

TRAFFIC AND PARKING STUDY

For

**Main West Orange, LLC
Proposed Mixed-Use Building**

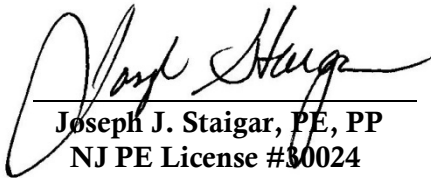
Property Located at:

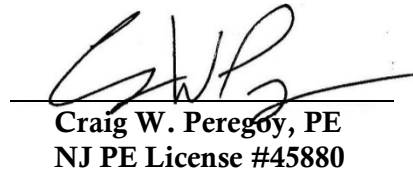
**257-259 Main Street (CR 659)
Block 116 – Lots 51, 53, 53.01 & 55
Township of West Orange, Essex County, NJ**

Prepared by:



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3710-99-001TE

INTRODUCTION

It is proposed to renovate and re-occupy a pair of existing commercial/residential buildings located in the southeast corner of the intersection of Main Street and Kling Street in the Township of West Orange, Essex County, New Jersey, as illustrated on Figure 1, in the Technical Appendix of this report. The site is designated as Block 116 – Lots 51, 53, 53.01 and 55 on the Township Tax Maps. It is proposed to construct a 0.5 story addition to the existing 3.5 story building which was previously occupied with a hotel known as “LLewellyn Hotel”, as well as construct a 2-story addition to the existing 2-story. The existing partition between the two buildings will also be removed such that a single 4-story building will be provided. Access to the site is currently provided via one (1) full movement driveway along Kling Street. It is proposed to re-construct the driveway and maintain the existing access configuration. Parking will be provided via thirteen (13) on-site parking spaces at the rear of the building.

The existing site contains five (5) multi-family units to be increased to fifteen (15) multi-family units (+10 units). The existing commercial space of approximately 2,250 SF of floor area will increase to 4994 SF of floor area (+2644 SF).

Dynamic Traffic, LLC has been retained to prepare this study to assess the traffic and parking impact associated with the construction of The Project on the adjacent roadway network. This study documents the methodology, analyses, findings and conclusions of our study and includes:

- A detailed field inspection was conducted to obtain an inventory of existing roadway geometry, traffic control, and location and geometry of existing driveways and intersections.
- Parking accumulation counts were conducted during weekday and Sunday late evening periods along Main Street, Kling Street and Columbia Street.
- Projections of traffic to be generated by The Project were prepared utilizing trip generation data as published by the Institute of Transportation Engineers.
- The proposed site driveway was inspected for adequacy of geometric design, spacing and/or alignment to streets and driveways on the opposite side of the street, relationship to other driveways adjacent to the development, and conformance with accepted design standards.
- The parking generation was assessed based on published data and demand experienced at similar developments.

EXISTING CONDITIONS

A review of the existing site and roadway conditions near the proposed site was conducted to provide the basis for assessing the traffic impact of the proposed mixed-use development. This included field investigations of the surrounding roadways.

Existing Roadway Conditions

The following are descriptions of the roadways in the study area:

Main Street (CR 659) is an Urban Minor Arterial roadway under the jurisdiction of Essex County. In the vicinity of the site the posted speed limit is 25 MPH and the roadway provides two (2) travel lanes in each direction with a general north/south orientation. On-street parking is permitted along both sides of the roadway with curb and sidewalk provided along both sides of the roadway. Main Street provides a straight horizontal alignment and a slightly uphill vertical alignment from south to north. The land uses along Main Street in the vicinity of the site are a mix of commercial and residential.

Kling Street is a local roadway under the jurisdiction of the Township of West Orange. In the vicinity of the site the speed limit is not posted and the roadway provides one (1) travel lane in each direction with a general east/west orientation. On-street parking is permitted along both sides of the roadway with curb and sidewalk provided along both sides of the roadway. Kling Street provides a straight horizontal alignment and a slightly uphill vertical alignment from east to west. The land uses along Kling Street in the vicinity of the site are primarily residential. The roadway traverses for approximately 640 feet between Columbia Street to the east and Main Street to the west.

Columbia Street is a local roadway under the jurisdiction of the Township of West Orange. In the vicinity of the site the posted speed limit is 25 MPH and the roadway provides one (1) travel lane in each direction with a general north/south orientation. Approximately 475 feet south of Kling Street, the roadway bends 90 degrees to the east. On-street parking is permitted along both sides of the roadway with curb and sidewalk provided along both sides of the roadway. Columbia Street provides a straight horizontal alignment and a slightly uphill vertical alignment from north to south. The land uses along Kling Street in the vicinity of the site are a mix of commercial and residential.

