



DATE: December 22, 2022
REQUEST: Barlow Trail Veterinary Clinic, Transportation Review
FILE NO: 22-041 DR/ADJ
REVIEWER: Dock Rosenthal, PE, DKS Associates

DKS Associates has reviewed the traffic impact analysis¹ and site plan for the Barlow Trail Veterinary Clinic. The proposed development application would construct 5,772 square foot veterinary clinic. The project site is located just south of Pioneer Boulevard (US 26) and will connect to the transportation system via access at Strauss Avenue and access at Junker Street.

The general comments and listing of recommended conditions of approval are based on a review of the impact study and site plan.

DEVELOPMENT TRANSPORTATION IMPACT REVIEW

Key comments and issues related to the proposed development's transportation impact analysis include:

Existing

- Study Intersections
 - Pioneer Boulevard at Strauss Avenue
 - Pioneer Boulevard at Junker Street
 - Site access at Strauss Avenue
 - Site access at Junker Street
- Existing traffic volumes on US 26 were seasonally adjusted based on the ATR (automatic traffic recorder) 26-003 along US 26 near Gresham, Oregon. The resulting adjustment factor for counts collected in November was 1.135.
- Traffic operations were evaluated using a combination of HCM 6th edition and HCM 2000 for signalized intersections and HCM 6th edition for two-way stop-controlled intersections. All study

¹ Barlow Trail Veterinary Clinic Traffic Impact Study, Ard Engineering, December 6, 2022.

intersections operate at an acceptable volume to capacity ratios during the 2022 AM and PM peak hours.

- Crash data from January 2016 to December 2020 was analyzed, no systemic safety issues were identified.

Future (2024) Background Condition

- A growth rate of 2.19 percent per year was applied to the existing 2022 volumes to account for background growth. Additionally, the following 15 in-process developments were included:
 - Mt Hood Senior Living
 - The Pad
 - Cedar Heights Views
 - Shaylee Meadows
 - Trimble PD
 - Bornstedt Views
 - Cascade Creek Multifamily
 - Tickle Creek Village
 - Double Creek Condos
 - Jewelberry Ridge
 - Jewelberry Meadows
 - Sandy Plaza Apartments
 - FreeUp Storage
 - 38015 US 26 mixed-use development
 - Johnson RV
- Both study intersections operate at an acceptable volume to capacity ratios during the 2024 AM and PM peak hours

Future (2024) With Project Condition

- ITE Trip Generation Code 640 Animal Hospital/Veterinary Clinic was used for the trip generation estimate.
- The proposed project would result in additional vehicle trips: 21 (14 in/7 out) AM peak hour vehicle trips, 20 (8 in/12 out) PM peak hour vehicle trips and 124 weekday trips.
- 2024 Total Traffic Conditions - All study intersections would operate at an acceptable volume to capacity ratios and LOS (level of service) standards with the addition of vehicle trips from the proposed project.
- Volumes on the local street (Strauss Avenue/Junker Street) were evaluated to ensure that they meet the City of Sandy's 1000 vehicle per day threshold. The analysis found that background plus site trips would be approximately 140 vehicles per day in 2024.
- Strauss Avenue and Pioneer Boulevard (US 26) is currently signalized. Signal warrants were not evaluated at other intersection but judged to be insufficient to trigger signal warrants.
- Turn warrants were considered but turning movement traffic does not meet the minimum volume to warrant turn lanes.
- Stopping site distance is met for the site access driveway to Strass Avenue but intersection site distance is not. Vehicles approaching from Strauss Avenue to the north or Pioneer Boulevard

(US 26) to the west may need to slow or stop due to a vehicle turning out of the site onto Strass Avenue. Due to this potential conflict the site access along Strass Avenue is recommended to be left in only with no left out permitted.

Mitigation

- The site access along Strass Avenue is recommended to be left in only with no left out permitted.

RECOMMENDED CONDITIONS OF APPROVAL

The following conditions of approval are recommended based on a review of the traffic impact study and site plan:

1. Heavy vehicle percentages that should be assigned to the southbound approach at Strauss Avenue and Pioneer Boulevard (US 26) are assigned to the westbound approach (which has no volume). The AM and PM HCM analysis at Strauss Avenue and Pioneer Boulevard (US 26) shall be updated and reflected in the analysis results section. This update is not expected to significantly change the findings of the HCM analysis but due to the high proportion of heavy vehicles in the AM peak period it needs to be updated for completeness.
2. The development shall contribute Transportation System Development Charges toward citywide impacts.
3. Site frontage improvements shall follow the cross-section dimensions included in the Junker Street Circulation plan.
4. Minimum sight distance requirements shall be met at all site driveways. Sight distances should be verified in the final engineering/construction stages of development.