



## **PARKING STUDY MEMORANDUM**

**TO:** Doug LaFave, Deputy City  
**FROM:** Manager Sam Mellor, GIS Analyst  
**DATE:** November 19, 2024  
**SUBJECT:** Plymouth Avenue Parking Study

### **MAP CREATION AND BACKGROUND**

- Michigan CIR –Infrared layer to see through shrubbery and trees
- Parking Restrictions Layer – Near map AI layer
- Google Maps Street View – Direct view of loc

Line segments were drawn between valid parking segments. Each driveway, intersection, and fire hydrant marked the end of the parking capacity. Each segment of parking is 20 feet. Certain parking restrictions must be applied in order to get an accurate count. The block faces used a basic code to calculate the total number of spaces each street segment can host. When each segment was completed, the block face would record the total capacity of each block face. Each block face has a unique identifier that associates with the counts.

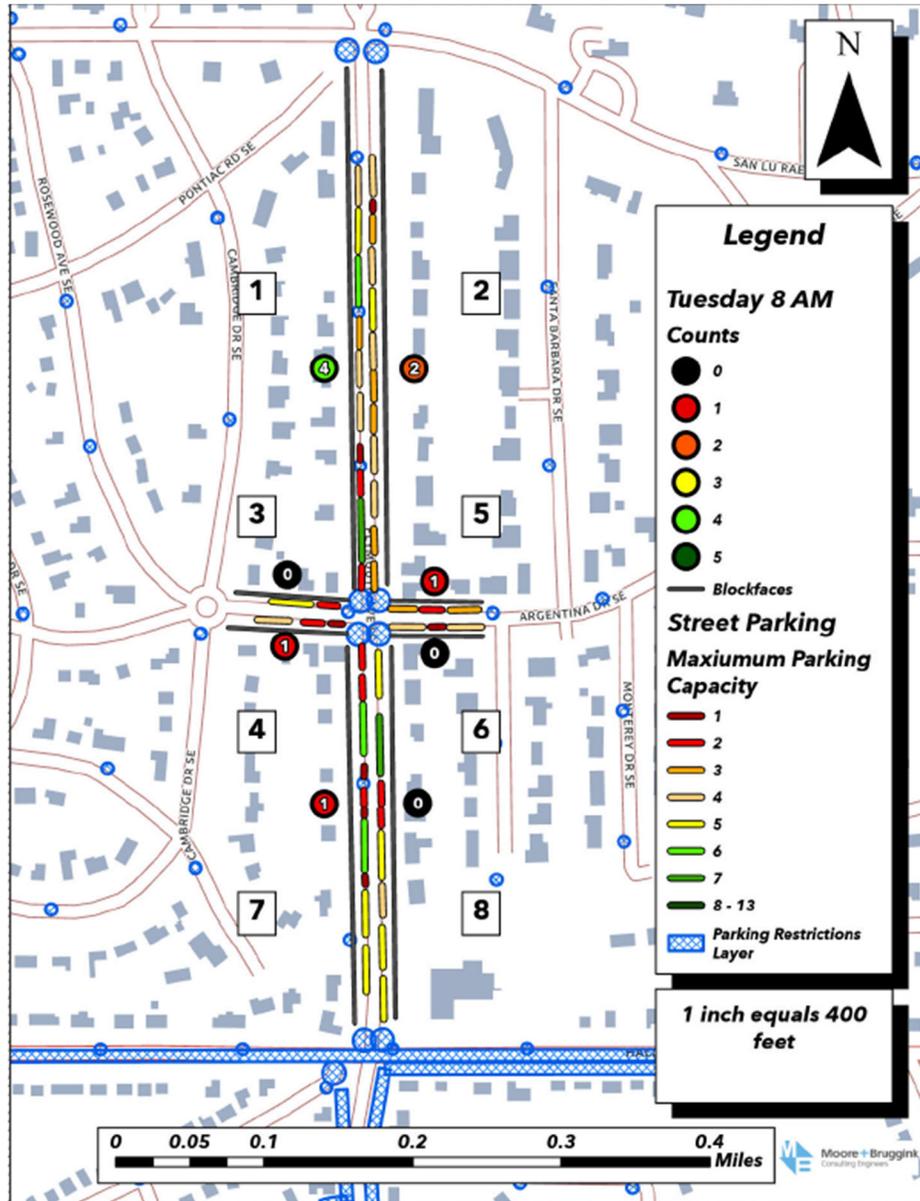
### **REQUIREMENTS FOR PARKING UTILIZATION STUDIES**

- At a place where an official sign prohibits stopping or parking.
- Within 20 feet of a marked crosswalk, or if unmarked, then within 15 feet of the intersection, of the property lines at an intersection, or unless otherwise designated by the Proper Authority.
- Within 30 feet of the approach to a flashing beacon, stop sign, or traffic-control signal.
- Within 15 feet of a fire hydrant on each end.
- Within 50 feet of the nearest rail of a railroad crossing.
- Within an intersection (e.g., the “top” of T intersections or within the confines of an offset T intersection).
- In front of a public or private driveway or alley within 3 feet of where the course of the curb line has been changed to start the driveway or alley approach.



## COLLECTION

- Days of collection were October 15, 17, and 19, at 8 a.m. and 6 p.m.
- An Excel table was utilized to input the counts from each collection.
- Each block face has a unique #? ID to make sure that each point is accurately recorded.





		Direction	Distance (ft)	Available Parking
<b>1</b>	Plymouth Ave – MLK St to Alexander St (East)	N/S	2,050	<b>38</b>
<b>2</b>	Plymouth Ave – MLK St to Argentina Dr (West)	N/S	2,050	<b>41</b>
<b>3</b>	Alexander St – Plymouth to Cambridge (North)	E/W	420	<b>7</b>