Parking Counts

On-street parking accumulation counts were conducted on Sunday, March 7, 2021 and on Tuesday, March 9, 2021 from 10:00 – 11:00 PM along Main Street, Kling Street and Columbia Street within a reasonable walking distance from the site. The following are descriptions of the existing parking regulations within the area of study.

- Main Street:
 - East side: No Parking 2:00 AM – 6:00 AM; No Parking when road is snow covered; No Parking in front of NJ Transit bus stop.
 - West side: No Parking 2:00 AM – 6:00 AM; No Stopping or Standing 7:00 AM – 9:00 AM Monday through Friday; No Parking when road is snow covered; Meter Parking – 1 Hour Limit 8:00 AM – 4:00 PM Monday through Friday and 8:00 AM – 6:00 PM on Saturday; No Parking in front of NJ Transit bus stop.

- Kling Street:
 - North side: No Parking Thursday, Friday and Saturday.
 - South side: No Parking Monday, Tuesday and up to 5:00 PM on Wednesday.
- Columbia Street:
 - East side: No Parking Monday, Tuesday and up to 5:00 PM on Wednesday.
 - West side: No Parking Thursday, Friday and Saturday.

The parking accumulation counts identified the amount of available on-street parking on the roads surrounding The Project during the study periods described above. The number of vacant parking spaces were recorded both days and the minimum number of available parking spaces was calculated to be 20 parking spaces. The summary of the parking availability is contained in the Technical Appendix of this report.

FUTURE CONDITIONS

Traffic Generation

Projections of future traffic volumes were developed utilizing data as published in the Institute of Transportation Engineers (ITE) publication *Trip Generation, 10th Edition* for Land Use Code (LUC) 231 – Mid-Rise Residential with 1st-Floor Commercial. Table I summarizes the projected trips generated by the proposed development utilizing the ITE data.

**Table I
Trip Generation**

Land Use	AM PSH			PM PSH		
	In	Out	Total	In	Out	Total
15 Residential Units with 1 st Floor Commercial	2	3	5	3	4	7

The above table is prepared using Land Use Code (LUC) 231 – Mid-Rise Residential with 1st-Floor Commercial, for which the commercial portion presumably relies upon walk-in traffic and off-site/public parking.

It should be noted that within $\frac{3}{4}$ of a mile from the site there is access to NJ Transit bus lines 21, 71, 73, 79, 92 and 97. This mass transit availability will likely result in trip generation even lower than that which is projected by the ITE data, shown in Table I as these residential units will appeal to tenants who utilize mass transit as a means to commute to and from work.

Additionally, as mentioned previously, the site is currently developed with a vacated hotel or rooming house which has trip generation potential if it were re-occupied. Therefore, projections of traffic volumes for the existing/potential uses were developed utilizing ITE data. It is our understanding that the former hotel use operated as a rooming house whereas LUC 310 mainly applies to more commercialized hotels in which the hotel includes business/conference areas, breakfast services, recreational facilities, etc. Therefore, the ITE data for LUC 310 was reduced by 50% in order to provide a more accurate representation of the existing/potential site operations.

In order to prepare and “apples-to-apples” comparison of the trip generation of the existing site to the proposed site, the individual uses were separated from each. The following Table II compares the proposed use to the existing trip generation potential of the site.

Table II
Existing vs. Proposed Trip Generation Comparison

Land Use		AM PSH			PM PSH		
		In	Out	Total	In	Out	Total
Existing	5 Residential Units	1	1	2	1	1	2
	36 Room Hotel (Rooming House)	4	2	6	5	5	10
	2250 SF Commercial	1	1	2	4	5	9
	Total	6	4	10	10	11	21
Proposed	15 Residential Units with	3	2	5	2	3	5
	1 st Floor Commercial (4994 SF)	3	2	5	9	10	19
	Total	6	4	10	11	13	24
Difference		0	0	0	+1	+2	+3

Table II is conservatively prepared by establishing the ITE trip generation based on the residential portion separate from the commercial usage of the site. Even with this conservative approach, as shown in Table II above, it is anticipated that the proposed development of the site will result in no significant increase in trip generation.

It should be noted that the number of new trips falls below the industry accepted standard of a significant increase in traffic of 100 trips. Based on *Transportation Impact Analysis for Site Development*, published by the ITE “it is suggested that a transportation impact study be conducted whenever a proposed development will generate 100 or more added (new) trips during the adjacent roadways’ peak hour or the development’s peak hour.” Additionally, NJDOT has determined that the same 100 vehicle threshold is considered a “significant increase in traffic”.

