

Dayton City Planning Commission
Regular Meeting—Agenda
Tuesday, March 19th, 2019 at 6:30 PM
114 South 2nd Street, Dayton, Washington 99328



1. Call to Order
2. Roll Call and Establish Quorum
3. Review of Minutes
 - a. February 19th, 2019
4. Communications from Citizens
5. Public Hearings
 - a. None Scheduled
6. Old Business
 - a. 2020 Comprehensive Plan Update Items
 - i. Docket List Item #1: UGA Swap
 1. Support requested to forward to Columbia County for consideration as amendment to the UGA Map
7. New Business
 - a. 2019 Planning Commission Elections
 - b. 2020 Comprehensive Plan Update Items
 - i. Presentation of final work schedule for update
 1. *Meeting with consultant on Monday, March 18th. Will have the schedule available during the meeting to discuss and review.*
8. Adjournment
 - a. Next meeting: Tuesday, April 16th, 2019

Dayton City Planning Commission
Regular Meeting—Minutes
Tuesday, February 19th, 2019 at 6:30 PM
114 South 2nd Street, Dayton, Washington 99328



1. Call to Order
 - a. Chair Byron Kaczmarski called to order the regular meeting of the Dayton Planning Commission at 6:30 pm.
2. Roll Call and Establish Quorum
 - a. Members present: Byron Kaczmarski, Alicia Walker, Kari Dingman, and Kathryn Witherington (phone-in)
Others present: Meagan Bailey, Planning Director
3. Review of Minutes
 - a. January 15th, 2019
 - i. A motion was made by Walker and seconded by Dingman to approve the January 15th, 2019 meeting minutes as presented; motion carries.
4. Communications from Citizens
 - a. None.
5. Public Hearings
 - a. None Scheduled
6. Old Business
 - a. 2020 Comprehensive Plan Update Items
 - i. Buildable Lands Analysis
 1. Staff provided a general introduction and overview to the results of the Buildable Lands Analysis; the analysis has identified numerous potential areas for subdividing development. The results offer guidance for future planning efforts. It should be noted that the results generated are based off spatial data only and no ground-truthing has commenced to verify and improve the results.
 - b. Vision/mission statements report
 - i. Leader: Discover Dayton's Diversity

1. This statement will be utilized within the 2020 Comprehensive Plan update as a portion of the update; however, the whole “vision/mission” statement project will be forwarded back to City Council for their direction. It is recommended by the Planning Commission that a committee be formed to improve/increase outreach methods and to generate the new Dayton (city wide) logo/catch phrase. Staff will relay recommendation to City Council at the next regular meeting.

7. New Business

a. Downtown Dayton Memo

- i. The Planning Commission offered support of the Goals and Policies presented in the memo. It was agreed that the recommended goals and policies should be included into the Comprehensive Plan, as well as an additional goal offering support of the Dayton Development Task Force and their efforts.

b. 2020 Comprehensive Plan Update

- i. A live editing session commenced and included revisions to the Introduction Chapter, Dayton Profile Chapter, Changes in Population Chapter, Historic Element, and the Parks and Recreation Element.
- ii. Some of the revisions included were:
 1. General grammatical concerns; and,
 2. General formatting errors; and,
 3. Improving upon the history of Dayton and years events took place; and,
 4. Adding language of Columbia Pulp to economic expansion; and,
 5. Correcting inconsistencies regarding formatting titles throughout the plan, and others as documented.

c. Misc. new mapping

- i. General overview and introduction commenced regarding the current drafts. The contract with the Consultant for the Comprehensive Plan has been expanded to include additional GIS mapping services. New drafts will be presented as made available.

8. Adjournment

- a. A motion was made by Walker and seconded by Dingman to adjourn the regular meeting of the Dayton Planning Commission at 7:44 pm; none opposed. Meeting adjourned.
- b. Next meeting: Tuesday, March 19th, 2019

Approved, March 19th, 2019

Byron Kaczmariski, Planning Commission Chair

Date

Attest:

Meagan Bailey, Planning Director

FINDINGS OF FACT AND CONCLUSIONS OF LAW
FOR PROPOSED URBAN GROWTH AREAS FOR DAYTON, WASHINGTON

WHEREAS: The City of Dayton Planning Commission and the Columbia County Planning Commission have generated a proposal to change the UGA for the City of Dayton, and the City of Dayton Planning Commission having fully considered the entire record and all public testimony, correspondence, Growth Management requirements and all those matters of record presented to the Planning Commission, recommends adoption of the proposed UGA as presented herein, alongside the attached application materials required by the State of Washington, including a draft amendments to the Transportation Element, Land Use Element, and Capital Facilities Element for the City of Dayton Comprehensive Plan.

