TRAFFIC ENGINEERING EVALUATION

14 LINCOLN PLACE
BOROUGH OF MADISON
MORRIS COUNTY, NEW JERSEY

Prepared for:

MADISON MOVIE DEVELOPMENT, LLC
339 Jefferson Road
Parsippany, New Jersey 07054

Prepared by:

Bowman CONSULTING

54 Horsehill Road
Cedar Knolls, NJ 07927

January 3, 2019
BCG File No. 080790-C1-001

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EXECUTIVE SUMMARY

This Traffic Engineering Evaluation was prepared to assess any traffic impacts that may occur from the proposed redevelopment of the subject site. In addition, we examined the availability of municipal parking facilities proximate to the subject site to supplement the on-site parking for the proposed residential uses. The subject site currently contains the Madison Theater, which is presently closed. The site currently does not provide any on-site parking to support the movie theater use, dependent entirely on municipal parking, including on-street parking. The proposed redevelopment contains 24 apartments, 4,526 square feet of retail space and a 91-seat theater in Option 1. Option 2 of the redevelopment maintains the 24 apartments but contains 7,730 square feet of retail space with no theater. Twenty-four (24) on-site parking spaces are provided for the residential units. Consistent with current conditions, no on-site parking is provided for the non-residential uses.

Based upon our traffic study and capacity analyses, the proposed redevelopment would have a nominal impact on traffic operations at the studied intersections during the weekday AM, PM, and Saturday peak hours. The incremental impact of the additional site generated traffic results in a small increase in the average delay at the studied intersections. The slight increase would be an average vehicle delay of less than one second and would not materially impact the operations of the studied intersections or change the level of service. The calculated levels of services for the proposed site driveway would be LOS A.

We note that the Madison Theater that previously operated on this property generated parking demands for the municipal parking lots proximate to the subject site, as no on-site parking currently exists. The Borough ordinance [Section 195-32.4(F)(5)] states that in the CBD-1 Zone that "There shall be no minimum required off-street parking in the CBD-1 Zone for permitted ground-floor nonresidential uses with public street frontage". Therefore, the prior use did not require off-street parking and the proposed non-residential uses also do not require off-street parking.

Parking occupancy counts were conducted in various municipal parking lots during weekday midday and evening periods and for Saturday midday and evening periods, which would be the peak usage times for the residential and non-residential uses proposed.

We collected parking data at the following six parking lots in downtown Madison:

- Green Avenue Lot – Merchants, Tenants, Municipal Employees and Permit Parking (a distance of approximately 550 feet or 2.5 minutes)
- Prospect Street Lot #1 – Ambulance, Main Lot, Permit Lot, Municipal Employee Lot (a distance of approximately 450 feet or 2 minutes)
- Train Station Lot (a distance of approximately 200 feet or 1 minute)
- Kings Road Lot #3 (a distance of approximately 800 feet or 3.5 minutes)
- Cook Avenue Lot – 2 Hour Limit and Permit Parking (a distance of approximately 1000 feet or 4.5 minutes)
- Elmer Street Lot – 2 Hour Limit Parking (a distance of approximately 875 feet or 4 minutes)

We note that public parking is permitted in the Train Station Lot after 9:30 AM and all day Saturday and Sunday, obviously subject to availability. We visited these six parking lots to gather the number of existing parking spaces and to assess the respective parking occupancy of each lot.

Based on our parking occupancy data and assessment of parking availability and demand, we conclude that there are sufficient available parking spaces in any combination of the public parking lots in the downtown area during various timeframes to meet the needs of employees, customers and residential visitors.

Residential Site Improvement Standards (RSIS) require 1.8 parking spaces for one-bedroom units, 2.0 parking spaces for two-bedroom units and 2.1 parking spaces for three-bedroom units. The proposed bedroom mix is 8 one-bedroom units, 15 two-bedroom units and 1 three-bedroom unit. The standard RSIS parking requirement is 47 parking spaces, where 24 parking spaces are provided. However, the RSIS permits the application of alternate parking standards where local conditions support such an option.

The parking supply of 1 parking space per unit is adequate and appropriate for a residential use in a transit-oriented development such as this, especially given its location directly across from the Madison train station and in a walkable downtown setting with many businesses, restaurants, shopping and other attractions convenient to the residents of this redevelopment. The proposed parking ratio has been successfully used in other suburban municipalities with proximity to public transit, availability of municipal parking facilities and in a downtown setting.

The downtown setting of this redevelopment project, with shopping, dining and recreational options within walking distance of the proposed apartments, reduces the demand and need for automobile ownership within this project. The availability of municipal parking especially on weekdays in the late afternoon/evenings and on the weekends when parking demand is at its highest, will provide more than adequate supply to meet the project's demands.

It is our professional opinion that, based upon our traffic and parking engineering evaluation, the proposed redevelopment will provide for safe and efficient traffic operations without affecting the quality of flow along the nearby local roadways; and sufficient, convenient parking will be available for employees, customers, residents and residential visitors. The proposed site plan conforms to applicable industry design standards from a traffic engineering viewpoint. Circulation and access to and from the site, as well as within the property are adequate. The proposed site access point provides more than adequate sight distance along Lincoln Place.

In conclusion, this mixed-use redevelopment project would have a minimal impact on the traffic operations of studied intersections and the available public parking supply in the downtown area. The design of the project will adequately serve the needs of this building's employees, customers, residents and guests.

INTRODUCTION

This Traffic Engineering Evaluation was prepared to assess any traffic impacts that may occur from the proposed redevelopment of the subject site located on Lincoln Place in the Borough of Madison in Morris County. The redevelopment project is proposed to contain a total of 24 apartments in three floors above 24 residents' parking spaces, 4,526 square feet of retail space and a 91-seat theater (Option 1). Option 2 eliminates the proposed theater and replaces it with additional retail space, providing a total of 7,730 square feet. This redevelopment will result in the demolition of the existing theater building, which currently contains 435 seats. The location of the site is illustrated in Figure 1.

The subject property is shown on the Borough of Madison tax map as Block 2702, Lot 24. The property is located at 14 Lincoln Place, directly across Lincoln Place from the NJ Transit Madison Station. The site is located in the CBD-1 Central Business District. The property has approximately 82 feet of frontage on Lincoln Place, with a shared access driveway along the east side of the building. The site currently contains a vacant movie theater.

The development proposal is to construct a new mixed-use building, containing retail space and a theater on the first floor; with 24 apartments on three floors above the ground floor; and 24 parking spaces in a lower level. These parking spaces would be only for the residents. The proposed site access will be maintained along the east side of the building but will be widened.

Primary aspects of this study include the investigation of existing conditions adjacent to the site, the establishment of background traffic volumes for the surrounding streets, estimation of the development related trip generation utilizing known published sources, assignment of the development related volumes to the key intersection serving the proposed development site, and the assessment of intersection performance using established traffic engineering methodologies. We have also conducted a parking assessment of existing municipal parking lots proximate to the subject site. The base year for anticipated build-out of the development is 2020.

The ensuing report will detail the existing and proposed conditions, summarize the traffic operations at key locations, and include our findings as to the effects of the proposed development on the existing street network and on the available parking supply in nearby municipal parking lots.

EXISTING CONDITIONS

The subject property is located across the street from the Madison NJ Transit Rail Station. The subject property is currently occupied by a vacant movie theater. Adjacent surrounding land uses include commercial and residential uses. The roadway system serving the subject property includes Lincoln Place, Waverly Place and Prospect Street that provide access to and from Main Street (Route 124).

Our assessment of traffic conditions in this area included a study of the street network surrounding the site and a survey of typical traffic characteristics using these roadways. Field observations were made of the existing traffic control devices at the intersections as well as the existing conditions of the adjacent roadways. The following subsections include a brief description of key routes in the adjacent roadway system:

Study Roadways

Lincoln Place

In the vicinity of the subject property, Lincoln Place is a two-lane roadway oriented in an east-west direction, under Borough jurisdiction. There is a small median island in front of the property that contains landscaping. In the vicinity of the site, on-street parking is permitted and there are sidewalks on both sides of the street. There are midblock crosswalks at the train station. Lincoln Place provides a connection between Prospect Street to the east and Waverly Place to the west. Parking along Lincoln Place is unmetered with 1-hour time limits, 8:00 AM to 7:00 PM, Monday through Friday. There are 45 parking spaces designated along Lincoln Place, 24 on the south side and 21 on the north side. The speed limit for Lincoln Place is 25 MPH within the area of the subject site.

Prospect Street

Prospect Street is a two-lane street, under Borough jurisdiction, oriented in a north-south direction. Prospect Street provides access from Main Street, changes names to Greenwood Avenue north of Main Street and continues over Route 24 to the north and continues to the south into Chatham. On-street parking is permitted on both sides of the street between Lincoln Place and Main Street. Prospect Street traverses beneath the NJ Transit railroad tracks with a posted vertical clearance of 14-feet, 5-inches. There are sidewalks provided along the both sides of the street. The speed limit is 25 MPH.

Waverly Place

Waverly Place is a two-lane street with a center median island, under Borough jurisdiction, oriented in a north-south direction. Waverly Place provides access from Main Street, changes names to Central Avenue north of Main Street and continues to the north and continues to the south, changes names to Green Avenue and continues into Chatham. On-street parking is permitted on both sides of the street and along both

sides of the center median island between Lincoln Place and Main Street. Waverly Place traverses beneath the NJ Transit railroad tracks with a posted vertical clearance of 12-feet. There are sidewalks provided along the both sides of the street. The speed limit is 25 MPH.

Studied Intersections

Lincoln Place with Prospect Street and Stop & Shop Driveway

Traffic operations on Lincoln Place at the intersection with Prospect Street are controlled by a stop sign. The northbound approach of Prospect Street is wide enough to provide an exclusive left-turn lane and an exclusive through lane. Southbound Prospect Street has a single shared through/right-turn lane. The eastbound approach of Lincoln Place provides one shared left-turn/right-turn lane. The driveway for Stop & Shop is offset to the north of Lincoln Place by approximately 60 feet and is stop-controlled. Traffic to and from the Stop & Shop driveway was included in the traffic analysis of this intersection. There are three crosswalks, one across Prospect Street, one across Lincoln Place and one across the Stop & Shop driveway. Crosswalks and curb ramps are provided at the intersection.

Lincoln Place with Waverly Place and Commercial Driveway

Traffic operations on Lincoln Place at the intersection with Waverly Place are controlled by a stop sign. The northbound approach of Waverly Place provides a shared through/right-turn lane. Southbound Waverly Place has a single shared left-turn/through lane. The westbound approach of Lincoln Place has an exclusive right-turn only lane. The eastbound approach of the commercial driveway provides one shared left-turn/through/right-turn lane. There are three crosswalks, one across Waverly Place, one across Lincoln Place and one across the commercial driveway. Crosswalks and curb ramps are provided at the intersection.

Traffic Volumes

The intersection traffic turning movement counts were performed at the studied intersections on Thursday, September 7, 2017 during the morning peak period from 7:00 AM to 9:00 AM and during the evening peak period from 4:00 PM to 6:00 PM and on Saturday, September 9, 2017 from 11:00 AM to 2:00 PM. These existing traffic volume data were used as the basis for this traffic engineering evaluation.

Based on the traffic turning movement counts, the weekday peak hours established for analysis purposes were determined to be between 7:15 AM and 8:15 AM and between 4:45 PM to 5:45 PM on the weekday and between 11:30 AM and 12:30 PM on Saturday. Existing volumes at these intersections for the weekday AM, PM, and Saturday peak hour are illustrated in Figure 2.

During our traffic data collection, it was noted that all traffic demand was processed through the intersections with minimal delay and that there were not any material queues that were observed. The results of the traffic volume counts indicate that the

directional split of traffic along Lincoln Place has a bias of 42%/58% split eastbound/westbound during the AM peak hour, 45%/55% split eastbound/westbound during the PM peak hour and 49%/51% split eastbound/westbound during the Saturday peak hour. The results of the traffic volume counts indicate that the directional split of traffic along Prospect Street has a bias of 53%/47% split northbound/southbound during the AM peak hour, 49%/51% split northbound/southbound during the PM peak hour and 48%/52% split northbound/northbound during the Saturday peak hour. The results of the traffic volume counts indicate that the directional split of traffic along Waverly Place has a bias of 51%/49% split northbound/southbound during the AM peak hour, 52%/48% split northbound/southbound during the PM peak hour and 36%/64% split northbound/northbound during the Saturday peak hour.

Capacity Analyses

The existing AM, PM, and Saturday peak hour intersection traffic volumes were analyzed to evaluate the quality of operation at the studied intersections. The methodologies presented in 2010 Highway Capacity Manual, Chapter 19 entitled "Stop-Controlled Intersections" were used for the analysis of the studied intersections. Intersection capacity calculations were completed using the Highway Capacity Software, Version 5.6. Definitions of Levels of Service for stop-controlled intersections are provided in Appendix I.

The methodology addresses two measurements of an intersection's effectiveness in accommodating conflicting traffic movements; capacity and level of service (LOS). Capacity is defined for each approach as a maximum number of vehicles that may pass through the intersection given the prevailing roadway and traffic control conditions. The capacity is evaluated in terms of the ratio of actual traffic flow to capacity (v/c ratio). The second measure of effectiveness is average stopped delay per vehicle (seconds/vehicle), which determines the Level of Service.

Table 1 presents the levels of service for the AM, PM, and Saturday peak hours at the studied intersections. As shown in Table 1, under 2017 Existing Conditions, all movements at the stop-controlled, studied intersections operate at acceptable LOS C or better during both the AM, PM, and Saturday peak hours. These levels of service were consistent with the observations made during our traffic counts.

Accident Records

We obtained accident records from the Madison Police Department for the studied intersections for the three-year period between 2014 and 2017. The data provided indicated there were a total of eight (8) accidents along Lincoln Place or at the two studied intersections within this three-year period. These data are summarized in Table 2 – Accident Summary. Six of these accidents involved parking maneuvers at on-street parking spaces at various locations along Lincoln Place. There was one right angle accident in 2016 at the intersection of Lincoln Place with Prospect Street; and another right-angle accident at the island in Lincoln Place in 2015 (during a snow event). Based upon these data there is no pattern of accidents within the study area that needs to be addressed as part of this traffic study.

PROPOSED CONDITIONS

The proposed redevelopment program consists of the construction of a building containing 24 apartments in three floors above 24 residents' parking spaces, 4,526 square feet of retail space and one 91-seat theater. Access to the site is provided by one, full-movement driveway on Lincoln Place that is shared with the property to the east. There is an existing driveway 10.6 feet in width which is being widened to 20.5 feet to adequately accommodate two-way traffic flow.

The units are a mix of eight (8) one-bedroom apartments, 15 two-bedroom apartments and one (1) three-bedroom apartment, of which four (4) units will be affordable. A total of 24 parking spaces are provided within the building, consisting of 23 standard parking spaces and one (1) ADA compliant space.

The Year 2020 has been selected as the future analysis year for full occupancy of the proposed redevelopment. We have analyzed conditions for the Year 2020 without the project (No-Build) and with the project (Build).