SITE PLAN

Site Access and Circulation

The site plan was reviewed with respect to the site access and on-site circulation design. As noted previously, access to the site will continue to be provided via one (1) full movement driveway along Kling Street.

The proposed parking area will be serviced by a parking aisles with a width of 24' which will meets the Ordinance requirement and will provide for two-way circulation and 90-degree parking. These dimensions will adequately accommodate the anticipated site traffic given that the parking spaces will primarily be low-turnover in nature.

Parking

The Township of West Orange defers to the Residential Site Improvement Standards (RSIS) for residential parking requirements which set forth a requirement of 1.8 parking spaces per one-bedroom unit and 2 parking spaces per two-bedroom unit. Additionally, the Ordinance sets forth a parking requirement of 1 space per 250 SF of GFA for both retail and office uses. With 5 one-bedroom units, 6 two-bedroom units, 865 SF of retail space and 869 SF of office space proposed this equates to a parking requirement of 27 spaces. The site as proposed provides 13 on-site parking spaces, and as such a variance is required.

It is important to note that the household characteristics of the Township of West Orange and specifically the surrounding area of the site are very much different than rural and very suburban communities and alternative parking standards shall be deemed acceptable. Accordingly, section N.J.A.C. 5:21-4.14(c) of the RSIS also states the following:

“Alternative parking standards to those shown in Table 4.4 shall be accepted if the applicant demonstrates these standards better reflect local conditions. Factors affecting minimum number of parking spaces include household characteristics, availability of mass transit, urban versus suburban location, and available off-site parking resources.”

According to U.S. Census data for the census tract in which the site is located, the vehicle availability per rental household equates to 1.14 vehicles per unit which further equates to 17 parking spaces for the residential portion of the site.

Additionally, national parking demand data has been collected by the Institute of Transportation Engineers (ITE) within their publication *Parking Generation, 5th Edition*. This publication establishes peak parking demands for multiple land uses based upon different independent variables, such as GFA and employees. For Land Use Code (LUC) 221 – Multifamily Housing (Mid-Rise), ITE sets forth an average peak parking demand of 0.48 vehicles per bedroom for apartment developments located in a dense multi-use urban area. This equates to a demand of 14 parking spaces.

Furthermore, as mentioned previously, on-street parking accumulation surveys were conducted during the weekday and Sunday late evening time periods to establish the current on-street parking availability during peak residential demand of the surrounding neighborhood and for the proposed residential uses of the subject proposed development, within a reasonably convenient walking distance from the site. A map of the surveyed streets as well as tabulated data detailing parking availability are

included in the Technical Appendix of this report. Results of the parking counts revealed that there was a fair amount of parking availability in close proximity to the site during the surveyed time periods. The results showed a minimum of 20 on-street available parking spaces.

Based on the various factors outlined above, it is concluded that the parking deviation from the standard is justified and the combination of mass transit accessibility and local on-street parking availability will be more than sufficient to support the peak parking demands of the site.

It is proposed to provide parking stalls with dimensions of 9'x 18' which meets the Ordinance requirement. Given the low-turnover expected for the parking spaces which will be primarily be utilized by residents who are very familiar with the site circulation patterns, these dimensions will adequately accommodate the site.