NOW: The City of Dayton Planning Commission recommends to the Columbia County Planning Commission its support of the proposed UGA as supported by the following findings:

1. The attached staff report, application, and associated documents, addressed to the Dayton City Council and dated March 13th, 2019, are hereby adopted by reference as the "Final Dayton UGA Application"; and,
2. Discussion regarding these proposed amendment to the UGA took place during regular meetings of the Dayton and Columbia County Planning Commissions and associated boards since 2016; and,
3. The Dayton City Council reviewed the Final Dayton UGA Application during their regular meeting on March, 13th, 2019 and recommended support of the proposed amendments; and,
4. Amending the UGA as proposed will offer better growth patterns for the City of Dayton; and
5. Amending the UGA as proposed will increase potential growth, as already developed and environmentally sensitive areas are removed; and,
6. The public interest will best be served by the policies.
7. Final adoption of the UGA Amendments herein will occur in conjunction with the adoption of the City of Dayton's and Columbia County's 2020 periodic update to the Comprehensive Plan and associated development regulations.

CONCLUSIONS

Based on the above Findings, and following review of the record, and the recommendations of the Planning Director and after consideration of the City of Dayton Comprehensive Plan, consideration for the public health, safety and welfare of the citizens of the City of Dayton, the Planning Commission hereby supports the proposed UGA and associated application materials, to be considered by Columbia County to be adopted as part of the 2020 Comprehensive Plan and associated development regulations.

Dated this 19th day of March, 2019

Byron Kaczmariski, Chair

Meagan Bailey, Planning Director



Columbia County, WA Planning Staff Report Updates to the Dayton Urban Growth Area

Proposed Amendments to the Dayton Urban Growth Area

RE: An application to Columbia County to amend the UGA for Dayton, Washington

Date: March 13th, 2019

To: City of Dayton City Council

From: Meagan Bailey, Planning Director

Request:

Being a request to amend the Urban Growth Area boundary for the City of Dayton, Washington.

Introduction:

The Washington State Growth Management Act requires that cities and towns prepare and utilize documents to guide future development and growth. Among the tools offered to local jurisdictions is the Urban Growth Area (UGA). The UGA is designed to identify those areas which have the potential to be developed at urban densities in the future, considering a 20 year timeframe. Within these UGA's, cities can annex lands which are subject to immediate development, and to which they are obligated to provide services. The application herein is to revise the existing UGA for the City of Dayton to not only provide more appropriate rationale for the UGA, but also accommodate the desires of several property owners.

Project Description:

The proposal and application herein encompasses several pieces of property along the perimeter of the current UGA. The attached map provides a visual to the proposed change. The request is to remove two areas from the existing UGA, and add two areas to the UGA. The intent is to have a near balance of acreage being removed and being added. Due to Washington State law, the City of Dayton cannot add acreage to the UGA due to limited growth rates; however, the option to redefine the UGA boundary and "swap" acreage is made possible to the local jurisdictions. Thus, the proposal is to move the boundary to offer a better opportunity for more appropriate and desirable growth. The specific reasons for the addition/removal of sections are outlined as follows:

Removal (the NW area):

This land is almost entirely within the floodway, which cannot be developed in any fashion. The acreage within this area is entirely unusable, and offers zero growth potential for the City of Dayton.

Addition (the SW area):

This land is owned by the Port of Columbia, and is slated to be developed as part of the Port's food processing center over the next 18 years or so. It is appropriate to be within the UGA.

Removal (the NE area): This land is owned by Columbia County, and houses the County's Public Works Department and a rock quarry. This land does not offer growth potential to the City of Dayton.

Addition (the E area): This property is privately owned and under common ownership with the land to the south, which is currently within the UGA. In order to permit any future development requests in a coherent and orderly fashion it is appropriate this be incorporated within the UGA.