<b>4</b>	Alexander St – Plymouth to Cambridge (South)	E/W	420	<b>7</b>
<b>5</b>	Argentina Dr – Plymouth to Santa Barbara Dr (North)	E/W	450	<b>8</b>
<b>6</b>	Argentina Dr – Plymouth to Santa Barbara Dr (South)	E/W	450	<b>9</b>
<b>7</b>	Plymouth Ave – Hall St to Alexander St (East)	N/S	1,500	<b>30</b>
<b>8</b>	Plymouth Ave Hall St to Argentina Dr (West)	N/S	1,500	<b>30</b>
	<b>TOTAL Plymouth 1, 2, 7, and 8</b>	N/S	7,100	<b>139</b>
	<b>TOTAL Argentina and Alexander 3, 4, 5, and 6</b>	E/W	1,740	<b>31</b>



UNIQUE ID	October 15				October 17				October 19			
	Start time	8 a.m.	Start time	6 p.m.	Start time	8 a.m.	Start time	6 p.m.	Start time	8 a.m.	Start time	6 p.m.
	Morning		Evening		Morning		Evening		Morning		Evening	
	Space Occupied	Pct Occupied										
1	4	11%	1	3%	5	13%	3	8%	1	3%	0	0%
2	2	5%	0	0%	0	0%	2	0%	1	0%	1	0%
3	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
4	1	14%	0	0%	0	0%	0	0%	1	14%	1	14%
5	1	13%	0	0%	2	25%	0	0%	0	0%	0	0%
6	0	0%	1	11%	0	0%	0	0%	0	0%	1	11%
7	1	3%	0	0%	0	0%	0	0%	0	0%	1	3%
8	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
<b>TOTAL</b>	9		2		7		5		3		4	



**Average Counts for each Segment:**

1. Plymouth Ave – MLK St to Alexander St (East) 2.333
2. Plymouth Ave – MLK St to Argentina Dr (West) 1
3. Alexander St – Plymouth to Cambridge (North) 0
4. Alexander St – Plymouth to Cambridge (South) 0.5
5. Argentina Dr – Plymouth to Santa Barbara Dr (North) 0.5
6. Argentina Dr – Plymouth to Santa Barbara Dr (South) 0.333
7. Plymouth Ave – Hall St to Alexander St (East) 0.3333
8. Plymouth Ave Hall St to Argentina Dr (West) 0

**FINDINGS**

A few conclusions can be drawn from the data derived during the parking study. The section of Plymouth with the most parked cars within the study limits is the segment that spans from Martin Luther King JR Street SE to Alexander Street SE, with an average of 2.333 cars parked. The section of Plymouth from Hall Street to Argentina Street had 0 cars parked on the street the entire duration of the study. The cars were usually parked within the mid-block segments rather than on the outskirts or the block. There seems to be more cars in the morning than in the evening on Plymouth Avenue. Some of these cars parked were noted to be for deliveries or landscaping services, but were still counted as on-street parking.