Year 2020 No-Build Conditions

The proposed redevelopment is planned for construction and full occupancy in 2020. This year will be used as a basis for estimating background traffic growth on the surrounding street system. An annual growth rate of 2.00 percent, compounded annually, was used to calculate the future background traffic growth at the studied intersections. This rate was based on the April 2017 NJDOT Access Permit Table on Annual Background Growth Rates for local streets in Morris County.

We contacted the Borough of Madison to inquire about other developments within the immediate area that have been approved but not yet constructed. We were told that there are two specific developments within the immediate area of the subject project that would impact the traffic along Waverly Place and Prospect Street. We obtained the Traffic Impact Assessment report for the Proposed Mixed-Use Development at 9-19 Greenwood Avenue, dated January 3, 2017, prepared by Dolan and Dean; and the Traffic Impact Analysis for KRE Madison NJ Urban Renewal, LLC, Proposed Mixed-Use Redevelopment, 33 Green Village Road (CR 647) and Kings Road, dated December 22, 2014, prepared by Atlantic Traffic & Design Engineers, Inc.

Figures 3A and 3B show those new site-generated trips distributed through our studied intersections. Excerpts of those reports are included in the Appendix IV of this report. Year 2020 No-Build traffic volumes are presented in Figure 3 for the AM, PM, and Saturday peak hours. These traffic volumes were used to evaluate future operations without the addition of the proposed redevelopment at the studied intersections.

The resulting levels of service for 2020 No-Build conditions at the studied intersections are summarized in Table 1. The results of the capacity analyses indicate that under future Year 2020 No-Build conditions, the levels of service for the studied intersections would remain the same at LOS C or better on each approach with increases in the average delay of less than two seconds during the AM, PM, and Saturday peak hours. These increases in average delay would be imperceptible to the motorists.

Site Trip Generation and Distribution

The trip generation for the proposed 24 apartments is based upon data compiled in the Trip Generation Manual, 10th Edition published by the Institute of Transportation Engineers (ITE). With the proximity of the Madison NJ Transit Rail station, the trip generation of this proposed redevelopment would be expected to be less than that of a typical, suburban, apartment building; however, no discount for transit usage was applied to the trip generation results, which yields a conservative analysis of intersection operations.

Table 3 illustrates the trip generation estimate for the proposed redevelopment using the average trip generation rate provided in the Trip Generation Manual. However, the trips associated with the proposed retail and theater uses would generate pedestrian traffic, since there is no parking provided for these uses on-site. The vehicle trips associated with the previous 435-seat theater use would also have parked in public parking lots and on the local streets as there was no on-site parking. This prior use also generated pedestrian traffic in the downtown area among the parking lots, restaurants, other retail uses and the theater.

The peak hour trips from the proposed 24 apartments are likely to coincide temporally with the peak hour commuter trips on the surrounding roadway system. The trip assignment for the proposed redevelopment is based on observed traffic patterns of the predominant traffic movements at the studied intersections. The existing traffic patterns at the studied intersections have been considered to be representative of the traffic distribution associated with the proposed redevelopment. The trip distribution is graphically presented in Figure 4. Applying the site trip distribution to the trip generation values presented in Table 3 resulted in the trip assignment for the AM, PM, and Saturday peak hours shown in Figure 5.

Year 2020 Build Conditions

The site generated traffic volumes presented in Figure 5 were added to Year 2020 No-Build traffic volumes presented in Figure 3 to yield the AM, PM, and Saturday peak hour Year 2020 Build conditions, which are presented in Figure 6. These traffic volumes are used to analyze future operating conditions including the traffic from the proposed redevelopment.

The site access driveway to Lincoln Place will continue to be stop-controlled.

The resulting levels of service for 2020 Build conditions at the studied intersections are summarized in Table 4. The results of the analyses indicate that under future Year 2020 Build conditions, the levels of service (LOS) for all of the traffic movements at the studied intersection would remain at LOS C or better during the AM, PM, and Saturday peak hours. The increases in average vehicle delay would be less than one second and would be imperceptible by motorists traveling through the studied intersections. The proposed site driveway would operate at LOS A during the AM, PM, and Saturday peak hours.

MUNICIPAL PARKING OCCUPANCY ASSESSMENT

We note that the Madison Theater that previously operated on this property generated parking demands for these same municipal parking lots, as no on-site parking currently exists. The Borough ordinance [Section 195-32.4(F)(5)] states that in the CBD-1 Zone that "There shall be no minimum required off-street parking in the CBD-1 Zone for permitted ground-floor nonresidential uses with public street frontage". Therefore, the prior use did not require off-street parking and the proposed non-residential uses do not require off-street parking.

We conducted parking occupancy counts at various municipal parking lots proximate to the site to identify the existing utilization of these parking lots. The purpose of this study was to identify the available capacity of these municipal parking lots to accommodate the employee, customer, resident and residential visitor demands of the proposed redevelopment plan. As stated previously, on-site parking is provided for the residents at one space per unit, which is a typical parking ratio for transit-oriented developments (TOD). We reviewed a municipal parking information document that was available on the Borough's website (see Appendix V).

We collected parking data at the following six parking lots in downtown Madison:

- Green Avenue Lot – Merchants, Tenants, Municipal Employees and Permit Parking (a distance of approximately 550 feet or 2.5 minutes)
- Prospect Street Lot #1 – Ambulance, Main Lot, Permit Lot, Municipal Employee Lot (a distance of approximately 450 feet or 2 minutes)
- Train Station Lot (a distance of approximately 200 feet or 1 minute)
- Kings Road Lot #3 (a distance of approximately 800 feet or 3.5 minutes)
- Cook Avenue Lot – 2 Hour Limit and Permit Parking (a distance of approximately 1000 feet or 4.5 minutes)
- Elmer Street Lot – 2 Hour Limit Parking (a distance of approximately 875 feet or 4 minutes)

We note that public parking is permitted in the Train Station Lot after 9:30 AM and all day Saturday and Sunday, obviously subject to availability. We visited these six parking lots to gather the number of existing parking spaces and to assess the respective parking occupancy of each lot. The parking occupancy data was collected on the following dates and at the noted times:

- Thursday, December 14, 2017 from 7:00 PM until 10:00 PM
- Saturday, December 16, 2017 from 11:00 AM to 1:00 PM and from 6:00 PM to 9:00 PM.

Weekday midday parking counts were subsequently collected in the Green Avenue Lot, Prospect Street Lots and the Kings Road Lot to supplement the previously collected parking occupancy data. This parking occupancy data was collected on the following dates and at the noted times:

- Wednesday, January 3, 2018 from 11:00 AM to 2:00 PM
- Friday, January 19, 2018, from 11:00 AM to 2:00 PM

We started at the top of the hour or half past the hour and circulated through each lot in the same direction each time. We counted either the vacant parking spaces or the number of parked cars in each parking lot. We counted the total number of parking spaces in each lot. On Saturday, in some parking lots, we were able to count separately the different parking space types, such as Permit, Municipal Employees, Merchants and Tenants. We were able to do this in the Green Avenue Lot, the Cook Avenue Lot and the Prospect Street Lot #1.

On Friday, December 15, 2017, there were snow showers with an accumulation of at least one inch. Throughout our data collection on Saturday, we noted that there were snow-covered cars parked in various parking spaces in various lots. It was obvious that these vehicles were parked for more than the 2-hour time limit specified on the posted signs. For example, in the Cook Avenue lot there were several snow-covered cars parked in the "2-Hour" parking spaces.

Table 5 summarizes the Thursday, December 14 parking data. In all of the studied municipal parking lots there were a minimum total of 180 parking spaces available, with the large majority of them in the Prospect Street Lot (45 spaces minimum) and Kings Road Parking Lot #3 (102 spaces minimum). There were also spaces available in the Train Station Lot during this period. These two lots are less than a 3.5 minute walk from the subject site.

Table 6 summarizes the Saturday, December 16, 2017, 11:00 AM to 1:00 PM parking data. In all of the studied municipal parking lots there were a minimum total of 350 parking spaces available, with the large majority of them in the Prospect Street Lot (95 spaces minimum) and Kings Road Parking Lot #3 (190 spaces minimum). During this time period we also obtained parking occupancy information by parking use type (2-Hour, Permit, etc.). In the Prospect Street Lot, there were at least 9 vacant parking spaces in the Permit section of the parking lot. There were also spaces available in the Train Station Lot during this period.

Table 6 also summarizes the Saturday, December 16, 2017, 6:00 PM to 9:00 PM parking data. In all of the studied municipal parking lots there were a minimum total of over 370 parking spaces available, with the large majority of them in the Prospect Street Lot (95 spaces minimum) and Kings Road Parking Lot #3 (200 spaces minimum). During this time period we also obtained parking occupancy information by parking use type (2-Hour, Permit, etc.). In the Prospect Street Lot, there were at least 9 vacant parking spaces in the Permit section of the parking lot; and in the Green Avenue Lot, there were always 5 permit parking spaces available. There were also spaces available in the Train Station Lot during this period.

Table 7 summarizes the Wednesday, January 3, 2018, 11:00 AM to 2:00 PM parking data. In all of the studied municipal parking lots there were a minimum total of 11 parking spaces available. During this time period we also obtained parking occupancy information by parking use type (2-Hour, Permit, etc.). In the studied lots, there were at

least 9 vacant Merchant/Permit parking spaces. During the midday periods, the parking demand for the redevelopment is lower with the primary demand generated by customers for the retail space. There are ample opportunities, both on-street and in municipal lots to accommodate customer demand. It is also likely that customers for the retail space within the redevelopment project will have other retail destinations in the downtown, linking their walk trips to multiple destinations, without multiple parking needs.

Table 8 summarizes the Friday, January 19, 2018, 11:00 AM to 2:00 PM parking data. In all of the studied municipal parking lots there were a minimum total of 84 parking spaces available, with the large majority of them in the Kings Road Parking Lot #3 (70 spaces minimum). During this time period we also obtained parking occupancy information by parking use type (2-Hour, Permit, etc.). In the studied lots, there were at least 5 vacant Permit parking spaces. Again, during the midday periods, the parking demand for the redevelopment is lower with the primary demand generated by customers for the retail space. There are adequate opportunities, both on-street and in municipal lots to accommodate customer demand.

Based on our parking occupancy data and assessment of parking availability and demand, we conclude that there are sufficient available parking spaces in any combination of the public parking lots in the downtown area during various timeframes to meet the needs of employees, customers and residential visitors.

SITE PLAN REVIEW

The proposed site access is provided by one, full-movement access driveway intersecting with Lincoln Place. This proposed access point will provide more than adequate circulation and flow into and out of the proposed redevelopment in a safe and efficient manner.

With a posted speed limit of 25 MPH and a design speed of 30 MPH, the required stopping sight distance from the proposed site driveway would be 200 feet. The available sight distance from the proposed site driveway is more than adequate to satisfy this requirement. Currently, there is no parking on either side of Lincoln Place in front of the existing theater building. The driveway for the proposed site will not impact the available parking supply on Lincoln Place.

Residential Site Improvement Standards (RSIS) require 1.8 parking spaces for one-bedroom units, 2.0 parking spaces for two-bedroom units and 2.1 parking spaces for three-bedroom units. The proposed bedroom mix is eight (8) one-bedroom units, 15 two-bedroom units and 1 three-bedroom unit. The standard RSIS parking requirement is 47 parking spaces, where 24 parking spaces are provided. However, the RSIS permits the application of alternate parking standards where local conditions support such an option.

The parking supply of 1 parking space per unit is adequate and appropriate for a residential use in a transit-oriented development such as this, especially given its location directly across from the Madison train station and in a walkable downtown setting with many businesses, restaurants, shopping and other attractions convenient to the residents of this redevelopment. The proposed parking ratio has been successfully used in other suburban municipalities with proximity to public transit, availability of municipal parking facilities and in a downtown setting. The downtown setting of this redevelopment project, with shopping, dining and recreational options within walking distance of the proposed apartments, reduces the demand and need for automobile ownership within this project. The availability of municipal parking especially on weekdays in the late afternoon/evenings and on the weekends when parking demand is at its highest, will provide more than adequate supply to meet the project's demands.

Sidewalks exist along the Lincoln Place frontage of the site. A sidewalk is proposed along the west side of the building to provide access to the residential lobby and theaters. The retail space(s) will have access directly to the sidewalk across the site frontage. There are crosswalks across Lincoln Place to either side of the property to provide access to the Madison train station. There is a complete sidewalk system in the downtown area which provides accessibility between the redevelopment project and a multitude of other destinations in the downtown area including the municipal parking lots and on-street parking opportunities.

Adequate vehicular circulation is provided to the 24 parking spaces located under the building, which are accessible from the shared driveway on the east side of the building.

CONCLUSIONS

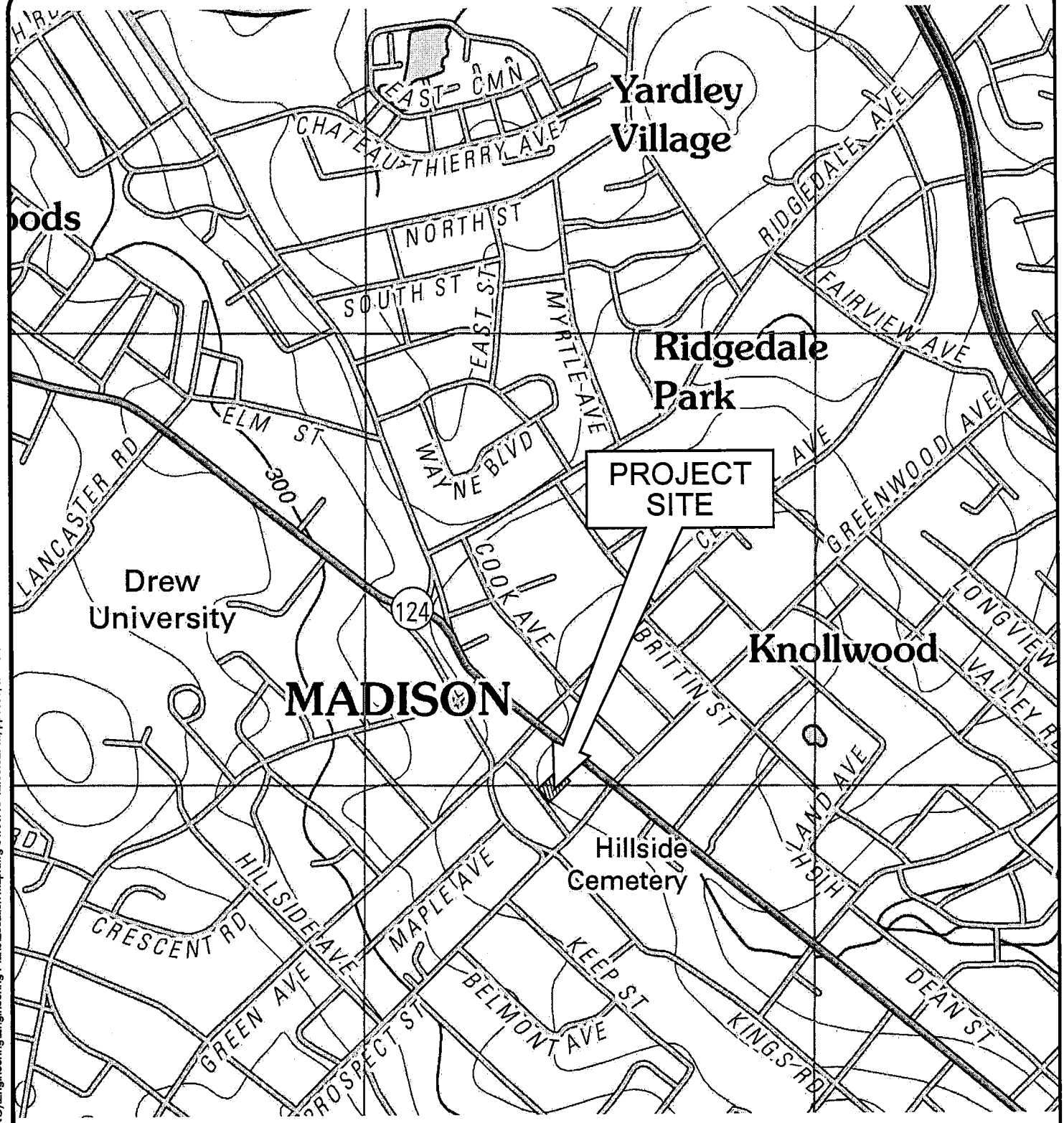
The proposed redevelopment of 24 apartments, 4,526 square feet of retail space and a 91-seat theater would have a nominal impact on traffic operations at the studied intersections during the weekday AM, PM, and Saturday peak hours. The second development option which eliminates the theater and increases the retail to a total of 7,730 square feet would have no measurable change in traffic or operations at studied intersections. The incremental impact of the additional site generated traffic results in a small increase in the average delay at the studied intersections. The slight increase would be an average vehicle delay of less than one second and would not materially impact the operations of the studied intersections or change the level of service. The calculated levels of services for the proposed site driveway would be LOS A.

