOS			B

Minor Lane/Major Mvmt	NELn1	NWL	NWT	SET	SER
Capacity (veh/h)	620	1093	-	-	-
HCM Lane V/C Ratio	0.032	0.009	-	-	-
HCM Control Delay (s)	11	8.3	0	-	-
HCM Lane LOS	B	A	A	-	-
HCM 95th %tile Q(veh)	0.1	0	-	-	-

Intersection

Int Delay, s/veh 9.6

Movement	SEL	SER	NEL	NET	SWT	SWR
Vol, veh/h	334	112	13	133	122	84
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	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	380	127	15	151	139	95

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	367	186	234	0	-	0
Stage 1	186	-	-	-	-	-
Stage 2	181	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	633	856	1333	-	-	-
Stage 1	846	-	-	-	-	-
Stage 2	850	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	625	856	1333	-	-	-
Mov Cap-2 Maneuver	625	-	-	-	-	-
Stage 1	846	-	-	-	-	-
Stage 2	840	-	-	-	-	-

Approach	SE	NE	SW
HCM Control Delay, s	16.9	0.7	0
HCM LOS	C		

Minor Lane/Major Mvmt	NEL	NET	SELn1	SELn2	SWT	SWR
Capacity (veh/h)	1333	-	625	856	-	-
HCM Lane V/C Ratio	0.011	-	0.607	0.149	-	-
HCM Control Delay (s)	7.7	0	19.3	9.9	-	-
HCM Lane LOS	A	A	C	A	-	-
HCM 95th %tile Q(veh)	0	-	4.1	0.5	-	-

Intersection

Int Delay, s/veh 6.7

Movement	SEL	SER	NEL	NET	SWT	SWR
Vol, veh/h	33	54	360	107	152	134
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	87	87	87	87	87	87
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	38	62	414	123	175	154

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1203	252	329	0	-	0
Stage 1	252	-	-	-	-	-
Stage 2	951	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	204	787	1231	-	-	-
Stage 1	790	-	-	-	-	-
Stage 2	375	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	130	787	1231	-	-	-
Mov Cap-2 Maneuver	130	-	-	-	-	-
Stage 1	790	-	-	-	-	-
Stage 2	240	-	-	-	-	-

Approach	SE	NE	SW
HCM Control Delay, s	26	7.2	0
HCM LOS	D		

Minor Lane/Major Mvmt	NEL	NET	SELn1	SWT	SWR
Capacity (veh/h)	1231	-	270	-	-
HCM Lane V/C Ratio	0.336	-	0.37	-	-
HCM Control Delay (s)	9.4	0	26	-	-
HCM Lane LOS	A	A	D	-	-
HCM 95th %tile Q(veh)	1.5	-	1.6	-	-

SCENARIO 5

Intersection

Int Delay, s/veh 0.4

Movement	SET	SER	NWL	NWT	NEL	NER
Vol, veh/h	444	6	6	106	8	11
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	453	6	6	108	8	11

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	459	0	576	230
Stage 1	-	-	-	-	456	-
Stage 2	-	-	-	-	120	-
Critical Hdwy	-	-	4.14	-	6.63	6.93
Critical Hdwy Stg 1	-	-	-	-	5.83	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	2.22	-	3.519	3.319
Pot Cap-1 Maneuver	-	-	1098	-	463	773
Stage 1	-	-	-	-	606	-
Stage 2	-	-	-	-	905	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1098	-	460	773
Mov Cap-2 Maneuver	-	-	-	-	460	-
Stage 1	-	-	-	-	606	-
Stage 2	-	-	-	-	900	-

Approach	SE	NW	NE
HCM Control Delay, s	0	0.4	11.2
HCM LOS			B

Minor Lane/Major Mvmt	NELn1	NWL	NWT	SET	SER
Capacity (veh/h)	601	1098	-	-	-
HCM Lane V/C Ratio	0.032	0.006	-	-	-
HCM Control Delay (s)	11.2	8.3	0	-	-
HCM Lane LOS	B	A	A	-	-
HCM 95th %tile Q(veh)	0.1	0	-	-	-

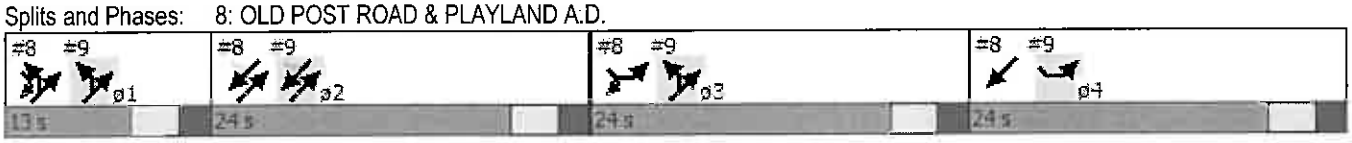
Lane Group	SEL	SER	NEL	NET	SWT	SWR	ø2	ø4
Lane Configurations								
Volume (vph)	303	152	21	301	211	91		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900		
Lane Width (ft)	12	12	12	12	12	12		
Grade (%)	0%			0%	0%			
Storage Length (ft)	0	0	0			0		
Storage Lanes	1	1	0			0		
Taper Length (ft)	25		25					
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00		
Ped Bike Factor	0.98			1.00	0.99			
Frt		0.850			0.959			
Flt Protected	0.950			0.997				
Satd. Flow (prot)	1770	1583	0	1857	1770	0		
Flt Permitted	0.950			0.975				
Satd. Flow (perm)	1730	1583	0	1815	1770	0		
Right Turn on Red		Yes				Yes		
Satd. Flow (RTOR)		165			33			
Link Speed (mph)	30			30	30			
Link Distance (ft)	139			484	335			
Travel Time (s)	3.2			11.0	7.6			
Confl. Peds. (#/hr)	10	10	10			10		
Confl. Bikes (#/hr)								
Peak Hour Factor	0.92	0.92	0.93	0.93	0.96	0.96		
Growth Factor	100%	100%	100%	100%	100%	100%		
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%		
Bus Blockages (#/hr)	0	0	0	0	0	0		
Parking (#/hr)								
Mid-Block Traffic (%)	0%			0%	0%			
Adj. Flow (vph)	329	165	23	324	220	95		
Shared Lane Traffic (%)								
Lane Group Flow (vph)	329	165	0	347	315	0		
Turn Type	Prot	pt+ov	pm+pt	NA	NA			
Protected Phases	3	3 1	1	1 2	2 4		2	4
Permitted Phases			1 2					
Detector Phase	3	3 1	1	1 2	2 4			
Switch Phase								
Minimum Initial (s)	8.0		5.0				15.0	8.0
Minimum Split (s)	13.0		10.0				20.0	13.0
Total Split (s)	24.0		13.0				24.0	24.0
Total Split (%)	28.2%		15.3%				28%	28%
Yellow Time (s)	3.0		3.0				3.0	3.0
All-Red Time (s)	2.0		2.0				2.0	2.0
Lost Time Adjust (s)	0.0							
Total Lost Time (s)	5.0							
Lead/Lag	Lead		Lead				Lag	Lag
Lead-Lag Optimize?								
Recall Mode	None		None				None	None
Act Effct Green (s)	18.4	26.5		27.0	29.6			
Actuated g/C Ratio	0.24	0.35		0.35	0.39			

Lane Group	SEL	SER	NEL	NET	SWT	SWR	ø2	ø4
v/c Ratio	0.77	0.25		0.53	0.44			
Control Delay	41.2	2.7		21.4	7.7			
Queue Delay	3.5	0.0		0.0	0.0			
Total Delay	44.7	2.7		21.4	7.7			
LOS	D	A		C	A			
Approach Delay	30.7			21.4	7.7			
Approach LOS	C			C	A			
Queue Length 50th (ft)	143	0		113	25			
Queue Length 95th (ft)	#286	19		202	68			
Internal Link Dist (ft)	59			404	255			
Turn Bay Length (ft)								
Base Capacity (vph)	442	668		649	901			
Starvation Cap Reductn	0	0		0	0			
Spillback Cap Reductn	53	0		0	0			
Storage Cap Reductn	0	0		0	0			
Reduced v/c Ratio	0.85	0.25		0.53	0.35			

Intersection Summary

Area Type: Other
Cycle Length: 85
Actuated Cycle Length: 76.1
Natural Cycle: 70
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.86
Intersection Signal Delay: 21.6 Intersection LOS: C
Intersection Capacity Utilization 58.2% ICU Level of Service B
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 8: OLD POST ROAD & PLAYLAND A.D.



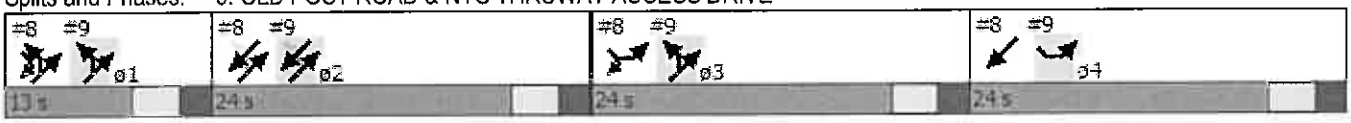
Lane Group	SEL	SER	NEL	NET	SWT	SWR	ø1	ø3
Lane Configurations								
Volume (vph)	47	139	526	78	163	112		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900		
Lane Width (ft)	12	12	12	12	12	12		
Grade (%)	0%			0%	0%			
Storage Length (ft)	0	0	0			0		
Storage Lanes	1	0	0			0		
Taper Length (ft)	25		25					
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00		
Ped Bike Factor	0.96			1.00	0.98			
Frt	0.899				0.945			
Flt Protected	0.987			0.958				
Satd. Flow (prot)	1601	0	0	1785	1730	0		
Flt Permitted	0.987			0.359				
Satd. Flow (perm)	1592	0	0	666	1730	0		
Right Turn on Red		Yes				Yes		
Satd. Flow (RTOR)	156				38			
Link Speed (mph)	30			30	30			
Link Distance (ft)	589			335	220			
Travel Time (s)	13.4			7.6	5.0			
Confl. Peds. (#/hr)	10	10	10			10		
Confl. Bikes (#/hr)								
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89		
Growth Factor	100%	100%	100%	100%	100%	100%		
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%		
Bus Blockages (#/hr)	0	0	0	0	0	0		
Parking (#/hr)								
Mid-Block Traffic (%)	0%			0%	0%			
Adj. Flow (vph)	53	156	591	88	183	126		
Shared Lane Traffic (%)								
Lane Group Flow (vph)	209	0	0	679	309	0		
Turn Type	Prot		pm+pt	NA	NA			
Protected Phases	4		1 3	1 2 3	2		1	3
Permitted Phases			1 2 3					
Detector Phase	4		1 3	1 2 3	2			
Switch Phase								
Minimum Initial (s)	8.0				15.0		5.0	8.0
Minimum Split (s)	13.0				20.0		10.0	13.0
Total Split (s)	24.0				24.0		13.0	24.0
Total Split (%)	28.2%				28.2%		15%	28%
Yellow Time (s)	3.0				3.0		3.0	3.0
All-Red Time (s)	2.0				2.0		2.0	2.0
Lost Time Adjust (s)	0.0				0.0			
Total Lost Time (s)	5.0				5.0			
Lead/Lag	Lag				Lag		Lead	Lead
Lead-Lag Optimize?								
Recall Mode	None				None		None	None
Act Effct Green (s)	10.6			45.5	19.0			
Actuated g/C Ratio	0.14			0.60	0.25			

Lane Group	SEL	SER	NEL	NET	SWT	SWR	ø1	ø3
v/c Ratio	0.59			0.86	0.67			
Control Delay	16.7			21.0	31.7			
Queue Delay	0.0			0.0	0.0			
Total Delay	16.7			21.0	31.7			
LOS	B			C	C			
Approach Delay	16.7			21.0	31.7			
Approach LOS	B			C	C			
Queue Length 50th (ft)	23			82	115			
Queue Length 95th (ft)	82			#308	#230			
Internal Link Dist (ft)	509			255	140			
Turn Bay Length (ft)								
Base Capacity (vph)	517			800	460			
Starvation Cap Reductn	0			0	0			
Spillback Cap Reductn	0			0	0			
Storage Cap Reductn	0			0	0			
Reduced v/c Ratio	0.40			0.85	0.67			

Intersection Summary

Area Type: Other
Cycle Length: 85
Actuated Cycle Length: 76.1
Natural Cycle: 70
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.86
Intersection Signal Delay: 23.0 Intersection LOS: C
Intersection Capacity Utilization 73.5% ICU Level of Service D
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 9: OLD POST ROAD & NYS THRUWAY ACCESS DRIVE



Intersection

Int Delay, s/veh 0.5

Movement	SET	SER	NWL	NWT	NEL	NER
Vol, veh/h	434	12	9	88	7	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
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, %	2	2	2	2	2	2
Mvmt Flow	452	12	9	92	7	12

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	465	0	568	232
Stage 1	-	-	-	-	458	-
Stage 2	-	-	-	-	110	-
Critical Hdwy	-	-	4.14	-	6.63	6.93
Critical Hdwy Stg 1	-	-	-	-	5.83	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	2.22	-	3.519	3.319
Pot Cap-1 Maneuver	-	-	1093	-	468	771
Stage 1	-	-	-	-	604	-
Stage 2	-	-	-	-	914	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1093	-	464	771
Mov Cap-2 Maneuver	-	-	-	-	464	-
Stage 1	-	-	-	-	604	-
Stage 2	-	-	-	-	906	-

Approach	SE	NW	NE
HCM Control Delay, s	0	0.8	11
HCM LOS			B

Minor Lane/Major Mvmt	NELn1	NWL	NWT	SET	SER
Capacity (veh/h)	620	1093	-	-	-
HCM Lane V/C Ratio	0.032	0.009	-	-	-
HCM Control Delay (s)	11	8.3	0	-	-
HCM Lane LOS	B	A	A	-	-
HCM 95th %tile Q(veh)	0.1	0	-	-	-

Lane Group	SEL	SER	NEL	NET	SWT	SWR	ø2	ø4
Lane Configurations								
Volume (vph)	334	112	13	195	122	84		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900		
Lane Width (ft)	12	12	12	12	12	12		
Grade (%)	0%			0%	0%			
Storage Length (ft)	0	0	0			0		
Storage Lanes	1	1	0			0		
Taper Length (ft)	25		25					
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00		
Ped Bike Factor	0.98			1.00	0.99			
Frt		0.850			0.945			
Flt Protected	0.950			0.997				
Satd. Flow (prot)	1770	1583	0	1857	1738	0		
Flt Permitted	0.950			0.985				
Satd. Flow (perm)	1730	1583	0	1834	1738	0		
Right Turn on Red		Yes				Yes		
Satd. Flow (RTOR)		127			52			
Link Speed (mph)	30			30	30			
Link Distance (ft)	139			484	335			
Travel Time (s)	3.2			11.0	7.6			
Confl. Peds. (#/hr)	10	10	10			10		
Confl. Bikes (#/hr)								
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88		
Growth Factor	100%	100%	100%	100%	100%	100%		
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%		
Bus Blockages (#/hr)	0	0	0	0	0	0		
Parking (#/hr)								
Mid-Block Traffic (%)	0%			0%	0%			
Adj. Flow (vph)	380	127	15	222	139	95		
Shared Lane Traffic (%)								
Lane Group Flow (vph)	380	127	0	237	234	0		
Turn Type	Prot	pt+ov	pm+pt	NA	NA			
Protected Phases	3	3 1	1	1 2	2 4		2	4
Permitted Phases			1 2					
Detector Phase	3	3 1	1	1 2	2 4			
Switch Phase								
Minimum Initial (s)	8.0		5.0				15.0	8.0
Minimum Split (s)	13.0		10.0				20.0	13.0
Total Split (s)	24.0		13.0				24.0	24.0
Total Split (%)	28.2%		15.3%				28%	28%
Yellow Time (s)	3.0		3.0				3.0	3.0
All-Red Time (s)	2.0		2.0				2.0	2.0
Lost Time Adjust (s)	0.0							
Total Lost Time (s)	5.0							
Lead/Lag	Lead		Lead				Lag	Lag
Lead-Lag Optimize?								
Recall Mode	None		None				None	None
Act Effct Green (s)	18.7	26.7		27.0	27.8			
Actuated g/C Ratio	0.25	0.36		0.36	0.37			

Lane Group	SEL	SER	NEL	NET	SWT	SWR	ø2	ø4
v/c Ratio	0.86	0.20		0.36	0.34			
Control Delay	47.5	2.6		16.6	6.7			
Queue Delay	0.0	0.0		0.0	0.0			
Total Delay	47.5	2.6		16.6	6.7			
LOS	D	A		B	A			
Approach Delay	36.3			16.6	6.7			
Approach LOS	D			B	A			
Queue Length 50th (ft)	165	0		68	10			
Queue Length 95th (ft)	#313	17		121	m49			
Internal Link Dist (ft)	59			404	255			
Turn Bay Length (ft)								
Base Capacity (vph)	451	654		666	911			
Starvation Cap Reductn	0	0		0	0			
Spillback Cap Reductn	0	0		0	0			
Storage Cap Reductn	0	0		0	0			
Reduced v/c Ratio	0.84	0.19		0.36	0.26			

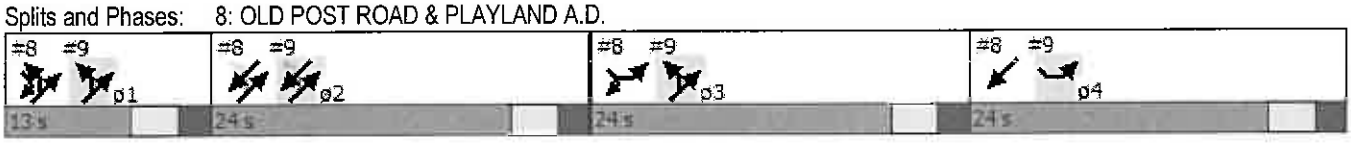
Intersection Summary

Area Type: Other
Cycle Length: 85
Actuated Cycle Length: 74.5
Natural Cycle: 60
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.86
Intersection Signal Delay: 24.4 Intersection LOS: C
Intersection Capacity Utilization 47.8% ICU Level of Service A
Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 8: OLD POST ROAD & PLAYLAND A.D.



Lane Group	SEL	SER	NEL	NET	SWT	SWR	ø1	ø3
Lane Configurations								
Volume (vph)	33	54	422	107	152	134		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900		
Lane Width (ft)	12	12	12	12	12	12		
Grade (%)	0%			0%	0%			
Storage Length (ft)	0	0	0			0		
Storage Lanes	1	0	0			0		
Taper Length (ft)	25		25					
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00		
Ped Bike Factor	0.97			1.00	0.98			
Frt	0.916				0.937			
Flt Protected	0.981			0.962				
Satd. Flow (prot)	1630	0	0	1792	1711	0		
Flt Permitted	0.981			0.349				
Satd. Flow (perm)	1616	0	0	647	1711	0		
Right Turn on Red		Yes				Yes		
Satd. Flow (RTOR)	62				48			
Link Speed (mph)	30			30	30			
Link Distance (ft)	589			335	220			
Travel Time (s)	13.4			7.6	5.0			
Confl. Peds. (#/hr)	10	10	10			10		
Confl. Bikes (#/hr)								
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87		
Growth Factor	100%	100%	100%	100%	100%	100%		
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%		
Bus Blockages (#/hr)	0	0	0	0	0	0		
Parking (#/hr)								
Mid-Block Traffic (%)	0%			0%	0%			
Adj. Flow (vph)	38	62	485	123	175	154		
Shared Lane Traffic (%)								
Lane Group Flow (vph)	100	0	0	608	329	0		
Turn Type	Prot		pm+pt	NA	NA			
Protected Phases	4		1 3	1 2 3	2		1	3
Permitted Phases			1 2 3					
Detector Phase	4		1 3	1 2 3	2			
Switch Phase								
Minimum Initial (s)	8.0				15.0		5.0	8.0
Minimum Split (s)	13.0				20.0		10.0	13.0
Total Split (s)	24.0				24.0		13.0	24.0
Total Split (%)	28.2%				28.2%		15%	28%
Yellow Time (s)	3.0				3.0		3.0	3.0
All-Red Time (s)	2.0				2.0		2.0	2.0
Lost Time Adjust (s)	0.0				0.0			
Total Lost Time (s)	5.0				5.0			
Lead/Lag	Lag				Lag		Lead	Lead
Lead-Lag Optimize?								
Recall Mode	None				None		None	None
Act Effct Green (s)	8.8			45.7	19.0			
Actuated g/C Ratio	0.12			0.61	0.26			

Lane Group	SEL	SER	NEL	NET	SWT	SWR	ø1	ø3
v/c Ratio	0.40			0.75	0.70			
Control Delay	19.6			13.4	31.0			
Queue Delay	0.0			0.0	0.0			
Total Delay	19.6			13.4	31.0			
LOS	B			B	C			
Approach Delay	19.6			13.4	31.0			
Approach LOS	B			B	C			
Queue Length 50th (ft)	16			56	116			
Queue Length 95th (ft)	55			m108	#208			
Internal Link Dist (ft)	509			255	140			
Turn Bay Length (ft)								
Base Capacity (vph)	461			814	471			
Starvation Cap Reductn	0			0	0			
Spillback Cap Reductn	0			0	0			
Storage Cap Reductn	0			0	0			
Reduced v/c Ratio	0.22			0.75	0.70			

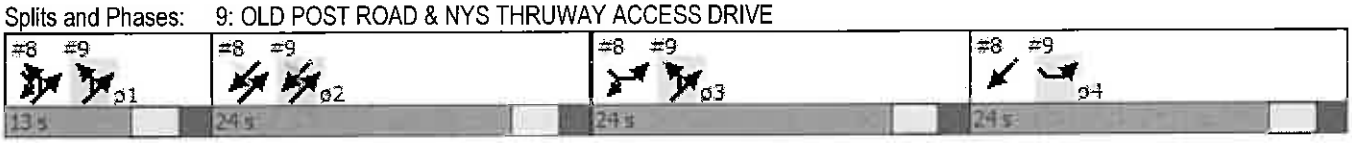
Intersection Summary

Area Type: Other
Cycle Length: 85
Actuated Cycle Length: 74.5
Natural Cycle: 60
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.86
Intersection Signal Delay: 19.6 Intersection LOS: B
Intersection Capacity Utilization 64.8% ICU Level of Service C
Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 9: OLD POST ROAD & NYS THRUWAY ACCESS DRIVE



SCENARIO 6

Intersection

Int Delay, s/veh 0.4

Movement	SET	SER	NWL	NWT	NEL	NER
Vol, veh/h	444	6	6	106	8	11
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	453	6	6	108	8	11

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	459	0	576	230
Stage 1	-	-	-	-	456	-
Stage 2	-	-	-	-	120	-
Critical Hdwy	-	-	4.14	-	6.63	6.93
Critical Hdwy Stg 1	-	-	-	-	5.83	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	2.22	-	3.519	3.319
Pot Cap-1 Maneuver	-	-	1098	-	463	773
Stage 1	-	-	-	-	606	-
Stage 2	-	-	-	-	905	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1098	-	460	773
Mov Cap-2 Maneuver	-	-	-	-	460	-
Stage 1	-	-	-	-	606	-
Stage 2	-	-	-	-	900	-

Approach	SE	NW	NE
HCM Control Delay, s	0	0.4	11.2
HCM LOS			B

Minor Lane/Major Mvmt	NELn1	NWL	NWT	SET	SER
Capacity (veh/h)	601	1098	-	-	-
HCM Lane V/C Ratio	0.032	0.006	-	-	-
HCM Control Delay (s)	11.2	8.3	0	-	-
HCM Lane LOS	B	A	A	-	-
HCM 95th %tile Q(veh)	0.1	0	-	-	-

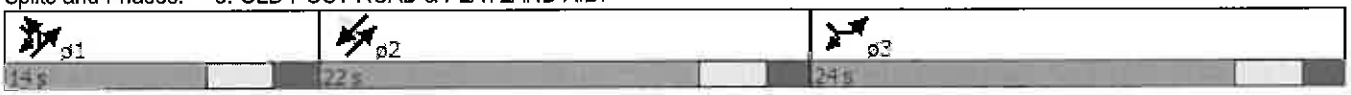
Lane Group	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations						
Volume (vph)	303	152	21	301	211	91
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)	0	0	0			0
Storage Lanes	1	1	0			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.98			1.00	0.99	
Frt		0.850			0.959	
Flt Protected	0.950			0.997		
Satd. Flow (prot)	1770	1583	0	1857	1766	0
Flt Permitted	0.950			0.981		
Satd. Flow (perm)	1742	1583	0	1827	1766	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		165			36	
Link Speed (mph)	30			30	30	
Link Distance (ft)	139			484	335	
Travel Time (s)	3.2			11.0	7.6	
Confl. Peds. (#/hr)	10	10	10			10
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.93	0.93	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	329	165	23	324	220	95
Shared Lane Traffic (%)						
Lane Group Flow (vph)	329	165	0	347	315	0
Turn Type	Prot	pt+ov	pm+pt	NA	NA	
Protected Phases	3	3 1	1	1 2	2	
Permitted Phases			1 2			
Detector Phase	3	3 1	1	1 2	2	
Switch Phase						
Minimum Initial (s)	8.0		5.0		15.0	
Minimum Split (s)	13.0		10.0		20.0	
Total Split (s)	24.0		14.0		22.0	
Total Split (%)	40.0%		23.3%		36.7%	
Yellow Time (s)	3.0		3.0		3.0	
All-Red Time (s)	2.0		2.0		2.0	
Lost Time Adjust (s)	0.0				0.0	
Total Lost Time (s)	5.0				5.0	
Lead/Lag			Lead		Lag	
Lead-Lag Optimize?						
Recall Mode	None		None		None	
Act Effct Green (s)	13.4	26.5		23.9	15.9	
Actuated g/C Ratio	0.26	0.50		0.46	0.30	

Lane Group	SEL	SER	NEL	NET	SWT	SWR
v/c Ratio	0.73	0.19		0.41	0.56	
Control Delay	28.4	2.0		9.6	19.4	
Queue Delay	0.0	0.0		0.0	0.0	
Total Delay	28.4	2.0		9.6	19.4	
LOS	C	A		A	B	
Approach Delay	19.6			9.6	19.4	
Approach LOS	B			A	B	
Queue Length 50th (ft)	93	0		52	73	
Queue Length 95th (ft)	171	21		117	158	
Internal Link Dist (ft)	59			404	255	
Turn Bay Length (ft)						
Base Capacity (vph)	649	895		922	603	
Starvation Cap Reductn	0	0		0	0	
Spillback Cap Reductn	0	0		0	0	
Storage Cap Reductn	0	0		0	0	
Reduced v/c Ratio	0.51	0.18		0.38	0.52	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 52.5
Natural Cycle: 50
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.73
Intersection Signal Delay: 16.5 Intersection LOS: B
Intersection Capacity Utilization 58.2% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 8: OLD POST ROAD & PLAYLAND A.D.



Intersection

Int Delay, s/veh 0.5

Movement	SET	SER	NWL	NWT	NEL	NER
Vol, veh/h	434	12	9	88	7	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
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, %	2	2	2	2	2	2
Mvmt Flow	452	12	9	92	7	12

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	465	0	568	232
Stage 1	-	-	-	-	458	-
Stage 2	-	-	-	-	110	-
Critical Hdwy	-	-	4.14	-	6.63	6.93
Critical Hdwy Stg 1	-	-	-	-	5.83	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	2.22	-	3.519	3.319
Pot Cap-1 Maneuver	-	-	1093	-	468	771
Stage 1	-	-	-	-	604	-
Stage 2	-	-	-	-	914	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1093	-	464	771
Mov Cap-2 Maneuver	-	-	-	-	464	-
Stage 1	-	-	-	-	604	-
Stage 2	-	-	-	-	906	-

Approach	SE	NW	NE
HCM Control Delay, s	0	0.8	11
HCM LOS			B

Minor Lane/Major Mvmt	NELn1	NWL	NWT	SET	SER
Capacity (veh/h)	620	1093	-	-	-
HCM Lane V/C Ratio	0.032	0.009	-	-	-
HCM Control Delay (s)	11	8.3	0	-	-
HCM Lane LOS	B	A	A	-	-
HCM 95th %tile Q(veh)	0.1	0	-	-	-

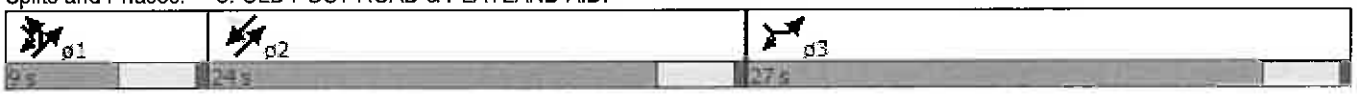
Lane Group	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations						
Volume (vph)	334	112	13	133	122	84
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)	0	0	0			0
Storage Lanes	1	1	0			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt		0.850			0.945	
Flt Protected	0.950			0.996		
Satd. Flow (prot)	1770	1583	0	1855	1760	0
Flt Permitted	0.950			0.977		
Satd. Flow (perm)	1770	1583	0	1820	1760	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		127			62	
Link Speed (mph)	30			30	30	
Link Distance (ft)	139			484	335	
Travel Time (s)	3.2			11.0	7.6	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	380	127	15	151	139	95
Shared Lane Traffic (%)						
Lane Group Flow (vph)	380	127	0	166	234	0
Turn Type	Prot	pt+ov	pm+pt	NA	NA	
Protected Phases	3	3 1	1	1 2	2	
Permitted Phases			1 2			
Detector Phase	3	3 1	1	1 2	2	
Switch Phase						
Minimum Initial (s)	4.0		4.0		4.0	
Minimum Split (s)	20.0		8.0		20.0	
Total Split (s)	27.0		9.0		24.0	
Total Split (%)	45.0%		15.0%		40.0%	
Yellow Time (s)	3.5		3.5		3.5	
All-Red Time (s)	0.5		0.5		0.5	
Lost Time Adjust (s)	0.0				0.0	
Total Lost Time (s)	4.0				4.0	
Lead/Lag			Lead		Lag	
Lead-Lag Optimize?			Yes		Yes	
Recall Mode	Min		None		Min	
Act Effct Green (s)	14.6	24.5		13.9	10.2	
Actuated g/C Ratio	0.36	0.61		0.34	0.25	

Lane Group	SEL	SER	NEL	NET	SWT	SWR
v/c Ratio	0.59	0.13		0.26	0.47	
Control Delay	15.9	1.7		9.5	14.5	
Queue Delay	0.0	0.0		0.0	0.0	
Total Delay	15.9	1.7		9.5	14.5	
LOS	B	A		A	B	
Approach Delay	12.3			9.5	14.5	
Approach LOS	B			A	B	
Queue Length 50th (ft)	69	0		20	33	
Queue Length 95th (ft)	157	16		61	94	
Internal Link Dist (ft)	59			404	255	
Turn Bay Length (ft)						
Base Capacity (vph)	1103	1103		1166	989	
Starvation Cap Reductn	0	0		0	0	
Spillback Cap Reductn	0	0		0	0	
Storage Cap Reductn	0	0		0	0	
Reduced v/c Ratio	0.34	0.12		0.14	0.24	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 40.3
Natural Cycle: 50
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.59
Intersection Signal Delay: 12.4 Intersection LOS: B
Intersection Capacity Utilization 43.0% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 8: OLD POST ROAD & PLAYLAND A.D.



HKP | HARFENIST KRAUT & PERLSTEIN LLP

JONATHAN D. KRAUT

DIRECT TEL.: 914-701-0800
MAIN FAX: 914-701-0808
JKRAUT@HKPLAW.COM

July 30, 2015
VIA HAND DELIVERY

Mayor Joseph Sack and
Members of the City Council
1051 Boston Post Road
Rye, New York 10580

Re: ***Re-zoning of 120 Old Post Road***

Dear Mayor Sack and Members of the City Council:

As you know, we represent Old Post Road Associates, LLC (the "Petitioner"), in connection with a Petition for Zone Change, Zoning Map Amendment and Amendment to City of Rye Zoning Ordinance (the "Petition") for the above referenced property (the "Subject Property"). We respectfully enclose supplemental materials and information for your review and consideration concerning the Petition as requested at the last City Council meeting.

At the last City Council meeting there were various recommendations of the Planning Commission that were discussed. Attached hereto as Exhibit 1 is a revised version of the Proposed Text Amendments to Chapter 197 reflecting some of those suggested revisions. The changes to the Proposed Text Amendments are as follows:

- §197-8.1.B(4) – included a minimum landscaping buffer of 10 feet on the perimeter of the site
- §197-8.1.B(5) – included a maximum building coverage of thirty-five percent (35%)
- §197-28 – revised the parking requirements to provide a minimum of 1.5 spaces per dwelling unit
- §197-30.E – included a provision allowing for tandem parking for multiple spaces reserved to a single dwelling unit
- Table 2 – revised to include a minimum 50 foot setback for the shortest side yard and rear yard

HKP

We have also met with the City Planner and City Engineer to review potential traffic circulation improvements within the immediate vicinity of the Subject Property. While our review of these issues is ongoing, the Petitioner's traffic engineer anticipates being able to present at your upcoming meeting the potential benefits and impacts of the following concepts:

- The introduction of a right-turn only lane on Playland Access Drive onto Old Post Road immediately adjacent to and in front of the Subject Property;

- The utilization of the "emergency access" driveway from the Subject Property onto Old Post Road; and

- The creation of a left-turn onto Playland Parkway from the access ramp heading northbound on Boston Post Road which currently only permits eastbound access onto Playland Parkway and the diversion of traffic destined for I-95 to this entrance and off Old Post Road by way of new signage on northbound Boston Post Road.

At the last Council meeting there was also a question raised by a member of the public considering other alternative uses of the Subject Property and a potential subdivision with conventional single-family homes. If the Council were to consider re-zoning the Subject Property to a single-family zoning district the most logical zone would be the R-2 District which abuts the Subject Property to the south and east. The R-2 zoning district requires a minimum lot size of ½ acre; therefore, under a subdivision of the Subject Property there could potentially be 14 new single family residences. The Petitioner has not analyzed the impacts of such development as that is not the Petitioner's desired objective in the instant Petition and we do not believe the Council would find such a use desirable. We believe the contemplated use for multi-family age restricted housing is a more appropriate transition between the single-family residential development to the east to the office use to the west and multi-family / assisted living use of the Osborn to the south.

Finally, as requested by the City Council, the Petitioner has engaged a site contractor and geotechnical engineer to perform some preliminary subsurface investigations in order to understand the extent of the anticipated rock removal in order to construct the project. We do not yet have test results but will continue to provide that information to your Council upon completion of the testing.

HKP

We look forward to presenting this information to the City Council and addressing any comments or questions of the Council or the public. Thank you for your attention to this matter.

Very Truly Yours,

HARFENIST KRAUT & PERLSTEIN LLP

By: Jonathan D. Kraut/lp
Jonathan D. Kraut

PROPOSED TEXT AMENDMENTS TO CHAPTER 197 OF RYE CITY CODE

§ 197-2 Districts

RA-6 Active Senior Residence District – Minimum area per family 2,000 square feet

§ 197-8.1 Active Senior Residence District Regulations

A. Limitations on Occupancy.

(1) The occupancy of residential units within the Active Senior Residence Zone shall be limited to:

a) A single person 55 years of age or older;
b) Two or three persons, all of whom are 55 years of age or older;
c) A married couple, live-in companion, or partner, one of which is 55 years of age or older;
d) The surviving spouse of a person 55 years of age or older, provided that the surviving spouse was duly registered as a resident of the development at the time of the elderly person's death;
e) One adult 18 years of age or older residing with a person who is 55 years of age or older, provided that said adult is essential to the long-term care of the elderly person as certified by a physician duly licensed in New York State

(2) Persons under the age of 55 not specifically permitted to be occupants shall not be permitted to be permanent residents of dwelling units. For the purposes of this section, a "permanent resident" shall mean any person who resides within the dwelling for more than three consecutive weeks or in excess of 30 days in any calendar year, or has listed the residence as an abode for any purpose whatsoever, including, but not limited to, enrollment in public or private schools. Temporary occupancy by guests of families shall be permitted, provided that such occupancy does not exceed a total of 30 days in any calendar year.

(3) Notwithstanding the foregoing, one dwelling unit within the community may be set aside to be occupied by a superintendent or building manager, to which the limitations on occupancy set forth above shall not apply.

(4) The limitations on occupancy shall be included in the marketing materials for the development as well as within the rules and regulations or terms of any

leases, by-laws or covenants and restrictions for the development. Violations of the limitations on occupancy shall be enforceable by the City of Rye Building Inspector against the owner or lessee or the agent of any of them and shall be punishable by a fine of $250 per day or by imprisonment not exceeding 15 days, or by both such fine and imprisonment. Exceptions to these regulations shall be granted if any limitations are determined to be in violation of any State or Federal law.

(5) The Planning Commission shall have the right to require that the owner execute agreements and covenants as it may deem to be required during any site plan approval process as it may reasonably deem to be required to ensure compliance with the stated intent of this section. Said agreements or covenants shall be recorded in the office of the Westchester County Clerk and constitute a covenant running with the land. Such covenant or agreement may be modified or released only as set forth in said covenant or agreement or by the City Council.

B. Site Development

(1) At least eighty percent (80%) of the required parking for the development shall be provided in a covered parking structure within the basement level of the principal structure(s).

(2) For any corner lot abutting Boston Post Road or Old Post Road, the front lot line of the lot shall be Boston Post Road or Old Post Road for purposes of the applicable front yard setback irrespective of building arrangement. The provisions of § 197-52 shall not apply to properties in the RA-6 zone.

(3) The provisions of § 197-8.A & C shall not apply to properties in the RA-6 zone.

(4) A landscaping buffer a minimum of ten (10) feet wide shall be required to be provided around the perimeter of the site.

(5) A maximum building coverage of thirty-five percent (35%) shall be permitted.

§ 197-28 Schedule of Off-Street Parking Requirements

A. Schedule of parking requirements. Off-street automobile parking facilities shall be provided as follows:

Use	Number of Spaces per Unit (by Parking District) A	B	C	Unit of Measurement and Conditions
Apartments for active seniors located in RA-6 Districts	1.5	1.5	1.5	Dwelling unit

§ 197-30 Layout and Location of Off-Street Parking Facilities

D. In RA-1, RA-2, RA-3, RA-4, RA-5 and RA-6 Districts, no off-street parking facility accessory to apartments or office buildings shall be developed within five feet of any lot line. Required off-street parking facilities accessory to other main uses shall conform to the provisions of Subsection C above.

E. Subject to the discretion of the Planning Commission during site plan review, in the RA-6 District tandem parking arrangements may be utilized for multiple spaces reserved to a single dwelling unit.

§ 197-44 Minimum Residential Floor Area

E. For dwelling units in apartments or other buildings containing three or more dwelling units in an RA-6 District, the minimum amount of residential floor area in each unit shall be 750 square feet for one bedroom units, 900 square feet for two bedroom units and 1,100 square feet for three bedroom units. Additionally, three-bedroom units must be equipped with at least 1 ½ bathrooms.

§ 197-86 Tables of Regulations

TABLE OF REGULATIONS: TABLE A
RESIDENCE DISTRICTS – USE REGULATIONS
Column 1
Permitted Main Uses

RA-6 Districts

(1) Apartments for active seniors. A detached residence for three or more families or housekeeping units, or a group of buildings housing three or more families on one lot, subject to the requirements of § 197-7 and § 197-8.1.

TABLE OF REGULATIONS: TABLE A
RESIDENCE DISTRICTS – USE REGULATIONS
Column 2
Uses Permitted Subject to Additional
Standards and Requirements
(Subject to the requirements and provisions of §197-10)

RA-6 Districts

(Reserved)

TABLE OF REGULATIONS: TABLE A
RESIDENCE DISTRICTS – USE REGULATIONS
Column 3
Permitted Accessory Uses
(Subject to the requirements and provisions of §197-9)

RA-6 Districts

(1) Off-street parking facilities, subject to the requirements and provisions of § 197-8.1.
(2) Other accessory uses or structures customarily incidental to any permitted main use, including active and passive recreational facilities (i.e. fitness center, pool, library, media room, storage areas, etc.) for the use of the residents of the principle structure. Outside storage on land of boats and boat trailers is prohibited.

(3) The filming of movies, commercials, documentaries, serials, shows, performances or other similar events and activities, including still photography, as regulated in RA-4 Districts.

Table No. 2. *Existing and Proposed Multi-Family Zoning Districts & Bulk Regulations*

4		5	6	7	8	9	10	11	12	13	14	15	16
					Minimum Yard Dimensions (feet)				Specified Distance (feet) as required in Column 2	Maximum Height		One-Story Accessory Structures	
District	Use	Maximum Ratio of Floor Area to Lot Area[j]	Minimum Size of Lot (AC or SF) per a. Family or Equiv.[a] or b. Nonresidential Use	Minimum Width (feet) [See § 197-36]	Front[b]	One Side [b][c]	Total of Two Side Yards	Rear[b]	(Uses)	(stories)	(feet)	Maximum Coverage of Required Rear Yard	Minimum Distance to Side Line (feet)
RA-1	Single-family house	0.40	5,000	50	25	8	20	30	40	2.5	35	30%	5
	Two-family house	0.40	5,000	60	25	8	20	30	--	2.5	35	30%	5
	Apartment house	0.40	5,000[c]	100	70	50	100	50	--	2.5	35	30%	10
RA-2	Single-family house	0.45	5,000	50	25	8	20	50	30	2.5	35	30%	5
	Two-family house	0.45	3,500	60	25	8	20	50	--	2.5	35	30%	5
	Apartment house	0.45	3,500[c]	100	25	20	50	40	--	2.5	35	30%	10
RA-3	Single-family house	0.50	5,000	50	25	8	20	30	20	2.5	35	35%	5
	Two-family house	0.50	3,000	60	25	8	20	30	--	2.5	35	35%	5
	Apartment house	0.50	2,500[c]	80	25	20	40	40	--	2.5	40	35%	10
RA-4	Single-family house	0.50	5,000	50	25	8	20	30	--	2.5	35	35%	5
	Two-family house	0.50	3,000	60	25	8	20	30	--	2.5	35	35%	5
	Apartment house	0.50	2,500[c]	80	25	20[d]	40[d]	40[d]	--	2.5[f]	35[f]	35%	10
RA-5	Apartments for senior citizens and handicapped persons	1.00	1 AC	80	25		40	40	--	4	50	35%	10
RA-6	**Apartments for active senior citizens**	**0.8**	**2,000**	**400**	**100**	**50**	**100**	**50**	**--**	**4**	**45**	**35%**	**10**

(a) Equivalent to one (1) family in computing minimum lot sizes:
[1] Hotels and lodging houses, each two (2) guest sleeping rooms.
[2] Hospitals and similar institutions, each two (2) hospital beds.
[3] Medical offices, each two (2) doctors plus three (3) other employees.
[4] Other nonresidential main uses not specifically provided for in this Table of Regulations or elsewhere in Chapter 197, each one thousand five hundred (1,500) square feet of floor space

(b) [1] Wherever a required yard abuts a street less than fifty (50) feet in width, the minimum yard dimension(s) shall be measured from a line of twenty-five (25) feet from parallel to the center line of said street.
[2] No building shall be nearer than one hundred (100) feet to center line of Post Road between Mamaroneck town line and Central Avenue.

(c) For corner lots, corner side yards at least one fifth (1/5) of the lot width at the location of the building, but need not be more than front yard minimum, except as provided in § 197-62. Permitted nonresidential main uses shall have minimum side yard one and one half (1 1/2) times width specified for a single-family house (See § 197-52).

(d) Twenty-five (25) feet for any side yard containing a driveway serving more than six (6) parking spaces. For a one-, two-, or three-family structure existing on effective date of Chapter 197 (August 9, 1956) and proposed for conversion for up to four (4) families, the Board of Appeals may reduce side yard requirement to eight (8) feet. For side yard requirements for other apartments, see See § 197-54. For spacing between buildings on the same lot, see § 197-70. For the rear and side yards of apartment houses adjoining the right-of-way of a railroad, a parkway or a limited access highway, see § 197-64.

(e) For usable open space requirement, see § 197-68

(f) For buildings in variable height apartment groups (a use permitted in RA-4 Districts subject to additional standards and requirements), see§ 197-13.
[g,h,i omitted]

(j) See § 197-43.1 for floor area ratio reductions for single-family residences on oversized properties in one-family districts.

Robert P. Astorino
County Executive

County Planning Board

June 29, 2015

Christian K. Miller, City Planner
Rye City Planning Department
1051 Boston Post Road
Rye, NY 10580

Subject: **Referral File No. RYC 15 – 001 – Old Post Road Associates, LLC**
Petition for Zoning Text and Map Amendments

Dear Mr. Miller:

The Westchester County Planning Board has received a copy of a petition to amend the text of the City's Zoning Ordinance and to amend the City's Zoning Map so as to allow the redevelopment of an existing office site with a new age-restricted (age 55 and over) apartment building containing 135 one- and two-bedroom units and parking for 240 vehicles.

The 7.0-acre site is located at 120 Old Post Road (County Road 73) with additional frontage along the Playland Parkway Access Drive (County Road 147). The site is currently zoned B-4 and is developed with an office building, described as underutilized. The applicants are petitioning the City to create a new RA-6 Active Senior Residence District and to rezone the subject site to RA-6. If successful, the applicant would then seek site plan approval to develop the proposed apartment building under the new zoning. The site was previously proposed for redevelopment with a hotel.

Because the referred material does not include a site plan, we reserve comment on the potential development under the provisions of Section 239 L, M and N of the General Municipal Law and Section 277.61 of the County Administrative Code until plans are prepared and referred. We are able to offer the following preliminary comments:

1. **Affirmatively furthering fair housing**. The proposed zoning text amendment does not include provisions that would affirmatively further fair housing (AFFH) in the new RA-6 district. We recommend that this be added to ensure that no less than 10% of the total number of units developed would be set aside as affordable AFFH units. We also recommend that the affordable AFFH units be made available to people of all ages.

We note that the City of Rye has not adopted the County's *Model Ordinance Provisions* with respect to affordable AFFH. We encourage the City adopt these provisions to ensure that affordable AFFH units are constructed city-wide as part of all proposed developments.

2. Occupancy restrictions. The proposed RA-6 district regulations contain occupancy restrictions that go beyond the usual requirement that one resident in each housing unit be 55 years of age or older. The proposed regulations specify that all persons living in a dwelling unit be 55 years of age or older unless they are married to or are a "live-in companion, or partner" of someone who is 55 or older. Further, the proposed ~~regulations~~ state that any other resident younger than 55 must be at least 18 years of age and have a certification from a physician stating that "said adult is essential to the long-term care of the elderly person." The proposed zoning text also establishes fines and jail time for persons who violate these occupancy rules.

We suggest that the City exercise caution in adopting regulations that are more restrictive than those typically used for senior housing developments. We are unaware of any zoning regulations in place in the county that have restrictions and penalties similar to what is proposed by this applicant.

3. County road. Old Post Road (CR 73) and the Playland Parkway Access Drive (CR 147) are County roads. Because the site contains frontage on each of these roads, approval for work related to or with an impact on these roads will be required from the Westchester County Department of Public Works and Transportation (WCDPW&T) under Section 239 F of the General Municipal Law. Pertinent drainage, utility, erosion control and curb cut details need to be provided at the time of Section 239 F submittal. All driveways must be designed in accordance with current County, State and AASHTO standards.

Please note that WCDPW&T must be listed as an Involved Agency pursuant to SEQR.

Thank you for calling this matter to our attention.

Respectfully,
WESTCHESTER COUNTY PLANNING BOARD

FOR:
By:
Edward Buroughs, AICP
Commissioner

EEB/LH

cc: Michael Dispenza, Contract Administrator, County Department of Public Works and Transportation
Kevin Roseman, Traffic Engineer, County Department of Public Works and Transportation

Planning Department
1051 Boston Post Road
Rye, New York 10580
Tel: (914) 967-7167
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www.ryeny.gov

CITY OF RYE
Planning Commission

Memorandum

To: Rye City Council

From: Rye City Planning Commission

Date: May 5, 2015

Subject: **Advisory Recommendation Regarding a Petition from Old Post Road Associates, LLC to amend the City Zoning Code and Zoning Map to Change the Zoning Designation of a property at 120 Old Post Road from the B-4, Office Building, District to a New RA-6, *Active Senior Residence,* District.**

As requested, this memorandum provides a recommendation to the Rye City Council regarding the above-referenced matter.

Background

Last fall the applicant submitted to the City Council a petition to change the zoning district of a 7-acre property currently zoned B-4, *Office Building*, District at 120 Old Post Road to a new RA-6, *Active Senior Residence*, District. The petitioner submitted the zoning request in order to advance the construction of a 135-unit age restricted multi-family community. Consistent with City practice, the petition was referred to the Planning Commission for its advisory recommendation. The City Council also declared its intent to be Lead Agency for the environmental review of the application.

At five public meetings since February the Planning Commission has reviewed the petitioner's request and requested supplemental information. All information submitted to the Commission will be repacked into one complete submission to the City Council upon receipt of this memorandum. This memorandum was unanimously adopted by the Planning Commission at its May 5, 2015 meeting.

Existing Permitted and Proposed Uses

The Commission supports the proposed age-restricted multi-family use based on current and anticipated office market trends, land use compatibility considerations and the balance of potential positive and negative impacts

Market Trends

The market analysis provided by the petitioner appears to support that there is demand for the age-restricted multi-family housing within the area. The analysis also affirms long-term historic and future challenges to office use.

The existing office building on the property has struggled to find tenants and has remained vacant for many years. The building age and configuration makes it difficult to re-adapt for multi-tenant users, which is how many former single-tenant buildings have been successful in reducing vacancy rates. While it appears that the office vacancy is relatively low in Rye, area market analysis suggests that office buildings continue their multi-year trend of high vacancy rates and flat or declining rents. There does not appear to be any demographic or economic factor on the horizon to reverse this downward trend. There is little new office construction in the region and other area communities such as Rye Brook and Harrison have amended their zoning codes to allow the reprogramming of existing or approved office space to other uses including multi-family residential, retail and private recreational uses. Age-restricted housing serves the growing needs of the aging baby boom generation, which is consistent with regional and national demographic trends.

The Commission notes that petitioner's characterization that the units would serve a "luxury" market (which is a relative term) cannot be guaranteed because zoning cannot legislate minimum rents or housing values. Actual rents could be higher or lower and housing tenure (i.e. rental vs. ownership) could also change and cannot be legislated in a zoning district.

Land Use Compatibility

The proposed age-restricted multi-family use is not incompatible with surrounding office, medical, institutional and single-family uses. The proposed zoning would create more opportunity for the creation of age-restricted housing and would add to the existing or approved 140 units of senior affordable housing in the nearby RA-5 Districts on Theall Road and Theodore Fremd Avenue. Land use compatibility concerns could be further alleviated by amending the proposed RA-6 District to include some or all of the Planning Commission's recommendations under the *Bulk and Density* section of this memorandum.

In consideration of the petitioner's request, the City Council should contemplate whether other properties in the area may seek similar requests and whether a change in land use or amenities (such as improvements in the pedestrian network) may be necessary to support the growth in age-restricted housing within the area.

Consideration of Impacts

Potentially beneficial and detrimental impacts of the proposed use must be compared to those associated with the continuation of the existing office building. Office may have lower taxes than other uses, but it also generates relatively low municipal costs and no school-age children costs. On a per square-foot basis office generates higher traffic than the proposed use. Office generates less water, sewer and most other utility use than the proposed use. Office provides Rye residents with the potential to work in the City they reside in, but the proposed use offers an expansion of housing opportunities that the City may desire. The City Council needs to consider a comparison of these and other impacts associated with the maximum permitted development under existing and proposed zoning as it conducts its environmental review as Lead Agency under the State Environmental Quality Review (SEQR).

School-age Children

Age-restricted housing has no direct impact on school-age children costs and would likely provide an overall fiscal benefit to the City, County and School District budgets. The petitioner has provided a fiscal impact analysis in its submission. Much is noted that the age-restriction required by proposed zoning will not result in any direct impacts on school district costs because there will be no generation of school-age children.

The City should expect, however that there may be an indirect impact of the proposed development on school age generation based on the statements of need represented by the petitioner and its market study. Those indirect costs will be borne as Rye residents housing choices are expanded, which may induce movement in the housing migration cycle. Those households residing in existing single-family homes over age 55 and without children will have the opportunity to move to the petitioner's proposed development within the Rye community, which may be better suited to their housing needs. This type of housing choice is fairly limited in the City. As those single-family "empty nester" homes are sold they may go to households with children. Studies by the Rye City School District show that sellers of single-family homes typically have fewer children than buyers. Though challenging to quantify, this indirect impact on school-age children generation should be considered.

It is acknowledged that this housing migration could occur independent of whether the petition is approved. For instance, if a similar housing product is offered in another nearby community this too could induce the sale of empty nester single-family homes in the City.

Fiscal Impact

The existing B-4 District on a 7.01-acre property is very limited in terms of the types and range of permitted uses that are both economically feasible for a property owner and fiscally beneficial to municipal and school district tax revenue. Other permitted uses available on this property include *public recreational uses, public uses, nursery schools (not to exceed 30 children), agricultural uses, railroad passenger station and electric substations, religious uses,* and *residential care facility uses (limited to care of 10 or fewer disabled persons or persons in need of supervision or juvenile delinquents).* Given these use restrictions of the existing zoning it's not surprising that the property owner is seeking changes from the City Council to amend the City Zoning Code.

The existing office building is vacant and therefore does not put significant demands on municipal or school district services. However, the vacancy position of the building has resulted in the property owner's successful reduction in property tax. This contributes to a destabilizing tax assessment position and when reductions are successfully secured it requires other tax payers, new revenue sources or service modifications to compensate for lost revenue. Continued vacancy of the office building may result in further future tax reductions.

The existing property pays approximately $21,500 in City tax and $80,300 in Rye City School District tax. The RA-6 District offers an opportunity to increase tax revenue and greater tax assessment stability. The petitioner has estimated that the age-restricted rental multi-family project currently under consideration could generate almost $98,000 in City tax and $365,000 in Rye City School District tax. The City Council should discuss the potential tax generation on this property and what restrictions might be implemented to prevent or limit future tax certioraris.

Traffic

Full development under the proposed zoning would generate less peak hour traffic than full office development permitted by existing Zoning.

Vehicle delays and traffic volumes can be high on some area roadways and intersections. Level of service is particularly poor at the Old Post Road/Playland Parkway Access Drive intersections. Interestingly, peak-hour vehicle trips and delays are generally less today than were shown in traffic studies conducted in 2009 and 2013. Certain turning movements have seen increases, which may be

reduced with potential turning movement restrictions. A traffic signal at congested intersections does not appear to meet the required warrant analysis. There may be opportunities to make traffic improvements to address existing or anticipated traffic challenges.

Bulk and Density

The Commission notes concerns with the increase in overall development density of the proposed zoning as compared to the existing zoning. The proposed zoning would provided for a 166% increase in permitted floor area on the 7.01-acre property. It would also allow for a multi-family development density of 21.78 units per acre. The petitioner has provided a comparison of the unit density of the proposed zoning to other multi-family buildings in the City and similar age-restricted housing in the area In that analysis they note that Rye Manor on Theall Road has 53 units per acre, Highland Hall has 83 units per acre and Blind Brook Lodge has 51 units per acre. The recently approved 41 units of senior housing at 150 North Street/Theodore Fremd Avenue has 19.8 units per acre. The Commission is sensitive to concerns regarding the proposed bulk and scale of future development under the proposed district. To address these concerns the Commission recommends at a minimum the following adjustments in the proposed RA-6 District standards (see summary in Table 1 attached hereto).

Building/Lot Coverage

The existing B-4 District limits building coverage to 15%. There is no maximum lot coverage in the B-4 District so all at-grade parking is not included in the calculation. The Petitioner represents that the existing total impervious coverage on the property is 44%. Under the proposed RA-6 District there would be no building or lot coverage standard, but there would be a requirement that 80% of all required parking be located below grade in the basement. The Commission supports this requirement since it will reduce the over all lot coverage on the property. If a building coverage standard is desired by the City Council the applicant's current plan requires a building coverage of approximately 35%, which *includes* the portion of the court-yard building with basement parking.

Setbacks

The existing B-4 District requires a minimum building setback of 100 feet from all front, side and rear property lines. The proposed RA-6 District would reduce proposed building setbacks to as little as 25 feet for the rear yard and 40 feet for the side yard and the front yard along Playland Parkway Access Drive. Building height in both the existing and proposed districts would be 45 feet, however there would be a notable increase in overall development potential and an allowance for four stories (within 45 feet) rather than three stories in the B-4 District. Given these bulk increases the Commission recommends that no setback be less than

50 feet and that perimeter landscape screening requirements be added to the proposed RA-6 District.

Bedroom Mix and Parking

The Commission recommends that the parking standard be increased from 1.25 spaces per unit rather than 1.5 spaces per unit and that development be limited to one- and two-bedroom units. A higher parking standard is necessary because it is likely that future development have assigned parking spaces, which means sharing of parking is not possible. Giving the nature of the use the Commission would not object to amending the proposed RA-6 District to allow tandem parking.

Attached hereto is a table that summarizes the Planning Commission's recommendations to assist the City Council's continued review of this matter.

Summary of Planning Commission Recommendations

Proposed RA-6, *Active Senior Residence*, District

Zoning Standard	Existing B-4 Office District*	Proposed RA-6 District**	*Summary of Planning Comments and Recommendations*
Permitted Use	Office	Age-Restricted Multi-Family	*Proposed use is acceptable.*
Max. Floor Area Ratio	0.3 (or 91,257 s.f.)	0.8 (or 243,936 s.f.)	*Represents a 166% increase in maximum permitted development potential, however proposed use would be residential rather than existing office development and is considered acceptable if other recommendations provided below are implemented.*
Max. Building Coverage	15%	*No max.*	*A maximum building coverage standard of 35% would meet the project needs of the petitioner. Commission supports the proposed requirement that 80% of required parking be within a basement to reduce overall site coverage.*
Min. Lot Area	7 Acre	0	*No minimum lot area is proposed however a 2,000 square foot minimum lot area per unit (or 21.78 units per acre) is proposed, which could yield a maximum of 152 units on the property. Planning Commission recommends limiting the unit type to one- and two-bedroom units only.*
Min. Lot Width	400 feet	400 feet	
Front Yard Setback	100 feet	100/40 feet	*The front yard setback would only apply to the Post Road frontage. The setback from Playland Parkway Access Drive would be considered a side yard setback. The Commission recommends that this setback be increased to not less than 50 feet.*
One Side Setback	100 feet	40 feet	*Planning Commission recommends that this setback be increased to not less than 50 feet.*
Total of Two Yards	200 feet	100 feet	*Due to proposed reduction in setbacks and increase in permitted floor area the Planning Commission recommends a new landscape buffer standard.*
Rear Yard Setback	100 feet	25 feet	*Planning Commission recommends that this setback be increased to not less than 50 feet.*
Max. Stories	3	4	*Proposed standard is acceptable.*
Max. Building Height	45 feet	45 feet	*Proposed standard is acceptable.*
Required Parking	7 spaces per 10 persons employed at one time.	1.25 spaces/unit	*Planning Commission recommends a minimum parking requirement of 1.50 spaces per unit provided that unit type is limited to one- and two-bedroom units only. Tandem parking for residential units should also be allowed.*
Min. Floor Area per Unit	N/A	1-BR: 750 s.f. 2-BR: 900 s.f. 3-BR: 1,100 s.f.	*Planning Commission finds proposed standard acceptable noting that it meets or exceeds standards for multi-family units in the Zoning Code. Three bedrooms are not recommended.*

**Based on setback requirements for office buildings. Other uses permitted in the B-4 District generally have lesser standards and requirements.*
*** Based on standards included in applicant's March 4, 2015 submission.*

HKP

Proposed Re-zoning of 120 Old Post Road

Table of Contents

HKP

- Ex. 5: Westchester County Office Market: Summary Data prepared by Goman & York Property Advisors, LLC

- Ex. 6: Rye Office Market Analysis: 120 Old Post Road prepared by Goman & York Property Advisors, LLC

- Ex. 7: Market Feasibility Analysis of the Rye, NY Market for Active Adult (55+) Housing prepared by Goman & York Property Advisors, LLC

- Ex. 8: Proposed Property Tax Exposure Report prepared by McCarthy Appraisal / Consulting Svc. Inc.

- Ex. 9: Traffic Access & Impact Study prepared by Frederick P. Clark Associates, Inc.

HKP | HARFENIST KRAUT & PERLSTEIN LLP

JONATHAN D. KRAUT

DIRECT TEL.: 914-701-0800
MAIN FAX: 914-701-0808
JKRAUT@HKPLAW.COM

June 3, 2015
VIA HAND DELIVERY

Mayor Joseph Sack and
Members of the City Council
1051 Boston Post Road
Rye, New York 10580

Re: ***Re-zoning of 120 Old Post Road***

Dear Mayor Sack and Members of the City Council:

We represent Old Post Road Associates, LLC (the "Petitioner"), in connection with a Petition for Zone Change, Zoning Map Amendment and Amendment to City of Rye Zoning Ordinance (the "Petition") in connection with the above referenced property (the "Subject Property"). The Petition was referred by you to the Planning Commission for a report and recommendation. The Petition contemplates creating a new zoning district within the City of Rye and re-zoning the Subject Property to an age-restricted (55+) multifamily housing zone (the "Project"). The Petitioner went through a series of meetings with the Planning Commission spanning several months and we understand the Planning Commission has issued a positive report and recommendation concerning the proposed zone change and proposed use of the Subject Property.

As the City Council may recall, the Subject Property is currently improved with a near fully vacant office building. The Petitioner has previously proposed repurposing the Subject Property with a hotel, which was met with large opposition by members of the community. After careful review of market conditions, the Petitioner believes the Project will provide a desirable housing alternative and product that is not currently available within the City of Rye. (See Market Feasibility Analysis attached hereto as Exhibit 7). Specifically, the Project contemplates the development of the Subject Property with an age-restricted luxury residential community for active adults.

The Project would also benefit the City of Rye as a whole by providing a housing alternative for those individuals 55 years and older who are not interested or in need of residing within a retirement community or nursing facility while not causing any increased burden on the expenses of the City of Rye School District due to the age-restricted residency requirements.

Simultaneously, if approved, the proposed real estate development would have a very beneficial impact on the property's market tax assessment – which has steadily decreased over the past years due to the erosion in market value of office use generally and the Subject Property specifically. (See Westchester County Office Market Report and Rye Office Market Analysis attached hereto as Exhibits 5 & 6). As set forth in the proposed fiscal impacts information attached hereto, the Project is anticipated to generate a significant increase in property taxes, without any burden on the School District due to the age restriction prohibiting occupancy by any school age children and a de minimis demand for other public services over the current use (See Proposed Property Tax Exposure attached hereto as Exhibit 8).

In addition, as further set forth in the attached reports, the Project would not have any significant adverse environmental or traffic impacts. As is described Traffic Impact and Impact Study, prepared by Frederick P. Clark Associates, Inc. (Exhibit 9), the Project "will result in a significant reduction in site traffic, with a decrease of 82 and 70 vehicle trip ends during the weekday morning and weekday afternoon peak hours, respectively." Moreover, as detailed in the Zoning, Land Use and Fiscal Impacts Memorandum prepared by Divney Tung Schwalbe, the Project will reduce impervious surfaces on the site by over 10%.

The Proposed Text Amendments have been modified slightly since the Petition was first submitted to the City Council reflecting some comments and clarifications requested by the Planning Commission. The Petitioner has included a requirement that at least eighty percent (80%) of the required off-street parking be provided in a covered parking structure within the basement of the proposed structure(s). The Proposed Text Amendments also include a maximum density of 2,000 square feet per unit. The Zoning, Land Use and Fiscal Impacts Memorandum (Exhibit 3) contains a density analysis and references other multi-family developments within the City of Rye as well as more recent projects in other municipalities for comparison.

In sum, we believe the proposed zoning change to permit a multi-family development is much more harmonious with the neighborhood than the existing office use, serving as a transition from the single family neighborhood on one side to the office districts on the other. We look forward to presenting this information to the City Council and addressing any comments or questions of the Council or the public. Thank you for your attention to this matter.

Very Truly Yours,

HARFENIST KRAUT & PERLSTEIN LLP

By: _____
Jonathan D. Kraut

CITY OF RYE: RYE CITY COUNCIL
COUNTY OF WESTCHESTER: STATE OF NEW YORK
----------X

In the Matter of the Application of

OLD POST ROAD ASSOCIATES, LLC

PETITION FOR ZONE CHANGE, ZONING MAP AMENDMENT, AND AMENDMENT TO CITY OF RYE ZONING ORDINANCE

PROPERTY LOCATION:
120 Old Post Road, Rye, New York
Sheet 146.13, Block 1, Lot 7

----------X

Petitioner, OLD POST ROAD ASSOCIATES, LLC, by its attorneys, Harfenist Kraut & Perlstein, LLP, hereby petitions the City Council of the City of Rye for a zone change, a zoning map amendment and an amendment to the City of Rye Zoning Ordinance as follows:

1. Old Post Road Associates, LLC, (hereinafter "Petitioner"), with an address at 120 Old Post Road, Rye, New York 10580, is a Limited Liability Company duly formed and existing under the laws of the State of New York.

SUBJECT PROPERTY

2. The Petitioner is the owner of the subject premises located at 120 Old Post Road, as further set forth in the caption of this Petition (hereinafter the "Property").

3. The Property is a single parcel of approximately 7.0 acres located at the intersection of Old Post Road and Playland Access Drive which is known and designated on the Tax Assessment Map of the City of Rye as Sheet 146.13, Block 1, Lot 7.

4. The Property currently lies wholly within the B-4 (Office Building) Zoning District.

5. The Property is currently improved with a three story office building and related parking infrastructure.

6. The Property has the following uses adjacent to its boundaries: i) the Osborn senior living facility is immediately adjacent to the southwest; ii) single family residences in the R-2 zone are located to the southeast across Old Post Road; iii) Playland Parkway to the northeast; and iv) the WestMed Medical Group facility is located to the northwest.

ZONE CHANGE, ZONING MAP AMENDMENT AND AMENDMENT TO ZONING ORDINANCE

7. The Petitioner requests a change in the zoning of the Property, including a zoning map amendment and zoning ordinance text amendment of the Zoning Ordinance of the City of Rye, to rezone the Subject Property from B-4 (Office Building) to a new zone RA-6 (Active Senior Residence District) proposed herein. The Petitioner requests that the relief sought be granted and the zoning map and zoning ordinance of the City of Rye be amended to reflect the relief requested herein.

8. The Petitioner specifically requests that the official zoning map of the City of Rye be redrawn and amended to identify the Subject Premises known and designated on the Tax Assessment Map of the City of Rye, as Sheet 146.13, Block 1, Lot 7 as wholly within the RA-6 Zone as set forth hereinbelow.

9. The Petitioner also specifically requests that the Zoning Code of the City of Rye, Chapter 197: Zoning, Section 197-2: Districts, last amended 6-19-1991 by Local Law No. 13-1991, be further amended. Specifically, the Petitioners request that Section 197-2: Districts, A. Residence Districts, therein be amended to include a new residential district as follows:

> *RA-6: Active Senior Residence District – Minimum lot size area per family 2,000 square feet*

10. Further, the Petitioner specifically requests that the Zoning Code of the City of Rye, Chapter 197: Zoning, Section 197-86: Tables of Regulations: Table A, be amended. Specifically, the Petitioners request that Section 197-86: Tables of Regulations: Table A, Residence Districts – Use Regulations, Column 1: Permitted Main Uses, therein be amended to include as a permitted main use in the RA-6 district the following:

> *(1) Apartments for active seniors in an age-restricted development. A building or group of buildings housing three or more families on one lot, subject to the requirements of §197-7 and Table A.*

11. The Petitioner also specifically requests that the Zoning Code of the City of Rye, Chapter 197: Zoning, be amended to include a new Section entitled *Active Senior Residence District.* Specifically, the Petitioners request that this new Section contain the particulars of the design parameters and limitations as set forth on Exhibit A attached hereto.

12. Lastly, the Petitioner specifically requests that the Zoning Code of the City of Rye, Chapter 197: Zoning, Section 197-86: Tables of Regulations: Table A, be amended. Specifically, the Petitioners request that Section 197-86: Tables of Regulations: Table A, Residence Districts – Area Yard, Height and Miscellaneous Regulations, last amended 7-16-03 by Local Law No. 6-2003; be further amended. Specifically, the Petitioners request that a new row for the proposed RA-6 zone be added, an amendment be made to footnote "C" and a new footnote "K" be added to Table A, all as more specifically set forth on Exhibit B attached hereto.

FACTS SUPPORTING PETITIONER'S REQUEST

13. The existing office building at the Property has been largely vacant for a significant period of time. As this condition of high vacancy rates for office space is not isolated to the Property but is a macro-trend throughout Westchester and other metropolitan areas the Petitioner is not optimistic on the likelihood of the existing office building becoming reoccupied to a sustainable level. Accordingly, the Petitioner has explored various options for uses at the Property.

14. The Petitioner has noted that with property values continuing to increase in Rye, there is a shortage of independent living accommodations for active adults ages 55 and older who wish to remain in Rye but no longer have the necessity of maintaining the related costs and expense necessarily attendant to home ownership within the City of Rye.

15. The Petitioner believes that due to the unique location and size of the Property, the Property could accommodate a viable alternative for those older individuals seeking alternative housing arrangements in an age-restricted community that does not provide nursing care.

16. The requested amendments to the Zoning Ordinance would not have any adverse impacts on the City of Rye. If this Petition were granted it would not only allow the Property to be redeveloped and put back to a sustainable use, it would also provide an alternative housing opportunity that is not currently being offered within the City of Rye. The redevelopment of the Property would also provide a benefit to the City of Rye by reestablishing the taxable value of the Property for real property tax purposes, which has continued to erode year after year as the Property remains vacant. Furthermore, the redevelopment of the Property in accordance with the residency limitations proposed herein would not create any additional strain on the Rye City School District as the development would expressly prohibit residency of any school age children.

SEQRA REVIEW

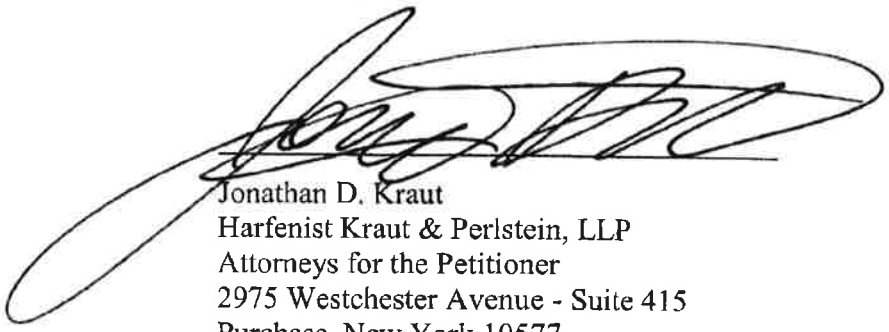
17. With respect to the environmental procedure and review of this Petition pursuant to Article 8 of the Environmental Conservation Law of the State of New York and Part 617 of the New York Codes, Rules and Regulations promulgated pursuant to the New York State Environmental Quality Review Act, it is respectfully submitted that the requested zoning amendments are consistent with the long range planning goals of the City of Rye and would permit a harmonious use between the Property and the community at large.

18. Petitioner has reviewed all pertinent environmental issues relating to the proposed zone change and has prepared a short form Environmental Assessment Form (EAF) in connection with this application. It is submitted herewith, so as to enable the City Council to take steps necessary to consider, and to issue, a negative declaration pursuant to the New York State Environmental Quality Review Act.

WHEREFORE, it is respectfully requested that this matter be placed on the calendar of the City Council for a hearing and that the relief sought herein be in all respects granted.

Dated: Purchase, New York
September 5, 2014

Respectfully submitted,



Jonathan D. Kraut
Harfenist Kraut & Perlstein, LLP
Attorneys for the Petitioner
2975 Westchester Avenue - Suite 415
Purchase, New York 10577
Tel: (914) 701-0800

PROPOSED TEXT AMENDMENTS TO CHAPTER 197 OF RYE CITY CODE

§ 197-2 Districts

RA-6 Active Senior Residence District – Minimum area per family 2,000 square feet

§ 197-8.1 Active Senior Residence District Regulations

A. Limitations on Occupancy.

(1) The occupancy of residential units within the Active Senior Residence Zone shall be limited to:

a) A single person 55 years of age or older;
b) Two or three persons, all of whom are 55 years of age or older;
c) A married couple, live-in companion, or partner, one of which is 55 years of age or older;
d) The surviving spouse of a person 55 years of age or older, provided that the surviving spouse was duly registered as a resident of the development at the time of the elderly person's death;
e) One adult 18 years of age or older residing with a person who is 55 years of age or older, provided that said adult is essential to the long-term care of the elderly person as certified by a physician duly licensed in New York State

(2) Persons under the age of 55 not specifically permitted to be occupants shall not be permitted to be permanent residents of dwelling units. For the purposes of this section, a "permanent resident" shall mean any person who resides within the dwelling for more than three consecutive weeks or in excess of 30 days in any calendar year, or has listed the residence as an abode for any purpose whatsoever, including, but not limited to, enrollment in public or private schools. Temporary occupancy by guests of families shall be permitted, provided that such occupancy does not exceed a total of 30 days in any calendar year.

