

TECHNICAL MEMORANDUM

DATE: January 18th, 2023

TO: Emma Porricolo and Don Hardy, City of Canby

FROM: Kevin Chewuk and Eileen Chai | DKS Associates

SUBJECT: Canby Manzanita Street Apartments
Transportation Analysis Letter

EXECUTIVE SUMMARY

A summary of key findings from the Canby Manzanita Street Apartments Transportation Analysis Letter is provided below:

- **Expected Net Change in Vehicle Trips:**

- The proposed use results in a net decrease of 30 a.m. peak trips, 28 p.m. peak trips, and 50 daily trips when compared to the previous use for the site.
- The adjacent local streets (i.e., NE 15th Avenue and N Manzanita Street) will maintain a level of traffic volume that is consistent with their classifications and planned growth from the TSP.

- **Proposed Site Access:**

- Access to the site is proposed via two driveways connecting to NE 15th Avenue and N Manzanita Street.
- Complies with the City's spacing standard for local streets.
- Preliminary sight distance evaluation indicates that sight distance is adequate. However, prior to occupancy, sight distance at the access point will need to be verified, documented, and stamped by a registered professional Civil or Traffic Engineer licensed in the State of Oregon.

- **Proposed Circulation:**

- Two driveways will provide access for vehicles and bicycles to the on-site parking areas.
- NE 15th Avenue and N Manzanita Street are improved and exceed the City's cross-section standard for Local streets. The applicant should reconstruct the existing substandard sidewalk along both frontages with a 6-foot sidewalk.
- The site will include sidewalk connections from the building entrances to the parking areas, and walkways connecting to 15th Avenue and N Manzanita Street.
- These facilities can adequately accommodate the expected additional vehicle, pedestrian, and bicycle trips.

- **Transportation Approval Criteria and Livability Measures:**

- The proposed site adequately addresses each transportation approval criteria and livability measure.

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INTRODUCTION

This memorandum summarizes the transportation impacts associated with the proposed Manzanita Street Apartments development located on 1477 N Manzanita Street in Canby, Oregon. The proposed site will consist of two phases with 23 residential units in Phase 1 and an additional 12 units in a later Phase 2. This memorandum only addresses Phase 1 units. Evaluation of the traffic impacts of Phase 2 are to be evaluated at a later date when the Phase 2 development is undergoing land use approval.

LEVEL OF TRANSPORTATION ANALYSIS REQUIRED

The City requires transportation impacts to be assessed with any proposed development that will increase trips on the transportation system, consistent with requirements in the Canby Municipal Code 16.08.150. These transportation studies implement Sections 660-012-0045(2)(a), -0045(2)(b) and -0045(2)(e) of the State Transportation Planning Rule (TPR), which require the City to adopt access spacing and performance standards and a process to apply conditions to land use proposals to minimize impacts on and protect transportation facilities. These standards are specified in the Canby Municipal Code 16.08.160, with each proposed development approval dependent on meeting the specified criteria. In addition, the City assesses livability measures to each study for neighborhood traffic and pedestrian and bicycle circulation.