Based on our parking occupancy data and assessment of parking availability and demand, we conclude that there are sufficient available parking spaces in any combination of the public parking lots in the downtown area during various timeframes to meet the needs of employees, customers and residential visitors.

It is our professional opinion that, based upon our traffic and parking engineering evaluation, the proposed redevelopment will provide for safe and efficient traffic operations without affecting the quality of flow along the nearby local roadways; and sufficient, convenient parking will be available for employees, customers, residents and residential visitors. The proposed site plan conforms to applicable industry design standards from a traffic engineering viewpoint. Circulation and access to and from the site, as well as within the property are adequate. The proposed site access point provides more than adequate sight distance along Lincoln Place.

In conclusion, this mixed-use redevelopment project would have a minimal impact on the traffic operations of studied intersections and the available public parking supply in the downtown area. The design of the project will adequately serve the needs of this building's employees, customers, residents and guests.

TRAFFIC VOLUME FIGURES AND TABLES



SCALE: 1"=1,000'

0 1,000 2,000

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No. 24GA28222600

DATE: 01/03/19 SCALE: 1"=1000' CHKD.:

PROJ.: 080790-C1-001

14 LINCOLN PLACE

FIGURE 1
LOCATION MAP

BLOCK 2702, LOTS 11, 22, 23 & 24

BOROUGH OF MADISON, MORRIS COUNTY, NEW JERSEY

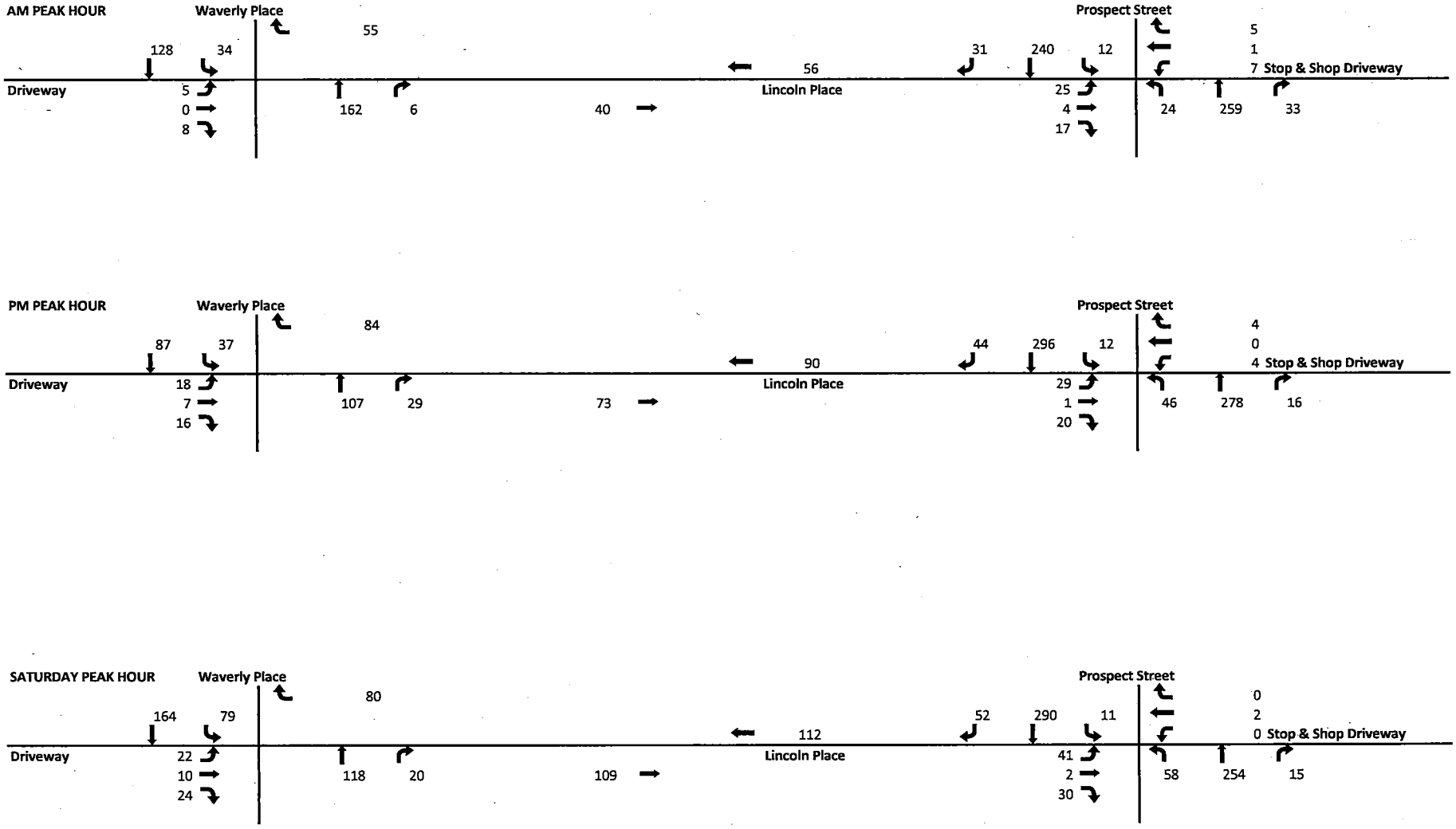
P:\080790 - Madison Movie Theater\080790-C1-001 (ENG)\Engineering\Engineering Plans\Location Map.dwg 01/09/19 12:53:32PM, pposso, LAYOUT:LOCATION MAP

14 LINCOLN PLACE

1/3/2019

FIGURE 2 EXISTING PEAK HOUR TRAFFIC VOLUMES

NORTH



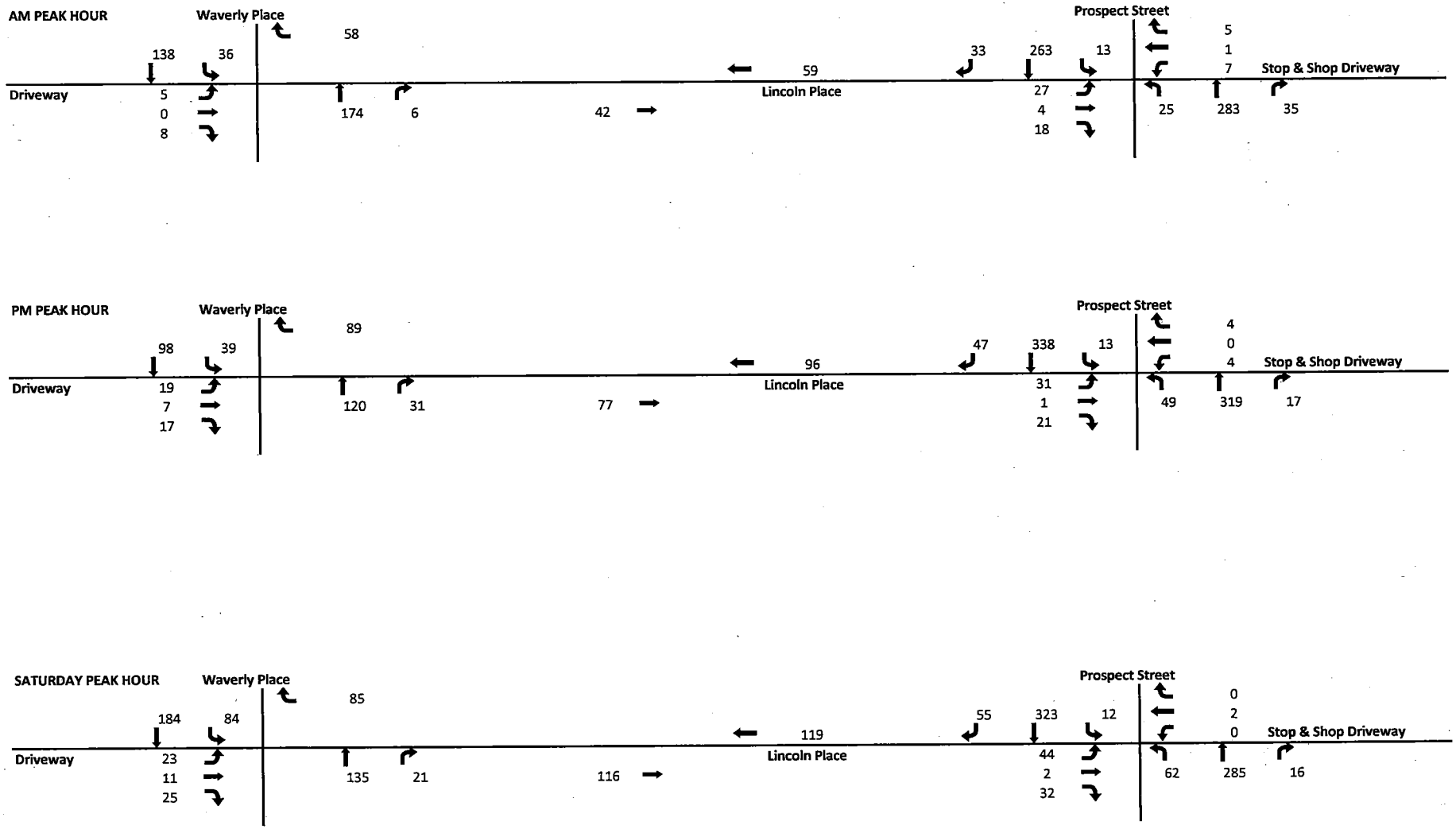
14 LINCOLN PLACE

1/3/2019

FIGURE 3 2020 NO-BUILD PEAK HOUR TRAFFIC VOLUMES

NORTH

2.00% Annual Background Growth
2020 Future No-Build Year
1.06 Growth Factor



14 LINCOLN PLACE

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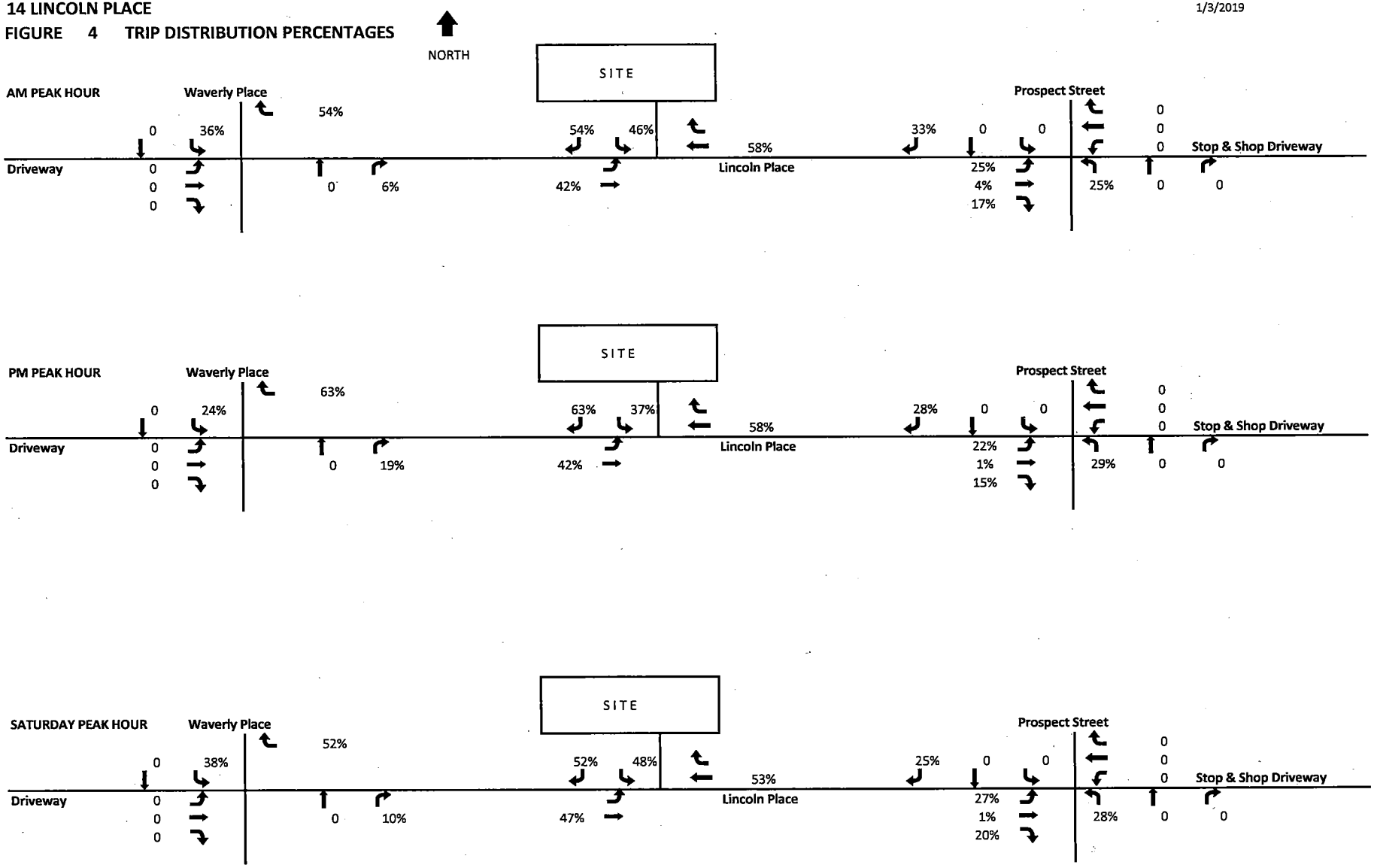
FIGURE 4 TRIP DISTRIBUTION PERCENTAGES



