

## Memorandum

To: Koble Creative Architecture, LLC.  
From: Melissa Webb, PE  
Date: September 12, 2023  
Subject: **Parking Modification Review – Milwaukie Cottage Development**



This memorandum is written to summarize a parking analysis performed for the proposed redevelopment of a site located at 9815/9833 SE 17<sup>th</sup> Avenue in Milwaukie, Oregon. The parking analysis will be used to address Milwaukie Municipal Code (MMC) Section 19.605.2 *Quantity Modifications and Required Parking Determinations*, in which the applicant seeks an increase in the total required on-site parking spaces per City code section 19.605.1 *Minimum and Maximum Requirements*.

The purpose of parking analysis is to justify the proposed vehicle parking supply of 61 spaces due to the expected traffic patterns of this site by demonstrating that the proposed development requires more than the maximum off-street parking established by the City, and that the proposed development can operate efficiently without significant, adverse impacts to the surrounding neighborhood.

## Project Description

The proposed development will include the construction of a 41-unit cottage cluster development, and all units will be either two or three-bedroom residential units. The site is located west of SE 17<sup>th</sup> Avenue, north of SE McBrod Avenue, and south of SE Waverly Drive, and is zoned Moderate Density Residential (R-MD) according to the City of Milwaukie zoning. The site is expected to serve residents of the development and their visitors. A vicinity map showing the project site outline in yellow is shown in Figure 1. A site plan is included as an attachment to this memorandum.



Figure 1: Project Location (image from Google Earth)

### Vicinity Roadways

SE 17<sup>th</sup> Avenue is an arterial roadway with a two-to-four-lane cross-section and a posted speed of 35 mph. Curbs and sidewalks are provided intermittently along both sides of the roadway, and a striped bicycle lane is provided on the east side of the roadway. A multi-use path is provided along the west side of the roadway. Parking is not permitted along either side of SE 17<sup>th</sup> Avenue.

SE McBrod Avenue is a local roadway with a two-lane cross-section and a posted speed of 20 mph. West of SE 17<sup>th</sup> Avenue, the roadway ends in a cul-de-sac and provides access to eight single-family houses. Curbs and sidewalks are provided intermittently along both sides of the roadway, and there are no striped bicycle lanes along the roadway. Parking is permitted along both sides of SE McBrod Avenue west of SE 17<sup>th</sup> Avenue. A majority of the roadway west of SE 17<sup>th</sup> Avenue has a steep grade as well as multiple curves.

### City of Milwaukie Maximum Parking Standards

Based on MMC Table 19.605.1, the maximum off-street parking supply for a cottage cluster residential use is 1.0 spaces per dwelling unit. Therefore, the maximum allowed off-street parking supply for the proposed development is 41 spaces.

Section 19.605.2 allows for the modification of the maximum parking requirements shown in Table 19.605.1. The applicant seeks an increase in parking from 41 spaces to 61 spaces.



## Parking Generation

Cottage cluster housing is a type of development that allows for multiple small-scale dwelling units, either attached or detached, grouped together around shared open space. According to the City of Milwaukie Cottage Cluster Design Standards<sup>1</sup>, cottage cluster developments in the R-MD zone should be detached cottages with a minimum of 3 and a maximum of 12 dwelling units per cluster.

The projected parking demand that will be generated as a result of the proposed development was estimated using parking rates from the 5<sup>th</sup> edition of the *Parking Generation Manual*<sup>2</sup>. Upon reviewing the manual, no data for cottage units was provided. The closest related land use within the current version of the manual is land use code 220, *Multifamily Housing (Low-Rise)*. The parking generation was estimated based on the number of bedrooms rather than the number of dwelling units to reflect that many of the cottages are likely to be occupied by families with more than one vehicle per household. Table 1 shows a parking generation summary. Detailed parking generation calculations are included as an attachment to this memorandum.

**Table 1: Parking Generation Summary**

Land Use	ITE Code	Size	Average Peak Parking Demand	Parking Rate
Multifamily Housing (Low-Rise)	220	101 bedrooms	67 spaces	0.66 spaces/bedroom

The maximum parking requirement according to MMC Table 19.605.1 is 41 spaces, which is less than the multifamily housing average peak parking demand.