(3) Notwithstanding the foregoing, one dwelling unit within the community may be set aside to be occupied by a superintendent or building manager, to which the limitations on occupancy set forth above shall not apply.

(4) The limitations on occupancy shall be included in the marketing materials for the development as well as within the rules and regulations or terms of any

leases, by-laws or covenants and restrictions for the development. Violations of the limitations on occupancy shall be enforceable by the City of Rye Building Inspector against the owner or lessee or the agent of any of them and shall be punishable by a fine of $250 per day or by imprisonment not exceeding 15 days, or by both such fine and imprisonment. Exceptions to these regulations shall be granted if any limitations are determined to be in violation of any State or Federal law.

(5) The Planning Commission shall have the right to require that the owner execute agreements and covenants as it may deem to be required during any site plan approval process as it may reasonably deem to be required to ensure compliance with the stated intent of this section. Said agreements or covenants shall be recorded in the office of the Westchester County Clerk and constitute a covenant running with the land. Such covenant or agreement may be modified or released only as set forth in said covenant or agreement or by the City Council.

B. Site Development

(1) At least eighty percent (80%) of the required parking for the development shall be provided in a covered parking structure within the basement level of the principal structure(s).

(2) For any corner lot abutting Boston Post Road or Old Post Road, the front lot line of the lot shall be Boston Post Road or Old Post Road for purposes of the applicable front yard setback irrespective of building arrangement. The provisions of § 197-52 shall not apply to properties in the RA-6 zone.

(3) The provisions of § 197-8.A & C shall not apply to properties in the RA-6 zone.

§ 197-28 Schedule of Off-Street Parking Requirements

A. Schedule of parking requirements. Off-street automobile parking facilities shall be provided as follows:

Use	Number of Spaces per Unit (by Parking District) A	B	C	Unit of Measurement and Conditions
Apartments for active seniors located in RA-6 Districts	1.25	1.25	1.25	Dwelling unit

§ 197-30 Layout and Location of Off-Street Parking Facilities

D. In RA-1, RA-2, RA-3, RA-4, RA-5 and RA-6 Districts, no off-street parking facility accessory to apartments or office buildings shall be developed within five feet of any lot line. Required off-street parking facilities accessory to other main uses shall conform to the provisions of Subsection C above.

§ 197-44 Minimum Residential Floor Area

E. For dwelling units in apartments or other buildings containing three or more dwelling units in an RA-6 District, the minimum amount of residential floor area in each unit shall be 750 square feet for one bedroom units, 900 square feet for two bedroom units and 1,100 square feet for three bedroom units. Additionally, three-bedroom units must be equipped with at least 1 ½ bathrooms.

§ 197-86 Tables of Regulations

TABLE OF REGULATIONS: TABLE A
RESIDENCE DISTRICTS – USE REGULATIONS
Column 1
Permitted Main Uses

RA-6 Districts

(1) Apartments for active seniors. A detached residence for three or more families or housekeeping units, or a group of buildings housing three or more families on one lot, subject to the requirements of § 197-7 and § 197-8.1.

TABLE OF REGULATIONS: TABLE A
RESIDENCE DISTRICTS – USE REGULATIONS
Column 2
Uses Permitted Subject to Additional Standards and Requirements
(Subject to the requirements and provisions of §197-10)

RA-6 Districts

(Reserved)

TABLE OF REGULATIONS: TABLE A
RESIDENCE DISTRICTS – USE REGULATIONS
Column 3
Permitted Accessory Uses
(Subject to the requirements and provisions of §197-9)

RA-6 Districts

(1) Off-street parking facilities, subject to the requirements and provisions of § 197-8.1.
(2) Other accessory uses or structures customarily incidental to any permitted main use, including active and passive recreational facilities (i.e. fitness center, pool, library, media room, storage areas, etc.) for the use of the residents of the principle structure. Outside storage on land of boats and boat trailers is prohibited.

(3) The filming of movies, commercials, documentaries, serials, shows, performances or other similar events and activities, including still photography, as regulated in RA-4 Districts.

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MEMORANDUM

TO: City Council of the City of Rye

DATE: June 3, 2015

FROM: Gerhard M. Schwalbe, P.E.

RE: 120 Old Post Road

INTRODUCTION

Old Post Road Associates, LLC (the "Applicant") is seeking a zoning change, amendment to the City of Rye zoning map and amendment to the City of Rye Zoning Ordinance (the "Proposed Action" or "Action") to facilitate the redevelopment of 120 Old Post Road as an age-restricted multi-family residential community (the "Proposed Project" or "Project").

The subject property, located 120 Old Post Road (the "Project Site" or "Site"), is currently improved with an existing 75,000 square foot, 3-story office building, a parking lot for approximately 240 vehicles, and an entrance on Playland Access Drive. The existing building has remained mostly vacant and underutilized for over four years and, as documented below, current real estate market conditions suggest that re-occupancy with the existing office use is unlikely for the foreseeable future.

The Applicant proposes to replace the existing office building with a 245,000 square foot age-restricted, luxury residential building. The Project would consist of approximately 135 one and two bedroom units for residents aged 55 and older, along with underground parking, stormwater management facilities, landscape screening, and amenities typical of a luxury residential building. The driveway entrance would remain near its current location and provide access to Playland Access Drive. The existing emergency access driveway to Old Post Road would be retained for emergencies only. See Figure No. 1, *Illustrative Site Plan*.

This memorandum summarizes the land use and fiscal considerations that support the Proposed Action and Project. In addition, a full form NYS Environmental Assessment Form (EAF) is attached hereto for the Action, and an assessment of the potential environmental impacts and mitigation measures related to the Project is included, following the EAF.

OFFICE MARKET CONDITIONS

As set forth in greater detail in a report titled *Rye Office Market Analysis* prepared by Goman & York Property Advisors, LLC, dated March 2, 2015 ("Office Market Study"), vacancy rates for office buildings in southeastern Westchester County have steadily increased over the past decade and are currently at a 10-year high reducing the direct asking average rent. In addition, during this same time period operating costs have further increased, reducing net rent returns on office buildings in

Westchester County. Most current leasing activity in the market is a result of renewals or extensions and not a result of any positive change in market conditions. *See,* Office Market Study.

The following table summarizes the supply of office space within the City of Rye. The information contained in the chart below was obtained from the City of Rye Tax Assessment Cards. The property list is limited to other office buildings or facilities within the City of Rye and does not include mixed use structures along Purchase Street or elsewhere.

Table No. 1. ***Summary of Rye Office Space***

Property	Lot Area (AC) [1]	Floor Area (SF) [1]	Rye Office Space (% of Floor Area)
2 Clinton Avenue	0.79	10,600	1%
14-16 Elm	0.26	19,600	2%
22 Elm	0.26	20,000	2%
150 Purchase Street	0.86	22,245	2%
31 Purchase Street	0.10	10,000	1%
600 Midland Avenue	7.83	30,000	3%
601 Midland Avenue	N/A	173,315	18%
2 Second Street	0.20	15,000	2%
16 School Street	1.61	18,316	2%
1 Theall Road	7	65,000	7%
350 Theodore Fremd Avenue	1.80	34,000	4%
401 Theodore Fremd Avenue	7	59,522	6%
411 Theodore Fremd Avenue	8.2	150,946	16%
555 Theodore Fremd Avenue	13.02	165,592	17%
511 Theodore Fremd Avenue	7.53	90,080	9%
120 Old Post Road	**7.01**	**76,000**	**8%**

[1]Data obtained through City of Rye Tax Assessment Cards and confirmed with City of Rye GIS.

With increasing vacancy rates throughout the Rye area along with decreasing rents and the abundance of available office space, re-occupancy under existing market conditions appears highly challenging and doubtful. With regard to the Property, the existing structure is configured primarily as an open plan headquarters building. This configuration places the building in a highly uncompetitive market position since the majority of office leasing activity is focused upon smaller spaces. As a result of these market conditions and the continued vacancy of the building the tax assessment of the property has been reduced by over fifty percent (50%).

On some similar properties, the conversion costs have been determined to be prohibitive and the building has been torn down as a result. However, conversions of underutilized office space have occurred or are proposed on sites in the general vicinity of the Property. Examples include the development of LifeTime Fitness Center and a proposed residential development at 103-105 Corporate Park Drive in Harrison, as well as a recent application for a residential development at the Reckson Executive Park in Rye Brook. As set forth in greater detail in the attached Market Feasibility Analysis prepared by Goman & York Property Advisors, LLC, dated November 2014 ("Market Feasibility Analysis"), an age-restricted, luxury residential community is a viable repurposing of the Site and would offer a housing alternative that is not available within the City of Rye.

ZONING AND LAND USE CONDITIONS

Zoning

The Project Site contains 7.0 acres locaed north of Old Post Road and west of Playland Access Drive in the City of Rye. It is located within the B-4 office building zone, and is bordered by the R-3 residential district to the northeast, the R-2 residential district to the southeast and southwest, and the B-4 district extends to the north and west. See Figure No. 2, *Area Zoning Map*. In the project area, the R-4 and R-5 districts lie further to the south, with the RA-1 and RA-5 districts lying further to the north and southwest respectively.

The B-4 zone is designated as an "Office Building District" with a minimum area requirement of 7 acres. Permitted main uses in the B-4 zone are "Nonresidence main uses permitted in the R-2 Districts and as limited therein." However, there are no "nonresidence" main uses permitted in the R-2 district (i.e. the only permitted main use in the R-2 district are single family residences). Therefore, while there are special exception uses, in essence there are no permitted main uses allowed in the B-4 zone.

The uses permitted subject to additional standards and requirements (i.e. special permit uses) in the B-4 zone are:

a) Office buildings
b) Educational uses (requires a minimum of 10 acres)
c) Public recreational uses
d) Private recreational uses (requires a minimum of 7.5 acres)
e) Extension of welfare uses (operated by nonprofits in existence or which had a permit before January 1, 1958)
f) Public uses
g) Nursery schools (not to exceed 30 children)
h) Agricultural uses (i.e. nurseries, truck gardens, greenhouses and similar agricultural uses)
i) Railroad passenger stations and electric substations
j) Temporary real estate offices in connection with a subdivision containing 10 or more lots
k) Religious headquarters offices (requires a minimum of 20 acres)
l) Religious uses
m) Residential care facility uses (limited to care of 10 or fewer disabled persons or persons in need of supervision or juvenile delinquents)

In sum, outside of the existing use of the Subject Property as an office building there are virtually no other permitted or special permit uses allowed in the B-4 zone for which the Site could be expected to yield a reasonable return.

The Proposed Action

The City currently permits multi-family residences in the following districts:

1. RT – Two Family District
2. RA-1 – Garden Apartment District

3. RA-2, 3, and 4 – Apartment House Districts
4. RA-5 – Apartment District for Senior Citizens and Handicapped Persons
5. RFWP – Residential Floodplain and Wetlands Preservation

The RA-5 is the only district in Rye that currently restricts residential occupancy for senior citizens, and it is intended for housing developments that are undertaken by private nonprofit sponsors with public financial assistance. Therefore, its dimensional regulations are generally more permissive than the current standards for apartment buildings in other districts (e.g., a maximum height of 4 stories compared to 2.5, and a maximum F.A.R. of 1.0 compared to .40-.50). While the proposed age-restricted housing district would allow for less restrictive dimensional standards than most multi-family districts in the City, it would be more restrictive than the RA-5. See Table No. 2, *Existing and Proposed Multi-Family Zoning Districts and Bulk Regulations*, attached at the end of this memo.

The proposed dimensional and use regulations are generally consistent with similar districts across the region. See Table No. 3, *Bulk Characteristics of Regional Active Adult Zoning Districts.* The proposed yard dimensions and maximum building height would either be consistent with existing zoning or more restrictive than in comparable districts, requiring them to be greater than average. Alternatively, the proposed lot area and FAR would be less restrictive than in the comparable districts. However, these regulations would be offset by the Action's requirement for underground parking, which would minimize surface coverage and preserve open green space on the site. For example, as applied to the Project Site, these regulations maintain building and surface coverage rates that are below the minimum requirements for every comparable district at 22% and 33% of the site area respectively. By maintaining lower rates of surface coverage, it is the applicant's belief that this requirement will help preserve a desirable community character for both residents of the Proposed Project and its neighbors.

The proposed off-street parking provision of 1.25 spaces per dwelling unit is based on the supply ratio from the Institute of Transportation Engineers (ITE) *Parking Generation,* Land Use 252 – Senior Adult Housing, as well as characteristics of the Project's target market[1]. While ITE rates indicate that a ratio of 1 space per dwelling unit is sufficient for residences with active seniors, the 0.25 fractional spaces would accommodate facility staff, visitors, or some residents who may wish to maintain more than one vehicle. These provisions are consistent with the comparable districts' range of .75 to 2 spaces per unit as indicated in Table 3.

It is the Applicant's opinion that these proposed standards are appropriate based on the district's age restriction, as it would permit housing for a sector of the population that would not create any additional strain on the Rye City School District.

Existing and Proposed Conditions

The existing office building on the Project Site is compliant with both use and bulk regulations in the B-4 Zoning District with potential for further as-of-right expansion. The following compares the Site's current dimensional characteristics to the limits of its existing zoning, and to the corresponding conditions in the Proposed Zoning and the Proposed Project. These characteristics are also illustrated in Table No. 4, *120 Old Post Road - Existing and Proposed Zoning Districts*, Figure No. 3, *Existing Zone*

[1] Institute of Transportation Engineers, *Parking Generation*, 4th Edition, 2010

(B-4) Max. Build Out and Figure No. 4, *Proposed Zone (RA-6) Max Build Out,* attached at the end of this report.

Lot Area

As a nonresidential use, the existing B-4 zoning district requires a 7-acre minimum lot area, with which the Property is compliant at approximately 7.01 acres. The proposed use would be residential, and therefore lot area would be measured per family or equivalent rather than minimum acreage. The Proposed Zoning district would require 2,000 square feet of lot area per family, permitting a maximum of approximately 152 units.

Floor Area Ratio and Lot Coverage

As described below in Table No. 5, *Floor Area Ratio and Lot Coverage*, the existing building on the Property has approximately 75,000 square feet of floor area, and a Floor Area Ratio (FAR) of 0.25. Under these existing conditions, the site has approximately 25,000 square feet of building coverage and 240 parking spaces, for approximately 135,400 square feet of total lot coverage (approximately 44% of the lot area). Existing zoning permits a maximum FAR of 0.3, indicating the potential for as-of-right expansion of approximately 16,000 square feet of floor area. Under full build out conditions, there would be approximately 8,000 additional square feet of building coverage and approximately 105 additional parking spaces would be required, increasing the total lot coverage to approximately 58%.

The Proposed RA-6 Zoning District would permit an FAR of 0.8, or approximately 244,500 square feet of floor area on the Property. Therefore, full build out of the Property under Proposed Zoning would permit approximately 75,000 square feet of building coverage at maximum height, and underground parking would be required for a total lot coverage of approximately 108,600 square feet (approximately 36% of the lot area). This is the maximum FAR and coverage that would be permitted on the Property in the Proposed Action. Therefore, under Proposed Zoning, total site coverage would be reduced by approximately 27,000 square feet from what the existing zone permits. See Figure No. 5, *Site Development Analysis – Impervious Coverage,* attached at the end of this memo.

Table No. 5. *Floor Area Ratio and Lot Coverage*

	Maximum FAR	Maximum Floor Area	Building Coverage (SF / Percent of Lot Area)	Lot Coverage (SF / Percent of Lot Area)
Existing Office Building – *B-4*	0.25	76,000 SF	28,000 / 9%	135,400 / 44%
Potential Office Build-out – *B-4*	0.30	91,500 SF	36,600 / 12%	176,200 / 58%
Proposed Zoning – *RA-6*	0.80	244,500 SF	75,300 / 25%	108,650 / 36%

As described above, the increased FAR and building coverage under Proposed Zoning is offset by the requirement of underground parking, which preserves approximately two-thirds of the site as open green space, to be attractively landscaped and maintain the existing character of the community. As described below in the Surface Parking Alternative, if underground parking is

not required by zoning, potential coverage rates would be more than double the rate in the Proposed Project. See Table No. 5, *Floor Area Ratio and Lot Coverage.*

Yard Dimensions

As described below in Table No. 6, *Minimum Yard Dimensions*, the existing office building meets the minimum yard dimensions for the front and one side yard at 100 feet each. The total of the two current side yards, however, is 300 feet, which exceeds the 200-foot minimum that is required. The current rear yard is approximately 290', also in excess the 100-foot minimum that is required. In short, existing zoning would permit building expansion into one side or the rear yard area.

Under Proposed Zoning, yard dimensions would either be maintained from the existing zone or adjusted to be greater than or equal to dimensions in the City's other multi-family districts, as described above. The front yard dimension would be maintained at 100 feet. One side yard would be 40 feet, and the total of the two side yards would be 100 feet. The rear yard, which abuts the parking area of a commercial property in the case of the Project Site, would be 25 feet. The yard dimensions in the Proposed Project would be generally more conservative than the minimum requirements permitted in the Proposed Action.

Table No. 6, *Minimum Yard Dimensions*

	Front Yard	One Side Yard	Total of Two Side Yards	Rear Yard
Existing Office Building *(B-4)*	100'	100'	300'	290'
Potential Office Build-out *(B-4)*	100'	100'	200'	100'
Proposed Zoning *(RA-6)*	100'	40'	100'	25'

Building Height

The existing building is 40 feet in height over three stories. Current zoning would maintain the three-story limit, but would permit a building 45 feet in height.

Proposed zoning would maintain the existing 45-foot height limit, with an increase from three to four stories. The increase in stories corresponds with the change in use, as typical residential buildings have a smaller distance between stories than office buildings. Although the Project Site does not contain steep slopes, there is a gradual but significant change in ground elevation from approximately 50 feet at the southeast corner to approximately 100 feet at the northwest. The Proposed Project has been designed to accommodate this topography with the average height being maintained as the elevation changes. See Figure No. 6, *Building Height Diagram,* Figure No. 7, *Site Section Diagram,* and Figure No. 8, *Site Section Diagram – Proposed Building.*

Multi-Family Housing Mass and Density Analysis

Table No. 7 below summarizes the building mass and density characteristics of comparable multi-family residence developments in the City of Rye. These sites are located in different zoning districts and may be subject to different permits or restrictions, but are intended to provide a point of comparison for the scales of mass and density that exist within the City's multi-family residence developments. Aerial and street-level imagery for each property is provided at the end of this memo.

The proposed development of the Project Site would be less intense from a bulk and density perspective than all but The Osborn.

Table No. 7, ***Summary of Comparable Properties in Rye***

Property	Lot Area (AC)	Floor Area (SF)	FAR	Units	Density (Units/ Acre)	Height		Yard			Parking	
						Feet	Stories	Front	Side	Rear	Spaces	Spaces/ Unit
Rye Manor[1]	1.9	71,000	0.86	100	53	50'	4	95'	30'/50'	30'	34	0.34
The Osborn[1]	55.9	N/A	N/A	377	7	N/A	5	160'	160'	160'	484	1.28
Highland Hall[2]	1.23	86,153	1.61	102	83	N/A	4	30'	5'	15'	0	0
Blind Brook Lodge[2]	2.7	134,401	1.14	137	51	N/A	6	30'	5'	30'	76	0.55
120 Old Post Road												
Proposed Zoning	7.01	244,500	0.80	152	21	45'	4	100'	40'/ 100'	25'	168	1.25
Proposed Project	7.01	222,500	0.73	135	19	45'	4	100	100'/ 200'	25'	205	1.51

[1]Data obtained through City of Rye Site Plan Approval Records and confirmed with City of Rye GIS.
[2]Data obtained through the City of Rye Tax Assessment Cards and confirmed with City of Rye GIS.

Below, Table No. 8 summarizes the building mass and density characteristics of comparable multi-family developments in other municipalities in the region. As noted in the table, these properties may have different classifications than the Proposed Project, but the figures below are for their residential components. Available imagery for each property is provided at the end of this memo. The proposed development of the Project Site is generally less intense from a bulk and density perspective then these other projects, except for The Ambassador which is an assisted living facility.

Table No. 8, ***Summary of Comparable Properties in Other Municipalities***

Property	Lot Area (AC)	Floor Area (SF)	FAR	Units	Density (Units/ Acre)	Height		Yard			Parking	
						Feet	Stories	Front	Side	Rear	Spaces	Spaces/ Unit
The Cambium, Larchmont[1]	2.94	222,075	1.17	186	63	75'	6	15'	15'	15'	267	1.44
Christie Place, Scarsdale[2]	1.73	105,500	1.4	42	24	46'	4	N/A	N/A	N/A	67	1.6
The Ambassador, Scarsdale[3]	6.98	119,779	0.4	115	16.7	N/A	3	40'	25'	30'	43	0.37
120 Old Post Road												
Proposed Zoning	7.01	244,500	0.80	152	21	45'	4	100'	40'/ 100'	25'	168	1.25
Proposed Project	7.01	222,500	0.73	135	19	45'	4	100'	100'/ 200'	25'	205	1.51

[1] Mixed use development; Data obtained through City of Mamaroneck Site Plan Approval Records and Westchester County GIS
[2] Mixed use development; Data obtained from Scarsdale Town Planner and As-Built Survey.
[3] Assisted living facility; Data obtained from Scarsdale Town Planner and As-Built Survey.

Surface Parking Alternative

The Applicant has contemplated an alternative plan in which surface level parking would be permitted in lieu of the requirement for structured, subterranean parking. See Figure No. 9, *Surface Parking Alternative.* With the same dimensional constraints that the Proposed Action would permit, this alternative would have an approximate FAR of 0.8, and building coverage of approximately 60,000 square feet. The surface parking area would cover approximately 118,000 square feet for total lot coverage of 178,000 square feet (58% of the total lot area). In order to provide parking spaces at the ratio required in the Proposed Action, the series of four-story buildings shown in Figure 9 would also require more permissive setbacks than the Action proposes.

Although surface parking would likely save construction costs, significant impacts to stormwater management and visual resources could be anticipated in this alternative. Potential lot coverage rates would be nearly double what the Proposed Action would permit, and this alternative would limit the Applicant's ability to provide a site-sensitive design with an attractive landscape plan and adequate stormwater management facilities. This alternative illustrates the crucial role that subterranean parking would play in the Proposed Action's ability to preserve open green space, maintain community character, and minimize lot coverage. In sum, the applicant believes that this alternative would lead to a less desirable outcome for residents of the Project and the neighboring community, and requiring underground parking will help to mitigate these impacts.

Land Use

The Project Site is bordered by Playland Access Drive to the northeast with access to Playland Parkway located at the Site's northeast corner. Old Post Road forms the southeast border with single family homes extending south and east of the Project Site, and to the north and east beyond Playland Parkway. The Site is also adjacent to The Osborn retirement community to the southwest, and WESTMED Medical Group's Rye office to the northwest. Additional office uses extend north and south of the Project Site, with additional multi-family residences to the southwest and north along Theall Road. In the larger context, the Project Site is located at the edge of an office district, with a variety of different land uses in the area which are generally characterized by single and multi-family residences, office buildings, institutional and public assembly spaces, cemeteries, public parks and parkway lands, nature preserves, and vacant land. See Figure No. 10, *Area Land Use Map*.

We believe the age-restricted luxury rental apartment building would provide an ideal transition between the residential community and office building district. It would also complement the scale and use characteristics of The Osborn as a multi-family residential community for senior citizens, while diversifying housing options in Rye specifically for active adults who do not require nursing care but no longer have the necessity of maintaining the costs of home ownership. See Figures 11, 12, and 13, *Conceptual Renderings*.

The City of Rye's Development Plan was adopted in 1985, and intended to guide land use decisions in the City through the year 2000[2]. Although the Plan describes a "great pressure in Westchester County in recent years to build corporate office buildings [... which] has led to pressure from builders for the

[2] City of Rye, NY. *City of Rye 1985 Development Plan.* Adopted April 23, 1985.

rezoning of Rye land from residential to commercial," the Plan acknowledges that it "is not a static document to be followed without regard to changing conditions." As previously stated, such conditions in the office market have changed significantly since the Plan's adoption. However, the Proposed Action is consistent with the Plan's goals and policies related to residential development as follows:

> II.1 Residential Development, Goal 4 – *Provide an opportunity for the development of housing of various types, sizes, and costs to meet the needs of people at various stages in the life cycle, income, age levels, and household compositions, without compromising the integrity of Rye's single family residential areas.*

Consistent with the Development Plan's goal, the Proposed Action would provide an opportunity for living accommodations in Rye in a way that is not currently regulated in the Zoning Ordinance. It would address what the Plan identifies as "an increasing need to provide housing for senior citizens who are no longer able to (or wish to) maintain a home," with a viable alternative for those older individuals seeking alternative housing arrangements who are able to remain active and independent.

Further, the Proposed Project's location near the office buildings and major roadways is identified in the plan as highly desirable for redevelopment with higher density multi-family residences. Located within the Post Road Residential/ Institutional Area, its vicinity was "envisioned as a mixed use area blending in with the surrounding residential areas. Permitted uses would be a variety of residential uses and densities." Therefore, it is expected that the project would enhance the integrity of the adjacent single family residential area by providing an added buffer of residential use between it and the office building district, with an aesthetic style that would complement the adjacent single family community as well as The Osborn.

FISCAL IMPACTS

Property Taxes

The Project Site is subject to real property taxation by the City or Rye, the Rye City School District, Westchester County, and special benefit assessments for Westchester County (e.g., sewer and solid waste special districts). The project site currently has a full market value for assessment purposes of $7,492,146. The City's equalization rate is 1.91%, which results in an assessed value of $143,100. The 2014 tax rates for the taxing jurisdictions are presented below in Table No. 9, *120 Old Post Road Current Tax Bill.*

The Project Site is currently occupied by one office tenant. As indicated above, the property has an assessed value of $143,000. The existing tax generation from the site is provided below in Table No. 9, below.

Table No. 9, *120 Old Post Road Current Tax Bill*

				Equalization Rate: 1.91%
	Tax Rate (per $1,000 value)	**2014 Market Value Valuation**	**2014 Assessed Value**	**Tax Bill**
City of Rye	$ 150.38	$ 7,492,146	$ 143,100	$ 21,519
Rye School District	$ 561.33	--	--	$ 80,327
Westchester County	$ 187.92	--	--	$ 26,891
Refuse Disposal District	$ 17.61	--	--	$ 2,519
Blind Brook Sewer	$ 29.68	--	--	$ 4,248
Total Tax Rate (Rye School District)	**$ 946.93**	**$ 7,492,146**	**$ 143,100**	**$ 135.504**
2014 numbers were obtained from the Westchester County Government's published Property Tax Rates and 2014 City of Rye Adopted Tax Rate.				

As further detailed in the attached Proposed Property Tax Exposure Report prepared by McCarthy Appraisal / Consulting Svc. Inc. dated January 9, 2014, the Project could be anticipated to have a future market value for assessment purposes of approximately $34,000,000, resulting in an approximate assessed value of $650,414. This would obviously be a marked increase over the existing tax base. The details of this increase on the tax roll are set forth in Table No. 10, below.

Table No. 10, *120 Old Post Road Anticipated Tax Bill based on 2014 Tax Rates*

				Equalization Rate: 1.91%
	Tax Rate (per $1,000 value)	**Anticipated Market Value Valuation**	**Anticipated Assessed Value**	**Approx. Tax Bill**
City of Rye	$ 150.38	$ 34,053,067	$ 650,414	$ 97,809
Rye School District	$ 561.33	--	--	$ 365,096
Westchester County	$ 187.92	--	--	$ 122,225
Refuse Disposal District	$ 17.61	--	--	$ 11,453
Blind Brook Sewer	$ 29.68	--	--	$ 19,310
Total Tax Rate (Rye School District)	**$ 946.93**	**$ 34,053,067**	**$ 650,414**	**$ 615,896**
2014 numbers were obtained from the Westchester County Government's published Property Tax Rates and 2014 City of Rye Adopted Tax Rate.				

In total, the Project is anticipated to produce an increase of approximately $480,000 in tax total tax revenue. Perhaps most significantly, as the Project will be an age-restricted residential community there will be no additional burden on the Rye City School District caused by the Project, while generating approximately $280,000 in additional School Taxes.

Service Costs

The Subject Property is a located within the City of Rye, and is presently served by the Rye Police Department, Rye Fire Department, Rye Public Works, and the Port Chester-Rye-Rye Brook

Volunteer Ambulance Corps. The existing and potential fiscal impacts of community services for its current and proposed land use have been considered by analyzing the Property within the context of all properties in Rye that receive these services. Based on 2014 tax rates, the Property currently has a full market value of $7.5 million, and an assessed value of $143,100. As per the City of Rye Annual Budget adopted for 2014, the City's total assessed value was $165,669,516. Therefore, the Property currently accounts for approximately 0.09% of the value of City property that is currently covered by the City's services. As indicated above with regard to property taxes, the Proposed Action would permit residential use on the Property, and the resulting project would have an anticipated assessed value of $650,414. Based on the methodology above, the Project's anticipated portion of the City's assessed value would be 0.39%.

It is the applicant's opinion that this change in use for an existing developed property represents such a small portion of the overall property to be served, and therefore no significant adverse impacts would be anticipated for overall departmental operations or City budgeting. As per Tables 9 and 10 above, the Property's 2014 tax bill for the City of Rye taxes was $21,519, and with the Proposed Project it would be approximately $97,809. Table 11 below outlines the applicable service costs that could potentially increase from the existing to the proposed conditions, their portion of the 2014 Combined Operating budget, and how those same portions could be applied to the existing and proposed bills for City taxes.

Table No. 11, ***City of Rye Operating Budget, Services and 120 Old Post Road City Tax Bill***

			Existing Tax Bill	Proposed Tax Bill
Combined Operating Budget	**$ 50,371,169**	**100%**	**$ 21,519**	**$ 97,809**
Police Services	$ 9,214,601	18%	$ 3,873	$ 17,606
Fire Department	$ 4,993,909	10%	$ 2,152	$ 9,781
Emergency Medical Services	$ 221,748	0.4%	$ 86	$ 391
Sanitation Services	$ 3,934,282	8%	$ 1,722	$ 7,824
Senior Adult Programs	$ 8,600	0.1%	$ 22	$ 98

It should be noted that some City services are generally supported as pay for use services, and as such would not increase the City budget. Based on information described in the 2014 City Budget, emergency medical services are provided by a contract service agency using their own facilities, equipment, supplies and staff, and are costs that are typically charged to the individual seeking services. In addition, senior adult programs are part of the City's culture and recreation services, and typically charge participants for various programs, realizing revenue that exceeds the Budget's allocated cost. Overall, even if minor costs were incurred as a result of the change in use of the property, the anticipated increased revenue from City taxes as described above would likely exceed these costs.

Police and EMS Service Calls

The following table summarizes calls made to the Rye Police Department from 2010 to 2013, from the Rye Manor apartments, located at 300 Theall Road in Rye. Rye Manor was selected for this analysis because it is the only other age-restricted multi-family residence development in Rye. As noted in the table, calls are categorized by their respective CFS codes, with the exception of calls classified as "other," which represents calls received in low volumes across various categories. Calls classified as

"other" include reports of missing persons, hit and run accidents, larceny, property damage, disorderly conduct, city code violations, illegally parked vehicles, flood conditions, unattended deaths, noise complaints, requests to assist other police departments, and hang-ups.

Table No. 12, ***Summary of Police Service Calls from 300 Theall Road***

RMS CFS Code[1]	2010	2011	2012	2013
Ambulance Request – CFS.013	28	22	19	12
Aided Case – CFS.012	20	18	13	17
Assist Citizen – CFS.014	12	21	11	8
Are You Ok Resident Check – CFS.246	18	11	1	2
Other	6	10	6	5
Total Police Service Calls per Year	**84**	**82**	**50**	**44**

[1]City of Rye Police Department, Incident Search Result Report for 300 Theall Rd, Rye NY, obtained from Rye City Planner.

CONCLUSION

As described above, the existing office building at the Property has been mostly vacant for a significant period of time. As this condition is not isolated to the Property but is a macro-trend throughout Westchester County and other metropolitan areas, re-occupancy by substantial office use would be highly challenging and unlikely.

The Proposed Action would not only allow the property to be redeveloped and put back to sustainable use, it would also provide a housing opportunity that is not currently being offered within the City of Rye and would further reestablish the taxable value of the Property for real property tax purposes, which has continued to erode as the property has remained vacant. Furthermore, the Proposed Project would not create any additional strain on the Rye City School District as the development would expressly prohibit school age children from residing in the development. Therefore, it is the Applicant's view that the Proposed Action and Project present a reasonable and logical alternative for the potentially valuable and underutilized Property while at the same time achieving the goal of providing a diverse housing stock within the City of Rye in a form that is not currently available.

Table No. 2. *Existing and Proposed Multi-Family Zoning Districts & Bulk Regulations*

4		5	6	7	8	9	10	11	12	13	14	15	16
					Minimum Yard Dimensions (feet)				Specified Distance (feet) as required in Column 2 (Uses)	Maximum Height		One-Story Accessory Structures	
District	Use	Maximum Ratio of Floor Area to Lot Area[(j)]	Minimum Size of Lot (AC or SF) per a. Family or Equiv.[(a)] or b. Nonresidential Use	Minimum Width (feet) [See § 197-36]	Front[(b)]	One Side [(b)(c)]	Total of Two Side Yards	Rear[(b)]		(stories)	(feet)	Maximum Coverage of Required Rear Yard	Minimum Distance to Side Line (feet)
RA-1	Single-family house	0.40	5,000	50	25	8	20	30	40	2.5	35	30%	5
	Two-family house	0.40	5,000	60	25	8	20	30	--	2.5	35	30%	5
	Apartment house	0.40	5,000[(c)]	100	70	50	100	50	--	2.5	35	30%	10
RA-2	Single-family house	0.45	5,000	50	25	8	20	50	30	2.5	35	30%	5
	Two-family house	0.45	3,500	60	25	8	20	50	--	2.5	35	30%	5
	Apartment house	0.45	3,500[(c)]	100	25	20	50	40	--	2.5	35	30%	10
RA-3	Single-family house	0.50	5,000	50	25	8	20	30	20	2.5	35	35%	5
	Two-family house	0.50	3,000	60	25	8	20	30	--	2.5	35	35%	5
	Apartment house	0.50	2,500[(c)]	80	25	20	40	40	--	2.5	40	35%	10
RA-4	Single-family house	0.50	5,000	50	25	8	20	30	--	2.5	35	35%	5
	Two-family house	0.50	3,000	60	25	8	20	30	--	2.5	35	35%	5
	Apartment house	0.50	2,500[(c)]	80	25	20[(d)]	40[(d)]	40[(d)]	--	2.5[(f)]	35[(f)]	35%	10
RA-5	Apartments for senior citizens and handicapped persons	1.00	1 AC	80	25		40	40	--	4	50	35%	10
RA-6	**Apartments for active senior citizens**	**0.8**	**2,000**	**400**	**100**	**40**	**100**	**25**	**--**	**4**	**45**	**35%**	**10**

(a) Equivalent to one (1) family in computing minimum lot sizes:
[1] Hotels and lodging houses, each two (2) guest sleeping rooms.
[2] Hospitals and similar institutions, each two (2) hospital beds.
[3] Medical offices, each two (2) doctors plus three (3) other employees.
[4] Other nonresidential main uses not specifically provided for in this Table of Regulations or elsewhere in Chapter 197, each one thousand five hundred (1,500) square feet of floor space

(b) [1] Wherever a required yard abuts a street less than fifty (50) feet in width, the minimum yard dimension(s) shall be measured from a line of twenty-five (25) feet from parallel to the center line of said street.
[2] No building shall be nearer than one hundred (100) feet to center line of Post Road between Mamaroneck town line and Central Avenue.

(c) For corner lots, corner side yards at least one fifth (1/5) of the lot width at the location of the building, but need not be more than front yard minimum, except as provided in § 197-62. Permitted nonresidential main uses shall have minimum side yard one and one half (1 1/2) times width specified for a single-family house (See § 197-52).

(d) Twenty-five (25) feet for any side yard containing a driveway serving more than six (6) parking spaces. For a one-, two-, or three-family structure existing on effective date of Chapter 197 (August 9, 1956) and proposed for conversion for up to four (4) families, the Board of Appeals may reduce side yard requirement to eight (8) feet. For side yard requirements for other apartments, see See § 197-54. For spacing between buildings on the same lot, see § 197-70. For the rear and side yards of apartment houses adjoining the right-of-way of a railroad, a parkway or a limited access highway, see § 197-64.

(e) For usable open space requirement, see § 197-68

(f) For buildings in variable height apartment groups (a use permitted in RA-4 Districts subject to additional standards and requirements), see§ 197-13.
[g,h,i omitted]

(j) See § 197-43.1 for floor area ratio reductions for single-family residences on oversized properties in one-family districts.

Table No. 3, *Bulk Characteristics of Regional Active Adult Zoning Districts*

Municipality	Maximum Ratio of Floor Area to Lot Area	Maximum Dwelling Units	Lot Building Coverage (%)	Lot Surface Coverage (%)	Required Parking Spaces Per Unit	Minimum Size of Lot (AC)	Minimum Width (feet)	Minimum Yard Dimensions (feet)				Maximum Height	
								Front	One Side	Total of Two Side Yards	Rear	(stories)	(feet)
Rye	**0.8**	**21/AC**	**--**	**--**	**1.25**	**2,000 SF/ unit**	**125**	**100**	**40**	**100**	**25**	**4**	**45**
Carmel[3]	--	8/AC	35%	--	1.5	5	125	40	--	--	--	2	40
Massapequa Park[4]	--	25/AC	35%	--	1.5	2.5	--	25	25/35	50/70	25/50	2.5	30
Newburgh[5]	--	--	30%	80%	2	3	100	60	30	60	40	--	35
North Greenbush[6]	--	20/AC	40%	--	1.4	2	--	40	40	80	40	Existing	Existing
Smithtown[7]	0.25	--	--	--	0.75	10	200	60	60	120	60	2.5	35

1 Values based on Proposed Project and not proposed zoning standard. Values used for comparison purposes

2 Village of Amityville, NY, Chapter 183 "Zoning," Article X "PAC (Planned Adult Community) Residence Districts"

3 Town of Carmel, NY; Chapter 156 "Zoning," Section 39 "Senior Citizens Multifamily Dwellings"

4 Village of Massapequa Park, NY; Chapter 354 "Zoning," Article VII "Golden Age District"

5 Town of Newburgh, NY; Chapter 185 "Zoning," Section 48 "Senior Citizen Housing"

6 Town of North Greenbush, NY; Chapter 197 "Zoning," Article XV "Senior Citizens Housing District"

7 Town of Smithtown, NY; Chapter 322 "Zoning," Article VII "Retirement Community District"

Table No. 4. *120 Old Post Road - Existing and Proposed Zoning Districts*

	B-4[1]				RA-6			
Zoning Compliance & Maximum Site Build Out	Existing Office Building		Zoning-Compliant Maximum Build Out		Active Senior Residence District		Proposed Apartment House	
Maximum Floor Area Ratio	0.25		0.3		0.8		0.73	
Minimum Size of Lot per a. Family or Equiv. or b. Nonresidential Use	7 AC		7 AC		2,000 SF		2,280	
Minimum Yard Dimensions (feet)								
Front	200'		100'		100'		100'	
One Side	100'		100'		40'		100'	
Total of Two Side Yards	390'		200'		100'		125'	
Rear	100'		100'		25'		25'	
Maximum Height								
Stories	3		3		4		4	
Feet	40'		45'		45'		45'	
Parking Requirement[2] (approx.)	240 Spaces		345 Spaces		1.25 Spaces/ Unit		205 Spaces (168 req.)	
Project Development Analysis	SF	% Coverage	SF	% Coverage	SF[4]	% Coverage[4]	SF	% Coverage
Total Building Floor Area	75,000	0.25	91,600	0.30	244,260	0.80	222,500	0.73
Total Impervious Coverage	135,400	44%	176,200	58%	108,650	36%	100,150	33%
Building Footprint	28,000	9%	36,600	12%	75,300	25%	66,800	22%
Paved Area	107,400	35%	139,600	46%	33,350	11%	33,350	11%

1 City of Rye, Chapter 197 "Zoning," Att. 2

2 Based on § 197-28 "Schedule of off-street parking requirements," which provides 7 spaces per 10 people employed or intended to be employed in office buildings or other permitted uses in the B-4 District. Parking ratio for maximum build out conditions is estimated at 3.8/1000 SF

3 Potential build out conditions are estimated using existing conditions and are prorated by F.A.R. regulations.

4 Coverage calculations are based on the lot area of the Project Site, which is approximately 7.01 acres or 305,322 square feet.

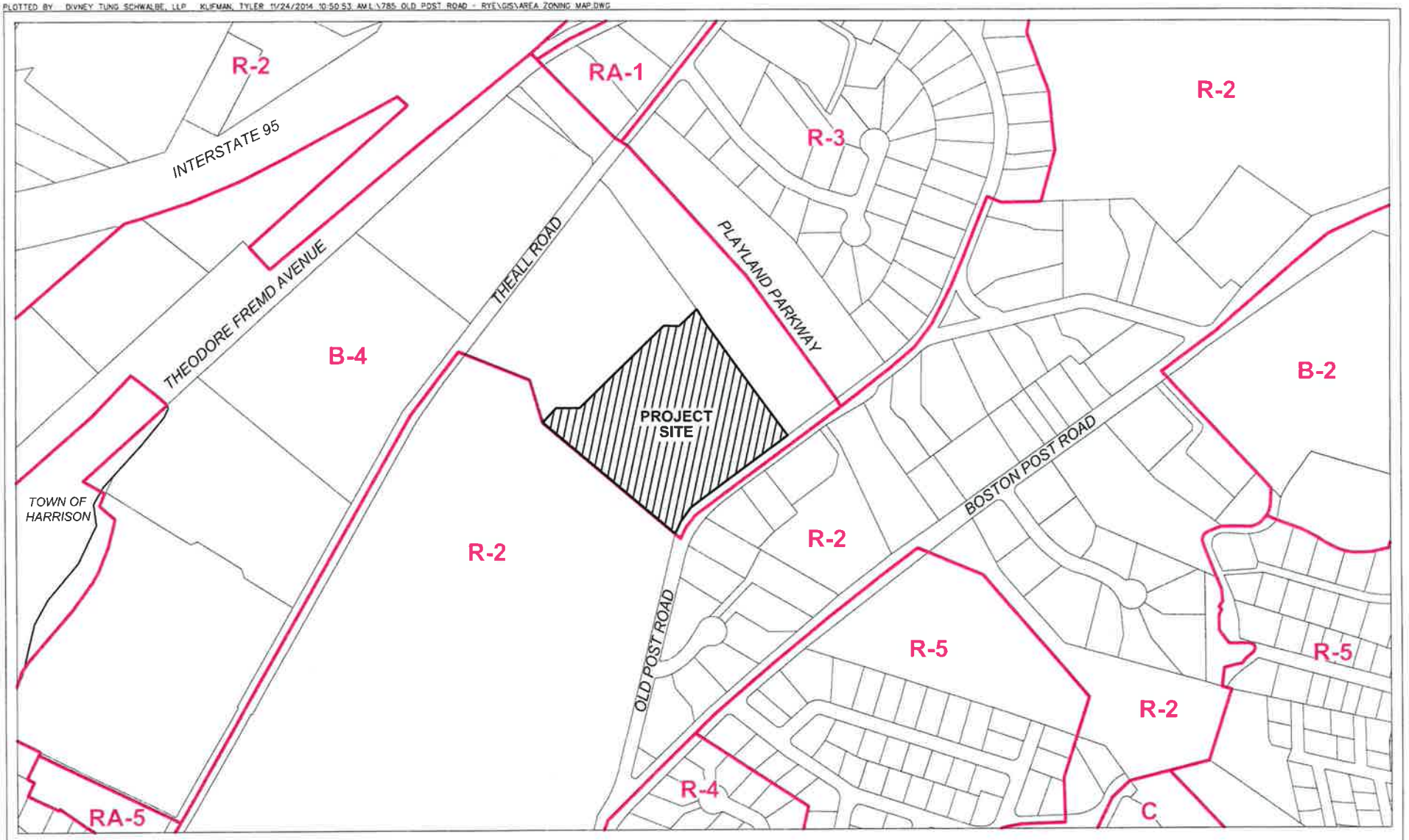
ILLUSTRATIVE SITE PLAN

DIVNEY • TUNG • SCHWALBE
Site/Master Land Use

120 OLD POST ROAD
RYE, NY

AW815AR.06 - 1/12/2015 revised 6/2/2015

FIGURE NO. 1



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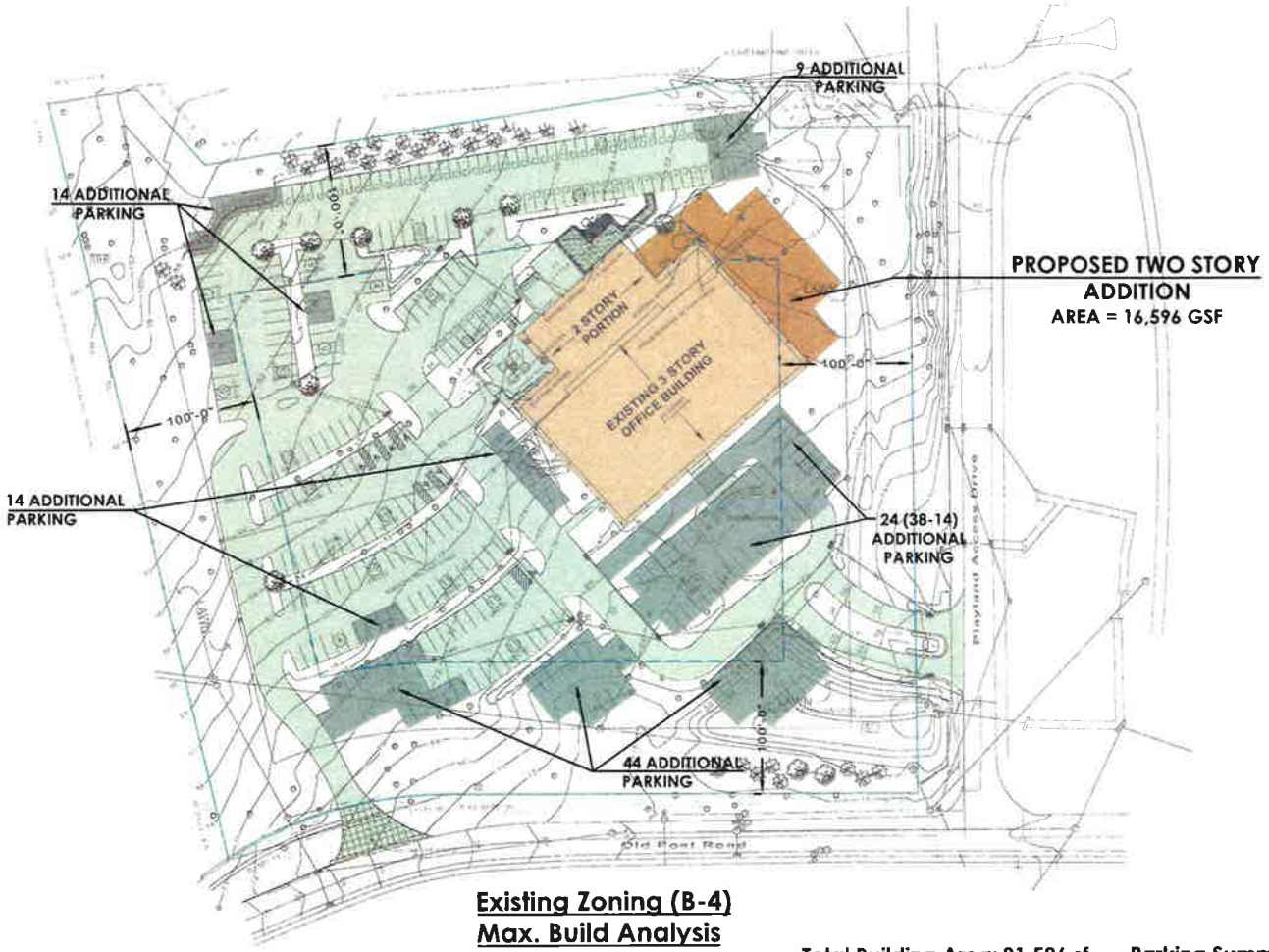
Intelligent Land Use

AREA ZONING MAP

120 OLD POST ROAD
CITY OF RYE, NEW YORK

FIGURE NO. 2



Existing Zoning (B-4)
Max. Build Analysis

FAR:	0.30
Max. Floor Area:	91,596 sf
Site Area ~	305,322 sf

Total Building Area: 91,596 sf

Existing Building:	75,000 sf
Proposed Addition:	16,596 sf
(two story @ 8,250 sf per floor)	

Parking Summary

Existing ~	240 Spaces
Proposed:	105 Spaces
Total ~	345 Spaces
Parking Ratio ~	3.8/1000

EXISTING ZONE (B-4) MAX. BUILD OUT

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Intelligent Land Use

120 OLD POST ROAD
RYE, NY

AWR16AR 06 - 3/2/2015 revised 6/2/2015

FIGURE NO. 3

Proposed Zoning (RA-6)
Max. Build Analysis

FAR:	0.80
Max. Floor Area:	244,257
Site Area ~	305,322 sf

Building Area Summary

Original Concept:	222,500 sf
Max. Build Additions:	21,757 sf
Total Building Area:	244,257 sf

Parking Summary

Covered ~	190 Spaces
Surface ~	15 Spaces
Total ~	205 Spaces

PROPOSED ZONE (RA-6) MAX. BUILD OUT

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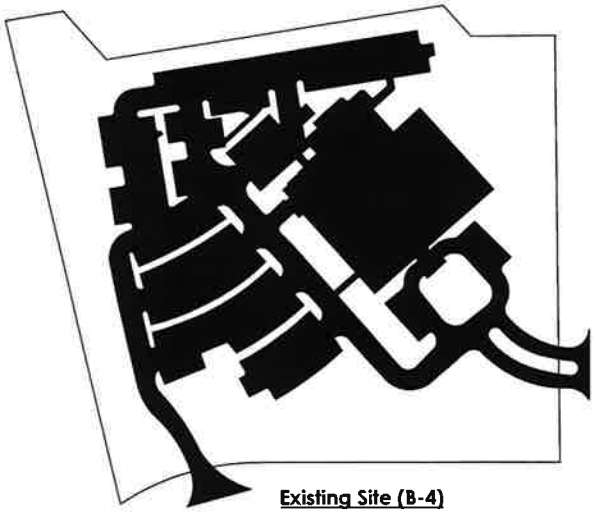
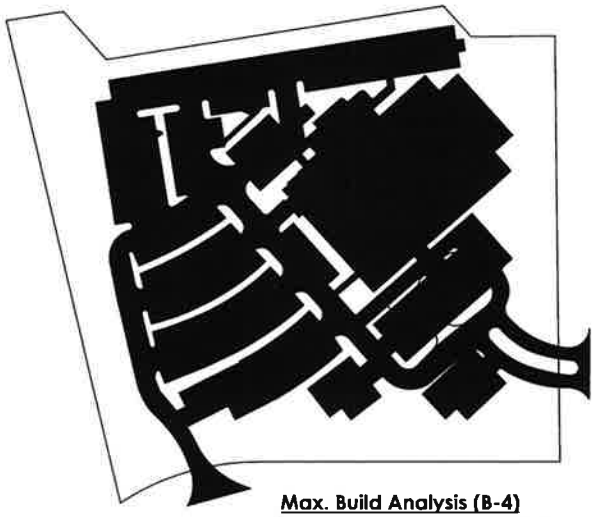
120 OLD POST ROAD
RYE, NY

FIGURE NO. 4



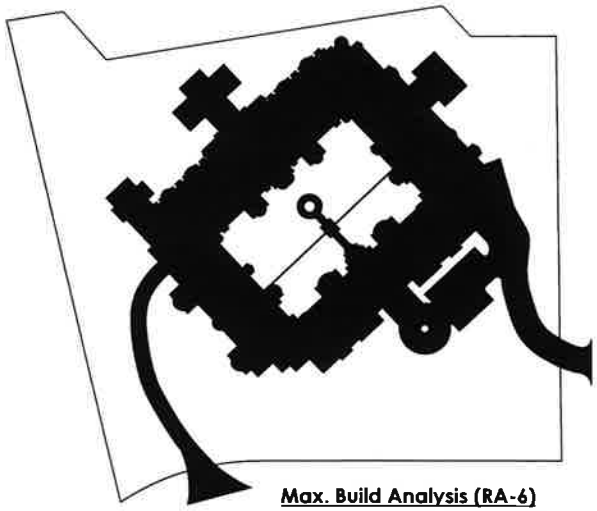
Existing Site (B-4)

Building Footprint ~	27,935 sf
Paved Areas ~	107,418
Total Impervious ~	135,353
Site Area ~	305,322
% Impervious ~	44.33%



Max. Build Analysis (B-4)

Building Footprint ~	36,505 sf
Paved Areas ~	139,616
Total Impervious ~	176,121
Site Area ~	305,322
% Impervious ~	57.68%



Max. Build Analysis (RA-6)

Building Footprint ~	75,315 sf
Paved Areas ~	33,347
Total Impervious ~	108,662
Site Area ~	305,322
% Impervious ~	35.59%

SITE DEVELOPMENT ANALYSIS - IMPERVIOUS CONDITIONS

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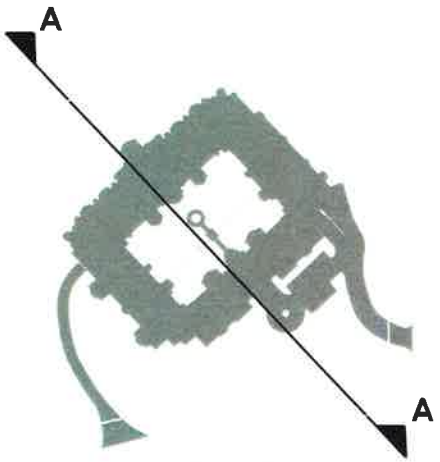
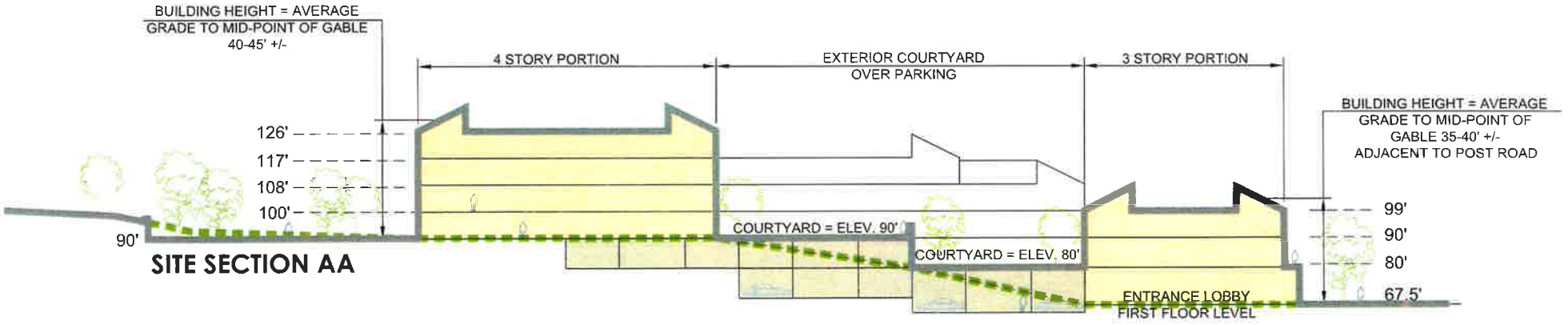
120 OLD POST ROAD
RYE, NY

AW815AE 06 - 3/4/2015,revised 6/2/2015

FIGURE NO. 5



KEY PLAN



SITE SECTION AA

BUILDING HEIGHT DIAGRAM

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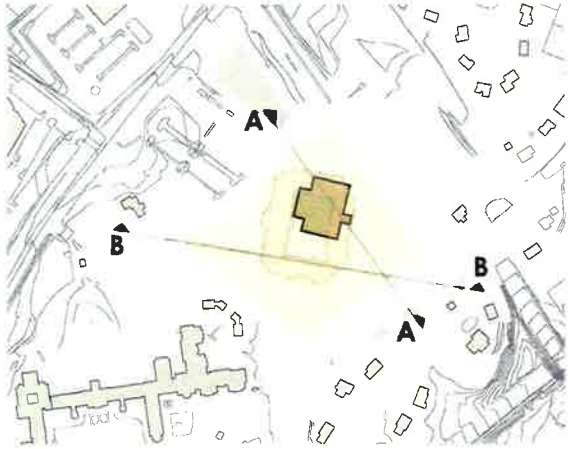
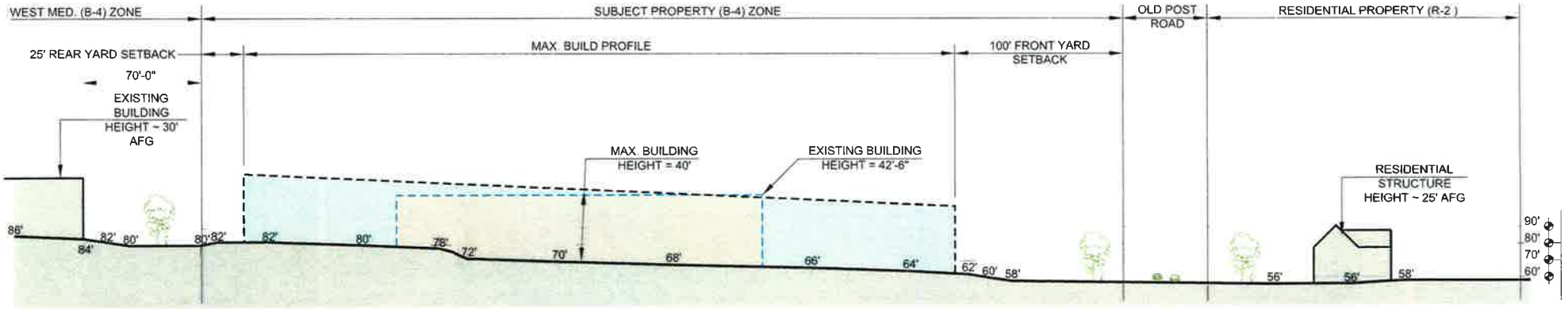
120 OLD POST ROAD
RYE, NY

FIGURE NO. 6



KEY PLAN



SITE SECTION DIAGRAM - AA

SITE SECTION DIAGRAM

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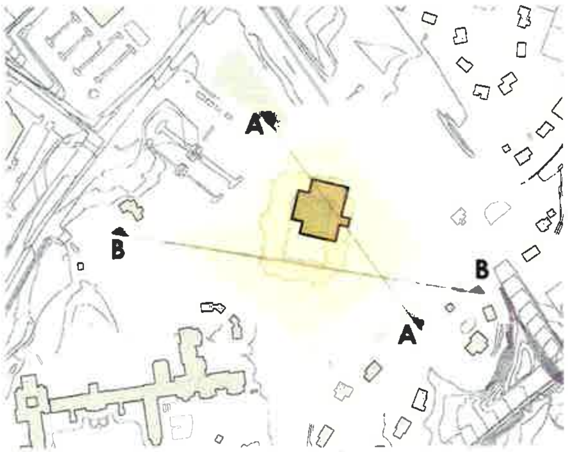
N

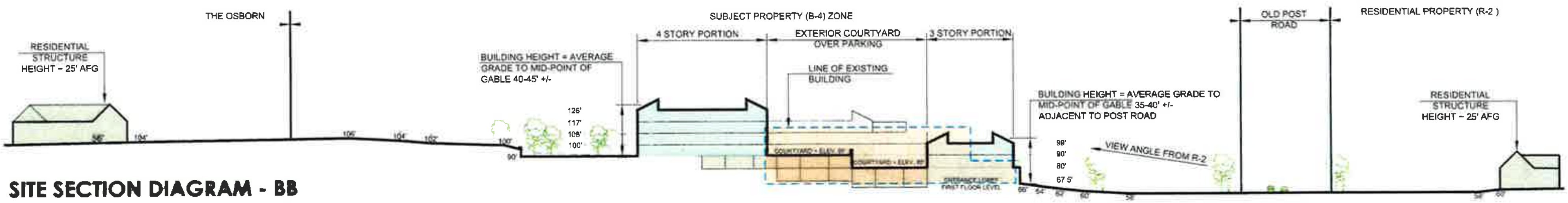
120 OLD POST ROAD
RYE, NY

AW81SAR.06 - 3-31-2015, revised 6-2-2015

FIGURE NO. 7



KEY PLAN



SITE SECTION DIAGRAM - BB

SITE SECTION DIAGRAM - PROPOSED BUILDING

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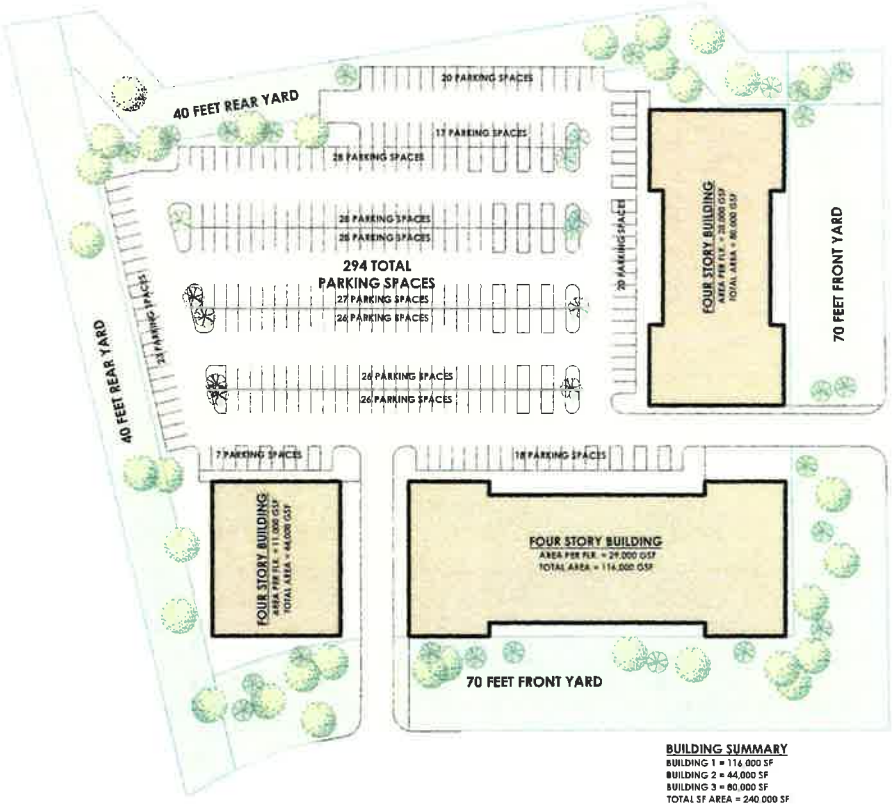
120 OLD POST ROAD
RYE, NY

AWR15AR.06 - 3-31-2015 revised 6-2-2015

FIGURE NO. 8



BUILDING SUMMARY
BUILDING 1 = 116,000 SF
BUILDING 2 = 44,000 SF
BUILDING 3 = 80,000 SF
TOTAL SF AREA = 240,000 SF

RA-6 Density Study		
Zoning Regulations		
Lot Area	304,920	
	RA-6	
	Req.	**Proposed**
Maximum F.A.R	0.8	
Site Maximum Allowed	243,936	240,000
Min. Yard Dimensions (Feet)		
Front	70	70
One Side	70	70
Total of Two Sides	140	140
Rear	40	40
Maximum Height		
Stories	4	4
Feet	50	45
Parking	2	per unit
Max. Parking (per unit above)	296	

Proposed Density Study		
Building Area (Gross)	**240,000**	**gross sf**
Area per floor (4 Story)	**60,000**	**sf/floor**
Efficiency Factor	25%	
Net Area for Units	180,000	
Average net area/unit	1,220	
Total estimated units	147.541	
Proposed Units	**148**	
Parking Required	295.082	
Proposed Parking	**294**	
Impervious Coverage	**177,928**	**58.4%**
Building Footprint	60,000	19.7%
Paved Surfaces	117,928	38.7%

SITE PLAN - SURFACE PARKING ALTERNATIVE

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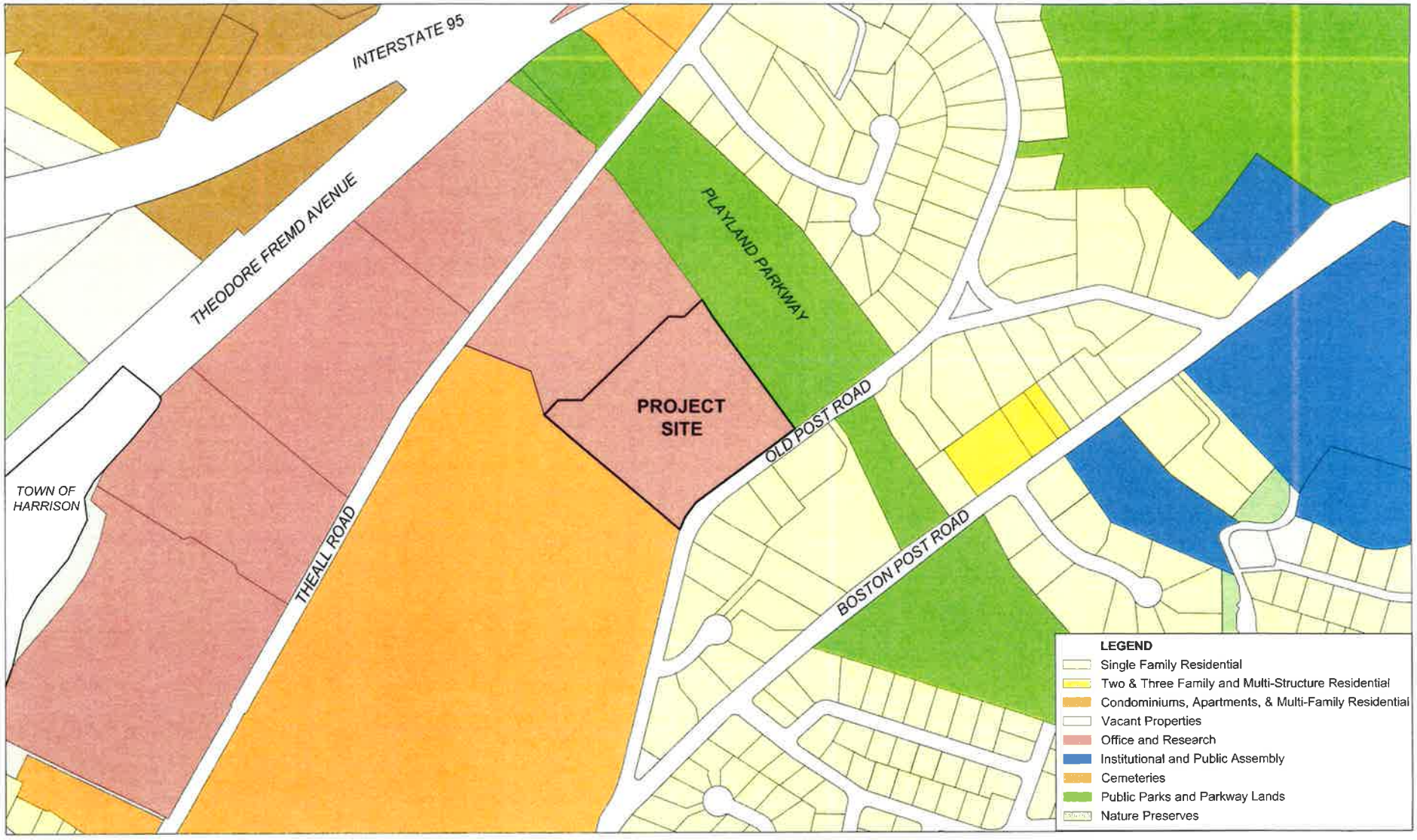
120 OLD POST ROAD
RYE, NY
AWTSAR 86 - 1-12-2015, revised 6-2-2015

FIGURE NO. 9



AREA LAND USE MAP

120 OLD POST ROAD
CITY OF RYE, NEW YORK

FIGURE NO. 3

CONCEPTUAL RENDERING - VIEW FROM PLAYLAND ACCESS DRIVE

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120 OLD POST ROAD
RYE, NY

FIGURE NO. 11

CONCEPTUAL RENDERING - VIEW FROM OLD POST ROAD

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120 OLD POST ROAD
RYE, NY

FIGURE NO. 12

CONCEPTUAL RENDERING - VIEW OF INTERIOR COURTYARD

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120 OLD POST ROAD
RYE, NY
AWR15AR 06 / 1-12-2015 revised 6-2-2015

FIGURE NO. 13

Full Environmental Assessment Form
Part 1 - Project and Setting

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 project sponsor to verify that the information contained in Part 1 is accurate and complete.

A. Project and Sponsor Information.

Name of Action or Project: Rezoning of 120 Old Post Road		
Project Location (describe, and attach a general location map): 120 Old Post Road, City of Rye, Westchester County		
Brief Description of Proposed Action (include purpose or need): Rezoning of the property at 120 Old Post Road for an age-restricted, multi-family residential development.		
Name of Applicant/Sponsor: Old Post Road Associates LLP c/o Harfenist Kraut & Perlstein LLP	Telephone: 914-701-0800 E-Mail: jkraut@hkplaw.com	
Address: 2975 Westchester Ave, Suite 415		
City/PO: Purchase	State: New York	Zip Code: 10577
Project Contact (if not same as sponsor; give name and title/role):	Telephone: E-Mail:	
Address:		
City/PO:	State:	Zip Code:
Property Owner (if not same as sponsor):	Telephone: E-Mail:	
Address:		
City/PO:	State:	Zip Code:

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 Council, Town Board, or Village Board of Trustees ☑Yes☐No		
b. City, Town or Village Planning Board or Commission ☑Yes☐No		
c. City Council, Town or Village Zoning Board of Appeals ☑Yes☐No		
d. Other local agencies ☐Yes☐No		
e. County agencies ☐Yes☐No		
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?
B-4 Office Building District

b. Is the use permitted or allowed by a special or conditional use permit? ☑ 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? RA-6 Apartments for Active Senior Citizens

C.4. Existing community services.

a. In what school district is the project site located? City of Rye

b. What police or other public protection forces serve the project site?
City of Rye

c. Which fire protection and emergency medical services serve the project site?
City of Rye

d. What parks serve the project site?
Project Site is adjacent to Playland Parkway Lands and approximately 1/4 mile from Rye Nature Center.

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)? Residential

b. a. Total acreage of the site of the proposed action? 7 acres
b. Total acreage to be physically disturbed? 7 acres
c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? 7 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 proposed action be constructed in multiple phases? ☐ Yes ☑ No
i. If No, anticipated period of construction: _____ 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				
At completion of all phases				135

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. _____

iv. 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 proposed action cause or result in disturbance to bottom sediments? ☐ Yes ☐ No
If Yes, describe:

iv. Will 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: 16,250 gallons/day

ii. Will the proposed action obtain water from an existing public water supply? ☑ Yes ☐ No
If Yes:

- Name of district or service area: United Water
- 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:
N/A

vi. If water supply will be from wells (public or private), maximum pumping capacity: N/A gallons/minute.

d. Will the proposed action generate liquid wastes? ☑ Yes ☐ No
If Yes:

i. Total anticipated liquid waste generation per day: 14,775 gallons/day

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 Discharge

iii. Will the proposed action use any existing public wastewater treatment facilities? ☑ Yes ☐ No
If Yes:

- Name of wastewater treatment plant to be used: Blind Brook Wastewater Treatment Facility
- Name of district: Blind Brook
- 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 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):

N/A

vi. Describe any plans or designs to capture, recycle or reuse liquid waste: _____

N/A

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 _____ acres (impervious surface)

_____ Square feet or _____ acres (parcel size)

ii. Describe types of new point sources. _____

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)?

- If to surface waters, identify receiving water bodies or wetlands: _____
- Will stormwater runoff flow to adjacent properties? ☐Yes ☐No

iv. Does 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 semi-trailer truck trips/day: _____

iii. Parking spaces: Existing 240 Proposed 186 Net increase/decrease -54

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:

N/A

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: _____
- Saturday: _____
- Sunday: _____
- Holidays: _____

ii. During Operations:
- Monday - Friday: _____
- Saturday: _____
- Sunday: _____
- Holidays: _____

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:

ii. Will 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:

To be determined

ii. Will proposed action remove existing natural barriers that could act as a light barrier or screen? ☑ Yes ☐ No

Describe: Vegetation and Landscape Screening

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 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 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): Parkway, Institutional

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	3.0	1.8	-1.2
• Forested			
• Meadows, grasslands or brushlands (non-agricultural, including abandoned agricultural)			
• Agricultural (includes active orchards, field, greenhouse etc.)			
• Surface water features (lakes, ponds, streams, rivers, etc.)			
• Wetlands (freshwater or tidal)			
• Non-vegetated (bare rock, earth or fill)			
• Other Describe: Lawn and Landscaped Area	4.0	5.2	+1.2

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:

The Osbom Senior Living Facility

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: _____

N/A

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): V00571

iv. If yes to (i), (ii) or (iii) above, describe current status of site(s):

The Rye Gas Works site indicated in (iii) is located between Theodore Fremd Avenue and the New York, New Haven, and Hartford Railroad tracks in the Town of Rye. It is currently used as a ConEdison service center. Remediation was completed 06/28/2010 through NYSDEC Voluntary Cleanup Program.