14 LINCOLN PLACE

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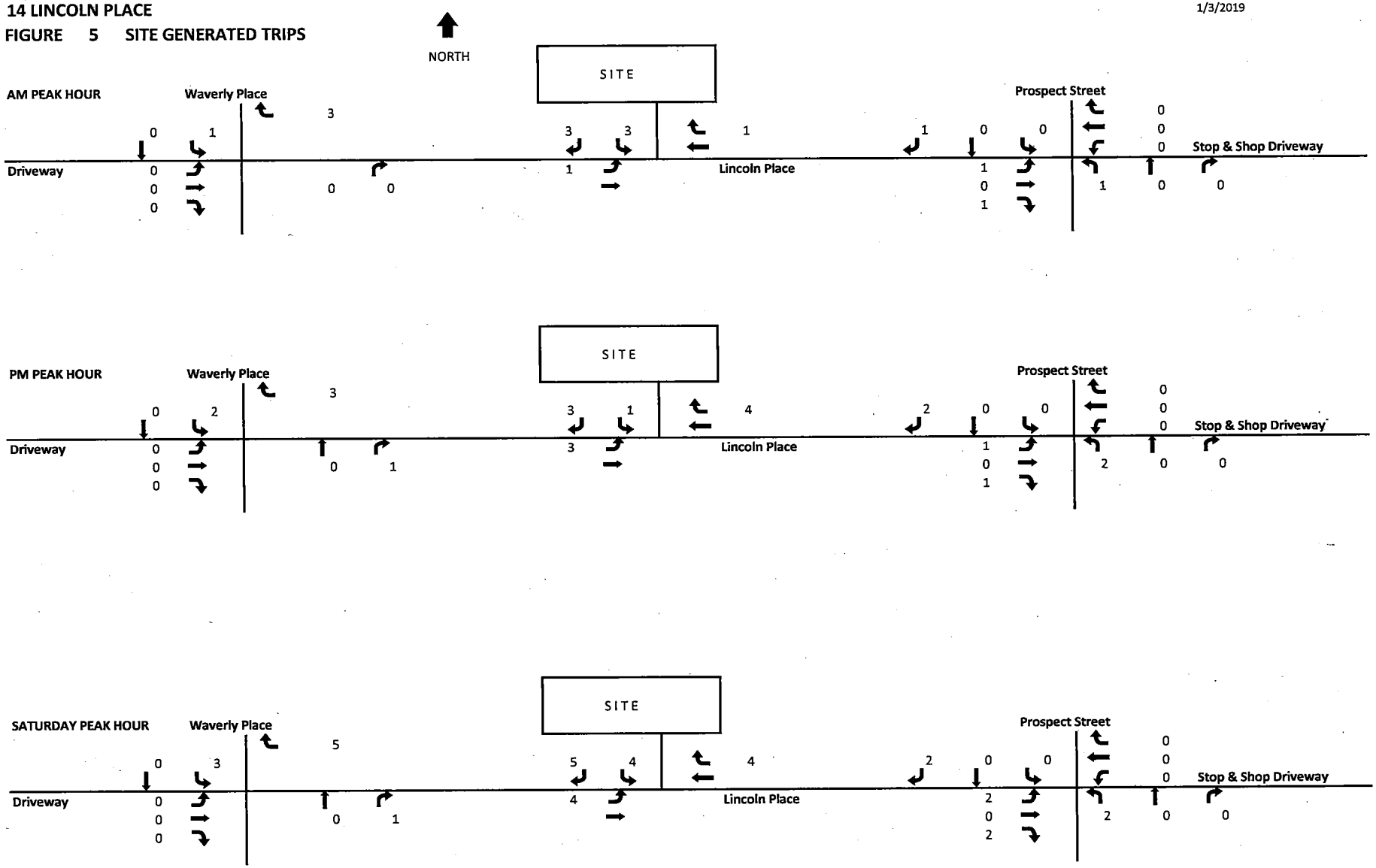
FIGURE 5 SITE GENERATED TRIPS



14 LINCOLN PLACE

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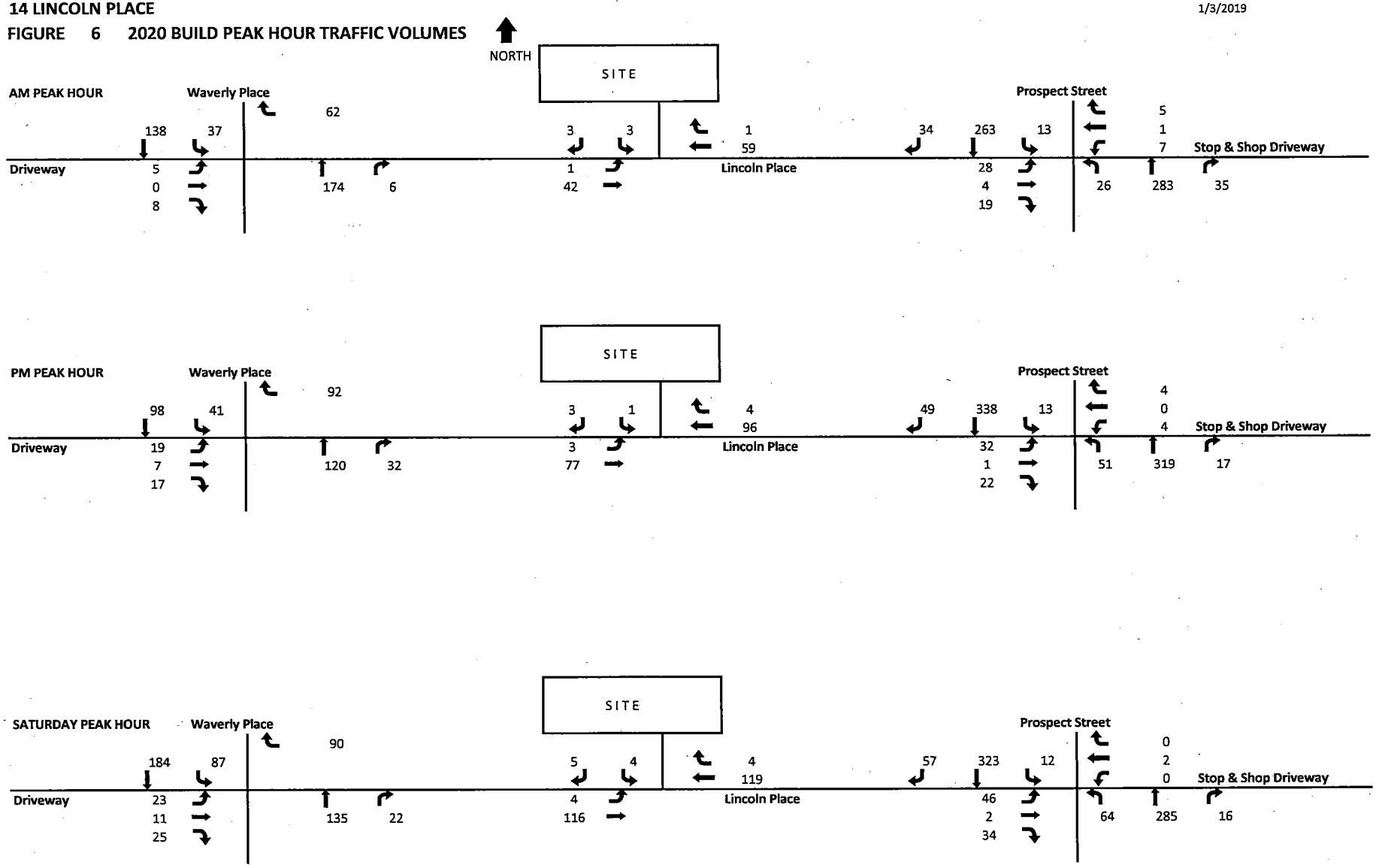
FIGURE 6 2020 BUILD PEAK HOUR TRAFFIC VOLUMES



14 LINCOLN PLACE

TABLE 1 - LEVEL OF SERVICE / AVERAGE VEHICLE DELAY COMPARISON - EXISTING AND NO-BUILD CONDITIONS

1/3/2019

	2017 Existing Condition										2020 No Build Condition									
		AM PEAK			PM PEAK			SATURDAY PEAK				AM PEAK			PM PEAK			SATURDAY PEAK		
Intersection	LANE GROUP	V/C Ratio	Delay (sec)	Levels of Service	V/C Ratio	Delay (sec)	Levels of Service	V/C Ratio	Delay (sec)	Levels of Service	LANE GROUP	V/C Ratio	Delay (sec)	Levels of Service	V/C Ratio	Delay (sec)	Levels of Service	V/C Ratio	Delay (sec)	Levels of Service
Prospect Street	NB-LTR	0.03	8.1	A	0.04	8.1	A	0.05	8.1	A	NB-LTR	0.03	8.1	A	0.04	8.2	A	0.05	8.2	A
&	SB-LTR	0.01	8.1	A	0.01	7.9	A	0.01	7.8	A	SB-LTR	0.01	8.2	A	0.01	8.0	A	0.01	7.9	A
Lincoln Place	WB-LTR	0.05	15.6	C	0.02	13.6	B	0.01	16.5	C	WB-LTR	0.05	16.7	C	0.02	14.8	B	0.01	17.8	C
(Unsignalized)	EB-LTR	0.16	16.6	C	0.13	15.3	C	0.18	15.6	C	EB-LTR	0.19	18.2	C	0.16	17.0	C	0.21	17.2	C
Waverly Place																				
&	SB-LTR	0.03	7.6	A	0.03	7.6	A	0.06	7.6	A	SB-LTR	0.03	7.7	A	0.03	7.6	A	0.06	7.7	A
Lincoln Place	WB-LTR	0.07	9.5	A	0.11	9.4	A	0.09	9.3	A	WB-LTR	0.07	9.6	A	0.12	9.5	A	0.10	9.4	A
(Unsignalized)	EB-LTR	0.02	10.3	B	0.07	11.2	B	0.10	12.3	B	EB-LTR	0.02	10.5	B	0.26	11.5	B	0.12	12.8	B

TABLE 2
ACCIDENT SUMMARY
14 LINCOLN PLACE
2014 – 2017

Type	Location	Date	Prop. Damage	Fatality
Parking Maneuver	Madison P.O. (10 Lincoln Pl)	5/1/17	N	N
Parking Maneuver	Madison P.O.	12/20/16	N	N
Parking Maneuver	100' w/o Prospect	10/25/16	N	N
Parking Maneuver	30' w/o Prospect	10/4/16	N	N
Right Angle	Lincoln & Prospect	1/9/16	N	N
Parking Maneuver	Waverly @ Lincoln	6/24/16	Y (bench/post)	N
Right Angle/U-turn (snowing)	Lincoln Pl @ Island	1/26/15	N	N
Parking Maneuver	Lincoln 500' e/o Waverly	12/29/14	N	N

14 LINCOLN PLACE

1/3/2019

TABLE 3 - TRIP GENERATION SUMMARY

			WEEKDAY						SATURDAY		
			AM PEAK HOUR			PM PEAK HOUR			PEAK HOUR		
CODE	LAND USE	AMOUNT	IN	OUT	TOTAL	IN	OUT	TOTAL	IN	OUT	TOTAL
221	Multi-Family Housing - MidRise	24 units	2	6	8	7	4	11	8	9	17
	SITE GENERATED TRIPS		**2**	**6**	**8**	**7**	**4**	**11**	**8**	**9**	**17**

SOURCE: *Trip Generation, 10th Edition* , published by Institute of Transportation Engineers (ITE)

14 LINCOLN PLACE

TABLE 4 - LEVEL OF SERVICE / AVERAGE VEHICLE DELAY COMPARISON - NO-BUILD AND BUILD CONDITIONS

	2020 No-Build Condition										2020 Build Condition									
		AM PEAK			PM PEAK			SATURDAY PEAK				AM PEAK			PM PEAK			SATURDAY PEAK		
Intersection	LANE GROUP	V/C Ratio	Delay (sec)	Levels of Service	V/C Ratio	Delay (sec)	Levels of Service	V/C Ratio	Delay (sec)	Levels of Service	LANE GROUP	V/C Ratio	Delay (sec)	Levels of Service	V/C Ratio	Delay (sec)	Levels of Service	V/C Ratio	Delay (sec)	Levels of Service
Prospect Street	NB-LTR	0.03	8.1	A	0.04	8.2	A	0.05	8.2	A	NB-LTR	0.03	8.2	A	0.05	8.2	A	0.06	8.2	A
&	SB-LTR	0.01	8.2	A	0.01	8.0	A	0.01	7.9	A	SB-LTR	0.01	8.2	A	0.01	8.0	A	0.01	7.9	A
Lincoln Place	WB-LTR	0.05	16.7	C	0.02	14.8	B	0.01	17.8	C	WB-LTR	0.05	16.9	C	0.02	14.9	B	0.01	18.0	C
(Unsignalized)	EB-LTR	0.19	18.2	C	0.16	17.0	C	0.21	17.2	C	EB-LTR	0.20	18.4	C	0.16	17.4	C	0.23	17.5	C
Waverly Place																				
&	SB-LTR	0.03	7.7	A	0.03	7.6	A	0.06	7.7	A	SB-LTR	0.03	7.7	A	0.03	7.6	A	0.06	7.7	A
Lincoln Place	WB-LTR	0.07	9.6	A	0.12	9.5	A	0.10	9.4	A	WB-LTR	0.08	9.6	A	0.12	9.6	A	0.10	9.5	A
(Unsignalized)	EB-LTR	0.02	10.5	B	0.26	11.5	B	0.12	12.8	B	EB-LTR	0.02	10.6	B	0.08	11.6	B	0.12	13.1	B
Site Driveway																				
&											EB-LT	0.00	7.3	A	0.00	7.4	A	0.00	7.5	A
Lincoln Place											SB-LR	0.01	8.8	A	0.01	9.0	A	0.01	9.4	A
(Unsignalized)																				

14 LINCOLN PLACE
TABLE 5 - PARKING ACCUMULATION DATA (Weekday PM Peak Period)
NUMBER OF VACANT PARKING STALLS BY PARKING LOT
Thursday, December 14, 2017

	Green Ave Lot Merchants/Tentants/ Muni Employ	Green Ave Lot Permit	Cook Ave Lot 2 Hour Parking	Cook Ave Lot Permit	Elmer St Lot	Prospect St Lot #1 Ambulance	Prospect St Lot #1 Main Lot	Prospect St Lot #1 Permit	Prospect St Lot #1 Muni Employ	Train Station	Kings Rd Lot #3
TOTAL SPACES	43	5	106	31	65	37	88	24	26	73	220
START TIME											
7:00 PM	3	5	2	0	10	31	59	9	22	18	102
7:30 PM	4	5	7	0	15	31	59	9	22	18	102
8:00 PM	8	5	7	0	18	33	58	10	23	37	128
8:30 PM	6	5	5	0	23	33	55	10	23	40	125
9:00 PM	22	5	37	0	30	33	48	10	23	41	120
9:30 PM	27	5	51	0	35	33	54	10	23	48	120
10:00 PM	27	5	52	0	35	33	45	10	23	40	120

