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*Traffic and Parking Consultants
Highway and Signal Design*

MICHAEL MARIS ASSOCIATES, INC.

MICHAEL MARIS

Education

Polytechnic Institute of Brooklyn, Courses in Civil Engineering
Pratt Institute, Degree in Building Sciences

Professional Associations

Fellow and Life Member, Institute of Transportation Engineers (ITE)
Member, ITE Expert Witness Council

Experience

1. Wilbur Smith and Associates, Inc. (1967 to 1971)

Worked on data collection and design of signal plans for 3,000 intersections in New York City.

2. Madigan-Praeger, Inc. (1971 to 1974)

Worked on several projects, including data collection and analyses to determine traffic utilization and location of interchanges for portions of Interstate Route 80 and the Florida Turnpike.

3. Wilbur Smith and Associates, Inc. (1974 to 1977)

Organized and managed a team of professionals to analyze and design signal plans for 500 intersections in Queens, New York. Also, worked on studies relating to a new expressway in downtown Boston, Massachusetts and an automated toll collection system for the NY State Thruway.

4. Raymond Keyes and Associates, Inc. (1977 to 1987)

Organized traffic consulting division. Responsibilities included project management and coordination, review of technical analyses, client liaison, and government approvals. Worked on numerous projects throughout the United States, including traffic impact and transportation studies, signal/roadway design, and site layout/parking design.

5. Michael Maris Associates, Inc. (1987 to Present)

Responsible for administrative and technical aspects of the firm. Responsibilities include project management/coordination, client liaison, and governmental approvals. Following are some examples:

- Caldwell College, Caldwell, NJ – Traffic, internal circulation, parking analyses and traffic signal design for College.

- Harmon Meadow, Secaucus, NJ – Traffic, parking, roadway and signal design for a 3,000,000-sf complex consisting of office, retail, and entertainment uses.
- Hoboken Cove, Hoboken, NJ – Traffic and Parking Studies and traffic signal designs for residential complex.
- Hotel/Casino, Atlantic City, NJ – Traffic and parking analyses for a proposed hotel/casino resort.
- Lincoln Harbor, Weehawken, NJ – Traffic, parking/circulation of a 4,000,000-sf office, residential and retail complex.
- Delaware National, Newport, Delaware – Traffic study for development of residential complex.
- Bristol Myers-Squib, New Brunswick, NJ – Traffic analyses to improve circulation and access and parking studies to increase utilization.
- STAR Campus, Newark, Delaware – Traffic studies relating to the access and internal circulation of a large development on a site previously occupied by Chrysler.
- Maxwell Place, Hoboken, NJ – Traffic and Parking Studies for large residential, office and retail complex.
- Menlo Park Mall, Edison, NJ - Traffic analyses and signal and roadway design for a 1,300,000-sf regional shopping mall.
- Nanuet Mall, Nanuet, NY – Traffic analyses and roadway/signal construction plans for a 1,000,000-sf mall.
- Port Imperial, Weehawken/West New York, NJ – Traffic analyses and parking/circulation for a 5,000-unit residential development.
- Ridge Hill Intermunicipal Intersection Improvement Committee, Greenburgh, NY – Traffic studies and coordination of roadway/signal improvement construction plans.
- Waterview Corporate Center, Parsippany, NJ – Traffic/parking analyses and signal/roadway design for a 1,500,000-sf office complex.
- CPV Pole Installations, Edison & Woodbridge, NJ – Clear Zone analyses, Maintenance and Protection of Traffic Plans, and Pole Protection Plans.

