

# Transportation Impact Analysis

## Annual Review Case: CPZ 2019-00002 NE 152<sup>nd</sup> Avenue

### Introduction

This report provides a transportation analysis of the proposed comprehensive plan amendment and zone change. The report identifies the likely localized and general transportation impacts and shows how applicable adopted transportation policies have or have not been met by the applicant's proposal. Subsequent development will need to comply with applicable county development regulations, including standards governing the design of access and those that ensure transportation system concurrency.

### Requested Amendment

The applicant is requesting to amend the Comprehensive Plan designation and zoning for the following parcel: 154246-000 (7.56 acres). The applicant proposes a comprehensive plan designation of Urban Low Density Residential (UL) with zoning of Residential (R1-6). The change would be from a comprehensive plan designation and zoning of Commercial and Community Commercial (CC) to Urban Low Density Residential (UL) comprehensive plan designation with Residential (R1-6) zoning. The subject site is 7.56 acres and located south of NE 93<sup>rd</sup> Street, east of NE 150<sup>th</sup> Avenue, and west of NE 152<sup>nd</sup> Avenue. NE 93<sup>rd</sup> Street & NE 150<sup>th</sup> Street are two-lane rural local roadways. NE 152<sup>nd</sup> Avenue is classified as a two-lane collector (C-2).

### Summary of Transportation Impact Findings

The proposed Comprehensive Plan map amendment is located in unincorporated area of Clark County. The applicant conducted a traffic impact analysis to evaluate the impacts to the transportation system as a result of the proposed map amendment. The applicant's analysis found that the transportation system will function at or below Clark County standards. However, the analysis concluded that one specific intersection will require a future signal, regardless of this proposal.

NE 152<sup>nd</sup> Avenue/NE 99<sup>th</sup> Street is an unsignalized intersection. To evaluate the future need of a signal at the intersection, Clark County Code relies on the Manual on Uniform Traffic Control Devices (MUTCD), which requires a signal warrant analysis. The transportation analysis demonstrates that re-designating and rezoning the property to a comprehensive plan designation of Urban Low Density Residential (UL) is consistent with county transportation policies. The proposed land use change would not significantly impact the transportation system. The transportation impact analysis shows that:

- The accepted Level-of-Service (LOS) for unsignalized intersections of regional significance per Title 40 Concurrency is LOS "E" [CCC 40.350.020.G.1.c].
  - The 20-year projected buildout for NE 99<sup>th</sup> St. at NE 152<sup>nd</sup> Ave. is LOS F for both A.M. & P.M. peak periods. [152<sup>nd</sup> Ave, Annual Review Rezone Traffic Impact Study, page 15].
- Accepted Level-of-Service for individual movements at each signalized intersection of regional significance in the unincorporated county area shall not exceed an average of two (2) cycle lengths or two hundred forty (240) seconds of delay (whichever is less). [CCC 40.350.020.G.1.b]

- The 20-year projected buildout for NE Padden Parkway at NE 152<sup>nd</sup> Ave. is 40 seconds and LOS D. [NE 152<sup>nd</sup> Ave. Annual Review Rezone Traffic Impact Study, page 15].
- Preliminary Signal Warrant Analysis
  - Based on the preliminary analysis of the unsignalized intersection of NE 99<sup>th</sup> St. at NE 152<sup>nd</sup> Ave., a traffic signal is needed at this intersection by the 2039 planning year with the existing zoning and the proposed zone change. [152<sup>nd</sup> Ave, Annual Review Rezone Traffic Impact Study, page 14].
- The maximum volume to capacity ratio for each roadway segment shall not exceed nine-tenths (0.9), when measured independently for each direction of travel. [CCC 40.350.020.G.1.a].
  - The 20-year projected roadway segment on NE 152<sup>nd</sup> Ave. from NE 99<sup>th</sup> St. to NE Padden Parkway is 1.29 in the A.M. peak, and 1.18 in the P.M. peak. [NE 152<sup>nd</sup> Ave. Annual Review Rezone Traffic Impact Study, page 16].
  - The existing zoning buildout is expected to generate 19 daily, 1 A.M. peak hour (0 ingress, 1 egress), and 2 P.M. peak hour (1 ingress, 1 egress) net new trips.
  - [152<sup>nd</sup> Ave, Annual Review Rezone Traffic Impact Study, page 15].
- The existing CC zoning is estimated to generate 2,462 daily, 142 A.M. peak hour (126 ingress, 16 egress), and 248 P.M. peak hour (116 ingress, 132 egress) net new trips. [152<sup>nd</sup> Ave, Annual Review Rezone Traffic Impact Study, page 8].
- The proposed R1-6 zoning is estimated to generate 538 daily, 64 A.M. peak hour (25 ingress, 39 egress), and 75 P.M. peak hour (42 ingress, 33 egress) net new trips. [152<sup>nd</sup> Ave, Annual Review Rezone Traffic Impact Study, page 8].
- The proposed comprehensive plan and rezone is expected to generate 1,924 less daily, 78 less A.M. peak hour (minus 101 ingress, 23 egress), and 173 less P.M. peak hour (minus 74 ingress, minus 99 egress) net new trips. [152<sup>nd</sup> Ave, Annual Review Rezone Traffic Impact Study, page 8].