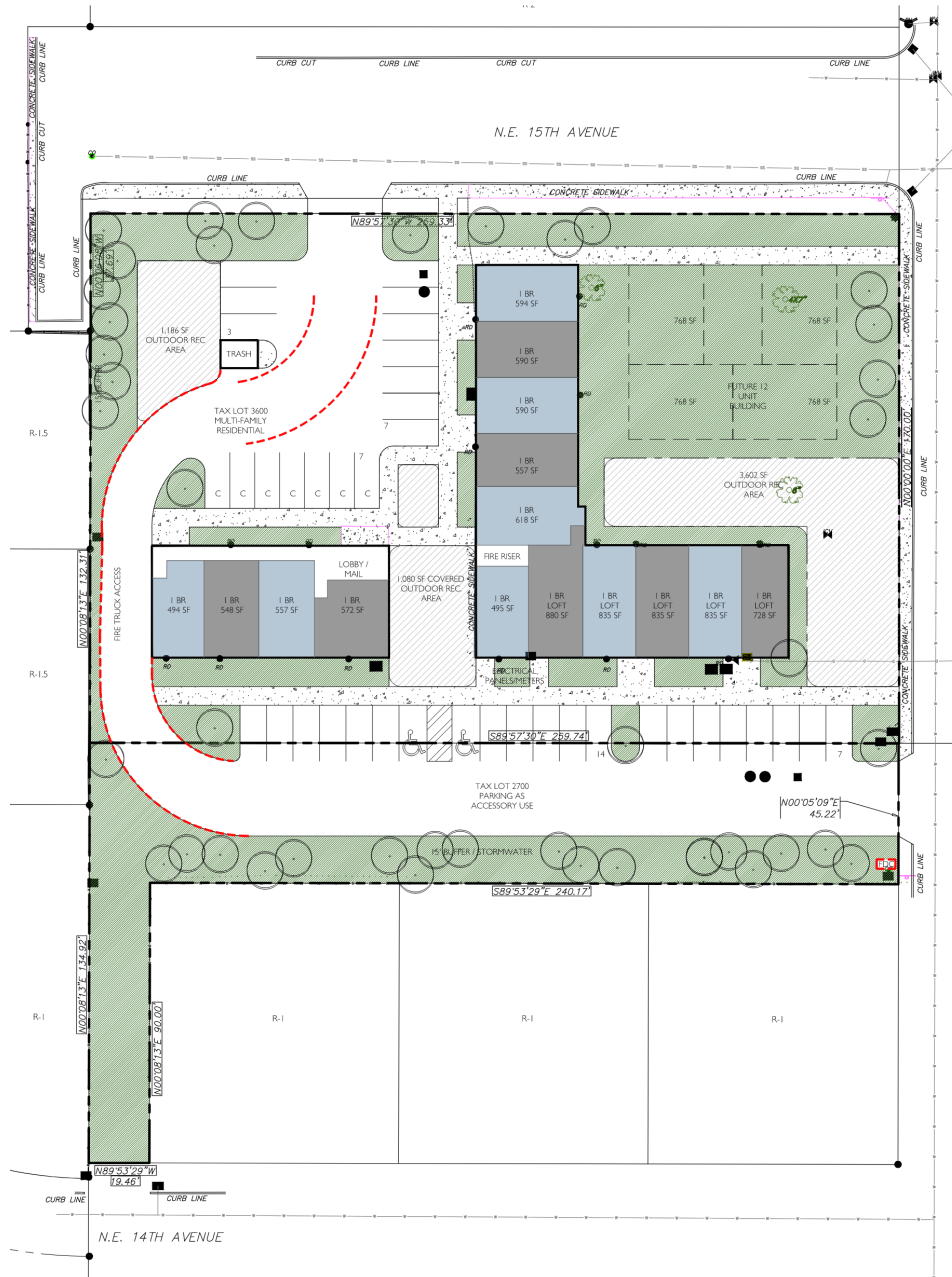
Transportation impacts are assessed by comparing the adopted standards to conditions before and after the proposed development is constructed. In general terms, a full transportation impact analysis (TIS) is required of developments that are presumed to generate a significant number of additional trips (i.e., the site is expected to generate 25 or more trips during the AM and/or PM peak hours or 250 or more daily trips), while those that will not provide analysis consistent with the City Transportation Analysis Letter (TAL) requirements. The key difference between the two levels of analysis is that the TAL does not require peak hour intersection operations to be analyzed. Peak hour intersection operations will not be degraded by proposed developments that generate fewer than 25 AM and/or PM peak trips since these trips are distributed system wide and do not all impact a single location, including intersections and roadway segments. Therefore, these proposed developments are consistent with the approval criteria 16.08.160.F (i.e., adopted intersection mobility standards) and only need to provide a level of analysis that is consistent with the other specified approval criteria included in the Canby Municipal Code 16.08.160, and the various neighborhood traffic and pedestrian and bicycle livability measures.

The proposed development will not result in a significant increase of additional trips (i.e., the site is expected to generate 25 or fewer net new trips during the AM and/or PM peak hours and fewer than 250 net new daily trips), so this analysis is consistent with the City TAL requirements.

PROJECT DESCRIPTION

The proposed project is located on the southwest corner of the N Manzanita Street/NE 15th Avenue intersection in Canby, Oregon. The proposed site includes a vacant church with an approved conditional use permit for a daycare/pre-school with up to 50 students. The approved conditional use permit for the daycare/pre-school dates back to 1978. This space will be converted into multifamily residential units constructed in two phases, with 23 units in Phase 1 and an additional 12 units in Phase 2, totaling 35 dwelling units, although only Phase 1 is included with the current application. The proposed site plan can be seen in Figure 1.

FIGURE 1: SITE PLAN



SITE ACCESS AND CIRCULATION

SITE ACCESS

Access to the site is proposed via two driveways, one connecting to NE 15th Avenue and one to N Manzanita Street. The City of Canby has jurisdiction of both streets and applies a functional classification of "Local Street" to them.

ACCESS SPACING

City standards require that accesses along a Local Street must be a minimum of 10 feet between driveways and 50 feet between roadway to driveway along the same side of the street¹. The two existing site driveways to NE 15th Avenue are proposed to be consolidated into a single driveway to be located approximately 200 feet from N Manzanita Street, complying with the spacing standard. The existing driveway on N Manzanita Street will be maintained and will be approximately 180 feet from NE 15th Avenue to the north and approximately 120 feet from NE 14th Avenue to the south, also complying with the spacing standard.