Municipal Traffic Consulting

Provided traffic and parking consulting services to following municipalities and governmental agencies in New York and New Jersey:

Bergen County, NJ Utilities Authority
 Chatham, New Jersey
 Essex County, New Jersey
 Greenburgh, New York
 Jersey City, NJ Municipal Authority
 Lynbrook, New York
 Weehawken, New Jersey

Caldwell, New Jersey
 Cherry Hill, New Jersey
 Great Neck, NY School District
 Hoboken, New Jersey
 Lake Success, New York
 Tarrytown, New York
 Westwood, New Jersey

Expert Testimony at Courts Of Law

Qualified and provided testimony as an expert in traffic and parking at the following Courts of Law:

Administrative Law Court, Towson, MD
 NJ Court of Administrative Law, Newark, NJ
 US District Court, White Plains, NY

Expert Testimony Experience

STATES

Alabama
Florida
Massachusetts
New Jersey
Pennsylvania

California
Maine
Michigan
New York
Rhode Island

Connecticut
Maryland
New Hampshire
North Carolina
Virginia

NEW JERSEY

Atlantic City
Bedminster
Bordentown
Chatham
Clifton
Cranford
East Hanover
Eatontown
Elmwood Park
Fairfield
Floham Park
Greenwich
Hamilton
Hardyston
Hoboken
Jefferson
Lafayette
Little Falls
Mansfield
Montclair
Mount Arlington
Newark
North Arlington
New Providence
Paramus
Piscataway
Rahway
Raritan
Ridgefield Park
Roseland
Secaucus
Upper Freehold
Verona
Washington
West Deptford
West Paterson

Asbury Park
Bernards
Brick
Cherry Hill
Clinton
Donville
East Rutherford
Edison
Emerson
Fairview
Fort Lee
Hackensack
Hanover
Harrison
Hopewell
Jersey City
Lawrenceville
Livingston
Marlboro
Montville
Mount Olive
NJ Meadowlands Dev. Com.
North Bergen
Nutley
Parsippany-Troy Hills
Prospect Park
Ramsey
Readington
River Vale
Roxbury
South Hackensack
Upper Saddle River
Vineland
Wayne
West New York
Westwood

Bayonne
Bloomfield
Caldwell
Cliffside Park
Closter
Deptford
East Windsor
Egg Harbor
Englewood
Flemington
Franklin
Hackettstown
Harding
Hasbrouck Heights
Howell
Kinnelon
Linden
Madison
Middletown
Morristown
Netcong
NJ Court of Administrative Law
North Haledon
Palisades Park
Paterson
Plainsboro
Randolph
Ridgefield
Rockaway
Rutherford
Union City
Vernon
Warren Township
Weehawken
West Orange
Wyckoff

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MICHAEL MARIS ASSOCIATES, INC.

PARKING STUDY

FIVE DIMES BREWERY Westwood, New Jersey

**Prepared For: 247 Westwood Avenue Corporation
Westwood, New Jersey**

**Project No. 20-233
June 2020**

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SECTION A
INTRODUCTION

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INTRODUCTION

A-1 PROJECT DESCRIPTION

247 Westwood Avenue Corporation proposes to operate a Limited Brewery, to be known as Five Dimes Brewery, in the Borough of Westwood. The Limited Brewery would occupy an approximately 4,100 square-foot (sf) vacant building located south of Westwood Avenue between Fairview Avenue and Kinderkamack Road that was previously occupied by LN Grand 5 & 10 Cent Store. It is expected that the Limited Brewery will operate from 4:00 to 11:00 PM on Mondays through Thursdays (a small retail area may be open after 11:00 PM), from 12:00 Noon to 1:00 AM on Fridays and Saturdays, and from 12:00 Noon to 11:00 PM on Sundays.

The latest Architectural plans show that the building would be renovated to include the following areas related to the operation of the Limited Brewery:

1. The first floor would include seating areas totaling 46 seats, an 8-seat tasting area, a game area and a small retail space that would sell products associated with the brewery.
2. The rooftop would be used seasonally and include a seating area with 12 seats, a 2-seat tasting area, and a game area.
3. The cellar would be utilized for the production and storage of the beer products.