Estimates of daily, A.M. peak hour, and P.M. peak hour trips generated by the build out of the existing and proposed zonings were developed from rates published in “Trip Generation, 10<sup>th</sup> Edition” (Institute of Transportation Engineers (ITE), 2017). Existing: Office Park AM peak hour trip rate is 1.44, PM peak hour trip rate is 1.07 (ITE code 750); Shopping Center AM peak hour trip rate is 0.94 (ITE code 820), PM peak trip hour rate is 3.81. Proposed: Single-Family Detached Housing AM peak hour trip rate is 0.74 (ITE code 210), PM peak hour trip rate is 0.99. Day Care Center AM peak hour trip rate is 11.00 (ITE code 565), PM peak hour trip rate is 11.12. [152<sup>nd</sup> Ave, Annual Review Rezone Traffic Impact Study, Appendix].

Finding: The proposed plan designation and zoning amendment will result in a net decrease in future trip generation potential of the study site. The zone change may be considered a down-zone with regard to traffic intensity of “Existing Zoning Build-Out” and 2039 “Proposed Zoning Build-Out”.

It will have no significant impact on the operation of area streets and intersections since it does not result in an increase in the peak hour or daily trip generation potential of the site. The intersection at NE 152<sup>nd</sup> Ave. and NE 99<sup>th</sup> St. will need to be improved to safely accommodate growth in the region. The map amendment and zone change will reduce the demand for a signal at the NE 152<sup>nd</sup> Ave./NE 99<sup>th</sup> St. intersection, as residential developments generate less stress on the transportation system than the current commercial zoning.

## **Compliance with Clark County Transportation Policy**

The following Framework Plan transportation policies (from the 20-Year Comprehensive Growth Management Plan 2015-2035) are relevant to this application:

### **Community Framework Plan**

Goal 5.0 Transportation states that “the Transportation Element is to implement and be consistent with the Land Use Element. The *Community Framework Plan* envisions a shift in emphasis of transportation systems from private vehicles to public transit (including high-capacity transit,) and non-polluting alternatives such as walking and bicycling. The following policies are to coordinate the land use planning, transportation system design and funding to achieve this vision.” [Framework Plan, page 17]. The following transportation policy applies to the proposed action:

“5.1.4 To reduce vehicle trips, encourage mixed land use and locate as many other activities as possible to be located within easy walking and bicycling distances from public transit stops.” [Framework Plan, page 17].

“5.1.7 Establish regional level-of-service (LOS) standards for arterials and public transportation that ensure preservation of the region’s (rural and urban) mobility while balancing the financial, social and environmental impacts.” [Framework Plan, page 17].

“5.1.8 Encourage a balanced transportation system and can be maintained at acceptable level-of-service.” [Framework Plan, page 18].

Findings: The applicant’s traffic study demonstrates that the proposed plan amendment will significantly reduce trips and improve the surrounding transportation system. The proposed Comprehensive Plan map amendment is consistent with the Community Framework Plan Goals and Policies.