FINDINGS & CONCLUSIONS

Findings

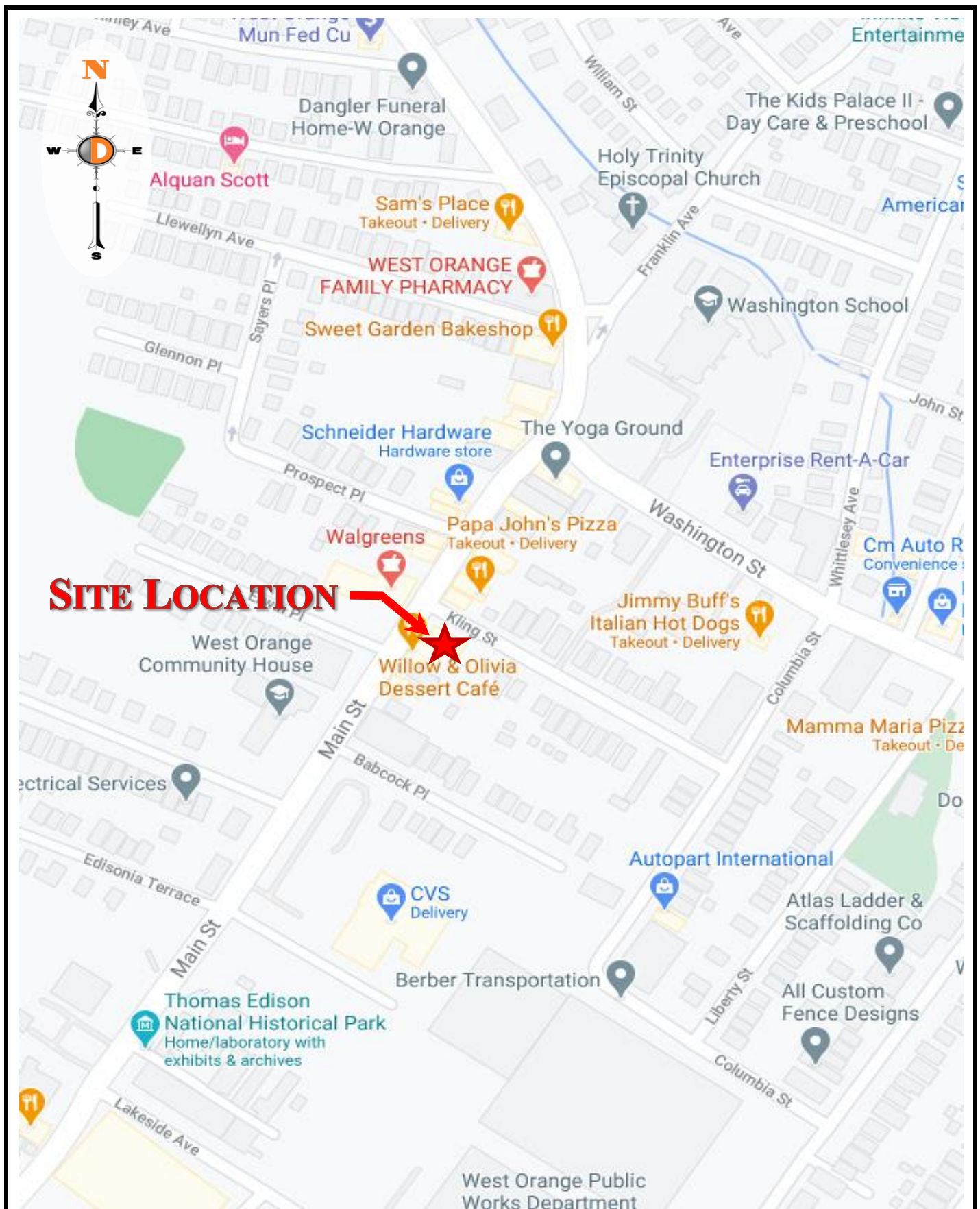
Based upon the detailed analyses as documented herein, the following findings are noted:

- The proposed redevelopment of the site residential units above floor commercial is projected to generate an increase over the existing development of maximum of zero increase in trips during the morning peak hour and +3 trips during the evening peak hour.
- According to thresholds set forth by both NJDOT and ITE, the increase in trip generation to be generated by the site is not considered “significant”, and therefore the traffic patterns in the area will remain as existing and it is likely that there will be no perceptible change in the traffic conditions with the construction of the proposed project.
- Access to the site will continue to be provided via one (1) full movement driveway along Kling Street.
- Within $\frac{3}{4}$ of a mile from the site there is access to NJ Transit bus lines 21, 71, 73, 79, 92 and 97. Significant use of mass transit is anticipated.
- As proposed, The Project’s site driveway and internal circulation have been designed to provide for safe and efficient movement of vehicles on-site.
- The combination of on-site and local on-street parking supply is expected to be sufficient to accommodate the anticipated site traffic, particularly considering the urban setting of the site.

Conclusions

Based upon our Traffic and Parking Study as detailed in the body of this report, it is the professional opinion of Dynamic Traffic, LLC that the adjacent street system of the Township of West Orange and Essex County will not experience any significant degradation in operating conditions with the construction of The Project as a significant increase in traffic will not result. The projected parking demand can be accommodated by the proposed on-site parking associated with The Project as well local on-street parking availability.