Along with the building renovation, a lot situated to the rear of the building will be striped to provide 12 on-site parking spaces. The Westwood Borough Code does not include guidelines for the provision of parking related to Limited Breweries and a Parking Study was requested to

identify the parking generations of the Limited Brewery, as well as determine whether there are sufficient spaces in the area to serve any parking demand in excess of the 12 on-site spaces.

A-2 SCOPE OF STUDY

Michael Maris Associates, Inc. (MMA) was retained by 247 Westwood Avenue Corporation to prepare the requested Parking Study. Following is a brief summary of the tasks and analyses that were performed during the preparation of the Parking Study:

1. It is MMA's opinion that, when the 12 on-site parking spaces are occupied, the available parking spaces within the Westwood Central Business District (CBD) would be used by the Limited Brewery's visitors (and employees *). It is generally considered acceptable that visitors will walk approximately 1,000 feet from a parking space to their destination. Therefore, this Parking Study focused upon the parking availability within a Study Area consisting of curb and Municipal Lot parking spaces located approximately 1,000 feet of the Limited Brewery site.
2. Parking occupancy surveys were performed by Dr. Christopher Alepa, principal of the Applicant, prior to MMA's involvement and provided to MMA for use in this Parking Study. The surveys were performed during different hours of several weekdays and weekends and consisted of counts of the number of occupied spaces along the nearby roadways and Municipal Lots in the CBD and recorded by location, day, and hour. MMA reviewed the survey methodology and compared the survey findings to parking occupancy data for the CBD previously collected by MMA.

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- It is estimated that only three employees will be at the Limited Brewery during its peak hours of operation (see Page 11).

3. MMA summarized the weekday and weekend parking occupancy surveys by roadway location and Municipal Lot and calculated the number of vacant spaces at each location. It is noted that the surveys provided to MMA covered a larger area, but only the spaces within the CBD located approximately 1,000 feet from the site (Study Area) were considered for this study.
4. MMA estimated the peak-hour parking generations of the various areas of the Limited Brewery based on experience and accepted parking generation data for similar uses.
5. MMA combined the peak-hour parking generations of the various Limited Brewery areas to estimate the Limited Brewery's total generations. The total generations were then compared to the vacant parking spaces within the Study Area in order to determine whether there will be sufficient vacant spaces to serve the Limited Brewery's generations.

SECTION B

SURVEYS AND EXISTING PARKING UTILIZATION

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B-1 PARKING AVAILABILITY

As previously noted, it is MMA's opinion that, when the 12 on-site parking spaces are fully occupied, the customers (and employees) of the Limited Brewery will park at the metered curb spaces and the three Municipal Parking Lots located within the Westwood CBD and within a walking distance of approximately 1,000 feet from the site. Exhibit No. 1 in Appendix A of this report identifies some of the roadways in the CBD where parking is permitted, the roadway segments and Municipal Lots that are approximately 1,000 feet from the Limited Brewery site, and the number of available parking spaces in the roadway segments and Municipal Lots.

Following are listed the roadways and Municipal Lots included in the Study Area and brief descriptions of the parking availability:

1. Curb Parking

a. Westwood Avenue

- From Kinderkamack Road to Fairview Avenue - 19 metered parking spaces permitting 2-hour parking.
- From Center Avenue to Fairview Avenue - 20 metered parking spaces permitting 2-hour parking.
- From Center Avenue to Broadway - 18 metered parking spaces permitting 2-hour parking.

b. Bergen Street

- From Kinderkamack Road to Center Avenue - 10 metered parking spaces permitting 2-hour parking.

c. Kinderkamack Road

- From Irvington Street to Westwood Avenue - 7 metered parking spaces.
- From Westwood Avenue to Bergen Street - 8 metered parking spaces permitting long-term parking.

d. Fairview Avenue

- From Irvington Street to Westwood Avenue – 24 metered parking spaces, some of which permit long-term parking.
- From Westwood Avenue to Bergen Street - 20 metered parking spaces permitting 2-hour parking.
- From Bergen Street to Jefferson Avenue - 41 metered parking spaces permitting employee decal parking.

e. Center Avenue

- From Irvington Street to Westwood Avenue – 28 metered parking spaces permitting 2-hour parking.
- From Westwood Avenue to Jefferson Street - 20 metered parking spaces permitting 2-hour parking.