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TABLE 6 - PARKING ACCUMULATION DATA (Saturday AM and PM Periods)

NUMBER OF VACANT PARKING STALLS BY PARKING LOT

Saturday, December 16, 2017

	Green Ave Lot Merchants/Tentants/Muni Employ	Green Ave Lot Permit	Cook Ave Lot 2 Hour Parking	Cook Ave Lot Permit	Elmer St Lot	Prospect St Lot #1 Ambulance	Prospect St Lot #1 Main Lot	Prospect St Lot #1 Permit	Prospect St Lot #1 Muni Employ	Train Station	Kings Rd Lot #3
TOTAL SPACES	43	5	106	31	65	37	88	24	26	73	220
START TIME											
11:00 AM	1	0	36	0	40	37	73	21	24	46	194
11:30 AM	1	0	23	0	32	37	73	21	24	44	190
12:00 PM	1	0	21	0	30	37	73	21	24	45	191
12:30 PM	2	0	23	2	30	37	73	21	24	34	192
1:00 PM	3	0	11	0	19	37	73	21	24	35	191
6:00 PM	22	5	8	7	25	30	70	21	22	25	200
6:30 PM	23	5	3	9	25	28	69	21	22	27	202
7:00 PM	24	5	3	6	23	17	66	21	22	32	203
7:30 PM	23	5	12	6	27	17	64	21	22	32	206
8:00 PM	23	5	13	4	28	17	69	22	22	37	206
8:30 PM	24	5	16	8	26	17	69	22	22	39	206
9:00 PM	24	5	22	9	28	16	71	22	21	41	206

NOTES

Green Ave Lot - Merchants, Tenants, Municipal Employees

Green Ave Lot - Permits

Cook Ave Lot - 2 Hour Parking

Cook Ave Lot - Permits

Elmer St Lot

Prospect St Lot #1 - Ambulance

Prospect St Lot #1 - Main Lot

Prospect St Lot #1 - Permit

Prospect St Lot #1 - Municipal Employees

14 LINCOLN PLACE
TABLE 7 - PARKING ACCUMULATION DATA (Weekday Midday Period)
NUMBER OF VACANT PARKING STALLS BY PARKING LOT
Wednesday, January 3, 2018

	Green Ave Lot Merchants/Tenants/Muni Employ	Green Ave Lot Permit	Prospect St Lot #1 Ambulance	Prospect St Lot #1 Main Lot	Prospect St Lot #1 Permit	Prospect St Lot #1 Muni Employ	Kings Rd Lot #3
TOTAL SPACES	43	5	37	88	24	26	220
START TIME						(Residents)	(Not Visitors or ADA)
11:00 AM	9	2	0	0	0	2	1
11:30 AM	7	2	0	0	0	2	0
12:00 PM	7	2	0	0	0	2	2
12:30 PM	6	2	0	0	0	3	1
1:00 PM	12	2	0	1	0	3	1
1:30 PM	11	2	0	1	0	3	2
2:00 PM	11	2	0	1	0	3	2

NOTES
Green Ave Lot - Merchants, Tenants, Municipal Employees
Green Ave Lot - Permits
Prospect St Lot #1 - Ambulance area between timber guiderail and building
Prospect St Lot #1 - Main Lot
Prospect St Lot #1 - Permit
Prospect St Lot #1 - Municipal Employees - there are 3 "Resident Permit" parking spaces in this lot

14 LINCOLN PLACE
TABLE 8 - PARKING ACCUMULATION DATA (Weekday Midday Period)
NUMBER OF VACANT PARKING STALLS BY PARKING LOT
Friday, January 19, 2018

	Green Ave Lot Merchants/Tentants/Muni Employ	Green Ave Lot Permit	Prospect St Lot #1 Ambulance	Prospect St Lot #1 Main Lot	Prospect St Lot #1 Permit	Prospect St Lot #1 Muni Employ	Kings Rd Lot #3
TOTAL SPACES	43	5	37	88	24	26	220
START TIME						(Residents)	(Not Visitors or ADA)
11:00 AM	2	1	0	0	5	6	73
11:30 AM	2	0	0	0	5	5	72
12:00 PM	3	0	0	0	5	5	72
12:30 PM	5	0	0	0	7	7	72
1:00 PM	5	0	0	0	12	6	70
1:30 PM	5	0	0	1	8	8	70
2:00 PM	5	0	0	1	8	8	71

NOTES
Green Ave Lot - Merchants, Tenants, Municipal Employees
Green Ave Lot - Permits
Prospect St Lot #1 - Ambulance area between timber guiderail and building
Prospect St Lot #1 - Main Lot
Prospect St Lot #1 - Permit
Prospect St Lot #1 - Municipal Employees - there are 3 "Resident Permit" parking spaces in this lot

APPENDIX I

LEVEL OF SERVICE DEFINITIONS

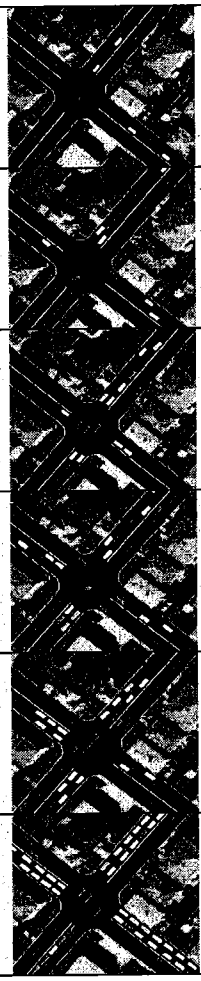
TRAFFIC OPERATIONS

Capacity analysis, a procedure used to estimate the traffic-carrying ability of roadway facilities over a range of defined operating conditions, was performed using the 2010 Highway Capacity Manual (HCM) and 2010 Highway Capacity Software.

For a signalized intersection, Level of Service (LOS) A indicates operations with delay less than 10 seconds per vehicle, while LOS F describes operations with delay in excess of 80 seconds per vehicle.

For an unsignalized intersection, LOS A indicates operations with delay less than 10 seconds per vehicle, while LOS F describes operations with delay in excess of 50 seconds per vehicle.

LEVEL OF SERVICE /AVERAGE DELAY CRITERIA*

	Level Of Service (LOS)	Signalized Delay Range (average delay, sec/veh)	Unsignalized Delay Range (average delay in sec/veh)
	A	<=10	<=10
	B	>10 and <=20	>10 and <=15
	C	>20 and <=35	>15 and <=25
	D	>35 and <=55	>25 and <=35
	E	>55 and <=80	>35 and <=50
	F	>80	>50

* *Sources: Highway Capacity Manual (2010 Edition) & SimTraffic Version 5.0*

APPENDIX II

CAPACITY ANALYSES

IIA - EXISTING CONDITIONS
IIB - 2020 NO-BUILD CONDITIONS
IIC - 2020 BUILD CONDITIONS

APPENDIX IIA

EXISTING CONDITIONS

TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	LDK
Agency/Co.	BOWMAN
Date Performed	9/9/2017
Analysis Time Period	AM PEAK HOUR

Site Information

Intersection	
Jurisdiction	LOCAL
Analysis Year	2017 EXISTING

Project Description: MADISON THEATER

East/West Street: LINCOLN PLACE

North/South Street: PROSPECT STREET

Intersection Orientation: North-South

Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	24	259	33	12	240	31
Peak-Hour Factor, PHF	0.75	0.75	0.75	0.75	0.75	0.75
Hourly Flow Rate, HFR (veh/h)	32	345	44	16	320	41
Percent Heavy Vehicles	0	--	--	0	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration	LTR			LTR		
Upstream Signal		0			0	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	25	4	17	7	1	5
Peak-Hour Factor, PHF	0.75	0.75	0.75	0.75	0.75	0.75
Hourly Flow Rate, HFR (veh/h)	33	5	22	9	1	6
Percent Heavy Vehicles	0	0	0	0	0	0
Percent Grade (%)	0			0		
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LTR	LTR		LTR			LTR	
v (veh/h)	32	16		16			60	
C (m) (veh/h)	1209	1181		355			369	
v/c	0.03	0.01		0.05			0.16	
95% queue length	0.08	0.04		0.14			0.57	
Control Delay (s/veh)	8.1	8.1		15.6			16.6	
LOS	A	A		C			C	
Approach Delay (s/veh)	--	--	15.6			16.6		
Approach LOS	--	--	C			C		

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TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	LDK	Intersection	
Agency/Co.	BOWMAN	Jurisdiction	LOCAL
Date Performed	9/9/2017	Analysis Year	2017 EXISTING
Analysis Time Period	PM PEAK HOUR		

Project Description: MADISON THEATER

East/West Street: LINCOLN PLACE | North/South Street: PROSPECT STREET

Intersection Orientation: North-South | Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	46	278	16	12	296	44
Peak-Hour Factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Hourly Flow Rate, HFR (veh/h)	48	292	16	12	311	46
Percent Heavy Vehicles	0	--	--	0	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration	LTR			LTR		
Upstream Signal		0			0	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	29	1	20	4	0	4
Peak-Hour Factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Hourly Flow Rate, HFR (veh/h)	30	1	21	4	0	4
Percent Heavy Vehicles	0	0	0	0	0	0
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LTR	LTR		LTR			LTR	
v (veh/h)	48	12		8			52	
C (m) (veh/h)	1213	1264		426			402	
v/c	0.04	0.01		0.02			0.13	
95% queue length	0.12	0.03		0.06			0.44	
Control Delay (s/veh)	8.1	7.9		13.6			15.3	
LOS	A	A		B			C	
Approach Delay (s/veh)	--	--	13.6			15.3		
Approach LOS	--	--	B			C		

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IIA-2

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	LDK	Intersection	
Agency/Co.	BOWMAN	Jurisdiction	LOCAL
Date Performed	9/9/2017	Analysis Year	2017 EXISTING
Analysis Time Period	SAT PEAK HOUR		

Project Description: MADISON THEATER

East/West Street: LINCOLN PLACE | North/South Street: PROSPECT STREET

Intersection Orientation: North-South | Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	58	254	15	11	290	52
Peak-Hour Factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97
Hourly Flow Rate, HFR (veh/h)	59	261	15	11	298	53
Percent Heavy Vehicles	0	--	--	0	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration	LTR			LTR		
Upstream Signal		0			0	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	41	2	30	0	2	0
Peak-Hour Factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97
Hourly Flow Rate, HFR (veh/h)	42	2	30	0	2	0
Percent Heavy Vehicles	0	0	0	0	0	0
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LTR	LTR		LTR			LTR	
v (veh/h)	59	11		2			74	
C (m) (veh/h)	1219	1299		315			412	
v/c	0.05	0.01		0.01			0.18	
95% queue length	0.15	0.03		0.02			0.65	
Control Delay (s/veh)	8.1	7.8		16.5			15.6	
LOS	A	A		C			C	
Approach Delay (s/veh)	--	--	16.5			15.6		
Approach LOS	--	--	C			C		

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TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	LDK
Agency/Co.	BOWMAN
Date Performed	9/9/2017
Analysis Time Period	AM PEAK HOUR

Site Information

Intersection	
Jurisdiction	LOCAL
Analysis Year	2017 EXISTING

Project Description: MADISON THEATER

East/West Street: LINCOLN PLACE | North/South Street: WAVERLY PLACE

Intersection Orientation: North-South | Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)		162	6	34	128	
Peak-Hour Factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91
Hourly Flow Rate, HFR (veh/h)	0	178	6	37	140	0
Percent Heavy Vehicles	0	--	--	0	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration			TR	LT		
Upstream Signal		0			0	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	5	0	8			55
Peak-Hour Factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91
Hourly Flow Rate, HFR (veh/h)	5	0	8	0	0	60
Percent Heavy Vehicles	0	0	0	0	0	0
Percent Grade (%)	0			0		
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	1	0	0	0	1
Configuration		LTR				R

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		LT			R		LTR	
v (veh/h)		37			60		13	
C (m) (veh/h)		1403			867		688	
v/c		0.03			0.07		0.02	
95% queue length		0.08			0.22		0.06	
Control Delay (s/veh)		7.6			9.5		10.3	
LOS		A			A		B	
Approach Delay (s/veh)	--	--	9.5			10.3		
Approach LOS	--	--	A			B		

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TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	*LDK*
Agency/Co.	*BOWMAN*
Date Performed	*9/9/2017*
Analysis Time Period	*PM PEAK HOUR*

Site Information

Intersection	
Jurisdiction	*LOCAL*
Analysis Year	*2017 EXISTING*

Project Description *MADISON THEATER*

East/West Street: *LINCOLN PLACE* | North/South Street: *WAVERLY PLACE*

Intersection Orientation: *North-South* | Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)		*107*	*29*	*37*	*87*	
Peak-Hour Factor, PHF	*0.85*	*0.85*	*0.85*	*0.85*	*0.85*	*0.85*
Hourly Flow Rate, HFR (veh/h)	*0*	*125*	*34*	*43*	*102*	*0*
Percent Heavy Vehicles	*0*	--	--	*0*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration			*TR*	*LT*		
Upstream Signal		*0*			*0*	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*18*	*7*	*16*			*84*
Peak-Hour Factor, PHF	*0.85*	*0.85*	*0.85*	*0.85*	*0.85*	*0.85*
Hourly Flow Rate, HFR (veh/h)	*21*	*8*	*18*	*0*	*0*	*98*
Percent Heavy Vehicles	*0*	*0*	*0*	*0*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*0*	*1*
Configuration		*LTR*				*R*

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		*LT*			*R*		*LTR*	
v (veh/h)		*43*			*98*		*47*	
C (m) (veh/h)		*1433*			*911*		*631*	
v/c		*0.03*			*0.11*		*0.07*	
95% queue length		*0.09*			*0.36*		*0.24*	
Control Delay (s/veh)		*7.6*			*9.4*		*11.2*	
LOS		*A*			*A*		*B*	
Approach Delay (s/veh)	--	--	*9.4*			*11.2*		
Approach LOS	--	--	*A*			*B*		

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TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	LDK	Intersection	
Agency/Co.	BOWMAN	Jurisdiction	LOCAL
Date Performed	9/9/2017	Analysis Year	2017 EXISTING
Analysis Time Period	SAT PEAK HOUR		

Project Description: MADISON THEATER

East/West Street: LINCOLN PLACE | North/South Street: WAVERLY PLACE

Intersection Orientation: North-South | Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)		118	20	79	164	
Peak-Hour Factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96
Hourly Flow Rate, HFR (veh/h)	0	122	20	82	170	0
Percent Heavy Vehicles	0	--	--	0	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration			TR	LT		
Upstream Signal		0			0	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	22	10	24			80
Peak-Hour Factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96
Hourly Flow Rate, HFR (veh/h)	22	10	25	0	0	83
Percent Heavy Vehicles	0	0	0	0	0	0
Percent Grade (%)	0			0		
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	1	0	0	0	1
Configuration		LTR				R