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? >5 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: PnC/PnB - Paxton Fine Sandy Loam 100 %
_____ %
_____ %

d. What is the average depth to the water table on the project site? Average: 1.5-2.5 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%: _____% 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: _____

m. Identify the predominant wildlife species that occupy or use the project site:
N/A

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

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

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: County & State Park Lands
ii. Basis for designation: Exceptional or unique character
iii. Designating agency and date: Date:1-31-90, Agency:Westchester County

e. Does the project site contain, or is it substantially contiguous to, a building, archaeological site, or district which is listed on, or has been nominated by the NYS Board of Historic Preservation for inclusion on, the State or National Register of Historic Places? 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: ________	☐ Yes ☑ No
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? If Yes: *i.* Describe possible resource(s): ________ *ii.* Basis for identification: ________	☐ Yes ☑ No
h. Is the project site within fives miles of any officially designated and publicly accessible federal, state, or local scenic or aesthetic resource? 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.	☐ Yes ☑ No
i. Is the project site located within a designated river corridor under the Wild, Scenic and Recreational Rivers Program 6 NYCRR 666? 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 ☐ 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.

G. Verification

I certify that the information provided is true to the best of my knowledge.

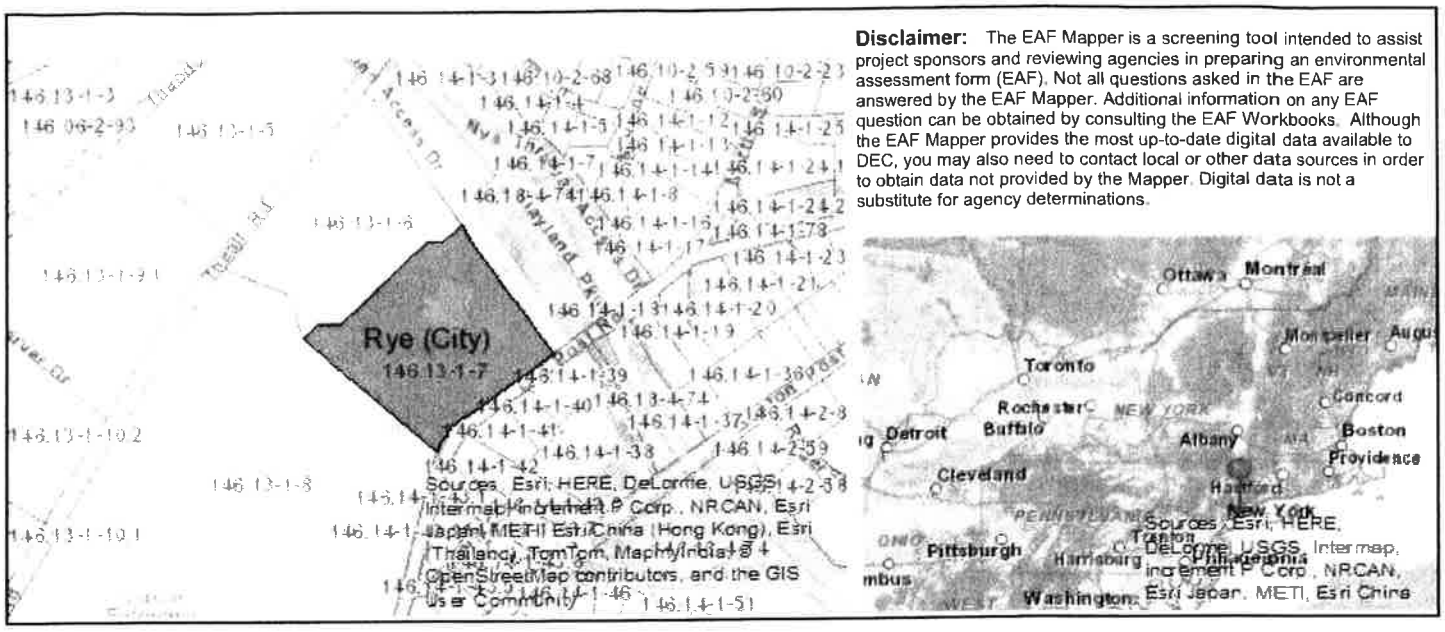
Applicant/Sponsor Name Leo Napior Date 1/29/15

Signature [signature] Title Attorney

PRINT FORM

EAF Mapper Summary Report

Tuesday, January 13, 2015 12:29 PM



Disclaimer: The EAF Mapper is a screening tool intended to assist project sponsors and reviewing agencies in preparing an environmental assessment form (EAF). Not all questions asked in the EAF are answered by the EAF Mapper. Additional information on any EAF question can be obtained by consulting the EAF Workbooks. Although the EAF Mapper provides the most up-to-date digital data available to DEC, you may also need to contact local or other data sources in order to obtain data not provided by the Mapper. Digital data is not a substitute for agency determinations.

B.i.i [Coastal or Waterfront Area]	No
B.i.ii [Local Waterfront Revitalization Area]	Yes
C.2.b. [Special Planning District]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h [DEC Spills or Remediation Site - Potential Contamination History]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h.i [DEC Spills or Remediation Site - Listed]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h.i [DEC Spills or Remediation Site - Environmental Site Remediation Database]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h.iii [Within 2,000' of DEC Remediation Site]	Yes
E.1.h.iii [Within 2,000' of DEC Remediation Site - DEC ID]	V00571
E.2.g [Unique Geologic Features]	No
E.2.h.i [Surface Water Features]	No
E.2.h.ii [Surface Water Features]	No
E.2.h.iii [Surface Water Features]	No
E.2.h.v [Impaired Water Bodies]	No
E.2.i. [Floodway]	No
E.2.j. [100 Year Floodplain]	No
E.2.k. [500 Year Floodplain]	No
E.2.l. [Aquifers]	No
E.2.n. [Natural Communities]	No
E.2.o. [Endangered or Threatened Species]	No

E.2.p. [Rare Plants or Animals]	No
E.3.a. [Agricultural District]	No
E.3.c. [National Natural Landmark]	No
E.3.d [Critical Environmental Area]	Yes
E.3.d [Critical Environmental Area - Name]	County & State Park Lands
E.3.d.ii [Critical Environmental Area - Reason]	Exceptional or unique character
E.3.d.iii [Critical Environmental Area – Date and Agency]	Date:1-31-90, Agency:Westchester County
E.3.e. [National Register of Historic Places]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.3.f. [Archeological Sites]	Yes
E.3.i. [Designated River Corridor]	No

SUMMARY OF POTENTIAL ENVIRONMENTAL IMPACTS

The following provides a brief evaluation of the potential environmental impacts of the proposed project to supplement the analysis of Zoning, Land Use, and Fiscal Impacts previously identified in this petition. In this case, the types of impacts often associated with a development proposal are limited since the project involves a previously developed site. In addition, the site is not constrained by wetlands or other regulated waterbodies, floodplains, significant steep slopes, or other identified sensitive natural resources:

Transportation

The results of the Traffic Analysis prepared by Frederick P. Clark Associates, attached herein, indicate that the Proposed Project will generate 27 and 34 vehicle trip ends during a typical weekday morning and weekday afternoon peak hour, respectively. For comparison purposes, the existing office building, if fully occupied with a variety of commercial tenants, could generate 109 and 104 vehicle trip ends during the same weekday morning and weekday afternoon peak hours, respectively. Therefore, the Proposed Project would result in a significant reduction in site traffic, with a decrease of 82 and 80 vehicle trip ends during the weekday morning and weekday afternoon peak periods, respectively.

The results of the analyses indicate that area roadways will continue to operate with essentially no change in Level of Service, except for an overall decrease in Level of Service at the signalized intersection of Theodore Fremd Avenue and Playland Access Drive. At this intersection, the Level of Service will change from "B" to "C" during the weekday and morning peak hour, resulting in an overall increase in average delay per vehicle of only 0.3 seconds, which is considered insignificant.

The results of these analyses and a comparison between a background and combined conditions indicate that traffic control and pavement markings at each of these intersections should remain unchanged as no modifications are necessary to accommodate this residential development. Based on these results, it is the applicant's opinion that no significant adverse impacts to transportation are expected.

Visual Resources

The Project would maintain the existing 100 foot buffer to Old Post Road, and further enhance local visual resources by providing subterranean parking within the proposed structure. This allows for the implementation of an attractive landscape plan and the preservation of many of the Site's existing mature trees. The Project also contemplates the development having a traditional architectural style that is typical of Rye, and a design which will complement the historic character of the adjacent Osborn property, serving as an appropriate visual transition from the adjacent single family neighborhoods to the adjacent office parks. See Figures 7, 8, and 9, *Conceptual Renderings*.

Air Quality and Noise

The Proposed Project will include below grade parking for the tenants and the loading area has been located toward Playland Access Road so as to minimize noise associated with vehicles and trucks. Similarly, air quality impacts should be lessened since there will be a significant reduction in site traffic.

Utilities

Water usage and sanitary discharge will increase from current land use approximately 16,250 and 14,775 gallons per day (gpd) respectively. It is not anticipated that this increase will have a significant impact on water and sanitary facilities since these values are conservative when compared to typical units with families. Actual usage is anticipated to be lower. All units will be equipped with low-flow fixtures. Further site specific review will be conducted during the Site Plan review process. Electric, gas, and communications also exist in the area to support the new project. The utility providers will be contacted once the land use zoning has been approved to identify connections and service modifications needed to support the Proposed Project. All existing utilities are anticipated to support the demand of the Proposed Project.

WESTCHESTER COUNTY OFFICE MARKET: SUMMARY DATA

Prepared for ALFRED WEISSMAN REAL ESTATE, LLC

NOVEMBER, 2014

GOMAN + YORK

Goman+York Property Advisors LLC was engaged by Alfred Weissman Real Estate LLC to review several issues related to the possible redevelopment of the property located at 120 Old Post Road in Rye, NY. Those issues include:

Impact of Current Market Conditions

- Regional Trends in Local Office Market
  - History and growth
  - Current supply and demand parameters
  - Current vacancy rates
  - Impact of current market/vacancies on market valuations and property taxes

Impact of Current Market Conditions

Office Market Trends

Vacancy rates for Westchester County historically have increased over the past 10 years, from a low of 15.2% in 2006 to its current high of 21.1% as of Q3 2014. In that same time period, direct asking average rent has decreased from $27.50 per square foot in 2005 to its current low of $25.65 per square foot. While rent growth over the last year has been 7.6%, this is due to significant renewal activity in the market and not any changes in the market conditions. It should be noted that operating costs have risen during that same period, pushing net rents on office properties even lower.

Since the 2008 recession, overall net absorption has been negative, only showing positive net absorption during 2012. Current availability has exceeded 5 million square feet and current absorption trends indicate that is yet to peak. 494,500 square feet of office space is currently under construction for Regeneron Pharmaceuticals and WestMed Medical Group. Both companies have been located within Westchester County and this is likely the result of obsolete office stock. We reviewed a variety of industry sources and all indicate vacancy rates are currently at a 10-year high.

Tax certiorari proceedings have increased in recent years by 10% to 86 in 2013 compared to 78 in 2013. Pressures from the courts to settle these cases has further impacted the value of commercial real estate in that potential buyers see it as a complicating factor to their business model and thus it serves as a disincentive to making investments in this asset class.

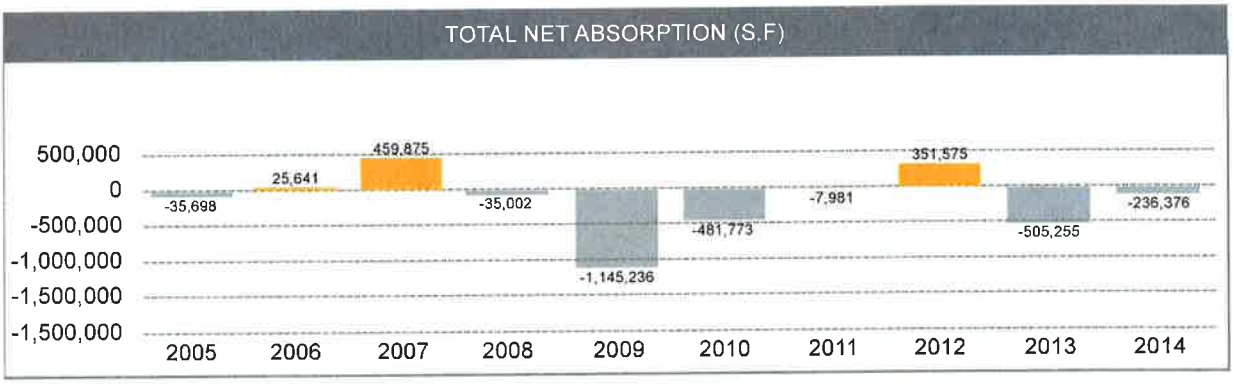
WESTCHESTER COUNTY OFFICE MARKET: SUMMARY DATA

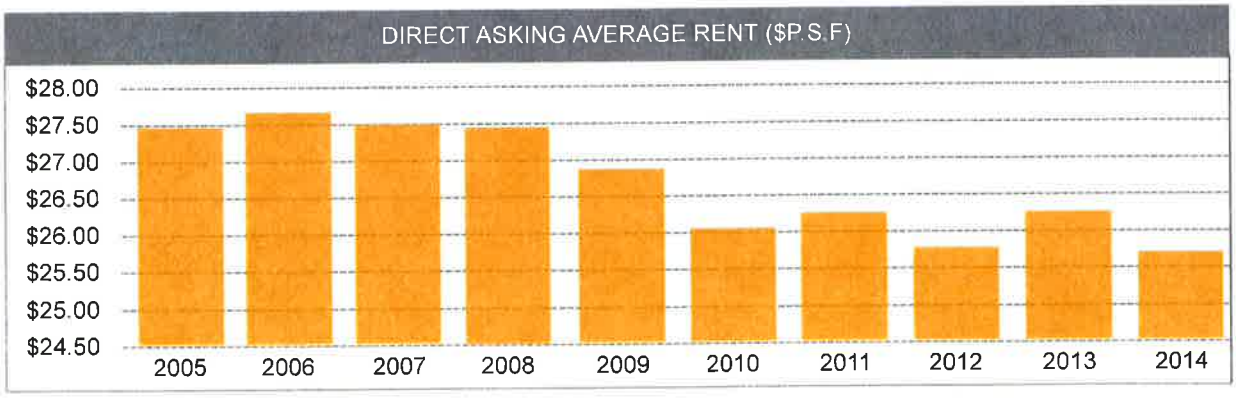
21.1%
TOTAL VACANCY
6,707,572
Total Vacancy (s.f.)

-244,078
YTD net absorption (s.f.)
-57,737
Q3 2014 net absorption (s.f.)

7.6%
12-month rent growth
*see page 1 for explanation

494,500
Total under construction (s.f.)
*see page 1 for explanation





*Data compiled from various industry sources

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RYE OFFICE MARKET ANALYSIS

120 OLD POST RD

Prepared for **ALFRED WEISSMAN REAL ESTATE, LLC**

March 2, 2015

GOMAN + YORK

Market Definition

The competitive office market for Rye, NY includes parts of southeastern Westchester County, southeastern White Plains, along with the southeastern I-287 corridor and the I-95 corridor.

The information contained in this analysis was taken from a variety of sources including regional market reports from the major commercial real estate brokerage houses along with data on commercial real estate activity from several real estate research and listing services.

Office Market Demand

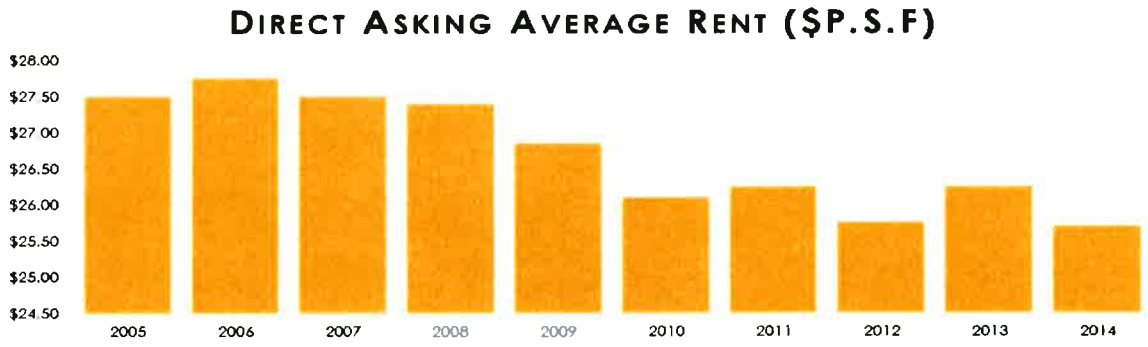
While we have seen modest improvement in the national, regional and local economies and encouraging improvement in the unemployment rate during the past year, the demand for office space in the subject area continues to be very slow. In the portions of the market most relevant to Rye, the office vacancy rate continues to hover around 20% while the vacancy rate in the overall market area has continued to edge slightly higher in recent quarters.

Market Trends

The trend of utilizing less square footage of space for each worker is one factor influencing the slow rate of leasing activity despite increasing employment. We expect this will continue to be of significant influence for an extended period of time, as many older buildings are adapted to the new layouts.

Much of the low level of office leasing activity has been in the medical, financial and business services sectors. Although not an unusually large amount of space, the lease to Acadia Realty Trust for approximately 30,000 square feet at 411 Theodore Fremd Avenue ranks as one largest transactions in the Westchester County market in Q4-2014, and the largest in the eastern submarket of Westchester County. While an important transaction, the fact that this is one of the largest deals done in the entire Westchester County market speaks to the continuing low level of activity.

Market Outlook



Each of the eastern sub-markets of Westchester County are currently showing reported vacancy of more than 1 million square feet of Class A office. Correspondingly, average asking rates have generally continued to decline slightly and are currently at their lowest reported level in the past 10 years. As expected, leasing velocity remains at record low levels. Non-CBD markets are particularly experiencing long term vacancy and low rental rates, and we don't expect improvement in this regard in the foreseeable future.

120 Old Post Rd

It should be noted that the subject property is configured primarily as an open plan headquarters building. This configuration places the building in a highly uncompetitive market position since the majority of office leasing activity is focused upon smaller spaces. The cost of reconfiguring the subject property will be significant as it will require major modifications to essentially all the existing mechanical, electrical and plumbing systems, as well as extensive re-demising of the building to create competitive leasable spaces. In many similar cases involving similar headquarters buildings the conversion cost has been determined to be prohibitive and the building has eventually been torn down as a result. We know of numerous situations involving millions of square feet of 1980's vintage headquarters buildings where this has been the outcome.

MARKET FEASIBILITY ANALYSIS OF THE RYE, NY MARKET FOR ACTIVE ADULT (+55) HOUSING

Prepared for ALFRED WEISSMAN REAL ESTATE, LLC

NOVEMBER, 2014

GOMAN + YORK

This report and plan was prepared for **ALFRED WEISSMAN REAL ESTATE, LLC**

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Hai Nguyen - Director of Data Analytics
Dave Correia - Data Consultant

GOMAN+YORK
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EXECUTIVE SUMMARY

The Assignment

Goman+York Property Advisors LLC was engaged by Alfred Weissman Real Estate LLC to provide a preliminary study examining the market capacity and the for-sale and for-rent parameters for the development of approximately 135 new senior (+55) independent living luxury housing units in Rye, New York.

The following report is a market feasibility analysis of the proposed senior (+55) housing project in Rye, New York based upon the conceptual design and project scope as provided by Alfred Weissman Real Estate LLC and Tecton Architects.

This analysis should be viewed as a macro level review of the market feasibility of the conceptual development plan. Essentially,this analysis is intended to provide information adequate to assist the developer in deciding whether further work on the given project is warranted. More specifically, the analysis assists the developer in making a "go or no go" decision before expending substantially more time and effort on the next level of detailed development tasks, including design development, cost estimating, geotechnical and environmental analysis, detailed financial projections and similar development related work.

It is important to point out that this analysis is not intended to provide the detailed information necessary for the purpose of formally underwriting debt or equity investment with respect to the given project.

The Project

The proposed project, as presented in the conceptual plans from Tecton Architects dated April 25, 2014, envisions a three-story independent living facility targeted at active adults (+55). The proposed design contains 135 luxury residential units and includes a variety of amenities such as a cafe/bistro, theater, study/game room, natatorium and fitness center along with locker rooms, multipurpose room and several courtyard areas. The overall facility is proposed to be approximately 245,000 square ft. with parking for 186 vehicles. The project site is located at the northwest corner of Old Post Road and Play Land Access Drive in Rye, New York.

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The Market

We established 3 discrete study areas for the project based upon drive time parameters of 5, 13 and 23 minutes. In our experience, study areas based upon driving times provide a more accurate and realistic picture than, for example, concentric rings. Essentially, this is simply saying that the particular study area consists of those residents who live within the given drive time parameter from the project site.

The 23 minute drive time study area should be viewed as the regional market (based on 2010 US DOT Federal Highway Administration Report) for the project. The average commute to work drive time for the US is approximately 23 minutes and we believe that it serves as a reasonable proxy for the largest study area. While the project is likely to attract some residents from outside that study area, the majority are likely to come from within it. The 5 minute drive time study area should be viewed as the immediate neighborhood market for the project. We would expect the project to receive very significant consideration from potential buyers who currently reside within this study area. The 13 minute drive time study area simply bisects the other two study areas and provides an additional way to view the market for this project.

The data for the residents living within all 3 study areas shows that the market possesses exceptionally attractive socioeconomic indicators. In particular, the 5 minute drive time trade area contains very high percentages of residents who are in the top socioeconomic segments in the US in terms of wealth, education and employment status. While the socioeconomic characteristics decline somewhat as the trade area size increases, the overall market remains remarkably strong. Ethnic diversity increases significantly along with the size of the study area. In summary, our analysis shows that the drive time trade area is ideally suited for the contemplated project.

The Competitive Environment

We conducted a review of available rental and for sale housing within the applicable study area. Our review identified several projects which we consider to be directly competitive and which we believe are reflective of the tenant profile being sought for the project. Rental rates and multi-family unit values within the reviewed projects are high while vacancy rates are low, relative to the averages. These conditions are positive indicators for a proposed new entrant to the market.

Given the prominent position it occupies within this study area, we paid particular attention to The Osborn development adjacent to the planned project. Goman+York personnel confidentially "shopped" The Osborn to determine unit availability, pricing and occupancy. The very low vacancy at The Osborn, combined with their focus on providing a comprehensive service offering including meal plans and other services not being contemplated as part of the proposed project leads us to conclude that there will be limited overlap between potential tenants for The Osborn and the proposed project. In fact, we think it is more likely that these two projects will complement each other as opposed to competing with each other.

Conclusion

Based upon our review of the study area characteristics and the competitive environment, we believe that the market response to the contemplated project will be very positive.

We recommend that further and more specific market research and testing be done once the project plans have been more fully developed, unit designs/layouts and features have been detailed, specific amenities can be described and a professional marketing campaign, along with appropriate collateral materials, are available.

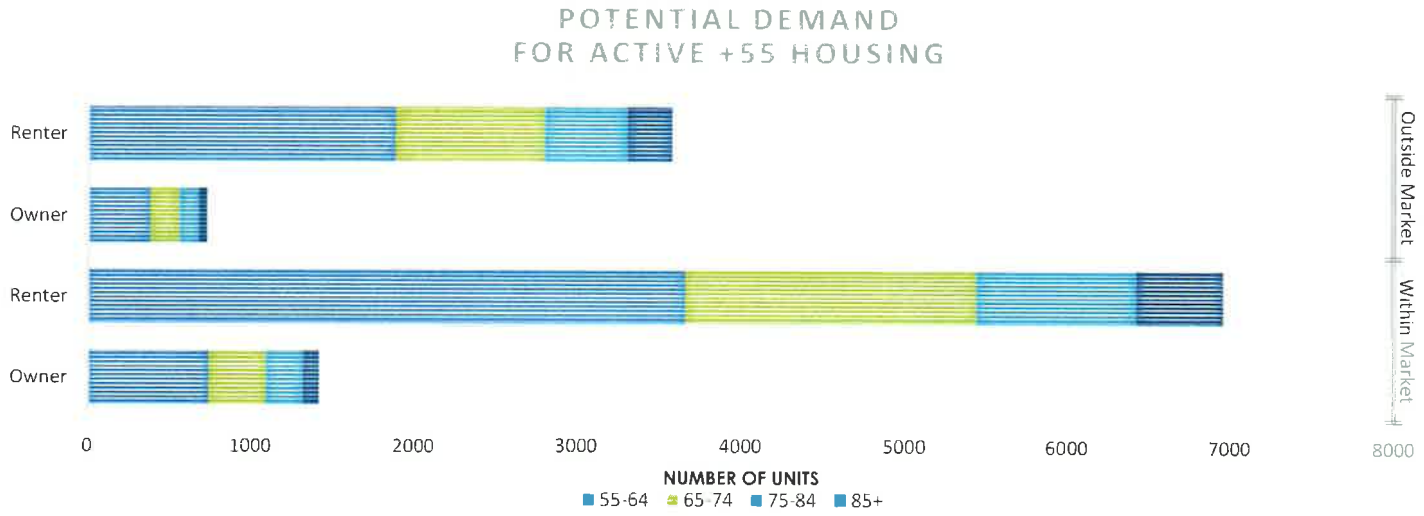
STUDY METHODOLOGY

The Study prepared for **Rye, NY** provides an overview of the **Active Adult (+55) Housing Market**. The analysis will inform projections that will allow Rye, NY to accurately plan for its future development.

Potential Market

The potential market for active senior housing derives from the pool of households, aged 55 and older, who move within the market area in a given year, and those who move to the area from other counties and even other states.

Mobility rates for seniors, who often prefer to age in place, are much lower than for younger households. Rates are, however, higher for seniors who rent rather than own their own homes. To estimate the size of the potential market, national in-county mobility rates were used as a proxy for the rates at which seniors within various age cohorts are likely to relocate somewhere within the target market area. Table below shows that for seniors 55 and older already living within the 23-minute radius of the proposed project, from which approximately 8,400 are likely to move in a given year based on 2010 Census data. More than 80% of those moving are expected to come from among the ranks of existing renters who are likely to prefer rental units, as would many of those who might choose to downsize from homes they currently own.



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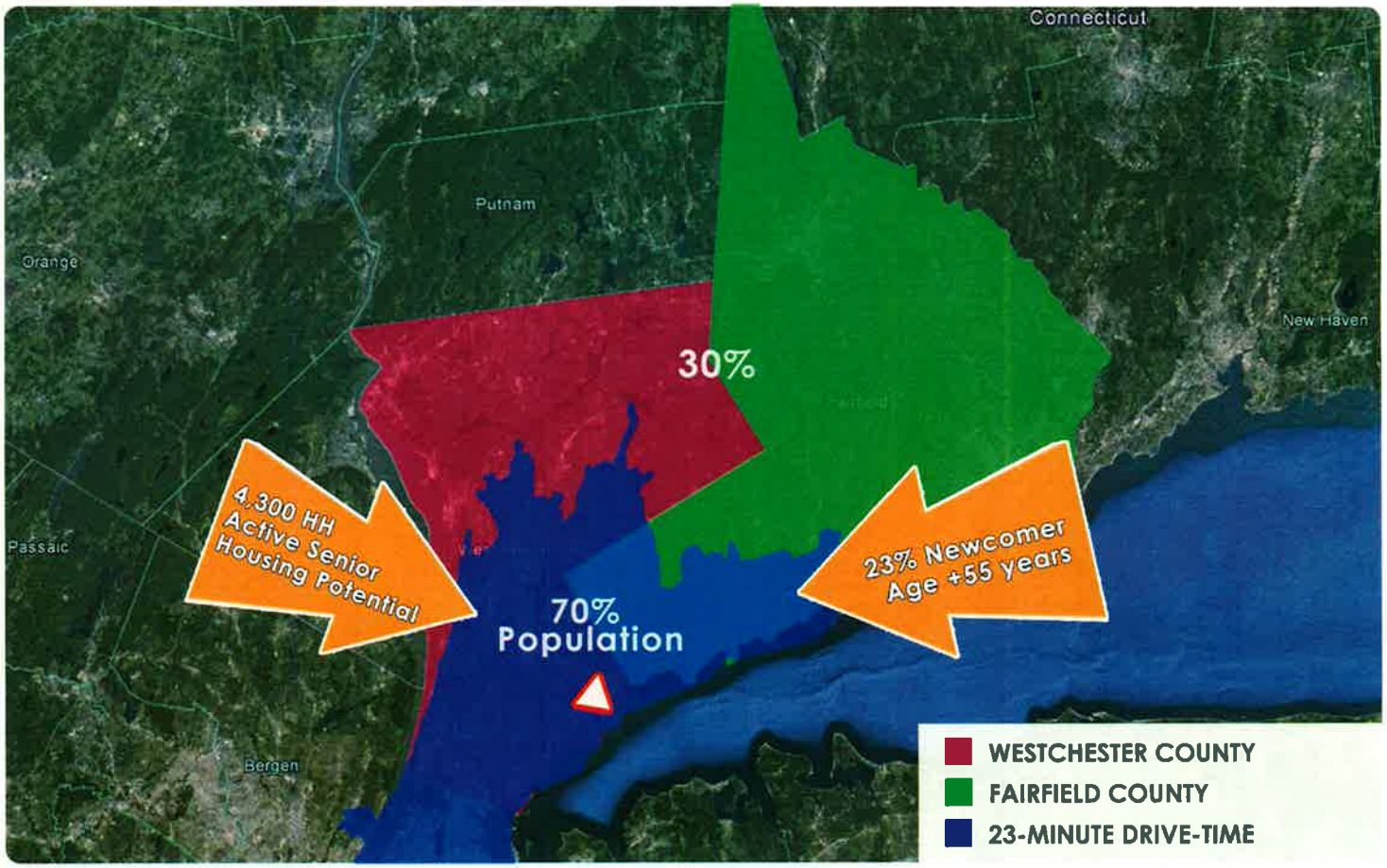
Population Migration

Households moving into the market area were assumed to have characteristics that are similar to current residents. Approximately 27,000 households moved into the two-county area of Westchester, NY and Fairfield, CT between 2009 and 2010, according to the latest IRS data. The 23-minute target market holds nearly 70% of the two-county population and will presumably attract a similar share of the new households. And reflecting the national migration patterns of households, about 23% of the newcomers are likely to be 55 and older. Consequently, about 4,300 households that move into the 23-minute target market each year are potential candidates for active senior housing.

Combining the 8,400 senior households that move within the market area each year with 4,300 in from outside produces a potential market for active senior housing of 12,000 households or more. That is an average of approximately 1,000 households monthly. However, these estimates should be narrowed further to adjust for characteristics, such as target income and age ranges, that are in keeping with the design and scope of this project.



DEMOGRAPHIC & SOCIOECONOMIC CHARACTERISTICS

To get a grasp of the social elements that make up the community, we explored the **Demographic and Socioeconomic characteristics** of the study area.

Demographic

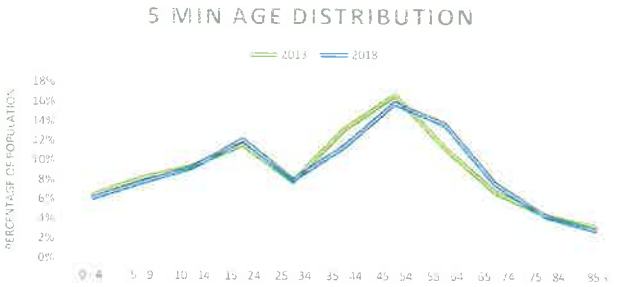
The target markets surrounding the proposed Rye, NY active senior housing project are predominantly white, well-educated, and wealthy.

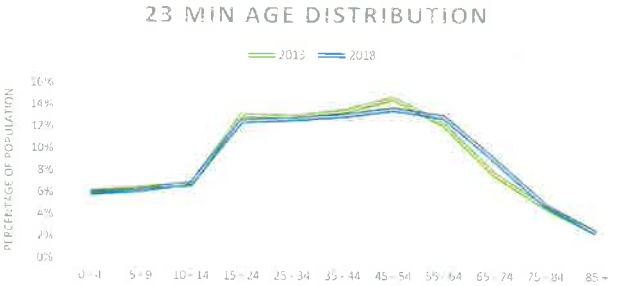
The majority of residents in all three study areas are white, with shares in 2013 ranging from 84%, 73% and 55% within the 5, 13 and 23 minute drive-times, respectively. The larger markets exhibit more racial and ethnic diversity with the black share of the population growing from just 2% within the 5-minute range to 24% within the 23-minute range.

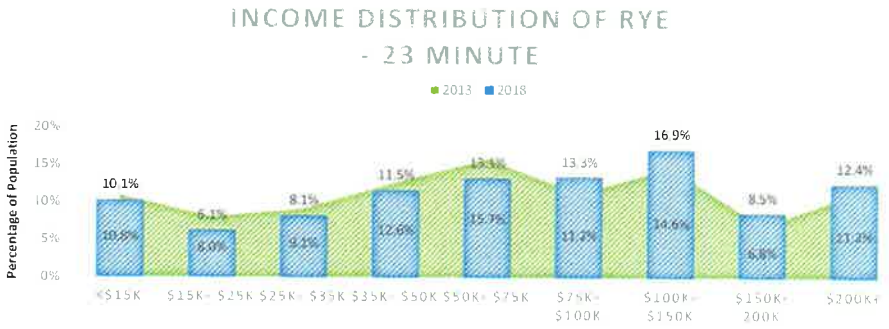
Similarly, residents of Hispanic origin make up 27% of the population within the 23-minute market area but only 12% of the market at the 5-minute mark. All three markets are expected to become more diverse, largely as a result of a growing Hispanic population.

Within a 23-minute drive time, the median age of area residents matches the US average in 2013 of 38.5 years, but in the two smaller markets residents tend to be older. Seniors 55 and older represented about 27% of the population in the two larger markets—a figure that is likely to top 29% by 2018.

Housing is evenly divided between owner and renter occupied units at the 23-minute drive time from the Rye, NY center point. But within closer radii, owner occupied units are in the majority—58% at the 5-minute mark, 53% within a 13-minute drive time. Owner-occupied housing is expected to represent a slightly larger share of all three markets by 2018.







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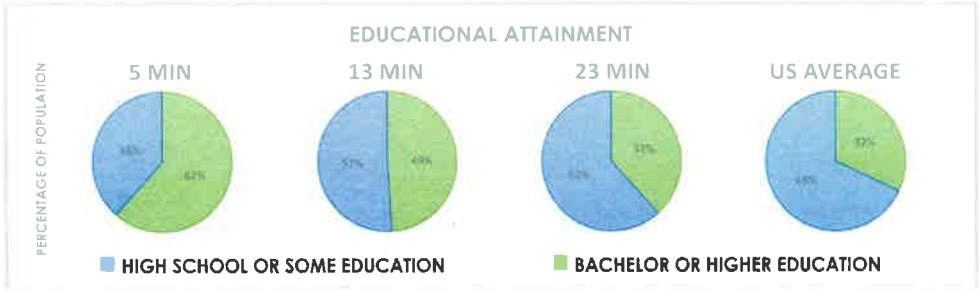
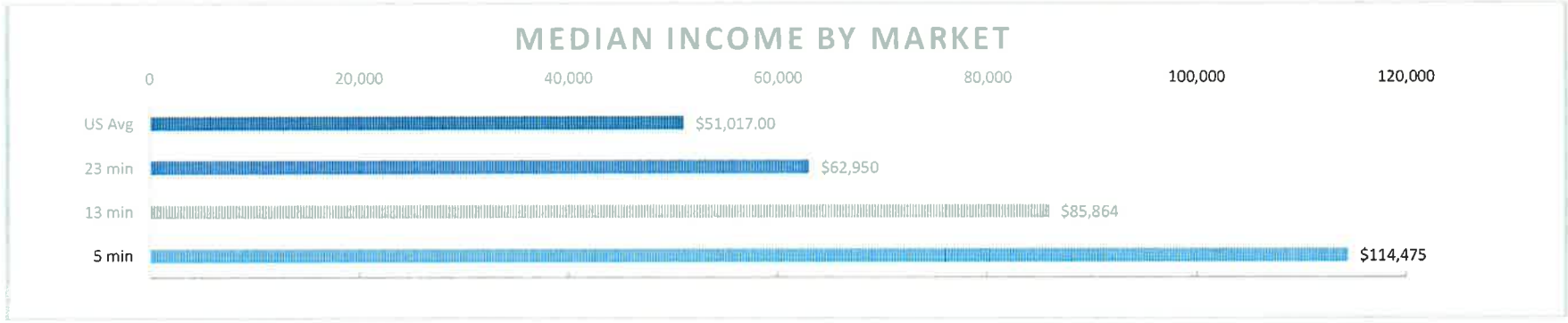
Education

Rye area residents are highly educated, with the share of the population 25 and older holding a Bachelor's degree or higher at 62%, 49% and 38% within a 5, 13 and 23-minute drive of Rye, respectively. The comparable US figure is just 32%. The employed population of the area works predominantly in the services sector and in white-collar occupations, earning exceptional levels of income.

Income

Median household income within a 5-minute drive time of Rye exceeds $114,000, more than double the US median. Incomes are lower in the two broader market areas—$86,000 and $63,000 in the 13-minute and 23-minute rings, respectively—but still above the comparable US figure.





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HOUSING OCCUPANCY

The target market is characterized by a relatively low vacancy rate, and a large share of **renter-occupied** as opposed to **owner-occupied** housing.

Vacancy Rates

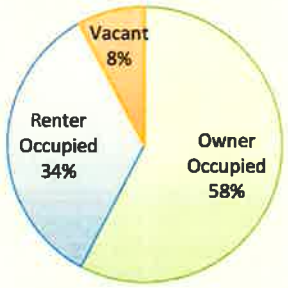
Vacancy rates within 23-minutes of the subject property were 6.1%, according to 2010 Census data. That compares favorably to a U.S. average rate of 11.4% the same year, and to rates of 9.7%, 7.9% and 9.5%, respectively in the states of New York, Connecticut and New Jersey.

Current (2013) vacancy rates in the 23-minute radius have inched up a bit since 2010 (to 6.3%) but they remain lower in this larger market than in the more narrowly defined drive time markets where they are 7.9% within a 5-minute area and 7.5% within the 13-minute area. The housing market is expected to remain tight for the foreseeable future, with projected 2018 vacancy rates of 6.2% within the 23-minute drive time and 7.2% within the 13-minute market. Even an anticipated 9.0% vacancy rate for the 5-minute drive time market in 2018 compares favorably to current national and regional rates.

Rental Market Demand

The low vacancy rates in the local markets surrounding the proposed project are particularly noteworthy given the relatively high share of rental housing in the area. Within the 23-minute drive time market, housing is divided evenly between owner and rental occupied units at about 47% each. That represents a relatively large share of rental-occupied units which tend to have much higher vacancy rates than do owner-occupied units. Nationally, and in Connecticut and New Jersey, renter-occupied housing makes up 25% or less of the total number of housing units. New York's statewide renter occupancy rate is 37%.

2013 Housing Summary
- 5 minute



2013 Housing Summary
- 23 minute

COMPETITION ANALYSIS & PRICING- RENTAL

Our review included properties in Rye, as well as properties in markets immediately adjacent to Rye and properties in markets located same distance from Rye but which have similiar demographic and socioeconomic characteristics. With respect to properties located in Rye, we looked closely at four apartment complexes: The Osborn in Rye, NY, 101 Park Place in Stamford, CT, Scarsdale Commons, Scarsdale, NY and The Avalon Bronxville in Bronxville, NY all built since 2005.

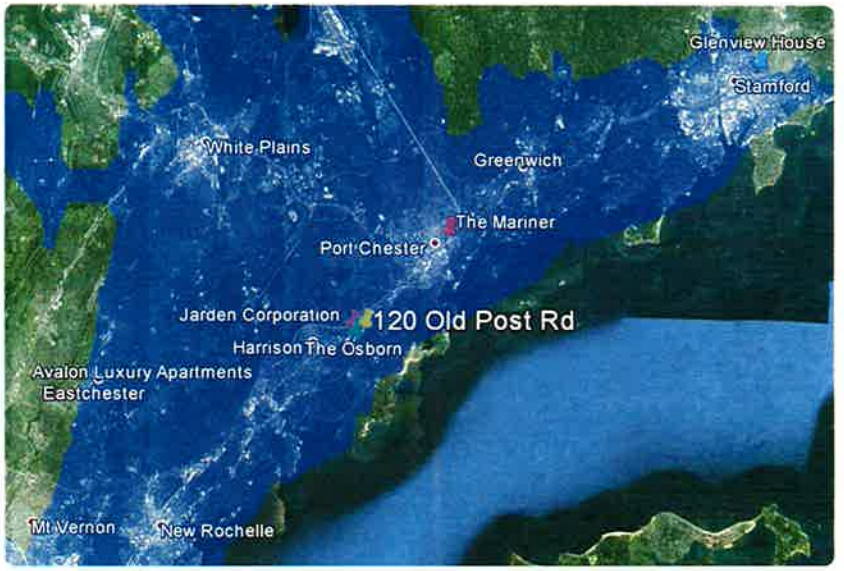
Comparison

They range in size from 336 to 100 units and offer both 1-bedroom, 1-bathroom and 2-bedroom, 2-bathroom options (see table below).

All three complexes can be decribed as luxury properties, offering unit amenities that include parking, full kitchens, washer/dryers, and central air. Community amenities include fitness centers, clubrooms, and picnic/barbecue areas.

Pricing- Rental

The accompanying scatter plot shows the monthly rental prices and square footage for three competitive projects. The smaller units, each around 800 square feet, are all 1-bedroom, 1-bathrooms apartments; the larger units, each around 1,200 square feet, are all 2-bedroom, 2-bathroom units. Assuming area renters judge the amenities of the Rye project as significantly better than these apartments, an appropriate price for 1-bedroom units would be +/- $2,800 and an appropriate price for 2-bedroom units would be +/- $3,900.

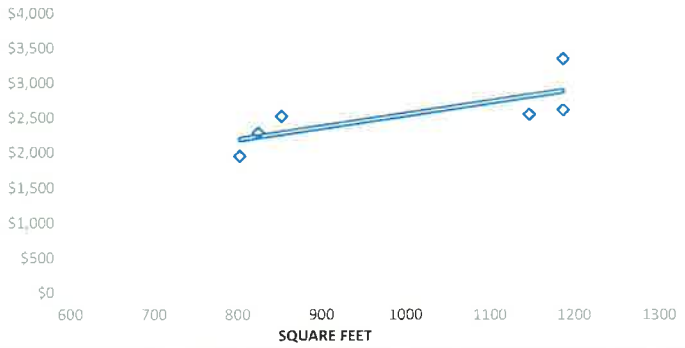


23-MINUTE DRIVE-TIME

CHARACTERISTICS OF COMPARABLE UNITS

	UNITS	BEDROOMS	BATHS	SQ. FT.	RENT	DISTANCE TO TRANSIT
THE OSBORN	138	1	1	756	$5,400	3 min
		2	2	1186	$3,356	
101 PARK PLACE	336	1	1	806	$2,450	1 min
		2	2	1023	$2,560	
SCARSDALE COMMONS	43	1	1	855	$3,000	2 min
		2	2	1175	$3,900	
THE AVALON BRONXVILLE	146	1	1	821	$3,010	2 min
		2	2	985	$4,125	

SIZE VERSUS RENT OF COMPETITORS



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COMPETITION ANALYSIS & PRICING- SALE

Local Property Records served as the comparison for potential market value.

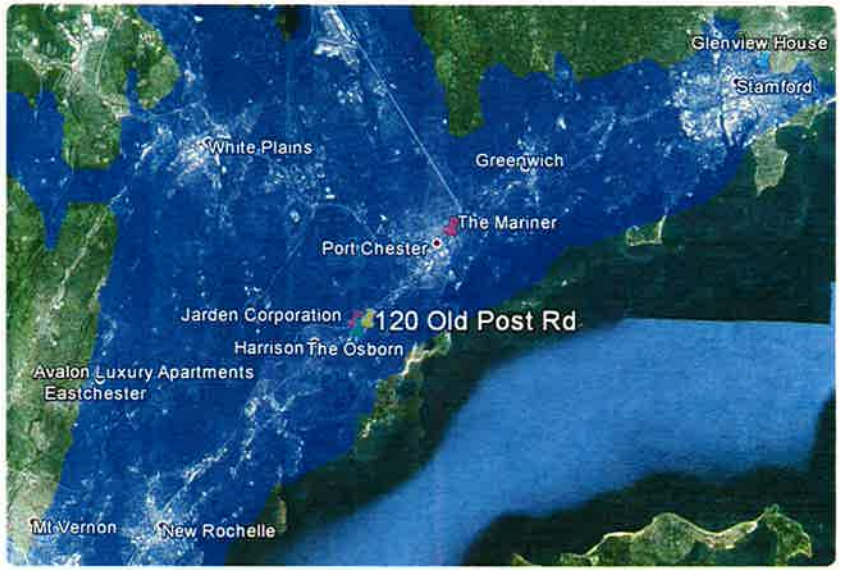
Comparison

We examined similar for-sale condominium properties in a variety of markets in Rye, several markets which are immediately proximate to Rye, and additional markets located some distance from Rye but which have similar demographic and socioeconomic characteristics.

It should be noted that in looking at comparable properties, our focus was on well-located luxury residential properties having a high level of finish and extensive in-suite features, and which offer a significant list of common facilities and amenities.

Pricing- Sale

The accompanying charts show sale prices and square footage for luxury properties in similar markets. Assuming potential buyers judge the level of finish, features and amenities of the Rye project to be equal to or better than these properties, appropriate prices for 1 bedroom units would be about $385,600 or $482 per square foot, and for 2 bedroom units would be about $522,000 or $475 per square foot.



23-MINUTE DRIVE-TIME

RYE COMPARABLE SALES

	UNIT TYPE	BEDROOMS	BATHS	SQFT	PRICE	$/SQFT
RYE	CONDO	2	2	1104	$521,088	$472
WESTBURY	APT	2	2	1261	$616,667	$492
PORT WASHINGTON	CONDO	2	2	1371	$572,479	$417

PHASING AND IMPLEMENTATION

The analysis of **senior migration patterns** in the study area concluded that approximately 1,000 households could be in the market each month. Only some of these households, however, are likely to match the income and age profile that would make **living in an active senior community** either feasible or attractive.

Defining the Market

Given the proposed pricing structure, the target market for the units should include seniors with incomes of $112,000 or more annually. (Industry rules-of-thumb suggest that income should be at least 40 times the monthly cost of housing.) According to current (2013) estimates, about 27.8% of senior (55+) households in the area meet this income criterion. It is likely, therefore, that only 278 of the 1,000 monthly, house-hunting, senior households would pass the income test for the proposed project.

However, active lifestyle arrangements are unlikely to appeal to the oldest senior cohort. And 16% of area seniors are 80 and older. Limiting the market to seniors between 55 and 79 reduces the target market of potential new tenants to about 233 per month.

Implementation

Assuming that all 135 of the proposed Rye units go on the market simultaneously and that the units are expected to be occupied within 90 days, the project would have to capture just over 15% of the market. Extending the marketing time would reduce the necessary capture rate. Over a 180-day period, for example, the Rye project would only have to capture less than 8% of the market. Alternatively, intensive pre-marketing or unit discounting would improve the chances of capturing a 15% market share within 90 days.

CONCLUSION- PRICING

Goman+York was asked to review the market feasibility of the proposed conversion of the subject property into a luxury, age-restricted (55+) residential development positioned at the upper end of the price spectrum. Our review included both rental and for-sale properties. The primary focus of our review was to assess the rents or sales prices which can be reasonably expected to be achieved if the redeveloped subject property is positioned at the upper end of the market.

A component of our work in this regard involved establishing several study areas based upon specific geographic parameters and subsequently conducting a review of residential projects having similar market positioning within those study areas. In broad terms, the study areas we established and examined included:

a) the city of Rye,
b) similar markets in close or immediate proximity to Rye, and,
c) markets in the greater metropolitan New York City area having similar demographic and socioeconomic characteristics to those present in Rye but which are located some distance from Rye.

The estimates of achievable rents and sales pricing contained in these conclusions are conditioned upon certain specific assumptions about the redeveloped property, including:

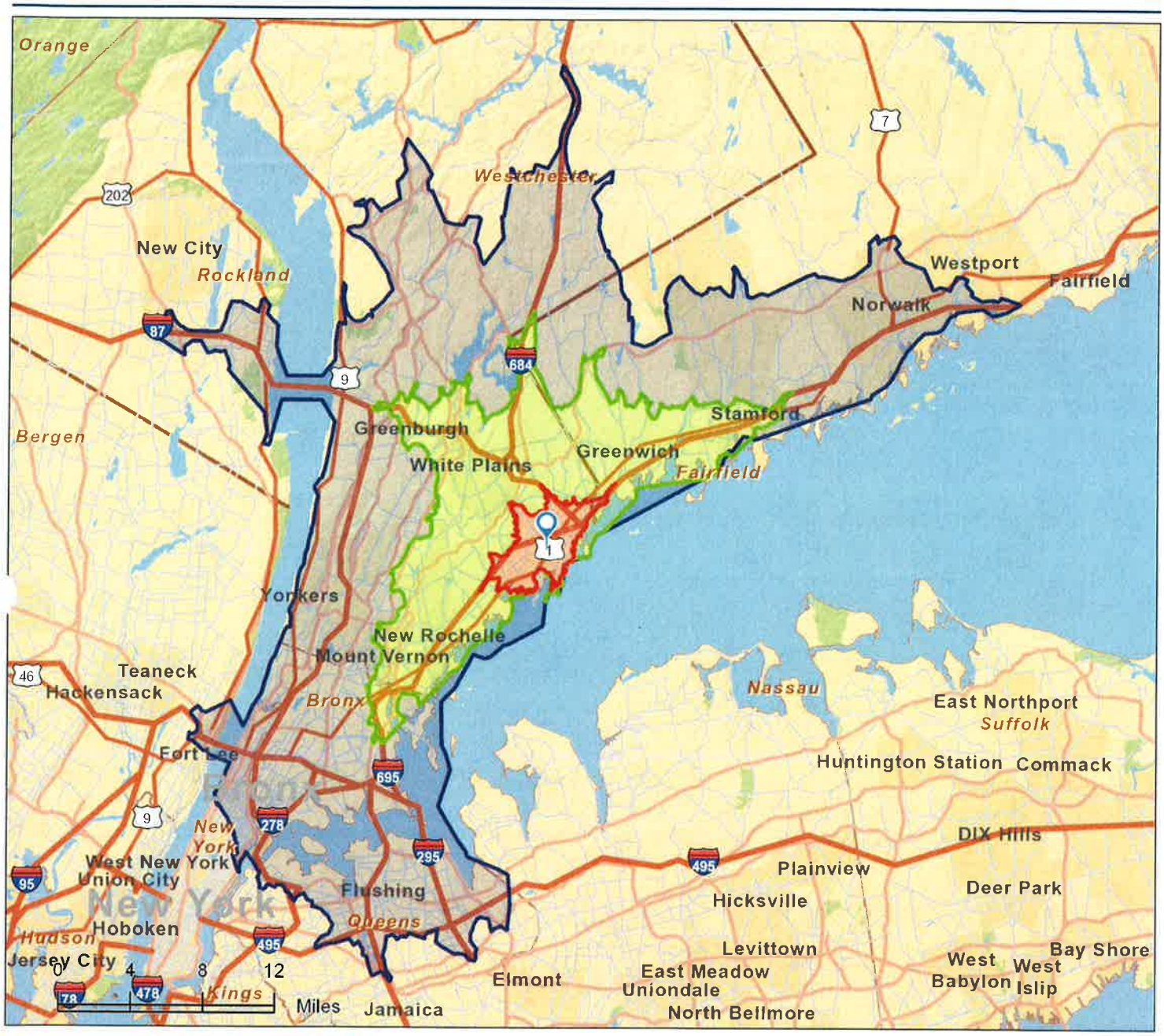
1. that it is positioned as a luxury, age-restricted (55+) community,
2. that an experienced firm with a successful track record with similar luxury projects be engaged to market the project,
3. that individual units feature gourmet kitchens, luxury baths, and extensive entryway, trim, tile and general levels of finish
4. the the proprty offers on-site amenities equal to or exceeding the best available at competitive luxury properties

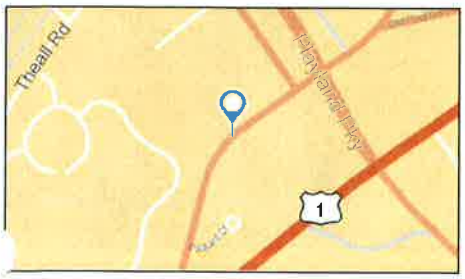
Based upon the entirety of our review, we conclude that the redeveloped project can reasonably be expected to achieve rents of between $3.25 and $3.75 per square foot per month or approximately $2,800 to $3,200 per month for a 1 bedroom and from approximately $3,900 to $4,900 per month for a 2 bedroom. In the case of condominium units offered for sale, we conclude that the redeveloped project can reasonably be expected to achieve pricing between $480 and $550 per square foot or approximately $425,000 to $475,000 for a 1 bedroom and from approximately $575,000 to $715,000 for a 2 bedroom.

Site Map

120 old post rd
120 Old Post Rd, Rye, New York, 10580, 5, 13, 23 DT
Drive Time: 5, 13, 23 Minutes

Prepared by Robert Goman

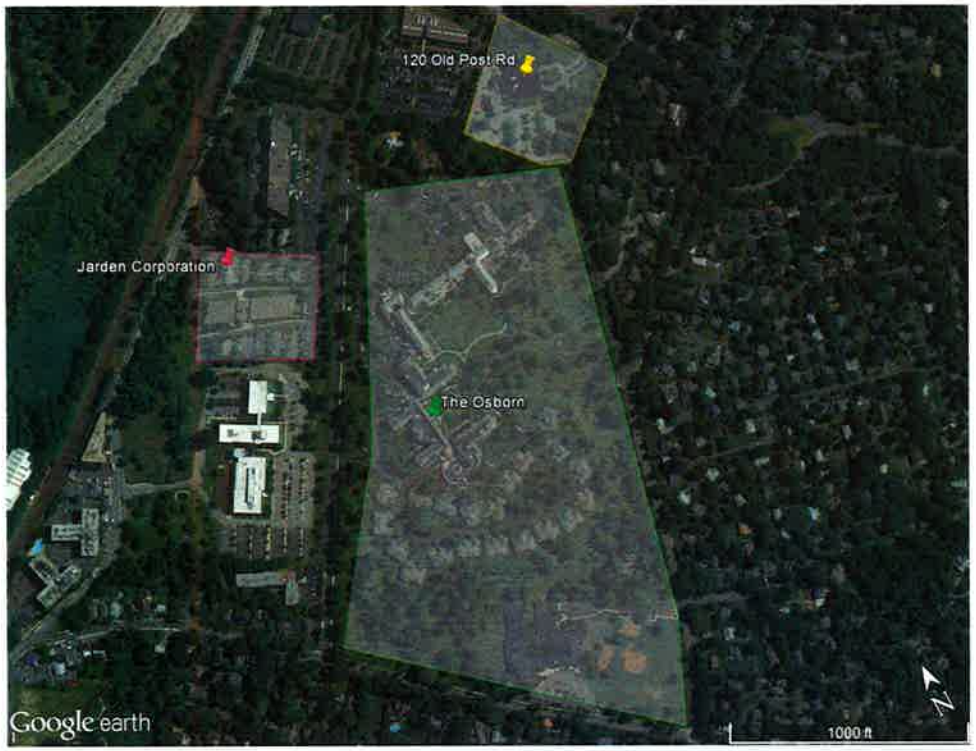


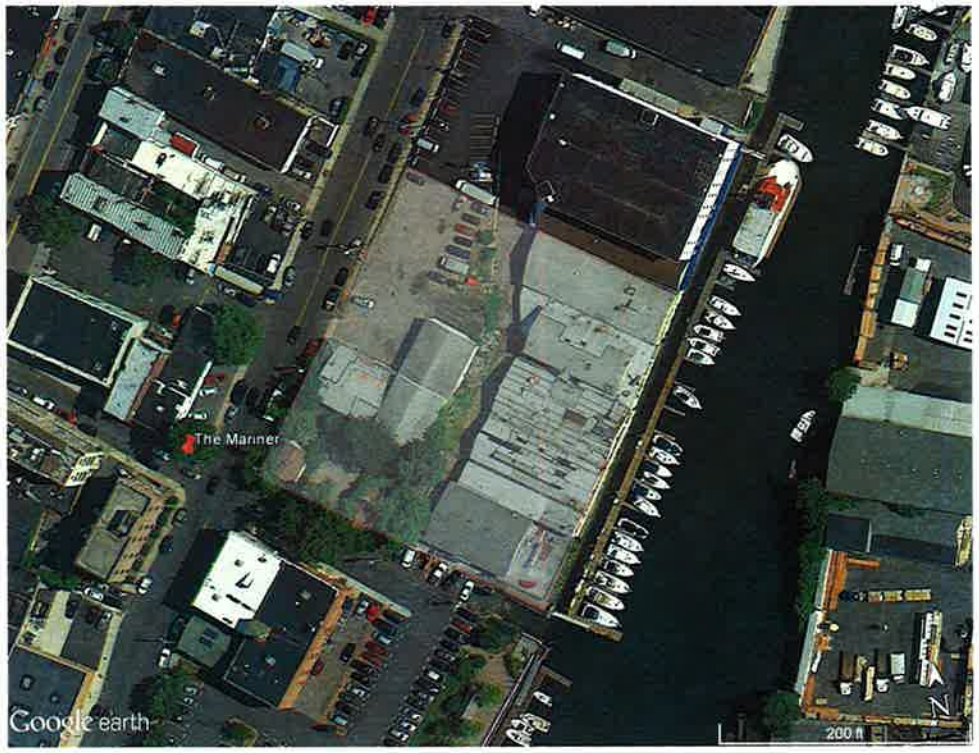


April 29, 2014

AERIAL OF COMPETITORS

The Osborn and The Mariner





GOMAN+YORK

NOVEMBER, 2014

AERIAL OF COMPETITORS

Avalon and Glenview House

GOMAN+YORK

NOVEMBER, 2014

SITE AND FLOOR PLANS

VIEW FROM ENTRY DRIVE

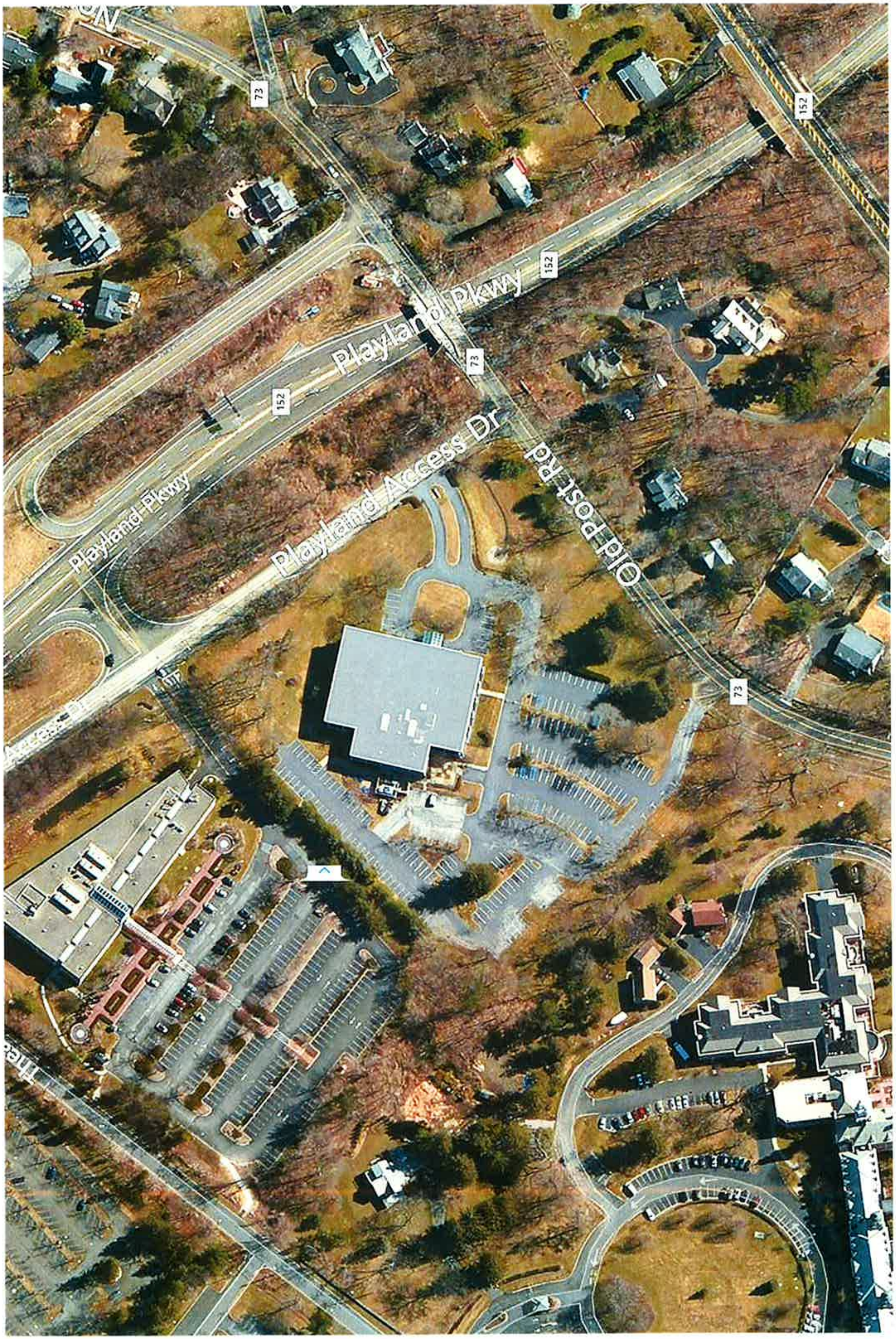
Tecton
ARCHITECTS

VIEW FROM RESIDENTIAL OFF OLD POST ROAD

Tecton
ARCHITECTS

VIEW OF INTERIOR COURTYARD

Tecton
ARCHITECTS

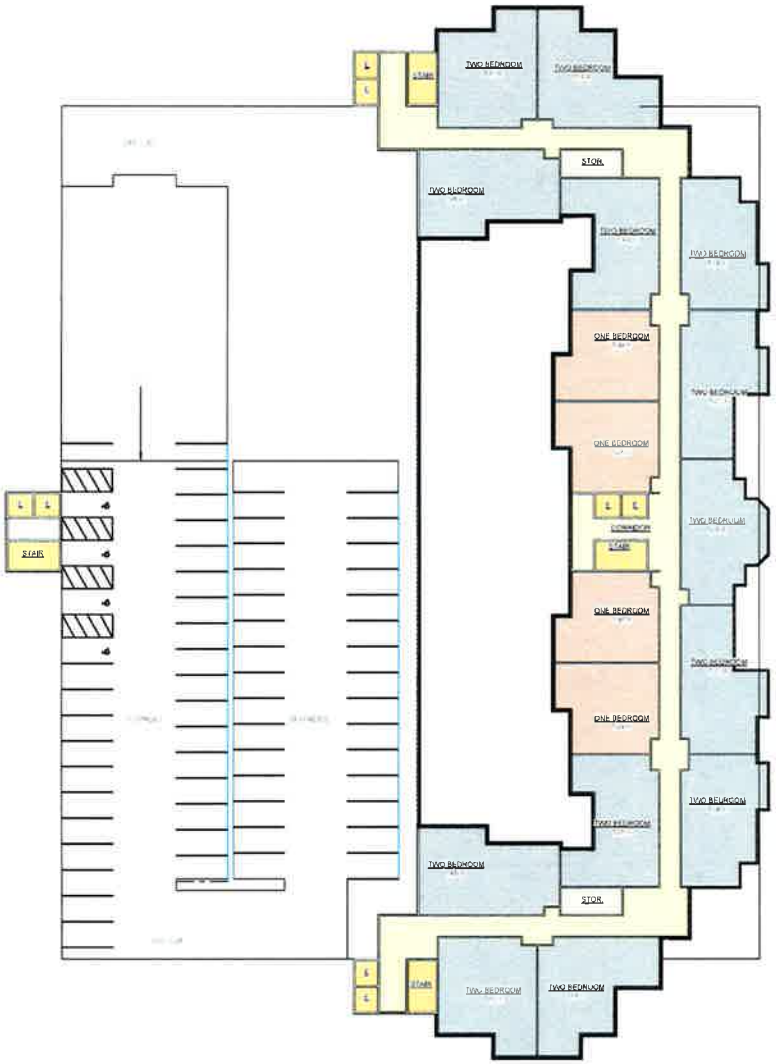


73
152
Playland Pkwy
152
73
152
Playland Access Dr
Old Post Rd
Playland Pkwy
73


Playland Pkwy
Playland Pkwy
Playland Pkwy
Old Post Rd
152
73
73
152
73
152

New England Thruway
North St
Mead Pond Ln
Playland Pkwy
Old Post Rd
Boston Post Rd
Parkway Dr
Osborn Rd

New England Thruway
North St
Old Post Rd
Boston Post Rd
Playland Pkwy
Old Post Rd
Boston Post Rd
Parkway Dr



2ND FLOOR

1" = 20'-0"

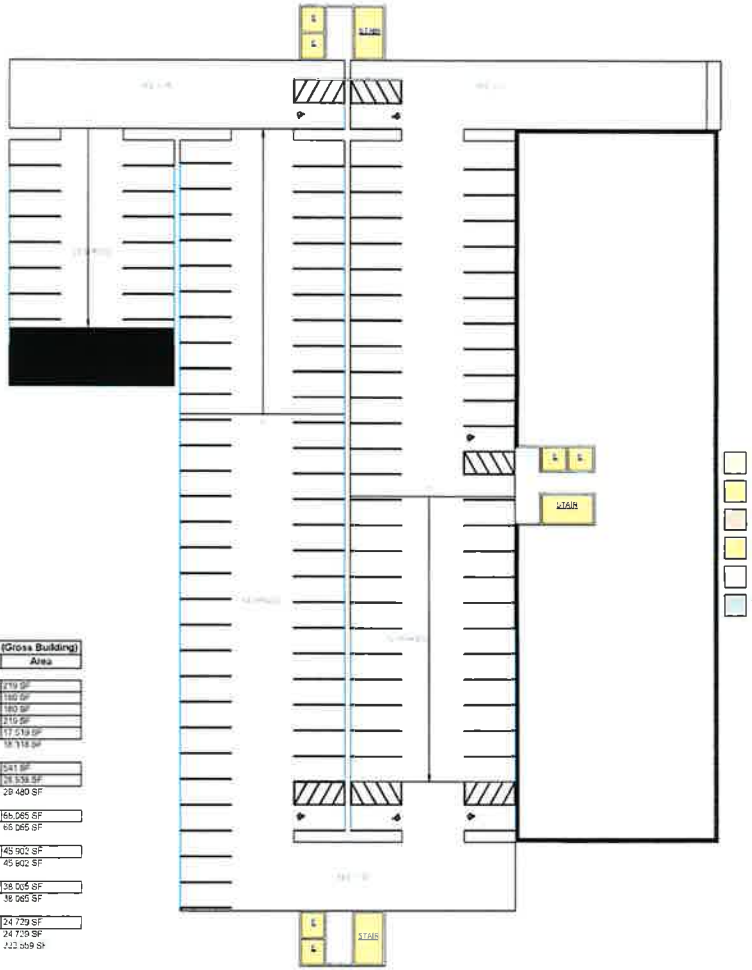
ROOM AREAS	
Name	Area
ONE BEDROOM	14 532 SF
TWO BEDROOM	16 213 SF
2ND FLOOR 17	30 442 SF
ONE BEDROOM	14,557 SF
TWO BEDROOM	34,703 SF
3RD FLOOR 42	49 260 SF
ONE BEDROOM	14 626 SF
TWO BEDROOM	21,134 SF
4TH FLOOR 32	35 762 SF
ONE BEDROOM	8,193 SF
TWO BEDROOM	21,162 SF
5TH FLOOR 25	29 355 SF
ONE BEDROOM	6 792 SF
TWO BEDROOM	14 152 SF
6TH FLOOR 17	20 204 SF
Grand total: 133	155 973 SF

UNITS - ONE BEDROOM	
Level	Name
2ND FLOOR	ONE BEDROOM
2ND FLOOR 4	
3RD FLOOR	ONE BEDROOM
3RD FLOOR 14	
4TH FLOOR	ONE BEDROOM
4TH FLOOR 14	
5TH FLOOR	ONE BEDROOM
5TH FLOOR 8	
6TH FLOOR	ONE BEDROOM
6TH FLOOR 6	
Grand total: 46	

UNITS - TWO BEDROOM	
Level	Name
2ND FLOOR	TWO BEDROOM
2ND FLOOR 13	
3RD FLOOR	TWO BEDROOM
3RD FLOOR 28	
4TH FLOOR	TWO BEDROOM
4TH FLOOR 18	
5TH FLOOR	TWO BEDROOM
5TH FLOOR 17	
6TH FLOOR	TWO BEDROOM
6TH FLOOR 11	
Grand total: 87	

Area Schedule (Gross Building)	
Level	Area
1ST FLOOR	219 SF
1ST FLOOR	180 SF
1ST FLOOR	180 SF
1ST FLOOR	219 SF
1ST FLOOR	17 519 SF
	18 318 SF
2ND FLOOR	541 SF
2ND FLOOR	28 939 SF
	29 480 SF
3RD FLOOR	65 065 SF
	65 065 SF
4TH FLOOR	45 902 SF
	45 902 SF
5TH FLOOR	38 065 SF
	38 065 SF
6TH FLOOR	24 729 SF
	24 729 SF
	222 359 SF

- CORRIDOR
- E
- ONE BEDROOM
- STAIR
- STOR.
- TWO BEDROOM



1ST FLOOR

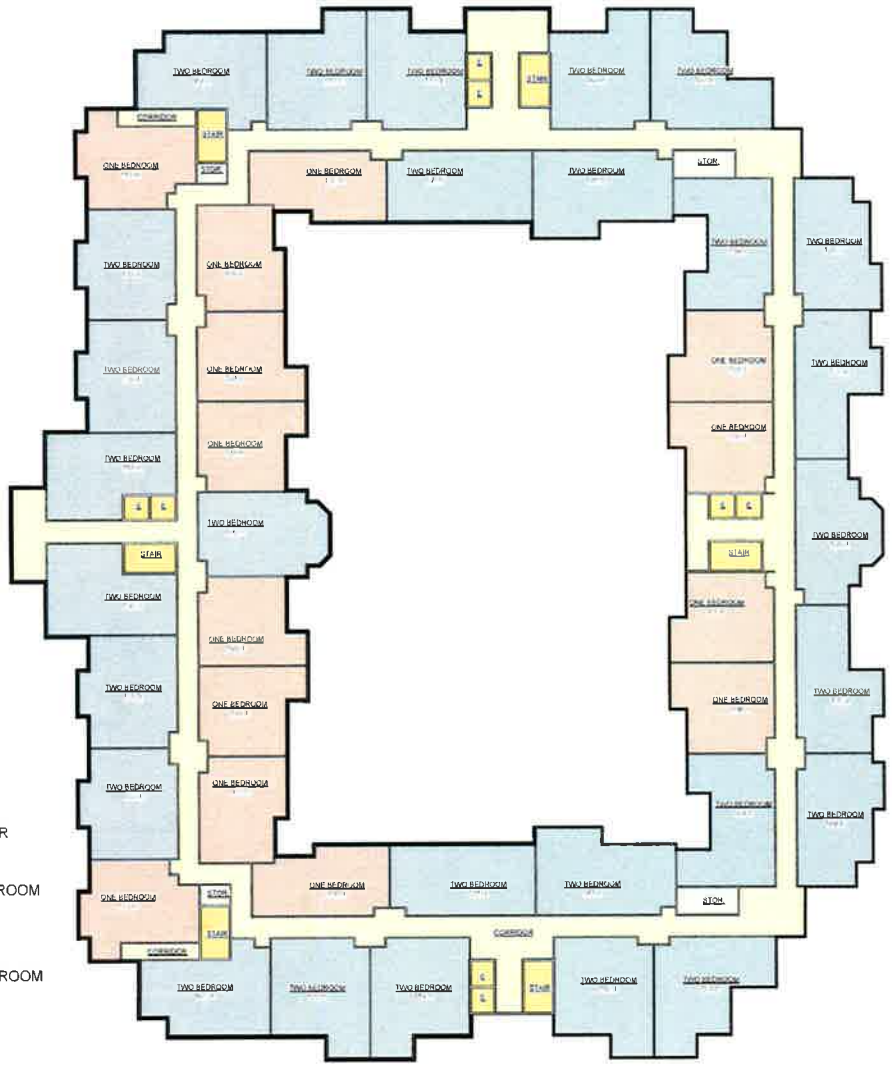
1" = 20'-0"