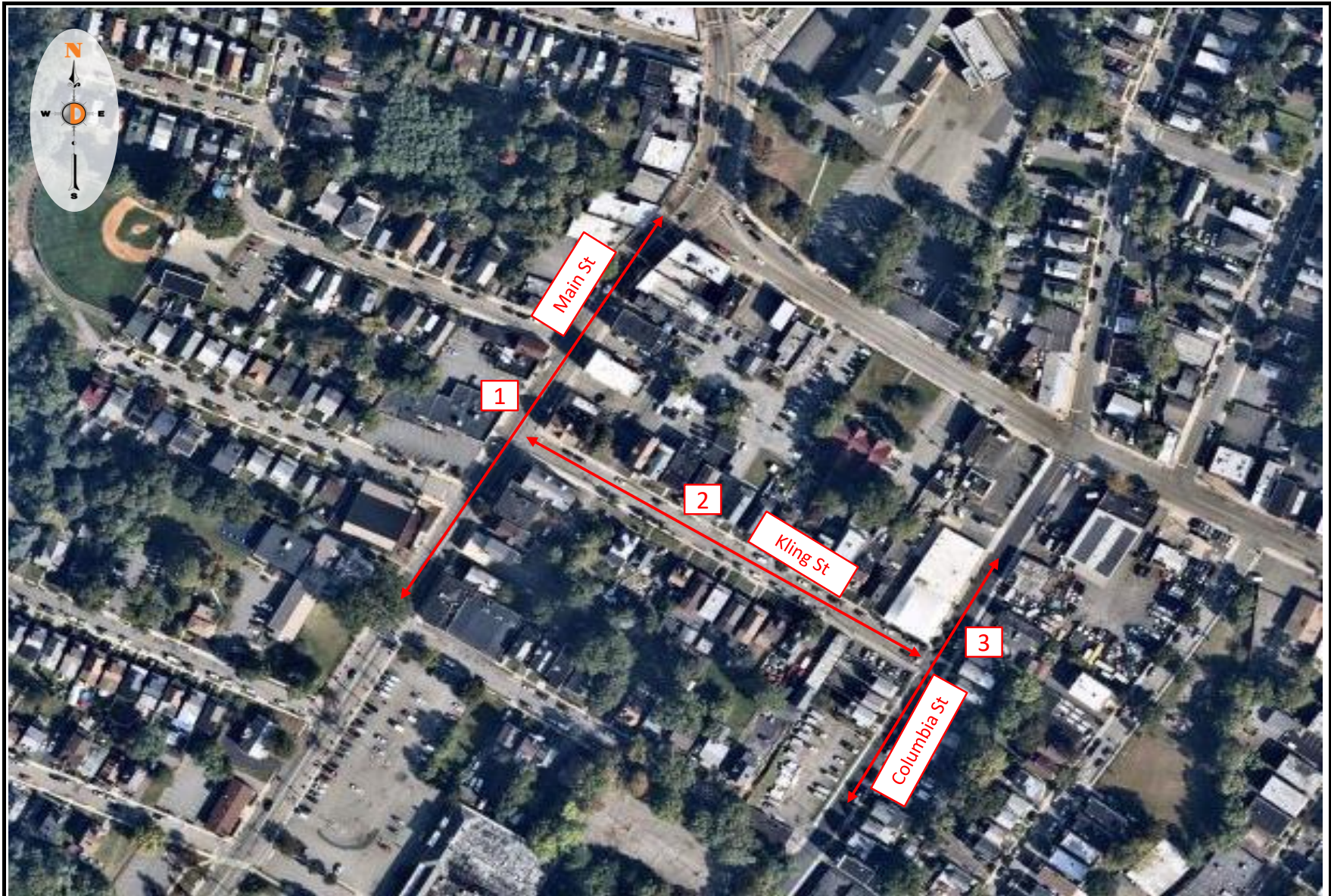
Technical Appendix



Proposed Mixed-Use Development
 Traffic and Parking Study
 3710-99-001TE
 3/25/2021

Figure 1

Site Location Map



Location: 257-259 Main Street
West Orange, Middlesex Co., NJ

Parking Survey Map

DT #: 3710-99-001TE

Date Performed: Sunday 3/7/2021

South Amboy Parking Survey - Sunday Late Evening 				
Time Start	# Vacant Spaces			
	Location*			
	1	2	3	Total
10:00 PM	1	12	10	23
10:30 PM	1	11	9	21
11:00 PM	1	9	10	20

Date Performed: Tuesday 3/9/2021

South Amboy Parking Survey - Weekday Late Evening 				
Time Start	# Vacant Spaces			
	Location*			
	1	2	3	Total
10:00 PM	3	13	12	28
10:30 PM	3	13	11	27
11:00 PM	3	12	11	26

* See map for the surveyed parking locations