City Application Specifics:

Name of the City: Dayton, Washington
Address: 111 South 1st Street, Dayton, WA 99328
Contact Person: Trina Cole, City Administrator
Meagan Bailey, Planning Director
Phone: 509-382-2361
509-382-4676
Email: tcole@daytonwa.com
Meagan_bailey@co.columbia.wa.us

Description of the proposed amendment: This proposal encompasses several pieces of property on the perimeter of the current UGA. The attached map should clarify the locations. The proposal is requesting that two areas be removed from the UGA, and two areas be added to the UGA. The intent is to have a near balance of acreage being removed and being added. The reason for this is the requirements of state law. Typically, cities have a growth rate of some sort, and require city limit enlargement from time to time. In the case of Dayton and Columbia County, the growth rate has been very static for several decades. State regulations require that enlarging a UGA boundary must be a result of recent growth making the existing area inadequate to absorb the projected population

growth over the next twenty years. With a growth rate of zero, or even slightly negative some years, Dayton can't justify a larger UGA. However, we believe that a "swap" would be permissible, given that some areas of the current UGA are in unusable areas, such as a floodway, or the owner doesn't want the land to be in the UGA.

Thus, the proposal is to move the boundary to areas that are more usable, and remove the unusable/undesired components. The attached map (Exhibit 1) shows where these two different types of land are located. The specific reasons for including each of these areas are as follows:

The northwest area-This land is in a floodway, which cannot be developed in any fashion. The acreage within this section is unusable.

The southwest area-This land is owned by the Port of Columbia, and is slated to be developed as part of the Port's food processing center over the next eighteen years or so. It is appropriate that it be in the UGA.

The northeast area-This land has an existing rock quarry on it, and is owned by Columbia County. The Public Works director would like it removed from the UGA as it will never be developed with an urban use, and would allow for more appropriate use of their existing facilities, if it were not within the UGA.

The east area-This property is under common ownership with the land to the south, which is currently in the UGA. In order to permit a coherent development, It is appropriate that all of this land be within the UGA. This will provide better access to any development that occurs farther south.

Area of amendment:

Areas to be removed: Sec. 25, T 10 N, R 38 E, and Sec.19 & 20, T. 10 N, R 39 E.

Areas to be added: Sec. 36, T 10 N, R 38 E, and Sec.20, T. 10 N, R 39 E.

Acreage:

Overall, this proposal is a near "swap" in

regards to acreage. The proposal indicates removing 39.58 acres from the existing UGA, and adding 39 acres.

Number of parcels:

There are five parcels affected by removal, and five parcels affected by addition. A total of 10 parcels are proposed to be affected by this change

Site map:

Current County zoning and land use designations:

The NW area (removal): currently zoned as AR-1, land use designation cropland.

The NE area (removal): currently zoned as LI-1, land use designation cropland.

The SW area (addition): currently zoned as AR-1, land use designation cropland.

The E area (addition): currently zoned as AR-1, land use designation cropland.

Desired City land use designations:

The SW area (addition): General Commercial.

The E area (addition): Urban Density Residential.

Land use of the surrounding area:

The SW area (addition): commercial east along highway 12, cropland (County designation) all other directions.

The E area (addition): residential south and west of the site location, commercial north, cropland (County designation) east of the proposed.

Has any environmental documentation been prepared as required by SEPA:

The amendments herein are in part of the 2020 Comprehensive Plan update. As such, the SEPA analysis and review will consider the potential environmental impacts of this amendment, as well as all other amendments within the Comprehensive Plan.

Capital Facilities:

Capital facilities plan funding strategies:

The following capital facilities plan, as required by RCW 36.70A.070 and .030 identify estimated costs associated with the identified improvements. The costs are capable of being covered by the following methods:

1. Grant funding through economic development grants, rural community grants, and/or the city or potential developer may be qualified for.
2. Contractor exactions and dedications to require developers to provide parks, streets, and even school space as a condition of development approval.
3. Impact fees to ensure the costs of required improvements are covered for the new development.
4. The creation of development specific Local Improvement District's (LID's)
5. Current expense fund, if available on a case-by-case basis.