- CORRIDOR
- E
- ONE BEDROOM
- STAIR
- STOR.
- TWO BEDROOM

FIRST & SECOND FLOOR PLANS

Tecton Architects

SENIOR LUXURY HOUSING - RYE, NY



CORRIDOR
E
ONE BEDROOM
STAIR
STOR.
TWO BEDROOM

3RD FLOOR
1" = 20'-0"

ROOM AREAS	
Name	Area
ONE BEDROOM	4 132 SF
TWO BEDROOM	16 310 SF
2ND FLOOR 17	20 442 SF
ONE BEDROOM	14 527 SF
TWO BEDROOM	34 933 SF
3RD FLOOR 42	49 460 SF
ONE BEDROOM	14 628 SF
TWO BEDROOM	21 134 SF
4TH FLOOR 32	35 762 SF
ONE BEDROOM	8 103 SF
TWO BEDROOM	21 162 SF
5TH FLOOR 25	29 265 SF
ONE BEDROOM	6 102 SF
TWO BEDROOM	14 152 SF
6TH FLOOR 17	20 254 SF
Grand total 133	155 073 SF

UNITS - ONE BEDROOM	
Level	Name
2ND FLOOR	ONE BEDROOM
2ND FLOOR 4	
3RD FLOOR	ONE BEDROOM
3RD FLOOR 14	
4TH FLOOR	ONE BEDROOM
4TH FLOOR 14	
5TH FLOOR	ONE BEDROOM
5TH FLOOR 8	
6TH FLOOR	ONE BEDROOM
6TH FLOOR 6	
Grand total 46	

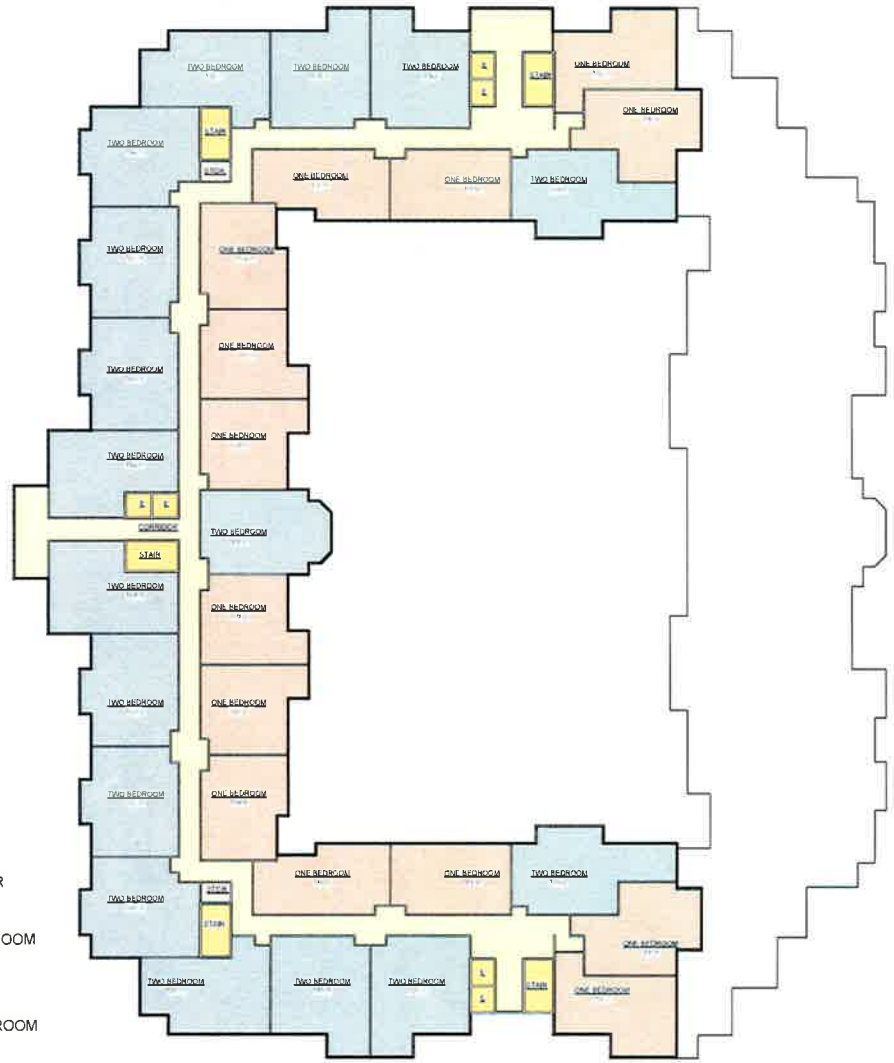
UNITS - TWO BEDROOM	
Level	Name
2ND FLOOR	TWO BEDROOM
2ND FLOOR 13	
3RD FLOOR	TWO BEDROOM
3RD FLOOR 28	
4TH FLOOR	TWO BEDROOM
4TH FLOOR 18	
5TH FLOOR	TWO BEDROOM
5TH FLOOR 17	
6TH FLOOR	TWO BEDROOM
6TH FLOOR 11	
Grand total 87	

Area Schedule (Gross Building)	
Level	Area
1ST FLOOR	210 SF
1ST FLOOR	180 SF
1ST FLOOR	180 SF
1ST FLOOR	210 SF
1ST FLOOR	17 510 SF
	18 318 SF
2ND FLOOR	841 SF
2ND FLOOR	28 639 SF
	29 480 SF
3RD FLOOR	66 065 SF
	66 065 SF
4TH FLOOR	45 992 SF
	45 992 SF
5TH FLOOR	38 065 SF
	38 065 SF
6TH FLOOR	24 729 SF
	24 729 SF
	222 668 SF

THIRD FLOOR PLAN

Tecton Architects

SENIOR LUXURY HOUSING - RYE, NY



CORRIDOR
E
ONE BEDROOM
STAIR
STOR.
TWO BEDROOM

4TH FLOOR
1" = 20'-0"

ROOM AREAS	
Name	Area
ONE BEDROOM	4 132 SF
TWO BEDROOM	16 310 SF
2ND FLOOR 17	20 442 SF
ONE BEDROOM	14 157 SF
TWO BEDROOM	34 703 SF
3RD FLOOR 42	48 860 SF
ONE BEDROOM	14 626 SF
TWO BEDROOM	21 156 SF
4TH FLOOR 32	35 782 SF
ONE BEDROOM	8 120 SF
TWO BEDROOM	21 142 SF
5TH FLOOR 25	29 262 SF
ONE BEDROOM	6 102 SF
TWO BEDROOM	14 172 SF
6TH FLOOR 17	20 274 SF
Grand total: 130	155 073 SF

UNITS - ONE BEDROOM	
Level	Name
2ND FLOOR	ONE BEDROOM
2ND FLOOR 4	
3RD FLOOR	ONE BEDROOM
3RD FLOOR 14	
4TH FLOOR	ONE BEDROOM
4TH FLOOR 14	
5TH FLOOR	ONE BEDROOM
5TH FLOOR 8	
6TH FLOOR	ONE BEDROOM
6TH FLOOR 6	
Grand total: 46	

UNITS - TWO BEDROOM	
Level	Name
2ND FLOOR	TWO BEDROOM
2ND FLOOR 13	
3RD FLOOR	TWO BEDROOM
3RD FLOOR 28	
4TH FLOOR	TWO BEDROOM
4TH FLOOR 18	
5TH FLOOR	TWO BEDROOM
5TH FLOOR 17	
6TH FLOOR	TWO BEDROOM
6TH FLOOR 11	
Grand total: 87	

Area Schedule (Gross Building)	
Level	Area
1ST FLOOR	212 SF
1ST FLOOR	180 SF
1ST FLOOR	150 SF
1ST FLOOR	210 SF
1ST FLOOR	17 578 SF
	18 318 SF
2ND FLOOR	841 SF
2ND FLOOR	28 639 SF
	29 480 SF
3RD FLOOR	66 065 SF
	66 065 SF
4TH FLOOR	45 802 SF
	45 802 SF
5TH FLOOR	38 063 SF
	38 063 SF
6TH FLOOR	24 729 SF
	24 729 SF
	222 559 SF

FOURTH FLOOR PLAN

Tecton Architects

SENIOR LUXURY HOUSING - RYE, NY

6TH FLOOR

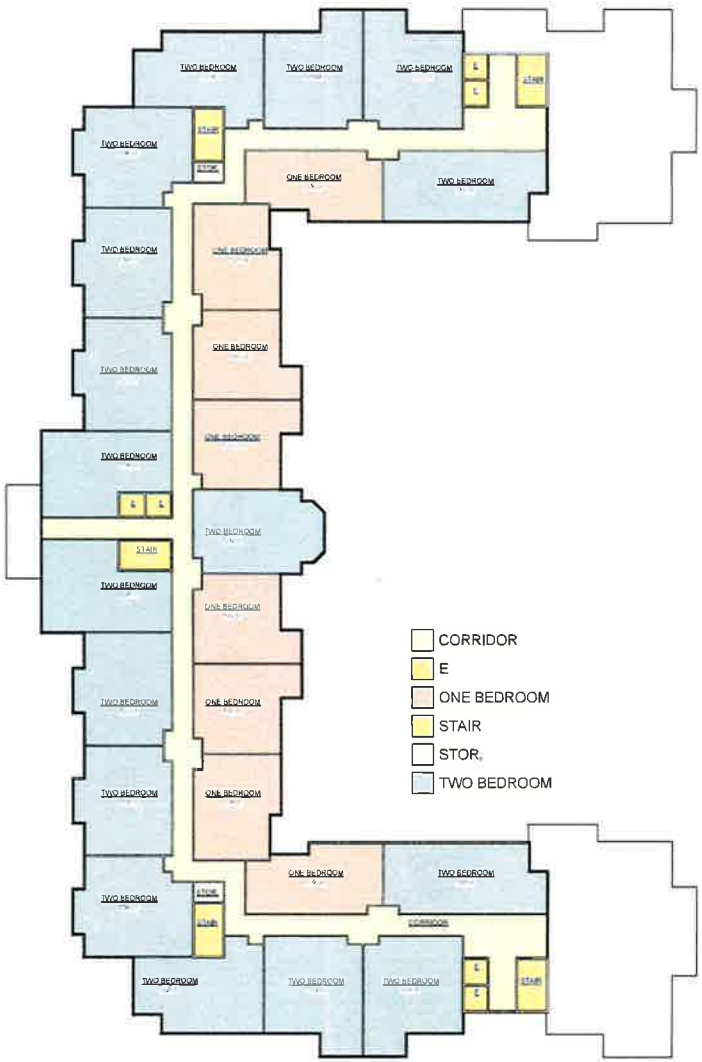
1" = 20'-0"

ROOM AREAS	
Name	Area
ONE BEDROOM	4 122 SF
TWO BEDROOM	16 310 SF
2ND FLOOR 17	20 440 SF
ONE BEDROOM	14 557 SF
TWO BEDROOM	34 702 SF
3RD FLOOR 42	49 260 SF
ONE BEDROOM	14 828 SF
TWO BEDROOM	21 134 SF
4TH FLOOR 32	35 962 SF
ONE BEDROOM	8 193 SF
TWO BEDROOM	21 162 SF
5TH FLOOR 25	29 355 SF
ONE BEDROOM	6 102 SF
TWO BEDROOM	14 152 SF
6TH FLOOR 17	20 254 SF
Grand total 132	155 371 SF

UNITS - ONE BEDROOM	
Level	Name
2ND FLOOR	ONE BEDROOM
2ND FLOOR 4	
3RD FLOOR	ONE BEDROOM
3RD FLOOR 14	
4TH FLOOR	ONE BEDROOM
4TH FLOOR 14	
5TH FLOOR	ONE BEDROOM
5TH FLOOR 8	
6TH FLOOR	ONE BEDROOM
6TH FLOOR 6	
Grand total 46	

UNITS - TWO BEDROOM	
Level	Name
2ND FLOOR	TWO BEDROOM
2ND FLOOR 13	
3RD FLOOR	TWO BEDROOM
3RD FLOOR 28	
4TH FLOOR	TWO BEDROOM
4TH FLOOR 18	
5TH FLOOR	TWO BEDROOM
5TH FLOOR 17	
6TH FLOOR	TWO BEDROOM
6TH FLOOR 11	
Grand total 87	

Area Schedule (Gross Building)	
Level	Area
1ST FLOOR	712 SF
1ST FLOOR	760 SF
1ST FLOOR	760 SF
1ST FLOOR	219 SF
1ST FLOOR	17 519 SF
	19 318 SF
2ND FLOOR	541 SF
2ND FLOOR	28 939 SF
	29 480 SF
3RD FLOOR	66 065 SF
	66 065 SF
4TH FLOOR	45 902 SF
	45 902 SF
5TH FLOOR	38 065 SF
	38 065 SF
6TH FLOOR	24 720 SF
	24 720 SF
	222 559 SF



5TH FLOOR

1" = 20'-0"

FIFTH & SIXTH FLOOR PLANS

Tecton Architects

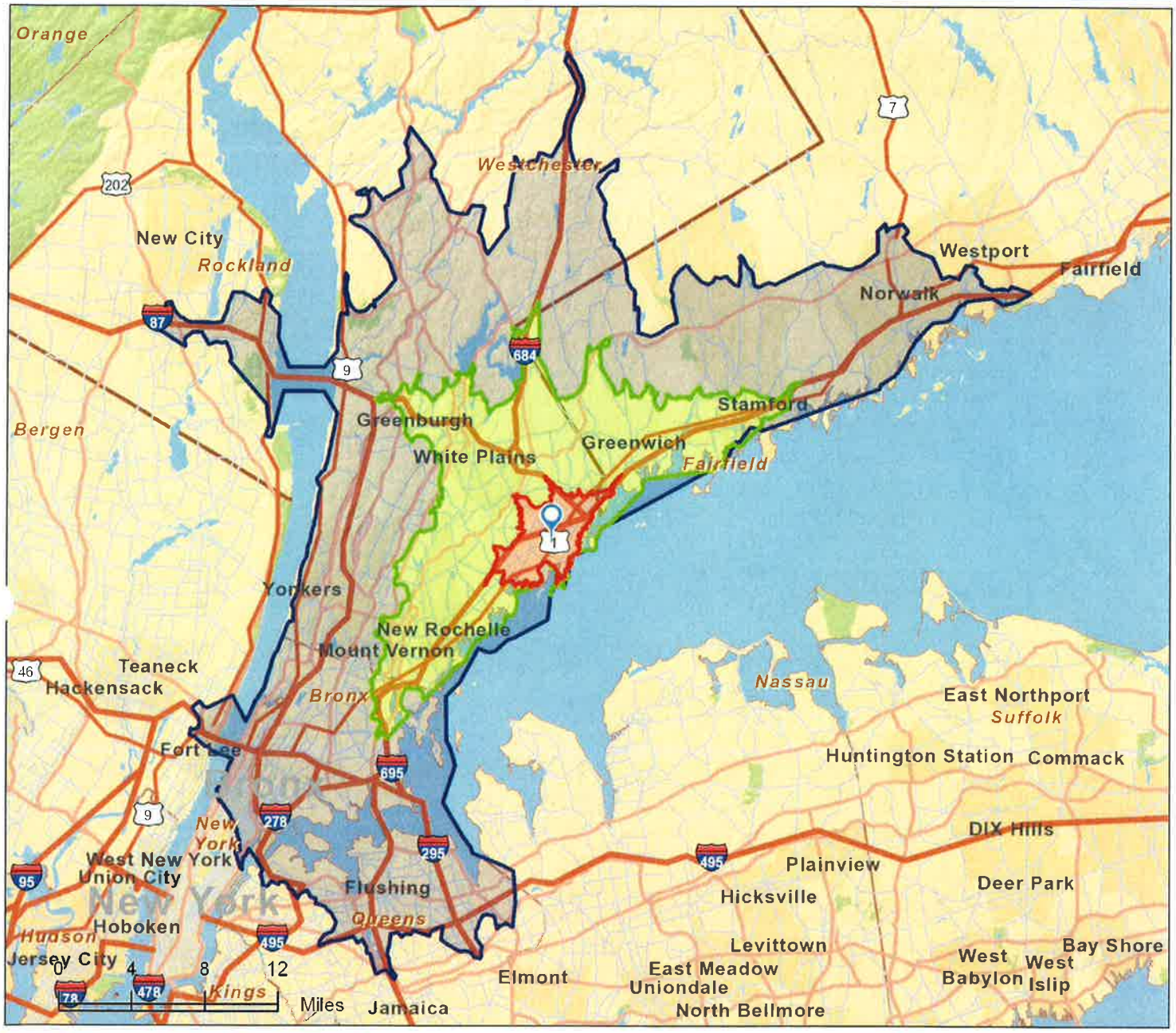
SENIOR LUXURY HOUSING - RYE, NY

APPENDIX

Site Map

120 old post rd
120 Old Post Rd, Rye, New York, 10580, 5, 13, 23 DT
Drive Time: 5, 13, 23 Minutes

Prepared by Robert Goman



April 29, 2014

Rye Rental Comparables
Prepared for Allied Weissman Real Estate LLC

Prepared by Goman+York
Nov 2014

Business	Address	Units	Type	Bedrooms	Baths	Square Footage	Cost (Rental per month)	Cost per Square Foot (Rental per Month)	Unit Amenities	Community Amenities	Established	Walk Score	Website
[illegible]	[illegible]	[illegible]	Apartment Rent	1 2	1 2	[illegible] [illegible]	$2,530.00 $3,156.00	[illegible] $2.8[illegible]	Washer/Dryer Central Air On-Site Storage Master Bedroom/Bath [illegible] Full Kitchens Pet Friendly Parking	Business Center On-Site Boat Slips Riverside View Attended Lobby Concierge Fitness Center [illegible] [illegible] Downtown Location [illegible]	[illegible]	[illegible]	[illegible]
Glenview House	25 [illegible] Rd Stamford CT	[illegible]	Apartment Rent	1 2	1 2	[illegible] [illegible]	$2,288.00 $2,624.00	[illegible] [illegible]	Washer/Dryer Master Bedroom/Bath 2BR [illegible] [illegible] Security System Energy Star Appliances Patio/Balcony Handicap Accessible Garage Parking	Fitness Center Pool Nearby Shopping District Clubroom Picnic/BBQ Area Business Center Public Wifi On-Site Maintenance Walgreen's Pharmacy Concierge On-Site Maintenance Train Shuttle	2008	[illegible]	[illegible]
The Highlands At Rye	233 Purchase St Rye NY		Apartment Rent	1	1	[illegible]	$2,[illegible]	[illegible]	Laundry Room Fitness Center	Downtown Access Train Station near by Restaurants Shopping		[illegible]	[illegible]
Trump Tower	[illegible] White Plains NY	212	Condo Buy/Rent	1 2 3	1 2	[illegible]	[illegible]		In and out door pool Jacuzzi Children's Playroom Stainless Steel Appliance Doorman Club Room 24 Hour Parking Valet Tennis Basketball Courts Grills Putting Green Outdoor Play Area [illegible]	[illegible] Access [illegible] Easy Transportation Metro North to NY City Shopping Restaurants	2005	[illegible]	[illegible]
[illegible]	1 Renaissance Square White Plains NY		[illegible] Rent	1 2 3	1 2 [illegible]	[illegible] [illegible] [illegible]	[illegible] [illegible] [illegible]-10,000.00		Hotel Gym Spa Swimming Pool Valet Parking Private Media Room Concierge Furniture/Finishes Housekeeping/Porter Stainless Steel Appliance	Downtown Access Shopping Center Restaurants 4 On Site Restaurants Easy Transportation Metro North to NY City		[illegible]	[illegible]
[illegible]	[illegible] Main St Yonkers, NY		Condo Buy/Rent	[illegible] 1 2	[illegible] 1.5 [illegible]	 [illegible] [illegible]	[illegible] [illegible] [illegible]		Open Kitchens Stone Counter Tops Stainless Steel Appliance Bamboo Floors Floor to Ceiling Windows Wrap Around Terraces Walk in Closets 24 HR Doorman Concierge Rooftop Gym Media Center [illegible]	Shuttle to Metro North Near Major Highway Water Taxi/Bus Shopping Restaurants		[illegible]	[illegible]
[illegible]	1 Alexander St Yonkers NY		Condo Buy/Rent	1 2	1 2	[illegible] [illegible]	[illegible] 2,100.00		Upgraded Kitchens Parking Garage 2 Fitness Centers Walk in Closets Washer and Dryer Storage Media Center	Downtown Access Local Shopping Restaurants City Services Remodeled Parks NY View		[illegible]	[illegible]
[illegible]	[illegible] Yonkers NY			1 2	1 2	[illegible] [illegible]	[illegible] 2,261.00		[illegible] Stainless Steel Appliance Upgraded Bathroom Olympic Size Pool Heat and Hot water included Air Conditioning	Bus to NYC Shopping Playgrounds Highway close by	[illegible]	[illegible]	
Business	Address	Units	Type	Bedrooms	Baths	Square Footage	Cost (Rental per month)	Cost per Square Foot (Rental per Month)	Unit Amenities	Community Amenities	Established	Walk Score	Website
[illegible]	[illegible]	[illegible]	Rent/Buy	Studio 1 2	1 1 2	[illegible] [illegible] [illegible]			Swimming Pool Fitness Center Cabana Seating Seven BBQ Stations [illegible]	[illegible]	[illegible]	[illegible]	
The Lofts at Yale and Towne	[illegible] Stamford CT [illegible]	[illegible]	Rent	Studio 1 2	1 1 2	528 765 1037	[illegible] [illegible] [illegible]		Swimming Pool Central Air BBQ Stations High Ceilings Pet Friendly Stainless Steel Appliance Concierge	Shuttle Service Metro North to NY City Amtrak Station Nearby Shopping	[illegible]	[illegible]	[illegible]
[illegible]	101 Washington Blvd Stamford CT 06902	[illegible]	Rent	1 2 3	1 2 [illegible]	606 1022 1338	[illegible] [illegible] [illegible]		Gated Entry Pool Fitness Center Dog Run Concierge Complimentary Wi-Fi [illegible]	Near Shopping Near Highway Shopping Restaurants		[illegible]	[illegible]
Greenwich Place	[illegible] Greenwich CT [illegible]		Rent	1 2	1 [illegible]	[illegible] [illegible]	[illegible] [illegible]		Playground Central Air Private Balcony Pool [illegible]	Near Highway Shopping Restaurants		[illegible]	[illegible]
[illegible]	[illegible] Greenwich CT [illegible]		Rent	1 2	1 [illegible]	757 1570	2,[illegible] 4,253		Walk in Closets Stainless Steel Appliance Stone Floors Island Kitchen Security System Fitness Center Washer and Dryer Dishwasher Microwave	Near Highway Near Shopping Restaurants	[illegible]	[illegible]	[illegible]
Business	Address	Units	Type	Bedrooms	Baths	Square Footage	Cost (Rental per month)	Cost per Square Foot (Rental per Month)	Unit Amenities	Community Amenities	Established	Walk Score	Website
Tarryland Apartments	[illegible] Tarrytown NY [illegible]	[illegible]	Rent	1 2	1 2	[illegible] [illegible]	2,[illegible] 2,[illegible]		Playground [illegible]			[illegible]	[illegible]
[illegible]	[illegible] Tarrytown NY [illegible]		Rent	[illegible]	[illegible]	[illegible]	2,[illegible]		[illegible]	Near Shopping		[illegible]	

Rye Rental Comparables
Prepared for Alfred Weissman Real Estate LLC

Prepared by Gorman+York

					3	2	2700	$ 4000		BBQ Ready Vaulted Ceilings Hardwood Floors Cable Ready	Near Highway Shopping Restaurants Rail Line Nearby			

Rye Sale Comparable
Prepared for Alfred Weissman Real Estate, LLC

Prepared by Goman+York
Nov 2014

Rye Sale Comparable

Address	Type	Bedrooms	Baths	SqFt	Built in	Price Listed	Date Listed	Sold Price	Date Sold
720 Milton Rd	Apartment	1	2	1,100	1963	425,000	14-Jul		
66 Milton Rd	Apartment	2	1	1,060	1929	409,000	13-May		
66 Milton Rd	Apartment	1	1	1,000	1927	405,000	14-Sep		
20 Chestnut St	Condo	2	1	780	1954	389,000	14-May		
4 Walnut St	Condo	2	1	850	1955	349,000	14-Oct		
24 Peck Ave	Condo	2	1	1,025	1948	335,000	14-Sep		
6 Davis Ave	Apartment	2	1	1,150	1926	329,000	14-Jun		
66 Milton Rd	Apartment	1	1	750	1927	297,700	14-Oct		
79 Peck Ave.	Apartment	2	1	1,000	1948	289,000	14-Jul		
222 Peck Ave	Apartment	2	1	1,010	1948	274,999	14-Oct		
33 Peck Ave.	Apartment	1	1	800	1948	149,000	14-Jul		
30 Pondview Rd	Condo	2	2	1,000	1940	439,000			
102 Peck Ave	Apartment	2	2	1,288	1989			1,250,000	13-Jul
30 Pondview Rd	Condo	2	1	900	1940			349,500	12-Nov
2 Walnut St	Condo	2	1	875	1955			374,900	14-Jan
1 Walnut St	Condo	2	1	850	1954			299,000	14-Jan
216 Purchase St	Apartment	2	2	1,100	1965			530,000	14-Mar
6 Davis Ave.	Apartment	2	1	1,400	1926			330,000	14-Oct
66 Milton Rd	Apartment	1	1	750	1929			310,000	13-Jun
110 Theodore	Apartment	2	2.5	1,130	1986			470,000	13-Jul
3 Peck Ave	Apartment	2	1	1,000	1948			265,000	13-Apr
216 Purchase St	Apartment	3	2	1,400	1969			635,000	14-Feb
216 Purchase St	Apartment	3	2	1,400	1969			654,321	13-Jun

Sale Comparable Around Rye

Business	Address	City	State	Units	Type	Bedrooms	Baths	Square Footage	Price
The Ritz Calrton	1 Renaissance Sq	White Plains	NY		Condo	2	3	1445	859,000
The Ritz Calrton	1 Renaissance Sq	White Plains	NY		Condo	2	2.5	1445	899,900
The Seasons	124 Spring Dr	East Meadow	NY		Condo	2	3	974	559,900
The Wyndham at Garden City	111 Cherry Valley Ave	Garden City	NY		Condo	2	3	1,440	1,250,000
The Wyndham at Garden City	111 Cherry Valley Ave	Garden City	NY		Condo	2	3	1,397	964,000
	4312 214th PL	Bayside	NY		Condo	2	2	928	670,000
	4312 214th PL	Bayside	NY			2	2	871	668,000
The Seasons	124 Spring Dr.	East Meadow	NY		Condo	2	3	974	559,900
The Cabium	10 Byron Place	Larchmont	NY	149	Condo	1	1	811	567,700
	10 Byron Place	Larchmont	NY	149	Condo	1	2	1,280	730,000
	10 Byron Place	Larchmont	NY	149	Condo	2	2	1,442	829,150
	500 Central Park Ave.	Scarsdale	NY		Condo	2	2	1,350	539,000
River House	72 Pondfield Rd.	Bronxville	NY		Condo	2	2	1,225	699,000
	701 Ridge Hill Blvd	Yonkers	NY		Condo	2	2	1,232	512,000
	55 1st St	Pelham	NY		Condo	1	1.5	1,264	529,000
The Addison		Port Washingtc	NY		Apartm	2	3	1,630	625,000
					Apartm	1	2	1,064	460,000
					Apartm	2	2.5	1,420	620,000
Meadowbrook Pointe		Westbury	NY		Apartm	2	2	1,461	695,000
					Apartm	2	2	1,353	650,000
					Apartm	1	1.5	970	505,000

ACS Housing Summary

120 old post rd
120 Old Post Rd, Rye, New York, 10580, 5, 13, 23 DT
Drive Time: 5 minutes

Prepared by Robert Goman

	2005-2009 ACS Estimate	Percent	MOE(±)	Reliability
TOTALS				
Total Population	15,109		769	
Total Households	5,528		242	
Total Housing Units	5,840		254	
OWNER-OCCUPIED HOUSING UNITS BY VALUE				
Total	3,562	100.0%	181	
Less than $10,000	4	0.1%	25	
$10,000 to $14,999	1	0.0%	20	
$15,000 to $19,999	0	0.0%	0	
$20,000 to $24,999	0	0.0%	0	
$25,000 to $29,999	9	0.3%	14	
$30,000 to $34,999	1	0.0%	14	
$35,000 to $39,999	5	0.1%	21	
$40,000 to $49,999	0	0.0%	0	
$50,000 to $59,999	0	0.0%	0	
$60,000 to $69,999	4	0.1%	15	
$70,000 to $79,999	9	0.3%	61	
$80,000 to $89,999	0	0.0%	0	
$90,000 to $99,999	0	0.0%	0	
$100,000 to $124,999	27	0.8%	27	
$125,000 to $149,999	34	1.0%	25	
$150,000 to $174,999	32	0.9%	37	
$175,000 to $199,999	85	2.4%	74	
$200,000 to $249,999	142	4.0%	51	
$250,000 to $299,999	187	5.2%	61	
$300,000 to $399,999	200	5.6%	85	
$400,000 to $499,999	179	5.0%	59	
$500,000 to $749,999	512	14.4%	92	
$750,000 to $999,999	636	17.9%	80	
$1,000,000 or more	1,495	42.0%	117	
Median Home Value	$887,579		N/A	
Average Home Value	N/A		N/A	
OWNER-OCCUPIED HOUSING UNITS BY MORTGAGE STATUS				
Total	3,562	100.0%	181	
Housing units with a mortgage/contract to purchase/similar debt	2,419	67.9%	167	
Second mortgage only	18	0.5%	10	
Home equity loan only	662	18.6%	89	
Both second mortgage and home equity loan	29	0.8%	32	
No second mortgage and no home equity loan	1,710	48.0%	163	
Housing units without a mortgage	1,144	32.1%	130	
AVERAGE VALUE BY MORTGAGE STATUS				
Housing units with a mortgage	N/A		N/A	
Housing units without a mortgage	N/A		N/A	

Source: U.S. Census Bureau, 2005-2009 American Community Survey

Reliability: high medium low

April 13, 2014

ACS Housing Summary

120 old post rd
120 Old Post Rd, Rye, New York, 10580, 5, 13, 23 DT
Drive Time: 5 minutes

Prepared by Robert Goman

	2005-2009 ACS Estimate	Percent	MOE(±)	Reliability
RENTER-OCCUPIED HOUSING UNITS BY CONTRACT RENT				
Total	1,965	100.0%	200	
With cash rent	1,837	93.5%	200	
Less than $100	0	0.0%	0	
$100 to $149	73	3.7%	59	
$150 to $199	51	2.6%	29	
$200 to $249	12	0.6%	44	
$250 to $299	68	3.5%	52	
$300 to $349	20	1.0%	20	
$350 to $399	19	1.0%	14	
$400 to $449	5	0.3%	34	
$450 to $499	0	0.0%	0	
$500 to $549	9	0.5%	14	
$550 to $599	4	0.2%	13	
$600 to $649	24	1.2%	68	
$650 to $699	11	0.6%	43	
$700 to $749	32	1.6%	10	
$750 to $799	52	2.6%	50	
$800 to $899	131	6.7%	57	
$900 to $999	72	3.7%	27	
$1,000 to $1,249	145	7.4%	85	
$1,250 to $1,499	395	20.1%	136	
$1,500 to $1,999	343	17.5%	82	
$2,000 or more	372	18.9%	102	
No cash rent	128	6.5%	41	
Median Contract Rent	N/A		N/A	
Average Contract Rent	N/A		N/A	
RENTER-OCCUPIED HOUSING UNITS BY INCLUSION OF UTILITIES IN RENT				
Total	1,965	100.0%	200	
Pay extra for one or more utilities	1,655	84.2%	196	
No extra payment for any utilities	310	15.8%	63	
HOUSING UNITS BY UNITS IN STRUCTURE				
Total	5,840	100.0%	254	
1, detached	3,004	51.4%	148	
1, attached	435	7.4%	104	
2	606	10.4%	149	
3 or 4	338	5.8%	76	
5 to 9	128	2.2%	32	
10 to 19	396	6.8%	111	
20 to 49	169	2.9%	75	
50 or more	753	12.9%	144	
Mobile home	1	0.0%	14	
Boat, RV, van, etc.	11	0.2%	16	

Source: U.S. Census Bureau, 2005-2009 American Community Survey

Reliability: high medium low

April 13, 2014

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ACS Housing Summary

120 old post rd
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Drive Time: 5 minutes

Prepared by Robert Goman

	2005-2009 ACS Estimate	Percent	MOE(±)	Reliability
HOUSING UNITS BY YEAR STRUCTURE BUILT				
Total	5,840	100.0%	254	
Built 2005 or later	45	0.8%	22	
Built 2000 to 2004	152	2.6%	60	
Built 1990 to 1999	210	3.6%	41	
Built 1980 to 1989	361	6.2%	77	
Built 1970 to 1979	467	8.0%	112	
Built 1960 to 1969	810	13.9%	122	
Built 1950 to 1959	883	15.1%	122	
Built 1940 to 1949	843	14.4%	131	
Built 1939 or earlier	2,068	35.4%	224	
Median Year Structure Built	1950		N/A	
OCCUPIED HOUSING UNITS BY YEAR HOUSEHOLDER MOVED INTO UNIT				
Total	5,526	100.0%	242	
Owner occupied				
Moved in 2005 or later	509	9.2%	116	
Moved in 2000 to 2004	796	14.4%	115	
Moved in 1990 to 1999	940	17.0%	110	
Moved in 1980 to 1989	534	9.7%	85	
Moved in 1970 to 1979	397	7.2%	75	
Moved in 1969 or earlier	386	7.0%	67	
Renter occupied				
Moved in 2005 or later	731	13.2%	147	
Moved in 2000 to 2004	702	12.7%	147	
Moved in 1990 to 1999	286	5.2%	69	
Moved in 1980 to 1989	142	2.6%	84	
Moved in 1970 to 1979	63	1.1%	27	
Moved in 1969 or earlier	42	0.8%	37	
Median Year Householder Moved Into Unit	2000		N/A	
OCCUPIED HOUSING UNITS BY HOUSE HEATING FUEL				
Total	5,528	100.0%	242	
Utility gas	3,317	60.0%	229	
Bottled, tank, or LP gas	126	2.3%	40	
Electricity	257	4.6%	55	
Fuel oil, kerosene, etc.	1,796	32.5%	177	
Coal or coke	0	0.0%	0	
Wood	1	0.0%	14	
Solar energy	0	0.0%	0	
Other fuel	0	0.0%	0	
No fuel used	32	0.6%	35	

Source: U.S. Census Bureau, 2005-2009 American Community Survey

Reliability: high medium low

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	2005-2009 ACS Estimate	Percent	MOE(±)	Reliability
OCCUPIED HOUSING UNITS BY VEHICLES AVAILABLE				
Total	5,528	100.0%	242	
Owner occupied				
No vehicle available	152	2.7%	66	
1 vehicle available	843	15.2%	96	
2 vehicles available	1,807	32.7%	162	
3 vehicles available	553	10.0%	86	
4 vehicles available	165	3.0%	37	
5 or more vehicles available	43	0.8%	35	
Renter occupied				
No vehicle available	316	5.7%	72	
1 vehicle available	1,102	19.9%	178	
2 vehicles available	491	8.9%	126	
3 vehicles available	42	0.8%	24	
4 vehicles available	3	0.1%	15	
5 or more vehicles available	11	0.2%	18	
Average Number of Vehicles Available	N/A		N/A	

Data Note: N/A means not available.

2005-2009 ACS Estimate: The American Community Survey (ACS) replaces census sample data. Esri is releasing the 2005-2009 ACS estimates, five-year period data collected monthly from January 1, 2005 through December 31, 2009. Although the ACS includes many of the subjects previously covered by the decennial census sample, there are significant differences between the two surveys including fundamental differences in survey design and residency rules.

Margin of error (MOE): The MOE is a measure of the variability of the estimate due to sampling error. MOEs enable the data user to measure the range of uncertainty for each estimate with 90 percent confidence. The range of uncertainty is called the confidence interval, and it is calculated by taking the estimate +/- the MOE. For example, if the ACS reports an estimate of 100 with an MOE of +/- 20, then you can be 90 percent certain the value for the whole population falls between 80 and 120.

Reliability: These symbols represent threshold values that Esri has established from the Coefficients of Variation (CV) to designate the usability of the estimates. The CV measures the amount of sampling error relative to the size of the estimate, expressed as a percentage.

- High Reliability: Small CVs (less than or equal to 12 percent) are flagged green to indicate that the sampling error is small relative to the estimate and the estimate is reasonably reliable.
- Medium Reliability: Estimates with CVs between 12 and 40 are flagged yellow—use with caution.
- Low Reliability: Large CVs (over 40 percent) are flagged red to indicate that the sampling error is large relative to the estimate. The estimate is considered very unreliable.

Source: U.S. Census Bureau, 2005-2009 American Community Survey

Reliability: high medium low

April 13, 2014

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ACS Housing Summary

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Drive Time: 13 minutes

Prepared by Robert Goman

	2005-2009 ACS Estimate	Percent	MOE(±)	Reliability
TOTALS				
Total Population	193,147		4,135	
Total Households	72,174		1,145	
Total Housing Units	76,616		1,170	
OWNER-OCCUPIED HOUSING UNITS BY VALUE				
Total	45,394	100.0%	942	
Less than $10,000	96	0.2%	46	
$10,000 to $14,999	7	0.0%	15	
$15,000 to $19,999	30	0.1%	28	
$20,000 to $24,999	46	0.1%	53	
$25,000 to $29,999	24	0.1%	26	
$30,000 to $34,999	19	0.0%	12	
$35,000 to $39,999	45	0.1%	30	
$40,000 to $49,999	41	0.1%	19	
$50,000 to $59,999	155	0.3%	81	
$60,000 to $69,999	96	0.2%	65	
$70,000 to $79,999	144	0.3%	97	
$80,000 to $89,999	155	0.3%	55	
$90,000 to $99,999	110	0.2%	60	
$100,000 to $124,999	580	1.3%	150	
$125,000 to $149,999	658	1.4%	196	
$150,000 to $174,999	831	1.8%	179	
$175,000 to $199,999	700	1.5%	169	
$200,000 to $249,999	2,033	4.5%	277	
$250,000 to $299,999	1,316	2.9%	235	
$300,000 to $399,999	3,508	7.7%	380	
$400,000 to $499,999	4,124	9.1%	396	
$500,000 to $749,999	10,699	23.6%	579	
$750,000 to $999,999	7,839	17.3%	471	
$1,000,000 or more	12,138	26.7%	469	
Median Home Value	N/A		N/A	
Average Home Value	N/A		N/A	
OWNER-OCCUPIED HOUSING UNITS BY MORTGAGE STATUS				
Total	45,394	100.0%	942	
Housing units with a mortgage/contract to purchase/similar debt	30,227	66.6%	890	
Second mortgage only	729	1.6%	157	
Home equity loan only	7,853	17.3%	456	
Both second mortgage and home equity loan	269	0.6%	113	
No second mortgage and no home equity loan	21,375	47.1%	824	
Housing units without a mortgage	15,167	33.4%	619	
AVERAGE VALUE BY MORTGAGE STATUS				
Housing units with a mortgage	N/A		N/A	
Housing units without a mortgage	N/A		N/A	

Source: U.S. Census Bureau, 2005-2009 American Community Survey

Reliability: high medium low

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	2005-2009 ACS Estimate	Percent	MOE(±)	Reliability
RENTER-OCCUPIED HOUSING UNITS BY CONTRACT RENT				
Total	26,781	100.0%	943	
With cash rent	25,677	95.9%	928	
Less than $100	146	0.5%	72	
$100 to $149	253	0.9%	110	
$150 to $199	397	1.5%	113	
$200 to $249	423	1.6%	142	
$250 to $299	237	0.9%	91	
$300 to $349	269	1.0%	97	
$350 to $399	290	1.1%	127	
$400 to $449	409	1.5%	130	
$450 to $499	361	1.3%	147	
$500 to $549	349	1.3%	136	
$550 to $599	386	1.4%	122	
$600 to $649	736	2.7%	194	
$650 to $699	660	2.5%	173	
$700 to $749	524	2.0%	128	
$750 to $799	484	1.8%	143	
$800 to $899	1,716	6.4%	288	
$900 to $999	1,382	5.2%	255	
$1,000 to $1,249	3,755	14.0%	429	
$1,250 to $1,499	4,268	15.9%	474	
$1,500 to $1,999	4,671	17.4%	458	
$2,000 or more	3,960	14.8%	433	
No cash rent	1,103	4.1%	241	
Median Contract Rent	N/A		N/A	
Average Contract Rent	N/A		N/A	
RENTER-OCCUPIED HOUSING UNITS BY INCLUSION OF UTILITIES IN RENT				
Total	26,781	100.0%	943	
Pay extra for one or more utilities	22,679	84.7%	891	
No extra payment for any utilities	4,102	15.3%	443	
HOUSING UNITS BY UNITS IN STRUCTURE				
Total	76,616	100.0%	1,170	
1, detached	33,400	43.6%	773	
1, attached	4,591	6.0%	423	
2	8,787	11.5%	617	
3 or 4	6,344	8.3%	549	
5 to 9	3,585	4.7%	437	
10 to 19	2,859	3.7%	334	
20 to 49	5,837	7.6%	441	
50 or more	11,115	14.5%	552	
Mobile home	87	0.1%	65	
Boat, RV, van, etc.	11	0.0%	16	

Source: U.S. Census Bureau, 2005-2009 American Community Survey

Reliability: high medium low

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ACS Housing Summary

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	2005-2009 ACS Estimate	Percent	MOE(±)	Reliability
HOUSING UNITS BY YEAR STRUCTURE BUILT				
Total	76,616	100.0%	1,170	
Built 2005 or later	1,174	1.5%	209	
Built 2000 to 2004	2,466	3.2%	303	
Built 1990 to 1999	4,010	5.2%	358	
Built 1980 to 1989	6,134	8.0%	439	
Built 1970 to 1979	6,588	8.6%	504	
Built 1960 to 1969	10,656	13.9%	623	
Built 1950 to 1959	14,273	18.6%	684	
Built 1940 to 1949	7,241	9.5%	536	
Built 1939 or earlier	24,075	31.4%	905	
Median Year Structure Built	1955		N/A	
OCCUPIED HOUSING UNITS BY YEAR HOUSEHOLDER MOVED INTO UNIT				
Total	72,174	100.0%	1,145	
Owner occupied				
Moved in 2005 or later	6,062	8.4%	490	
Moved in 2000 to 2004	10,299	14.3%	576	
Moved in 1990 to 1999	11,959	16.6%	600	
Moved in 1980 to 1989	6,512	9.0%	427	
Moved in 1970 to 1979	4,717	6.5%	362	
Moved in 1969 or earlier	5,844	8.1%	417	
Renter occupied				
Moved in 2005 or later	10,783	14.9%	691	
Moved in 2000 to 2004	8,606	11.9%	656	
Moved in 1990 to 1999	4,227	5.9%	428	
Moved in 1980 to 1989	1,492	2.1%	253	
Moved in 1970 to 1979	938	1.3%	178	
Moved in 1969 or earlier	734	1.0%	176	
Median Year Householder Moved Into Unit	N/A		N/A	
OCCUPIED HOUSING UNITS BY HOUSE HEATING FUEL				
Total	72,174	100.0%	1,145	
Utility gas	40,585	56.2%	1,053	
Bottled, tank, or LP gas	1,005	1.4%	170	
Electricity	5,207	7.2%	402	
Fuel oil, kerosene, etc.	24,758	34.3%	904	
Coal or coke	12	0.0%	36	
Wood	58	0.1%	40	
Solar energy	17	0.0%	20	
Other fuel	352	0.5%	115	
No fuel used	180	0.2%	70	

Source: U.S. Census Bureau, 2005-2009 American Community Survey

Reliability: high medium low

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OCCUPIED HOUSING UNITS BY HOUSE HEATING FUEL				
Total	72,174	100.0%	1,145	
Utility gas	40,585	56.2%	1,053	
Bottled, tank, or LP gas	1,005	1.4%	170	
Electricity	5,207	7.2%	402	
Fuel oil, kerosene, etc	24,758	34.3%	904	
Coal or coke	12	0.0%	36	
Wood	58	0.1%	40	
Solar energy	17	0.0%	20	
Other fuel	352	0.5%	115	
No fuel used	180	0.2%	70	

Source: U.S. Census Bureau, 2005-2009 American Community Survey

Reliability: high medium low

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120 Old Post Rd, Rye, New York, 10580, 5, 13, 23 DT
Drive Time: 23 minutes

Prepared by Robert Goman

	2005-2009 ACS Estimate	Percent	MOE(±)	Reliability
TOTALS				
Total Population	1,289,719		11,485	
Total Households	470,798		3,018	
Total Housing Units	501,069		3,003	
OWNER-OCCUPIED HOUSING UNITS BY VALUE				
Total	252,892	100.0%	2,424	
Less than $10,000	1,249	0.5%	213	
$10,000 to $14,999	1,555	0.6%	256	
$15,000 to $19,999	912	0.4%	192	
$20,000 to $24,999	560	0.2%	155	
$25,000 to $29,999	582	0.2%	163	
$30,000 to $34,999	463	0.2%	147	
$35,000 to $39,999	338	0.1%	97	
$40,000 to $49,999	739	0.3%	179	
$50,000 to $59,999	1,668	0.7%	329	
$60,000 to $69,999	1,275	0.5%	249	
$70,000 to $79,999	1,671	0.7%	310	
$80,000 to $89,999	1,949	0.8%	340	
$90,000 to $99,999	1,599	0.6%	255	
$100,000 to $124,999	4,651	1.8%	480	
$125,000 to $149,999	3,923	1.6%	434	
$150,000 to $174,999	5,758	2.3%	513	
$175,000 to $199,999	4,314	1.7%	458	
$200,000 to $249,999	11,131	4.4%	677	
$250,000 to $299,999	6,757	3.5%	631	
$300,000 to $399,999	30,997	12.3%	1,135	
$400,000 to $499,999	37,108	14.7%	1,208	
$500,000 to $749,999	66,979	26.5%	1,489	
$750,000 to $999,999	27,811	11.0%	952	
$1,000,000 or more	36,902	14.6%	908	
Median Home Value	N/A		N/A	
Average Home Value	N/A		N/A	
OWNER-OCCUPIED HOUSING UNITS BY MORTGAGE STATUS				
Total	252,892	100.0%	2,424	
Housing units with a mortgage/contract to purchase/similar debt	166,566	65.9%	2,231	
Second mortgage only	5,863	2.3%	487	
Home equity loan only	36,608	14.5%	1,121	
Both second mortgage and home equity loan	2,069	0.8%	326	
No second mortgage and no home equity loan	122,008	48.2%	2,059	
Housing units without a mortgage	86,324	34.1%	1,626	
AVERAGE VALUE BY MORTGAGE STATUS				
Housing units with a mortgage	N/A		N/A	
Housing units without a mortgage	N/A		N/A	

Source: U.S. Census Bureau, 2005-2009 American Community Survey

Reliability: high medium low

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ACS Housing Summary

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Prepared by Robert Goman

	2005-2009 ACS Estimate	Percent	MOE(±)	Reliability
RENTER-OCCUPIED HOUSING UNITS BY CONTRACT RENT				
Total	217,907	100.0%	2,632	
With cash rent	211,634	97.1%	2,611	
Less than $100	1,017	0.5%	237	
$100 to $149	2,034	0.9%	322	
$150 to $199	3,949	1.8%	421	
$200 to $249	4,305	2.0%	457	
$250 to $299	2,281	1.0%	323	
$300 to $349	2,808	1.3%	349	
$350 to $399	2,341	1.1%	335	
$400 to $449	3,486	1.6%	418	
$450 to $499	3,679	1.7%	435	
$500 to $549	5,194	2.4%	516	
$550 to $599	4,672	2.1%	478	
$600 to $649	6,886	3.2%	563	
$650 to $699	7,415	3.4%	611	
$700 to $749	8,407	3.9%	651	
$750 to $799	9,385	4.3%	686	
$800 to $899	21,218	9.7%	1,016	
$900 to $999	23,125	10.6%	1,108	
$1,000 to $1,249	38,445	17.6%	1,424	
$1,250 to $1,499	26,442	12.1%	1,197	
$1,500 to $1,999	22,702	10.4%	1,127	
$2,000 or more	11,842	5.4%	729	
No cash rent	6,272	2.9%	569	
Median Contract Rent	N/A		N/A	
Average Contract Rent	N/A		N/A	
RENTER-OCCUPIED HOUSING UNITS BY INCLUSION OF UTILITIES IN RENT				
Total	217,907	100.0%	2,632	
Pay extra for one or more utilities	174,076	79.9%	2,464	
No extra payment for any utilities	43,831	20.1%	1,281	
HOUSING UNITS BY UNITS IN STRUCTURE				
Total	501,069	100.0%	3,003	
1, detached	167,394	33.4%	1,958	
1, attached	31,375	6.3%	1,100	
2	58,525	11.7%	1,623	
3 or 4	48,130	9.6%	1,511	
5 to 9	25,122	5.0%	1,076	
10 to 19	20,426	4.1%	964	
20 to 49	48,758	9.7%	1,422	
50 or more	100,482	20.1%	1,650	
Mobile home	734	0.1%	219	
Boat, RV, van, etc.	125	0.0%	97	

Source: U.S. Census Bureau, 2005-2009 American Community Survey

Reliability: high medium low

April 13, 2014

GOMAN+YORK
NOVEMBER 2014

ACS Housing Summary

120 old post rd
120 Old Post Rd, Rye, New York, 10580, 5, 13, 23 DT
Drive Time: 23 minutes

Prepared by Robert Goman

	2005-2009 ACS Estimate	Percent	MOE(±)	Reliability
HOUSING UNITS BY YEAR STRUCTURE BUILT				
Total	501,069	100.0%	3,003	
Built 2005 or later	5,192	1.0%	482	
Built 2000 to 2004	12,782	2.6%	730	
Built 1990 to 1999	18,329	3.7%	861	
Built 1980 to 1989	27,716	5.5%	1,080	
Built 1970 to 1979	43,218	8.6%	1,365	
Built 1960 to 1969	73,598	14.7%	1,732	
Built 1950 to 1959	103,759	20.7%	2,005	
Built 1940 to 1949	59,934	12.0%	1,627	
Built 1939 or earlier	156,541	31.2%	2,373	
Median Year Structure Built	N/A		N/A	
OCCUPIED HOUSING UNITS BY YEAR HOUSEHOLDER MOVED INTO UNIT				
Total	470,798	100.0%	3,018	
Owner occupied				
Moved in 2005 or later	32,491	6.9%	1,182	
Moved in 2000 to 2004	56,552	12.0%	1,480	
Moved in 1990 to 1999	68,031	14.5%	1,583	
Moved in 1980 to 1989	36,964	7.9%	1,153	
Moved in 1970 to 1979	28,892	6.1%	1,015	
Moved in 1969 or earlier	29,962	6.4%	1,006	
Renter occupied				
Moved in 2005 or later	73,200	15.5%	1,904	
Moved in 2000 to 2004	65,455	13.9%	1,820	
Moved in 1990 to 1999	42,736	9.1%	1,426	
Moved in 1980 to 1989	15,960	3.4%	869	
Moved in 1970 to 1979	13,923	3.0%	760	
Moved in 1969 or earlier	6,633	1.4%	515	
Median Year Householder Moved Into Unit	N/A		N/A	
OCCUPIED HOUSING UNITS BY HOUSE HEATING FUEL				
Total	470,798	100.0%	3,018	
Utility gas	209,989	44.6%	2,594	
Bottled, tank, or LP gas	7,033	1.5%	536	
Electricity	45,576	9.7%	1,341	
Fuel oil, kerosene, etc.	202,529	43.0%	2,603	
Coal or coke	409	0.1%	149	
Wood	493	0.1%	131	
Solar energy	36	0.0%	33	
Other fuel	2,734	0.6%	308	
No fuel used	1,999	0.4%	302	

Source: U.S. Census Bureau, 2005-2009 American Community Survey

Reliability: high medium low

ACS Housing Summary

120 old post rd
120 Old Post Rd, Rye, New York, 10580, 5, 13, 23 DT
Drive Time: 23 minutes

Prepared by Robert Goman

	2005-2009 ACS Estimate	Percent	MOE(±)	Reliability
OCCUPIED HOUSING UNITS BY VEHICLES AVAILABLE				
Total	470,798	100.0%	3,018	
Owner occupied				
No vehicle available	22,621	4.8%	995	
1 vehicle available	85,284	18.1%	1,762	
2 vehicles available	99,472	21.1%	1,781	
3 vehicles available	33,304	7.1%	1,074	
4 vehicles available	9,081	1.9%	592	
5 or more vehicles available	3,130	0.7%	351	
Renter occupied				
No vehicle available	85,808	18.2%	1,834	
1 vehicle available	93,457	19.9%	2,075	
2 vehicles available	32,336	6.9%	1,291	
3 vehicles available	4,952	1.1%	521	
4 vehicles available	948	0.2%	232	
5 or more vehicles available	406	0.1%	123	
Average Number of Vehicles Available	N/A		N/A	

Data Note: N/A means not available.

2005-2009 ACS Estimate: The American Community Survey (ACS) replaces census sample data. Esri is releasing the 2005-2009 ACS estimates, five-year period data collected monthly from January 1, 2005 through December 31, 2009. Although the ACS includes many of the subjects previously covered by the decennial census sample, there are significant differences between the two surveys including fundamental differences in survey design and residency rules.

Margin of error (MOE): The MOE is a measure of the variability of the estimate due to sampling error. MOEs enable the data user to measure the range of uncertainty for each estimate with 90 percent confidence. The range of uncertainty is called the confidence interval, and it is calculated by taking the estimate +/- the MOE. For example, if the ACS reports an estimate of 100 with an MOE of +/- 20, then you can be 90 percent certain the value for the whole population falls between 80 and 120.

Reliability: These symbols represent threshold values that Esri has established from the Coefficients of Variation (CV) to designate the usability of the estimates. The CV measures the amount of sampling error relative to the size of the estimate, expressed as a percentage.

- High Reliability: Small CVs (less than or equal to 12 percent) are flagged green to indicate that the sampling error is small relative to the estimate and the estimate is reasonably reliable.
- Medium Reliability: Estimates with CVs between 12 and 40 are flagged yellow—use with caution.
- Low Reliability: Large CVs (over 40 percent) are flagged red to indicate that the sampling error is large relative to the estimate. The estimate is considered very unreliable.

Source: U.S. Census Bureau, 2005-2009 American Community Survey

Reliability: high medium low

April 13, 2014

GOMAN+YORK
NOVEMBER 2014

Age 55+ Profile

120 Old Post Rd
120 Old Post Rd, Rye, New York, 10580,
Drive Time: 5 minutes

Prepared by Robert Goman

Demographic Summary	Census 2010	2013	2018	2013-2018 Change	2013-2018 Annual Rate
Total Population	15,771	15,686	15,805	119	0.15%
Population 55+	3,896	4,096	4,576	480	1.55%
Median Age	40.0	40.5	41.1	0.6	0.29%
Households	5,896	5,872	5,925	53	0.18%
% Householders 55+	42.8%	45.6%	49.6%	4.0	1.70%
Owner/Renter Ratio	1.7	1.7	1.8	0.1	1.15%
Median Home Value	-	$703,332	$930,553	$227,221	5.76%
Average Home Value	-	$760,373	$939,878	$179,505	4.33%
Median Household Income	-	$114,475	$130,946	$16,471	2.73%
Median Household Income for Householder 55+	-	$93,166	$117,450	$24,284	4.74%

Population by Age and Sex

	Census 2010		2013		2018	
Male Population	**Number**	**% of 55+**	**Number**	**% of 55+**	**Number**	**% of 55+**
Total (55+)	1,653	100.0%	1,806	100.0%	2,106	100.0%
55-59	400	24.2%	506	28.0%	617	29.3%
60-64	345	20.9%	361	20.0%	467	22.2%
65-69	266	16.1%	286	15.8%	324	15.4%
70-74	193	11.7%	214	11.8%	250	11.9%
75-79	158	9.6%	156	8.6%	180	8.5%
80-84	141	8.5%	129	7.1%	120	5.7%
85+	150	9.1%	154	8.5%	148	7.0%
	Census 2010		**2013**		**2018**	
Female	**Number**	**% of 55+**	**Number**	**% of 55+**	**Number**	**% of 55+**
Total (55+)	2,243	100.0%	2,290	100.0%	2,470	100.0%
55-59	449	20.0%	515	22.5%	625	25.3%
60-64	386	17.2%	407	17.8%	474	19.2%
65-69	306	13.6%	319	13.9%	369	14.9%
70-74	255	11.4%	266	11.6%	282	11.4%
75-79	209	9.3%	213	9.3%	221	8.9%
80-84	259	11.5%	200	8.7%	175	7.1%
85+	379	16.9%	370	16.2%	324	13.1%
	Census 2010		**2013**		**2018**	
Total Population	**Number**	**% of Total**	**Number**	**% of Total Pop**	**Number**	**% of Total**
Total (55+)	3,898	32.4%	4,095	34.5%	4,576	37.0%
55-59	849	5.4%	1,021	6.5%	1,242	7.9%
60-64	731	4.6%	768	4.9%	941	6.0%
65-69	573	3.6%	604	3.9%	693	4.4%
70-74	449	2.8%	480	3.1%	532	3.4%
75-79	367	2.3%	369	2.4%	401	2.5%
80-84	400	2.5%	329	2.1%	295	1.9%
85+	529	3.4%	524	3.3%	472	3.0%
65+	2,318	14.7%	2,306	14.7%	2,393	15.1%
75+	1,296	8.2%	1,222	7.8%	1,168	7.4%

Data Note - A "-" indicates that the variable was not collected in the 2010 Census.
Source: U.S. Census Bureau, Census 2010 Summary File 1. Esri forecasts for 2013 and 2018.

Age 55+ Profile

120 Old Post Rd
120 Old Post Rd, Rye, New York, 10580,
Drive Time: 5 minutes

Prepared by Robert Goman

2013 Households by Income and Age of Householder 55+

	55-64	Percent	65-74	Percent	75+	Percent	Total	Percent
Total	1,100	100%	697	100%	879	100%	2,676	100%
<$15,000	55	5.0%	53	7.6%	145	16.5%	253	9.5%
$15,000-$24,999	36	3.3%	37	5.3%	70	8.0%	143	5.3%
$25,000-$34,999	30	2.7%	15	2.2%	48	5.5%	93	3.5%
$35,000-$49,999	70	6.4%	69	9.9%	82	9.3%	221	8.3%
$50,000-$74,999	122	11.1%	120	17.2%	178	20.3%	420	15.7%
$75,000-$99,999	115	10.5%	71	10.2%	83	9.4%	269	10.1%
$100,000-$149,999	189	17.2%	92	13.2%	89	10.1%	370	13.8%
$150,000-$199,999	130	11.8%	66	9.5%	54	6.1%	250	9.3%
$200,000+	352	32.0%	175	25.1%	129	14.7%	656	24.5%
Median HH Income	$127,740		$93,253		$60,679		$93,166	
Average HH Income	$180,883		$151,297		$106,550		$148,760	

2018 Households by Income and Age of Householder 55+

	55-64	Percent	65-74	Percent	75+	Percent	Total	Percent
Total	1,323	100%	780	100%	837	100%	2,940	100%
<$15,000	49	3.7%	51	6.5%	119	14.2%	219	7.4%
$15,000-$24,999	26	2.0%	30	3.8%	49	5.9%	105	3.6%
$25,000-$34,999	28	2.1%	15	1.9%	44	5.3%	87	3.0%
$35,000-$49,999	63	4.8%	58	7.4%	69	8.2%	190	6.5%
$50,000-$74,999	94	7.1%	94	12.1%	132	15.8%	320	10.9%
$75,000-$99,999	148	11.2%	91	11.7%	102	12.2%	341	11.6%
$100,000-$149,999	249	18.8%	118	15.1%	109	13.0%	476	16.2%
$150,000-$199,999	189	14.3%	95	12.2%	65	7.8%	349	11.9%
$200,000+	476	36.0%	229	29.4%	148	17.7%	853	29.0%
Median HH Income	$150,781		$117,555		$76,031		$117,450	
Average HH Income	$227,433		$194,414		$137,150		$192,973	

Data Note: Income is reported for July 1, 2013 and represents annual income for the preceding year, expressed in current (2012) dollars, including an adjustment for inflation. Income is reported for July 1, 2018 and represents annual income for the preceding year, expressed in current (2017) dollars, including an adjustment for inflation.
Source: U.S. Census Bureau, Census 2010 Summary File 1. Esri forecasts for 2013 and 2018.

Age 55+ Profile

120 Old Post Rd
120 Old Post Rd, Rye, New York, 10580,
Drive Time: 5 minutes

Prepared by Robert Goman

2013 Population 55+ by Race	Number	Percent	% Pop
Total	5,422	100.0%	34.6%
White Alone	4,968	91.6%	37.6%
Black Alone	112	2.1%	30.6%
American Indian Alone	6	0.1%	17.1%
Asian Alone	203	3.7%	17.9%
Pacific Islander Alone	0	0.0%	0.0%
Some Other Race Alone	86	1.6%	14.4%
Two or More Races	47	0.9%	13.5%
Hispanic Origin (Any Race)	364	6.7%	18.7%

Census 2010 Households and Age of Householder	Number	Percent	% Total HHs
Total	2,525	100.0%	42.8%
Family Households	1,440	57.0%	24.4%
Householder Age 55-64	692	27.4%	11.7%
Householder Age 65-74	392	15.5%	6.6%
Householder Age 75-84	246	9.7%	4.2%
Householder Age 85+	110	4.4%	1.9%
Nonfamily Households	1,085	43.0%	18.4%
Householder Age 55-64	270	10.7%	4.6%
Householder Age 65-74	257	10.2%	4.4%
Householder Age 75-84	277	11.0%	4.7%
Householder Age 85+	281	11.1%	4.8%

Census 2010 Occupied Housing Units by Age of Householder	Number	Percent	% Total HHs
Total	2,526	100.0%	42.8%
Owner Occupied Housing Units	1,798	71.2%	30.5%
Householder Age 55-64	715	28.3%	12.1%
Householder Age 65-74	507	20.1%	8.6%
Householder Age 75-84	378	15.0%	6.4%
Householder Age 85+	198	7.8%	3.4%
Renter Occupied Housing Units	728	28.8%	12.3%
Householder Age 55-64	248	9.8%	4.2%
Householder Age 65-74	142	5.6%	2.4%
Householder Age 75-84	145	5.7%	2.5%
Householder Age 85+	193	7.6%	3.3%

Data Note: A family is defined as a householder and one or more other people living in the same household who are related to the householder by birth, marriage, or adoption. Nonfamily households consist of people living alone and households that do not contain any members who are related to the householder. The base for "% Pop" is specific to the row. A Nonrelative is not related to the householder by birth, marriage, or adoption.

Source: U.S. Census Bureau, Census 2010 Summary File 1. Esri forecasts for 2013 and 2018.

Age 55+ Profile

120 Old Post Rd
120 Old Post Rd, Rye, New York, 10580,
Drive Time: 13 minutes

Prepared by Robert Goman

Demographic Summary	Census 2010	2013	2018	2013-2018 Change	2013-2018 Annual Rate
Total Population	194,677	195,142	198,781	3,639	0.37%
Population 55+	50,632	53,226	58,623	5,397	1.36%
Median Age	39.3	39.9	40.5	0.6	0.30%
Households	72,575	72,725	74,093	1,368	0.37%
% Householders 55+	43.1%	45.2%	48.2%	3.0	1.29%
Owner/Renter Ratio	1.4	1.4	1.4	0.0	0.00%
Median Home Value	-	$629,865	$852,654	$222,789	6.24%
Average Home Value	-	$706,169	$844,621	$138,452	3.65%
Median Household Income	-	$85,864	$100,543	$14,679	3.21%
Median Household Income for Householder 55+	-	$75,797	$91,667	$15,870	3.88%

Population by Age and Sex

	Census 2010		2013		2018	
Male Population	**Number**	**% of 55+**	**Number**	**% of 55+**	**Number**	**% of 55+**
Total (55+)	21,956	100.0%	23,442	100.0%	26,351	100.0%
55-59	5,687	25.9%	6,207	26.5%	6,789	25.8%
60-64	4,697	21.4%	5,067	21.6%	5,754	21.8%
65-69	3,472	15.8%	3,827	16.3%	4,599	17.5%
70-74	2,556	11.6%	2,789	11.9%	3,353	12.7%
75-79	2,201	10.0%	2,122	9.1%	2,348	8.9%
80-84	1,754	8.0%	1,738	7.4%	1,687	6.4%
85+	1,589	7.2%	1,692	7.2%	1,821	6.9%
	Census 2010		**2013**		**2018**	
Female	**Number**	**% of 55+**	**Number**	**% of 55+**	**Number**	**% of 55+**
Total (55+)	28,676	100.0%	29,784	100.0%	32,272	100.0%
55-59	6,249	21.8%	6,781	22.8%	7,305	22.6%
60-64	5,436	19.0%	5,744	19.3%	6,365	19.7%
65-69	4,235	14.8%	4,581	15.4%	5,300	16.4%
70-74	3,422	11.9%	3,629	12.2%	4,192	13.0%
75-79	3,031	10.6%	2,953	9.9%	3,157	9.8%
80-84	2,926	10.2%	2,616	8.8%	2,453	7.6%
85+	3,377	11.8%	3,480	11.7%	3,500	10.8%
	Census 2010		**2013**		**2018**	
Total Population	**Number**	**% of Total**	**Number**	**% of Total Pop**	**Number**	**% of Total**
Total (55+)	50,630	33.4%	53,225	34.9%	58,623	36.6%
55-59	11,935	6.1%	12,988	6.7%	14,094	7.1%
60-64	10,133	5.2%	10,810	5.5%	12,119	6.1%
65-69	7,707	4.0%	8,408	4.3%	9,899	5.0%
70-74	5,978	3.1%	6,418	3.3%	7,544	3.8%
75-79	5,232	2.7%	5,075	2.6%	5,505	2.8%
80-84	4,680	2.4%	4,354	2.2%	4,140	2.1%
85+	4,965	2.6%	5,172	2.7%	5,322	2.7%
65+	28,562	14.7%	29,427	15.1%	32,410	16.3%
75+	14,877	7.6%	14,601	7.5%	14,967	7.5%

Data Note - A "-" indicates that the variable was not collected in the 2010 Census.

Source: U.S. Census Bureau, Census 2010 Summary File 1. Esri forecasts for 2013 and 2018.

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Age 55+ Profile

120 Old Post Rd
120 Old Post Rd, Rye, New York, 10580,
Drive Time: 13 minutes

Prepared by Robert Goman

2013 Households by Income and Age of Householder 55+

	55-64	Percent	65-74	Percent	75+	Percent	Total	Percent
Total	13,819	100%	9,202	100%	9,847	100%	32,868	100%
<$15,000	873	6.3%	590	6.4%	1,388	14.1%	2,851	8.7%
$15,000-$24,999	632	4.6%	827	9.0%	1,262	12.8%	2,721	8.3%
$25,000-$34,999	845	6.1%	749	8.1%	1,221	12.4%	2,815	8.6%
$35,000-$49,999	1,219	8.8%	1,060	11.5%	1,151	11.7%	3,430	10.4%
$50,000-$74,999	1,622	11.7%	1,429	15.5%	1,430	14.5%	4,481	13.6%
$75,000-$99,999	1,426	10.3%	997	10.8%	894	9.1%	3,317	10.1%
$100,000-$149,999	2,354	17.0%	1,288	14.0%	890	9.0%	4,532	13.8%
$150,000-$199,999	1,441	10.4%	686	7.5%	536	5.4%	2,663	8.1%
$200,000+	3,407	24.7%	1,576	17.1%	1,074	10.9%	6,057	18.4%
Median HH Income	$104,339		$73,698		$48,335		$75,797	
Average HH Income	$153,984		$122,517		$90,290		$126,093	

2018 Households by Income and Age of Householder 55+

	55-64	Percent	65-74	Percent	75+	Percent	Total	Percent
Total	15,045	100%	10,702	100%	9,988	100%	35,735	100%
<$15,000	803	5.3%	596	5.6%	1,326	13.3%	2,725	7.6%
$15,000-$24,999	487	3.2%	735	6.9%	957	9.6%	2,179	6.1%
$25,000-$34,999	728	4.8%	740	6.9%	1,087	10.9%	2,555	7.1%
$35,000-$49,999	1,156	7.7%	1,071	10.0%	1,069	10.7%	3,296	9.2%
$50,000-$74,999	1,422	9.5%	1,391	13.0%	1,225	12.3%	4,038	11.3%
$75,000-$99,999	1,754	11.7%	1,321	12.3%	1,186	11.9%	4,261	11.9%
$100,000-$149,999	2,802	18.6%	1,713	16.0%	1,116	11.2%	5,631	15.8%
$150,000-$199,999	1,868	12.4%	1,020	9.5%	726	7.3%	3,614	10.1%
$200,000+	4,025	26.8%	2,113	19.7%	1,295	13.0%	7,433	20.8%
Median HH Income	$116,298		$88,863		$59,332		$91,667	
Average HH Income	$186,897		$152,307		$113,651		$156,066	

Data Note: Income is reported for July 1, 2013 and represents annual income for the preceding year, expressed in current (2012) dollars, including an adjustment for inflation. Income is reported for July 1, 2018 and represents annual income for the preceding year, expressed in current (2017) dollars, including an adjustment for inflation.

Source: U.S. Census Bureau, Census 2010 Summary File 1. Esri forecasts for 2013 and 2018.

Age 55+ Profile

120 Old Post Rd
120 Old Post Rd, Rye, New York, 10580,
Drive Time: 13 minutes

Prepared by Robert Goman

2013 Population 55+ by Race	Number	Percent	% Pop
Total	68,040	100.0%	34.9%
White Alone	56,442	83.0%	39.7%
Black Alone	5,087	7.5%	34.2%
American Indian Alone	143	0.2%	18.4%
Asian Alone	2,756	4.1%	23.3%
Pacific Islander Alone	11	0.0%	9.6%
Some Other Race Alone	2,635	3.9%	13.9%
Two or More Races	966	1.4%	15.6%
Hispanic Origin (Any Race)	8,972	13.2%	17.9%

Census 2010 Households and Age of Householder	Number	Percent	% Total HHs
Total	31,283	100.0%	43.1%
Family Households	18,101	57.9%	24.9%
Householder Age 55-64	8,685	27.8%	12.0%
Householder Age 65-74	5,028	16.1%	6.9%
Householder Age 75-84	3,233	10.3%	4.5%
Householder Age 85+	1,155	3.7%	1.6%
Nonfamily Households	13,182	42.1%	18.2%
Householder Age 55-64	4,112	13.1%	5.7%
Householder Age 65-74	3,447	11.0%	4.7%
Householder Age 75-84	3,389	10.8%	4.7%
Householder Age 85+	2,234	7.1%	3.1%

Census 2010 Occupied Housing Units by Age of Householder	Number	Percent	% Total HHs
Total	31,281	100.0%	43.1%
Owner Occupied Housing Units	22,169	70.9%	30.5%
Householder Age 55-64	8,905	28.5%	12.3%
Householder Age 65-74	6,144	19.6%	8.5%
Householder Age 75-84	4,833	15.5%	6.7%
Householder Age 85+	2,287	7.3%	3.2%
Renter Occupied Housing Units	9,112	29.1%	12.6%
Householder Age 55-64	3,892	12.4%	5.4%
Householder Age 65-74	2,331	7.5%	3.2%
Householder Age 75-84	1,788	5.7%	2.5%
Householder Age 85+	1,101	3.5%	1.5%

Data Note: A family is defined as a householder and one or more other people living in the same household who are related to the householder by birth, marriage, or adoption. Nonfamily households consist of people living alone and households that do not contain any members who are related to the householder. The base for "% Pop" is specific to the row. A Nonrelative is not related to the householder by birth, marriage, or adoption.

Source: U.S. Census Bureau, Census 2010 Summary File 1. Esri forecasts for 2013 and 2018.