## Parking Quantity Requirements in Other Jurisdictions

As cottage cluster housing is a newer model of single-family housing, many jurisdictions do not specifically mention this land use in their development codes. Upon review of several jurisdictions throughout Oregon, the following were found to have cottage cluster parking requirements in their respective development codes. Table 2 shows a summary of each jurisdiction (including the City of Milwaukie) and the minimum and maximum parking requirements.

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<sup>1</sup>[https://www.milwaukieoregon.gov/sites/default/files/fileattachments/planning/page/123753/design\\_standards\\_form\\_cottages\\_revised.pdf](https://www.milwaukieoregon.gov/sites/default/files/fileattachments/planning/page/123753/design_standards_form_cottages_revised.pdf)

<sup>2</sup> Institute of Transportation Engineers (ITE), *Parking Generation Manual*, 4<sup>th</sup> Edition, 2010; 5<sup>th</sup> Edition, 2019.



**Table 2: Parking Requirements Summary**

Jurisdiction	Code Reference	Minimum Parking Spaces	Maximum Parking Spaces
City of Happy Valley	Table 16.43.030-1	1 per dwelling unit	None
City of Tualatin	TDC 73C.100	1 per dwelling unit	None
City of Sherwood	16.94.020	1 per dwelling unit	None
City of Eugene	EMC 9.6410	1 per dwelling unit	None
City of Milwaukie	MMC 19.605.1	0.5 per dwelling unit	1.0 per dwelling unit

As shown in Table 2, the jurisdictions which specifically mention cottage cluster parking requirements in their developments all require a minimum of one parking space per dwelling unit and do not specify a maximum number of spaces, with the exception of the City of Milwaukie.

## Proposed Parking Requirements

All units of the 41-unit cottage cluster development will be either two or three-bedroom residential units. The parking requirements in the MMC do not take into consideration the size of the dwelling unit: a studio or one-bedroom cottage has the same parking standards as a two-or three-bedroom cottage. Given that the development is composed entirely of two-and three-bedroom cottages, it is reasonable to expect that every unit will have at least one car. In addition, a residential area is likely to have guests which would warrant additional spaces for guest parking.

The applicant has proposed a total of 61 parking spaces to accommodate 41 dwelling units (a total of 101 bedrooms), which is a parking rate of 0.60 spaces/bedroom. This parking rate is below the average rate calculated for multifamily housing shown in Table 1.

## Satisfaction of Approval Criteria (MMC 19.605.2.C)

The MMC Section 19.605.2 *Quantity Modifications and Required Parking Determinations* defines several approval criteria in Section 19.605.2.C for modifications to increase the amount of maximum allowed parking. The criteria are shown below in italics, with responses following:

- All modifications and determinations must demonstrate that the proposed parking quantities are reasonable based on existing parking demand for similar use in other locations; parking quantity requirements for the use in other jurisdictions; and professional literature about the parking demands of the proposed use.*

**Response:** Parking demands of multifamily housing units were referenced from the *ITE Parking Generation Manual*, which showed an average parking rate of 0.66 spaces/bedroom. The applicant proposes a parking rate of 0.60 spaces/bedroom which is less than the rate calculated from the *Parking Generation Manual*.



3a. *The proposed development has unique or unusual characteristics that create a higher-than-typical parking demand.*

**Response:** All units of the 41-unit cottage cluster development will be either two or three-bedroom residential units. Given that the development is composed entirely of two-and three-bedroom cottages, it is reasonable to expect that every unit will have at least one car. In addition, a residential area is likely to have guests which would warrant additional spaces for guest parking.

3b. *The parking demand cannot be accommodated by shared or joint parking arrangements or by increasing the supply of spaces that are exempt from the maximum amount of parking allowed under Subsection 19.605.3.A.*

**Response** The proposed development is within a residential area and does not have any adjacent shared or joint parking areas. On-street parking is not allowed on SE 17<sup>th</sup> Avenue. Limited on-street parking is possible on SE McBrod Avenue; however, the curving of the street can cause parking to be potentially unsafe due to sight distance restrictions. The roadway also features a steep grade which can be difficult for residents/guests with limited mobility to navigate.