Capital facilities plan as required by RCW 36.70A.070 and .030:

Transportation:

SW 7 acres (Port): The streets in the developed area are owned and maintained by the Port. It is assumed that new streets will be handled the same way. They are not constructed to city standards, as they are narrower and don't have curbs and sidewalks. To develop the 7 acres and the other undeveloped ground, will require approximately 2000' of street that will connect to Wagon Road and HWY 12. Estimated cost is \$400,000.

NE 32 acres (residential): The majority of this site appears to have slopes in the range of 10% to 20%. The slope will impact the street and lot layout, as well as the number of lots that can be created. Assuming that approximately 90 lots will be created., the final layout will have approximately 70' of new street for each lot. Using this and the 90 lots previously mentioned we can expect

approximately 6300' of internal streets. Primary access will likely be off Patit Road with secondary access to existing City Street near the City's reservoir. Estimated cost for onsite improvements is \$1,700,000.

Water Systems

SW 7 acres (Port): There is an 8" water main loop in the developed area that is connected to an 8" main in Wagon Road with a pressure reducing valve (prv) assembly. A second prv will be needed. The pressure reduction is needed due to the high pressures in the area. Estimate cost including the PRV is \$375,000.

NE 32 acres (residential): There is over 200' of elevation change across the property. An estimated 70% to 80% of the site is above an elevation that allows it to be served by the city water system as it currently exists. A new high level pressure zone is needed to serve the rest of the property. There are two other tracts south of the 32 acre tract that are currently in the Urban Growth Area that also need the new pressure zone to be served by the water system. In addition, there are 40 to 60 residential services currently connected to the water system that are located near the 32 acre tract that have pressures below the Department of Health guidelines. The current water system plan suggests that the pressure issues be addressed before any new services in the area are connected. Pressures to the existing services can be increased for approximately \$600,000 by installing a booster pump station near the existing reservoir. This solution will not work for the 32 acre tract or the other two adjacent tracts, and a new standalone reservoir will need to be installed to serve these lots. The total cost of the reservoir is approximately \$1,200,000, however approximately half of this cost should be attributed to fixing deficiencies in the existing system. Internal water lines are estimated to cost an additional \$1,000,000. There is also an old 6" steel water main in Patit Road (northwest border of the 32 acre

tract) that the new on site water system can connect to create a looped system. The 6” pipe is likely near the end of its life and should be replaced as well at a cost of \$300,000.

Sanitary Sewer System

SW 7 acres (Port): There is a gravity sewer on site that feeds into a sewer lift station. A 3” pressure sewer line carries the sewage approximately 1800’ to a connection point to the city gravity sewer. Approximately 1500’ of gravity sewer, a second lift station and pressure pipe to connect to the existing lift station will be required. Estimated cost is \$350,000.

NE 32 acres (residential): The most logical and cost effective connection point to the sanitary sewer system for the 32 acre tract is at the end of the sewer at the east end of Washington Avenue. This would involve approximately 1,800’ of new sanitary sewer pipe with manholes extended in the old labor camp road and then turning southeast and crossing Patit Road to the property. The total cost of the sewer extension is estimated at approximately \$300,000. Onsite sanitary sewer lines are expected to cost approximately \$1,000,000.

Stormwater facilities

SW 7 acres (Port): Storm water would likely be collected on site in ditches and conveyed to onsite swales. The Port maintains the existing storm drain system and is anticipated to maintain the new system. Estimate cost is \$100,000.

NE 32 acres (residential): Onsite stormwater facilities consisting of catch basins and drywells are expected to cost approximately \$400,000.

Reclaimed water facilities:

SW 7 acres (Port): Reclaimed water facilities are not anticipated.

NE 32 acres (residential): Reclaimed water

facilities are not anticipated.

Schools

Dayton approved school district Capital Improvement levies in 2016 and 2018 to fund major repairs. Those projects are slated for completion with the final levy collections in 2020.

No specific projects are planned; however, the two school buildings are aging and in need of ongoing maintenance, especially in regard to electrical, plumbing, roofing and HVAC. The district has experienced an average 3% enrollment decline over the last six years. However, an increase in student population could result in a lack of classroom space because of tightened state requirements regarding student-teacher ratio and classroom sizes.