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		LT			R		LTR	
v (veh/h)		82			83		57	
C (m) (veh/h)		1453			923		552	
v/c		0.06			0.09		0.10	
95% queue length		0.18			0.30		0.34	
Control Delay (s/veh)		7.6			9.3		12.3	
LOS		A			A		B	
Approach Delay (s/veh)	--	--	9.3			12.3		
Approach LOS	--	--	A			B		

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APPENDIX IIB

2020 NO-BUILD CONDITIONS

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	LDK	Intersection	
Agency/Co.	BOWMAN	Jurisdiction	LOCAL
Date Performed	9/9/2017	Analysis Year	2020 NO-BUILD
Analysis Time Period	AM PEAK HOUR		

Project Description: MADISON THEATER

East/West Street: LINCOLN PLACE | North/South Street: PROSPECT STREET

Intersection Orientation: North-South | Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	25	281	35	13	261	33
Peak-Hour Factor, PHF	0.75	0.75	0.75	0.75	0.75	0.75
Hourly Flow Rate, HFR (veh/h)	33	374	46	17	348	44
Percent Heavy Vehicles	0	--	--	0	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration	LTR			LTR		
Upstream Signal		0			0	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	27	4	18	7	1	5
Peak-Hour Factor, PHF	0.75	0.75	0.75	0.75	0.75	0.75
Hourly Flow Rate, HFR (veh/h)	36	5	24	9	1	6
Percent Heavy Vehicles	0	0	0	0	0	0
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LTR	LTR		LTR			LTR	
v (veh/h)	33	17		16			65	
C (m) (veh/h)	1178	1150		323			337	
v/c	0.03	0.01		0.05			0.19	
95% queue length	0.09	0.04		0.16			0.70	
Control Delay (s/veh)	8.1	8.2		16.7			18.2	
LOS	A	A		C			C	
Approach Delay (s/veh)	--	--	16.7			18.2		
Approach LOS	--	--	C			C		

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TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	LDK	Intersection	
Agency/Co.	BOWMAN	Jurisdiction	LOCAL
Date Performed	9/9/2017	Analysis Year	2020 NO-BUILD
Analysis Time Period	PM PEAK HOUR		

Project Description: MADISON THEATER

East/West Street: LINCOLN PLACE | North/South Street: PROSPECT STREET

Intersection Orientation: North-South | Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	49	316	17	13	335	47
Peak-Hour Factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Hourly Flow Rate, HFR (veh/h)	51	332	17	13	352	49
Percent Heavy Vehicles	0	--	--	0	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration	LTR			LTR		
Upstream Signal		0			0	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	31	1	21	4	0	4
Peak-Hour Factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Hourly Flow Rate, HFR (veh/h)	32	1	22	4	0	4
Percent Heavy Vehicles	0	0	0	0	0	0
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LTR	LTR		LTR			LTR	
v (veh/h)	51	13		8			55	
C (m) (veh/h)	1169	1221		376			354	
v/c	0.04	0.01		0.02			0.16	
95% queue length	0.14	0.03		0.07			0.54	
Control Delay (s/veh)	8.2	8.0		14.8			17.0	
LOS	A	A		B			C	
Approach Delay (s/veh)	--	--	14.8			17.0		
Approach LOS	--	--	B			C		

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TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*LDK*	Intersection	
Agency/Co.	*BOWMAN*	Jurisdiction	*LOCAL*
Date Performed	*9/9/2017*	Analysis Year	*2020 NO-BUILD*
Analysis Time Period	*SAT PEAK HOUR*		

Project Description *MADISON THEATER*

East/West Street: *LINCOLN PLACE* | North/South Street: *PROSPECT STREET*

Intersection Orientation: *North-South* | Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*62*	*285*	*16*	*12*	*318*	*55*
Peak-Hour Factor, PHF	*0.97*	*0.97*	*0.97*	*0.97*	*0.97*	*0.97*
Hourly Flow Rate, HFR (veh/h)	*63*	*293*	*16*	*12*	*327*	*56*
Percent Heavy Vehicles	*0*	--	--	*0*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration	*LTR*			*LTR*		
Upstream Signal		*0*			*0*	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*44*	*2*	*32*	*0*	*2*	*0*
Peak-Hour Factor, PHF	*0.97*	*0.97*	*0.97*	*0.97*	*0.97*	*0.97*
Hourly Flow Rate, HFR (veh/h)	*45*	*2*	*32*	*0*	*2*	*0*
Percent Heavy Vehicles	*0*	*0*	*0*	*0*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration		*LTR*			*LTR*	

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*LTR*	*LTR*		*LTR*			*LTR*	
v (veh/h)	*63*	*12*		*2*			*79*	
C (m) (veh/h)	*1187*	*1263*		*283*			*373*	
v/c	*0.05*	*0.01*		*0.01*			*0.21*	
95% queue length	*0.17*	*0.03*		*0.02*			*0.79*	
Control Delay (s/veh)	*8.2*	*7.9*		*17.8*			*17.2*	
LOS	*A*	*A*		*C*			*C*	
Approach Delay (s/veh)	--	--	*17.8*			*17.2*		
Approach LOS	--	--	*C*			*C*		

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TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	LDK	Intersection	
Agency/Co.	BOWMAN	Jurisdiction	LOCAL
Date Performed	9/9/2017	Analysis Year	2020 NO-BUILD
Analysis Time Period	AM PEAK HOUR		

Project Description: MADISON THEATER

East/West Street: LINCOLN PLACE | North/South Street: WAVERLY PLACE

Intersection Orientation: North-South | Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)		174	6	36	138	
Peak-Hour Factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91
Hourly Flow Rate, HFR (veh/h)	0	191	6	39	151	0
Percent Heavy Vehicles	0	--	--	0	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration			TR	LT		
Upstream Signal		0			0	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	5	0	8			58
Peak-Hour Factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91
Hourly Flow Rate, HFR (veh/h)	5	0	8	0	0	63
Percent Heavy Vehicles	0	0	0	0	0	0
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	1	0	0	0	1
Configuration		LTR				R

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		LT			R		LTR	
v (veh/h)		39			63		13	
C (m) (veh/h)		1388			853		665	
v/c		0.03			0.07		0.02	
95% queue length		0.09			0.24		0.06	
Control Delay (s/veh)		7.7			9.6		10.5	
LOS		A			A		B	
Approach Delay (s/veh)	--	--	9.6			10.5		
Approach LOS	--	--	A			B		

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TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	LDK	Intersection	
Agency/Co.	BOWMAN	Jurisdiction	LOCAL
Date Performed	9/9/2017	Analysis Year	2020 NO-BUILD
Analysis Time Period	PM PEAK HOUR		

Project Description: MADISON THEATER

East/West Street: LINCOLN PLACE | North/South Street: WAVERLY PLACE

Intersection Orientation: North-South | Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)		117	31	39	95	
Peak-Hour Factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85
Hourly Flow Rate, HFR (veh/h)	0	137	36	45	111	0
Percent Heavy Vehicles	0	--	--	0	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration			TR	LT		
Upstream Signal		0			0	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	19	7	17			89
Peak-Hour Factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85
Hourly Flow Rate, HFR (veh/h)	22	8	19	0	0	104
Percent Heavy Vehicles	0	0	0	0	0	0
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	1	0	0	0	1
Configuration		LTR				R

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		LT			R		LTR	
v (veh/h)		45			104		49	
C (m) (veh/h)		1416			896		607	
v/c		0.03			0.12		0.08	
95% queue length		0.10			0.39		0.26	
Control Delay (s/veh)		7.6			9.5		11.5	
LOS		A			A		B	
Approach Delay (s/veh)	--	--	9.5			11.5		
Approach LOS	--	--	A			B		

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TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	LDK	Intersection	
Agency/Co.	BOWMAN	Jurisdiction	LOCAL
Date Performed	9/9/2017	Analysis Year	2020 NO-BUILD
Analysis Time Period	SAT PEAK HOUR		

Project Description *MADISON THEATER*

East/West Street: *LINCOLN PLACE* | North/South Street: *WAVERLY PLACE*

Intersection Orientation: *North-South* | Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)		130	21	84	179	
Peak-Hour Factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96
Hourly Flow Rate, HFR (veh/h)	0	135	21	87	186	0
Percent Heavy Vehicles	0	--	--	0	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration			TR	LT		
Upstream Signal		0			0	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	23	11	25			85
Peak-Hour Factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96
Hourly Flow Rate, HFR (veh/h)	23	11	26	0	0	88
Percent Heavy Vehicles	0	0	0	0	0	0
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	1	0	0	0	1
Configuration		LTR				R

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		LT			R		LTR	
v (veh/h)		87			88		60	
C (m) (veh/h)		1436			906		520	
v/c		0.06			0.10		0.12	
95% queue length		0.19			0.32		0.39	
Control Delay (s/veh)		7.7			9.4		12.8	
LOS		A			A		B	
Approach Delay (s/veh)	--	--	9.4			12.8		
Approach LOS	--	--	A			B		

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APPENDIX IIC

2020 BUILD CONDITIONS

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	LDK	Intersection	
Agency/Co.	BOWMAN	Jurisdiction	LOCAL
Date Performed	1/3/19	Analysis Year	2020 BUILD
Analysis Time Period	AM PEAK HOUR		

Project Description: MADISON THEATER

East/West Street: LINCOLN PLACE | North/South Street: PROSPECT STREET

Intersection Orientation: North-South | Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	26	283	35	13	263	34
Peak-Hour Factor, PHF	0.75	0.75	0.75	0.75	0.75	0.75
Hourly Flow Rate, HFR (veh/h)	34	377	46	17	350	45
Percent Heavy Vehicles	0	--	--	0	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration	LTR			LTR		
Upstream Signal		0			0	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	28	4	19	7	1	5
Peak-Hour Factor, PHF	0.75	0.75	0.75	0.75	0.75	0.75
Hourly Flow Rate, HFR (veh/h)	37	5	25	9	1	6
Percent Heavy Vehicles	0	0	0	0	0	0
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LTR	LTR		LTR			LTR	
v (veh/h)	34	17		16			67	
C (m) (veh/h)	1175	1147		319			335	
v/c	0.03	0.01		0.05			0.20	
95% queue length	0.09	0.05		0.16			0.73	
Control Delay (s/veh)	8.2	8.2		16.9			18.4	
LOS	A	A		C			C	
Approach Delay (s/veh)	--	--	16.9			18.4		
Approach LOS	--	--	C			C		

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TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	LDK	Intersection	
Agency/Co.	BOWMAN	Jurisdiction	LOCAL
Date Performed	1/3/19	Analysis Year	2020 BUILD
Analysis Time Period	PM PEAK HOUR		

Project Description: MADISON THEATER

East/West Street: LINCOLN PLACE | North/South Street: PROSPECT STREET

Intersection Orientation: North-South | Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	51	319	17	13	338	49
Peak-Hour Factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Hourly Flow Rate, HFR (veh/h)	53	335	17	13	355	51
Percent Heavy Vehicles	0	--	--	0	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration	LTR			LTR		
Upstream Signal		0			0	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	32	1	22	4	0	4
Peak-Hour Factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Hourly Flow Rate, HFR (veh/h)	33	1	23	4	0	4
Percent Heavy Vehicles	0	0	0	0	0	0
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LTR	LTR		LTR			LTR	
v (veh/h)	53	13		8			57	
C (m) (veh/h)	1164	1218		370			348	
v/c	0.05	0.01		0.02			0.16	
95% queue length	0.14	0.03		0.07			0.58	
Control Delay (s/veh)	8.2	8.0		14.9			17.4	
LOS	A	A		B			C	
Approach Delay (s/veh)	--	--	14.9			17.4		
Approach LOS	--	--	B			C		

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TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	LDK	Intersection	
Agency/Co.	BOWMAN	Jurisdiction	LOCAL
Date Performed	1/3/19	Analysis Year	2020 BUILD
Analysis Time Period	SAT PEAK HOUR		

Project Description: MADISON THEATER

East/West Street: LINCOLN PLACE | North/South Street: PROSPECT STREET

Intersection Orientation: North-South | Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	64	285	16	12	323	57
Peak-Hour Factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97
Hourly Flow Rate, HFR (veh/h)	65	293	16	12	332	58
Percent Heavy Vehicles	0	--	--	0	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration	LTR			LTR		
Upstream Signal		0			0	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	46	2	34	0	2	0
Peak-Hour Factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97
Hourly Flow Rate, HFR (veh/h)	47	2	35	0	2	0
Percent Heavy Vehicles	0	0	0	0	0	0
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LTR	LTR		LTR			LTR	
v (veh/h)	65	12		2			84	
C (m) (veh/h)	1180	1263		278			371	
v/c	0.06	0.01		0.01			0.23	
95% queue length	0.17	0.03		0.02			0.86	
Control Delay (s/veh)	8.2	7.9		18.0			17.5	
LOS	A	A		C			C	
Approach Delay (s/veh)	--	--	18.0			17.5		
Approach LOS	--	--	C			C		

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IIc-3

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*LDK*	Intersection	
Agency/Co.	*BOWMAN*	Jurisdiction	*LOCAL*
Date Performed	*1/3/19*	Analysis Year	*2020 BUILD*
Analysis Time Period	*AM PEAK HOUR*		

Project Description *MADISON THEATER*

East/West Street: *LINCOLN PLACE* | North/South Street: *WAVERLY PLACE*

Intersection Orientation: *North-South* | Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)		*174*	*6*	*37*	*138*	
Peak-Hour Factor, PHF	*0.91*	*0.91*	*0.91*	*0.91*	*0.91*	*0.91*
Hourly Flow Rate, HFR (veh/h)	*0*	*191*	*6*	*40*	*151*	*0*
Percent Heavy Vehicles	*0*	--	--	*0*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration			*TR*	*LT*		
Upstream Signal		*0*			*0*	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*5*	*0*	*8*			*62*
Peak-Hour Factor, PHF	*0.91*	*0.91*	*0.91*	*0.91*	*0.91*	*0.91*
Hourly Flow Rate, HFR (veh/h)	*5*	*0*	*8*	*0*	*0*	*68*
Percent Heavy Vehicles	*0*	*0*	*0*	*0*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*0*	*1*
Configuration		*LTR*				*R*

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		*LT*			*R*		*LTR*	
v (veh/h)		*40*			*68*		*13*	
C (m) (veh/h)		*1388*			*853*		*661*	
v/c		*0.03*			*0.08*		*0.02*	
95% queue length		*0.09*			*0.26*		*0.06*	
Control Delay (s/veh)		*7.7*			*9.6*		*10.6*	
LOS		*A*			*A*		*B*	
Approach Delay (s/veh)	--	--	*9.6*			*10.6*		
Approach LOS	--	--	*A*			*B*		