2. Municipal Lots Parking

- a. Center Avenue Lot North has a total of 101 parking spaces, most of which permit 2-hour parking, while 14 spaces permit employee decal parking.
- b. Center Avenue Lot South has 69 parking spaces that permit long-term parking.
- c. Fairview Avenue Lot has 54 parking spaces that permit 3-hour parking.

Overall, the street segments and three Municipal Lots listed above provide a total of 439 parking spaces.

B-2 PARKING OCCUPANCY SURVEYS

While a total of 439 parking spaces exist within a reasonable walking distance of the Limited Brewery site, many spaces are used by the existing businesses within the CBD. Therefore, it was necessary to identify the vacant spaces that would be available to the Limited Brewery.

1. Survey Methodology

The parking occupancy surveys provided to MMA were used to calculate the vacant spaces. Those surveys were performed hourly during the following eight days commencing at 5:00 PM and ending at 9:00 PM.

- Friday, February 21, 2020
- Saturday, February 22, 2020
- Friday, February 28, 2020
- Saturday, February 29, 2020
- Thursday, March 5, 2020
- Friday, March 6, 2020
- Saturday, March 7, 2020
- Sunday, March 8, 2020

The parking survey data, which was collected during forty different hours, included a record of the number of occupied spaces by location. MMA reviewed the methodology of the occupancy surveys and found it to be acceptable. MMA also compared the 2020 survey findings to parking occupancy surveys performed by MMA on Wednesday, June 10, 2015 in connection with another parking study of the Westwood CBD. The MMA surveys, which were performed between 9:00 AM and 5:00 PM, found that parking occupancies in the area peaked around 1:30 PM and declined during the afternoon. MMA compared the 5:00 PM occupancies of the 2015 surveys to those of the 2020 surveys and found them to be consistent. Also, because the Limited Brewery will open at 4:00 PM, whereas the 2020 surveys commenced at 5:00 PM, MMA checked the 2015 surveys and noted that the parking space occupancy was slightly lower at 4:00 PM than it was at 5:00 PM.

SECTION C

LIMITED BREWERY PEAK-HOUR PARKING GENERATIONS

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LIMITED BREWERY PEAK-HOUR PARKING GENERATIONS

C-1 GENERAL

A publication by the Institute of Transportation Engineers (ITE), entitled Parking Generation, 5th Edition, is generally used when estimating the parking needs of proposed developments. However, the ITE publication does not provide any parking data for Limited Breweries. Therefore, the total generations of the Limited Brewery were calculated by estimating and combining the generations of the various areas based on MMA knowledge and similar uses included in the ITE publication.

The areas of the Limited Brewery that could generate a need for parking include the tasting areas on the first floor and rooftop, the seating areas on the first floor and rooftop, the retail area on the first floor, the brewery employees and the cellar.

C-2 PARKING GENERATION ESTIMATES

1. Tasting Areas Generations

The latest Architectural plans show two tasting areas, one on the first floor with 8 seats, and one on the rooftop with 2 seats. Based on the dimensions shown on the Architectural plans, it is estimated that the first-floor tasting area will be approximately 450 sf and the rooftop tasting area will be approximately 200 sf, for a total tasting area of 650 sf.

As previously noted, the ITE publication does not provide any data regarding the parking generations of Limited Breweries. However, the publication provides Generation Rates for "Winery" and notes that the generations are based on the size of the tasting areas. It is MMA's opinion that the tasting areas at the Limited Brewery will have similar parking generations as the tasting areas at wineries and, therefore, the average "Winery" Generation Rate of 25.38 parking spaces per 1,000 sf was applied to the size of the two Limited Brewery tasting areas. This calculation indicates that the combined 650 sf will generate a need for about 17 parking spaces. It is noted that the estimated parking generation of 17 spaces for the tasting areas substantially exceeds the generations of 10 seats. The higher parking demand reflects the fact that some of the Limited Brewery customers will be standing.