Parks and recreational facilities:

The City of Dayton provides 27 acres of park space between Peitrzycki City Park and the nearby Sports Complex. Flour Mill Park, located on Main Street, is also a trailhead to the Touchet River Dike Path which connects to Pietrzycki City Park. The City is home to several other small parks and recreation areas, such as Caboose Park, the Dayton Dog Park, and the Dayton Historic Train Depot. Most facilities are in good repair and will meet anticipated growth needs except for the Dayton City Pool, located in the Pietrzycki City Park Complex, which is in need of complete replacement. Research regarding replacement options and funding possibilities is currently underway. Other desired improvements include trails development, parks maintenance, and recreation program services. A complete recreational spaces inventory and a capital improvement plan can be found in the 2018 Cooperative Park Master Plan.

Police and fire protection facilities (WAC 365-196-415):

The City of Dayton contracts on an annual basis with Columbia County to provide public safety services. The Columbia County Sheriff's Department and the County Jail are currently housed in the Columbia County

Courthouse.

Current jail and Sheriff's Office facilities are highly inadequate and the county is exploring options for a new Law and Justice building. Issues include inability to separate inmates, lack of temporary holding space, interview space, office and storage space. Outdated technology and safety concerns.

The City of Dayton is located in Fire District #3. The department is made up of approximately 30 volunteers and six career staff. The District moved to new facilities, which were constructed to meet current needs with room for expansion, in 2015. The District currently has no improvements planned for the next six years.

Highway 12 – WSDOT:

A phone conference was scheduled and held on January 15th, 2019. The following were present:

Meagan Bailey (Planning Director), Adam Schmidtgall (Anderson & Perry), Charles Eaton (County Engineer), Eian Ray (County GIS), Ferdouse Oneza (Consultant), Ben Floyd (Consultant), Will Simpson (COMM.), Debra Freudenthal (WSDOT), John Gruber (WSDOT), Paul Gonseth (WSDOT), Bill Preston (WSDOT)

During the meeting, impacts regarding the proposed changes were discussed, and the following conclusions were made:

An analysis/memo discussing UGA build out will need to be prepared to understand potential impact on Highway 12. Additional language improvements for Highway 12 were discussed and will be implemented within the Comprehensive Plan update. The analysis required is attached herein as Appendix 4.

Existing Improvements:

The NW area and E area do not have any existing improvements on them. The SW area is developed with an existing residence and outbuildings, and the NE area is developed with the Public Works Department offices, shops, and rock quarry.

Environmental:

A SEPA Checklist will be required as part of this amendment. As this will be incorporated within

the adoption of the amended Comprehensive Plans for the City of Dayton and Columbia County, the SEPA Checklist for that adoption will encompass this proposal as well and will address any potential environmental impacts due to this change.