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TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	LDK	Intersection	
Agency/Co.	BOWMAN	Jurisdiction	LOCAL
Date Performed	1/3/19	Analysis Year	2020 BUILD
Analysis Time Period	PM PEAK HOUR		

Project Description: MADISON THEATER

East/West Street: LINCOLN PLACE | North/South Street: WAVERLY PLACE

Intersection Orientation: North-South | Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)		120	32	41	98	
Peak-Hour Factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85
Hourly Flow Rate, HFR (veh/h)	0	141	37	48	115	0
Percent Heavy Vehicles	0	--	--	0	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration			TR	LT		
Upstream Signal		0			0	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	19	7	17			92
Peak-Hour Factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85
Hourly Flow Rate, HFR (veh/h)	22	8	19	0	0	108
Percent Heavy Vehicles	0	0	0	0	0	0
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	1	0	0	0	1
Configuration		LTR				R

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		LT			R		LTR	
v (veh/h)		48			108		49	
C (m) (veh/h)		1410			890		593	
v/c		0.03			0.12		0.08	
95% queue length		0.11			0.41		0.27	
Control Delay (s/veh)		7.6			9.6		11.6	
LOS		A			A		B	
Approach Delay (s/veh)	--	--	9.6			11.6		
Approach LOS	--	--	A			B		

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IIC-5

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	LDK	Intersection	
Agency/Co.	BOWMAN	Jurisdiction	LOCAL
Date Performed	1/3/19	Analysis Year	2020 BUILD
Analysis Time Period	SAT PEAK HOUR		

Project Description: MADISON THEATER

East/West Street: LINCOLN PLACE | North/South Street: WAVERLY PLACE

Intersection Orientation: North-South | Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)		135	22	87	184	
Peak-Hour Factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96
Hourly Flow Rate, HFR (veh/h)	0	140	22	90	191	0
Percent Heavy Vehicles	0	--	--	0	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration			TR	LT		
Upstream Signal		0			0	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	23	11	25			90
Peak-Hour Factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96
Hourly Flow Rate, HFR (veh/h)	23	11	26	0	0	93
Percent Heavy Vehicles	0	0	0	0	0	0
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	1	0	0	0	1
Configuration		LTR				R

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		LT			R		LTR	
v (veh/h)		90			93		60	
C (m) (veh/h)		1429			901		506	
v/c		0.06			0.10		0.12	
95% queue length		0.20			0.34		0.40	
Control Delay (s/veh)		7.7			9.5		13.1	
LOS		A			A		B	
Approach Delay (s/veh)	--	--	9.5			13.1		
Approach LOS	--	--	A			B		

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TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*LDK*	Intersection	
Agency/Co.	*BOWMAN*	Jurisdiction	*LOCAL*
Date Performed	*1/3/19*	Analysis Year	*2020 BUILD*
Analysis Time Period	*AM PEAK HOUR*		

Project Description *MADISON THEATER*

East/West Street: *LINCOLN PLACE* | North/South Street: *SITE DRIVEWAY*

Intersection Orientation: *East-West* | Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*1*	*42*			*59*	*1*
Peak-Hour Factor, PHF	*0.91*	*0.91*	*0.91*	*0.91*	*0.91*	*0.91*
Hourly Flow Rate, HFR (veh/h)	*1*	*46*	*0*	*0*	*64*	*1*
Percent Heavy Vehicles	*0*	--	--	*0*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration	*LT*					*TR*
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)				*3*		*3*
Peak-Hour Factor, PHF	*0.91*	*0.91*	*0.91*	*0.91*	*0.91*	*0.91*
Hourly Flow Rate, HFR (veh/h)	*0*	*0*	*0*	*3*	*0*	*3*
Percent Heavy Vehicles	*0*	*0*	*0*	*0*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*0*	*0*	*0*	*0*
Configuration					*LR*	

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*LT*						*LR*	
v (veh/h)	*1*						*6*	
C (m) (veh/h)	*1550*						*944*	
v/c	*0.00*						*0.01*	
95% queue length	*0.00*						*0.02*	
Control Delay (s/veh)	*7.3*						*8.8*	
LOS	*A*						*A*	
Approach Delay (s/veh)	--	--					*8.8*	
Approach LOS	--	--					*A*	

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TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	LDK	Intersection	
Agency/Co.	BOWMAN	Jurisdiction	LOCAL
Date Performed	1/3/19	Analysis Year	2020 BUILD
Analysis Time Period	PM PEAK HOUR		

Project Description: MADISON THEATER

East/West Street: LINCOLN PLACE | North/South Street: SITE DRIVEWAY

Intersection Orientation: East-West | Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	3	77			96	4
Peak-Hour Factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85
Hourly Flow Rate, HFR (veh/h)	3	90	0	0	112	4
Percent Heavy Vehicles	0	--	--	0	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration	LT					TR
Upstream Signal		0			0	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)				1		3
Peak-Hour Factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85
Hourly Flow Rate, HFR (veh/h)	0	0	0	1	0	3
Percent Heavy Vehicles	0	0	0	0	0	0
Percent Grade (%)	0			0		
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	0	0	0	0	0
Configuration					LR	

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LT						LR	
v (veh/h)	3						4	
C (m) (veh/h)	1485						897	
v/c	0.00						0.00	
95% queue length	0.01						0.01	
Control Delay (s/veh)	7.4						9.0	
LOS	A						A	
Approach Delay (s/veh)	--	--					9.0	
Approach LOS	--	--					A	

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IIC-8

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	LDK	Intersection	
Agency/Co.	BOWMAN	Jurisdiction	LOCAL
Date Performed	1/3/19	Analysis Year	2020 BUILD
Analysis Time Period	SATURDAY PEAK HOUR		

Project Description *MADISON THEATER*

East/West Street: *LINCOLN PLACE* | North/South Street: *SITE DRIVEWAY*

Intersection Orientation: *East-West* | Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	4	116			119	4
Peak-Hour Factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97
Hourly Flow Rate, HFR (veh/h)	4	119	0	0	122	4
Percent Heavy Vehicles	0	--	--	0	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration	LT					TR
Upstream Signal		0			0	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)				4		5
Peak-Hour Factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97
Hourly Flow Rate, HFR (veh/h)	0	0	0	4	0	5
Percent Heavy Vehicles	0	0	0	0	0	0
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	0	0	0	0	0
Configuration					LR	

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LT						LR	
v (veh/h)	4						9	
C (m) (veh/h)	1473						836	
v/c	0.00						0.01	
95% queue length	0.01						0.03	
Control Delay (s/veh)	7.5						9.4	
LOS	A						A	
Approach Delay (s/veh)	--	--				9.4		
Approach LOS	--	--				A		

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APPENDIX III

TRAFFIC COUNTS

14 LINCOLN PLACE
Intersection Turning Movement Counts

Prospect Street with Lincoln Place

	Lincoln Place EB			Stop & Shop Dwy WB			Prospect Street NB			Prospect Street SB			Thursday, September 7, 2017	
	1	2	3 Total	4	5	6 Total	7	8	9 Total	10	11	12 Total	TOTAL	
End	L	T	R	L	T	R	L	T	R	L	T	R		
7:15	2	0	3	0	0	0	8	41	3	1	36	5	99	
7:30	5	1	2	1	0	0	6	67	1	3	43	7	136	
7:45	12	3	6	0	0	0	4	97	18	3	67	8	218	
8:00	4	0	6	4	0	2	9	56	7	1	71	10	170	623
8:15	4	0	3	2	1	3	5	39	7	5	59	6	134	**658 7:15-8:15**
8:30	2	0	8	2	0	1	9	41	5	1	39	6	114	636
8:45	3	0	2	1	0	3	12	62	5	3	50	10	151	569
9:00	2	0	11	1	0	0	13	52	4	0	35	13	131	530
Peak Hr	**25**	**4**	**17**	**7**	**1**	**5**	**24**	**259**	**33**	**12**	**240**	**31**	**658**	
													0.75 PHF	

	Lincoln Place EB			Stop & Shop Dwy WB			Prospect Street NB			Prospect Street SB			Thursday, September 7, 2017	
	1	2	3 Total	4	5	6 Total	7	8	9 Total	10	11	12 Total	TOTAL	
End	L	T	R	L	T	R	L	T	R	L	T	R		
4:15	13	1	6	2	0	1	10	53	4	0	67	22	179	
4:30	12	1	5	0	0	0	12	58	6	3	75	16	188	
4:45	10	0	3	1	0	2	10	58	3	2	68	13	170	
5:00	7	1	7	2	0	2	12	60	6	7	67	9	180	717
5:15	6	0	4	0	0	0	6	68	5	1	79	8	177	715
5:30	6	0	6	1	0	1	17	79	3	2	63	18	196	723
5:45	10	0	3	1	0	1	11	71	2	2	87	9	197	**750 4:45-5:45**
6:00	6	0	2	1	0	0	13	52	4	1	68	13	160	730
Peak Hr	**29**	**1**	**20**	**4**	**0**	**4**	**46**	**278**	**16**	**12**	**296**	**44**	**750**	
													0.95 PHF	

	Lincoln Place EB			Stop & Shop Dwy WB			Prospect Street NB			Prospect Street SB			Saturday, September 9, 2017	
	1	2	3 Total	4	5	6 Total	7	8	9 Total	10	11	12 Total	TOTAL	
End	L	T	R	L	T	R	L	T	R	L	T	R		
11:15 AM	9	1	6	0	0	0	10	62	4	0	42	17	151	
11:30 AM	13	1	10	0	0	1	15	67	0	1	66	19	193	
11:45 AM	13	1	8	0	1	0	16	67	6	2	62	12	188	
12:00 PM	11	0	7	0	0	0	18	69	3	2	67	12	189	721
12:15 PM	7	0	2	0	1	0	10	72	2	6	76	8	184	754
12:30 PM	10	1	13	0	0	0	14	46	4	1	85	20	194	**755 11:30-12:30**
12:45 PM	12	0	13	1	0	1	17	57	4	1	57	18	181	748
1:00 PM	14	0	6	0	0	0	11	65	1	1	66	20	184	743
1:15 PM	8	0	8	0	0	0	13	65	4	1	67	18	184	743
1:30 PM	14	1	13	0	0	1	13	50	4	0	60	15	171	720
1:45 PM	6	0	14	0	0	1	18	53	5	0	54	6	157	696
2:00 PM	8	0	5	0	0	0	10	37	7	1	52	8	128	640
Peak Hr	**41**	**2**	**30**	**0**	**2**	**0**	**58**	**254**	**15**	**11**	**290**	**52**	**755**	**11:30-12:30**
													0.97 PHF	

14 LINCOLN PLACE
Intersection Turning Movement Counts

Waverly Place with Lincoln Place

	Driveway			Lincoln Place			Waverly Place			Waverly Place			Thursday, September 7, 2017	
	EB			WB			NB			SB				
	1	2	3 Total	4	5	6 Total	7	8	9 Total	10	11	12 Total	TOTAL	
End	L	T	R	L	T	R	L	T	R	L	T	R		
7:15	0	0	2	0	0	11	0	24	2	5	15	0	59	
7:30	1	0	4	0	0	13	0	54	1	7	29	0	109	
7:45	1	0	3	1	0	9	0	47	4	10	32	0	107	
8:00	2	0	1	1	0	13	0	31	0	7	34	0	89	364
8:15	1	0	0	3	0	15	0	30	1	10	33	0	93	**398 7:15-8:15**
8:30	0	0	3	0	0	6	0	49	2	9	27	0	96	385
8:45	1	0	3	1	0	14	0	33	1	9	28	0	90	368
9:00	1	0	13	0	0	31	0	40	3	6	31	0	125	404
Peak Hr	**5**	**0**	**8**	**5**	**0**	**50**	**0**	**162**	**6**	**34**	**128**	**0**	**398**	
													0.91 PHF	

	Driveway			Lincoln Place			Waverly Place			Waverly Place			Thursday, September 7, 2017	
	EB			WB			NB			SB				
	1	2	3 Total	4	5	6 Total	7	8	9 Total	10	11	12 Total	TOTAL	
End	L	T	R	L	T	R	L	T	R	L	T	R		
4:15	2	0	2	1	0	15	0	18	5	9	18	0	70	
4:30	0	3	3	4	0	30	0	20	3	17	15	0	95	
4:45	0	0	4	1	0	17	0	22	9	18	18	0	89	
5:00	1	1	3	1	0	18	0	30	10	14	23	0	101	355
5:15	4	1	4	0	0	15	0	19	5	9	15	0	72	357
5:30	7	4	3	0	0	29	0	25	6	10	29	0	113	375
5:45	6	1	6	0	0	21	0	33	8	4	20	0	99	**385 4:45-5:45**
6:00	2	1	4	2	2	23	0	23	4	10	10	0	81	365
Peak Hr	**18**	**7**	**16**	**1**	**0**	**83**	**0**	**107**	**29**	**37**	**87**	**0**	**385**	
													0.85 PHF	

	Driveway			Lincoln Place			Waverly Place			Waverly Place			Saturday, September 9, 2017	
	EB			WB			NB			SB				
	1	2	3 Total	4	5	6 Total	7	8	9 Total	10	11	12 Total	TOTAL	
End	L	T	R	L	T	R	L	T	R	L	T	R		
11:15 AM	2	1	3	1	0	16	0	17	3	12	24	0	79	
11:30 AM	8	4	7	3	0	11	0	25	4	22	36	0	120	
11:45 AM	7	1	8	1	0	14	0	28	5	22	44	0	130	
12:00 PM	7	4	8	2	0	20	0	27	5	19	34	0	126	455
12:15 PM	4	2	6	2	0	24	0	33	5	18	40	0	134	510
12:30 PM	4	3	2	1	0	16	0	30	5	20	46	0	127	**517 11:30-12:30**
12:45 PM	4	3	4	2	0	11	0	29	8	13	48	0	122	509
1:00 PM	4	2	12	1	0	13	0	27	7	14	40	0	120	503
1:15 PM	1	1	3	2	0	9	0	33	12	14	35	0	110	479
1:30 PM	1	2	6	1	0	25	0	27	3	28	27	0	120	472
1:45 PM	3	1	1	2	0	19	0	27	3	14	35	0	105	455
2:00 PM	5	2	5	0	0	8	0	37	3	17	38	0	115	450
Peak Hr	**22**	**10**	**24**	**6**	**0**	**74**	**0**	**118**	**20**	**79**	**164**	**0**	**517**	**11:30-12:30**
													0.96 PHF	