Age 55+ Profile

120 Old Post Rd
120 Old Post Rd, Rye, New York, 10580,
Drive Time: 23 minutes

Prepared by Robert Goman

Demographic Summary	Census 2010	2013	2018	2013-2018 Change	2013-2018 Annual Rate
Total Population	1,280,138	1,285,824	1,313,850	28,025	0.43%
Population 55+	327,938	346,633	383,997	37,364	1.41%
Median Age	38.5	38.9	39.4	0.5	0.26%
Households	480,532	482,959	493,813	10,854	0.45%
% Householders 55+	42.0%	44.0%	47.1%	3.1	1.37%
Owner/Renter Ratio	1.0	1.0	1.0	0.0	0.00%
Median Home Value	-	$479,179	$650,510	$171,331	6.30%
Average Home Value	-	$568,406	$686,423	$118,017	3.85%
Median Household Income	-	$62,950	$76,657	$13,707	4.02%
Median Household Income for Householder 55+	-	$57,134	$69,130	$11,996	3.89%

Population by Age and Sex

	Census 2010		2013		2018	
Male Population	**Number**	**% of 55+**	**Number**	**% of 55+**	**Number**	**% of 55+**
Total (55+)	139,502	100.0%	149,114	100.0%	167,319	100.0%
55-59	36,286	26.0%	39,041	26.2%	41,761	25.0%
60-64	30,956	22.2%	33,226	22.3%	36,691	21.9%
65-69	22,612	16.2%	25,051	16.8%	29,744	17.8%
70-74	16,645	11.9%	18,223	12.2%	22,419	13.4%
75-79	13,563	9.7%	13,548	9.1%	15,592	9.3%
80-84	10,459	7.5%	10,353	6.9%	10,516	6.3%
85+	8,981	6.4%	9,672	6.5%	10,596	6.3%
	Census 2010		**2013**		**2018**	
Female	**Number**	**% of 55+**	**Number**	**% of 55+**	**Number**	**% of 55+**
Total (55+)	237,453	100.0%	197,519	100.0%	216,678	100.0%
55-59	42,429	17.9%	45,084	22.8%	47,600	22.0%
60-64	37,244	15.7%	39,843	20.2%	43,138	19.9%
65-69	28,713	12.1%	31,469	15.9%	37,024	17.1%
70-74	22,876	9.6%	24,534	12.4%	29,448	13.6%
75-79	19,701	8.3%	19,599	9.9%	22,058	10.2%
80-84	17,538	7.4%	16,415	8.3%	16,253	7.5%
85+	19,935	8.4%	20,575	10.4%	21,157	9.8%
	Census 2010		**2013**		**2018**	
Total Population	**Number**	**% of Total**	**Number**	**% of Total Pop**	**Number**	**% of Total**
Total (55+)	420,226	32.8%	346,631	34.3%	383,998	36.0%
55-59	78,715	6.1%	84,125	6.5%	89,361	6.8%
60-64	68,200	5.3%	73,069	5.7%	79,830	6.1%
65-69	51,325	4.0%	56,519	4.4%	66,768	5.1%
70-74	39,521	3.1%	42,756	3.3%	51,867	3.9%
75-79	33,264	2.6%	33,147	2.6%	37,650	2.9%
80-84	27,997	2.2%	26,768	2.1%	26,769	2.0%
85+	28,916	2.3%	30,247	2.4%	31,753	2.4%
65+	181,023	14.1%	189,437	14.7%	214,807	16.3%
75+	90,177	7.0%	90,162	7.0%	96,172	7.3%

Data Note - A "-" indicates that the variable was not collected in the 2010 Census.
Source: U.S. Census Bureau, Census 2010 Summary File 1. Esri forecasts for 2013 and 2018.

Age 55+ Profile

120 Old Post Rd
120 Old Post Rd, Rye, New York, 10580,
Drive Time: 23 minutes

Prepared by Robert Goman

2013 Households by Income and Age of Householder 55+

	55-64	Percent	65-74	Percent	75+	Percent	Total	Percent
Total	92,994	100%	61,180	100%	58,445	100%	212,619	100%
<$15,000	9,714	10.4%	6,005	9.8%	10,193	17.4%	25,912	12.2%
$15,000-$24,999	5,645	6.1%	5,753	9.4%	8,852	15.1%	20,250	9.5%
$25,000-$34,999	7,041	7.6%	6,587	10.8%	7,022	12.0%	20,650	9.7%
$35,000-$49,999	10,995	11.8%	9,074	14.8%	7,379	12.6%	27,448	12.9%
$50,000-$74,999	13,840	14.9%	10,145	16.6%	8,972	15.4%	32,957	15.5%
$75,000-$99,999	10,321	11.1%	6,398	10.5%	5,348	9.2%	22,067	10.4%
$100,000-$149,999	14,875	16.0%	7,793	12.7%	4,959	8.5%	27,627	13.0%
$150,000-$199,999	7,560	8.1%	3,639	5.9%	2,277	3.9%	13,476	6.3%
$200,000+	13,001	14.0%	5,786	9.5%	3,443	5.9%	22,230	10.5%
Median HH Income	$73,179		$55,920		$40,316		$57,134	
Average HH Income	$113,965		$92,666		$69,820		$95,701	

2018 Households by Income and Age of Householder 55+

	55-64	Percent	65-74	Percent	75+	Percent	Total	Percent
Total	98,857	100%	72,140	100%	61,816	100%	232,813	100%
<$15,000	9,401	9.5%	6,661	9.2%	10,606	17.2%	26,668	11.5%
$15,000-$24,999	4,433	4.5%	5,387	7.5%	7,150	11.6%	16,970	7.3%
$25,000-$34,999	6,462	6.5%	7,147	9.9%	6,854	11.1%	20,463	8.8%
$35,000-$49,999	10,593	10.7%	9,737	13.5%	7,376	11.9%	27,706	11.9%
$50,000-$74,999	11,988	12.1%	9,975	13.8%	8,117	13.1%	30,080	12.9%
$75,000-$99,999	12,941	13.1%	8,947	12.4%	7,431	12.0%	29,319	12.6%
$100,000-$149,999	18,062	18.3%	10,869	15.1%	6,688	10.8%	35,619	15.3%
$150,000-$199,999	9,808	9.9%	5,522	7.7%	3,268	5.3%	18,598	8.0%
$200,000+	15,170	15.3%	7,895	10.9%	4,325	7.0%	27,390	11.8%
Median HH Income	$85,945		$66,085		$47,214		$69,130	
Average HH Income	$136,200		$111,712		$84,884		$114,987	

Data Note: Income is reported for July 1, 2013 and represents annual income for the preceding year, expressed in current (2012) dollars, including an adjustment for inflation. Income is reported for July 1, 2018 and represents annual income for the preceding year, expressed in current (2017) dollars, including an adjustment for inflation.
Source: U.S. Census Bureau, Census 2010 Summary File 1. Esri forecasts for 2013 and 2018.

Age 55+ Profile

120 Old Post Rd
120 Old Post Rd, Rye, New York, 10580,
Drive Time: 23 minutes

Prepared by Robert Goman

2013 Population 55+ by Race	Number	Percent	% Pop
Total	441,145	100.0%	34.3%
White Alone	285,754	64.8%	40.6%
Black Alone	100,257	22.7%	32.2%
American Indian Alone	1,384	0.3%	19.8%
Asian Alone	21,128	4.8%	25.9%
Pacific Islander Alone	142	0.0%	20.6%
Some Other Race Alone	23,183	5.3%	17.1%
Two or More Races	9,297	2.1%	20.1%
Hispanic Origin (Any Race)	74,484	16.9%	21.5%

Census 2010 Households and Age of Householder	Number	Percent	% Total HHs
Total	201,619	100.0%	42.0%
Family Households	114,945	57.0%	23.9%
Householder Age 55-64	56,958	28.3%	11.9%
Householder Age 65-74	32,378	16.1%	6.7%
Householder Age 75-84	19,283	9.6%	4.0%
Householder Age 85+	6,326	3.1%	1.3%
Nonfamily Households	86,674	43.0%	18.0%
Householder Age 55-64	30,146	15.0%	6.3%
Householder Age 65-74	23,734	11.8%	4.9%
Householder Age 75-84	20,543	10.2%	4.3%
Householder Age 85+	12,251	6.1%	2.5%

Census 2010 Occupied Housing Units by Age of Householder	Number	Percent	% Total HHs
Total	201,619	100.0%	42.0%
Owner Occupied Housing Units	123,716	61.4%	25.7%
Householder Age 55-64	52,066	25.8%	10.8%
Householder Age 65-74	35,049	17.4%	7.3%
Householder Age 75-84	25,716	12.8%	5.4%
Householder Age 85+	10,885	5.4%	2.3%
Renter Occupied Housing Units	77,903	38.6%	16.2%
Householder Age 55-64	35,037	17.4%	7.3%
Householder Age 65-74	21,063	10.4%	4.4%
Householder Age 75-84	14,111	7.0%	2.9%
Householder Age 85+	7,692	3.8%	1.6%

Data Note: A family is defined as a householder and one or more other people living in the same household who are related to the householder by birth, marriage, or adoption. Nonfamily households consist of people living alone and households that do not contain any members who are related to the householder. The base for "% Pop" is specific to the row. A Nonrelative is not related to the householder by birth, marriage, or adoption.

Source: U.S. Census Bureau, Census 2010 Summary File 1. Esri forecasts for 2013 and 2018.

November 25, 2014

GOMAN+YORK
NOVEMBER 2014

Housing Profile

120 old post rd
120 Old Post Rd, Rye, New York, 10580, 5, 13, 23 DT
Drive Time: 5 minutes

Prepared by Robert Goman

Population		Households	
2010 Total Population	15,771	2013 Median Household Income	$114,475
2013 Total Population	15,686	2018 Median Household Income	$130,946
2018 Total Population	15,805	2013-2018 Annual Rate	2.73%
2013-2018 Annual Rate	0.15%		

	Census 2010		2013		2018	
Housing Units by Occupancy Status and Tenure	**Number**	**Percent**	**Number**	**Percent**	**Number**	**Percent**
Total Housing Units	6,412	100.0%	6,379	100.0%	6,508	100.0%
Occupied	5,896	92.0%	5,872	92.1%	5,925	91.0%
Owner	3,726	58.1%	3,676	57.6%	3,840	59.0%
Renter	2,170	33.8%	2,196	34.4%	2,085	32.0%
Vacant	516	8.0%	507	7.9%	583	9.0%

	2013		2018	
Owner Occupied Housing Units by Value	**Number**	**Percent**	**Number**	**Percent**
Total	3,676	100.0%	3,840	100.0%
<$50,000	4	0.1%	0	0.0%
$50,000-$99,999	30	0.8%	1	0.0%
$100,000-$149,999	57	1.6%	8	0.2%
$150,000-$199,999	74	2.0%	33	0.9%
$200,000-$249,999	84	2.3%	58	1.5%
$250,000-$299,999	133	3.6%	56	1.5%
$300,000-$399,999	368	10.0%	70	1.8%
$400,000-$499,999	395	10.7%	179	4.7%
$500,000-$749,999	852	23.2%	366	9.5%
$750,000-$999,999	589	16.0%	1,592	41.5%
$1,000,000+	1,090	29.7%	1,477	38.5%
Median Value	$703,332		$930,553	
Average Value	$760,373		$939,878	

Source: U.S. Census Bureau, Census 2010 Summary File 1. Esri forecasts for 2013 and 2018

April 13, 2014

Housing Profile

120 old post rd
120 Old Post Rd, Rye, New York, 10580, 5, 13, 23 DT
Drive Time: 5 minutes

Prepared by Robert Goman

Census 2010 Owner Occupied Housing Units by Mortgage Status	**Number**	**Percent**
Total	3,726	100.0%
Owned with a Mortgage/Loan	2,480	66.6%
Owned Free and Clear	1,246	33.4%

Census 2010 Vacant Housing Units by Status	**Number**	**Percent**
Total	516	100.0%
For Rent	155	30.0%
Rented- Not Occupied	8	1.6%
For Sale Only	53	10.3%
Sold - Not Occupied	37	7.2%
Seasonal/Recreational/Occasional Use	57	11.0%
For Migrant Workers	0	0.0%
Other Vacant	134	26.0%

Census 2010 Occupied Housing Units by Age of Householder and Home Ownership

		Owner Occupied Units	
	Occupied Units	**Number**	**% of Occupied**
Total	5,898	3,728	63.2%
15-24	76	11	14.5%
25-34	560	168	30.0%
35-44	1,241	697	56.2%
45-54	1,495	1,054	70.5%
55-64	963	715	74.2%
65-74	649	507	78.1%
75-84	523	378	72.3%
85+	391	198	50.6%

Census 2010 Occupied Housing Units by Race/Ethnicity of Householder and Home Ownership

		Owner Occupied Units	
	Occupied Units	**Number**	**% of Occupied**
Total	5,896	3,726	63.2%
White Alone	5,203	3,515	67.6%
Black/African American	133	35	26.3%
American Indian/Alaska	11	3	27.3%
Asian Alone	328	113	34.5%
Pacific Islander Alone	1	0	0.0%
Other Race Alone	145	31	21.4%
Two or More Races	75	29	38.7%
Hispanic Origin	497	160	32.2%

Census 2010 Occupied Housing Units by Size and Home Ownership

		Owner Occupied Units	
	Occupied Units	**Number**	**% of Occupied**
Total	5,897	3,726	63.2%
1-Person	1,595	760	47.6%
2-Person	1,529	1,044	68.3%
3-Person	904	588	65.0%
4-Person	1,087	735	67.6%
5-Person	554	427	77.1%
6-Person	165	128	77.6%
7+ Person	63	44	69.8%

Data Note: Persons of Hispanic Origin may be of any race.
Source: U.S. Census Bureau, Census 2010 Summary File 1.

April 13, 2014

Housing Profile

120 old post rd
120 Old Post Rd, Rye, New York, 10580, 5, 13, 23 DT
Drive Time: 13 minutes

Prepared by Robert Goman

Population		Households	
2010 Total Population	194,677	2013 Median Household Income	$85,864
2013 Total Population	195,142	2018 Median Household Income	$100,543
2018 Total Population	198,781	2013-2018 Annual Rate	3.21%
2013-2018 Annual Rate	0.37%		

	Census 2010		2013		2018	
Housing Units by Occupancy Status and Tenure	**Number**	**Percent**	**Number**	**Percent**	**Number**	**Percent**
Total Housing Units	78,349	100.0%	78,660	100.0%	79,864	100.0%
Occupied	72,574	92.6%	72,726	92.5%	74,093	92.8%
Owner	42,649	54.4%	41,999	53.4%	43,813	54.9%
Renter	29,925	38.2%	30,727	39.1%	30,280	37.9%
Vacant	5,774	7.4%	5,935	7.5%	5,771	7.2%

	2013		2018	
Owner Occupied Housing Units by Value	**Number**	**Percent**	**Number**	**Percent**
Total	41,997	100.0%	43,813	100.0%
<$50,000	100	0.2%	10	0.0%
$50,000-$99,999	496	1.2%	54	0.1%
$100,000-$149,999	774	1.8%	133	0.3%
$150,000-$199,999	1,274	3.0%	528	1.2%
$200,000-$249,999	1,487	3.5%	1,044	2.4%
$250,000-$299,999	1,950	4.6%	1,350	3.1%
$300,000-$399,999	4,471	10.6%	2,058	4.7%
$400,000-$499,999	5,174	12.3%	3,673	8.4%
$500,000-$749,999	10,148	24.2%	7,400	16.9%
$750,000-$999,999	5,231	12.5%	13,774	31.4%
$1,000,000+	10,892	25.9%	13,789	31.5%
Median Value	$629,865		$852,654	
Average Value	$706,169		$844,621	

Source: U.S. Census Bureau, Census 2010 Summary File 1. Esri forecasts for 2013 and 2018

April 13, 2014

Housing Profile

120 old post rd
120 Old Post Rd, Rye, New York, 10580, 5, 13, 23 DT
Drive Time: 13 minutes

Prepared by Robert Goman

Census 2010 Owner Occupied Housing Units by Mortgage Status	**Number**	**Percent**
Total	42,649	100.0%
Owned with a Mortgage/Loan	28,737	67.4%
Owned Free and Clear	13,912	32.6%

Census 2010 Vacant Housing Units by Status	**Number**	**Percent**
Total	5,774	100.0%
For Rent	1,966	34.0%
Rented- Not Occupied	126	2.2%
For Sale Only	1,051	18.2%
Sold - Not Occupied	229	4.0%
Seasonal/Recreational/Occasional Use	845	14.6%
For Migrant Workers	1	0.0%
Other Vacant	1,563	27.1%

		Owner Occupied Units	
Census 2010 Occupied Housing Units by Age of Householder and Home Ownership	**Occupied Units**	**Number**	**% of Occupied**
Total	72,575	42,650	58.8%
15-24	1,301	142	10.9%
25-34	9,357	2,803	30.0%
35-44	14,386	7,328	50.9%
45-54	16,250	10,208	62.8%
55-64	12,797	8,905	69.6%
65-74	8,475	6,144	72.5%
75-84	6,621	4,833	73.0%
85+	3,388	2,287	67.5%

		Owner Occupied Units	
Census 2010 Occupied Housing Units by Race/Ethnicity of Householder and Home Ownership	**Occupied Units**	**Number**	**% of Occupied**
Total	72,576	42,650	58.8%
White Alone	57,264	37,915	66.2%
Black/African American	5,705	1,746	30.6%
American Indian/Alaska	191	43	22.5%
Asian Alone	3,590	1,696	47.2%
Pacific Islander Alone	29	4	13.8%
Other Race Alone	4,317	796	18.4%
Two or More Races	1,480	450	30.4%
Hispanic Origin	12,195	3,167	26.0%

		Owner Occupied Units	
Census 2010 Occupied Housing Units by Size and Home Ownership	**Occupied Units**	**Number**	**% of Occupied**
Total	72,576	42,650	58.8%
1-Person	20,823	10,607	50.9%
2-Person	20,707	13,321	64.3%
3-Person	11,301	6,733	59.6%
4-Person	10,926	6,912	63.3%
5-Person	5,402	3,447	63.8%
6-Person	1,991	1,069	53.7%
7+ Person	1,426	561	39.3%

Data Note: Persons of Hispanic Origin may be of any race.
Source: U.S. Census Bureau, Census 2010 Summary File 1.

April 13, 2014

Housing Profile

120 old post rd
120 Old Post Rd, Rye, New York, 10580, 5, 13, 23 DT
Drive Time: 23 minutes

Prepared by Robert Goman

Population		Households	
2010 Total Population	1,280,138	2013 Median Household Income	$62,950
2013 Total Population	1,285,824	2018 Median Household Income	$76,657
2018 Total Population	1,313,850	2013-2018 Annual Rate	4.02%
2013-2018 Annual Rate	0.43%		

	Census 2010		2013		2018	
Housing Units by Occupancy Status and Tenure	**Number**	**Percent**	**Number**	**Percent**	**Number**	**Percent**
Total Housing Units	511,672	100.0%	515,655	100.0%	526,562	100.0%
Occupied	480,532	93.9%	482,959	93.7%	493,814	93.8%
Owner	242,638	47.4%	240,160	46.6%	252,421	47.9%
Renter	237,894	46.5%	242,799	47.1%	241,393	45.8%
Vacant	31,140	6.1%	32,696	6.3%	32,749	6.2%

	2013		2018	
Owner Occupied Housing Units by Value	**Number**	**Percent**	**Number**	**Percent**
Total	240,051	100.0%	252,298	100.0%
<$50,000	1,410	0.6%	190	0.1%
$50,000-$99,999	6,567	2.7%	1,342	0.5%
$100,000-$149,999	6,306	2.6%	1,840	0.7%
$150,000-$199,999	8,407	3.5%	7,879	3.1%
$200,000-$249,999	10,573	4.4%	9,863	3.9%
$250,000-$299,999	14,379	6.0%	11,576	4.6%
$300,000-$399,999	39,260	16.4%	23,583	9.3%
$400,000-$499,999	41,834	17.4%	33,603	13.3%
$500,000-$749,999	59,270	24.7%	60,250	23.9%
$750,000-$999,999	19,574	8.2%	60,481	24.0%
$1,000,000+	32,471	13.5%	41,691	16.5%
Median Value	$479,179		$650,510	
Average Value	$568,406		$686,423	

Source: U.S. Census Bureau, Census 2010 Summary File 1. Esri forecasts for 2013 and 2018

Housing Profile

120 old post rd
120 Old Post Rd, Rye, New York, 10580, 5, 13, 23 DT
Drive Time: 23 minutes

Prepared by Robert Goman

Census 2010 Owner Occupied Housing Units by Mortgage Status	**Number**	**Percent**
Total	242,638	100.0%
Owned with a Mortgage/Loan	167,449	69.0%
Owned Free and Clear	75,189	31.0%

Census 2010 Vacant Housing Units by Status	**Number**	**Percent**
Total	31,140	100.0%
For Rent	12,413	39.9%
Rented- Not Occupied	797	2.6%
For Sale Only	4,528	14.5%
Sold - Not Occupied	1,086	3.5%
Seasonal/Recreational/Occasional Use	3,301	10.6%
For Migrant Workers	5	0.0%
Other Vacant	9,029	29.0%

Census 2010 Occupied Housing Units by Age of Householder and Home Ownership		Owner Occupied Units	
	Occupied Units	**Number**	**% of Occupied**
Total	480,531	242,637	50.5%
15-24	10,797	1,293	12.0%
25-34	66,173	17,075	25.8%
35-44	94,295	42,446	45.0%
45-54	107,647	58,107	54.0%
55-64	87,103	52,066	59.8%
65-74	56,112	35,049	62.5%
75-84	39,827	25,716	64.6%
85+	18,577	10,885	58.6%

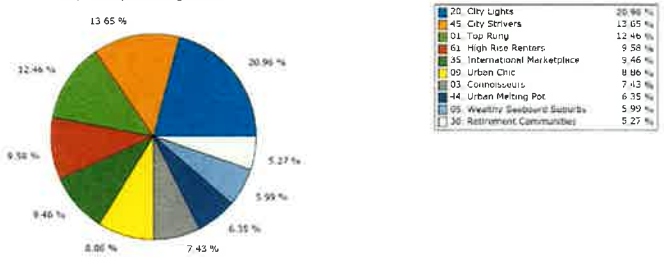
Census 2010 Occupied Housing Units by Race/Ethnicity of Householder and Home Ownership		Owner Occupied Units	
	Occupied Units	**Number**	**% of Occupied**
Total	480,532	242,638	50.5%
White Alone	285,600	177,262	62.1%
Black/African American	117,481	39,851	33.9%
American Indian/Alaska	2,072	525	25.3%
Asian Alone	24,091	12,223	50.7%
Pacific Islander Alone	203	50	24.6%
Other Race Alone	38,470	8,550	22.2%
Two or More Races	12,615	4,177	33.1%
Hispanic Origin	101,165	27,189	26.9%

Census 2010 Occupied Housing Units by Size and Home Ownership		Owner Occupied Units	
	Occupied Units	**Number**	**% of Occupied**
Total	480,531	242,638	50.5%
1-Person	140,255	58,207	41.5%
2-Person	134,804	73,259	54.3%
3-Person	79,960	40,738	50.9%
4-Person	68,520	39,343	57.4%
5-Person	34,130	19,454	57.0%
6-Person	13,165	6,999	53.2%
7+ Person	9,697	4,638	47.8%

Data Note: Persons of Hispanic Origin may be of any race.
Source: U.S. Census Bureau, Census 2010 Summary File 1.

April 13, 2014

Top 10 Tapestry Segments



Top 10 Tapestry Segments:

20. City Lights

The City Lights segment is composed of diverse neighborhoods situated primarily in the Northeast. This dense urban market is a mixture of housing, household types, and cultures that all share the same city space. Households include families and singles, similar to the U.S. distribution by household type. With a median age of 38.5 years, the population is slightly older than that of the U.S. Compared to the U.S. population, there are fewer children and slightly more people aged 75 or older. The ethnic or racial diversity is slightly higher than the U.S. level, with higher ratios of Asian, Hispanic, and multiracial populations. City Lights residents earn a good living working in white collar and service occupations. For additional information on this lifestyle, click here:
http://www.esri.com/~/media/Files/Pdfs/data/esri_data/pdfs/tapestry-singles/20_city_lights.pdf

45. City Strivers

Residents of this young, relatively diverse urban market have a median age of 33.8 years and a 68 percent mix of family types, such as married couples, single parents, and other families. Nearly eight in ten residents are black. The median household income is $36,621. Some households receive Supplemental Security Income or public assistance income. Education attainment levels are below those of the U.S.; approximately 44 percent of residents aged 25 years and older have attended college. Approximately half of employed residents work in the service and health care industry sectors in the city. Twenty-two percent of the residents who are employed are government workers, employed primarily by the local government. For additional information on this lifestyle, click here:
http://www.esri.com/~/media/Files/Pdfs/data/esri_data/pdfs/tapestry-singles/45_city_strivers.pdf

01. Top Rung

Residents of Top Rung neighborhoods are mature, married, highly educated, and wealthy. The median age is 45.0 years; one-third of the residents are in their peak earning years of 45–64. More than 77 percent of these households are composed of married couples; half of them have children. Except for the presence of children, this is a low-diversity, monochromatic market. Top Rung, the wealthiest consumer market, represents less than 1 percent of all U.S. households. The median household income of $173,172 is more than three-and-one- half times that of the U.S. median. For additional information on this lifestyle, click here:
http://www.esri.com/~/media/Files/Pdfs/data/esri_data/pdfs/tapestry-singles/01_top_rung.pdf

61. High Rise Renters

High Rise Renters residents are a diverse mix of race and ethnicity. More than half of the residents are Hispanic, mainly from Puerto Rico or the Dominican Republic. Forty percent of the residents are black, 21 percent are white, and 7 percent are of two or more races. A higher-than-average proportion (28 percent) of other races is also represented. Many residents speak a language other than English. Household types are mainly single parent and single person; however, a higher-than-average proportion of other family households is also present. Their median age of 31.9 years is younger than the U.S. median. For additional information on this lifestyle, click here:
http://www.esri.com/~/media/Files/Pdfs/data/esri_data/pdfs/tapestry-singles/61_high_rise_renters.pdf

Lifestyle Report

120 old post rd
120 Old Post Rd, Rye, New York, 10580, 5, 13, 23 DT
Drive Time: 23 minutes

Prepared by Robert Goman

35. International Marketplace

Located primarily in cities in "gateway" states on both U.S. coasts, International Marketplace neighborhoods are developing urban markets with a rich blend of cultures and household types. The population is young, with a median age of only 32 years. Approximately 70 percent of the households are families; 44 percent are married couples with children and single parents. The average family size is 3.7. International Marketplace is the second most diverse of the Tapestry segments. More than half of the total population is Hispanic; 11.6 percent is Asian, and 7 percent is of two or more races. A high proportion of immigrants, including recent arrivals, live in these neighborhoods. For additional information on this lifestyle, click here:
http://www.esri.com/~/media/Files/Pdfs/data/esri_data/pdfs/tapestry-singles/35_international_marketplace.pdf

09. Urban Chic

Urban Chic residents are professionals who live a sophisticated, exclusive lifestyle. More than half of these households are married-couple families, similar to the U.S. proportion. Fewer than half of them have children. Unlike the United States, there is a smaller proportion of single parents and a higher proportion of singles and shared households. The median age is 43 years; the diversity index is 48. A median household income of $91,298 enables residents of Urban Chic neighborhoods to live in style. They are well educated; more than half of residents aged 25 years and older hold a bachelor's or graduate degree; 80 percent have attended college. For additional information on this lifestyle, click here:
http://www.esri.com/~/media/Files/Pdfs/data/esri_data/pdfs/tapestry-singles/09_urban_chic.pdf

03. Connoisseurs

Residents of Connoisseurs neighborhoods are somewhat older, with a median age of 47.7 years. Approximately 70 percent of the population is married. Although residents appear closer to retirement than child-rearing age, 30 percent of the households are married couples with children living at home. Ethnic diversity is negligible. Connoisseurs are second in affluence only to the Top Rung segment. This market is well educated; 63 percent of the population aged 25 years and older hold a bachelor's or graduate degree. Employed residents earn wages from high-paying management, professional, and sales jobs. Many are self-employed; the rate is twice that of the national average. For additional information on this lifestyle, click here:
http://www.esri.com/~/media/Files/Pdfs/data/esri_data/pdfs/tapestry-singles/03_connoisseurs.pdf

44. Urban Melting Pot

Recently settled immigrants live in ethnically rich Urban Melting Pot neighborhoods. More than half of the population is foreign born; half of these have come to the U.S. in the last 10 years. The median age is 36.4 years, slightly younger than the U.S. median of 37.3. Distinctly diverse, more than one in four are Hispanic. Whites represent 47 percent of the population; Asians, 30 percent; and 6 percent are multiracial. Household types are equally diverse: 45 percent are married couple families; 30 percent are singles who live alone; single parents, other family types, and shared households also live in these neighborhoods. For additional information on this lifestyle, click here:
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05. Wealthy Seaboard Suburbs

Wealthy Seaboard Suburbs are older, established, affluent neighborhoods characteristic of U.S. coastal metropolitan areas. Two-thirds of the population aged 15+ years is married; more than half of the married couples have no children. The median age is 43.2 years. Ethnic diversity is low; most residents are white. Wealthy Seaboard Suburbs neighborhoods are affluent; the median household income is $98,852. Income is derived from a variety of sources; approximately 60 percent of the households receive supplemental income from interest, dividends, and rental properties; 23 percent collect retirement income. More than half of those who work hold professional or management positions. For additional information on this lifestyle, click here:
http://www.esri.com/~/media/Files/Pdfs/data/esri_data/pdfs/tapestry-singles/05_wealthy_seaboard_suburbs.pdf

30. Retirement Communities

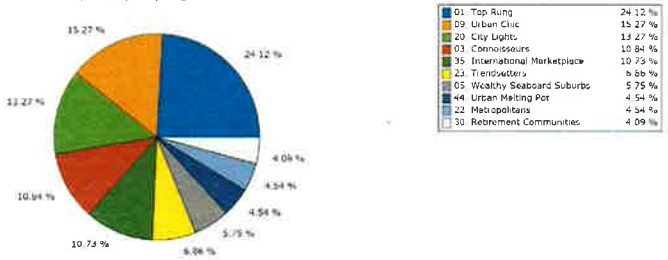
Most of the households in Retirement Communities neighborhoods are single seniors who live alone; a fourth is married couples with no children living at home. This older market has a median age of 50.9 years. One-third of the residents and 44 percent of householders are aged 65 years or older. Twenty-three percent of the population and 31 percent of householders are aged 75 years or older. Most of the residents are white. The median household income for Retirement Communities is $48,319, slightly below the U.S. median. Nearly half of the households earn income from interest, dividends, and rental properties; 45 percent receive Social Security benefits; and 26 percent receive retirement income. For additional information on this lifestyle, click here:
http://www.esri.com/~/media/Files/Pdfs/data/esri_data/pdfs/tapestry-singles/30_retirement_communities.pdf

Data Note: This report identifies neighborhood segments in the area, and describes the socioeconomic quality of the immediate neighborhood. The index is a comparison of the percent of households or population in the area, by Tapestry segment, to the percent of households or population in the United States, by segment. An index of 100 is the US average.
Source: Esri

April 13, 2014

GOMAN+YORK
NOVEMBER 2014

Top 10 Tapestry Segments



Top 10 Tapestry Segments:

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09. Urban Chic

Urban Chic residents are professionals who live a sophisticated, exclusive lifestyle. More than half of these households are married-couple families, similar to the U.S. proportion. Fewer than half of them have children. Unlike the United States, there is a smaller proportion of single parents and a higher proportion of singles and shared households. The median age is 43 years; the diversity index is 48. A median household income of $91,298 enables residents of Urban Chic neighborhoods to live in style. They are well educated; more than half of residents aged 25 years and older hold a bachelor's or graduate degree; 80 percent have attended college. For additional information on this lifestyle, click here:
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Source: Esri

GOMAN YORK

Lifestyle Report

120 old post rd
120 Old Post Rd, Rye, New York, 10580, 5, 13, 23 DT
Drive Time: 13 minutes

Prepared by Robert Goman

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Located primarily in cities in "gateway" states on both U.S. coasts, International Marketplace neighborhoods are developing urban markets with a rich blend of cultures and household types. The population is young, with a median age of only 32 years. Approximately 70 percent of the households are families; 44 percent are married couples with children and single parents. The average family size is 3.7. International Marketplace is the second most diverse of the Tapestry segments. More than half of the total population is Hispanic; 11.6 percent is Asian, and 7 percent is of two or more races. A high proportion of immigrants, including recent arrivals, live in these neighborhoods. For additional information on this lifestyle, click here:
http://www.esri.com/~/media/Files/Pdfs/data/esri_data/pdfs/tapestry-singles/35_international_marketplace.pdf

23. Trendsetters

On the cutting edge of urban style, Trendsetters residents are young, diverse, and mobile. More than half the households are singles who live alone or share the rent with a roommate. Families comprise the remainder. With a median age of 34.8 years, this segment is slightly younger than the U.S. median. Ethnically diverse, 13.7 percent of the residents are Asian and 23 percent are Hispanic; both percentages are well above those of the U.S. These residents are educated professionals who work in substantive jobs. Nineteen percent of the residents who are aged 25 years and older hold a graduate degree, 30 percent have earned a bachelor's degree, and 73 percent have attended college. For additional information on this lifestyle, click here:
http://www.esri.com/~/media/Files/Pdfs/data/esri_data/pdfs/tapestry-singles/23_trendsetters.pdf

05. Wealthy Seaboard Suburbs

Wealthy Seaboard Suburbs are older, established, affluent neighborhoods characteristic of U.S. coastal metropolitan areas. Two-thirds of the population aged 15+ years is married; more than half of the married couples have no children. The median age is 43.2 years. Ethnic diversity is low; most residents are white. Wealthy Seaboard Suburbs neighborhoods are affluent; the median household income is $98,852. Income is derived from a variety of sources; approximately 60 percent of the households receive supplemental income from interest, dividends, and rental properties; 23 percent collect retirement income. More than half of those who work hold professional or management positions. For additional information on this lifestyle, click here:
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22. Metropolitans

Residents of Metropolitans communities prefer to live in older city neighborhoods. Approximately half of these households are singles who live alone or with others; 40 percent are married-couple families. One in four of the residents is aged 20–34 years; the median age is 37.1 years. Diversity is low; most of the population is white. Half of the residents who are employed work in professional or managerial positions. More than 77 percent of the population aged 25 years and older have attended college or completed a degree program. Thirty percent have earned a bachelor's degree, and 22 percent hold a graduate degree. The median household income is $54,926. For additional information on this lifestyle, click here:
http://www.esri.com/~/media/Files/Pdfs/data/esri_data/pdfs/tapestry-singles/22_metropolitans.pdf

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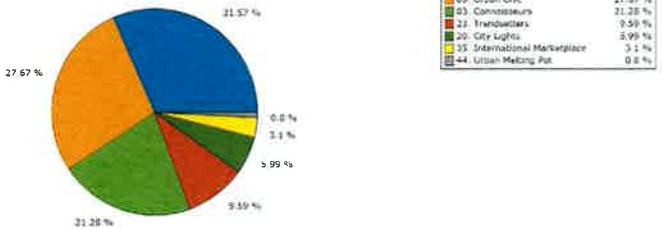
GOMAN+YORK
NOVEMBER 2014

Top 10 Tapestry Segments



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Lifestyle Report

120 old post rd
120 Old Post Rd, Rye, New York, 10580, 5, 13, 23 DT
Drive Time: 5 minutes

Prepared by Robert Goman

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44. Urban Melting Pot

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April 13, 2014

GOMAN+YORK
NOVEMBER 2014

Market Profile

120 old post rd
120 Old Post Rd, Rye, New York, 10580, 5, 13, 23 DT
Drive Time: 5, 13, 23 minutes

Prepared by Robert Goman

	0 - 5 minutes	0 - 13 minutes	0 - 23 minutes
Population Summary			
2000 Total Population	15,024	188,613	1,244,533
2010 Total Population	15,771	194,677	1,280,138
2013 Total Population	15,686	195,142	1,285,824
2013 Group Quarters	158	4,418	29,898
2018 Total Population	15,805	196,781	1,313,850
2013-2018 Annual Rate	0.15%	0.37%	0.43%
Household Summary			
2000 Households	5,743	71,508	469,699
2000 Average Household Size	2.60	2.60	2.60
2010 Households	5,896	72,575	480,532
2010 Average Household Size	2.65	2.62	2.60
2013 Households	5,872	72,725	482,959
2013 Average Household Size	2.64	2.62	2.60
2018 Households	5,925	74,093	493,813
2018 Average Household Size	2.64	2.62	2.60
2013-2018 Annual Rate	0.18%	0.37%	0.45%
2010 Families	4,089	47,872	315,302
2010 Average Family Size	3.26	3.22	3.23
2013 Families	4,060	47,854	316,078
2013 Average Family Size	3.26	3.22	3.22
2018 Families	4,071	48,461	321,151
2018 Average Family Size	3.26	3.23	3.23
2013-2018 Annual Rate	0.05%	0.25%	0.32%
Housing Unit Summary			
2000 Housing Units	5,990	73,982	490,221
Owner Occupied Housing Units	61.8%	56.4%	48.2%
Renter Occupied Housing Units	34.1%	40.2%	47.6%
Vacant Housing Units	4.1%	3.3%	4.2%
2010 Housing Units	6,412	78,349	511,672
Owner Occupied Housing Units	58.1%	54.4%	47.4%
Renter Occupied Housing Units	33.8%	38.2%	46.5%
Vacant Housing Units	8.0%	7.4%	6.1%
2013 Housing Units	6,379	78,660	515,655
Owner Occupied Housing Units	57.6%	53.4%	46.6%
Renter Occupied Housing Units	34.4%	39.1%	47.1%
Vacant Housing Units	7.9%	7.5%	6.3%
2018 Housing Units	6,508	79,864	526,562
Owner Occupied Housing Units	59.0%	54.9%	47.9%
Renter Occupied Housing Units	32.0%	37.9%	45.8%
Vacant Housing Units	9.0%	7.2%	6.2%
Median Household Income			
2013	$114,475	$85,864	$62,950
2018	$130,946	$100,543	$76,657
Median Home Value			
2013	$703,332	$629,865	$479,179
2018	$930,553	$852,654	$650,510
Per Capita Income			
2013	$61,544	$50,803	$38,559
2018	$76,101	$61,562	$45,805
Median Age			
2010	40.0	39.3	38.5
2013	40.5	39.9	38.9
2018	41.1	40.5	39.4

Data Note: Household population includes persons not residing in group quarters. Average Household Size is the household population divided by total households. Persons in families include the householder and persons related to the householder by birth, marriage, or adoption. Per Capita Income represents the income received by all persons aged 15 years and over divided by the total population.
Source: U.S. Census Bureau, Census 2010 Summary File 1. Esri forecasts for 2013 and 2018. Esri converted Census 2000 data into 2010 geography.

April 13, 2014

Market Profile

120 old post rd
120 Old Post Rd, Rye, New York, 10580, 5, 13, 23 DT
Drive Time: 5, 13, 23 minutes

Prepared by Robert Goman

	0 - 5 minutes	0 - 13 minutes	0 - 23 minutes
2013 Households by Income			
Household Income Base	5,872	72,725	482,959
<$15,000	6.4%	7.1%	10.8%
$15,000 - $24,999	4.2%	6.6%	8.0%
$25,000 - $34,999	2.9%	7.7%	9.1%
$35,000 - $49,999	7.1%	9.8%	12.6%
$50,000 - $74,999	13.0%	13.5%	15.7%
$75,000 - $99,999	10.1%	10.9%	11.2%
$100,000 - $149,999	16.6%	15.8%	14.6%
$150,000 - $199,999	10.5%	8.7%	6.8%
$200,000+	29.0%	20.0%	11.2%
Average Household Income	$168,314	$135,087	$101,518
2018 Households by Income			
Household Income Base	5,925	74,093	493,813
<$15,000	5.2%	6.2%	10.1%
$15,000 - $24,999	2.9%	4.9%	6.1%
$25,000 - $34,999	2.5%	6.3%	8.1%
$35,000 - $49,999	5.7%	8.5%	11.5%
$50,000 - $74,999	9.3%	11.1%	13.1%
$75,000 - $99,999	11.4%	12.6%	13.3%
$100,000 - $149,999	18.6%	17.7%	16.9%
$150,000 - $199,999	12.6%	10.7%	8.5%
$200,000+	31.8%	21.9%	12.4%
Average Household Income	$207,993	$163,973	$120,756
2013 Owner Occupied Housing Units by Value			
Total	3,676	41,998	240,052
<$50,000	0.1%	0.2%	0.6%
$50,000 - $99,999	0.8%	1.2%	2.7%
$100,000 - $149,999	1.6%	1.8%	2.6%
$150,000 - $199,999	2.0%	3.0%	3.5%
$200,000 - $249,999	2.3%	3.5%	4.4%
$250,000 - $299,999	3.6%	4.6%	6.0%
$300,000 - $399,999	10.0%	10.6%	16.4%
$400,000 - $499,999	10.7%	12.3%	17.4%
$500,000 - $749,999	23.2%	24.2%	24.7%
$750,000 - $999,999	16.0%	12.5%	8.2%
$1,000,000 +	29.7%	25.9%	13.5%
Average Home Value	$760,373	$706,169	$568,406
2018 Owner Occupied Housing Units by Value			
Total	3,840	43,813	252,300
<$50,000	0.0%	0.0%	0.1%
$50,000 - $99,999	0.0%	0.1%	0.5%
$100,000 - $149,999	0.2%	0.3%	0.7%
$150,000 - $199,999	0.9%	1.2%	3.1%
$200,000 - $249,999	1.5%	2.4%	3.9%
$250,000 - $299,999	1.5%	3.1%	4.6%
$300,000 - $399,999	1.8%	4.7%	9.3%
$400,000 - $499,999	4.7%	8.4%	13.3%
$500,000 - $749,999	9.5%	16.9%	23.9%
$750,000 - $999,999	41.5%	31.4%	24.0%
$1,000,000 +	38.5%	31.5%	16.5%
Average Home Value	$939,878	$844,621	$686,423

Data Note: Income represents the preceding year, expressed in current dollars. Household income includes wage and salary earnings, interest dividends, net rents, pensions, SSI and welfare payments, child support, and alimony.
Source: U.S. Census Bureau, Census 2010 Summary File 1. Esri forecasts for 2013 and 2018. Esri converted Census 2000 data into 2010 geography.

April 13, 2014

GOMAN+YORK
NOVEMBER 2014

Market Profile

120 old post rd
120 Old Post Rd, Rye, New York, 10580, 5, 13, 23 DT
Drive Time: 5, 13, 23 minutes

Prepared by Robert Goman

	0 - 5 minutes	0 - 13 minutes	0 - 23 minutes
2010 Population by Age			
Total	15,770	194,679	1,280,139
0 - 4	7.0%	6.2%	6.3%
5 - 9	8.9%	6.7%	6.4%
10 - 14	9.0%	6.8%	6.6%
15 - 24	9.9%	11.7%	12.9%
25 - 34	8.5%	12.6%	13.2%
35 - 44	15.3%	14.8%	14.1%
45 - 54	16.8%	15.3%	14.9%
55 - 64	10.0%	11.3%	11.5%
65 - 74	6.5%	7.0%	7.1%
75 - 84	4.9%	5.1%	4.8%
85 +	3.4%	2.6%	2.3%
18 +	70.1%	76.1%	76.5%
2013 Population by Age			
Total	15,685	195,142	1,285,822
0 - 4	6.4%	5.9%	6.0%
5 - 9	8.2%	6.6%	6.4%
10 - 14	9.5%	7.1%	6.7%
15 - 24	11.7%	12.2%	13.0%
25 - 34	7.9%	12.1%	12.9%
35 - 44	13.3%	13.8%	13.4%
45 - 54	16.8%	15.1%	14.6%
55 - 64	11.4%	12.2%	12.2%
65 - 74	6.9%	7.6%	7.7%
75 - 84	4.5%	4.8%	4.7%
85 +	3.3%	2.7%	2.4%
18 +	70.8%	76.4%	76.9%
2018 Population by Age			
Total	15,807	198,781	1,313,851
0 - 4	6.1%	5.8%	5.9%
5 - 9	7.8%	6.4%	6.2%
10 - 14	9.3%	7.1%	6.8%
15 - 24	12.2%	11.8%	12.5%
25 - 34	8.1%	11.7%	12.7%
35 - 44	11.5%	13.3%	13.0%
45 - 54	16.0%	14.4%	13.6%
55 - 64	13.8%	13.2%	12.9%
65 - 74	7.7%	8.8%	9.0%
75 - 84	4.4%	4.9%	4.9%
85 +	3.0%	2.7%	2.4%
18 +	71.6%	76.6%	77.2%
2010 Population by Sex			
Males	7,567	94,606	606,410
Females	8,204	100,071	673,728
2013 Population by Sex			
Males	7,564	95,201	610,686
Females	8,122	99,941	675,138
2018 Population by Sex			
Males	7,657	97,492	626,258
Females	8,148	101,289	687,592

Source: U.S. Census Bureau, Census 2010 Summary File 1. Esri forecasts for 2013 and 2018. Esri converted Census 2000 data into 2010 geography

April 13, 2014

Market Profile

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120 Old Post Rd, Rye, New York, 10580, 5, 13, 23 DT
Drive Time: 5, 13, 23 minutes

Prepared by Robert Goman

	0 - 5 minutes	0 - 13 minutes	0 - 23 minutes
2010 Population by Race/Ethnicity			
Total	15,771	194,676	1,280,137
White Alone	85.2%	74.3%	55.6%
Black Alone	2.3%	7.5%	24.3%
American Indian Alone	0.2%	0.4%	0.5%
Asian Alone	6.8%	5.8%	6.0%
Pacific Islander Alone	0.0%	0.1%	0.1%
Some Other Race Alone	3.5%	9.0%	10.1%
Two or More Races	2.0%	3.0%	3.3%
Hispanic Origin	11.3%	23.9%	25.6%
Diversity Index	41.6	64.3	77.0
2013 Population by Race/Ethnicity			
Total	15,685	195,143	1,285,823
White Alone	84.2%	72.9%	54.7%
Black Alone	2.3%	7.6%	24.2%
American Indian Alone	0.2%	0.4%	0.5%
Asian Alone	7.2%	6.1%	6.3%
Pacific Islander Alone	0.0%	0.1%	0.1%
Some Other Race Alone	3.8%	9.7%	10.5%
Two or More Races	2.2%	3.2%	3.6%
Hispanic Origin	12.4%	25.7%	26.9%
Diversity Index	44.1	66.5	78.0
2018 Population by Race/Ethnicity			
Total	15,804	198,782	1,313,849
White Alone	82.5%	70.8%	53.3%
Black Alone	2.4%	7.8%	24.1%
American Indian Alone	0.2%	0.4%	0.6%
Asian Alone	8.0%	6.6%	6.9%
Pacific Islander Alone	0.0%	0.1%	0.1%
Some Other Race Alone	4.4%	10.8%	11.2%
Two or More Races	2.5%	3.5%	3.9%
Hispanic Origin	14.6%	28.8%	29.3%
Diversity Index	48.4	69.8	79.7
2010 Population by Relationship and Household Type			
Total	15,771	194,677	1,280,138
In Households	99.0%	97.7%	97.7%
In Family Households	86.1%	82.1%	82.2%
Householder	25.4%	24.6%	24.6%
Spouse	21.4%	19.1%	16.4%
Child	35.6%	30.7%	32.5%
Other relative	2.3%	4.9%	6.0%
Nonrelative	1.4%	2.9%	2.7%
In Nonfamily Households	12.9%	15.6%	15.5%
In Group Quarters	1.0%	2.3%	2.3%
Institutionalized Population	0.8%	0.6%	1.0%
Noninstitutionalized Population	0.2%	1.7%	1.3%

Data Note: Persons of Hispanic Origin may be of any race. The Diversity Index measures the probability that two people from the same area will be from different race/ethnic groups.
Source: U.S. Census Bureau, Census 2010 Summary File 1. Esri forecasts for 2013 and 2018. Esri converted Census 2000 data into 2010 geography.

April 13, 2014

GOMAN YORK

Market Profile

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Prepared by Robert Goman

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2013 Population 25+ by Educational Attainment			
Total	10,069	133,304	872,305
Less than 9th Grade	2.1%	7.2%	7.6%
9th - 12th Grade, No Diploma	4.0%	5.0%	7.6%
High School Graduate	15.3%	21.2%	24.7%
Some College, No Degree	10.6%	12.3%	15.3%
Associate Degree	6.4%	5.3%	6.5%
Bachelor's Degree	33.7%	24.9%	20.7%
Graduate/Professional Degree	27.9%	24.1%	17.6%
2013 Population 15+ by Marital Status			
Total	11,902	157,048	1,040,062
Never Married	24.7%	30.8%	36.1%
Married	61.8%	54.8%	48.5%
Widowed	7.3%	6.6%	6.8%
Divorced	6.3%	7.7%	8.6%
2013 Civilian Population 16+ in Labor Force			
Civilian Employed	90.4%	91.1%	90.0%
Civilian Unemployed	9.6%	8.9%	10.0%
2013 Employed Population 16+ by Industry			
Total	6,666	95,209	591,245
Agriculture/Mining	0.2%	0.1%	0.1%
Construction	6.4%	6.6%	5.6%
Manufacturing	3.2%	4.9%	4.2%
Wholesale Trade	2.3%	2.5%	2.0%
Retail Trade	8.5%	9.2%	9.8%
Transportation/Utilities	2.6%	3.1%	4.6%
Information	4.8%	2.6%	2.5%
Finance/Insurance/Real Estate	21.5%	13.6%	11.2%
Services	48.2%	54.8%	56.4%
Public Administration	2.2%	2.6%	3.4%
2013 Employed Population 16+ by Occupation			
Total	6,664	95,210	591,244
White Collar	78.8%	67.5%	64.1%
Management/Business/Financial	28.1%	21.2%	16.8%
Professional	26.3%	23.9%	23.5%
Sales	15.8%	11.6%	10.8%
Administrative Support	8.6%	10.8%	13.0%
Services	13.4%	20.0%	22.1%
Blue Collar	7.8%	12.5%	13.8%
Farming/Forestry/Fishing	0.0%	0.1%	0.1%
Construction/Extraction	3.2%	5.3%	4.7%
Installation/Maintenance/Repair	1.5%	1.4%	2.0%
Production	0.5%	2.6%	2.6%
Transportation/Material Moving	2.7%	3.2%	4.4%

Source: U.S. Census Bureau, Census 2010 Summary File 1. Esri forecasts for 2013 and 2018. Esri converted Census 2000 data into 2010 geography.

April 13, 2014

GOMAN YORK

Market Profile

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Prepared by Robert Goman

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2010 Households by Type			
Total	5,897	72,576	480,531
Households with 1 Person	27.0%	28.7%	29.2%
Households with 2+ People	73.0%	71.3%	70.8%
Family Households	69.3%	66.0%	65.6%
Husband-Wife Families	58.5%	51.1%	43.7%
With Related Children	34.3%	26.1%	21.7%
Other Family (No Spouse Present)	10.8%	14.8%	21.9%
Other Family with Male Householder	2.8%	4.0%	5.0%
With Related Children	1.3%	1.8%	2.3%
Other Family with Female Householder	8.1%	10.8%	16.9%
With Related Children	4.6%	6.0%	10.1%
Nonfamily Households	3.6%	5.3%	5.2%
All Households with Children	40.3%	34.2%	34.4%
Multigenerational Households	1.9%	3.2%	5.0%
Unmarried Partner Households	3.3%	4.6%	5.4%
Male-female	2.8%	4.0%	4.7%
Same-sex	0.4%	0.6%	0.7%
2010 Households by Size			
Total	5,896	72,576	480,533
1 Person Household	27.1%	28.7%	29.2%
2 Person Household	25.9%	28.5%	28.1%
3 Person Household	15.3%	15.6%	16.6%
4 Person Household	18.4%	15.1%	14.3%
5 Person Household	9.4%	7.4%	7.1%
6 Person Household	2.8%	2.7%	2.7%
7 + Person Household	1.1%	2.0%	2.0%
2010 Households by Tenure and Mortgage Status			
Total	5,896	72,574	480,532
Owner Occupied	63.2%	58.8%	50.5%
Owned with a Mortgage/Loan	42.1%	39.6%	34.8%
Owned Free and Clear	21.1%	19.2%	15.6%
Renter Occupied	36.8%	41.2%	49.5%

Data Note: Households with children include any households with people under age 18, related or not. Multigenerational households are families with 3 or more parent-child relationships. Unmarried partner households are usually classified as nonfamily households unless there is another member of the household related to the householder. Multigenerational and unmarried partner households are reported only to the tract level. Esri estimated block group data, which is used to estimate polygons or non-standard geography.
Source: U.S. Census Bureau, Census 2010 Summary File 1. Esri forecasts for 2013 and 2018. Esri converted Census 2000 data into 2010 geography.

April 13, 2014

GOMAN+YORK
NOVEMBER 2014

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Top 3 Tapestry Segments				
	1.	Top Rung	Top Rung	City Lights
	2.	Urban Chic	Urban Chic	City Strivers
	3.	Connoisseurs	City Lights	Top Rung
2013 Consumer Spending				
Apparel & Services: Total $		$21,043,161	$214,578,681	$1,107,360,395
Average Spent		$3,583.64	$2,950.55	$2,292.87
Spending Potential Index		158	130	101
Computers & Accessories: Total $		$3,594,245	$35,789,453	$177,005,496
Average Spent		$612.13	$492.12	$366.50
Spending Potential Index		246	198	148
Education: Total $		$23,809,183	$238,553,726	$1,209,900,074
Average Spent		$4,054.70	$3,280.22	$2,505.18
Spending Potential Index		278	225	172
Entertainment/Recreation: Total $		$46,092,098	$453,258,425	$2,240,208,627
Average Spent		$7,849.47	$6,232.50	$4,638.51
Spending Potential Index		241	192	143
Food at Home: Total $		$63,861,629	$659,730,119	$3,426,697,578
Average Spent		$10,875.62	$9,071.57	$7,095.21
Spending Potential Index		216	180	141
Food Away from Home: Total $		$43,110,309	$439,390,644	$2,222,385,619
Average Spent		$7,341.67	$6,041.81	$4,601.60
Spending Potential Index		230	189	144
Health Care: Total $		$58,245,351	$570,430,339	$2,819,516,811
Average Spent		$9,919.17	$7,843.66	$5,838.00
Spending Potential Index		223	176	131
HH Furnishings & Equipment: Total $		$21,872,352	$215,281,628	$1,056,815,578
Average Spent		$3,724.86	$2,960.21	$2,188.21
Spending Potential Index		207	164	121
Investments: Total $		$56,917,095	$449,725,178	$1,687,220,723
Average Spent		$9,692.97	$6,183.91	$3,493.51
Spending Potential Index		467	298	168
Retail Goods: Total $		$303,506,741	$3,022,079,791	$15,038,417,554
Average Spent		$51,687.12	$41,554.90	$31,138.08
Spending Potential Index		214	172	129
Shelter: Total $		$240,936,105	$2,415,405,134	$12,207,097,382
Average Spent		$41,031.35	$33,212.86	$25,275.64
Spending Potential Index		252	204	155
TV/Video/Audio:Total $		$15,985,547	$164,919,984	$856,736,321
Average Spent		$2,722.33	$2,267.72	$1,773.93
Spending Potential Index		211	176	138
Travel: Total $		$28,946,598	$273,462,214	$1,295,737,578
Average Spent		$4,929.60	$3,760.22	$2,682.91
Spending Potential Index		269	205	146
Vehicle Maintenance & Repairs: Total $		$14,769,798	$145,734,314	$714,080,836
Average Spent		$2,515.29	$2,003.91	$1,478.55
Spending Potential Index		230	183	135

Data Note: Consumer spending shows the amount spent on a variety of goods and services by households that reside in the area. Expenditures are shown by broad budget categories that are not mutually exclusive. Consumer spending does not equal business revenue. Total and Average Amount Spent Per Household represent annual figures. The Spending Potential Index represents the amount spent in the area relative to a national average of 100.
Source: Consumer Spending data are derived from the 2010 and 2011 Consumer Expenditure Surveys, Bureau of Labor Statistics. Esri.
Source: U.S. Census Bureau, Census 2010 Summary File 1. Esri forecasts for 2013 and 2018. Esri converted Census 2000 data into 2010 geography.

April 13, 2014

GOMAN+YORK
NOVEMBER 2014

McCarthy Appraisal / Consulting Svc. Inc.
1364 Rte 6, Carmel, New York 10512 (914)420-8757 apprbyedye@comcast.net

Alfred Weissman
c/o: HKP – Harfenist Kraut & Prsltein LLP
2975 Westchester Avenue
Suite 415
Purchase, NY 10577

January 9, 2014
RE: 120 Old Post Road, Rye, NY
Potential development - Proposed Property Tax Exposure

Dear Mr. Weissman:

As per your request through my conversations with your attorney, Jonathan Kraut, I am respectfully enclosing this report on the potential tax exposure on the proposed development plan located at above noted address. The documentation enclosed, illustrates both the current property taxes and an analysis for the proposed development. As you will see, there is a substantial increase in taxes from the current use. This analysis is based on the required methodology for apartments/condominiums and cooperatives in the New York State Real Property Tax Law.

The analysis and potential tax exposure is based on information received to date and based on the project reaching stabilization. We based our analysis on the following information, and if current proposal changes throughout the approval process, the valuation may change as well.

46 1 Bedroom with 1,215 square feet
89 2 Bedroom with 1,395 square feet
There will be 1.25 parking for each unit which will be included in the rental rates.

As can be seen from the enclosed, the rental income was established by gathering information from the most comparable properties in the market place. As this will be a new complex with several amenities, the market rental rates are assumed to be higher than typical within the City of Rye. However, they are included in the report for reference. Therefore we expanded our search to newer developed apartment complexes. The expenses, and capitalization rate were also derived from the market and reliable real estate publications. I will be happy to discuss this with you in further detail if necessary.

Sincerely

Edye McCarthy
Commercial Real Estate Appraiser/Consultant

Projected Market Value

First Assessment Year	2014		
File No.		E:\[weissman.xls]anal	
Parcel I.D. S-B-L	146.13-1-7	Date	01/20/15
Property Address	120 Old Post Road	Time	05:44 PM
Property Owner	Old Post Rd Assoc.	1bdrm	46
Property Representative	Kraut	2bdrm	89
Property Class		Total Sq.ft.	135

Sq.Ft	
1,215	
1,395	

INCOME / EXPENSE WORKSHEET

1bdrm		$2,800.00
2bdrm		$3,200.00
Assessment Year		2014
Tax Year		#N/A
Income		
Residential		1,545,600
Commercial		3,417,600
Owner Occupied Space		
Real Estate Tax Escalations		
Operating Escalation Income		
Other Operating Income		
- Vacancy/Collection	5.0%	248,160
= Effective Gross Income		4,715,040
Expenses		
Audit/Adjusted Expenses	30%	1,414,512
Management	5.0%	235,752
Amortized/Other Expense Adj.		
1		
2		
5		
= Total Expenses		1,650,264
Net Operating Income		3,064,776

EZ Expense Data Entry	$ Amounts
EXPENSES:	2014
a. Fuel	
b. Light and power	
c. Cleaning contract	
d. Wages and payroll	
e. Repairs and maintenance	
f. Management and administration	
g. Insurance (annual)	
h. Water and sewer	
i. Advertising	
j. Interior painting and decorating	
k. Amort. leasing and tenant impr.costs	
l. Miscellaneous expenses	
m. TOTAL EXPENSES	#N/A

VALUATION CONCLUSIONS

Assessment Year		2014	
Net Operating Income			$3,064,776	
Expense / Income Ratio			35%	
Capitalization Rate		9.00%		
Full Market Value			$34,053,067	
	per unit		$252,244.94	
Assessed Valuation		1.91%	143,100	
Equalized Value			$7,492,147	
Under/Over Assessed			$26,560,920	
AV should be			$650,414	$615,896

Total Tax Rate	$	946.93
value per unit	$	252,245

MLSNumb	PropertyTy	Status	StreetNum	StreetSuffi	ListPrice	ClosePrice	BathsTotal	BedsTotal	SqFtTotal	YearBuilt	DOM	City
94623	Rental	Sold	15	Street	$ 1,550	$ 1,450	1	2	980		14	Rye City
85417	Rental	Sold	42	Avenue	$ 1,200	$ 1,200	1	1	650	1949	84	Rye City
83638	Rental	Sold	50		$ 3,200	$ 2,800	3	3	1800	1981	101	Rye City
89367	Rental	Sold	4	Street	$ 1,500	$ 1,400	1	2	852	1954	33	Rye City
85011	Rental	Sold	1	Street	$ 1,600	$ 1,450	1	2	950	1954	58	Rye City
84862	Rental	Sold	181	Street	$ 1,100	$ 1,050	1	1	500	1954	17	Rye City
72750	Rental	Sold	181	Street	$ 1,450	$ 1,400	2	2	900	1954	33	Rye City
69716	Rental	Sold	645	Avenue	$ 2,500	$ 2,200	3	2	2000	1985	46	Rye City
70522	Rental	Sold	181	Street	$ 1,200	$ 1,200	1	1		1954	27	Rye City
69112	Rental	Sold	3		$ 1,050	$ 1,000	1	1	750	1954	41	Rye City
69081	Rental	Sold	5	Street	$ 1,495	$ 1,435	1	2	950	1942	24	Rye City
65915	Rental	Sold	181		$ 1,050	$ 975	1	1	500	1954	60	Rye City
68592	Rental	Sold	110		$ 2,450	$ 2,400	3	2	1300	1987	13	Rye City
63850	Rental	Sold	40		$ 3,500	$ 3,500	3	2	1930	1980	67	Rye City
55818	Rental	Sold	130		$ 1,500	$ 1,500	1	2	900	1953	56	Rye City
59558	Rental	Sold	14		$ 3,500	$ 3,300	3	3	2300	1988	15	Rye City
46316	Rental	Sold	10		$ 3,200	$ 3,000	3	2	1800	1989	160	Rye City
55081	Rental	Sold	181		$ 1,300	$ 1,250	1	1	700	1954	52	Rye City
55614	Rental	Sold	75		$ 3,100	$ 3,000	3	2	1950	1981	46	Rye City
56705	Rental	Sold	100		$ 1,250	$ 1,200	1	1	700	1955	29	Rye City
50653	Rental	Sold	130		$ 1,000	$ 1,000	1	1	700	1955	48	Rye City
50162	Rental	Sold	599	Avenue	$ 2,500	$ 2,350	3	2	1600	1989	10	Rye City
46106	Rental	Sold	6	Avenue	$ 1,800	$ 1,700	1	2	1000	1926	47	Rye City
40096	Rental	Sold	39	Avenue	$ 1,600	$ 1,500	1	2	900	1949	121	Rye City
41675	Rental	Sold	645	Avenue	$ 3,200	$ 3,200	7	2	2100	1987	94	Rye City

MARKET DATA

Apartment Site	1 Bedroom average	1 Bedroom price range	1 Bedroom Sq Ft	2 Bedroom / 1 Bath average	2 Bedroom / 1 Bath price range	2 Bedroom / 1 Bath Sq Ft	2 Bedroom / 2 Bath average	2 Bedroom / 2 Bath price range	2 Bedroom / 2 Bath Sq Ft
Avalon Green									
500 Town Green Drive, Elmsford, NY 10523 / 914-610-4306		NL	642	$ 2,038	2030-2045	700	$ 2,868	2855-2880	1192
	$ 2,025	1920-2130	679-702		n/a	n/a	$ 2,485	2485	1260
	$ 2,100	1995-2205	774-841		n/a	n/a	$ 2,750	2745-2755	1450
	$ 2,005	1985-2025	870		n/a	n/a		NL	1601-1721
		NL	885		n/a	n/a	$ 2,715	2715	1361-1372
	$ 2,313	2275-2350	969-990		n/a	n/a	$ 2,718	2705-2730	1362
	$ 2,575	2575	1076		n/a	n/a	$ 2,720	2715-2725	1421-1436
	$ 2,900	2300	1103		n/a	n/a		n/a	n/a
		NL	1205		n/a	n/a		n/a	n/a
Average:	$ 2,220			$ 2,038			$ 2,678		
Tallevrand Apartments									
1202 Crescent Drive, Tarrytown, NY 10591 / 914-449-1388	$ 1,805	1805	658	$ 2,018	2015-2020	828	$ 2,028	2025-2030	934
		NL	794	$ 2,183	2170-2195	971	$ 2,190	2180-2200	1064
Average:	$ 1,805			$ 2,100			$ 2,109		
Ridgeview Apartments									
32 Nob Hill Drive, Elmsford, NY 10523 / 914-610-4229	$ 1,637	1587-1687	658	$ 1,833	1833	828	$ 1,948	1925-1970	934 (1.5 bath)
Average:	$ 1,637			$ 1,833			$ 1,948		
Various Irvington Apartment Listings									
Irvington Village / South Eckar		n/a	n/a	$ 1,975	1975	NL, 7 Bath		n/a	n/a
111 North Broadway, Irvirgton, NY		n/a	n/a		n/a	n/a	$ 2,100	2100	NL
635 South Broadway, Irvington, NY		n/a	n/a	$ 3,100	3100	1300		n/a	n/a
Irvington, NY		n/a	n/a	$ 2,050	2050	900		n/a	n/a
Irvington, NY		n/a	n/a	$ 1,950	1950	NL		n/a	n/a
86 Main Street, Irvington, NY 10533	$ 1,250	1250	566		n/a	n/a		n/a	n/a
Irvington, NY		n/a	n/a		NL	1650		n/a	n/a
5 Eckar Street, Irvington, NY 10533		n/a	n/a	$ 1,975	1975	NL		n/a	n/a
106 Main Street, #1, Irvington, NY 10533		n/a	n/a	$ 2,750	2750	1000		n/a	n/a
106 Main Street, #2, Irvington, NY 10533		n/a	n/a	$ 2,200	2200	1000		n/a	n/a
90 S Broadway-carriage House, Irvington, NY 10533		n/a	n/a	$ 1,800	1800	1100		n/a	n/a
1 S Aster St, #303, Irvington, NY 10533	$ 2,600	2600	1150		n/a	n/a		n/a	n/a
1 S Aster St, Irvington, NY 10533		2500	850		n/a	n/a		n/a	n/a
1 S Aster St, Irvington, NY 10533		n/a	n/a		n/a	n/a	$ 3,250	3250	1150
24 S Eckar Street, Irvington, NY 10533		n/a	n/a	$ 2,000	2000	700		n/a	n/a
36 Hamilton Road, Apt 3, Irvington, NY 10533		n/a	n/a	$ 2,700	2700	1000		n/a	n/a
2 BR unit with hardwood floors throughout		n/a	n/a	$ 2,000	2000	850		n/a	n/a
UNFURNISHED in four-family private house		n/a	n/a	$ 1,800	1800	850		n/a	n/a
Average:	$ 1,925			$ 2,192			$ 2,675		
One City Place									
One City Place, White Plains, NY 10601 / 914-368-9177	$ 2,877	2401-3352	807	$ 4,056	3518-4593	1183	$ 4,222	3678-4765	947
	$ 3,071	2445-3697	526		n/a	n/a	$ 4,046	3415-4676	971
	$ 2,965	2376-3553	827		n/a	n/a	$ 3,588	3151-4024	1018
	$ 3,028	2577-3478	641		n/a	n/a	$ 4,232	3521-4943	1033
	$ 2,911	2363-3458	644		n/a	n/a	$ 4,350	3656-5044	1036
	$ 3,108	2477-3738	652		n/a	n/a	$ 3,587	2864-4310	1044
	$ 3,108	2477-3738	653		n/a	n/a	$ 3,834	3166-4502	1249
		n/a	n/a		n/a	n/a	$ 3,403	2771-4034	1271
Average:	$ 3,009			$ 4,056			$ 3,908		
Halstead White Plains Metro North									
34 South Lexington Avenue, White Plains, NY 10606 / 914-449-1355	$ 2,242	2153-2330	599	$ 2,816	2595-3037	988	$ 2,959	2717-3200	829
	$ 2,274	2124-2423	656		n/a	n/a	$ 3,271	2912-3629	1039
Average:	$ 2,258			$ 2,816			$ 3,115		
Avalon White Plains									
27 Barker Avenue, White Plains, NY 10601 / 914-368-7166	$ 2,185	2115-2255	678-711		n/a	n/a	$ 3,185	3185	1075
	$ 2,248	2110-2385	694-708		n/a	n/a	$ 3,205	3205	1193
	$ 2,258	2155-2360	723-726		n/a	n/a	$ 3,945	3945	1464
	$ 2,275	2255-2295	758		n/a	n/a	$ 3,995	3995	1473
	$ 2,280	2280	813		n/a	n/a	$ 4,080	4080	1533
	$ 2,500	2500	835		n/a	n/a		n/a	n/a
	$ 2,515	2515	858		n/a	n/a		n/a	n/a
Average:	$ 2,329						$ 3,682		

PROPERTY TAX PROJECTIONS

	Tax Rates 2014/2015	Current Property Taxes	Proposed Development 2014/2015 Property Taxes
CITY	$ 150.38	$ 21,519.38	$ 97,809.19
COUNTY	$ 187.92	$ 26,891.35	$ 122,225.72
SCHOOL	$ 561.33	$ 80,326.32	$ 365,096.65
COUNTY REFUSE	$ 17.61	$ 2,519.99	$ 11,453.78
BLIND BROOK SEWER	$ 29.69	$ 4,248.64	$ 19,310.78
	$ 946.93	$ 135,505.68	$ 615,896.12
Current Assessed Value	143,100		
Proposed Assessed value per analysis	650,414		

7/22/2014	2014 MUNICIPAL COUNTY TAX RATES FOR THE COUNTY GENERAL LEVY			
MUNICIPALITY	SWIS CODE	PARCELS	TAXABLE ASSESSED VALUE	TAX RATE PER $1,000
City of Mount Vernon	550800	11,281	151,232,793	101.980000
City of New Rochelle	551000	16,084	267,270,832	123.532000
City of Peekskill	551200	6,395	61,921,656	86.011050
City of Rye	551400	4,935	137,863,523	187.923444
City of White Plains	551700	14,088	276,979,095	100.990000
City of Yonkers	551800	36522	475,391,550	117.860000
Town of Bedford	552000	6,296	577,140,508	32.123240
Town of Cortlandt	552200	15,379	107,009,202	183.970000
Town of Eastchester	552400	9,286	104,755,180	248.241100
Town of Greenburgh	552600	28,629	547,521,601	105.209400
Town of Harrison	552800	6,975	135,255,052	211.545407
Town of Lewisboro	553000	5,822	302,173,880	33.875600
Town of Mamaroneck	553200	8,739	8,686,517,881	3.702300
Town of Mount Kisco	555600	2,796	300,589,735	17.534800
Town of Mount Pleasant	553400	13,982	142,780,965	230.323644
Town of New Castle	553600	6,703	1,065,375,856	17.475340
Town of North Castle	553800	4,793	116,236,017	155.863400
Town of North Salem	554000	2,482	146,582,255	33.102261
Town of Ossining	554200	10,169	257,517,106	58.713265
Town of Pelham	554400	3,691	2,698,331,757	3.676420
Town of Pound Ridge	554600	2,471	368,913,586	20.061500
Town of Rye	554800	11,091	6,141,245,975	3.650718
Town of Scarsdale*	555000	5,955	140,100,756	216.627300
Town of Somers	555200	9,184	497,081,609	26.568026
Town of Yorktown	555400	14,377	126,394,696	133.284000

	B	C	D	E	F	G
1	6/2/2014	**2014 SPECIAL DISTRICT TAX RATES (CITIES & TOWNS)**				
2	**MUNICIPALITY**	**DISTRICT CODE**	**SPECIAL DISRICT NAME**	**PARCELS**	**TAXABLE ASSESSED VALUE OR UNIT(S)**	**TAX RATE PER $1,000 OR CHARGE PER UNIT**
3		CS001	Hutchinson Valley County Sewer District	8,566	150,844,745.00	15.560000
4		CS002	Bronx River County Sewer District	2,715	42,537,257.00	15.560000
5	**City of Mount Vernon**	RF001	County Refuse Disposal District #1	11,281	159,791,272.00	9.020000
6		CR001	County Refuse District	16,057	291,474,408	11.541000
7		CS000	New Rochelle Sewer District	11,805	261,652,893	50.227000
8		CS001	Mamaroneck Sewer District	1,790	33,323,093	19.566000
9	**City of New Rochelle**	CS002	Hutchinson Valley Sewer District	2,463	40,206,103	20.292000
10		SD001	Peekskill County Sewer District	6,368	120,178,034	14.884500
11	**City of Peekskill**	CW001	County Refuse Disposal District #1	6,252	67,965,830	8.042400
12		TXREF *	County Refuse Disposal District #1	4,935	140,101,716	17.608906
13		TXBBS *	Blind Brook County Sewer District	4,326	140,390,701	29.685584
14	**City of Rye**	TXMVS	Mamaroneck Valley County Sewer District	609	19,114,965	29.808843
15		GA174	County Refuse Disposal District #1	14,079	296,332,440	9.140000
16		SB171	Bronx Valley County Sewer District	8,239	230,646,314	14.800000
17	**City of White Plains**	SM172	Mamaroneck Valley County Sewer District	5,862	176,588,595	15.530000
18		CW001	County Refuse Disposal District #1	36,461	557,425,596	10.900000
19		CS001	Bronx Valley Sewer District #1	19,525	367,021,443	17.710000
20		CS002	South Yonkers County Sewer District #2	3,628	90,891,529	18.380000
21		CS003	Central Yonkers Sewer District #3	3,629	70,329,069	20.700000
22		CS004	North Yonkers County Sewer District #4	4,007	82,741,311	19.540000
23	**City of Yonkers**	CS005	Saw Mill Valley County Sewer District #5	5,147	87,249,743	17.790000
24		AM001	Paramedic Dist. No. 1	6,268	583,338,785	0.571560
25		FD030	Bedford Village Fire District	2,063	226,232,257	4.142390
26		PD011	Bedford Village Park District	2,066	226,586,921	2.980040
27		LT010	Bedford Village Lighting Dist	494	41,430,220	0.352160
28		FD031	Bedford Hills Fire District	1,965	173,466,578	11.258570
29		PD012	Bedford Hills Park District	2,030	187,805,234	3.738480
30		LT011	Bedford Hills Light	937	48,441,685	0.724460
31		FD032	Katonah Fire District	2,224	168,938,149	7.613140
32		PD013	Katonah Park District	2,224	168,946,335	4.406220
33		LT012	Katonah Light District	930	50,485,830	0.565370
34		WD039	Cedar Downs Water District	84	3,342,402	13.413710
35		WD040	Consolidated Water District	2,463	126,313,346	12.124380
36		WD042	Farms Water District (Cap)	99	6,138,622	5.422060
37		WD041	Farms Water District (O&M)	95	5,350,673	9.324810
38		WD043	Old Post Road Water District	76	6,107,136	9.174680
39	**Town of Bedford**	FD033	Fire Protection District No. 1	79	14,704,401	4.934920
40		SD472	Ossining Sanitary Sewer	2,664	19,776,712	41.200000
41		SD473	Peekskill Sanitary Sewer	1,561	14,277,672	32.480000
42		CW495	County Refuse Disposal #1	14,825	109,964,035	17.350000
43		FD411	Montrose Fire District	1,881	16,719,912	48.180000
44		FD412	Verplank Fire District	862	4,567,636	58.230000
45		FD413	Mohegan Fire District	6,652	44,597,345	93.840000
46		WD430	Montrose Water District	868	5,805,329	23.620000
47		PK481	Cort. Cont. Village Park	253	1,360,810	31.900000
48		FD415	Furnace Dock Road Fire Protection	165	1,369,806	37.560000
49		FD416	Mt. Airy Quaker Br. Rd. Fire Protection	652	6,723,336	58.310000
50		FD418	Continental Village Fire Protection	617	3,205,851	48.680000
51		WD457	Cortlandt Consolidated Water District	9,094	62,733,622	20.070000
52		LT460	Montrose Lighting District	867	5,847,630	15.820000
53		LT461	Verplank Lighting District	856	3,914,988	7.160000

2014/2015 SCHOOL DISTRICT TAX RATES

10/15/2014 MUNICIPALITY	SCHOOL DISTRICT SWIS CODE	SCHOOL DISTRICT NAME	NUMBER OF PARCELS	TAXABLE ASSESSED VALUE	TAX RATE PER 1,000
City of Mount Vernon	550800	Mount Vernon City School District	11,281	124,801,238	880.150000000
City of New Rochelle	551000	New Rochelle City School District	16,071	266,740,126	728.684000000
City of Peekskill	551200	Peekskill City School District	6,060	56,845,845	668.773300000
	552203	Hendrick Hudson CSD	357	5,811,894	468.945100000
City of Rye	551400	Rye City School District	4,499	124,684,852	561.328000000
	554801	Rye Neck UFSD - Homestead	414	13,405,107	847.987786000
	554801	Rye Neck UFSD - Non-Homestead	22	307,671	1,096.677945000
City of White Plains	551700	White Plains City School District	14,080	278,335,896	600.220000000
City of Yonkers	551800	Yonkers City School District	36506	472,896,126	487.960000000
Town of Bedford	552002	Bedford CSD	3,962	403,149,715	134.178712000
	552001	Katonah-Lewisboro UFSD	1,957	174,104,003	193.318100000
	553801	Byram Hills CSD	31	2,166,550	139.619963000
Town of Cortlandt	552202	Croton-Harmon SD	3,813	31,839,113	1,145.540000000
	552202	Croton-Harmon Library	3,813	31,839,113	24.330000000
	552203	Hendrick Hudson CSD	5,324	38,570,674	994.740000000
	552203	Hendrick Hudson Library	5,324	38,570,674	19.880000000
	555401	Lakeland CSD	5,611	34,653,504	1,400.130000000
	552803	Putnam Valley CSD	512	2,585,340	1,316.870000000
	555402	Yorktown CSD	119	1,108,437	1,329.820000000
Town of Eastchester	552401	Eastchester UFSD	5,115	53,152,077	1,290.555400000
	552402	Tuckahoe UFSD	2,227	19,272,855	1,366.812100000
	552403	Bronxville UFSD	1,589	2,711,860,473	14.296000000
Town of Greenburgh	552601	UFSD of the Tarrytowns	3,129	44,554,911	722.383290196
	552602	Irvington UFSD	2,824	74,838,217	665.350589467
	552603	Dobbs Ferry UFSD	2,514	44,712,007	788.018621582
	552604	Hastings-On-Hudson UFSD	2,823	46,977,407	783.308914417
	552605	Ardsley UFSD	3,894	67,510,668	735.292598085
	552606	Edgemont UFSD	2,515	69,852,801	668.360130394
	552607	Greenburgh Central 7 SD	6,846	112,193,406	493.616733948
	552609	Elmsford UFSD	2,735	48,240,760	578.463934437
	553402	Potantico Hills CSD	553	27,961,069	279.170874921
	553405	Valhalla UFSD	796	14,218,174	585.584036601
Town of Harrison	552801	Harrison CSD	6,975	135,936,590	732.583659000
Town of Lewisboro	553000	Katonah-Lewisboro UFSD	5822	303,998,481	203.927000000
Town of Mamaroneck	553201	Mamaroneck UFSD	8,473	8,379,665,708	13.758120000
	555001	Scarsdale UFSD	266	345,726,253	16.020630000

2014 CITY/TOWN TAX RATES

7/22/2014 MUNICIPALITY	SWIS CODE	PARCELS	UNINCORPORATED XABLE ASSESSED VAL	UNINCORPORATED TAX RATE PER 1,000	GENERAL TAXABLE ASSESSED VALUE	GENERAL TAX RATE PER 1,000
City of Mount Vernon	550800	11,281			152,910,735	367.940000
City of New Rochelle	551000	16,084			268,901,252	202.593000
City of Peekskill*	551200	6,395			61,839,156	238.371600
City of Rye	551400	4,937			138,126,937	150.380000
City of White Plains	551700	14,080			276,979,095	196.140000
City of Yonkers	551800	36506			472,896,126	214.22
Town of Bedford	552000	6,296			577,191,217	19.827190
Town of Cortlandt**	552200	15,379	79,781,520	170.79000	106,988,706	31.830000
Town of Eastchester	552400	9,286	57,835,125	266.17400	104,760,180	33.441200
Town of Greenburgh	552600	28,629	291,103,075	194.89810	254,579,096	15.582900
Town of Harrison	552800	6,975			135,603,693	326.594970
Town of Lewisboro	553000	5,822			302,173,880	18.299330
Town of Mamaroneck	553200	8,739	3,696,089,147	3.62821	8,686,122,513	0.422350
Town of Mount Kisco	555600	2,796	*See Village Tax Rate Table*			
Town of Mount Pleasant	553400	13,982	107,445,134	112.563737	143,258,568	8.938931
Town of New Castle	553600	6,703			1,065,375,856	14.091754
Town of North Castle	553800	4,793			116,258,878	158.295000
Town of North Salem	554000	2,482			146,602,975	38.522407
Town of Ossining	554200	10,169	49,509,918	101.179222	258,552,497	12.315124
Town of Pelham	554400	3,691		**Homestead**	2,334,800,766	0.548500
				Non-Homestead	391,340,996	0.744500
Town of Pound Ridge	554600	2,471			368,913,586	13.666300
Town of Rye	554800	11,091		**Homestead**	4,656,961,386	0.043754
				Non-Homestead	1,528,272,027	0.063407
Town of Scarsdale	555000	5,955	*See Village Tax Rate Table*			
Town of Somers	555200	9,184			497,254,606	13.717295
Town of Yorktown	555400	14,377			126,394,411	147.318100

*There is also a City Library tax

Taxable Assessed value	Tax Rate Per 1,000
63,498,073	12.363000

**There is also a town library tax, which applies to the entire town except Village of Croton-on-Hudson.

Taxable Assessed Value	Tax Rate Per 1000
86,495,165	6.880000

Please note that the general town tax rate is charged throughout a town including villages, if any. The unincorporated tax rate is charged in town areas outside of villages in towns that have villages. Therefore, if you live in the unincorporated area of a town that has villages you must add the two rates together to compute your

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RYE

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LONG ISLAND

TRAFFIC ACCESS & IMPACT STUDY

Age-Restricted Residential Development
120 Old Post Road
Rye, New York

Prepared for:
Alfred Weissman Real Estate, Inc.