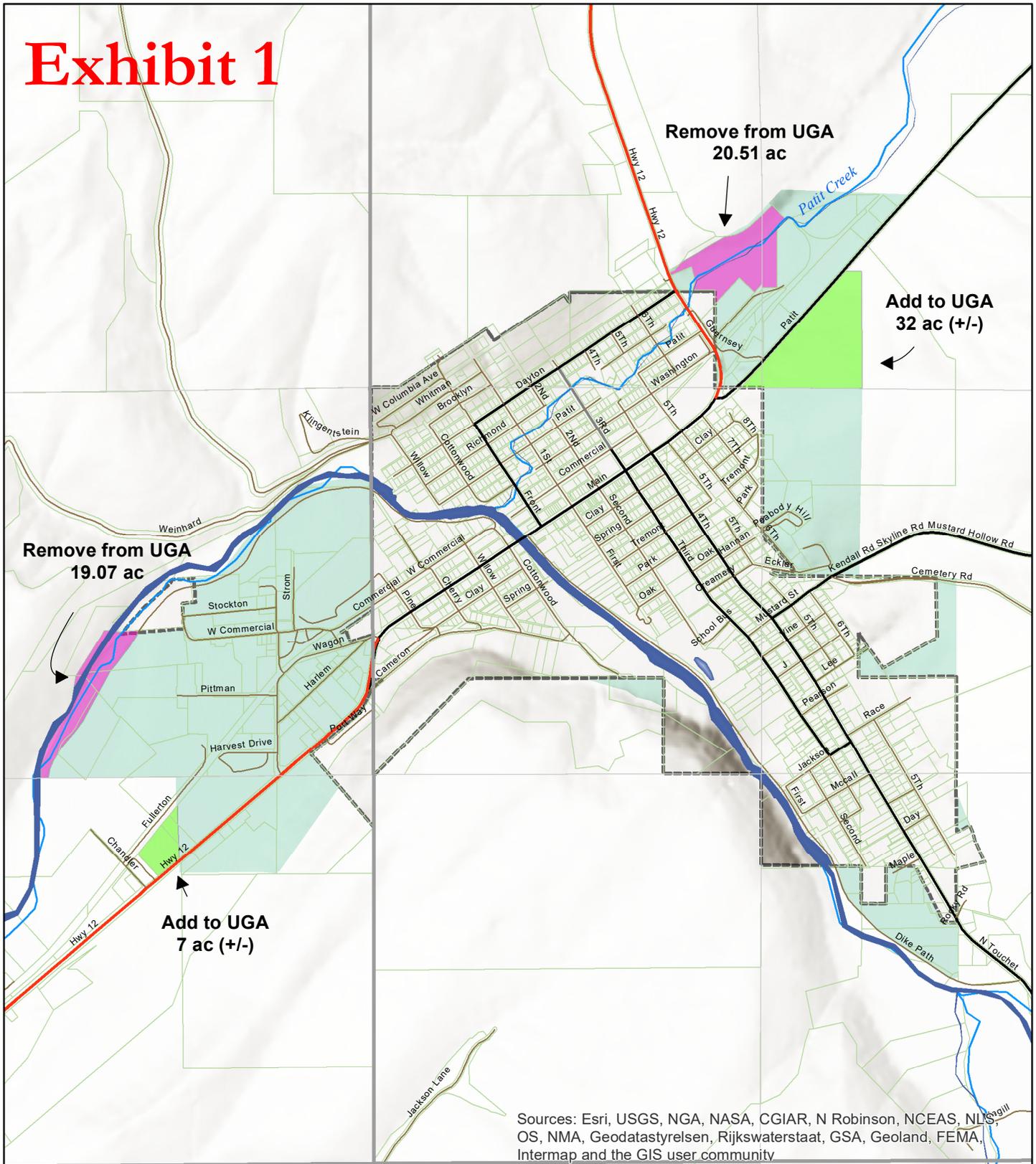
Application for Amendments:

Washington State requires the City of Dayton submit a formal application to Columbia County to consider the proposed amendment. As such, the following are attached herein and are thus titled “Dayton Application for UGA Amendments, 2020 Comprehensive Plan Update”.

1. Exhibit 1: Proposed UGA Map
2. Exhibit 2: New Land Use Designation Map
3. Exhibit 3: New City Zoning Map
4. Exhibit 4: Patit Road Traffic Study

ENCLOSURE

Exhibit 1



Proposed UGA changes - Dayton, WA



Legend

- Incorporated City Limits
- Remove from UGA
- Urban Growth Area
- Proposed Add to UGA

