

I. EXECUTIVE SUMMARY

This transportation impact analysis has been prepared for the Discovery Pointe Master Plan in Ridgefield, Washington. The site comprises approximately 48 acres south of NW 10th (279th) Street and 30 acres north of NW 10th (279th) Street. The site is zoned for Master Planned Business Park, and is currently vacant.

Several capacity improvements in the area are planned or funded for construction. These include improvements to the Pioneer Street/I-5 interchange and the new interchange at 219th Street. In addition, several other improvements are anticipated to be constructed by the 2010 analysis year. These projects have been assumed in the analysis, and include a realignment of Pioneer Street and construction of a single-point interchange, realignment and signalization of the intersection of Pioneer Street with 65th Avenue, a traffic signal at the intersection of Pioneer Street at S. 56th Place, and a roundabout at the intersection of Pioneer Street and 45th Avenue.

Crash data for the study area intersections and roadways were obtained from Washington State Department of Transportation staff for January 1999 through December 2003. Crash rates for the study area intersections are less than 0.5, below the 1.0 threshold for a high-risk intersection.

Future traffic volumes were estimated by adding background growth and in-process traffic. Background growth of 3% per year is estimated from the Southwest Regional Transportation Council's model. Six years of growth were added. City of Ridgefield staff identified 14 in-process and proposed sites. Project generated traffic has been added to existing volumes.

Development of the Master Plan is expected to include 180,000 SF of retail space, 281,000 SF of office space and 309,000 SF of light industrial buildings. Trip generation for these assumed uses was estimated utilizing the Institute of Transportation Engineers (ITE) *Trip Generation Manual*, Seventh Edition. Adjustments to the retail trip generation were made for pass-by and diverted link trips in accordance with ITE data presented in the *Trip Generation Handbook*, Second Edition. The assumed mix of uses could generate a total of up to 15,119 daily and 1,597 peak hour new trips.

All driveway locations have been planned to maintain a minimum of 185 feet spacing, measured between centerlines. Intersection sight distances for driveway and street intersections were reviewed in accordance with recommendations in AASHTO's *A Policy on Geometric Design of Highways and Streets*, 2001 Edition. All access locations on 65th Avenue require 515 feet of sight distance based on the existing 50 mph posted speed. The proposed driveways and existing 10th Street intersection locations meet or exceed this standard.

Intersection capacity calculations found that all study area intersections can operate at acceptable levels of service with the planned improvements and recommended mitigation measures. The intersections of 65th Avenue with 10th Street and the primary retail driveway are anticipated to operate at a level of service "F" during the PM peak hours with the assumed development. This level of service is based on the long delays experienced for the low volume left turns to 65th Avenue. Although signal warrants may be met for the PM peak hour, a traffic signal is not recommended. It is unlikely other warrants, such as 4- and 8-hour volumes, will be met. In addition, future development will likely provide additional cross circulation to the south for the retail site and an extension of Discovery Way north to

289th Street. A signal will likely be needed at the 289th Street intersection with 65th Street when this roadway is extended west over I-5.

Queuing calculations were prepared for the approaches to 65th Avenue and recommended turn lanes. These lanes should be provided with the minimum storage distances.

The following mitigation is recommended for the proposed Discovery Pointe Master Plan development:

1. Construct Discovery Way to provide two travel lanes and a center turn lane.
2. Install stop signs on the Discovery Way approaches to 10th Street.
3. Construct half-street improvements in accordance with City standards along 65th Avenue as parcels develop.
4. At the intersection of 65th Avenue with 10th Street, stripe a northbound left-turn lane with 100 feet of storage and an eastbound right-turn lane with 100 feet of storage.
5. Maintain a minimum of 185 feet separation between driveway centerlines, as practical on all public roadways fronting the site.
6. Provide two access locations for the retail area at the south end of the site. These access locations will be to 65th Avenue. One access to 65th Avenue could be eliminated if an easement or public street access is provided from the south with the interchange realignment project.
7. At the retail access to 65th Avenue, provide a northbound left-turn lane with storage of 100 feet, a southbound right-turn lane with storage of 100 feet plus appropriate taper, and separate left- and right-turn lanes on the driveway approach storage. The length of these lanes will depend on the use of the site and other access provided. It is recommended a minimum of 200 feet be provided.
8. At the proposed right-turn access to 65th Avenue for the retail site, provide a minimum throat length of 100 feet and a southbound right-turn lane extending from the full movement access. This will allow for conversion to a second southbound through lane in the future if needed.
9. Review traffic signal warrants at the retail access to 65th Avenue with each proposed use. A signal is not recommended based on the assumptions of this analysis.