November 2014

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PLANNING, TRANSPORTATION, ENVIRONMENT AND DEVELOPMENT
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PROJECT STAFF

Michael A. Galante
Executive Vice President/Principal-in-Charge

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PLANNING, TRANSPORTATION, ENVIRONMENT AND DEVELOPMENT
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November 25, 2014

Mr. Alfred Weissman
Mr. Alan Weissman
Alfred Weissman Real Estate, Inc.
120 Old Post Road
Rye, New York 10580

Gentlemen:

As requested, we have completed this Traffic Study for the proposed development of the subject property located at 120 Old Post Road in Rye, New York. The proposal is to demolish the existing, but mostly vacant office building comprising 70,000 square feet and construct a 135-unit residential, age-restricted, development. Access will remain to Playland Access Drive, essentially at the same location, and immediately south of the unsignalized intersection with Old Post Road.

The results of this Traffic Analysis indicate a development of this type and size will generate 27 and 34 vehicle trip ends during a typical weekday morning and weekday afternoon peak hour, respectively. This is based on trip generation rates provided by the Institute of Transportation Engineers (ITE). For comparison purposes, the existing office building, if fully occupied with a variety of commercial tenants, could generate 109 and 104 vehicle trip ends during the same weekday morning and weekday afternoon peak hours, respectively. Therefore, the redevelopment of the subject property as a residential development will result in a significant reduction in site traffic, with a decrease of 82 and 70 vehicle trip ends during the weekday morning and weekday afternoon peak hours, respectively.

The results of the analyses indicate that area roadways, although certain roadways approaches to intersections experience short-term delays during peak hours, each location will continue to operate with no change in Level of Service, except for an overall decrease in Level of Service at the signalized intersection of Theodore Fremd Avenue and Playland Access Drive from "B" to "C" during the weekday morning peak hour. However, this change in Level of Service will result in an overall increase in average vehicle delay per vehicle of only 0.3 seconds, which is considered insignificant. The results of

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these analyses and a comparison between a background and combined conditions, which includes the proposed residential development, indicate that traffic control and pavement markings at each of these intersections should remain unchanged as no modifications are necessary to accommodate this residential development. Any approach with a Level of Service "F" will have a maximum increase in average delay of 7.2 seconds, which occurs during the morning peak hour.

This Traffic Study incorporates traffic related to a proposed residential development to be located on Theodore Fremd Avenue and potential development to be generated by Playland in the future.

Sincerely,

Michael A Galante, TD

Michael A. Galante
Executive Vice President

Enclosure

g:\760.004 120 old post road, rye\word\rye14-006.mag.doc:cv: td:cv

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SUMMARY

The purpose of this Traffic Report is to provide the City of Rye with a detailed analysis of potential impacts from this proposed development on adjacent roadways and nearby intersections in the designated Study Area. The proposal is to demolish the existing, but mostly vacant, office building comprising 70,000 square feet of space and construct an age-restricted residential development which will have 135 units. Access will remain the same from Playland Access Drive to the immediate south of the Old Post Road STOP sign-controlled intersection.

The Traffic Study is based on traffic volumes obtained in 2012 through 2014. These volumes were obtained by Frederick P. Clark Associates, Inc. and other Traffic Consultants for different nearby projects.

In this Traffic Study it addresses traffic conditions for existing, no-build and build peak hour volumes near the site. It includes the weekday morning and weekday afternoon peak hours. Under the no-build condition it includes other developments, as well as an appropriate growth rate.

The proposal is to demolish the existing, but mostly vacant, office building and construct the age-restricted development, as noted above. To estimate site traffic for the proposed development trip generation rates were obtained from the Institute of Transportation Engineers (ITE) in "Trip Generation," 9th Edition, published 2012. Based on these trip generation rates it is estimated a development of this type and size will generate 27 and 34 vehicle trip ends during the typical weekday morning and weekday afternoon peak hours, respectively. For comparison purposes the current 70,000 square-foot office building, if it was to be fully reoccupied, could generate 109 and 104 vehicle trip ends during the same weekday morning and weekday afternoon peak hours, respectively. Therefore, the proposed residential development would result in a decrease

in site traffic generation of 82 and 70 vehicle trip ends during the weekday morning and weekday afternoon peak hours, respectively. This is a significant reduction in site traffic generation potential directly related to the change in land use from an office building to a residential development.

The results of the capacity analysis for existing conditions indicate the Theodore Fremd Avenue/Playland Access Drive signalized intersections operates at an acceptable overall Level of Service "B" during peak hours. During the weekday morning peak hour motorists experience delays at the unsignalized intersection of Playland Access Drive /Playland Parkway/Medical Building, Old Post Road at Playland Access Drive and Old Post Road at Thruway Access Drive. All of the Study Area intersections operate at acceptable Levels of Service during the weekday afternoon peak hour. Similar results are found for 2016 background conditions. In both existing and background conditions analyses the office building located on the site is considered vacant.

Under a future combined condition, which includes the proposed residential development, each of these unsignalized intersections will continue to operate at acceptable Levels of Service, except for some Levels of Service "E" or "F" identified in a background condition. A comparison of the background and combined traffic conditions for each of these intersections indicate that Levels of Service will remain unchanged, except for change from an overall Level of Service "B" to "C" at the signalized intersection of Theodore Fremd Avenue at Playland Access Drive, with an insignificant overall delay due to the residential development of 0.3 seconds per vehicle during this one peak hour. Results of the analyses for the weekday afternoon peak hour indicate Levels of Service will remain the same at each of the unsignalized intersections and at each of the lane groups or approaches with minimal, if any, increase in average vehicle delay due to the proposed residential development.

Based on the results of these analyses it is recommended that the current traffic control and pavement markings at each of these locations remain unchanged. The analysis indicates that the added site traffic for a residential development is insignificant and will not change the overall operation of any of the intersections in the Study Area. In addition, there is a significant benefit of converting this office building to a residential development, which results in a significant decrease in site traffic generation during the key weekday morning and weekday afternoon peak hours.

The results of these analyses have been compared to field observations at each of these locations during both the weekday morning and weekday afternoon peak hours. It is noted that motorists do experience short-term delays at the Playland Parkway off ramp to Playland Access Drive and on the Playland Access Drive and Thruway Access Drive approaches to Old Post Road during peak hours. However, based on the results of this analysis each intersection should maintain STOP control. Any consideration for signalization, if warranted, at the Playland Parkway ramps to Playland Access Drive may actually result in an increase in delays, which could impact the mainline of Playland Parkway (southbound lanes).

At the Old Post Road intersection at Playland Access Drive and Thruway Access Drive it is likely that either location would meet the minimum standards for consideration for traffic signals.

INTRODUCTION

The purpose of this report is to provide the City of Rye with an analysis of current operations on the surrounding roadway network and nearby intersections and the potential impact of removing the existing 70,000 square-foot office building and constructing a 135 age-restricted residential unit development at 120 Old Post Road.

This analysis addresses traffic conditions surrounding the subject property for a typical weekday morning and weekday afternoon peak hour condition. It addresses traffic conditions along Playland Access Drive, Old Post Road, Theodore Fremd Avenue and the Access Ramps to Playland Parkway. It includes an evaluation of current and future background and combined traffic volumes at the nearby intersections for both the weekday morning and weekday afternoon peak hours.

Project Description

The existing office building comprises 70,000 square feet of gross floor area. At the time of the traffic counts, the building was mostly vacant, with minimal traffic generated throughout the day.

The proposal is to demolish this building and construct a 135-unit, age-restricted residential development. Access for the existing building will remain unchanged, with full access to Playland Access Drive.

EXISTING CONDITIONS

This section of the report describes the current traffic volumes obtained through actual manual traffic volume counts and volumes provided by others at nearby intersections. In this section of the report there is a description of existing roadway conditions, traffic control, site access, capacity analysis procedures and the results of these analyses.

Roadways

The site is located in the northwest corner of the T-type intersection of Playland Access Drive and Old Post Road. The following is a description of the roadways serving the subject property.

1. *Playland Access Drive* – This is a two-lane, County-maintained roadway, beginning to the northwest at the signalized intersection with Theodore Fremd Avenue. It intersects with the southbound ramps for Playland Parkway, provides access to the subject property and terminates at an unsignalized intersection with Old Post Road. It has a posted speed limit of 30 miles per hour, provides a double yellow centerline, curbs and paved shoulders in certain sections. Sidewalks are not provided on this roadway.

2. *Old Post Road* – It is a generally both a north-south and east-west, County-maintained roadway. This roadway begins to the southwest at a Y-type intersection with Boston Post Road (U.S. Route 1), continues in an easterly direction intersecting with Playland Access Drive, the Playland Parkway Northbound Ramps and continues to the northeast terminating again at T-type intersection with Boston Post Road (U.S. Route 1). The section of Old Post Road between the intersection of North Street and northerly intersection with Boston Post Road is a one-way, one-lane roadway limited to westbound movements.

The Old Post Road/southerly intersection with Boston Post Road intersection is controlled with a traffic signal, which is maintained by the City of Rye. Other intersections are controlled with STOP signs at the Playland Access Drive southbound and the Thruway Access Road southbound approaches. The westbound approach of Old Post Road at North Street is controlled with STOP signs on both approaches. The posted speed limit on this roadway is 30 miles per hour. It provides a double yellow centerline, curbing and sidewalks in certain sections.

3. *North Street* – North Street is a north-south, County-maintained roadway, which begins at the Old Post Road intersection immediately north of the Playland Parkway northbound ramps intersection. This road continues in a northerly direction intersecting with Theodore Fremd Avenue, providing an overpass over Interstate 95 and continuing north to the Hutchinson River Parkway. It is a two-lane road maintained by the County to the intersection of Harrison Avenue. From this intersection to the Parkway it is designated New York Route 127. For its entire length it provides a double yellow centerline. It has a posted speed limit of 30 miles per hour in the Study Area.

4. *Theodore Fremd Avenue* – This is an east-west, County-maintained roadway. It provides one travel lane in each direction and a center turning lane for its entire length between the Harrison Village/Town line to the west and the intersections with North Street to the northeast and ends at Purchase Street. It has a posted speed limit of 30 miles per hour, provides sidewalks generally along the southerly side for its entire length, with sidewalks in the vicinity of the North Street intersection on the northerly side. The intersections with North Street and Theodore Fremd Avenue are controlled with traffic signals, which are maintained by the City of Rye.

5. *Playland Parkway* – This is a generally north-south, limited-access arterial, beginning at Interchange 19 on the New England Thruway (Interstate 95) and terminating to the southeast at Playland, which is a County-owned Park. A full-movement interchange provides access to Playland Access Drive and Old Post Road/North Street near the site. Playland Parkway provides two travel lanes in each direction and is median divided to a point south of the Boston Post Road Overpass. There are bridges at Old Post Road and Boston Post Road providing continuous traffic flow on Playland Parkway.

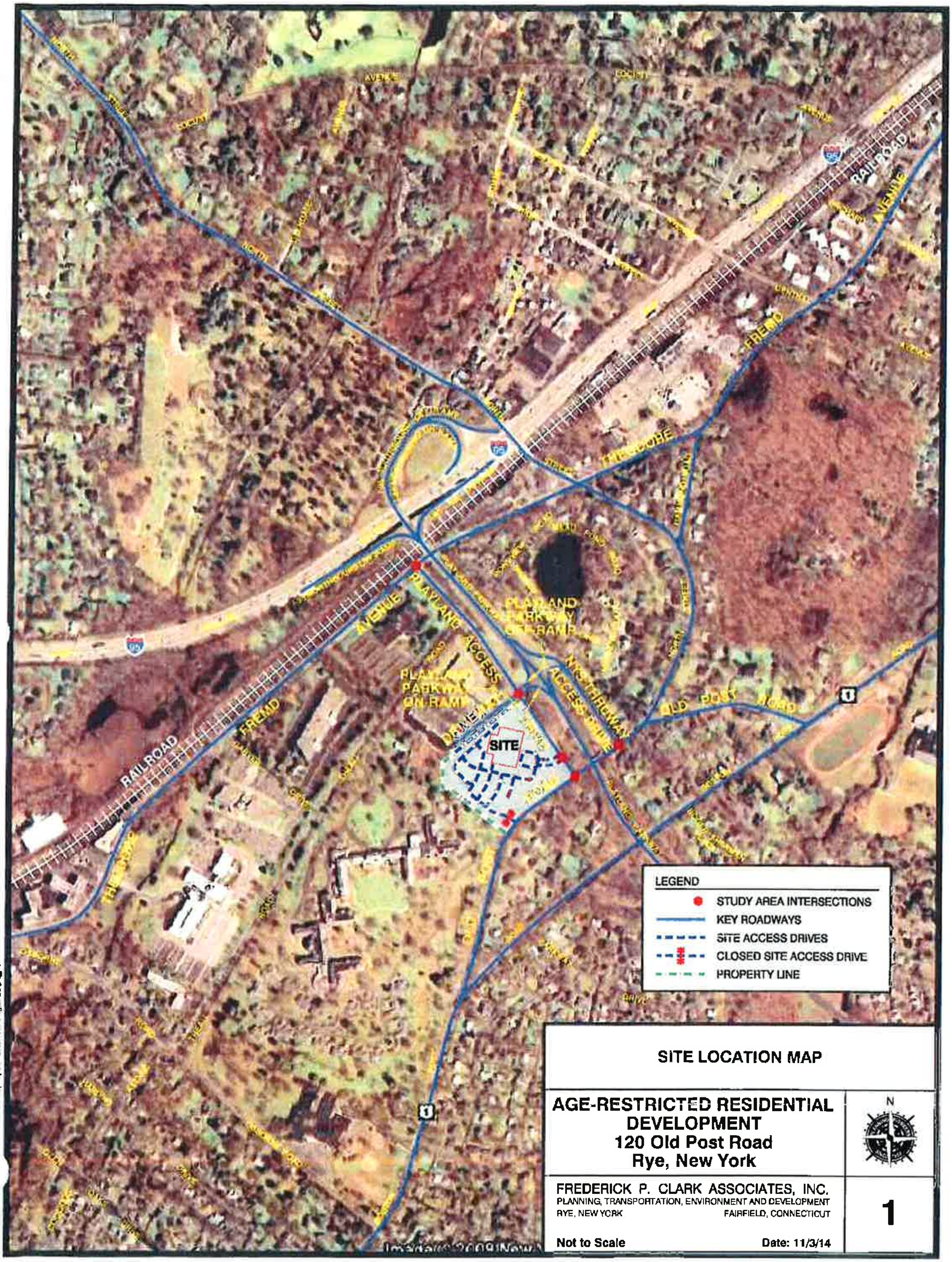
6. *New England Thruway (Interstate 95)* – This is a north-south, limited-access, Interstate Highway serving Westchester County. It provides three lanes in each direction and is median divided. The posted speed limit is 55 miles per hour for vehicles and 50 miles per hour for trucks. Access is provided to the Study Area via Interchange 19, which provides ramps in both directions on Interstate 95. These ramps connect directly to Playland Parkway, which provides direct to Playland Access Drive and Old Post Road.

Figure 1 provides a reference of the site location for all of the roads described above. Figure 2 provides the current street system characteristics for each of these roads, as described above. Photographs of the area roads are included in the Appendix of this report.

Traffic Volumes

To identify baseline conditions for area roads, 2014 traffic volumes available in the Traffic Study completed for the proposal to develop 150 North Street were used for the following intersections during the weekday morning peak hour:

- Theodore Fremd Avenue at Playland Access Drive;


RAILROAD
AVENUE
FREMD
PLAYLAND PARKWAY OFF-RAMP
PLAYLAND PARKWAY ON-RAMP
SITE
LEGEND
STUDY AREA INTERSECTIONS
KEY ROADWAYS
SITE ACCESS DRIVES
CLOSED SITE ACCESS DRIVE
PROPERTY LINE
SITE LOCATION MAP
AGE-RESTRICTED RESIDENTIAL DEVELOPMENT
120 Old Post Road
Rye, New York
N
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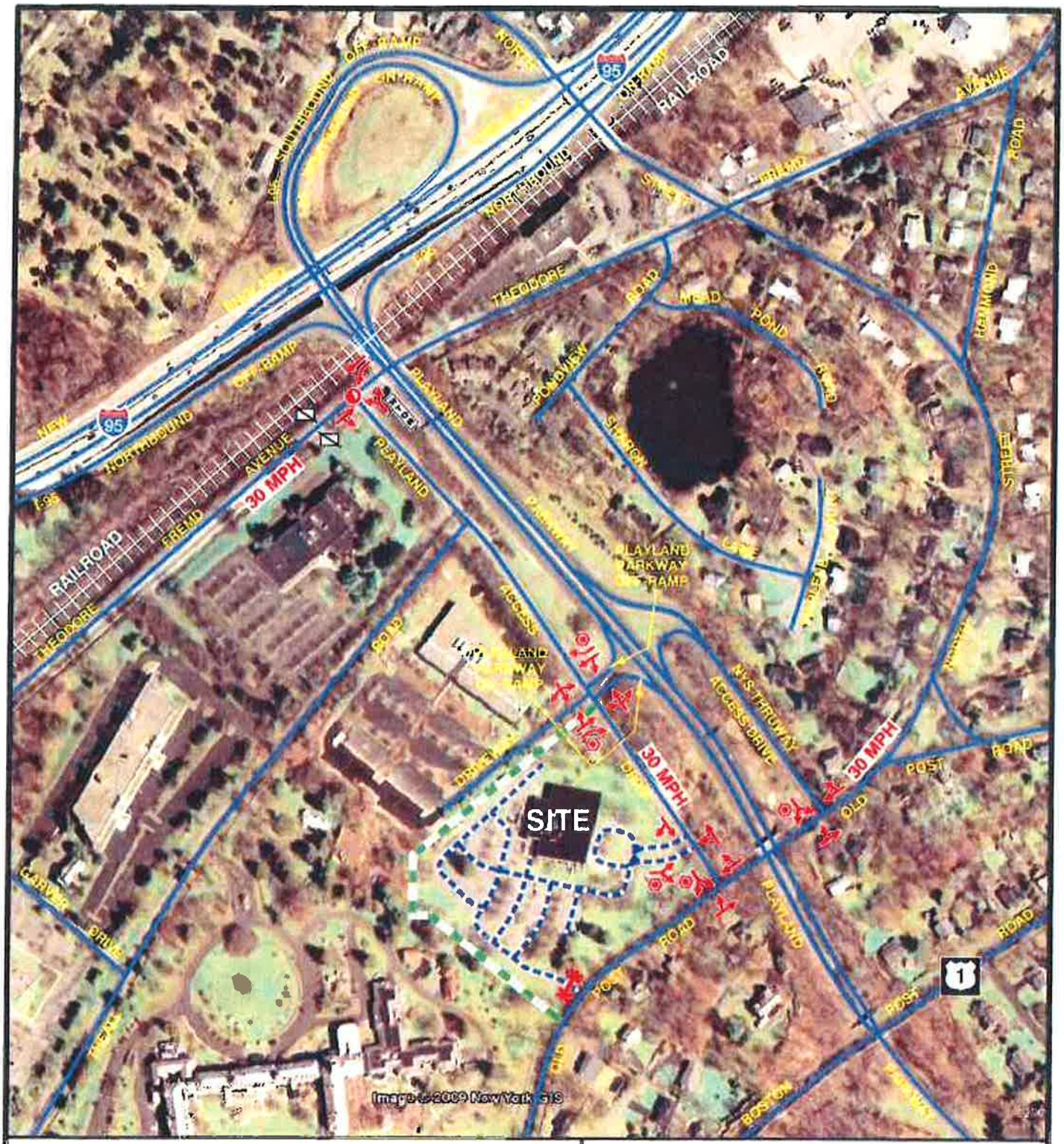

LEGEND

- TRAFFIC LANE
- TRAFFIC SIGNAL
- STOP SIGN
- NO TURN ON RED
- BUS STOP (BEE-LINE BUS #61)
- 00 MPH — SPEED LIMIT
- SITE ACCESS DRIVE
- CLOSED SITE ACCESS DRIVE
- PROPERTY LINE

CURRENT STREET SYSTEM CHARACTERISTICS

AGE-RESTRICTED RESIDENTIAL DEVELOPMENT
120 Old Post Road
Rye, New York

N

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- Playland Access Drive at Playland Parkway Eastbound On/Off Ramps/Medical Office Building Access Drive; and,
- Old Post Road at Playland Parkway Northbound On/Off Ramps.

The 2012 existing traffic volumes from the Office to Hotel Building Conversion Traffic Study prepared by Frederick P. Clark Associates, Inc. were adjusted and balanced to the most recent traffic data for the site access drive. For the intersection of Old Post Road at Playland Access Road, manual turning movement counts were conducted by Frederick P. Clark Associates on Thursday, October 30, 2014 from 7:00 A.M. to 9:00 A.M. These volumes were adjusted where appropriate to the surrounding intersection volumes to generate the 2014 existing traffic volumes for a weekday morning peak hour. The highest volumes found at each intersection were used.

For the weekday afternoon peak hour existing traffic volumes for 2013 obtained from a Playland Traffic Study were used for the four Study Area intersections. The 2012 existing traffic volumes from the Office to Hotel Building Conversion Traffic Study prepared by Frederick P. Clark Associates, Inc. were adjusted, as needed, at the site frontage. A one percent growth rate was applied to these volumes to the baseline year, 2014.

Based on the results of the field surveys, the peak hour volumes were identified to occur during the following time periods:

- Weekday morning – Vary by intersection; and,
- Weekday afternoon – 4:45 to 5:45 P.M.

Old Post Road, east of Playland Parkway Northbound On/Off Ramps, had a two-way volume of 380 and 399 vehicles during the two peak hours noted above. On Old Post Road west of the same intersection the two-way volume was recorded at 878 and

699 vehicles during the same two peak hours. For the section of Old Post Road west of the Playland Access Drive the two-way volume was 665 and 417 vehicles during the two peak hours noted above. Playland Access Drive, north of Old Post Road the two-way volume was 541 and 512 vehicles during the two peak hours noted above

Theodore Fremd Avenue, west of the Playland Access Drive intersection had a two-way volume of 681 and 669 vehicles during the two peak hours noted above. For the section east of the Playland Parkway Access Drive the two-way volume was found to be 628 and 617 vehicles during the same peak hours noted above.

For reference purposes, the medical office building access drive intersection with Playland Access Drive had a driveway volume of 195 and 101 vehicles during the two peak hours. The site driveway had a two-way volume of 4 and 6 vehicles during the two peak hours. Table 1 provides a summary of the volumes noted above. Figures 3 and 4 show the peak hour volumes for the weekday morning and weekday afternoon peak hours, respectively. The field sheets for the 2014 traffic counts at the Old Post Road/Playland Access Road intersection are included in the Appendix of this report

Accident Experience

The latest available accident data was obtained from the City of Rye Police Department for a period beginning January 1, 2011 through December 31, 2013 for Playland Access Road and Old Post Road. For the intersection of Playland Access Road at Theodore Fremd Avenue, there were a total of 7 accidents recorded during this three-year period. Data indicates that 57 percent of the accidents were limited to only property damage and 43 percent involved injuries. The collision types were 86 percent involving a rear-end collision and 14 percent involved a left turn collision. The contributing factors were 44 percent unknown and 14 percent were driver fell asleep, pavement slippery, traffic control disregarded and driver inattention. It was found that 86 percent of the accidents occurred during daylight hours and 57 percent occurred on dry road conditions.

Table 1
2014 TWO–WAY TRAFFIC VOLUMES – PEAK HOURS
Age-Restricted Residential Development
120 Old Post Road
Rye, New York

LOCATION	VEHICLES	
	Weekday Morning	Weekday Afternoon
Playland Parkway Northbound On/Off Ramps, North of Old Post Road	800	606
Old Post Road, East of Playland Parkway Northbound On/Off Ramps	380	399
Old Post Road, West Playland Parkway Northbound On/Off Ramps	878	699
Playland Access Drive, North of Old Post Road	541	512
Old Post Road, East of Playland Access Drive	878	699
Old Post Road, West of Playland Access Drive	665	417
Office Building Access Drive, West of Playland Access Drive	4	6
Playland Access Drive, South of Office Building Access Drive	541	512
Playland Access Drive, North of Office Building Access Drive	541	510
Playland Parkway Southbound On/Off Ramp, East of Playland Access Drive	791	448
Medical Office Building Access Drive, West of Playland Access Drive	195	101
Playland Access Drive, South of Playland Parkway Southbound On/Off Ramp/Medical Office Building Access Drive	541	507
Playland Access Drive, North of Playland Parkway Southbound On/Off Ramp/Medical Office Building Access Drive	939	622
Playland Access Drive, South of Theodore Fremd Avenue	585	448
Theodore Fremd Avenue, West of Playland Access Drive	681	669
Theodore Fremd Avenue, East of Playland Access Drive	628	617

Table 1 Cont'd

Source:

1) 2014 traffic volumes from Tim Miller Associates, Inc. Traffic Study for 150 North Street were utilized for the Playland Parkway Southbound Ramps at Playland Access Drive, Theodore Fremd Avenue at Playland Access Drive and Playland Parkway Northbound On/Off Ramps at Old Post Road intersections for the weekday morning peak hour.
2) 2012 existing traffic volumes from the office to hotel building conversion traffic study prepared by Frederick P. Clark Associates, Inc. were adjusted and balanced to the Tim Miller Associates, Inc. volumes for the site access drive for the weekday morning peak hour.
3) Manual turning movement counts conducted by Frederick P. Clark Associates, Inc. on Thursday, October 30. 2014 from 7:00 A.M. to 9:00 A.M. at the Old Post Road/Playland Access Drive intersection.
4) 2013 existing traffic volumes with the park open from Playland, Year One Development Program, prepared by John Meyers Consulting, P.C., October, 2013, were utilized for the weekday afternoon peak hour. These volumes had a one percent growth rate applied to the baseline year, 2014.

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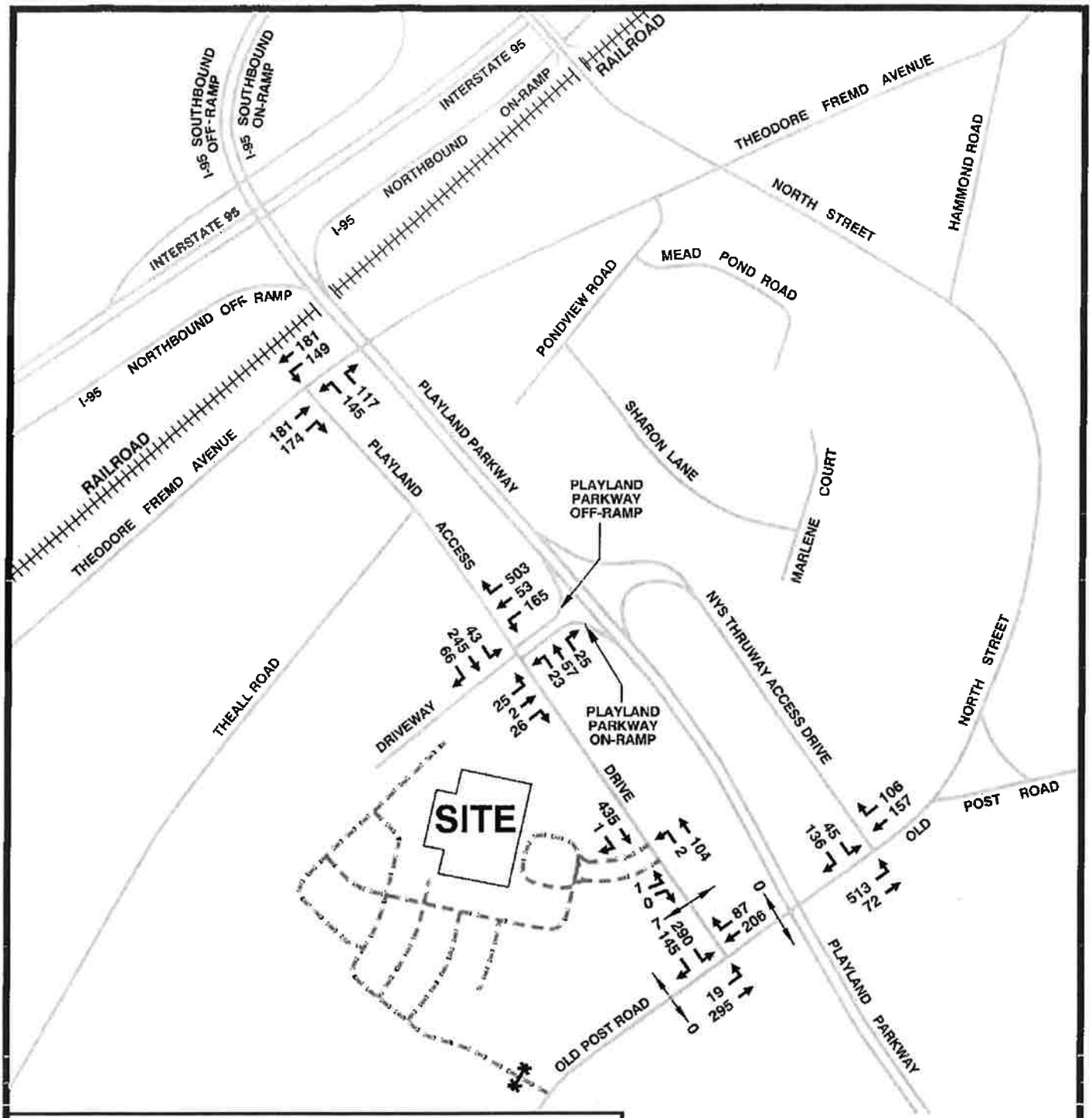

Notes:

1- The 2014 Traffic Volumes from Tim Miller Associates, Inc. Traffic Study for 150 North Street, were utilized for the Playland Parkway Southbound Ramps at Playland Access Drive, Theodore Fremd Avenue at Playland Access Drive and Old Post Road at New York State Thruway Access Drive intersections. Peak Hour of each intersection was used.

2- The 2012 Existing Traffic Volumes from the Office To Hotel Building Conversion Traffic Study prepared by Frederick P. Clark Associates, Inc. were adjusted and balanced to the Tim Miller Associates, Inc. volumes for the Site Access Drive.

3- Manual turning movement counts conducted by Frederick P. Clark Associates, Inc. on Thursday, October 30, 2014 from 7:00 to 9:00 A.M. for Old Post Road at Playland Access Road. Peak Hour of this intersection is utilized.

LEGEND

0 PEDESTRIAN TRAFFIC

SITE ACCESS DRIVE

CLOSED SITE ACCESS DRIVE

2014 EXISTING TRAFFIC VOLUMES
WEEKDAY MORNING PEAK HOUR

AGE-RESTRICTED RESIDENTIAL DEVELOPMENT
120 Old Post Road
Rye, New York

N

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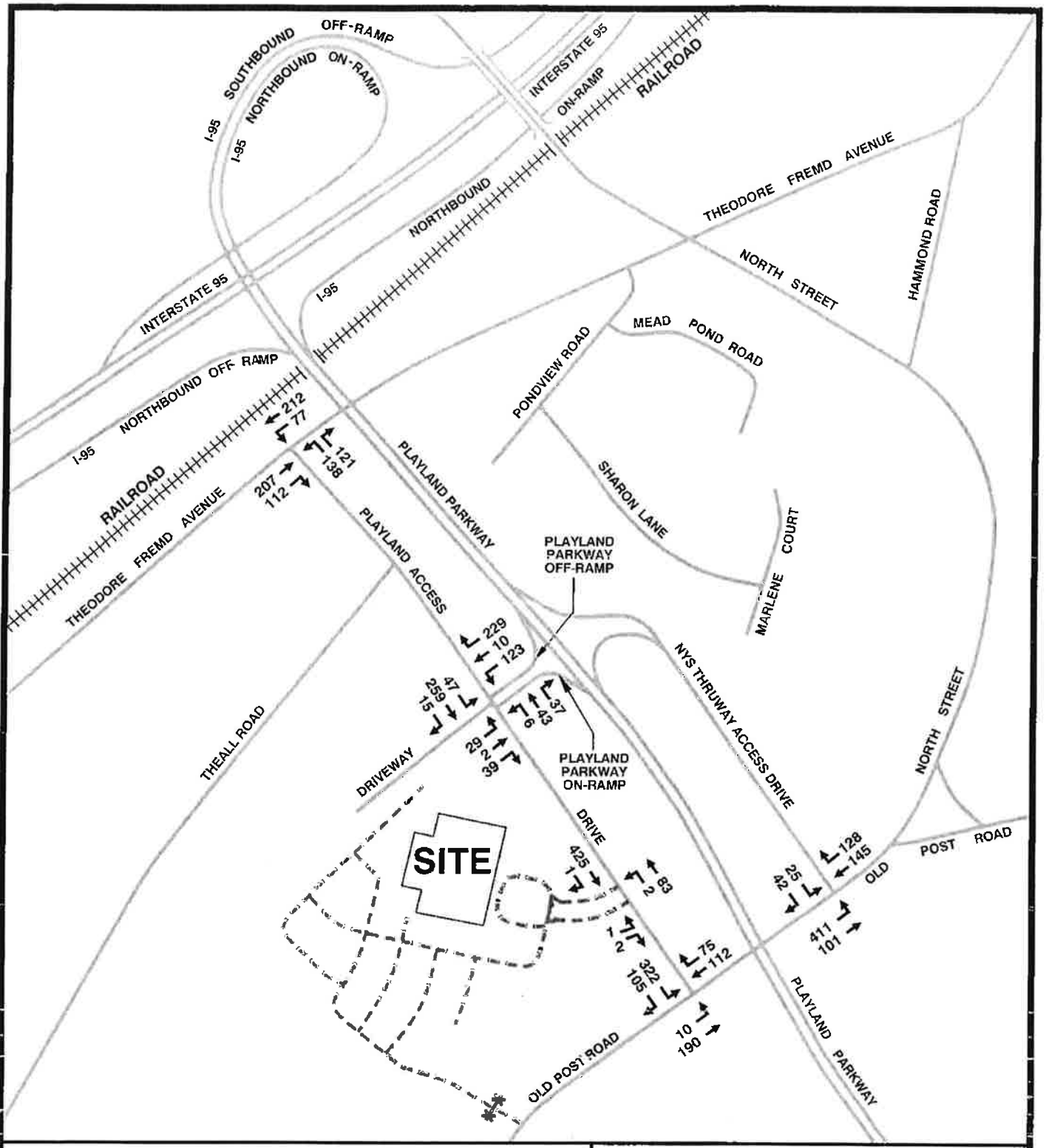

Notes:

1- 2013 Existing Traffic Volumes with the Park open from Playland, Year One Development Program, prepared by John Meyer Consulting, P.C. October, 2013, were utilized.

2- A one percent growth rate was applied to the baseline year, 2014.

LEGEND

SITE ACCESS DRIVE

CLOSED SITE ACCESS DRIVE

2014 EXISTING TRAFFIC VOLUMES
WEEKDAY AFTERNOON PEAK HOUR
(4:45 - 5:45 P.M.)

AGE-RESTRICTED RESIDENTIAL DEVELOPMENT
120 Old Post Road
Rye, New York

N

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File: G:\76\Figure 120 Old Post Road, Rye\AutoCad\Figures\Fig 4

For the section of Playland Access Road between Theodore Fremd Avenue and Playland Parkway Southbound On/Off Ramp/Medical Office Building Access Drive, there were a total of 11 accidents recorded during this three-year period. Data indicates that 82 percent of the accidents were limited to only property damage and 18 percent involved injuries. The collision types were 55 percent involving a rear-end collision, 27 percent were right angle collisions and 9 percent involved left turn and right turn collision. The contributing factors were 55 percent driver inattention and 9 percent were following too closely, failure to grant right-of-way, unknown and view obstructed. It was found that all of the accidents occurred during daylight hours and 55 percent occurred on dry road conditions.

For the intersection of Playland Access Road at Playland Parkway Southbound On/Off Ramp/Medical Office Building Access Drive, there were a total of 18 accidents recorded during this three-year period. Data indicates that 83 percent of the accidents were limited to only property damage and 17 percent involved injuries. The collision types were 44 percent involving a right angle collision, 21 percent involved left turn collision, 17 percent involved a rear-end collision and 6 percent involved right turn collision, sideswipe in the same direction and backing. The contributing factors were 38 percent for failure to grant right-of-way, 33 percent driver inattention, 11 percent were unknown and 6 percent involved pavement slippery, traffic control disregarded and unsafe backing. It was found that 89 percent of the accidents occurred during daylight hours and on dry road conditions. For the section of Playland Access Road between Playland Parkway Southbound On/Off Ramp/Medical Office Building Access Drive and Site Access Drive, there were no recorded accidents.

For the intersection of Playland Access Road at Site Access Drive, there were no recorded accidents. For the section of Playland Access Road between Site Access Drive and Old Post Road, there were no recorded accidents.

For the intersection of Old Post Road at Playland Access Road, there were a total of 3 accidents recorded during this three-year period. Data indicates that all of the accidents were limited to only property damage. The collision types were 67 percent involving a rear-end collision and 33 percent involved a left turn collision. The contributing factors were 34 percent for following too closely and 33 percent were failure to grant right-of-way and traffic control disregarded. It was found that 67 percent of the accidents occurred during daylight hours and 33 percent occurred on dry road conditions. For the section of Old Post Road between Playland Access Road and Playland Parkway Northbound On/Off Ramps, there were no recorded accidents.

For the intersection of Old Post Road at Playland Parkway Northbound On/Off Ramps, there were a total of 3 accidents recorded during this three-year period. Data indicates that 67 percent of the accidents were limited to only property damage and 33 percent involved injuries. The collision types were 67 percent involving a rear-end collision and 33 percent involved a left turn collision. The contributing factors were 67 percent for following too closely and 33 percent were failure to grant right-of-way. It was found that all of the accidents occurred during daylight hours and on dry road conditions. Table 2 provides a more detailed summary of the accident data

Capacity Analysis Procedures

Capacity analysis procedures are provided in the Appendix of this report. The analyses follow a SYNCHRO computer model and information provided by the Transportation Research Board (TRB) and the Highway Capacity Manual (HCM) published in 2010.

Capacity Analysis Results

The results of the analysis for the Study Area intersections included in the designated Study Area are described below:

Table 2
ACCIDENT EXPERIENCE SUMMARY – PLAYLAND ACCESS ROAD/OLD POST ROAD
Age-Restricted Residential Development
120 Old Post Road
Rye, New York

ACCIDENT CHARACTERISTICS	PLAYLAND ACCESS ROAD												OLD POST ROAD					
	At Theodore Fremd Avenue		Between Theodore Fremd Avenue and Playland Parkway Southbound On/Off Ramp/Medical Office Building Access Drive		At Playland Parkway Southbound On/Off Ramp/Medical Office Building Access Drive		Between Playland Parkway Southbound On/Off Ramp/Medical Office Building Access Drive and Site Access Drive		At Site Access Drive		Between Site Access Drive and Old Post Road		At Playland Access Road		Between Playland Access Road and Playland Parkway Northbound On/Off Ramps		At Playland Parkway Northbound On/Off Ramps	
	Total	%	Total	%	Total	%	Total	%	Total	%	Total	%	Total	%	Total	%	Total	%
Year																		
▪ 2011	5	72	0	0	8	45	0	0	0	0	0	0	2	67	0	0	1	33
▪ 2012	1	14	5	45	6	33	0	0	0	0	0	0	1	33	0	0	0	0
▪ 2013	1	14	6	55	4	22	0	0	0	0	0	0	0	0	0	0	2	67
▪ Total	7	100	11	100	18	100	0	0	0	0	0	0	3	100	0	0	3	100
Accident Severity																		
▪ Property Damage	4	57	9	82	15	83	0	0	0	0	0	0	3	100	0	0	2	67
▪ Injury	3	43	2	18	3	17	0	0	0	0	0	0	0	0	0	0	1	33
Collision Type																		
▪ Rear End	6	86	6	55	3	17	0	0	0	0	0	0	2	67	0	0	2	67
▪ Left Turn	1	14	1	9	4	21	0	0	0	0	0	0	1	33	0	0	1	33
▪ Right Turn	0	0	1	9	1	6	0	0	0	0	0	0	0	0	0	0	0	0
▪ Right Angle	0	0	3	27	8	44	0	0	0	0	0	0	0	0	0	0	0	0
▪ Sideswipe-Same Dir.	0	0	0	0	1	6	0	0	0	0	0	0	0	0	0	0	0	0
▪ Backing	0	0	0	0	1	6	0	0	0	0	0	0	0	0	0	0	0	0
Contributing Factor																		
▪ Following Too Closely	0	0	1	9	0	0	0	0	0	0	0	0	1	34	0	0	2	67
▪ Failure to Grant ROW	0	0	1	9	7	38	0	0	0	0	0	0	0	0	0	0	1	33
▪ Fell Asleep	1	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
▪ Pavement Slippery	1	14	1	9	1	6	0	0	0	0	0	0	1	33	0	0	0	0
▪ Traffic Control Disregard	1	14	0	0	1	6	0	0	0	0	0	0	1	33	0	0	0	0
▪ Driver Inattention	1	14	6	55	6	33	0	0	0	0	0	0	0	0	0	0	0	0
▪ Unknown	3	44	1	9	2	11	0	0	0	0	0	0	0	0	0	0	0	0
▪ View Obstructed	0	0	1	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0
▪ Unsafe Backing	0	0	0	0	1	6	0	0	0	0	0	0	0	0	0	0	0	0
Light Condition																		
▪ Daylight	6	86	11	100	16	89	0	0	0	0	0	0	2	67	0	0	3	100
▪ Dark Lit	1	14	0	0	2	11	0	0	0	0	0	0	1	33	0	0	0	0
Surface Condition																		
▪ Dry	4	57	6	55	16	89	0	0	0	0	0	0	1	33	0	0	3	100
▪ Wet	3	43	4	36	2	11	0	0	0	0	0	0	2	67	0	0	0	0
▪ Snow/Ice	0	0	1	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Table 2 Cont'd

ACCIDENT CHARACTERISTICS	PLAYLAND ACCESS ROAD												OLD POST ROAD					
	At Theodore Fremd Avenue		Between Theodore Fremd Avenue and Playland Parkway Southbound On/Off Ramp/Medical Office Building Access Drive		At Playland Parkway Southbound On/Off Ramp/Medical Office Building Access Drive		Between Playland Parkway Southbound On/Off Ramp/Medical Office Building Access Drive and Site Access Drive		At Site Access Drive		Between Site Access Drive and Old Post Road		At Playland Access Road		Between Playland Access Road and Playland Parkway Northbound On/Off Ramps		At Playland Parkway Northbound On/Off Ramps	
	Total	%	Total	%	Total	%	Total	%	Total	%	Total	%	Total	%	Total	%	Total	%
Weather Conditions																		
▪ Clear	4	57	5	46	15	83	0	0	0	0	0	0	2	67	0	0	2	67
▪ Cloudy	1	14	1	9	3	17	0	0	0	0	0	0	0	0	0	0	1	33
▪ Rain	2	29	4	36	0	0	0	0	0	0	0	0	1	33	0	0	0	0
▪ Snow	0	0	1	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Source: Rye Police Department

Notes: The latest accident data available is from January 1, 2011 to December 31, 2013.

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1. *Theodore Fremd Avenue at Playland Access Drive* – Results of the analysis of this signalized intersection indicate it is currently operating at an overall Level of Service "B" during both the weekday morning and weekday afternoon peak hours. It includes a fixed time westbound left turn leg, which should be modified.

2. *Playland Access Drive at Playland Parkway Eastbound On/Off Ramp/Medical Office Building Access Drive* – Results of the analysis of this unsignalized intersection indicate it is currently operating at a Level of Service "E" and "C" or better during the weekday morning and weekday afternoon peak hours, respectively.

3. *Playland Access Drive at Office Building Access Drive* – Results of the analysis of this unsignalized intersection indicate it is currently operating at a Level of Service "B" or better during each peak hour analyzed.

4. *Old Post Road at Playland Access Drive* – Results of the analysis of this unsignalized intersection indicate it is currently operating at a Level of Service "F" and "D" or better during the weekday morning and weekday afternoon peak hours, respectively. This reflects conditions exiting from the STOP sign.

5. Old *Post Road at Thruway Access Drive* – Results of the analysis of this unsignalized intersection indicate it is currently operating at a Level of Service "F" and "D" or better during the weekday morning and weekday afternoon peak hours, respectively. This represents conditions exiting the ramp.

Table 3 provides a more detailed summary of the results of the analyses, as described above. This table includes the type of control, lane group/movement, description, the Level of Service, average vehicle per vehicle and the volume to capacity ratio. The capacity analysis worksheets are included in the Appendix of this report.

Table 3
2014 EXISTING CONDITIONS – MEASURE OF EFFECTIVENESS (MOE) – PEAK HOURS
Age-Restricted Residential Development
120 Old Post Road
Rye, New York

INTERSECTION	CONTROL TYPE	PHYSICAL UNITS	2014 EXISTING CONDITIONS			
			Weekday Morning		Weekday Afternoon	
			LOS/ Delay	V/C Ratio	LOS/ Delay	V/C Ratio
Theodore Fremd Avenue at Playland Access Drive	Traffic Signal	EB TR	B/18.2	0.48	B/17.6	0.40
		APP.	B/18.2	--	B/17.6	--
		WB L	B/11.4	0.28	A/9.2	0.14
		T	A/9.0	0.18	A/9.3	0.21
		APP.	B/10.1	--	A/9.3	--
		NB LR	C/33.3	0.55	C/33.2	0.54
		APP.	C/33.3	--	C/33.2	--
		Overall	B/19.6	--	B/19.5	--
Playland Access Drive at Playland Parkway Eastbound On/Off Ramp/Medical Office Building Access Drive	TWSC	EB L	E/37.1	0.33	C/17.5	0.19
		T	E/37.1	0.33	C/17.5	0.19
		R	E/37.1	0.33	C/17.5	0.19
		WB L	D/26.5	0.60	C/20.9	0.43
		T	D/26.5	0.60	C/20.9	0.43
		R	B/13.5	0.58	B/10.2	0.29
		NB L	A/0.2	0.02	A/0.1	0.01
		SB L	A/0.3	0.03	A/0.4	0.04
Playland Access Drive at Office Building Access Drive	TWSC	EB L	B/12.3	0.00	B/11.3	0.01
		R	A/0.0	0.00	B/11.3	0.01
		NB L	A/0.0	0.00	A/0.0	0.00
Old Post Road at Playland Access Drive	TWSC	EB L	A/0.2	0.02	A/0.1	0.01
		SB L	F/51.7	0.92	D/25.6	0.75
		R	F/51.7	0.92	D/25.6	0.75
Old Post Road at Thruway Access Drive	TWSC	EB L	A/4.9	0.46	A/3.9	0.38
		SB L	F/69.8	0.85	D/26.9	0.32
		R	F/69.8	0.85	D/26.9	0.32

Notes:

- Synchro 8.0 is used for capacity analysis.
- Level of Service determining parameter is called the service measure.
- For Signalized Intersections: Level of Service/Average Total delay per vehicle (seconds/vehicle).
- TWSC = Two-Way STOP Control.
- For TWSC Intersections: Level of Service/Average Control delay per vehicle (seconds/vehicle).

Table 3 Cont'd

- ITE publication for Traffic Access and Impact Studies for site development "A Recommended Practice" indicated that overall Level of Service ratings of A to D are normally considered acceptable for signalized intersections (Level C or better are considered desirable). Levels of Service E and F are normally undesirable.
- V/C ratio indicates the amount of congestion for each Lane Group or Movement. Any V/C ratio greater than or equal to one indicates that the Lane Group or Movement is operating at above capacity.
- Physical Units consist of the following:
  1. Lane Group, Approach and Intersection Overall for Traffic Signal Controlled Intersections.
  2. Movements for TWSC Intersections.

NB = Northbound	EB = Eastbound	SB = Southbound	WB = Westbound
L = Left Turn	T = Through	R = Right Turn	APP. = Approach

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FUTURE TRAFFIC IMPACTS

In this section of the report there is a description of the background and combined traffic volumes for a 2016 condition at each of the intersections included in the designated Study Area for the weekday morning and weekday afternoon peak hours. It includes a description of site traffic generation, distribution and assignment of site traffic and results of capacity analyses for a background and combined condition. A comparison of the results of these analyses indicates the potential impact to area roads and intersections. Capacity analyses were conducted to determine impact and if any mitigation is needed.

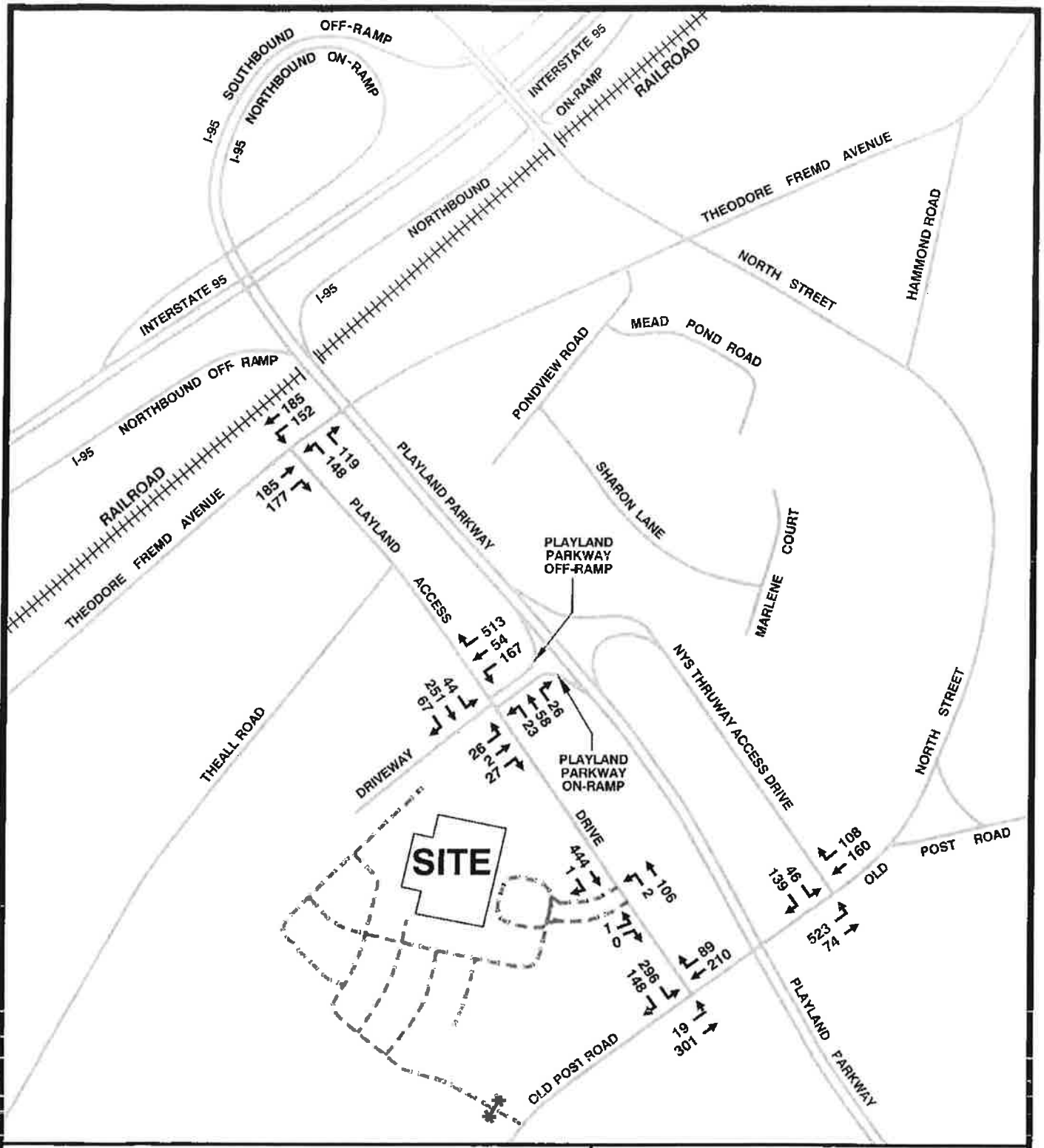
Background Traffic Volumes

The baseline traffic volumes for 2014 were expanded to reflect a 2016 condition by applying an annual growth rate of one percent. The volumes for this condition are graphically illustrated in Figures 5 and 6 for the peak hours noted above.

In addition to a general growth rate for traffic in the surrounding area, field observations and discussions with the City of Rye Planning department identified the following other developments:

- 58 Attached Senor Residential units at 150 North Street, Traffic Study prepared by Tim Miller Associates, Inc.;
- Year One Development Program, Playland, Traffic Study prepared by John Meyer Consulting, P.C. October, 2013; and,
- 5,000 square-feet of vacant office space located at 555 Theodore Fremd Avenue. This traffic is included in the growth rate.

For planning purposes no additional traffic was added during the weekday morning peak hour for the Year One Development Program, Playland. Figures 7 and 8



Note: An annual growth rate of one percent was employed to the horizon year 2016.

LEGEND

SITE ACCESS DRIVE

CLOSED SITE ACCESS DRIVE

2016 PROJECTED TRAFFIC VOLUMES
WEEKDAY MORNING PEAK HOUR

AGE-RESTRICTED RESIDENTIAL DEVELOPMENT
120 Old Post Road
Rye, New York

N

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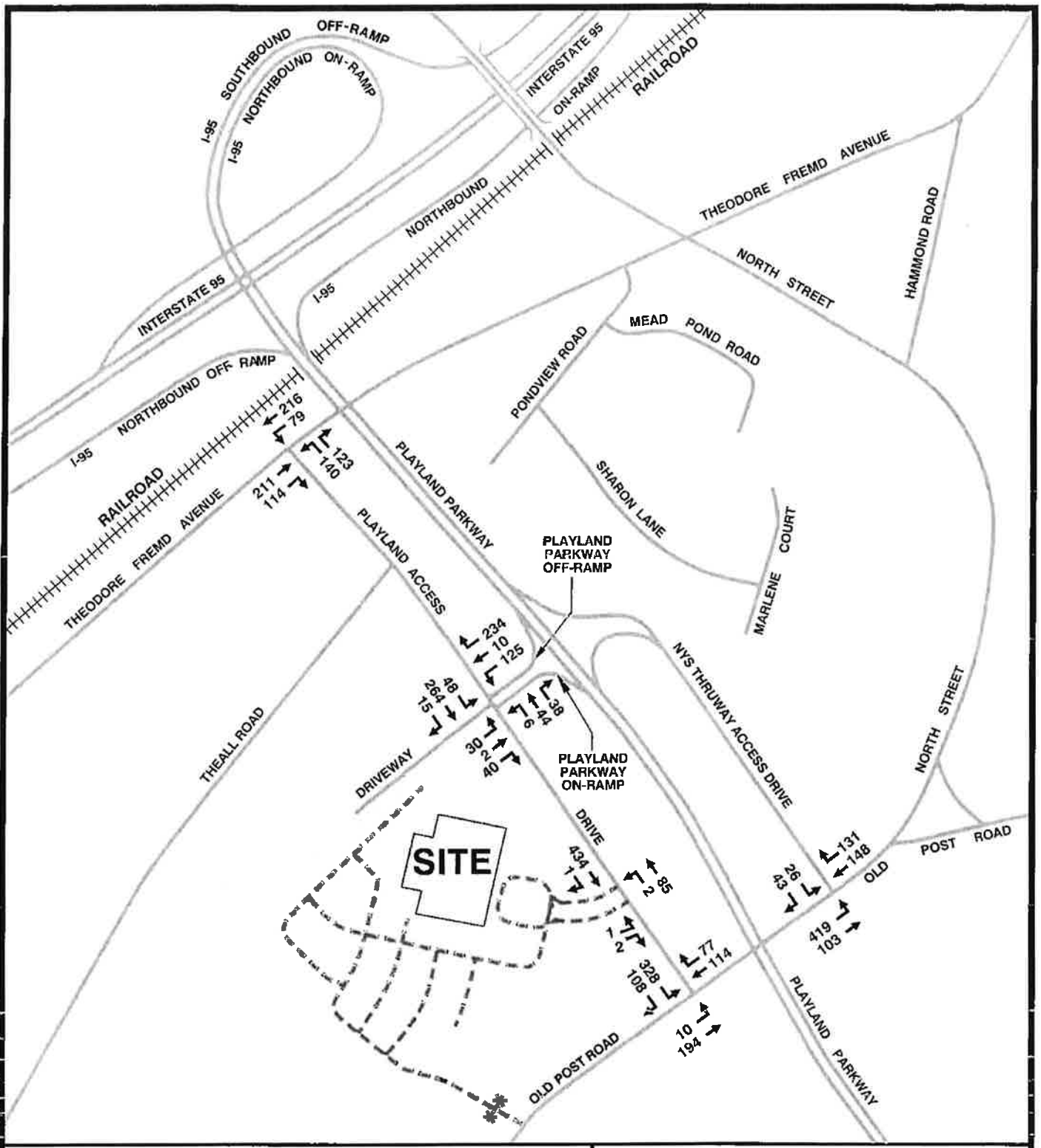

Note: An annual growth rate of one percent was employed to the horizon year 2016.

LEGEND

SITE ACCESS DRIVE

CLOSED SITE ACCESS DRIVE

2016 PROJECTED TRAFFIC VOLUMES
WEEKDAY AFTERNOON PEAK HOUR

AGE-RESTRICTED RESIDENTIAL DEVELOPMENT
120 Old Post Road
Rye, New York

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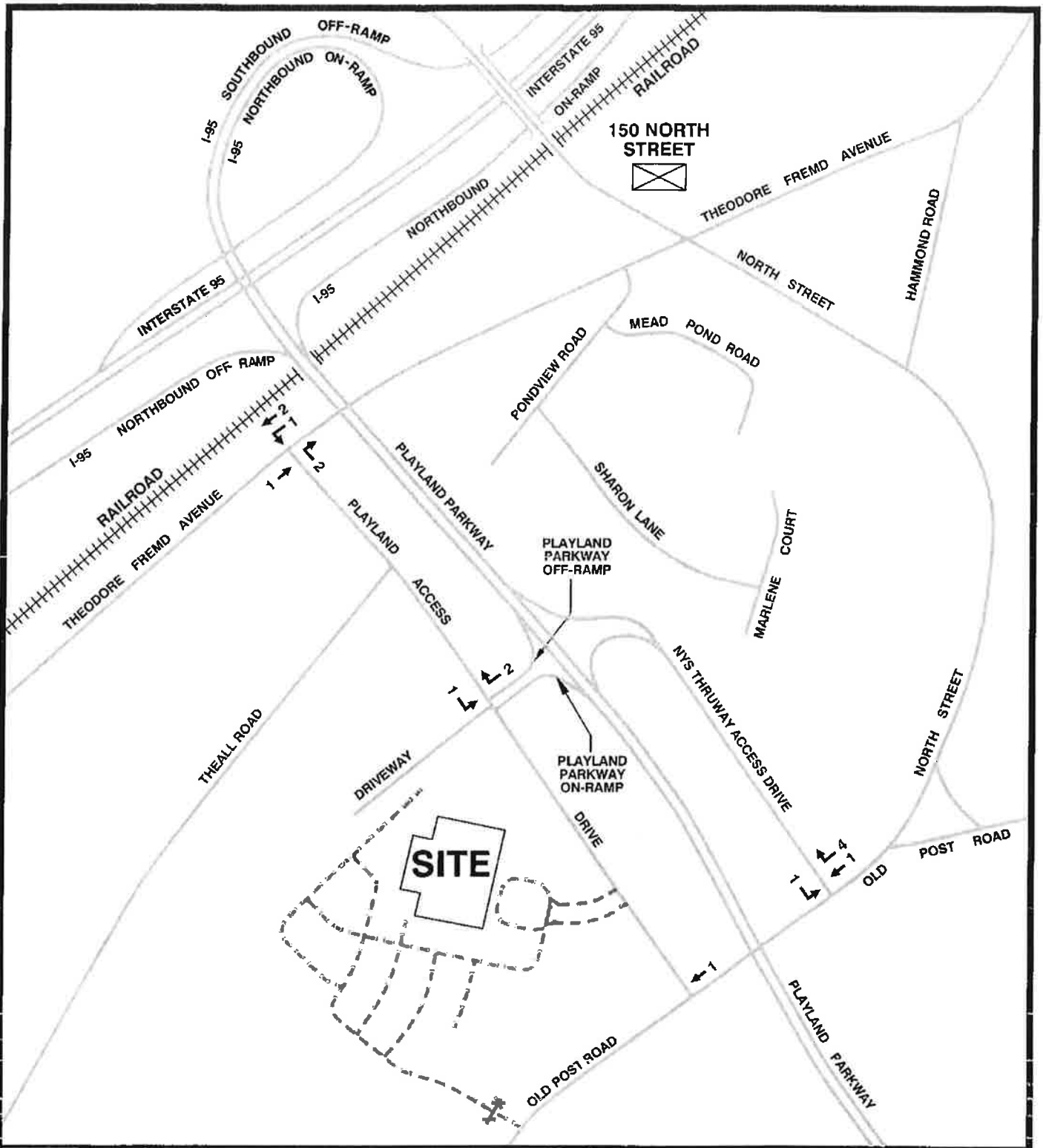

Notes: Other Developments include:

- 5,000 Square Feet vacant office space located at 555 Theodore Fremd Avenue. This traffic is included in the growth rate.
- 58 Attached Senior Residential Units located at 150 North Street from Traffic Study prepared by Tim Miller Associates.

LEGEND

SITE ACCESS DRIVE

CLOSED SITE ACCESS DRIVE

OTHER DEVELOPMENTS TRAFFIC VOLUMES
WEEKDAY MORNING PEAK HOUR

AGE-RESTRICTED RESIDENTIAL DEVELOPMENT
120 Old Post Road
Rye, New York

N

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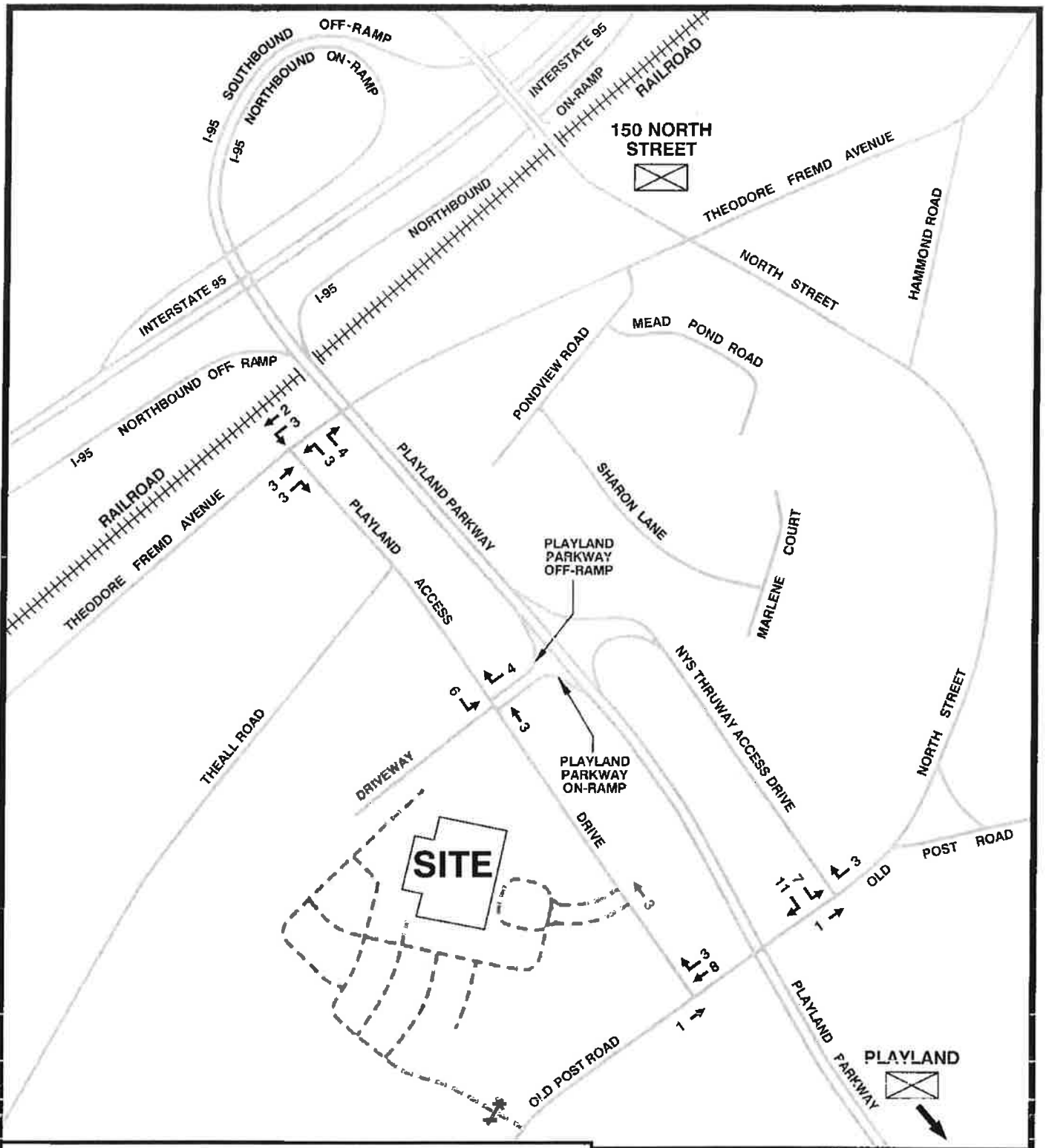

Notes: Other Developments include:

- 5,000 Square Feet vacant office space located at 555 Theodore Fremd Avenue. This traffic is included in the growth rate.
- 58 Attached Senior Residential Units located at 150 North Street from Traffic Study prepared by Tim miller Associates.
- Year One Development Program, Playland, Traffic Study prepared by John Meyer Consulting, P.C. October 2013.