3c. *The requested increase is the smallest increase needed based on the specific circumstances of the use and/or site.*

**Response:** The proposed parking ratio of 0.60 spaces/bedroom is below the average rate shown in the *Parking Generation Manual*. It allows for one parking space per household and an additional 0.5 spaces per household that could accommodate guests and deliveries in the development as well as providing some additional capacity for some households to have more than one vehicle.

## Conclusions

A total of 61 parking spaces are proposed for the cottage cluster development, which requires an increase of approximately 50 percent above the allowance in the MMC. The MMC allows for the modification of the maximum parking requirements provided that the approval criteria in Section 19.605.2.C is met.

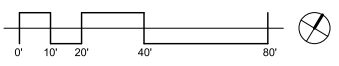
The projected parking generation based on ITE rates for similar land uses shows that the proposed parking supply of 61 spaces is appropriate to serve the proposed use. Parking demand data shows that the proposed parking ratio of 0.60 spaces/bedroom is below the ITE parking ratio shown for similar land uses.

The City of Milwaukie's approval criteria for a modification of the maximum parking requirements is met for the proposed cottage cluster development. The available parking data supports the proposed parking supply increase and demonstrates that such a demand is reasonable for this type of facility.





**1 / PROPOSED SITE PLAN**  
 scale: 1" = 20'-0"



ZONING INFO		PARKING INFO		LEGEND	
PER TABLE 19.505.4.C.1		PER TABLE 19.505.4.C.1		TREE ##	SEE AROBORIST'S REPORT FOR COMPLETE TREE INVENTORY.
ZONE	R-MD MODERATE DENSITY RESIDENTIAL	ZONE	R-MD		TREE TO BE REMOVED. SEE TREE PRESERVATION PLAN SHEET L1
SETBACKS		41 ATTACHED COTTAGES			UNIT ENTRY
FRONT	10' MIN. 20' MAX	AUTOMOBILE PARKING			
SIDE	5'	REQ'D	0.5 CARS/HOME 41 x 0.5 = 21 CARS		
REAR	5'	PROVIDED	61 CARS 1.5 CARS/HOME		
BUILDING HEIGHT		BICYCLE PARKING			
MAX	25' OR 2 STORIES	REQ'D LONG TERM	1.5 BIKES/HOME 41 x 1.5 = 62 BIKES		
BETWEEN 5' & 10' OF REAR LOT LINE	15' MAX	PROVIDED	40 IN-UNIT BIKES 24 IN BIKE SHED 64 TOTAL BIKES		
IMPERVIOUS AREA		REQ'D GUEST	0.5 BIKES/HOME 42 x 0.5 = 21 BIKES		
MAX ALLOWED	60%	PROVIDED	22 BIKES		
PROPOSED	53%				
VEGETATION					
MINIMUM	35%				
PROPOSED	47%				

preliminary  
 not for  
 construction

DATE: 09/01/2023  
 DRAWN BY: KR  
 JOB NO: 22-042  
 REV NO:

PROPOSED SITE PLAN

**A101**



## PARKING GENERATION CALCULATIONS

*Land Use:* Multifamily Housing (Low-Rise)  
*Land Use Code:* 220  
*On a:* Weekday (Monday - Friday)  
*Setting/Location:* General Urban/Suburban (No Nearby Rail Transit)  
*Variable:* Bedrooms  
*Variable Value:* 101

### WEEKDAY

*Peak Period* 11:00 PM - 6:00 AM  
*Number of Study Sites* 45  
*Avg. Size of Study Sites* 215 bedrooms  
*Avg. Peak Period Parking Demand* 0.66 vehicles per bedroom  
*Standard Deviation* 0.15  
*Coefficient of Variation* 23%  
*Range* 0.37-1.38 vehicles per bedroom  
*85th Percentile Rate:* 0.86 vehicles per bedroom  
*33rd Percentile Rate:* 0.61 vehicles per bedroom

Peak Parking Demand	<b>67</b>
85th Percentile Parking Demand	<b>87</b>

Source: *Parking Generation Manual*, 5th Edition