### **Countywide Planning Policies (CWPP)**

**The GMA, under RCW 36.70A.210, requires counties and cities to collaboratively develop Countywide Planning Policies (CWPP) to govern the development of comprehensive plans. The WAC 365-196-305(1) defines “the primary purpose of CWPP is to ensure consistency between comprehensive plans of counties and cities sharing a common border or related regional issues. Another purpose of the CWPP is to facilitate the transformation of local governance in the urban growth areas, typically through annexation to or incorporation of a city, so that urban governmental services are primarily provided by cities and rural and regional services are provided by counties.”**

Policy 5.0.4 states “The state, MPO/RTPO, county and the municipalities shall, to the greatest extent possible, establish consistent roadway standards, level-of-service standards and methodologies and functional classification schemes to ensure consistency throughout the region.” [CWPP, page 151].

Policy 5.0.8 states “The state, local municipalities, MPO/RTPO and local municipalities shall work together to establish a regional transportation system which is planned, balanced and compatible with planned land use densities; these agencies and local municipalities will work together to ensure coordinated transportation and land use planning to achieve adequate mobility and movement of goods and people.” [CWPP, page 151].

**Findings:** The intersection of NE 99th St. at NE 152<sup>nd</sup> Ave. is projected to operate at LOS F under the 2039 planning horizon during both the morning and evening peak hours, regardless of whether the proposed zone change is implemented. However, with full development under the proposed R1-6 zoning, it is projected that overall intersection delays will decrease during both peak hours than if the property would fully developed under the CC zoning. The proposed Comprehensive Plan amendment and zone change reduces the future trip generation potential, and helps improve the mobility and movement of goods and people. Therefore, the proposed amendment is consistent with the applicable Countywide Planning Policies.

### **Comprehensive Growth Management Plan 2015-2035 (2016 Plan)**

The 20-year Comprehensive Growth Management Plan contains many specific policies between the land use and transportation elements. In addition to the policies adopted by all local jurisdictions, the County has adopted transportation goals policies specific to areas within County jurisdiction.

“Goal: Develop a regionally-coordinated transportation system that supports and is consistent with the adopted land use plan.

#### **5.1 System Development Policy**

5.1.2 County Road Projects and transportation improvements are proposed through development agreements shall be consistent with the current adopted Clark County Road Standards, Arterial Atlas, 2010 Clark County Bicycle and Pedestrian Master Plan, Concurrency Management Systems, RTC’s Regional Transportation Plan and the Washington Transportation Plan. [2016 Plan, page 152].

5.1.3 Performance standards for the regional arterial system and transit routes shall direct growth to urban centers.” [2016 Plan, page 152].

“Goal: Optimize and preserve the investment in the transportation system.

#### **5.3 System Preservation Policies**

5.3.1 Development projects shall adhere to minimum driveway access spacing standards along arterial and collector streets to preserve the capacity of the transportation system. The county shall work with Washington State Department of Transportation to ensure that minimum access spacing standards for state highways are maintained [2016 Plan, page 154].

5.3.3 The county shall extend the life of existing roadways through a timely maintenance and preservation program. [2016 Plan, page 154].

5.3.5 The local street system shall be interconnected to eliminate the need to use collector or arterial street for internal local traffic.” [2016 Plan, page 154].

**Finding:** The proposed plan designation and zoning amendment applies to urban land uses with the urban transportation system, ensuring consistency with the transportation system development and preservation. The roadway segment of NE 152<sup>nd</sup> Ave. between NE 99<sup>th</sup> St. and NE Padden Parkway is projected to operate with a volume to capacity ratio in excess of 0.9 by the 2039 planning horizon with full development under the proposed zoning. Clark County’s 2019 – 2024 Transportation Improvement Program includes a planned project (Project #5) to

improve this segment to a 2-lane collector with bike lanes and sidewalks. This project will improve safety, mobility and traffic circulation. The proposed plan designation and zoning amendment is consistent the applicable Comprehensive Plan Goals and Policies.

### **RECOMMENDATION AND CONCLUSIONS**

The transportation analysis demonstrated that the transportation impacts from this proposed land use change will not negatively degrade the transportation system. The proposed Comprehensive Plan and zoning amendment application CPZ2019-00002 is consistent with all applicable Clark County transportation policies, including the Community Framework Plan, Countywide Planning Policies, and Comprehensive Growth Management Plan. Staff finds that the proposed comprehensive plan amendment and rezone of the subject parcel **meets compliance** with the Clark County Transportation Policy.