LEGEND

SITE ACCESS DRIVE

CLOSED SITE ACCESS DRIVE

OTHER DEVELOPMENTS TRAFFIC VOLUMES
WEEKDAY AFTERNOON PEAK HOUR

AGE-RESTRICTED RESIDENTIAL DEVELOPMENT
120 Old Post Road
Rye, New York

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File: G:\1760.004 120 Old Post Road, Rye\AutoCad\Figures\Fig 8

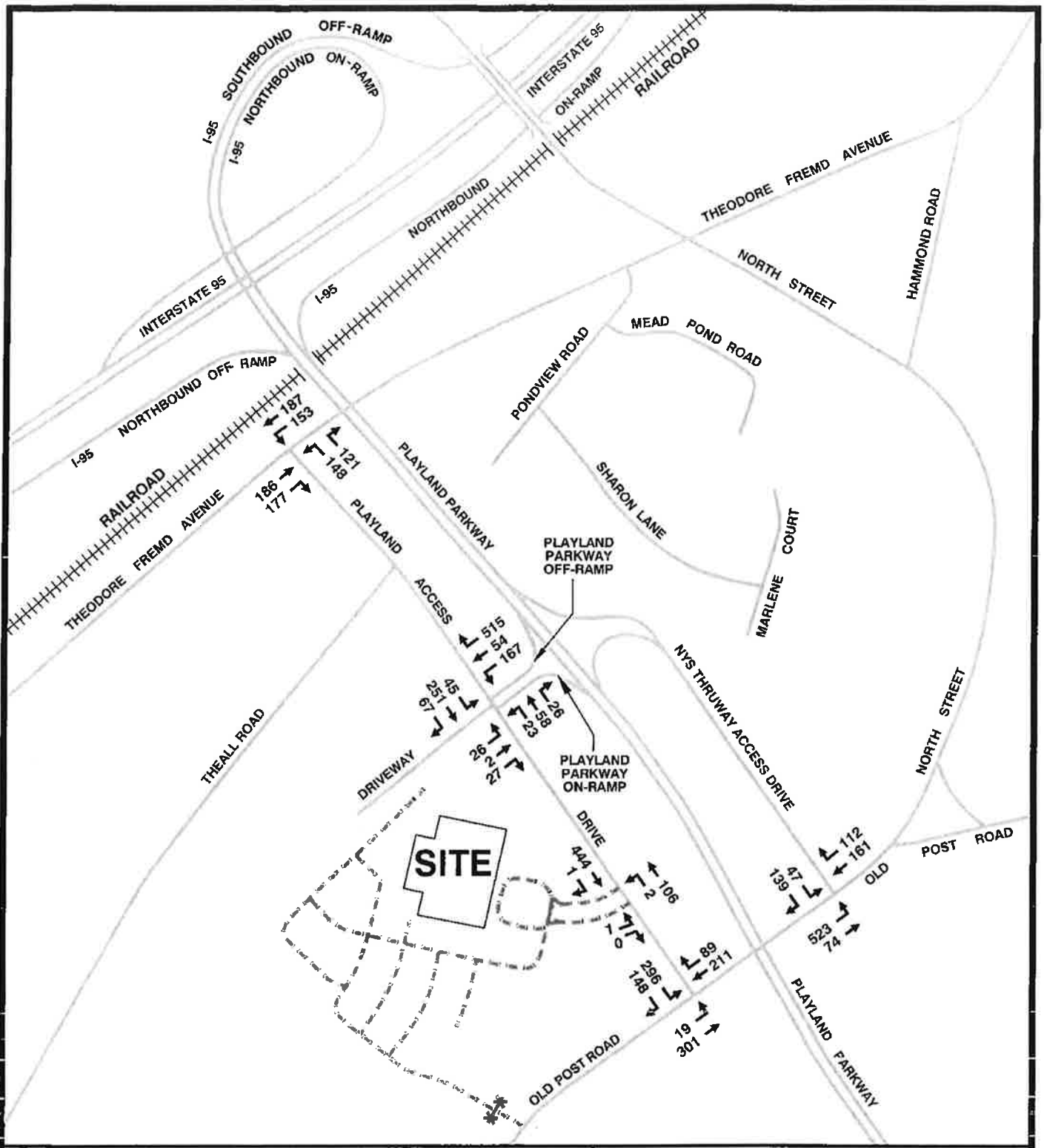
show the other development traffic volumes for each peak hour. Figures 9 and 10 graphically illustrate the 2016 background traffic volumes for area roads and include the growth rate and traffic related to the other developments. It is important to note that the senior residential development and Playland development are not approved applications.

Site Traffic Generation

To estimate the total number of vehicle trips for the proposed 135 age-restricted residential units, trip generation rates were obtained from the 9th Edition of "Trip Generation," published by the Institute of Transportation Engineers (ITE) in 2012. Using the Senior Adult Housing – Attached Code #252 and applying the average rates available, the expected site traffic is 27 and 34 vehicle trip ends during the weekday morning and weekday afternoon peak hours, respectively.

The current office building comprises 70,000 square feet of gross floor area. The building is vacant, except for the Owners of the building offices, which currently generates 4 and 6 vehicle trip ends during the weekday morning and weekday afternoon peak hours, respectively.

To estimate the total number of vehicle trips for this type of building fully occupied with a multi-tenant occupancy, trip generation rates were obtained from the 9th Edition of "Trip Generation," published by the Institute of Transportation Engineers (ITE) in 2012. Using the General Office Code #710 and applying the average rates available for this type of building, the expected estimate for total site traffic is 109 and 104 vehicle trip ends for the weekday morning and weekday afternoon peak hours, respectively. Comparing the current land use to the proposed age-restricted attached residential units, there will be a net decrease in site traffic of 82 and 70 vehicle trip ends during the weekday morning and weekday afternoon peak hours, respectively. Table 4 provides a more detailed breakdown of previous land use and proposed age-restricted attached residential units site traffic generation.



Note: The 2016 Background Traffic Volumes include the 2016 Projected Traffic Volumes and the Other Developments Traffic Volumes.

LEGEND

SITE ACCESS DRIVE

CLOSED SITE ACCESS DRIVE

2016 BACKGROUND TRAFFIC VOLUMES
WEEKDAY MORNING PEAK HOUR

AGE-RESTRICTED RESIDENTIAL DEVELOPMENT
120 Old Post Road
Rye, New York

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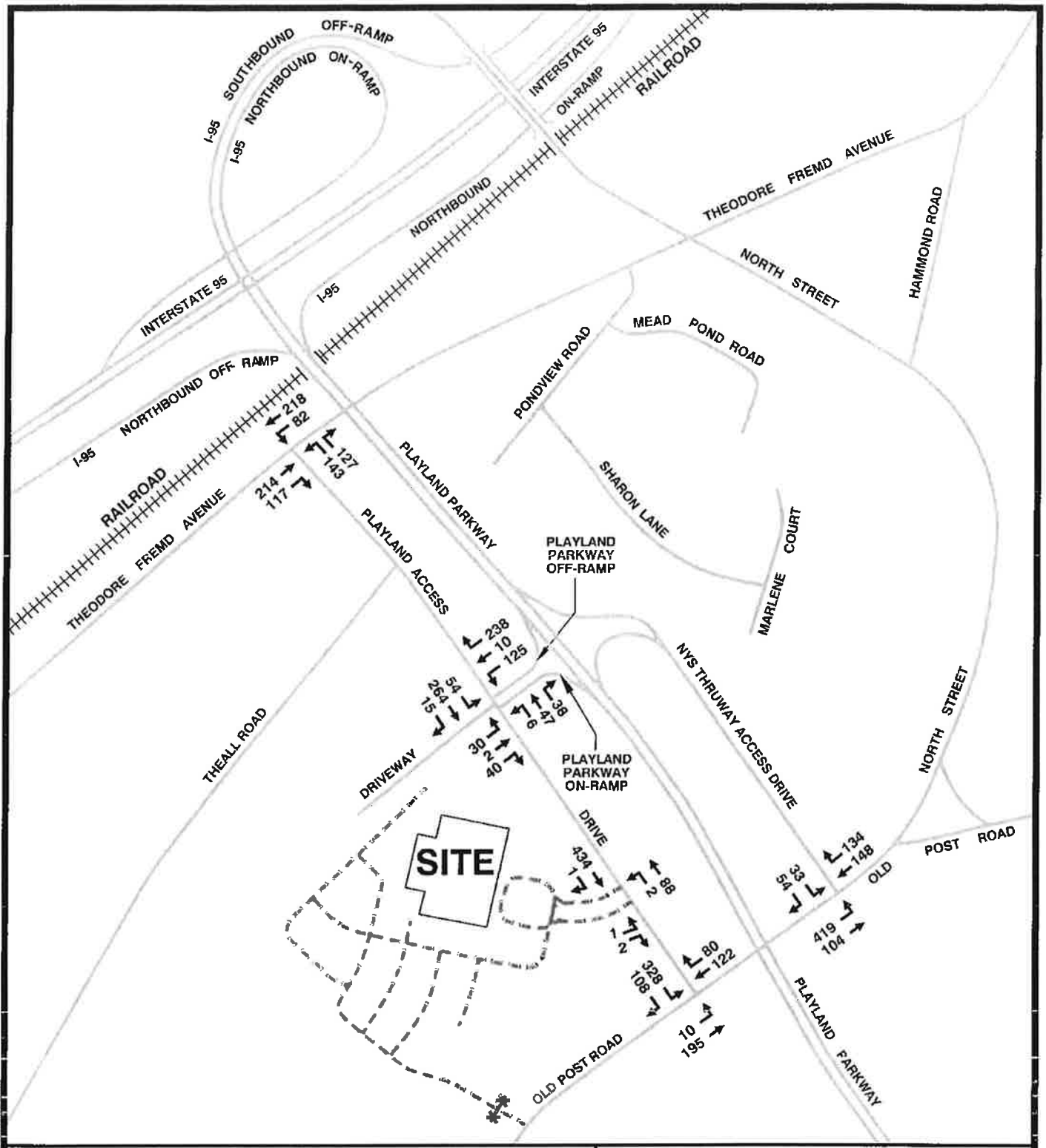

Note: The 2016 Background Traffic Volumes include the 2016 Projected Traffic Volumes and the Other Developments Traffic Volumes.

LEGEND

- SITE ACCESS DRIVE
- CLOSED SITE ACCESS DRIVE

2016 BACKGROUND TRAFFIC VOLUMES
WEEKDAY AFTERNOON PEAK HOUR

AGE-RESTRICTED RESIDENTIAL DEVELOPMENT
120 Old Post Road
Rye, New York

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Table 4
SITE TRAFFIC GENERATION COMPARISON – PEAK HOURS
Age-Restricted Residential Development
120 Old Post Road
Rye, New York

PROPOSED LAND USE				
LAND USE	SIZE	TRAFFIC DIRECTION	VEHICLE TRIP ENDS	
			Weekday Morning	Weekday Afternoon
Senior Adult Housing – Attached	135 Dwelling Units	Enter	9	18
		Exit	18	16
		Total	27	34

Source: "Trip Generation," 9th Edition, published by the Institute of Transportation Engineers (ITE), 2012 using Senior Adult Housing – Attached, Code #252 average rates.

CURRENT LAND USE				
LAND USE	SIZE	TRAFFIC DIRECTION	VEHICLE TRIP ENDS	
			Weekday Morning	Weekday Afternoon
General Office Building	70,000 S.F.	Enter	96	18
		Exit	13	86
		Total	109	104

Source: "Trip Generation," 9th Edition, published by the Institute of Transportation Engineers (ITE), 2012 using General Office Building, Code #710 Average Rates.

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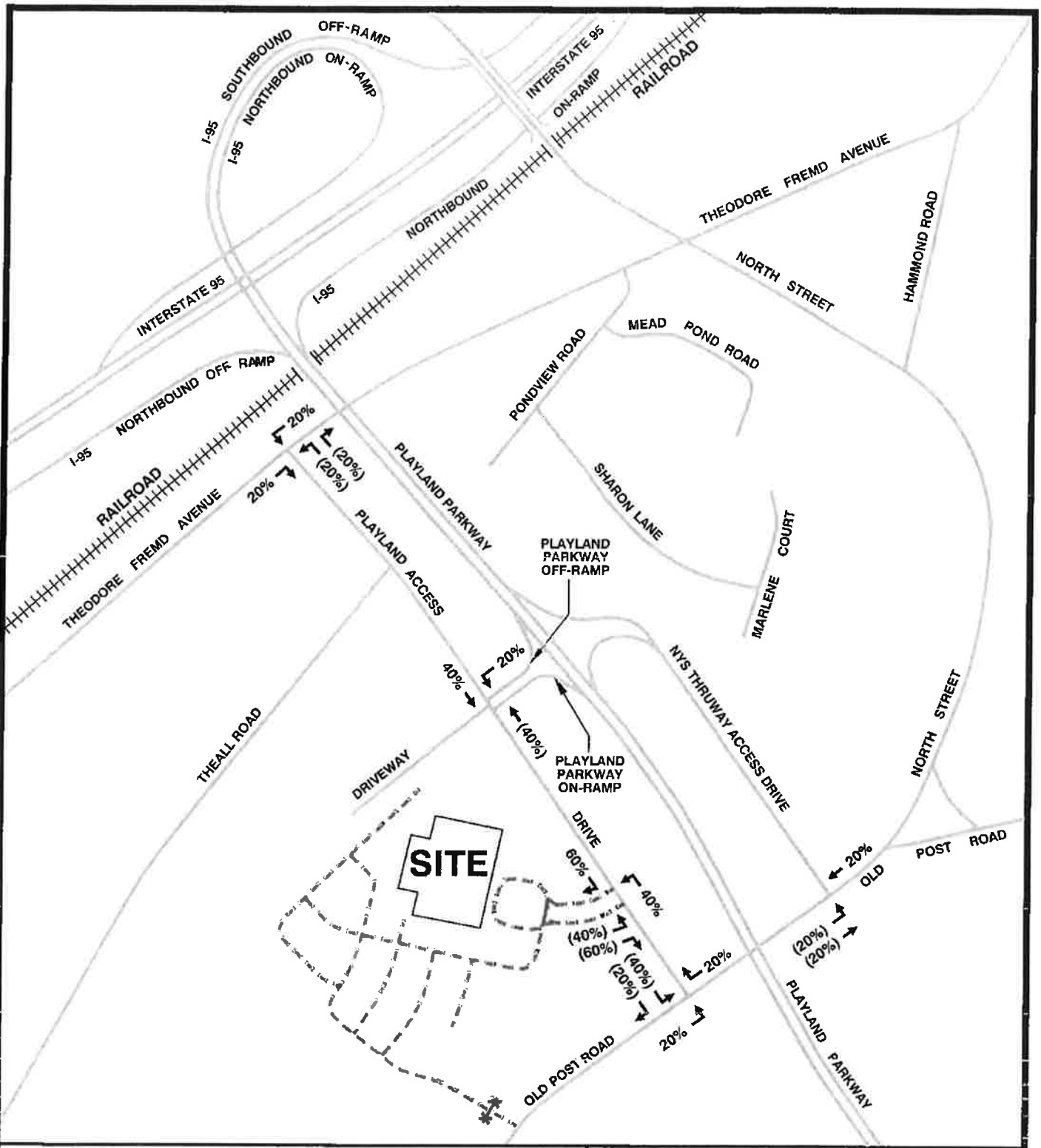
Site Traffic Distribution and Assignment

To develop the anticipated distribution patterns for the additional site traffic, an evaluation of current patterns at the site access drive and patterns for traffic conditions on area roads were analyzed. Based on the results of this analysis it was determined that for arrivals 60 percent of the site traffic will turn right into the subject driveway from Playland Access Drive. It is anticipated that 20 percent will arrive from the southbound off-ramp of Playland Parkway from Interstate 95, 20 percent from the southwest on Theodore Fremd Avenue and the remaining 20 percent from the northeast on Theodore Fremd Avenue. The remaining 40 percent arriving at the site driveway from the south on Playland Access Drive is expected to breakdown to 20 percent arriving from the northeast on Old Post Road and the remaining 20 percent arriving from the southwest on Old Post Road.

For exiting movements it was found that 60 percent of the site traffic will exit and turn right from the driveway to travel southbound on Playland Access Drive to the intersection with Old Post Road. At Old Post Road 40 percent will turn left to travel northeast on Old Post Road, 20 percent turning left onto the Playland Parkway northbound ramps and the remaining 20 percent continuing northeast on Old Post Road to North Street. The remaining 20 percent traveling southeast on Playland Access Drive will turn right onto Old Post Road to travel to Boston Post Road. For the exiting movements turning left at the access drive 40 percent of the site traffic will continue northwest on Playland Access Drive to Theodore Fremd Avenue, where 20 percent will turn left and the remaining 20 percent will turn right.

Figure 11 graphically shows the distribution patterns anticipated for the additional to be added to area roads during the peak hours. Figures 12 and 13 show the site traffic generation and assignment for the peak hours.



SITE TRAFFIC
Enter 00%
Exit (00%)

LEGEND

SITE ACCESS DRIVE

CLOSED SITE ACCESS DRIVE

SITE TRAFFIC DISTRIBUTION

AGE-RESTRICTED RESIDENTIAL DEVELOPMENT
120 Old Post Road
Rye, New York

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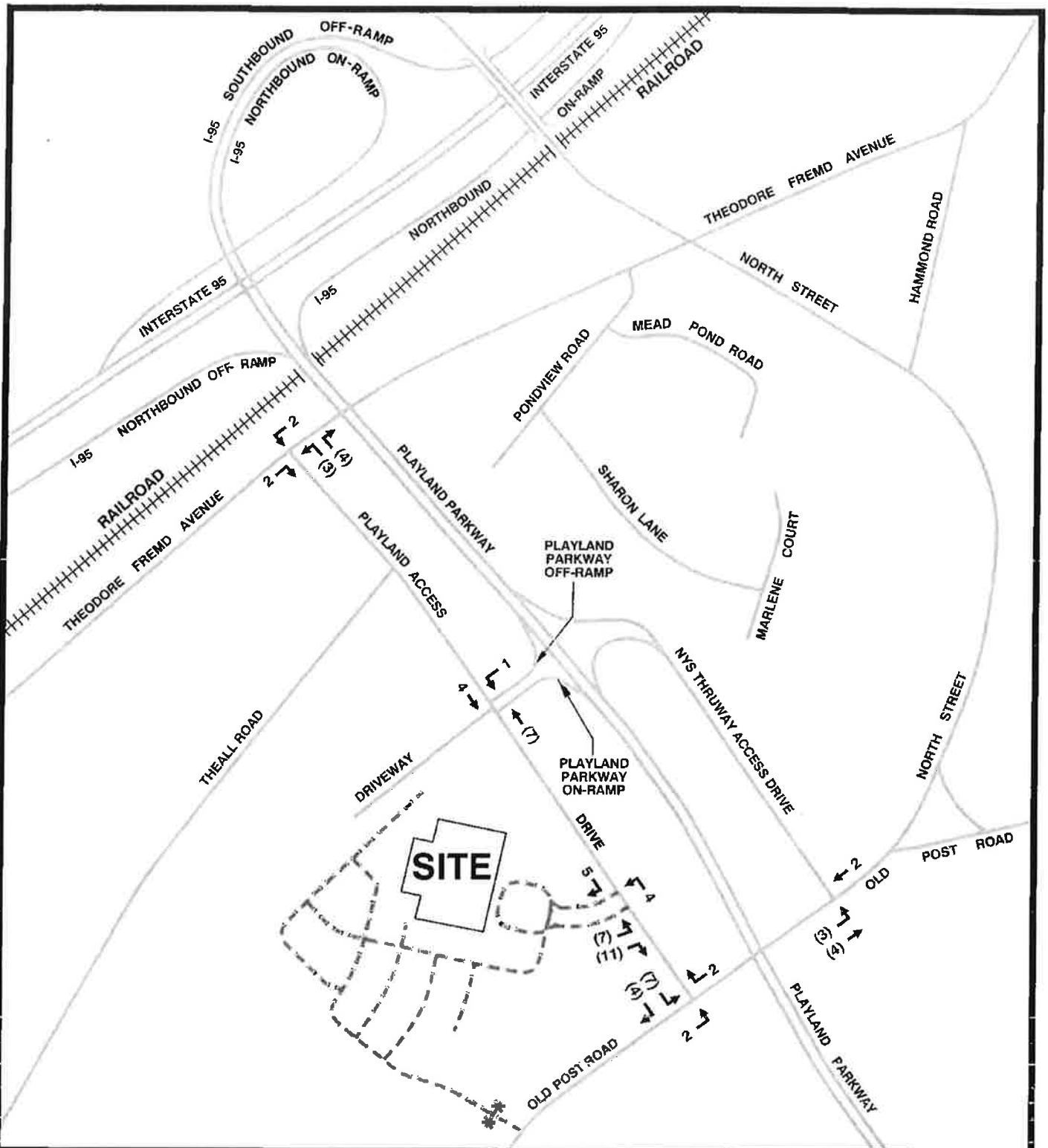

SITE TRAFFIC
Enter 9
Exit (18)
Total 27 Vehicle Trip Ends

LEGEND
SITE ACCESS DRIVE
CLOSED SITE ACCESS DRIVE

SITE TRAFFIC GENERATION AND ASSIGNMENT WEEKDAY MORNING PEAK HOUR

AGE-RESTRICTED RESIDENTIAL DEVELOPMENT
120 Old Post Road
Rye, New York

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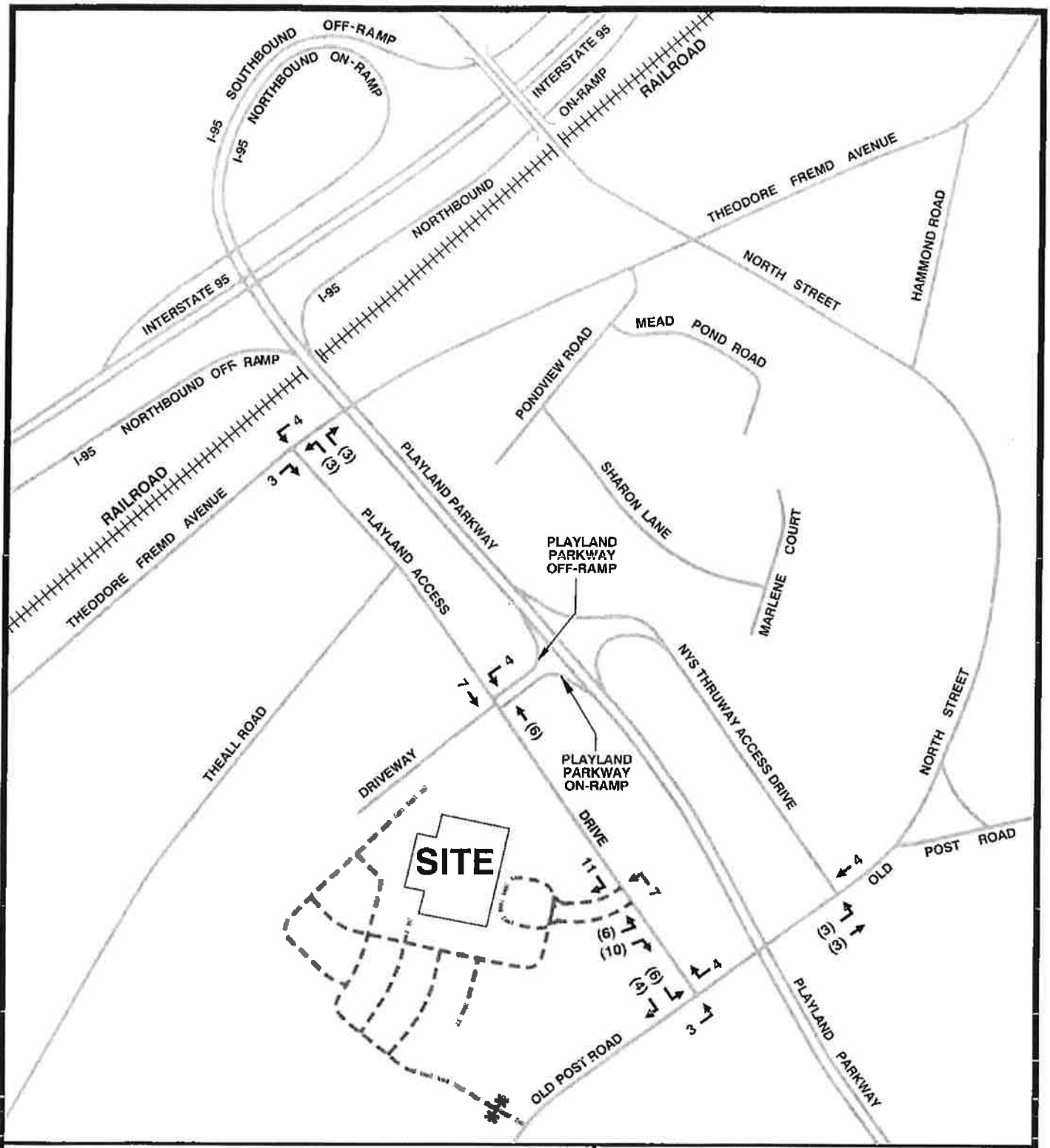

SITE TRAFFIC
Enter 18
Exit (16)
Total 34 Vehicle Trip Ends

LEGEND
SITE ACCESS DRIVE
CLOSED SITE ACCESS DRIVE

SITE TRAFFIC GENERATION AND ASSIGNMENT WEEKDAY AFTERNOON PEAK HOUR

AGE-RESTRICTED RESIDENTIAL DEVELOPMENT
120 Old Post Road
Rye, New York

N

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Combined Traffic Volumes

The combined traffic volumes were developed by adding the residential-related traffic to the area roadways for both peak periods to develop a 2016 combined traffic volume condition. Results of this combination of volumes, with the background traffic volumes, which are previously described in this report, Figures 14 and 15, were prepared.

Capacity Analysis Results – Background and Combined Conditions

The following is a summary of the results of the analyses of the intersections included in this Study Area for both a background and combined condition for the four peak hours:

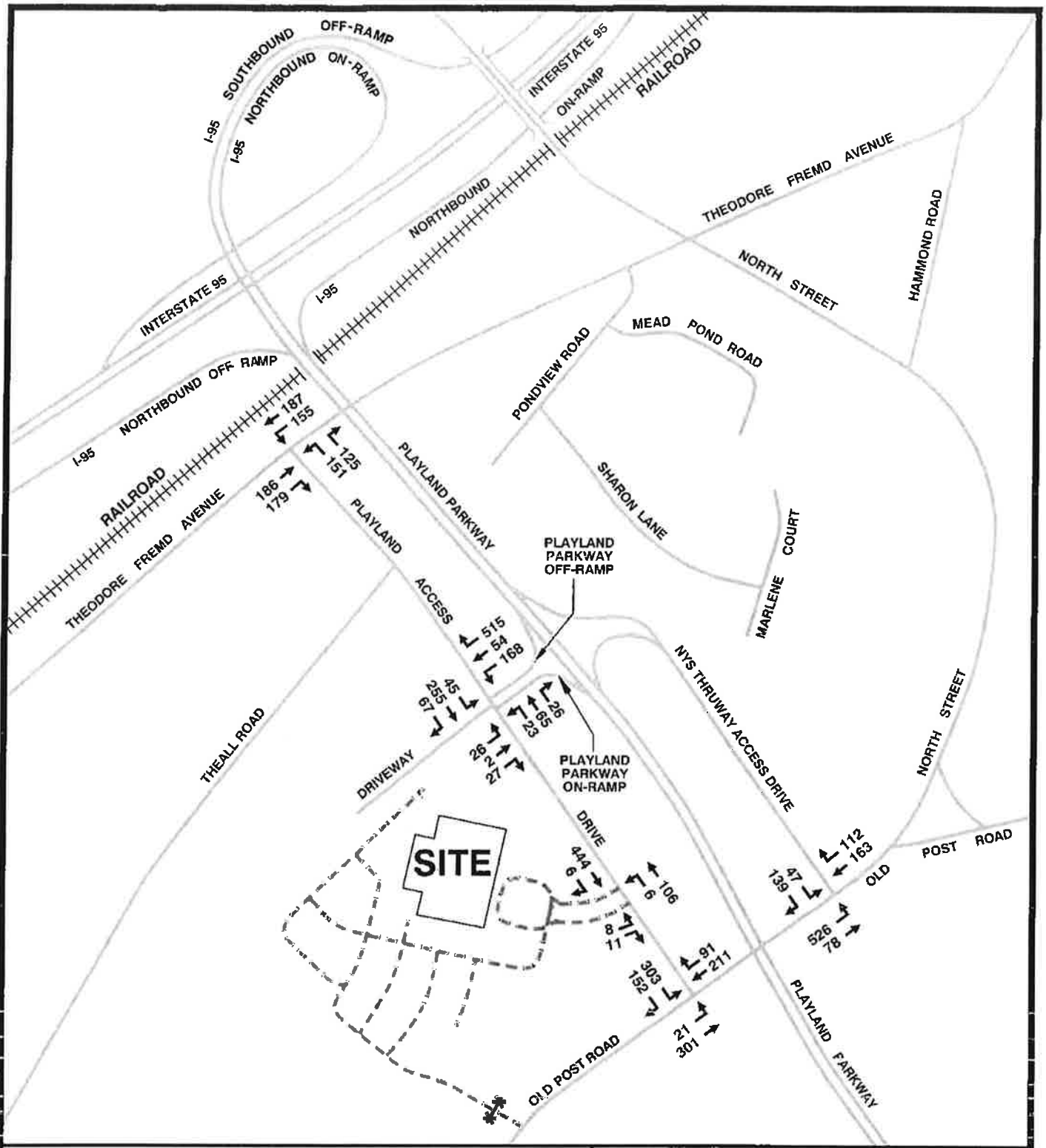
1. *Theodore Fremd Avenue at Playland Access Drive*

   Background – Results of the analysis of this signalized intersection indicate it will operate at an overall Level of Service "B" during both the weekday morning and weekday afternoon peak hours.

   Combined – Results of the analysis indicate this intersection will continue to operate the same overall Level of Service during the weekday afternoon peak hour. During the weekday morning peak hour there will be an acceptable change in Levels of Service from "B" to "C" with a change in average vehicle delay of 0.3 seconds.

2. *Playland Access Drive at Playland Parkway Southbound On/Off-Ramps/Medical Office Building Access Drive*

   Background – Results of the analysis of this unsignalized intersection indicate that for the critical movements on the ramp and access drive approaches to the intersection will operate at Level of Service "E" and "C" or better during the weekday morning and weekday afternoon peak hours, respectively. The northbound and southbound critical movements on Playland Access Drive will operate at Level of Service "A" during both peak hours.



Note: The 2016 Combined Traffic Volumes include the 2016 Background Traffic Volumes and the Site Traffic Generation.

LEGEND

SITE ACCESS DRIVE

CLOSED SITE ACCESS DRIVE

2016 COMBINED TRAFFIC VOLUMES
WEEKDAY MORNING PEAK HOUR

AGE-RESTRICTED RESIDENTIAL DEVELOPMENT
120 Old Post Road
Rye, New York

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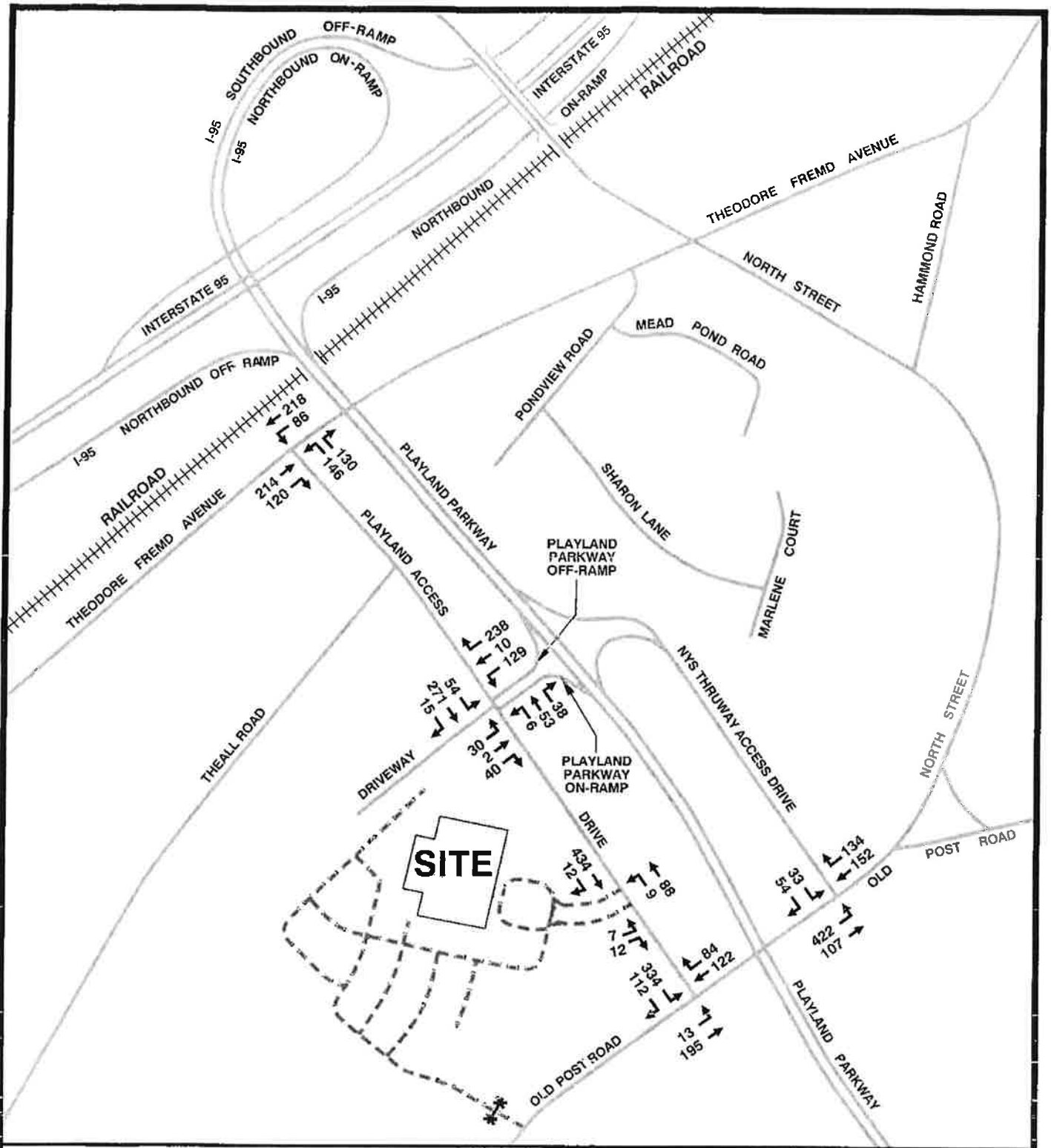

Note: The 2016 Combined Traffic Volumes include the 2016 Background Traffic Volumes and the Site Traffic Generation.

LEGEND

- SITE ACCESS DRIVE
- CLOSED SITE ACCESS DRIVE

2016 COMBINED TRAFFIC VOLUMES
WEEKDAY AFTERNOON PEAK HOUR

AGE-RESTRICTED RESIDENTIAL DEVELOPMENT
120 Old Post Road
Rye, New York

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Combined - Results of the analysis of this unsignalized intersection indicate that the Level of Service will remain the same for all movements with an increase in average vehicle delay of at most 1.5 seconds.

3. *Playland Access Drive at Office Building Access Drive*

Background – Results of the analysis indicate the critical movements will operate at Level of Service "B" or better during both peak hours.

Combined – Results of the analysis indicate critical movements at this intersection will continue to operate at Level of Service "B" or better during the two peak hours. The eastbound right turn movement will change from a Level of Service "A" to "B" during the weekday morning peak hour with an increase in average vehicle delay of 11.9 seconds.

4. *Old Post Road at Playland Access Drive*

Background – Results of the analysis indicate the critical movements on the southbound approach of Playland Access Drive (STOP sign approach) will operate at Level of Service "F" and "D" during the weekday morning and weekday afternoon peak hours, respectively. Results of the analysis indicate queue lengths totaling an average up to 13 vehicles during the peak hours.

Field observations of this intersection during the peak hours indicate similar vehicle queues and delays; however, these delays typically occur for less than 15 minutes during the peak hours.

Combined – Results of the analysis indicate that the critical movements on the southbound approach of this intersection will maintain the same Level of Service during both peak hours with an increase in average vehicle delay of at most 7.2 seconds. Reuse of the existing building will result in longer delays.

5. *Old Post Road at Thruway Access Drive*

Background – Results of the analysis of this unsignalized intersection indicate the critical southbound movements from the ramp are operating at Level of Service "F" and "D" during the weekday morning and weekday afternoon peak hours, respectively. The critical movements on Old Post Road are operating at Level of Service "A" during both peak hours.

Combined – Results of the analysis indicate that the critical movements on the southbound approach of this intersection will maintain the same Level of Service during both peak hours with an increase in average vehicle delay of at most 5.9 seconds. Again, reuse of the existing building will result in longer delays.

Table 5 provides a more detailed summary of the results of the analysis of each of these intersections with background and combined conditions. Capacity analysis worksheets are included in the Appendix of this report.

Findings

The purpose of this Traffic Report is to provide the City of Rye with a detailed analysis of potential impacts from this proposed development on adjacent roadways and nearby intersections in the designated Study Area. The proposal is to demolish the existing, but mostly vacant, office building comprising 70,000 square feet of space and construct an age-restricted residential development which will have 135 units. Access will remain the same from Playland Access Drive to the immediate south of the Old Post Road STOP sign-controlled intersection.

The Traffic Study is based on traffic volumes obtained in 2012 through 2014. These volumes were obtained by Frederick P. Clark Associates, Inc. and other Traffic Consultants for different nearby projects.

Table 5
2016 FUTURE CONDITIONS – MEASURE OF EFFECTIVENESS (MOE) AND IMPACT ASSESSMENT – PEAK HOURS
Age-Restricted Residential Development
120 Old Post Road
Rye, New York

INTERSECTION	CONTROL TYPE	STORAGE/ LINK LENGTH	PHYSICAL UNITS	2016 BACKGROUND CONDITIONS						2016 COMBINED CONDITIONS						PROJECT IMPACTS			
				Weekday Morning			Weekday Afternoon			Weekday Morning			Weekday Afternoon			Weekday Morning		Weekday Afternoon	
				LOS/ Delay	V/C Ratio	Queue Length (Feet)	LOS/ Delay	V/C Ratio	Queue Length (Feet)	LOS/ Delay	V/C Ratio	Queue Length (Feet)	LOS/ Delay	V/C Ratio	Queue Length (Feet)	Deterio -ration in LOS	Project Delay (Seconds)	Deterio- ration in LOS	Project Delay (Seconds)
Theodore Fremd Avenue at Playland Access Drive	Traffic Signal	670	EB TR	B/18.5	0.49	229	B/17.9	0.42	216	B/18.6	0.49	231	B/17.9	0.42	218	No	0.1	No	0.0
		--	APP	B/18.5	--	--	B/17.9	--	--	B/18.6	--	--	B/17.9	--	--	No	0.1	No	0.0
		150	WB L	B/11.7	0.29	72	A/9.4	0.15	42	B/11.8	0.29	73	A/9.5	0.16	44	No	0.1	No	0.1
		260	T	A/9.0	0.18	86	A/9.3	0.21	100	A/9.0	0.18	86	A/9.3	0.21	100	No	0.0	No	0.0
		--	APP	B/10.2	--	--	A/9.3	--	--	B/10.3	--	--	A/9.4	--	--	No	0.1	No	0.1
		300	NB LR	C/33.8	0.56	243	C/33.9	0.56	244	C/34.2	0.57	250	C/34.2	0.58	250	No	0.4	No	0.3
		--	APP	C/33.8	--	--	C/33.9	--	--	C/34.2	--	--	C/34.2	--	--	No	0.4	No	0.3
		--	Overall	B/19.8	--	--	B/19.8	--	--	C/20.1	--	--	B/20.0	--	--	B – C	0.3	No	0.2
Playland Access Drive at Playland Parkway Eastbound On/Off Ramp/Medical Office Building Access Drive	TWSC	245	EB L	E/41.0	0.37	40	C/18.7	0.21	20	E/42.5	0.38	41	C/19.2	0.22	20	No	1.5	No	0.5
		245	T	E/41.0	0.37	40	C/18.7	0.21	20	E/42.5	0.38	41	C/19.2	0.22	20	No	1.5	No	0.5
		75	R	E/41.0	0.37	40	C/18.7	0.21	20	E/42.5	0.38	41	C/19.2	0.22	20	No	1.5	No	0.5
		350	WB L	D/28.1	0.63	103	C/22.6	0.46	58	D/29.4	0.64	108	C/23.9	0.48	63	No	1.3	No	1.3
		350	T	D/28.1	0.63	103	C/22.6	0.46	58	D/29.4	0.64	108	C/23.9	0.48	63	No	1.3	No	1.3
		50	R	B/13.8	0.59	**100**	B/10.3	0.30	32	B/14.0	0.60	**102**	B/10.4	0.31	33	No	0.2	No	0.1
		400	NB L	A/0.2	0.02	2	A/0.1	0.01	0	A/0.2	0.02	2	A/0.1	0.01	0	No	0.0	No	0.0
		485	SB L	A/0.3	0.03	3	A/0.4	0.05	4	A/0.3	0.03	3	A/0.4	0.05	4	No	0.0	No	0.0
Playland Access Drive at Office Building Access Drive	TWSC	130	EB L	B/12.4	0.00	0	B/11.4	0.01	0	B/11.9	0.04	3	B/11.8	0.04	3	No	0.0	No	0.4
		130	R	A/0.0	0.00	0	B/11.4	0.01	0	B/11.9	0.04	3	B/11.8	0.04	3	A – B	11.9	No	0.4
		110	NB L	A/0.0	0.00	0	A/0.0	0.00	0	A/0.0	0.01	0	A/0.1	0.01	1	No	0.0	No	0.1
Old Post Road at Playland Access Drive	TWSC	975	EB L	A/0.2	0.02	1	A/0.1	0.01	1	A/0.2	0.02	1	A/0.1	0.01	1	No	0.0	No	0.0
		110	SB L	F/58.9	0.96	**305**	D/28.6	0.79	**191**	F/66.1	0.99	**331**	D/31.2	0.81	**209**	No	7.2	No	2.6
		110	R	F/58.9	0.96	**305**	D/28.6	0.79	**191**	F/66.1	0.99	**331**	D/31.2	0.81	**209**	No	7.2	No	2.6
Old Post Road at Thruway Access Drive	TWSC	240	EB L	A/5.1	0.47	64	A/4.1	0.39	47	A/5.2	0.47	65	A/4.2	0.39	48	No	0.1	No	0.1
		925	SB L	F/91.1	0.94	201	D/33.0	0.44	53	F/97.0	0.96	208	D/34.2	0.45	54	No	5.9	No	1.2
		925	R	F/91.1	0.94	201	D/33.0	0.44	53	F/97.0	0.96	208	D/34.2	0.45	54	No	5.9	No	1.2

Notes:

- Synchro 8.0 is used for capacity analysis.
- Level of Service determining parameter is called the service measure.
- For Signalized Intersections: Level of Service/Average Total delay per vehicle (seconds/vehicle).
- TWSC = Two-Way STOP Control.
- For TWSC Intersections: Level of Service/Average Control delay per vehicle (seconds/vehicle).
- ITE publication for Traffic Access and Impact Studies for site development "A Recommended Practice" indicated that overall Level of Service ratings of A to D are normally considered acceptable for signalized intersections (Level C or better are considered desirable). Levels of Service E and F are normally undesirable.

Table 5 Cont'd

- V/C ratio indicates the amount of congestion for each Lane Group or Movement. Any V/C ratio greater than or equal to one indicates that the Lane Group or Movement is operating at above capacity.
- Synchro 8.0 Macroscopic model is used for storage/queue analysis.
- The Queue Length rows show the 95th percentile maximum queue length in feet.
- The Queue Length is for each lane. The total queue length is divided by the number of lanes and the lane utilization factor.
- The 95th percentile queue is the maximum back of the queue with the 95th percentile traffic volumes.
- **Bolded** 95th percentile queue exceeds the storage available.
- Physical Units consist of the following:
    1. Lane Group and Intersection Overall for Traffic Signal Controlled Intersections.
    2. Movement for TWSC Intersections.

NB = Northbound EB = Eastbound SB = Southbound WB = Westbound
L = Left Turn T = Through R = Right Turn APP. = Approach

In this Traffic Study it addresses traffic conditions for existing, no-build and build peak hour volumes near the site. It includes the weekday morning and weekday afternoon peak hours. Under the no-build condition it includes other developments, as well as an appropriate growth rate.

The proposal is to demolish the existing, but mostly vacant, office building and construct the age-restricted development, as noted above. To estimate site traffic for the proposed development trip generation rates were obtained from the Institute of Transportation Engineers (ITE) in "Trip Generation," 9th Edition, published 2012. Based on these trip generation rates it is estimated a development of this type and size will generate 27 and 34 vehicle trip ends during the typical weekday morning and weekday afternoon peak hours, respectively. For comparison purposes the current 70,000 square-foot office building, if it was to be fully reoccupied, could generate 109 and 104 vehicle trip ends during the same weekday morning and weekday afternoon peak hours, respectively. Therefore, the proposed residential development would result in a decrease in site traffic generation of 82 and 70 vehicle trip ends during the weekday morning and weekday afternoon peak hours, respectively. This is a significant reduction in site traffic generation potential directly related to the change in land use from an office building to a residential development.

The results of the capacity analysis for existing conditions indicate the Theodore Fremd Avenue/Playland Access Drive signalized intersections operates at an acceptable overall Level of Service "B" during peak hours. During the weekday morning peak hour motorists experience delays at the unsignalized intersection of Playland Access Drive/ /Playland Parkway/Medical Building, Old Post Road at Playland Access Drive and Old Post Road at Thruway Access Drive. All of the Study Area intersections operate at acceptable Levels of Service during the weekday afternoon peak hour. Similar results are found for 2016 background conditions. In both existing and background conditions analyses the office building located on the site is considered vacant.

Under a future combined condition, which includes the proposed residential development, each of these unsignalized intersections will continue to operate at acceptable Levels of Service, except for some Levels of Service "E" or "F" identified in a background condition. A comparison of the background and combined traffic conditions for each of these intersections indicate that Levels of Service will remain unchanged, except for change from an overall Level of Service "B" to "C" at the signalized intersection of Theodore Fremd Avenue at Playland Access Drive, with an insignificant overall delay due to the residential development of 0.3 seconds per vehicle during this one peak hour. Results of the analyses for the weekday afternoon peak hour indicate Levels of Service will remain the same at each of the unsignalized intersections and at each of the lane groups or approaches with minimal, if any, increase in average vehicle delay due to the proposed residential development.

Based on the results of these analyses it is recommended that the current traffic control and pavement markings at each of these locations remain unchanged. The analysis indicates that the added site traffic for a residential development is insignificant and will not change the overall operation of any of the intersections in the Study Area. In addition, there is a significant benefit of converting this office building to a residential development, which results in a significant decrease in site traffic generation during the key weekday morning and weekday afternoon peak hours.

The results of these analyses have been compared to field observations at each of these locations during both the weekday morning and weekday afternoon peak hours. It is noted that motorists do experience short-term delays at the Playland Parkway off ramp to Playland Access Drive and on the Playland Access Drive and Thruway Access Drive approaches to Old Post Road during peak hours. However, based on the results of this analysis each intersection should maintain STOP control. Any consideration for signalization, if warranted, at the Playland Parkway ramps to Playland Access Drive may

actually result in an increase in delays, which could impact the mainline of Playland Parkway (southbound lanes).

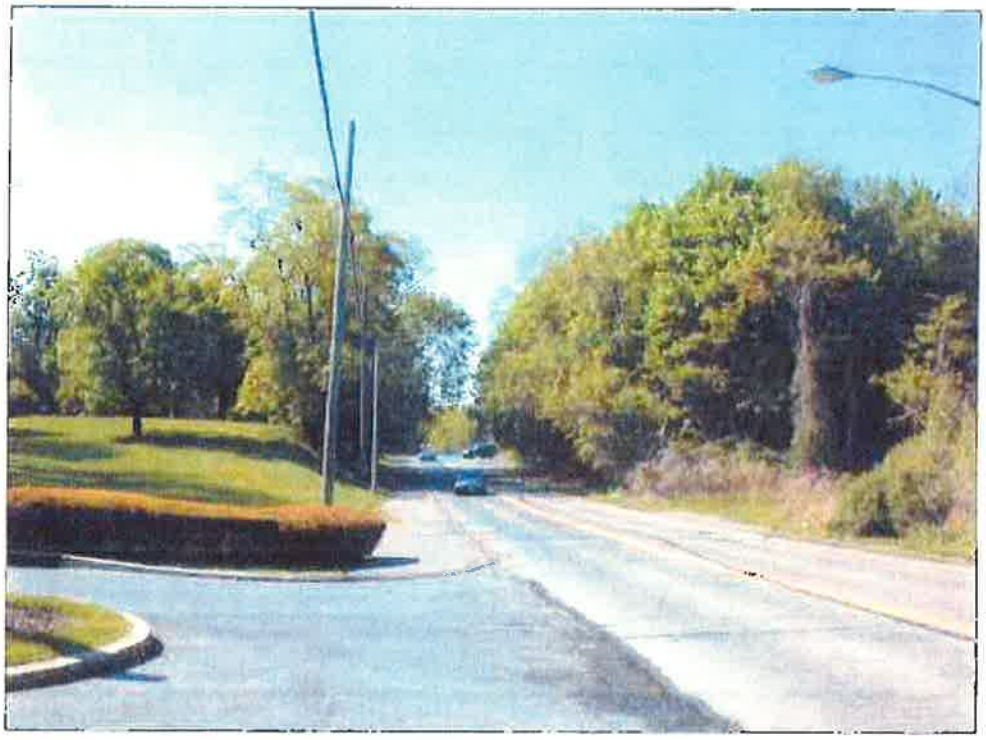
At the Old Post Road intersection at Playland Access Drive and Thruway Access Drive it is likely that either location would meet the minimum standards for consideration for traffic signals.

g:\760.004 120 old post road, rye\word\rye14-000.stc.doc: ev: td
11/3/14

APPENDIX

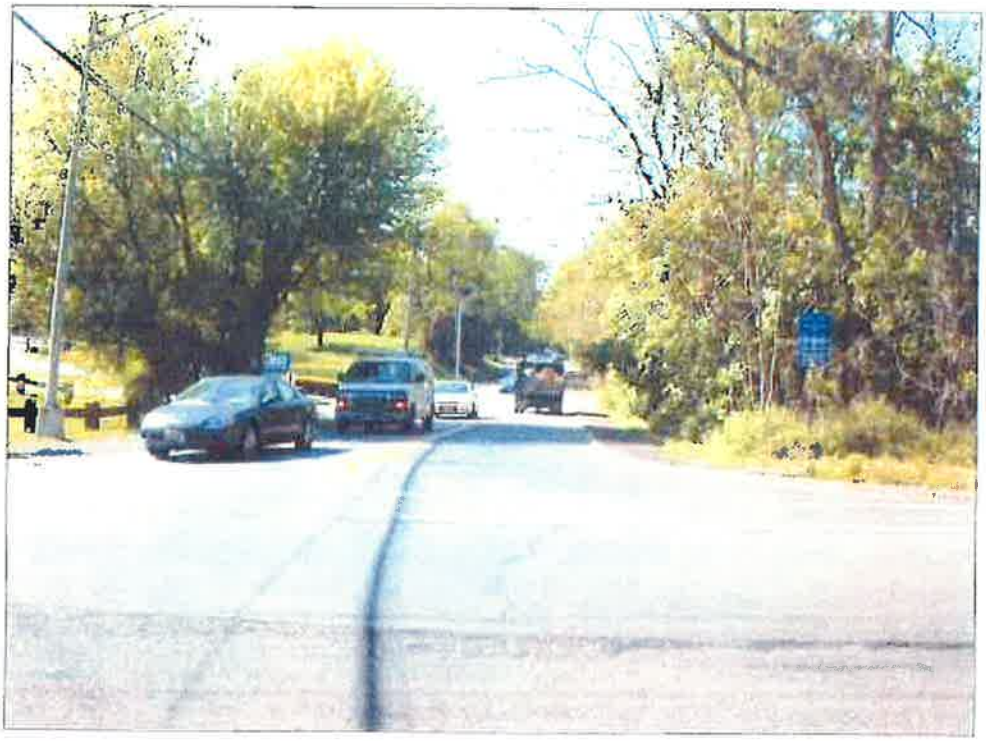
PHOTOGRAPHS

SITE ACCESS DRIVE AT PLAYLAND ACCESS DRIVE, LOOKING WEST



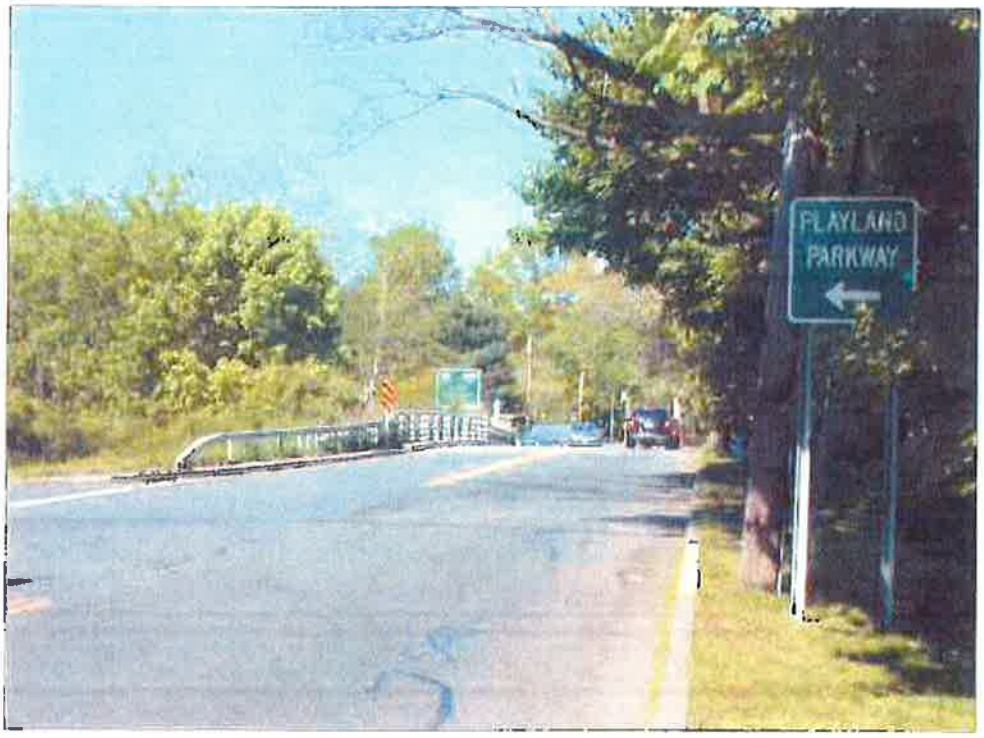
PLAYLAND ACCESS DRIVE AT SITE ACCESS DRIVE, LOOKING NORTH

PLAYLAND ACCESS DRIVE AT SITE ACCESS DRIVE, LOOKING SOUTH

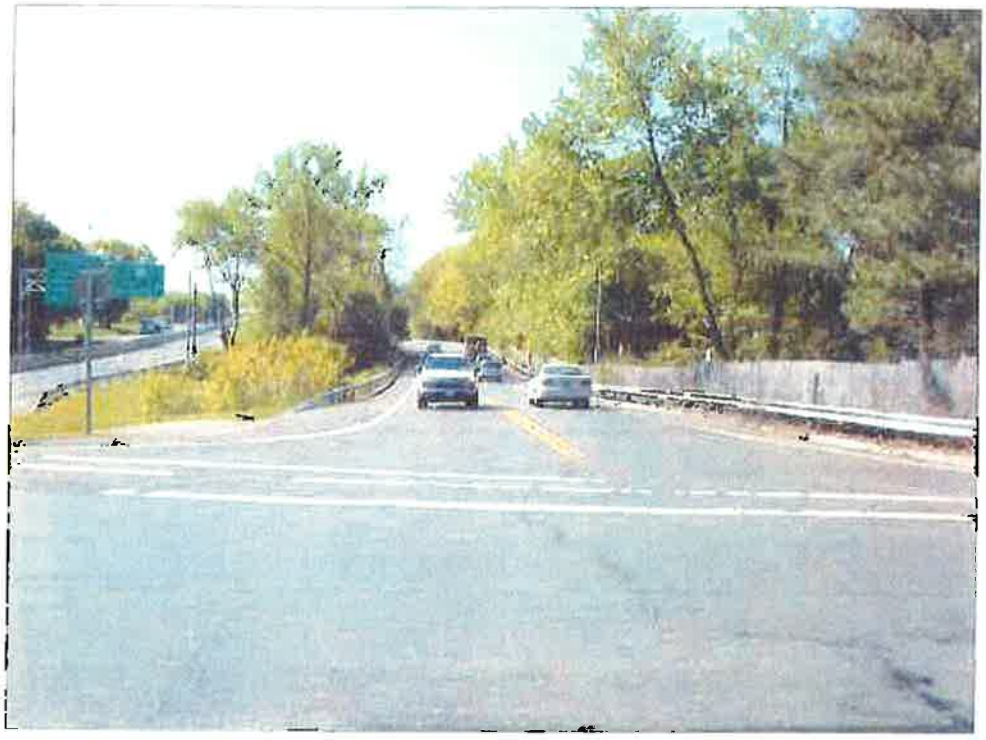


PLAYLAND ACCESS DRIVE AT OLD POST ROAD, LOOKING NORTH

**OLD POST ROAD AT PLAYLAND ACCESS DRIVE,
LOOKING WEST**



**OLD POST ROAD AT PLAYLAND ACCESS DRIVE,
LOOKING EAST**



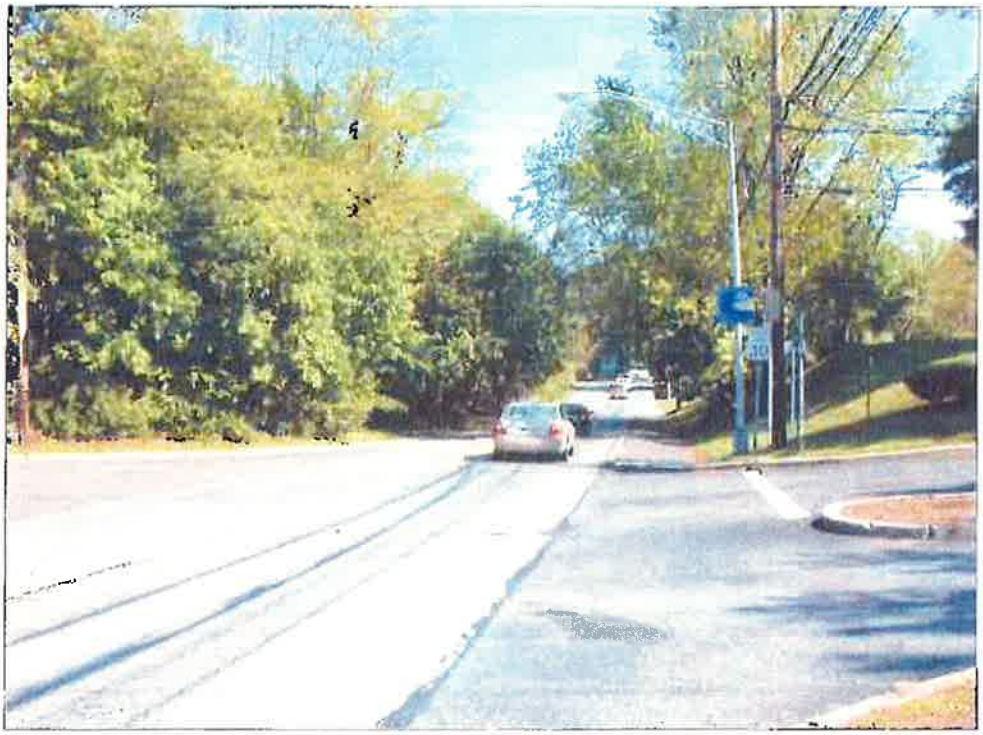
PLAYLAND PARKWAY NORTHBOUND ON/OFF RAMPS AT OLD POST ROAD, LOOKING NORTH

OLD POST ROAD AT PLAYLAND PARKWAY NORTHBOUND ON/OFF RAMPS, LOOKING WEST

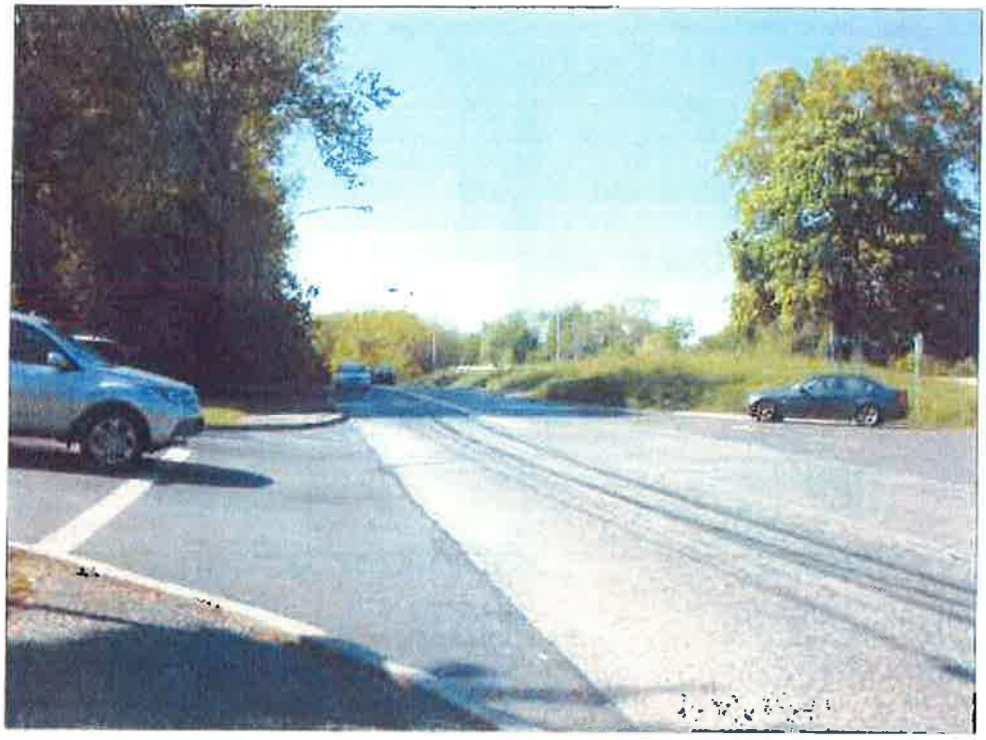
OLD POST ROAD AT PLAYLAND PARKWAY
NORTHBOUND ON/OFF RAMPS, LOOKING EAST

PLAYLAND PARKWAY SOUTHBOUND ON/OFF-RAMP
AT PLAYLAND ACCESS DRIVE, LOOKING EAST

MEDICAL OFFICE ACCESS DRIVE AT PLAYLAND ACCESS DRIVE, LOOKING WEST



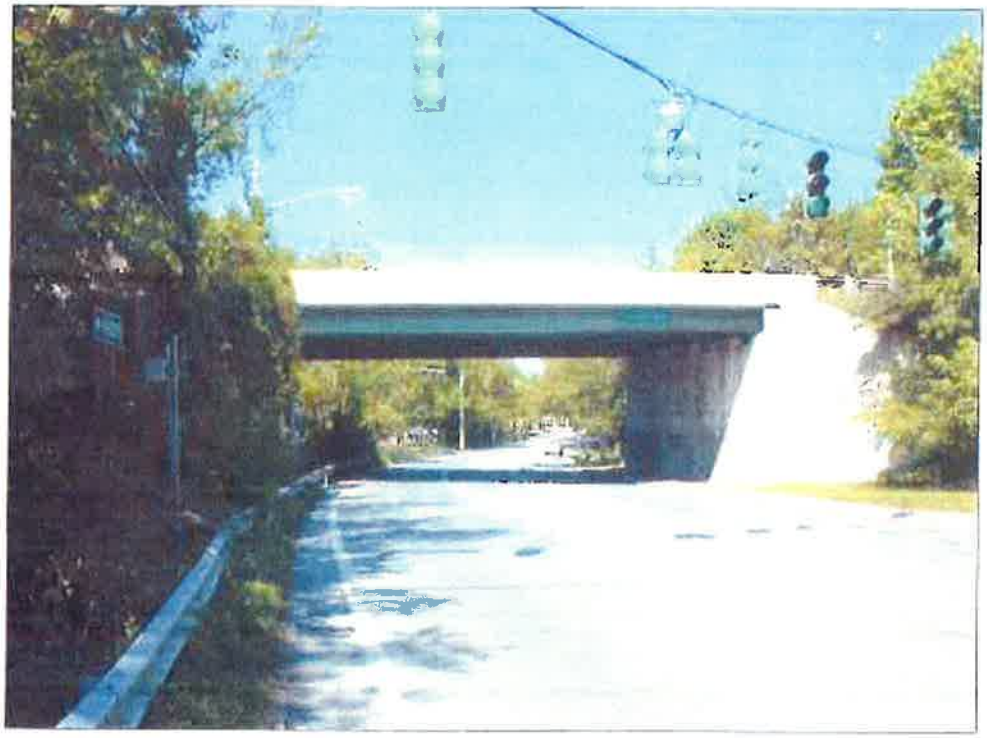
PLAYLAND ACCESS DRIVE AT MEDICAL OFFICE ACCESS DRIVE/ PLAYLAND PARKWAY SOUTHBOUND ON/OFF-RAMP, LOOKING SOUTH



PLAYLAND ACCESS DRIVE AT MEDICAL OFFICE ACCESS DRIVE/ PLAYLAND PARKWAY SOUTHBOUND ON/OFF-RAMPS, LOOKING NORTH

PLAYLAND ACCESS DRIVE AT THEODORE FREMD AVENUE, LOOKING SOUTH

THEODORE FREMD AVENUE AT PLAYLAND ACCESS DRIVE, LOOKING WEST



THEODORE FREMD AVENUE AT PLAYLAND ACCESS DRIVE, LOOKING EAST

CAPACITY ANALYSIS PROCEDURES

CAPACITY ANALYSIS PROCEDURES

Intersections – Four methods of analysis are needed to evaluate different kinds of intersections. These methods are based on procedures found in the Fifth Edition of the Highway Capacity Manual 2010 and are described below.

Signalized Intersections

This chapter's methodology applies to three-leg and four-leg intersections of two streets or highways where the signalization operates in isolation from nearby intersections.

Performance Measure – An intersection's performance is described by the use of one or more quantitative measures that characterize some aspect of the service provided to a specific road user group. Performance measures include automobile volume-to-capacity ratio, automobile delay, queue storage ratio, pedestrian delay, pedestrian circulation area, pedestrian perception score, bicycle delay, and bicycle perception score. LOS is considered a performance measure. It is computed for the automobile, pedestrian, and bicycle travel modes.

Travel Modes – There are three methodologies that can be used to evaluate intersection performance from the perspective of motorists, pedestrians, and bicyclists. They are referred to as the automobile methodology, the pedestrian methodology, and the bicycle methodology.

Lane Groups and Movement Groups – A separate lane group is established to (a) each lane (or combination of adjacent lanes) that exclusively serves one movement and (b) each lane shared by two or more movements. The concept of movement groups is also established to facilitate data entry. A separate movement group is established for (a) each turn movement with one or more exclusive turn lanes and (b) the through movement (inclusive of any turn movements that share a lane).

LOS Criteria – LOS criteria for the automobile mode are different from those for the non-automobile modes. The automobile-mode criteria are based on performance measures that are field measurable and perceivable by travelers. The criteria for the non-automobile modes are based on scores reported by travelers indicating their perception of service quality.

Automobile Mode – LOS for Automobile Mode can be characterized for the entire intersection, each intersection approach, and each lane group. Control delay alone is used to characterize LOS for entire intersection or an approach. Control delay and volume-to-capacity ratio are used to characterize LOS for a lane group. Delay quantifies the increase in travel time due to traffic signal control. It is also a surrogate measure of driver discomfort

and fuel consumption. The volume-to-capacity ratio quantifies the degree to which a phase's capacity is utilized by a lane group. The following describes each LOS.

Level of Service A – It describes operations with a control delay of 10.0 seconds per vehicle or less and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is low and either progression is exceptionally favorable or the cycle length is very short. If it is due to favorable progression, most vehicles arrive during the green indication and travel through the intersection without stopping.

Level of Service B – It describes operations with control delay between 10 to 20 seconds per vehicle and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is low and either progression is highly favorable or the cycle length is short. More vehicle stop than with LOS A.

Level of Service C – It describes operations with control delay between 20 to 35 seconds per vehicle and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when progression is favorable or the cycle length is moderate. Individual cycle failures (i.e., one or more queued vehicles are not able to depart as a result of insufficient capacity during the cycle) may begin to appear at this level. The number of vehicles stopping is significant, although many vehicles still pass through the intersection without stopping.

Level of Service D – It describes operations with control delay between 35 to 55 seconds per vehicle and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is high and either progression is ineffective or the cycle length is long. Many vehicles stop and individual cycle failures are noticeable.

Level of Service E – It describes operations with control delay between 55 to 80 seconds per vehicle and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is high, progression is unfavorable, and the cycle length is long. Individual cycle failures are frequent.

Level of Service F – It describes operations with control delay between 55 to 80 seconds per vehicle and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is high, progression is unfavorable, and the cycle length is long. Individual cycle failures are frequent.

The LOS thresholds established for automobile mode at a signalized intersection

CONTROL DELAY (SECONDS PER VEHICLE)	LOS BY VOLUME-TO-CAPACITY RATIO	
	≤ 1.0	>1.0
≤ 10	A	F
>10 to 20	B	F
>20 to 35	C	F
>35 to 55	D	F
>55 to 80	E	F
>80	F	F

Note: For approach-based and intersection-wide assessments, LOS is defined by control delay.

Two-Way STOP-Controlled Intersections (TWSC)

One typical configuration is a four-leg intersection, where the major street is uncontrolled, while the minor street is controlled by STOP signs. The other typical configuration is a three-leg intersection, where the single minor-street approach is controlled by a STOP sign.

Theoretical Basic – Gap-acceptance models begin with the recognition that TWSC Intersections give no positive indication or control to the driver on the minor street as to when it is appropriate to leave the stop line and enter the major street. The driver must determine when a gap on the major street is large enough to permit entry and when to enter, on the basis of the relative priority of the competing movements. This decision-making process has been formalized analytically into what is commonly known as gap-acceptance theory. Gap-acceptance theory includes three basic elements: the size and distribution (availability) of gaps on the major street, the usefulness of these gaps to the minor-street drivers, and the relative priority of the various movements at the intersection.

Critical Headway and Follow-Up Headway – The *critical headway* is defined as the minimum interval in the major street traffic stream that allows intersection entry for one minor-street vehicle. Thus, the driver's critical headway is the minimum headway that would be acceptable. Critical headway can be estimated on the basis of observations of the largest rejected and smallest accepted headway for a given intersection. The *follow-up headway* is defined as the time between the departure of one vehicle from the minor street

and the departure of the next vehicle using the same major-street headway, under a condition of continuous queuing on the minor street.

Base Critical Headways for TWSC Intersections

VEHICLE MOVEMENT	BASE CRITICAL HEADWAY		
	Two Lanes	Four Lanes	Six Lanes
Left turn from major	4.1	4.1	5.3
U-turn from major	N/A	6.4 (wide) 6.9 (narrow)	5.6
Right turn from minor	6.2	6.9	7.1
Through traffic 0n major	1-stage:6.5 2-stage, stage I: 5.5 2-stage, Stage II: 5.5	1-stage:6.5 2-stage, stage I: 5.5 2-stage, Stage II: 5.5	1-stage:6.5* 2-stage, stage I: 5.5* 2-stage, Stage II: 5.5*
Left turn from minor	1-stage:7.1 2-stage, stage I: 6.1 2-stage, Stage II: 6.1	1-stage:7.5 2-stage, stage I: 6.5 2-stage, Stage II: 6.5	1-stage:6.4 2-stage, stage I: 7.3 2-stage, Stage II: 6.7

*Use caution; values estimated

Base Follow-up Headways for TWSC Intersections

VEHICLE MOVEMENT	BASE FOLLOW-UP HEADWAY		
	Two Lanes	Four Lanes	Six Lanes
Left turn from major	2.2	2.2	3.1
U-turn from major	N/A	2.5 (wide) 3.1 (narrow)	2.3
Right turn from minor	3.3	3.3	3.9
Through traffic on major	4.0	4.0	4.0
Left turn from minor	3.5	3.5	3.8

Level Of Service Criteria – LOS for a TWSC intersection is determined by the computed or measured control delay. For motor vehicles, LOS is determined for each minor-street movement (or shared movement) as well as major-street left turn. LOS is not defined for the intersection as a whole or for major-street approaches. LOS F is assigned to

the movement if the volume-to-capacity ratio for the movement exceeds 1.0, regardless of the control delay.