2. Seating Areas Generations

The Limited Brewery will have a total of 68 seats, 10 of which will be associated with the tasting areas. Therefore, there will be an additional 58 seats for use by customers not associated with the tasting areas. It is MMA's opinion that the 58 seats will generate a parking demand similar to restaurants since the seating duration is expected to be similar and since the generations of the other Limited Brewery areas were calculated separately and included to the overall brewery generation.

For restaurants, the Westwood Code requires a Parking Rate of one (1) space per three (3) seats. This Parking Rate is consistent with MMA's experience and it was applied to the 58 seats, which indicates that the seating areas will generate a need for 20 parking spaces.

3. Retail Area Generations

It is understood that the 370-sf retail area will sell products related to the Limited Brewery, such as beer, shirts with the brewery logo, gift certificates, etc. It is MMA's opinion that the retail area will be visited primarily by customers already at the brewery and will not generate any need for parking spaces. However, per the Westwood requirements, the retail area generations were estimated using ITE Parking Rates for Shopping Centers and for Liquor Stores. Both of these Parking Rates indicate that the retail area will generate a need for only one (1) parking space.

4. Employee Generations

It is understood that the Limited Brewery will retain a total of five (5) employees in two shifts, with only three (3) employees working to serve customers during the Brewery's peak periods. The three employees will include a beer tender, a floor assistant to maintain the premises, and a host/hostess.

Assuming that each employee will drive alone, it is expected that the three (3) employees will generate a need for three (3) parking spaces. It is also expected that the employees will use designated employee parking spaces in the Municipal Lots or along the streets.

5. Cellar Generations

It is understood that the cellar will be used for the production and storage of beer and occupied by only one (1) employee. Since the employee parking generations were

estimated separately, the cellar is not expected to generate a need for any additional parking spaces.

C-3 TOTAL PARKING GENERATIONS

The parking generation estimates of the various areas indicate that the Limited Brewery will generate a need for 41 parking spaces. However, due to the Limited Brewery's location within the Westwood CBD, it is MMA's opinion that a number of its customers will already be in the area and walk to the brewery during or after work. Further, a number of customers are expected to use ride sharing, such as Uber, Lyft, taxi, etc. Overall, it is estimated that about 20 percent of the Limited Brewery customers will already be in the Westwood CBD or use ride sharing and that the Limited Brewery will actually generate a need for 33 parking spaces. Since 12 on-site parking spaces will be provided, it is concluded that 21 off-site parking spaces will be utilized by the Limited Brewery visitors (and employees).

SECTION D


SUMMARY OF FINDINGS AND CONCLUSION

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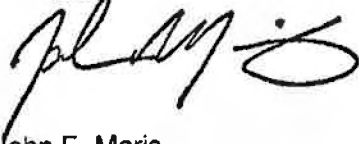
D-1 CONCLUSION

The parking occupancy surveys indicate that there were at least 82 vacant spaces in the Study Area during the forty hours surveyed and the parking generation estimates indicate that the Limited Brewery will generate an off-site parking demand of 21 parking spaces. Therefore, it is concluded that there will be more than sufficient spaces available to serve the Limited Brewery parking needs.

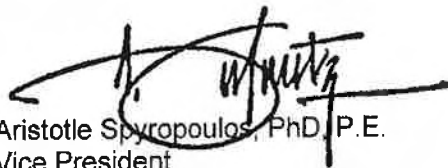
Respectfully submitted,
MICHAEL MARIS ASSOCIATES, INC.



Michael Maris
President



John E. Maris
Vice President



Aristotle Spyropoulos, PhD, P.E.
Vice President

APPENDIX A

EXHIBITS