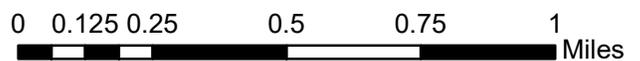
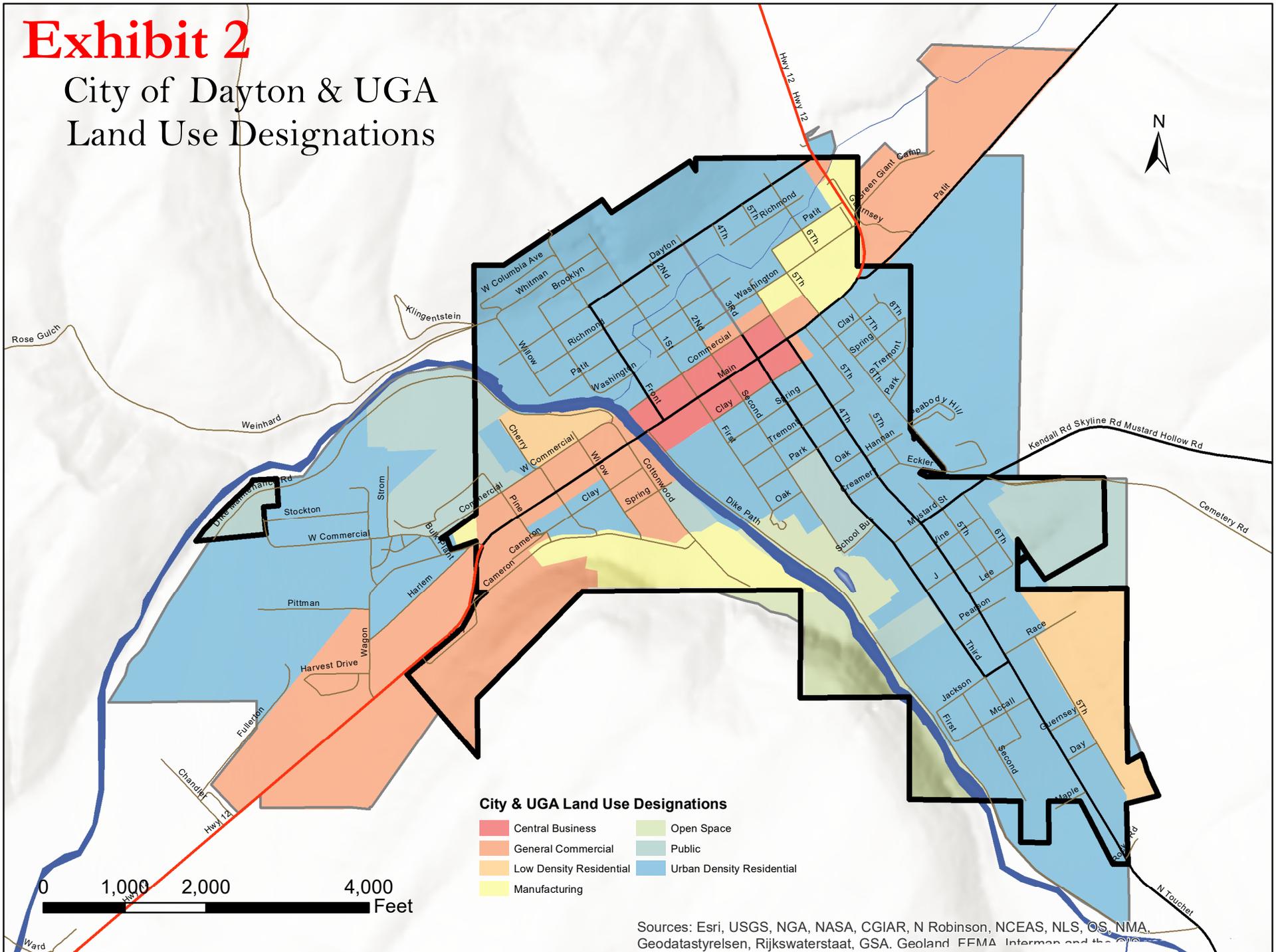