SIGHT DISTANCE

The sight triangle at intersections should be clear of objects (large signs, landscaping, parked cars, etc.) that could potentially limit vehicle sight distance. In addition, all proposed accesses should meet AASHTO sight distance requirements as measured from 15 feet back from the edge of pavement².

The proposed driveways would require a minimum of 225 feet of sight distance based on a 20 mile per hour design speed. Preliminary sight distance evaluation from the driveway on NE 15th Avenue indicates that the connection would be expected to provide sight distance to N Manzanita Street looking to the east. Preliminary sight distance evaluation from the driveway on N Manzanita Street indicates that the connection would be expected to provide sight distance of over 600 feet looking to the north and south.

Prior to occupancy, sight distance at the access point will need to be verified, documented, and stamped by a registered professional Civil or Traffic Engineer licensed in the State of Oregon.

¹ Canby Municipal Code 16.46.030. Retrieved January 2023.

² AASHTO – *Geometric Design of Highways and Streets*, 7th edition, 2018.

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SITE FRONTAGE

The proposed site has frontage along NE 15th Avenue and N Manzanita Street. As documented earlier, the City of Canby has jurisdiction over both streets and applies a functional class of “Local Street” to them.

The applicant will be required to design and construct half-street improvements along the entire site frontage to City standard. NE 15th Avenue and N Manzanita Street are improved and exceed the City’s cross-section standard for Local streets, with a 40-foot paved width (the current standard requires a 34-foot paved width for Local streets). However, the existing sidewalk along the frontage is substandard and the applicant should reconstruct with a 6-foot sidewalk. The existing roadway, with the frontage pedestrian improvements, can adequately accommodate the additional vehicle, pedestrian, and bicycle traffic expected.

INTERNAL SITE CIRCULATION

The proposed site plan (shown earlier in Figure 1) shows two driveways connecting to NE 15th Avenue and N Manzanita Street. The proposed driveways will be full access, allowing for ingress/egress to the on-site parking areas for vehicles and bicycles and will provide adequate circulation to the surrounding existing roadway network and internally within the site.

The site plan also includes proposed sidewalks from NE 15th Avenue and N Manzanita Street connecting to the building entrances and parking areas.

TRIP GENERATION

The amount of new vehicle trips generated by the previous and proposed uses were estimated using the trip generation estimates based on ITE Code 565 (Day Care Center) and ITE Code 220 (Low-Rise Multifamily Housing) using the latest version of the ITE Trip Generation Manual (11th Edition). Trip generation estimates are provided for daily, morning, and evening peak hours, and are summarized in Table 1.

The proposed use will be expected to generate 9 a.m. peak trips, 12 p.m. peak trips, and 155 daily trips, while the previous use generates 39 a.m. peak trips, 21 p.m. peak trips, and 205 daily trips. The proposed use results in a net decrease of 30 a.m. peak trips, 28 p.m. peak trips, and 50 daily trips when compared to the previous use and is therefore consistent with the transportation approval criteria 16.08.160.F (i.e., adopted intersection mobility standards).

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TABLE 1: NET TRIP GENERATION FOR THE PROPOSED PROJECT

LAND USE - SIZE	AM PEAK			PM PEAK			DAILY TRIPS
	IN	OUT	TOTAL	IN	OUT	TOTAL	
PREVIOUS USE							
DAYCARE CENTER (ITE CODE 565) - 50 STUDENTS	21	18	39	19	21	40	205
PROPOSED USE							
LOW-RISE MULTIFAMILY HOUSING (ITE CODE 220) - 23 DWELLING UNITS	2	7	9	7	5	12	155
NET CHANGE (PROPOSED USE - PREVIOUS USE)	-19	-11	-30	-12	-16	-28	-50

NEIGHBORHOOD TRIPS

A neighborhood trip impact is triggered when a proposed site adds 30 peak trips or 300 daily trips to a residential local street³. As shown earlier in Table 1, the proposed use is expected to generate fewer peak and daily trips when compared to the previous use, well under this standard.

APPROVAL CRITERIA AND LIVABILITY MEASURES

The following sections summarize how the proposed project adequately addresses the transportation approval criteria and the livability measures for neighborhood traffic and pedestrian and bicycle circulation.

TRANSPORTATION APPROVAL CRITERIA

The Canby Municipal Code 16.08.160 includes transportation approval criteria that each proposed development must satisfy. This includes criteria B, D, E, and F, as summarized below. While Criteria A, C and E.3 are not transportation related criteria, they are still applicable for approval. See the respective documents or plans for more details on how this proposed development meets Criteria A, C and E.3.

A. ADEQUATE STREET DRAINAGE, AS DETERMINED BY THE CITY.

Non-transportation related criteria. See respective project documents/plans for information.

B. SAFE ACCESS AND CLEAR VISION AT INTERSECTIONS, AS DETERMINED BY THE CITY.

³ Canby Municipal Code 16.08.150.H.