Automobile Mode – The methodology applies to TWSC intersections with up to three lanes (either shared or exclusive) on the major-street approaches and up to three lanes on the minor-street approaches (with no more than one exclusive lane for each movement on the minor-street approach). Effects from other intersections are accounted for only in situations in which a TWSC intersection is located on an urban street segment between coordinated signalized intersections. In this situation, the intersection can be analyzed by using the procedures in urban street segment.

Level-of Service Criteria for Automobile Mode

CONTROL DELAY (SECONDS PER VEHICLE)	LOS BY VOLUME-TO-CAPACITY RATIO	
	1.0	>1.0
0- 10	A	F
>10 to 15	B	F
>15 to 25	C	F
>25 to 35	D	F
>35 to 50	E	F
>50	F	F

Note: The LOS criteria apply to each lane on a given approach and to each approach on the minor street. LOS is not calculated for major-street approaches or for the intersection as a whole.

TURNING MOVEMENT COUNTS

AGE-RESTRICTED RESIDENTIAL DEVELOPMENT, 120 OLD POST ROAD, RYE, NY (#760.004)

FIELD DATA SUMMARY - Old Post Road at Playland Access Drive

Thursday		Eastbound - Old Post Road				Westbound - Old Post Road				Northbound				Southbound - Playland Access Drive					Last 4	Pedestrians (Approaches)		
30-Oct-14		Left	Thru	Right	Total	Left	Thru	Right	Total	Left	Thru	Right	Total	Left	Thru	Right	Total	Total	Quarters	EB	WB	SB
7:00 AM	7:15 AM	4	31	0	35	0	5	5	10	0	0	0	0	49	0	14	63	108		0	0	0
7:15 AM	7:30 AM	2	28	0	30	0	12	13	25	0	0	0	0	60	0	45	105	160		0	0	0
7:30 AM	7:45 AM	3	55	0	58	0	27	23	50	0	0	0	0	57	0	43	100	208		0	0	2
7:45 AM	8:00 AM	4	80	0	84	0	47	20	67	0	0	0	0	67	0	47	114	265	741	0	0	2
8:00 AM	8:15 AM	2	72	0	74	0	49	23	72	0	0	0	0	66	0	30	96	242	875	0	0	0
8:15 AM	8:30 AM	30	74	0	84	0	49	20	69	0	0	0	0	82	0	36	118	271	986	0	0	5
8:30 AM	8:45 AM	3	69	0	72	0	46	22	68	0	0	0	0	75	0	32	107	247	1,025	0	0	0
8:45 AM	9:00 AM	6	54	0	60	0	21	24	45	0	0	0	0	90	0	30	120	225	985	0	0	3
AM Peak Hour Vol.		**19**	**295**	**0**	**314**	**0**	**191**	**85**	**276**	0	**0**	**0**	**0**	**290**	0	**145**	**435**	**1,025**		**0**	**0**	**7**
Peak Hour Factor					**0.93**				**0.96**				**#DIV/0!**				**0.92**	**0.95**				

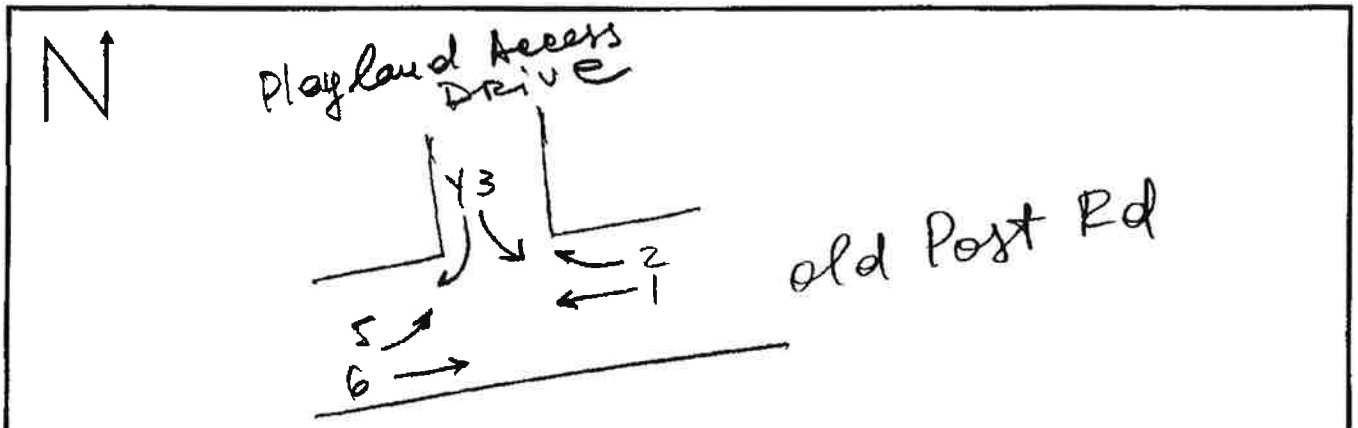
AMERICAN TRAFFIC INFORMATION, INC.

TURNING MOVEMENT COUNTS

ATI #14153

Location: # Old Post Rd & Playland Access Drive

Surveyor: _____ Day/Date: 10.30.14



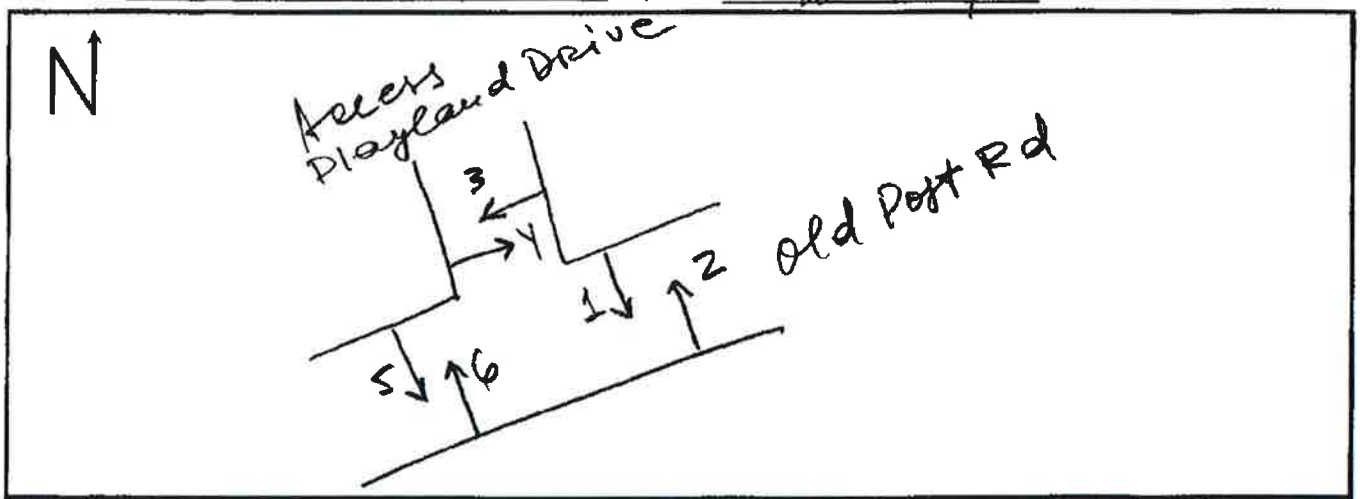
	Vehicle Movement Number											
Time	1	2	3	4	5	6	7	8	9	10	11	12
7:15	5	5	49	14	4	31						
7:30	12	13	60	45	2	28						
7:45	27	23	57	43	3	55						
8:00	47	20	67	47	4	80						
8:15	49	23	66	30	2	72						
8:30	49	20	82	36	10	74						
8:45	46	22	75	32	3	69						
9:00	21	24	90	30	6	54						
4:15												
4:30												
4:45												
5:00												
5:15												
5:30												
5:45												
6:00												

PEDESTRIAN COUNTS

[ATI #14153]

Location: **Old Post Road & Access Playland Drive**

Surveyors: _____ Day/Date: 10.30.14



Time	Movement Number 1	2	3	4	5	6	7	8	9	10	11	12
7:15	0	0	0	0	0	0						
7:30	0	0	0	0	0	0						
7:45	0	0	2	0	0	0						
8:00	0	0	1	1	0	0						
8:15	0	0	0	0	0	0						
8:30	0	0	4	1	0	0						
8:45	0	0	0	0	0	0						
9:00	0	0	0	3	0	0						
4:15												
4:30												
4:45												
5:00												
5:15												
5:30												
5:45												
6:00												

CAPACITY ANALYSIS WORKSHEETS

CAPACITY ANALYSIS WORKSHEETS

Existing Conditions

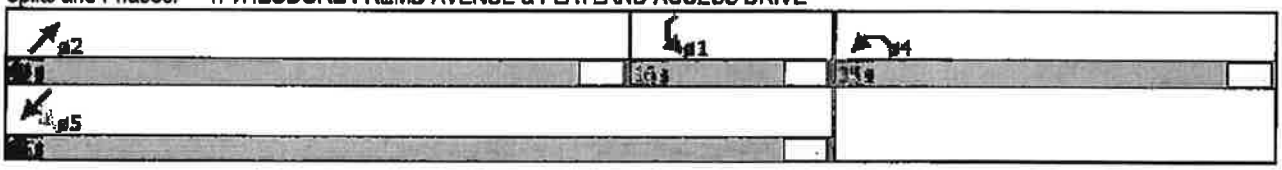
Lane Group	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Volume (vph)	145	117	181	174	149	181
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%		0%			0%
Storage Length (ft)	0	0		0	150	
Storage Lanes	1	0		0	1	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.940		0.934			
Flt Protected	0.973				0.950	
Satd. Flow (prot)	1704	0	1740	0	1770	1863
Flt Permitted	0.973				0.410	
Satd. Flow (perm)	1704	0	1740	0	764	1863
Right Turn on Red		No		Yes		
Satd. Flow (RTOR)			63			
Link Speed (mph)	30		30			30
Link Distance (ft)	375		786			931
Travel Time (s)	8.5		17.9			21.2
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%		0%			0%
Adj. Flow (vph)	159	129	199	191	164	199
Shared Lane Traffic (%)						
Lane Group Flow (vph)	288	0	390	0	164	199
Turn Type	Prot		NA		pm+pt	NA
Protected Phases	4		2		1	5
Permitted Phases					5	
Detector Phase	4		2		1	5
Switch Phase						
Minimum Initial (s)	4.0		4.0		4.0	4.0
Minimum Split (s)	35.0		49.0		16.0	65.0
Total Split (s)	35.0		49.0		16.0	65.0
Total Split (%)	35.0%		49.0%		16.0%	65.0%
Yellow Time (s)	3.5		3.5		3.5	3.5
All-Red Time (s)	0.5		0.5		0.5	0.5
Lost Time Adjust (s)	0.0		0.0		0.0	0.0
Total Lost Time (s)	4.0		4.0		4.0	4.0
Lead/Lag			Lead		Lag	
Lead-Lag Optimize?			Yes		Yes	
Recall Mode	Max		Max		Max	Max
Act Effct Green (s)	31.0		45.0		61.0	61.0
Actuated g/C Ratio	0.31		0.45		0.61	0.61

Lane Group	NWL	NWR	NET	NER	SWL	SWT
v/c Ratio	0.55		0.48		0.28	0.18
Control Delay	33.3		18.2		11.4	9.0
Queue Delay	0.0		0.0		0.0	0.0
Total Delay	33.3		18.2		11.4	9.0
LOS	C		B		B	A
Approach Delay	33.3		18.2			10.1
Approach LOS	C		B			B
Queue Length 50th (ft)	152		140		41	51
Queue Length 95th (ft)	236		223		70	83
Internal Link Dist (ft)	295		706			851
Turn Bay Length (ft)					150	
Base Capacity (vph)	528		817		586	1136
Starvation Cap Reductn	0		0		0	0
Spillback Cap Reductn	0		0		0	0
Storage Cap Reductn	0		0		0	0
Reduced v/c Ratio	0.55		0.48		0.28	0.18

Intersection Summary

Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 100
Natural Cycle: 100
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.55
Intersection Signal Delay: 19.6 — Intersection LOS: B
Intersection Capacity Utilization 53.6% — ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 1: THEODORE FREMD AVENUE & PLAYLAND ACCESS DRIVE



Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	43	245	66	23	57	25	25	2	26	165	53	503
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		75	0		0
Storage Lanes	0		0	0		0	0		1	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.975			0.968				0.850			0.850
Flt Protected		0.994			0.989			0.955			0.964	
Satd. Flow (prot)	0	1805	0	0	1783	0	0	1779	1583	0	1796	1583
Flt Permitted		0.994			0.989			0.955			0.964	
Satd. Flow (perm)	0	1805	0	0	1783	0	0	1779	1583	0	1796	1583
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		563			484			289			91	
Travel Time (s)		12.8			11.0			6.6			2.1	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	48	275	74	26	64	28	28	2	29	185	60	565
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	397	0	0	118	0	0	30	29	0	245	565
Sign Control		Free			Free			Stop			Stop	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 50.3% ICU Level of Service A
Analysis Period (min) 15

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↕			↕			↰	↱		↰	↱
Volume (veh/h)	43	245	66	23	57	25	25	2	26	165	53	503
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	48	275	74	26	64	28	28	2	29	185	60	565
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)									3			
Median type		None			None							
Median storage veh)												
Upstream signal (ft)		997										
pX, platoon unblocked												
vC, conflicting volume	92			349			1134	553	312	554	576	78
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	92			349			1134	553	312	554	576	78
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	97			98			57	99	96	54	85	42
cM capacity (veh/h)	1503			1209			65	418	728	406	405	983

Direction, Lane #	SE 1	NW 1	NE 1	SW 1	SW 2
Volume Total	398	118	60	245	565
Volume Left	48	26	28	185	0
Volume Right	74	28	29	0	565
cSH	1503	1209	179	406	983
Volume to Capacity	0.03	0.02	0.33	0.60	0.58
Queue Length 95th (ft)	2	2	34	96	95
Control Delay (s)	1.2	1.9	37.1	26.5	13.5
Lane LOS	A	A	E	D	B
Approach Delay (s)	1.2	1.9	37.1	17.4	
Approach LOS			E	C	

Intersection Summary			
Average Delay	12.3		
Intersection Capacity Utilization	50.3%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Volume (vph)	435	1	2	104	1	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	0		0	0
Storage Lanes		0	0		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt						
Flt Protected				0.999	0.950	
Satd. Flow (prot)	1863	0	0	1861	1770	0
Flt Permitted				0.999	0.950	
Satd. Flow (perm)	1863	0	0	1861	1770	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	484			139	157	
Travel Time (s)	11.0			3.2	3.6	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	444	1	2	106	1	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	445	0	0	108	1	0
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 33.0% ICU Level of Service A
Analysis Period (min) 15

Movement	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Volume (veh/h)	435	1	2	104	1	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Hourly flow rate (vph)	444	1	2	106	1	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			445		555	444
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			445		555	444
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			1115		492	614

Direction, Lane #	SE 1	NW 1	NE 1
Volume Total	445	108	1
Volume Left	0	2	1
Volume Right	1	0	0
cSH	1700	1115	492
Volume to Capacity	0.26	0.00	0.00
Queue Length 95th (ft)	0	0	0
Control Delay (s)	0.0	0.2	12.3
Lane LOS		A	B
Approach Delay (s)	0.0	0.2	12.3
Approach LOS			B

Intersection Summary			
Average Delay	0.1		
Intersection Capacity Utilization	33.0%	ICU Level of Service	A
Analysis Period (min)	15		

CA-7

Lane Group	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations						
Volume (vph)	290	145	19	295	206	87
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)	0	0	0			0
Storage Lanes	1	0	0			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.955				0.960	
Flt Protected	0.968			0.997		
Satd. Flow (prot)	1722	0	0	1857	1788	0
Flt Permitted	0.968			0.997		
Satd. Flow (perm)	1722	0	0	1857	1788	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	139			484	335	
Travel Time (s)	3.2			11.0	7.6	
Confl. Peds. (#/hr)			7			7
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.93	0.93	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	315	158	20	317	215	91
Shared Lane Traffic (%)						
Lane Group Flow (vph)	473	0	0	337	306	0
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 62.7% ICU Level of Service B
Analysis Period (min) 15

Movement	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations						
Volume (veh/h)	290	145	19	295	206	87
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.93	0.93	0.96	0.96
Hourly flow rate (vph)	315	158	20	317	215	91
Pedestrians	7					
Lane Width (ft)	12.0					
Walking Speed (ft/s)	4.0					
Percent Blockage	1					
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	625	267	312			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	625	267	312			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	28	79	98			
cM capacity (veh/h)	439	767	1241			

Direction, Lane #	SE 1	NE 1	SW 1
Volume Total	473	338	305
Volume Left	315	20	0
Volume Right	158	0	91
cSH	512	1241	1700
Volume to Capacity	0.92	0.02	0.18
Queue Length 95th (ft)	278	1	0
Control Delay (s)	51.7	0.6	0.0
Lane LOS	F	A	
Approach Delay (s)	51.7	0.6	0.0
Approach LOS	F		

Intersection Summary			
Average Delay	22.1		
Intersection Capacity Utilization	62.7%	ICU Level of Service	B
Analysis Period (min)	15		

Lane Group	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations						
Volume (vph)	45	136	513	72	157	106
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)	0	0	0			0
Storage Lanes	1	0	0			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.899				0.946	
Flt Protected	0.988			0.958		
Satd. Flow (prot)	1655	0	0	1785	1762	0
Flt Permitted	0.988			0.958		
Satd. Flow (perm)	1655	0	0	1785	1762	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	589			335	220	
Travel Time (s)	13.4			7.6	5.0	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	51	153	576	81	176	119
Shared Lane Traffic (%)						
Lane Group Flow (vph)	204	0	0	657	295	0
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 67.8% ICU Level of Service C
Analysis Period (min) 15

Movement	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations						
Volume (veh/h)	45	136	513	72	157	106
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	51	153	576	81	176	119
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1470	236	296			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1470	236	296			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	34	81	54			
cM capacity (veh/h)	76	803	1266			

Direction, Lane #	SE 1	NE 1	SW 1
Volume Total	203	657	296
Volume Left	51	576	0
Volume Right	153	0	119
cSH	239	1266	1700
Volume to Capacity	0.85	0.46	0.17
Queue Length 95th (ft)	170	61	0
Control Delay (s)	69.8	9.5	0.0
Lane LOS	F	A	
Approach Delay (s)	69.8	9.5	0.0
Approach LOS	F		

Intersection Summary			
Average Delay	17.7		
Intersection Capacity Utilization	67.8%	ICU Level of Service	C
Analysis Period (min)	15		

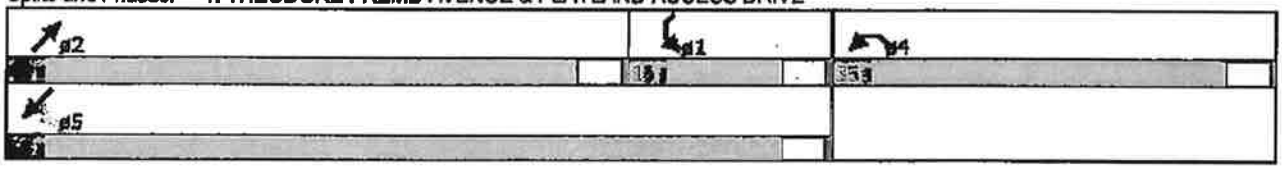
Lane Group	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Volume (vph)	138	121	207	112	77	212
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%		0%			0%
Storage Length (ft)	0	0		0	150	
Storage Lanes	1	0		0	1	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.937		0.953			
Flt Protected	0.974				0.950	
Satd. Flow (prot)	1700	0	1775	0	1770	1863
Flt Permitted	0.974				0.459	
Satd. Flow (perm)	1700	0	1775	0	855	1863
Right Turn on Red		No		Yes		
Satd. Flow (RTOR)			35			
Link Speed (mph)	30		30			30
Link Distance (ft)	375		786			931
Travel Time (s)	8.5		17.9			21.2
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%		0%			0%
Adj. Flow (vph)	152	133	227	123	85	233
Shared Lane Traffic (%)						
Lane Group Flow (vph)	285	0	350	0	85	233
Turn Type	Prot		NA		pm+pt	NA
Protected Phases	4		2		1	5
Permitted Phases					5	
Detector Phase	4		2		1	5
Switch Phase						
Minimum Initial (s)	4.0		4.0		4.0	4.0
Minimum Split (s)	35.0		49.0		16.0	65.0
Total Split (s)	35.0		49.0		16.0	65.0
Total Split (%)	35.0%		49.0%		16.0%	65.0%
Yellow Time (s)	3.5		3.5		3.5	3.5
All-Red Time (s)	0.5		0.5		0.5	0.5
Lost Time Adjust (s)	0.0		0.0		0.0	0.0
Total Lost Time (s)	4.0		4.0		4.0	4.0
Lead/Lag			Lead		Lag	
Lead-Lag Optimize?			Yes		Yes	
Recall Mode	Max		Max		None	Max
Act Effct Green (s)	31.0		48.2		61.0	61.0
Actuated g/C Ratio	0.31		0.48		0.61	0.61

Lane Group	NWL	NWR	NET	NER	SWL	SWT
v/c Ratio	0.54		0.40		0.14	0.21
Control Delay	33.2		17.6		9.2	9.3
Queue Delay	0.0		0.0		0.0	0.0
Total Delay	33.2		17.6		9.2	9.3
LOS	C		B		A	A
Approach Delay	33.2		17.6			9.3
Approach LOS	C		B			A
Queue Length 50th (ft)	150		132		20	61
Queue Length 95th (ft)	234		207		40	97
Internal Link Dist (ft)	295		706			851
Turn Bay Length (ft)					150	
Base Capacity (vph)	527		874		631	1136
Starvation Cap Reductn	0		0		0	0
Spillback Cap Reductn	0		0		0	0
Storage Cap Reductn	0		0		0	0
Reduced v/c Ratio	0.54		0.40		0.13	0.21

Intersection Summary

Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 100
Natural Cycle: 100
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.54
Intersection Signal Delay: 19.5 — Intersection LOS: B
Intersection Capacity Utilization 47.0% — ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 1: THEODORE FREMD AVENUE & PLAYLAND ACCESS DRIVE



Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	47	259	15	6	43	37	29	2	39	123	10	229
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		75	0		0
Storage Lanes	0		0	0		0	0		1	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.994			0.942				0.850			0.850
Flt Protected		0.993			0.996			0.955			0.956	
Satd. Flow (prot)	0	1839	0	0	1748	0	0	1779	1583	0	1781	1583
Flt Permitted		0.993			0.996			0.955			0.956	
Satd. Flow (perm)	0	1839	0	0	1748	0	0	1779	1583	0	1781	1583
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		563			484			289			91	
Travel Time (s)		12.8			11.0			6.6			2.1	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	59	324	19	8	54	46	36	3	49	154	13	286
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	402	0	0	108	0	0	38	49	0	166	286
Sign Control		Free			Free			Stop			Stop	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 44.5% ICU Level of Service A
Analysis Period (min) 15

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (veh/h)	47	259	15	6	43	37	29	2	39	123	10	229
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Hourly flow rate (vph)	59	324	19	8	54	46	36	2	49	154	12	286
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)									3			
Median type		None			None							
Median storage veh)												
Upstream signal (ft)		997										
pX, platoon unblocked												
vC, conflicting volume	100			342			835	566	333	568	552	77
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	100			342			835	566	333	568	552	77
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	96			99			81	99	93	60	97	71
cM capacity (veh/h)	1493			1217			192	414	709	388	422	984

Direction, Lane #	SE 1	NW 1	NE 1	SW 1	SW 2
Volume Total	401	108	88	166	286
Volume Left	59	8	36	154	0
Volume Right	19	46	49	0	286
cSH	1493	1217	466	390	984
Volume to Capacity	0.04	0.01	0.19	0.43	0.29
Queue Length 95th (ft)	3	0	17	52	30
Control Delay (s)	1.4	0.6	17.5	20.9	10.2
Lane LOS	A	A	C	C	B
Approach Delay (s)	1.4	0.6	17.5	14.1	
Approach LOS			C	B	

Intersection Summary			
Average Delay	8.1		
Intersection Capacity Utilization	44.5%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Volume (vph)	425	1	2	83	1	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	0		0	0
Storage Lanes		0	0		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt					0.910	
Flt Protected				0.999	0.984	
Satd. Flow (prot)	1863	0	0	1861	1668	0
Flt Permitted				0.999	0.984	
Satd. Flow (perm)	1863	0	0	1861	1668	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	484			139	157	
Travel Time (s)	11.0			3.2	3.6	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	443	1	2	86	1	2
Shared Lane Traffic (%)						
Lane Group Flow (vph)	444	0	0	88	3	0
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 32.4% ICU Level of Service A
Analysis Period (min) 15

Movement	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Volume (veh/h)	425	1	2	83	1	2
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	443	1	2	86	1	2
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			444		534	443
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			444		534	443
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			1116		506	615

Direction, Lane #	SE 1	NW 1	NE 1
Volume Total	444	89	3
Volume Left	0	2	1
Volume Right	1	0	2
cSH	1700	1116	573
Volume to Capacity	0.26	0.00	0.01
Queue Length 95th (ft)	0	0	0
Control Delay (s)	0.0	0.2	11.3
Lane LOS		A	B
Approach Delay (s)	0.0	0.2	11.3
Approach LOS			B

Intersection Summary			
Average Delay	0.1		
Intersection Capacity Utilization	32.4%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations						
Volume (vph)	322	105	10	190	112	75
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)	0	0	0			0
Storage Lanes	1	0	0			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.967				0.946	
Flt Protected	0.964			0.998		
Satd. Flow (prot)	1736	0	0	1859	1762	0
Flt Permitted	0.964			0.998		
Satd. Flow (perm)	1736	0	0	1859	1762	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	139			484	335	
Travel Time (s)	3.2			11.0	7.6	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	366	119	11	216	127	85
Shared Lane Traffic (%)						
Lane Group Flow (vph)	485	0	0	227	212	0
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 49.1% ICU Level of Service A
Analysis Period (min) 15

Movement	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations						
Volume (veh/h)	322	105	10	190	112	75
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Hourly flow rate (vph)	366	119	11	216	127	85
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	409	170	212			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	409	170	212			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	38	86	99			
cM capacity (veh/h)	594	874	1358			

Direction, Lane #	SE 1	NE 1	SW 1
Volume Total	485	227	212
Volume Left	366	11	0
Volume Right	119	0	85
cSH	645	1358	1700
Volume to Capacity	0.75	0.01	0.13
Queue Length 95th (ft)	170	1	0
Control Delay (s)	25.6	0.5	0.0
Lane LOS	D	A	
Approach Delay (s)	25.6	0.5	0.0
Approach LOS	D		

Intersection Summary			
Average Delay	13.5		
Intersection Capacity Utilization	49.1%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations						
Volume (vph)	25	42	411	101	145	128
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)	0	0	0			0
Storage Lanes	1	0	0			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.916				0.937	
Flt Protected	0.982			0.961		
Satd. Flow (prot)	1676	0	0	1790	1745	0
Flt Permitted	0.982			0.961		
Satd. Flow (perm)	1676	0	0	1790	1745	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	589			335	220	
Travel Time (s)	13.4			7.6	5.0	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	29	48	472	116	167	147
Shared Lane Traffic (%)						
Lane Group Flow (vph)	77	0	0	588	314	0
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 57.5% ICU Level of Service B
Analysis Period (min) 15

Movement	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations						
Volume (veh/h)	25	42	411	101	145	128
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Hourly flow rate (vph)	29	48	472	116	167	147
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1301	240	314			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1301	240	314			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	74	94	62			
cM capacity (veh/h)	110	799	1246			

Direction, Lane #	SE 1	NE 1	SW 1
Volume Total	77	589	314
Volume Left	29	472	0
Volume Right	48	0	147
cSH	240	1246	1700
Volume to Capacity	0.32	0.38	0.18
Queue Length 95th (ft)	33	45	0
Control Delay (s)	26.9	8.5	0.0
Lane LOS	D	A	
Approach Delay (s)	26.9	8.5	0.0
Approach LOS	D		

Intersection Summary			
Average Delay	7.2		
Intersection Capacity Utilization	57.5%	ICU Level of Service	B
Analysis Period (min)	15		

CAPACITY ANALYSIS WORKSHEETS

2016 Background Conditions

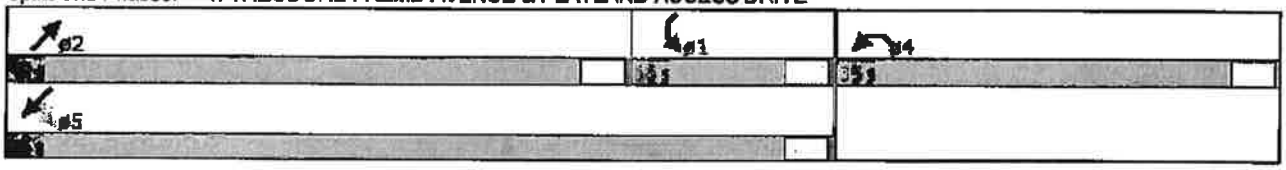
Lane Group	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Volume (vph)	148	121	186	177	153	187
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%		0%			0%
Storage Length (ft)	0	0		0	150	
Storage Lanes	1	0		0	1	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.939		0.934			
Flt Protected	0.973				0.950	
Satd. Flow (prot)	1702	0	1740	0	1770	1863
Flt Permitted	0.973				0.402	
Satd. Flow (perm)	1702	0	1740	0	749	1863
Right Turn on Red		No		Yes		
Satd. Flow (RTOR)			63			
Link Speed (mph)	30		30			30
Link Distance (ft)	375		786			931
Travel Time (s)	8.5		17.9			21.2
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%		0%			0%
Adj. Flow (vph)	163	133	204	195	168	205
Shared Lane Traffic (%)						
Lane Group Flow (vph)	296	0	399	0	168	205
Turn Type	Prot		NA		pm+pt	NA
Protected Phases	4		2		1	5
Permitted Phases					5	
Detector Phase	4		2		1	5
Switch Phase						
Minimum Initial (s)	4.0		4.0		4.0	4.0
Minimum Split (s)	35.0		49.0		16.0	65.0
Total Split (s)	35.0		49.0		16.0	65.0
Total Split (%)	35.0%		49.0%		16.0%	65.0%
Yellow Time (s)	3.5		3.5		3.5	3.5
All-Red Time (s)	0.5		0.5		0.5	0.5
Lost Time Adjust (s)	0.0		0.0		0.0	0.0
Total Lost Time (s)	4.0		4.0		4.0	4.0
Lead/Lag			Lead		Lag	
Lead-Lag Optimize?			Yes		Yes	
Recall Mode	Max		Max		Max	Max
Act Effct Green (s)	31.0		45.0		61.0	61.0
Actuated g/C Ratio	0.31		0.45		0.61	0.61

Lane Group	NWL	NWR	NET	NER	SWL	SWT
v/c Ratio	0.56		0.49		0.29	0.18
Control Delay	33.8		18.5		11.7	9.0
Queue Delay	0.0		0.0		0.0	0.0
Total Delay	33.8		18.5		11.7	9.0
LOS	C		B		B	A
Approach Delay	33.8		18.5			10.2
Approach LOS	C		B			B
Queue Length 50th (ft)	157		145		43	53
Queue Length 95th (ft)	243		229		72	86
Internal Link Dist (ft)	295		706			851
Turn Bay Length (ft)					150	
Base Capacity (vph)	527		817		579	1136
Starvation Cap Reductn	0		0		0	0
Spillback Cap Reductn	0		0		0	0
Storage Cap Reductn	0		0		0	0
Reduced v/c Ratio	0.56		0.49		0.29	0.18

Intersection Summary

Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 100
Natural Cycle: 100
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.56
Intersection Signal Delay: 19.8 Intersection LOS: B
Intersection Capacity Utilization 54.7% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 1: THEODORE FREMD AVENUE & PLAYLAND ACCESS DRIVE



Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	45	251	67	23	58	26	26	2	27	167	54	515
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		75	0		0
Storage Lanes	0		0	0		0	0		1	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.975			0.967				0.850			0.850
Flt Protected		0.994			0.989			0.955			0.964	
Satd. Flow (prot)	0	1805	0	0	1781	0	0	1779	1583	0	1796	1583
Flt Permitted		0.994			0.989			0.955			0.964	
Satd. Flow (perm)	0	1805	0	0	1781	0	0	1779	1583	0	1796	1583
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		563			484			289			91	
Travel Time (s)		12.8			11.0			6.6			2.1	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	51	282	75	26	65	29	29	2	30	188	61	579
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	408	0	0	120	0	0	31	30	0	249	579
Sign Control		Free			Free			Stop			Stop	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 51.1% ICU Level of Service A
Analysis Period (min) 15

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (veh/h)	45	251	67	23	58	26	26	2	27	167	54	515
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	51	282	75	26	65	29	29	2	30	188	61	579
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)									3			
Median type		None			None							
Median storage veh)												
Upstream signal (ft)		997										
pX, platoon unblocked												
vC, conflicting volume	94			357			1161	567	320	569	590	80
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	94			357			1161	567	320	569	590	80
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	97			98			51	99	96	53	85	41
cM capacity (veh/h)	1500			1201			60	410	721	396	397	980

Direction, Lane #	SE 1	NW 1	NE 1	SW 1	SW 2
Volume Total	408	120	62	248	579
Volume Left	51	26	29	188	0
Volume Right	75	29	30	0	579
cSH	1500	1201	166	396	980
Volume to Capacity	0.03	0.02	0.37	0.63	0.59
Queue Length 95th (ft)	3	2	40	103	100
Control Delay (s)	1.2	1.9	41.0	28.1	13.8
Lane LOS	A	A	E	D	B
Approach Delay (s)	1.2	1.9	41.0	18.1	
Approach LOS			E	C	

Intersection Summary				
Average Delay	12.9			
Intersection Capacity Utilization	51.1%	ICU Level of Service		A
Analysis Period (min)	15			

Lane Group	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Volume (vph)	444	1	2	106	1	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	0		0	0
Storage Lanes		0	0		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt						
Flt Protected				0.999	0.950	
Satd. Flow (prot)	1863	0	0	1861	1770	0
Flt Permitted				0.999	0.950	
Satd. Flow (perm)	1863	0	0	1861	1770	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	484			139	157	
Travel Time (s)	11.0			3.2	3.6	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	453	1	2	108	1	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	454	0	0	110	1	0
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 33.4% ICU Level of Service A
Analysis Period (min) 15

Movement	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Volume (veh/h)	444	1	2	106	1	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Hourly flow rate (vph)	453	1	2	108	1	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			454		566	454
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			454		566	454
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			1107		485	606

Direction, Lane #	SE 1	NW 1	NE 1
Volume Total	454	110	1
Volume Left	0	2	1
Volume Right	1	0	0
cSH	1700	1107	485
Volume to Capacity	0.27	0.00	0.00
Queue Length 95th (ft)	0	0	0
Control Delay (s)	0.0	0.2	12.4
Lane LOS		A	B
Approach Delay (s)	0.0	0.2	12.4
Approach LOS			B

Intersection Summary			
Average Delay	0.1		
Intersection Capacity Utilization	33.4%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations						
Volume (vph)	296	148	19	301	211	89
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)	0	0	0			0
Storage Lanes	1	0	0			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.955				0.960	
Flt Protected	0.968			0.997		
Satd. Flow (prot)	1722	0	0	1857	1788	0
Flt Permitted	0.968			0.997		
Satd. Flow (perm)	1722	0	0	1857	1788	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	139			484	335	
Travel Time (s)	3.2			11.0	7.6	
Confl. Peds. (#/hr)			7			7
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.93	0.93	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	322	161	20	324	220	93
Shared Lane Traffic (%)						
Lane Group Flow (vph)	483	0	0	344	313	0
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 63.5% ICU Level of Service B
Analysis Period (min) 15

Movement	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations						
Volume (veh/h)	296	148	19	301	211	89
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.93	0.93	0.96	0.96
Hourly flow rate (vph)	322	161	20	324	220	93
Pedestrians	7					
Lane Width (ft)	12.0					
Walking Speed (ft/s)	4.0					
Percent Blockage	1					
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	638	273	320			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	638	273	320			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	25	79	98			
cM capacity (veh/h)	431	761	1233			

Direction, Lane #	SE 1	NE 1	SW 1
Volume Total	483	344	312
Volume Left	322	20	0
Volume Right	161	0	93
cSH	504	1233	1700
Volume to Capacity	0.96	0.02	0.18
Queue Length 95th (ft)	305	1	0
Control Delay (s)	58.9	0.6	0.0
Lane LOS	F	A	
Approach Delay (s)	58.9	0.6	0.0
Approach LOS	F		

Intersection Summary			
Average Delay	25.1		
Intersection Capacity Utilization	63.5%	ICU Level of Service	B
Analysis Period (min)	15		

Lane Group	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations						
Volume (vph)	47	139	523	74	161	112
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)	0	0	0			0
Storage Lanes	1	0	0			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.899				0.945	
Flt Protected	0.987			0.958		
Satd. Flow (prot)	1653	0	0	1785	1760	0
Flt Permitted	0.987			0.958		
Satd. Flow (perm)	1653	0	0	1785	1760	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	589			335	220	
Travel Time (s)	13.4			7.6	5.0	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	53	156	588	83	181	126
Shared Lane Traffic (%)						
Lane Group Flow (vph)	209	0	0	671	307	0
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 69.3% ICU Level of Service C
Analysis Period (min) 15

Movement	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations						
Volume (veh/h)	47	139	523	74	161	112
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	53	156	588	83	181	126
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1502	244	307			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1502	244	307			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	26	80	53			
cM capacity (veh/h)	71	795	1254			

Direction, Lane #	SE 1	NE 1	SW 1
Volume Total	209	671	307
Volume Left	53	588	0
Volume Right	156	0	126
cSH	223	1254	1700
Volume to Capacity	0.94	0.47	0.18
Queue Length 95th (ft)	201	64	0
Control Delay (s)	91.1	9.7	0.0
Lane LOS	F	A	
Approach Delay (s)	91.1	9.7	0.0
Approach LOS	F		

Intersection Summary			
Average Delay	21.5		
Intersection Capacity Utilization	69.3%	ICU Level of Service	C
Analysis Period (min)	15		

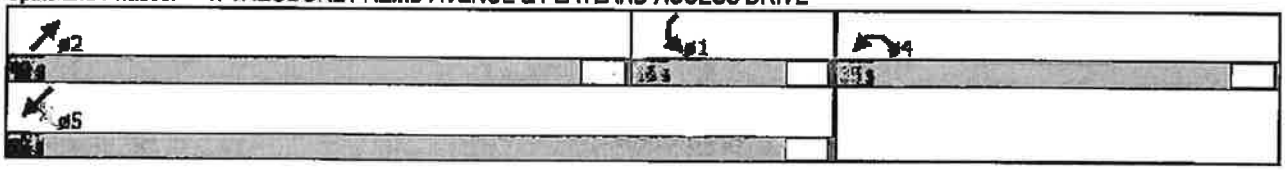
Lane Group	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Volume (vph)	143	127	214	117	82	218
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%		0%			0%
Storage Length (ft)	0	0		0	150	
Storage Lanes	1	0		0	1	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.936		0.952			
Flt Protected	0.974				0.950	
Satd. Flow (prot)	1698	0	1773	0	1770	1863
Flt Permitted	0.974				0.447	
Satd. Flow (perm)	1698	0	1773	0	833	1863
Right Turn on Red		No		Yes		
Satd. Flow (RTOR)			36			
Link Speed (mph)	30		30			30
Link Distance (ft)	375		786			931
Travel Time (s)	8.5		17.9			21.2
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%		0%			0%
Adj. Flow (vph)	157	140	235	129	90	240
Shared Lane Traffic (%)						
Lane Group Flow (vph)	297	0	364	0	90	240
Turn Type	Prot		NA		pm+pt	NA
Protected Phases	4		2		1	5
Permitted Phases					5	
Detector Phase	4		2		1	5
Switch Phase						
Minimum Initial (s)	4.0		4.0		4.0	4.0
Minimum Split (s)	35.0		49.0		16.0	65.0
Total Split (s)	35.0		49.0		16.0	65.0
Total Split (%)	35.0%		49.0%		16.0%	65.0%
Yellow Time (s)	3.5		3.5		3.5	3.5
All-Red Time (s)	0.5		0.5		0.5	0.5
Lost Time Adjust (s)	0.0		0.0		0.0	0.0
Total Lost Time (s)	4.0		4.0		4.0	4.0
Lead/Lag			Lead		Lag	
Lead-Lag Optimize?			Yes		Yes	
Recall Mode	Max		Max		None	Max
Act Effct Green (s)	31.0		48.2		61.0	61.0
Actuated g/C Ratio	0.31		0.48		0.61	0.61

Lane Group	NWL	NWR	NET	NER	SWL	SWT
v/c Ratio	0.56		0.42		0.15	0.21
Control Delay	33.9		17.9		9.4	9.3
Queue Delay	0.0		0.0		0.0	0.0
Total Delay	33.9		17.9		9.4	9.3
LOS	C		B		A	A
Approach Delay	33.9		17.9			9.3
Approach LOS	C		B			A
Queue Length 50th (ft)	157		139		22	63
Queue Length 95th (ft)	244		216		42	100
Internal Link Dist (ft)	295		706			851
Turn Bay Length (ft)					150	
Base Capacity (vph)	526		873		620	1136
Starvation Cap Reductn	0		0		0	0
Spillback Cap Reductn	0		0		0	0
Storage Cap Reductn	0		0		0	0
Reduced v/c Ratio	0.56		0.42		0.15	0.21

Intersection Summary

Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 100
Natural Cycle: 100
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.56
Intersection Signal Delay: 19.8 — Intersection LOS: B
Intersection Capacity Utilization 48.6% — ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 1: THEODORE FREMD AVENUE & PLAYLAND ACCESS DRIVE



Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	54	264	15	6	47	38	30	2	40	125	10	238
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		75	0		0
Storage Lanes	0		0	0		0	0		1	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.994			0.944				0.850			0.850
Flt Protected		0.992			0.997			0.955			0.956	
Satd. Flow (prot)	0	1837	0	0	1753	0	0	1779	1583	0	1781	1583
Flt Permitted		0.992			0.997			0.955			0.956	
Satd. Flow (perm)	0	1837	0	0	1753	0	0	1779	1583	0	1781	1583
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		563			484			289			91	
Travel Time (s)		12.8			11.0			6.6			2.1	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	68	330	19	8	59	48	38	3	50	156	13	298
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	417	0	0	115	0	0	40	50	0	168	298
Sign Control		Free			Free			Stop			Stop	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 45.2% ICU Level of Service A
Analysis Period (min) 15

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (veh/h)	54	264	15	6	47	38	30	2	40	125	10	238
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Hourly flow rate (vph)	68	330	19	8	59	48	38	2	50	156	12	298
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)									3			
Median type		None			None							
Median storage veh)												
Upstream signal (ft)		997										
pX, platoon unblocked												
vC, conflicting volume	106			349			876	596	339	598	581	82
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	106			349			876	596	339	598	581	82
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	95			99			79	99	93	58	97	70
cM capacity (veh/h)	1485			1210			176	396	703	368	403	977

Direction, Lane #	SE 1	NW 1	NE 1	SW 1	SW 2
Volume Total	416	114	90	169	298
Volume Left	68	8	38	156	0
Volume Right	19	48	50	0	298
cSH	1485	1210	427	370	977
Volume to Capacity	0.05	0.01	0.21	0.46	0.30
Queue Length 95th (ft)	4	0	20	58	32
Control Delay (s)	1.6	0.6	18.7	22.6	10.3
Lane LOS	A	A	C	C	B
Approach Delay (s)	1.6	0.6	18.7	14.8	
Approach LOS			C	B	

Intersection Summary			
Average Delay	8.6		
Intersection Capacity Utilization	45.2%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Volume (vph)	434	1	2	88	1	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	0		0	0
Storage Lanes		0	0		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt					0.910	
Flt Protected				0.999	0.984	
Satd. Flow (prot)	1863	0	0	1861	1668	0
Flt Permitted				0.999	0.984	
Satd. Flow (perm)	1863	0	0	1861	1668	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	484			139	157	
Travel Time (s)	11.0			3.2	3.6	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	452	1	2	92	1	2
Shared Lane Traffic (%)						
Lane Group Flow (vph)	453	0	0	94	3	0
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 32.9% ICU Level of Service A
Analysis Period (min) 15

Movement	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Volume (veh/h)	434	1	2	88	1	2
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	452	1	2	92	1	2
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			453		548	453
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			453		548	453
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			1107		496	607

Direction, Lane #	SE 1	NW 1	NE 1
Volume Total	453	94	3
Volume Left	0	2	1
Volume Right	1	0	2
cSH	1700	1107	565
Volume to Capacity	0.27	0.00	0.01
Queue Length 95th (ft)	0	0	0
Control Delay (s)	0.0	0.2	11.4
Lane LOS		A	B
Approach Delay (s)	0.0	0.2	11.4
Approach LOS			B

Intersection Summary			
Average Delay	0.1		
Intersection Capacity Utilization	32.9%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations						
Volume (vph)	328	108	10	195	122	80
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)	0	0	0			0
Storage Lanes	1	0	0			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.967				0.947	
Flt Protected	0.964			0.998		
Satd. Flow (prot)	1736	0	0	1859	1764	0
Flt Permitted	0.964			0.998		
Satd. Flow (perm)	1736	0	0	1859	1764	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	139			484	335	
Travel Time (s)	3.2			11.0	7.6	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	373	123	11	222	139	91
Shared Lane Traffic (%)						
Lane Group Flow (vph)	496	0	0	233	230	0
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 49.8% ICU Level of Service A
Analysis Period (min) 15

Movement	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations						
Volume (veh/h)	328	108	10	195	122	80
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Hourly flow rate (vph)	373	123	11	222	139	91
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	428	184	230			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	428	184	230			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	36	86	99			
cM capacity (veh/h)	578	858	1338			

Direction, Lane #	SE 1	NE 1	SW 1
Volume Total	495	233	230
Volume Left	373	11	0
Volume Right	123	0	91
cSH	629	1338	1700
Volume to Capacity	0.79	0.01	0.14
Queue Length 95th (ft)	191	1	0
Control Delay (s)	28.6	0.4	0.0
Lane LOS	D	A	
Approach Delay (s)	28.6	0.4	0.0
Approach LOS	D		

Intersection Summary			
Average Delay	14.9		
Intersection Capacity Utilization	49.8%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations						
Volume (vph)	33	54	419	104	148	134
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)	0	0	0			0
Storage Lanes	1	0	0			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.916				0.936	
Flt Protected	0.981			0.962		
Satd. Flow (prot)	1674	0	0	1792	1744	0
Flt Permitted	0.981			0.962		
Satd. Flow (perm)	1674	0	0	1792	1744	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	589			335	220	
Travel Time (s)	13.4			7.6	5.0	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	38	62	482	120	170	154
Shared Lane Traffic (%)						
Lane Group Flow (vph)	100	0	0	602	324	0
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 59.8% ICU Level of Service B
Analysis Period (min) 15

Movement	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations						
Volume (veh/h)	33	54	419	104	148	134
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Hourly flow rate (vph)	38	62	482	120	170	154
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1330	247	324			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1330	247	324			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	64	92	61			
cM capacity (veh/h)	104	792	1236			

Direction, Lane #	SE 1	NE 1	SW 1
Volume Total	100	601	324
Volume Left	38	482	0
Volume Right	62	0	154
cSH	226	1236	1700
Volume to Capacity	0.44	0.39	0.19
Queue Length 95th (ft)	53	47	0
Control Delay (s)	33.0	8.6	0.0
Lane LOS	D	A	
Approach Delay (s)	33.0	8.6	0.0
Approach LOS	D		

Intersection Summary			
Average Delay	8.3		
Intersection Capacity Utilization	59.8%	ICU Level of Service	B
Analysis Period (min)	15		

CAPACITY ANALYSIS WORKSHEETS

2016 Combined Conditions

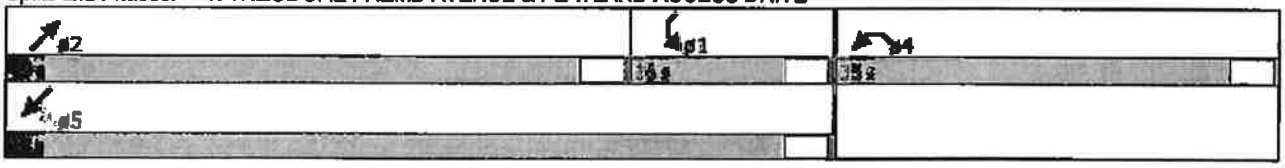
Lane Group	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Volume (vph)	151	125	186	179	155	187
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%		0%			0%
Storage Length (ft)	0	0		0	150	
Storage Lanes	1	0		0	1	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.939		0.934			
Flt Protected	0.973				0.950	
Satd. Flow (prot)	1702	0	1740	0	1770	1863
Flt Permitted	0.973				0.400	
Satd. Flow (perm)	1702	0	1740	0	745	1863
Right Turn on Red		No		Yes		
Satd. Flow (RTOR)			63			
Link Speed (mph)	30		30			30
Link Distance (ft)	375		786			931
Travel Time (s)	8.5		17.9			21.2
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%		0%			0%
Adj. Flow (vph)	166	137	204	197	170	205
Shared Lane Traffic (%)						
Lane Group Flow (vph)	303	0	401	0	170	205
Turn Type	Prot		NA		pm+pt	NA
Protected Phases	4		2		1	5
Permitted Phases					5	
Detector Phase	4		2		1	5
Switch Phase						
Minimum Initial (s)	4.0		4.0		4.0	4.0
Minimum Split (s)	35.0		49.0		16.0	65.0
Total Split (s)	35.0		49.0		16.0	65.0
Total Split (%)	35.0%		49.0%		16.0%	65.0%
Yellow Time (s)	3.5		3.5		3.5	3.5
All-Red Time (s)	0.5		0.5		0.5	0.5
Lost Time Adjust (s)	0.0		0.0		0.0	0.0
Total Lost Time (s)	4.0		4.0		4.0	4.0
Lead/Lag			Lead		Lag	
Lead-Lag Optimize?			Yes		Yes	
Recall Mode	Max		Max		Max	Max
Act Effct Green (s)	31.0		45.0		61.0	61.0
Actuated g/C Ratio	0.31		0.45		0.61	0.61

Lane Group	NWL	NWR	NET	NER	SWL	SWT
v/c Ratio	0.57		0.49		0.29	0.18
Control Delay	34.2		18.6		11.8	9.0
Queue Delay	0.0		0.0		0.0	0.0
Total Delay	34.2		18.6		11.8	9.0
LOS	C		B		B	A
Approach Delay	34.2		18.6			10.3
Approach LOS	C		B			B
Queue Length 50th (ft)	161		146		43	53
Queue Length 95th (ft)	250		231		73	86
Internal Link Dist (ft)	295		706			851
Turn Bay Length (ft)					150	
Base Capacity (vph)	527		817		577	1136
Starvation Cap Reductn	0		0		0	0
Spillback Cap Reductn	0		0		0	0
Storage Cap Reductn	0		0		0	0
Reduced v/c Ratio	0.57		0.49		0.29	0.18

Intersection Summary

Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 100
Natural Cycle: 100
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.57
Intersection Signal Delay: 20.1 Intersection LOS: C
Intersection Capacity Utilization 55.3% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 1: THEODORE FREMD AVENUE & PLAYLAND ACCESS DRIVE



Lane Group	SEL	SET	SER	NWL	NWT	NWR`	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	45	255	67	23	65	26	26	2	27	168	54	515
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		75	0		0
Storage Lanes	0		0	0		0	0		1	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.975			0.969				0.850			0.850
Flt Protected		0.994			0.990			0.955			0.964	
Satd. Flow (prot)	0	1805	0	0	1787	0	0	1779	1583	0	1796	1583
Flt Permitted		0.994			0.990			0.955			0.964	
Satd. Flow (perm)	0	1805	0	0	1787	0	0	1779	1583	0	1796	1583
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		563			484			289			91	
Travel Time (s)		12.8			11.0			6.6			2.1	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	51	287	75	26	73	29	29	2	30	189	61	579
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	413	0	0	128	0	0	31	30	0	250	579
Sign Control		Free			Free			Stop			Stop	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 51.5% ICU Level of Service A
Analysis Period (min) 15

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (veh/h)	45	255	67	23	65	26	26	2	27	168	54	515
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	51	287	75	26	73	29	29	2	30	189	61	579
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)									3			
Median type		None			None							
Median storage veh)												
Upstream signal (ft)		997										
pX, platoon unblocked												
vC, conflicting volume	102			362			1174	579	324	581	602	88
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	102			362			1174	579	324	581	602	88
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	97			98			49	99	96	51	84	40
cM capacity (veh/h)	1490			1197			58	403	717	388	391	971

Direction, Lane #	SE 1	NW 1	NE 1	SW 1	SW 2
Volume Total	412	128	62	249	579
Volume Left	51	26	29	189	0
Volume Right	75	29	30	0	579
cSH	1490	1197	162	389	971
Volume to Capacity	0.03	0.02	0.38	0.64	0.60
Queue Length 95th (ft)	3	2	41	108	102
Control Delay (s)	1.2	1.8	42.5	29.4	14.0
Lane LOS	A	A	E	D	B
Approach Delay (s)	1.2	1.8	42.5	18.7	
Approach LOS			E	C	

Intersection Summary			
Average Delay	13.1		
Intersection Capacity Utilization	51.5%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Volume (vph)	444	6	6	106	8	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	0		0	0
Storage Lanes		0	0		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.998				0.922	
Flt Protected				0.997	0.979	
Satd. Flow (prot)	1859	0	0	1857	1681	0
Flt Permitted				0.997	0.979	
Satd. Flow (perm)	1859	0	0	1857	1681	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	484			139	157	
Travel Time (s)	11.0			3.2	3.6	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	453	6	6	108	8	11
Shared Lane Traffic (%)						
Lane Group Flow (vph)	459	0	0	114	19	0
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 33.7% ICU Level of Service A
Analysis Period (min) 15

Movement	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Volume (veh/h)	444	6	6	106	8	11
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Hourly flow rate (vph)	453	6	6	108	8	11
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			459		577	456
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			459		577	456
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			99		98	98
cM capacity (veh/h)			1102		476	604

Direction, Lane #	SE 1	NW 1	NE 1
Volume Total	459	114	19
Volume Left	0	6	8
Volume Right	6	0	11
cSH	1700	1102	543
Volume to Capacity	0.27	0.01	0.04
Queue Length 95th (ft)	0	0	3
Control Delay (s)	0.0	0.5	11.9
Lane LOS		A	B
Approach Delay (s)	0.0	0.5	11.9
Approach LOS			B

Intersection Summary			
Average Delay	0.5		
Intersection Capacity Utilization	33.7%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations						
Volume (vph)	303	152	21	301	211	91
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)	0	0	0			0
Storage Lanes	1	0	0			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.955				0.959	
Flt Protected	0.968			0.997		
Satd. Flow (prot)	1722	0	0	1857	1786	0
Flt Permitted	0.968			0.997		
Satd. Flow (perm)	1722	0	0	1857	1786	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	139			484	335	
Travel Time (s)	3.2			11.0	7.6	
Confl. Peds. (#/hr)			7			7
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.93	0.93	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	329	165	23	324	220	95
Shared Lane Traffic (%)						
Lane Group Flow (vph)	494	0	0	347	315	0
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 65.8% ICU Level of Service C
Analysis Period (min) 15

Movement	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations						
Volume (veh/h)	303	152	21	301	211	91
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.93	0.93	0.96	0.96
Hourly flow rate (vph)	329	165	23	324	220	95
Pedestrians	7					
Lane Width (ft)	12.0					
Walking Speed (ft/s)	4.0					
Percent Blockage	1					
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	643	274	322			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	643	274	322			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	23	78	98			
cM capacity (veh/h)	427	760	1231			

Direction, Lane #	SE 1	NE 1	SW 1
Volume Total	495	346	315
Volume Left	329	23	0
Volume Right	165	0	95
cSH	501	1231	1700
Volume to Capacity	0.99	0.02	0.19
Queue Length 95th (ft)	331	1	0
Control Delay (s)	66.1	0.7	0.0
Lane LOS	F	A	
Approach Delay (s)	66.1	0.7	0.0
Approach LOS	F		

Intersection Summary			
Average Delay	28.5		
Intersection Capacity Utilization	65.8%	ICU Level of Service	C
Analysis Period (min)	15		

Lane Group	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations						
Volume (vph)	47	139	526	78	163	112
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)	0	0	0			0
Storage Lanes	1	0	0			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.899				0.945	
Flt Protected	0.987			0.958		
Satd. Flow (prot)	1653	0	0	1785	1760	0
Flt Permitted	0.987			0.958		
Satd. Flow (perm)	1653	0	0	1785	1760	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	589			335	220	
Travel Time (s)	13.4			7.6	5.0	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	53	156	591	88	183	126
Shared Lane Traffic (%)						
Lane Group Flow (vph)	209	0	0	679	309	0
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 69.8%
ICU Level of Service C
Analysis Period (min) 15

Movement	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations						
Volume (veh/h)	47	139	526	78	163	112
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	53	156	591	88	183	126
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1516	246	309			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1516	246	309			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	24	80	53			
cM capacity (veh/h)	69	793	1252			

Direction, Lane #	SE 1	NE 1	SW 1
Volume Total	209	679	309
Volume Left	53	591	0
Volume Right	156	0	126
cSH	218	1252	1700
Volume to Capacity	0.96	0.47	0.18
Queue Length 95th (ft)	208	65	0
Control Delay (s)	97.0	9.7	0.0
Lane LOS	F	A	
Approach Delay (s)	97.0	9.7	0.0
Approach LOS	F		

Intersection Summary			
Average Delay	22.5		
Intersection Capacity Utilization	69.8%	ICU Level of Service	C
Analysis Period (min)	15		

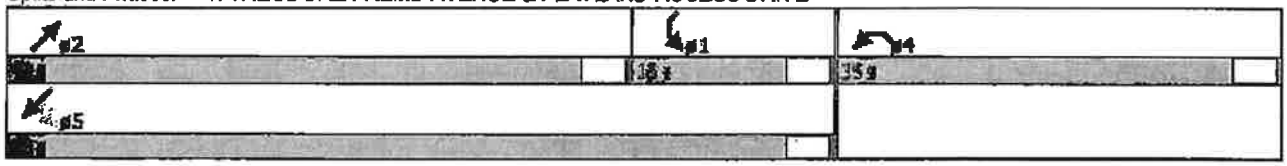
Lane Group	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Volume (vph)	146	130	214	120	86	218
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%		0%			0%
Storage Length (ft)	0	0		0	150	
Storage Lanes	1	0		0	1	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.936		0.951			
Flt Protected	0.974				0.950	
Satd. Flow (prot)	1698	0	1771	0	1770	1863
Flt Permitted	0.974				0.444	
Satd. Flow (perm)	1698	0	1771	0	827	1863
Right Turn on Red		No		Yes		
Satd. Flow (RTOR)			37			
Link Speed (mph)	30		30			30
Link Distance (ft)	375		786			931
Travel Time (s)	8.5		17.9			21.2
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%		0%			0%
Adj. Flow (vph)	160	143	235	132	95	240
Shared Lane Traffic (%)						
Lane Group Flow (vph)	303	0	367	0	95	240
Turn Type	Prot		NA		pm+pt	NA
Protected Phases	4		2		1	5
Permitted Phases					5	
Detector Phase	4		2		1	5
Switch Phase						
Minimum Initial (s)	4.0		4.0		4.0	4.0
Minimum Split (s)	35.0		49.0		16.0	65.0
Total Split (s)	35.0		49.0		16.0	65.0
Total Split (%)	35.0%		49.0%		16.0%	65.0%
Yellow Time (s)	3.5		3.5		3.5	3.5
All-Red Time (s)	0.5		0.5		0.5	0.5
Lost Time Adjust (s)	0.0		0.0		0.0	0.0
Total Lost Time (s)	4.0		4.0		4.0	4.0
Lead/Lag			Lead		Lag	
Lead-Lag Optimize?			Yes		Yes	
Recall Mode	Max		Max		None	Max
Act Effct Green (s)	31.0		48.2		61.0	61.0
Actuated g/C Ratio	0.31		0.48		0.61	0.61

Lane Group	NWL	NWR	NET	NER	SWL	SWT
v/c Ratio	0.58		0.42		0.16	0.21
Control Delay	34.2		17.9		9.5	9.3
Queue Delay	0.0		0.0		0.0	0.0
Total Delay	34.2		17.9		9.5	9.3
LOS	C		B		A	A
Approach Delay	34.2		17.9			9.4
Approach LOS	C		B			A
Queue Length 50th (ft)	161		140		23	63
Queue Length 95th (ft)	250		218		44	100
Internal Link Dist (ft)	295		706			851
Turn Bay Length (ft)					150	
Base Capacity (vph)	526		872		617	1136
Starvation Cap Reductn	0		0		0	0
Spillback Cap Reductn	0		0		0	0
Storage Cap Reductn	0		0		0	0
Reduced v/c Ratio	0.58		0.42		0.15	0.21

Intersection Summary

Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 100
Natural Cycle: 100
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.58
Intersection Signal Delay: 20.0 Intersection LOS: B
Intersection Capacity Utilization 49.4% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 1: THEODORE FREMD AVENUE & PLAYLAND ACCESS DRIVE



Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	54	271	15	6	53	38	30	2	40	129	10	238
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		75	0		0
Storage Lanes	0		0	0		0	0		1	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.994			0.947				0.850			0.850
Flt Protected		0.992			0.997			0.955			0.956	
Satd. Flow (prot)	0	1837	0	0	1759	0	0	1779	1583	0	1781	1583
Flt Permitted		0.992			0.997			0.955			0.956	
Satd. Flow (perm)	0	1837	0	0	1759	0	0	1779	1583	0	1781	1583
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		563			484			289			91	
Travel Time (s)		12.8			11.0			6.6			2.1	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	68	339	19	8	66	48	38	3	50	161	13	298
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	426	0	0	122	0	0	40	50	0	173	298
Sign Control		Free			Free			Stop			Stop	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 45.8% ICU Level of Service A
Analysis Period (min) 15

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (veh/h)	54	271	15	6	53	38	30	2	40	129	10	238
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Hourly flow rate (vph)	68	339	19	8	66	48	38	2	50	161	12	298
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)									3			
Median type		None			None							
Median storage veh)												
Upstream signal (ft)		997										
pX, platoon unblocked												
vC, conflicting volume	114			358			892	612	348	614	598	90
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	114			358			892	612	348	614	598	90
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	95			99			78	99	93	55	97	69
cM capacity (veh/h)	1475			1201			171	387	695	358	395	968

Direction, Lane #	SE 1	NW 1	NE 1	SW 1	SW 2
Volume Total	425	121	90	174	298
Volume Left	68	8	38	161	0
Volume Right	19	48	50	0	298
cSH	1475	1201	414	361	968
Volume to Capacity	0.05	0.01	0.22	0.48	0.31
Queue Length 95th (ft)	4	0	20	63	33
Control Delay (s)	1.6	0.5	19.2	23.9	10.4
Lane LOS	A	A	C	C	B
Approach Delay (s)	1.6	0.5	19.2	15.4	
Approach LOS			C	C	

Intersection Summary			
Average Delay	8.8		
Intersection Capacity Utilization	45.8%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Volume (vph)	434	12	9	88	7	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	0		0	0
Storage Lanes		0	0		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.997				0.915	
Flt Protected				0.996	0.982	
Satd. Flow (prot)	1857	0	0	1855	1674	0
Flt Permitted				0.996	0.982	
Satd. Flow (perm)	1857	0	0	1855	1674	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	484			139	157	
Travel Time (s)	11.0			3.2	3.6	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	452	13	9	92	7	13
Shared Lane Traffic (%)						
Lane Group Flow (vph)	464	0	0	101	19	0
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 33.6% ICU Level of Service A
Analysis Period (min) 15

Movement	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Volume (veh/h)	434	12	9	88	7	12
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	452	12	9	92	7	12
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			465		569	458
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			465		569	458
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			99		98	98
cM capacity (veh/h)			1097		480	603

Direction, Lane #	SE 1	NW 1	NE 1
Volume Total	465	101	20
Volume Left	0	9	7
Volume Right	12	0	12
cSH	1700	1097	551
Volume to Capacity	0.27	0.01	0.04
Queue Length 95th (ft)	0	1	3
Control Delay (s)	0.0	0.8	11.8
Lane LOS		A	B
Approach Delay (s)	0.0	0.8	11.8
Approach LOS			B

Intersection Summary			
Average Delay	0.5		
Intersection Capacity Utilization	33.6%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations						
Volume (vph)	334	112	13	195	122	84
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)	0	0	0			0
Storage Lanes	1	0	0			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.966				0.945	
Flt Protected	0.964			0.997		
Satd. Flow (prot)	1735	0	0	1857	1760	0
Flt Permitted	0.964			0.997		
Satd. Flow (perm)	1735	0	0	1857	1760	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	139			484	335	
Travel Time (s)	3.2			11.0	7.6	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	380	127	15	222	139	95
Shared Lane Traffic (%)						
Lane Group Flow (vph)	507	0	0	237	234	0
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 52.9% ICU Level of Service A
Analysis Period (min) 15

Movement	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations						
Volume (veh/h)	334	112	13	195	122	84
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Hourly flow rate (vph)	380	127	15	222	139	95
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	438	186	234			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	438	186	234			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	33	85	99			
cM capacity (veh/h)	570	856	1333			

Direction, Lane #	SE 1	NE 1	SW 1
Volume Total	507	236	234
Volume Left	380	15	0
Volume Right	127	0	95
cSH	622	1333	1700
Volume to Capacity	0.81	0.01	0.14
Queue Length 95th (ft)	209	1	0
Control Delay (s)	31.2	0.6	0.0
Lane LOS	D	A	
Approach Delay (s)	31.2	0.6	0.0
Approach LOS	D		

Intersection Summary			
Average Delay	16.3		
Intersection Capacity Utilization	52.9%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations						
Volume (vph)	33	54	422	107	152	134
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)	0	0	0			0
Storage Lanes	1	0	0			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.916				0.937	
Flt Protected	0.981			0.962		
Satd. Flow (prot)	1674	0	0	1792	1745	0
Flt Permitted	0.981			0.962		
Satd. Flow (perm)	1674	0	0	1792	1745	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	589			335	220	
Travel Time (s)	13.4			7.6	5.0	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	38	62	485	123	175	154
Shared Lane Traffic (%)						
Lane Group Flow (vph)	100	0	0	608	329	0
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 60.3% ICU Level of Service B
Analysis Period (min) 15

Movement	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations						
Volume (veh/h)	33	54	422	107	152	134
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Hourly flow rate (vph)	38	62	485	123	175	154
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1345	252	329			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1345	252	329			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	63	92	61			
cM capacity (veh/h)	101	787	1231			

Direction, Lane #	SE 1	NE 1	SW 1
Volume Total	100	608	329
Volume Left	38	485	0
Volume Right	62	0	154
cSH	221	1231	1700
Volume to Capacity	0.45	0.39	0.19
Queue Length 95th (ft)	54	48	0
Control Delay (s)	34.2	8.7	0.0
Lane LOS	D	A	
Approach Delay (s)	34.2	8.7	0.0
Approach LOS	D		

Intersection Summary			
Average Delay	8.4		
Intersection Capacity Utilization	60.3%	ICU Level of Service	B
Analysis Period (min)	15		

CITY COUNCIL AGENDA

NO. 10 DEPT.: City Manager's Office DATE: December 2, 2015

CONTACT: Marcus Serrano, City Manager

AGENDA ITEM: Discussion concerning the Pilot Study reducing the speed limit to 25 miles per hour on Stuyvesant Avenue and a recommendation regarding a permanent change in speed limit.

FOR THE MEETING OF:

December 2, 2015

RYE CITY CODE,

CHAPTER

SECTION

RECOMMENDATION: That the Council consider the Speed Limit Modification Pilot Study for Stuyvesant Avenue proposed by the Traffic and Pedestrian Safety Committee.

IMPACT: ☐ Environmental ☐ Fiscal ☒ Neighborhood ☐ Other:

BACKGROUND: The Traffic and Pedestrian Safety Committee has been reviewing the speed limits on Stuyvesant Avenue during the Pilot Program when the speed limit was reduced to 25 mph for the length of Stuyvesant Avenue.

See attached information from the Traffic and Pedestrian Safety Committee

CITY OF RYE
MEMORANDUM

TO: Mayor Sack and City Council

ALSO TO: M. Serrano, C. Miller, R. Coyne

FROM: Traffic and Pedestrian Safety Committee

SUBJECT: Speed Limits

DATE: November 17, 2015

As requested by the City Manager, the Traffic and Pedestrian Safety (TPS) Committee has prepared this Memorandum regarding our opinion of changing the speed limit to 25 mph. This is a follow up to our earlier memorandum to the Council as well as the conducting of the Pilot Study.

The TPS has discussed the proposed speed limit modification. The Committee has mixed opinions with some in favor of changing the speed limit to 25 mph (particularly on Stuyvesant due to the narrow roadway, topography, curves, pedestrians, no sidewalks) while others recommend keeping it at 30 mph. As was expected, the Pilot Study showed that the change in the speed limit had no real effect as, in general, the speeds stayed relatively similar. There was no clear pattern as some speeds increased while others dropped. Discussions with residents throughout the City have also been mixed. As we have previously stated, it would be critical for the Council to have input from the Police Department on the Speed Limit policy, as they would be the most involved.

At our meeting, there were discussions with a City Police Officer. The Police have enforced the speed limit there (although enforcement locations are limited) and some of the people pulled over were residents who resided on the streets in the Pilot Study.

The Committee feels that it would be appropriate for the Council to recommend that the State pursue granting Cities the ability to change the overall City-wide speed limit, a power that Towns now have.

If the speed limit is to be changed, the following are a few of the issues that the Council will need to determine:

1. Would the change be City-wide or just in the Pilot Study area?
2. If the change is City-wide, it would be TPS's recommendation that the Boston Post Road and Playland Parkway do not drop below 30 mph (except for the school areas).
3. Would the speed limits in the school areas drop from 20 mph to 15 mph? The 20 mph has been difficult to enforce.
4. At what speed should the 25 mph limit be enforced (at what degree of tolerance)?
5. Significant additional signage changes will be required.

CITY COUNCIL AGENDA

NO. 12 DEPT.: City Council DATE: December 2, 2015

CONTACT: Mayor Joseph A. Sack

AGENDA ITEM: Resolution to approve a Memorandum of Agreement between the Rye City Council and the City Manager regarding the carryover of accrued sick days.

FOR THE MEETING OF:

December 2, 2015

RECOMMENDATION: That the Council consider the following resolution:

RESOLVED, that the City Council of the City of Rye hereby authorizes the Mayor to sign a Memorandum of Agreement regarding the carryover of accrued sick days for the City Manager.

IMPACT: ☐ Environmental ☒ Fiscal ☐ Neighborhood ☐ Other:

BACKGROUND:

See attached Memorandum of Agreement.

CITY OF RYE
CITY HALL • RYE, NEW YORK 10580
TELEPHONE (914) 967-5400

MEMORANDUM OF AGREEMENT BETWEEN

THE CITY OF RYE AND THE CITY MANAGER

This memorandum of agreement is between the City of Rye (the "City") and the City Manager, Marcus Serrano ("Mr. Serrano") (the "Agreement") dated December __, 2015 to address sick days that Mr. Serrano is entitled to use while serving in the position of City Manager.

WHEREAS, Mr. Serrano currently "earns" one and one-quarter (1.25) sick days per month; and

WHEREAS, Mr. Serrano accumulated sick days during his prior municipal employment ("Accumulated Sick Days") and is requesting permission to be credited for some of those Accumulated Sick Days; and

WHEREAS, the City is amenable to loaning Mr. Serrano thirty-six (36) of his Accumulated Sick Days (the " Sick Day Loan") but each month that Mr. Serrano is employed as City Manager, 1.25 sick days are deducted from the Sick Day Loan; and

WHEREAS, after twenty nine (29) months of being employed as City Manager, the Loan shall no longer exist as Mr. Serrano will have earned the equivalent of 36 sick days while employed as the City Manager; and

WHEREAS, if Mr. Serrano retires from the City prior to serving 29 months (October 2017), Mr. Serrano shall only be entitled to be compensated for those unused sick days which he has earned since June 2015; and

WHEREAS, this Agreement shall be retroactive to June 2015.

Dated: December __, 2015

_____
Joseph A. Sack, Mayor

_____
Marcus Serrano, City Manager