APPENDIX IV

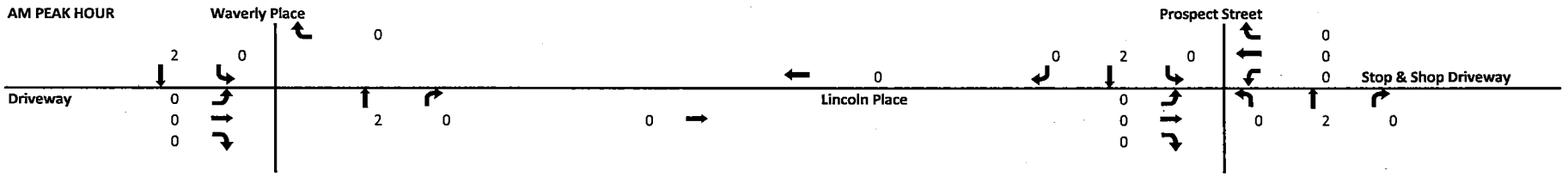
OTHER DEVELOPMENTS IN THE AREA

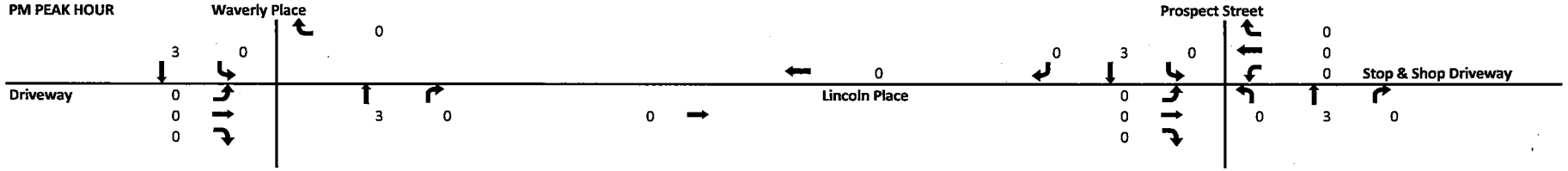
14 LINCOLN PLACE

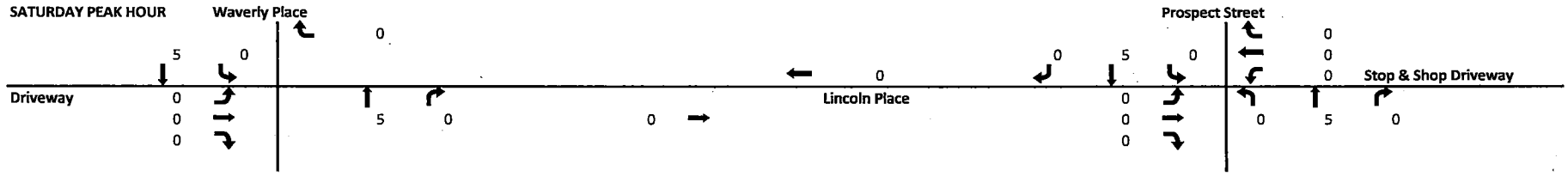
1/3/2019

FIGURE 3-A SPECIFIC DEVELOPMENT TRIPS - KRE MADISON NJ URBAN RENEWAL, LLC - 33 GREEN VILLAGE ROAD

NORTH





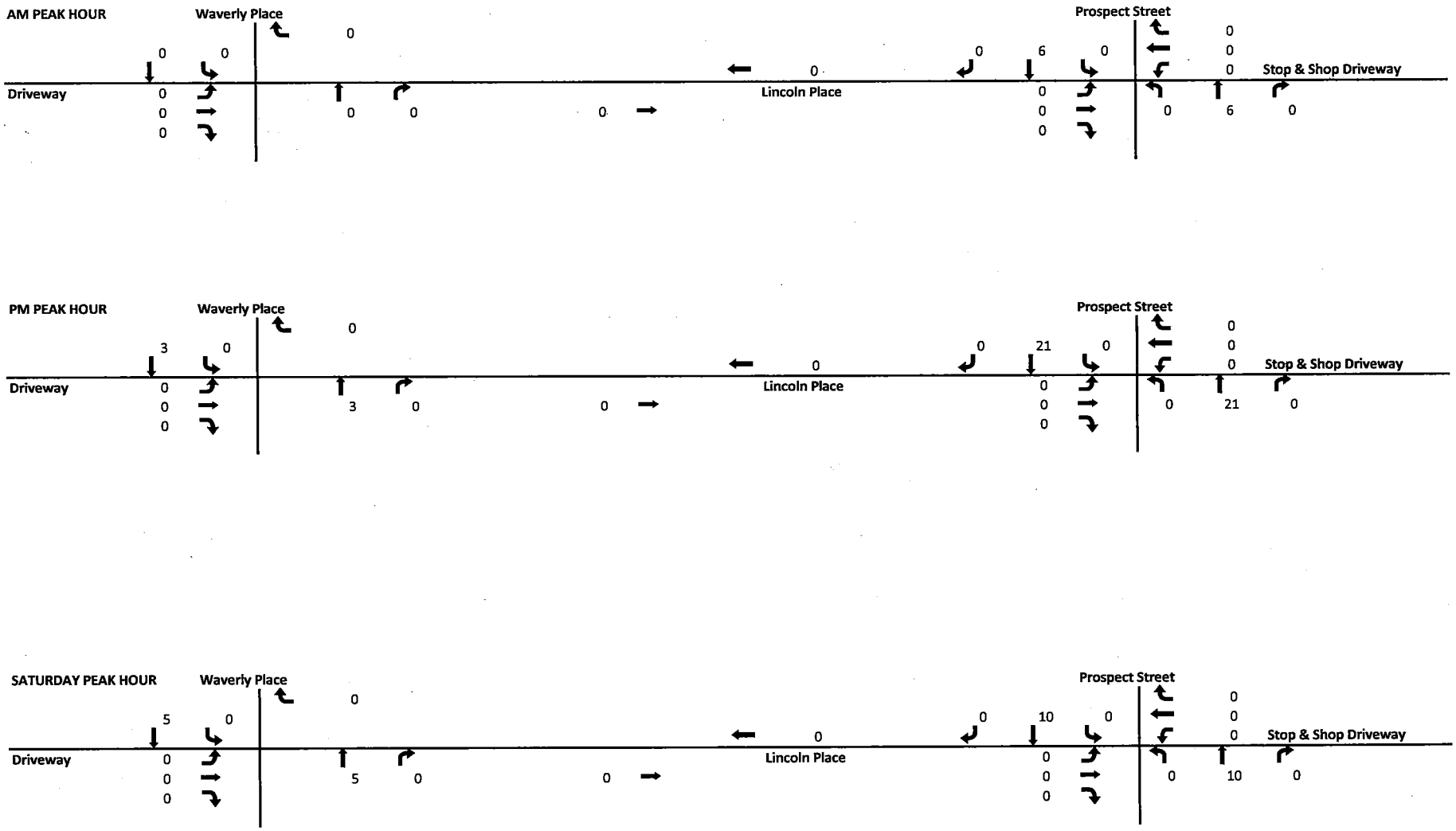


14 LINCOLN PLACE

1/3/2019

FIGURE 3-B SPECIFIC DEVELOPMENT TRIPS - PROPOSED MIXED-USE DEVELOPMENT - 9-19 GREENWOOD AVE

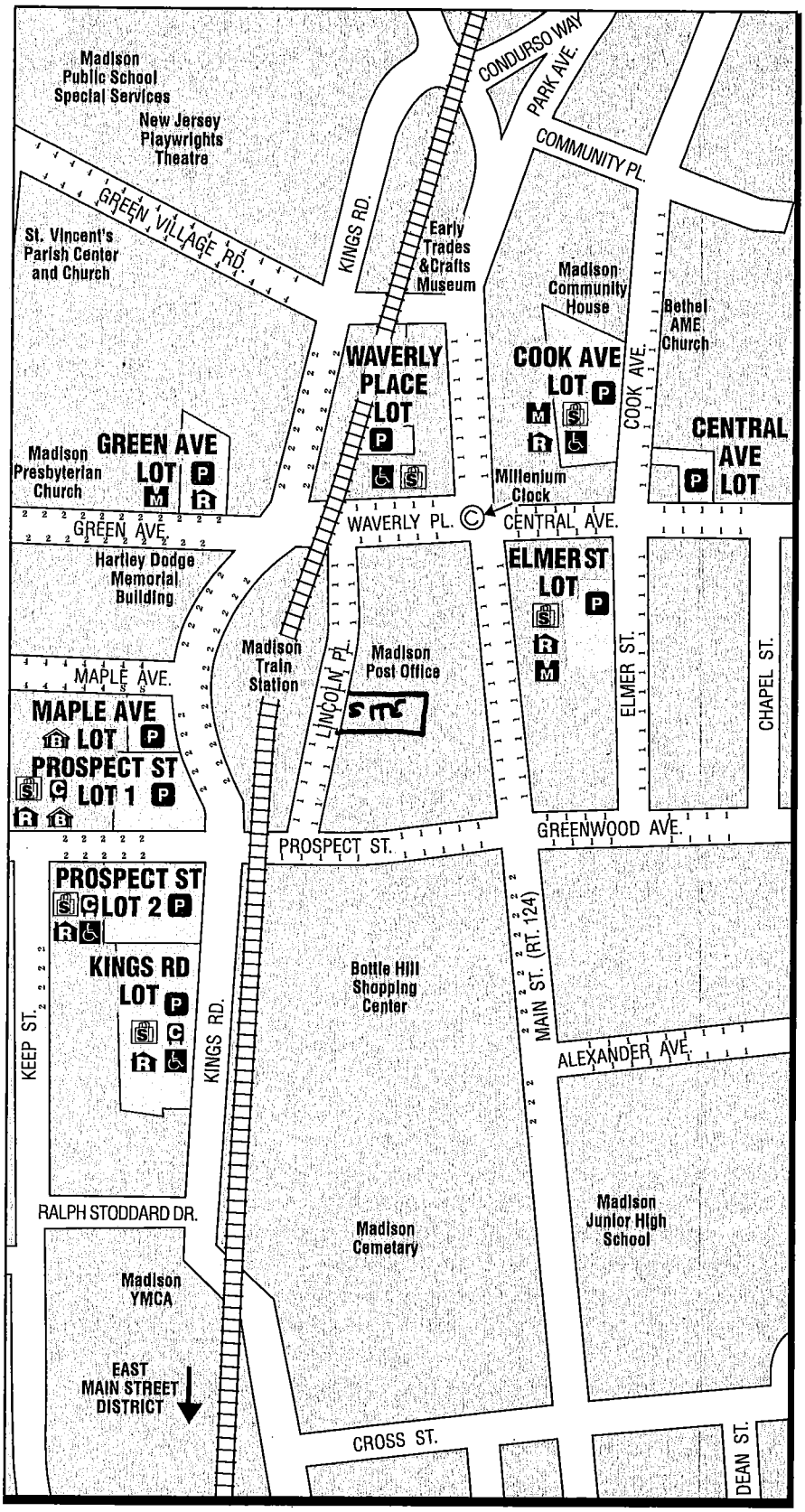
NORTH



APPENDIX V

BOROUGH PUBLIC PARKING INFORMATION BROCHURE

Ask Me About Parking!



A MAP of Madison's Free Public Parking

Published by
The Madison Chamber of Commerce
and
The Downtown Development Commission

This publication is a community service of the Madison Chamber of Commerce and the Downtown Development Commission supporting Madison's Business Districts which run east to west along Main Street (Route 124) and include Kings Road, Park Avenue, Lincoln Place, and Central Avenue. Over the years Madison's business districts have been transforming into pedestrian-friendly streetscapes that offer FREE parking to visitors. Madison's attractive and thriving business districts are consistently cited among the most successful in New Jersey.

PUBLIC PARKING GUIDE

WAVERLY GREEN LOT
FREE 2-Hour Parking
NO PARKING 2 A.M. - 6 A.M.

COOK AVENUE LOT
FREE 2-Hour Parking
15-MINUTE MERCHANT DELIVERY PARKING

ELMER STREET LOT
FREE 2-Hour Parking

GREEN AVENUE LOT
FREE 4 pm-2 am (weekdays)
FREE 6 am-2 am (weekends)
FIRE DEPARTMENT EMPLOYEE PARKING

MAPLE AVENUE LOT
24-HOUR PARKING-BOROUGH EMPLOYEES ONLY

PROSPECT ST. LOTS
FREE 4 pm-2 am (weekdays)
FREE 6 am-2 am (weekends)

KINGS ROAD LOT
FREE 4 pm-2 am (weekdays)
FREE 6 am-2 am (weekends)
DAILY $2.00 PAID PARKING

CENTRAL AVENUE LOT
FREE 4 pm-2 am (weekdays)
FREE 6 am-2 am (weekends)
HEALTH CENTER PARKING

Parking regulations may change periodically. Please note posted signs.

PERMIT PARKING

R Resident Permit Parking
M Merchant Permit Parking
C Commuter Permit Parking
B Borough Permit Parking

LEGEND

S Shopper Parking
Handicapped Parking Available

FREE STREET PARKING
1 1 1 1 One-hour Parking
2 2 2 2 Two-hour Parking
4 4 4 4 Four-hour Parking
S S S S Senior Citizen Parking

MADISON POLICE DEPARTMENT
2019 PERMIT PARKING REGULATIONS

Notice is hereby given that your car must have a **NEW OFFICIAL PARKING TAG for the period of January 1, 2019 to December 31, 2019** to legally park in the Borough of Madison parking lots. **The parking tag is transferable and is to be displayed from your rearview mirror. If not displayed properly a summons will be issued.**

All applicants MUST provide a valid vehicle registration. If the vehicle is leased additional proof of residency is required: Additional acceptable proof of residency is as follows:
Valid NJ driver's license or valid NJ insurance ID card or current utility bill in applicants name or first page of homeowner's contract or tenant's lease agreement

The permit is registered in your name. If the tag is reported lost or stolen by you, anyone found using your permit would be charged and prosecuted accordingly. You are solely responsible for your permit, and if lost **the replacement fee is 50% of the permit fee with no exceptions.**

2019 PARKING PERMITS FEE:

$425.00 - COMMUTER (residents only) $212.50 if processed after June 30, 2019.
$150.00 – MERCHANT & TENANT $75.00 if processed after June 30, 2019.

Park in the lots specified below: (Permits are color coded; be sure to park in proper lot.)

MERCHANTS/GREEN TAGS: Cook Plaza, Elmer Street & Green Avenue
COMMUTERS (residents only)/BLACK TAGS: Kings Rd. lots 1 & 3 (Not in numbered spaces.)
****TENANTS/BLUE TAGS:** Cook Plaza, Elmer Street & Green Avenue (in permit spaces only)
DAILY NUMBERED SPACES: Lot #3 and train station lot: $5.00 per day when available.
THIS PERMIT DOES NOT GUARANTEE YOU A SPACE IN A SPECIFIC LOT

DO NOT BACK INTO PARKING SPACES & DO NOT PARK OVERNIGHT: Improper parking in the parking areas is a violation, and summonses will be issued. **Permits will not be issued to vehicles classified as trucks or commercial vehicles.**

Return completed application with check or money order made payable to **"Borough of Madison"** to: Parking Permits, Madison Police Dept., 62 Kings Road, Madison, NJ 07940.

If responding by mail, please include copies of all documents required and a self-addressed stamped envelope. If all required documents AND ENVELOPE are not received, your application will be returned to you unprocessed.

****(Residing in a dwelling in Madison's historic district or in a dwelling on the south side of Kings Road from 124 east to Green Avenue; 42,44,50 Cook Avenue and 30 Central Avenue.) Montpelier Apartments (limited to 10 permits per year).**

Rev. 09/2018