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The existing driveway that is proposed to be maintained to N Manzanita Street is approximately 180 feet from NE 15th Avenue to the north and approximately 120 feet from NE 14th Avenue to the south, complying with the spacing standard. The two existing site driveways to NE 15th Avenue are proposed to be consolidated into a single driveway to be located approximately 200 feet from N Manzanita Street, also complying with the spacing standard.

Prior to occupancy, sight distance at the access points will need to be verified, documented, and stamped by a registered professional Civil or Traffic Engineer licensed in the State of Oregon. Preliminary sight distance evaluation from the driveway on NE 15th Avenue indicates that the connection would be expected to provide sight distance to N Manzanita Street looking to the east. Preliminary sight distance evaluation from the driveway on N Manzanita Street indicates that the connection would be expected to provide sight distance of over 600 feet looking to the north and south.

C. ADEQUATE PUBLIC UTILITIES, AS DETERMINED BY THE CITY.

Non-transportation related criteria. See respective project documents/plans for information.

D. ACCESS ONTO A PUBLIC STREET WITH THE MINIMUM PAVED WIDTHS AS STATED IN SUBSECTION E BELOW.

Access to the site is proposed via two driveways connecting to NE 15th Avenue and N Manzanita Street. The proposed driveways will be full access, allowing for ingress/egress to the on-site parking areas for vehicles and bicycles and will provide adequate circulation to the surrounding existing roadway network and internally within the site.

The site plan also includes proposed sidewalks from NE 15th Avenue and N Manzanita Street connecting to the building entrances and parking areas.

E. ADEQUATE FRONTAGE IMPROVEMENTS AS FOLLOWS:

1. For local streets and neighborhood connectors, a minimum paved width of 16 feet along the site's frontage.

The proposed site has frontage along NE 15th Avenue and N Manzanita Street. NE 15th Avenue and N Manzanita Street are improved and exceed the City's cross-section standard for Local streets, with a 40-foot paved width. The applicant should reconstruct the existing substandard sidewalk along the frontages with a 6-foot sidewalk. The existing roadway, with the frontage pedestrian improvements, can adequately accommodate the additional vehicle, pedestrian, and bicycle traffic expected.

2. For collector and arterial streets, a minimum paved width of 20 feet along the site's frontage.

Not applicable – NE 15th Avenue and N Manzanita Street are local streets.

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3. For all streets, a minimum horizontal right-of-way clearance of 20 feet along the site's frontage.

Non-transportation related criteria. See respective project documents/plans for information.

F. COMPLIANCE WITH MOBILITY STANDARDS IDENTIFIED IN THE TSP. IF A MOBILITY DEFICIENCY ALREADY EXISTS, THE DEVELOPMENT SHALL NOT CREATE FURTHER DEFICIENCIES.

The proposed use results in a net decrease of 30 a.m. peak trips, 28 p.m. peak trips, and 50 daily trips when compared to the previous use and met criteria for a TAL level of analysis. Peak hour intersection operations will not be degraded by proposed developments that generate fewer than 25 AM and/or PM peak trips since these trips are distributed system wide and do not all impact a single location, including intersections and roadway segments. Proposed developments that meet the TAL criteria are deemed consistent with this approval criteria (i.e., adopted intersection mobility standards).

LIVABILITY CRITERIA

In addition, each project must comply with livability measures for neighborhood traffic and pedestrian and bicycle circulation. A summary is provided below for the proposed project.

NEIGHBORHOOD TRAFFIC

The proposed use is expected to generate fewer peak and daily trips when compared to the previous use, well under the neighborhood trip impact standard. The adjacent local street (i.e., N Manzanita Street) will connect the site with nearby collector and arterial streets and maintain a level of traffic volume that is consistent with the local street classifications (i.e., under 1,200 daily trips).

PEDESTRIAN AND BICYCLE CIRCULATION

The proposed site has frontage along NE 15th Avenue and N Manzanita Street. Both streets have a sidewalk, and bicyclists share the roadway with motor vehicles, consistent with the City cross-section standard for Local streets. Although the sidewalk along the frontages must be widened to 6-feet to comply with the City's design standard for local streets. The existing roadway, with the frontage pedestrian improvements, can adequately accommodate the additional vehicle, pedestrian, and bicycle traffic expected.

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TRANSPORTATION CONDITIONS OF APPROVAL

The following is a summary of the transportation conditions of approval:

1. The development shall design and reconstruct the existing sidewalk along the NE 15th Avenue frontage with a 6-foot sidewalk.
2. The development shall design and reconstruct the existing sidewalk along the N Manzanita Street frontage with a 6-foot sidewalk.
3. Minimum sight distance requirements shall be met at all site accesses. Sight distances should be verified in the final engineering/construction stages of development.