Exhibit 2

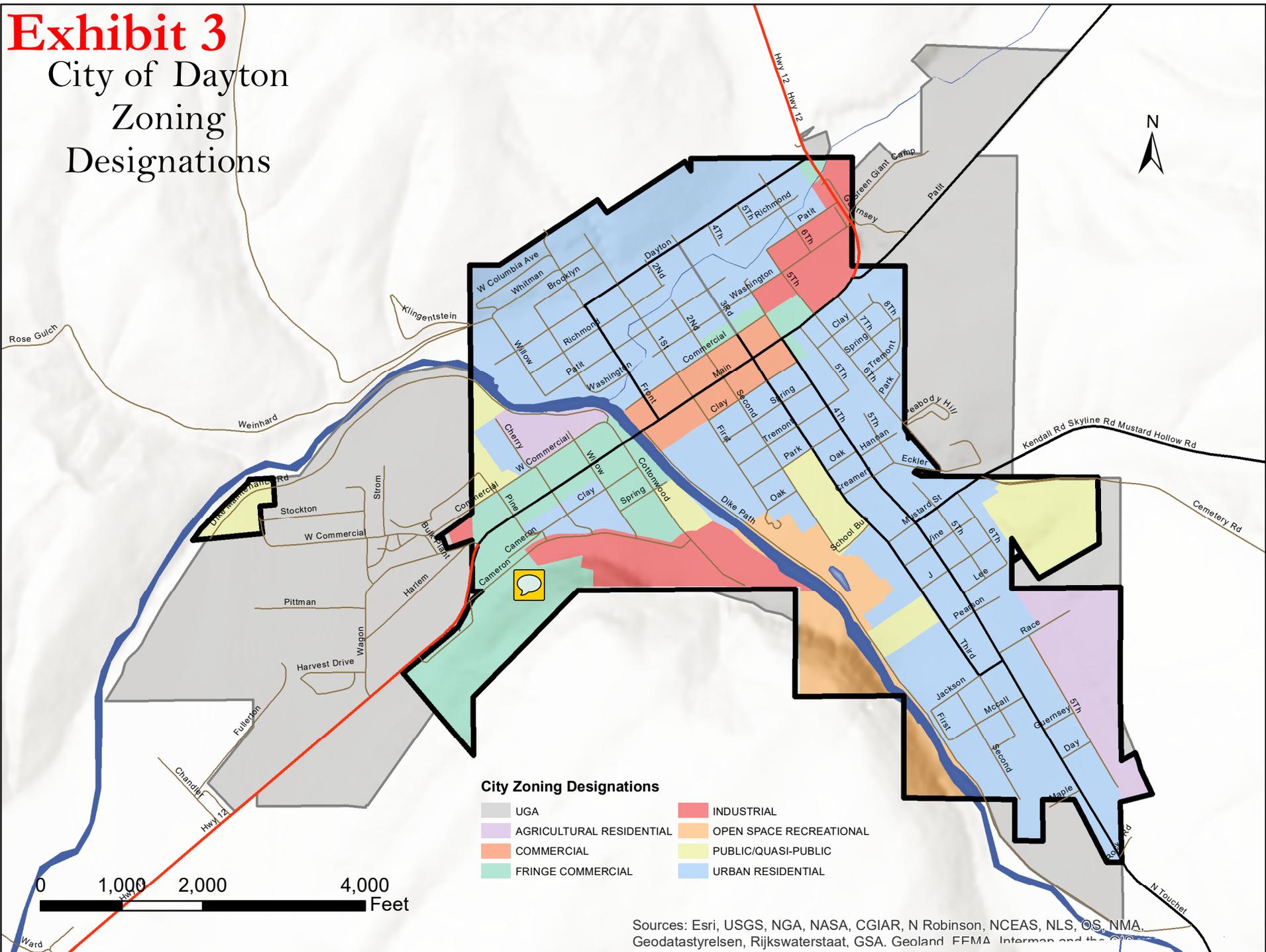
City of Dayton & UGA Land Use Designations



Sources: Esri, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodastystyrelsen, Rijkswaterstaat, GSA, Geoland FFMA Intermap and the GIC

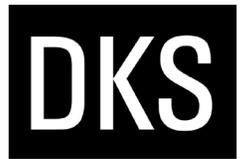
Exhibit 3

City of Dayton Zoning Designations



Sources: Esri, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodastystyrelsen, Rijkswaterstaat, GSA, Geoland FFMA Intermap and the CIG

Exhibit 4



DRAFT MEMORANDUM

DATE: February 12, 2019

TO: Adam Schmidtgall, P.E. | Anderson Perry & Associates, Inc.

FROM: Lacy Brown, Ph.D., P.E. | DKS Associates
Clive Lara | DKS Associates

SUBJECT: Dayton UGA Traffic Study

117 Commercial St
#310
Salem, OR 97301
503.391.8773
dksassociates.com

This memorandum provides the transportation engineering evaluation for the access needs and potential impacts for the urban growth area expansion located near Patit Road/Highway 12 (Main Street) in Dayton, Washington. The purpose of the transportation engineering evaluation is to identify access needs and any associated impacts to the surrounding transportation system.

This memorandum will present the existing conditions based on data collected through traffic counts proposed developments will have on the surrounding transportation system.

EXISTING CONDITIONS

The City of Dayton is in the process of updating their comprehensive plan, which includes adding new land to the Urban Growth Area (UGA). Washington Department of Transportation (WSDOT) is requesting that the a traffic analysis be performed to determine the potential impacts at the Patit Road/Highway 12 intersection. Patit Road/Highway 12 is currently a three legged intersection stop-controlled on Patit Road: all the three legs have one approach lane each. Figure 1 shows the 32 acre being added to the urban growth area as well as the existing 40 acres of land already existing in the UGA.

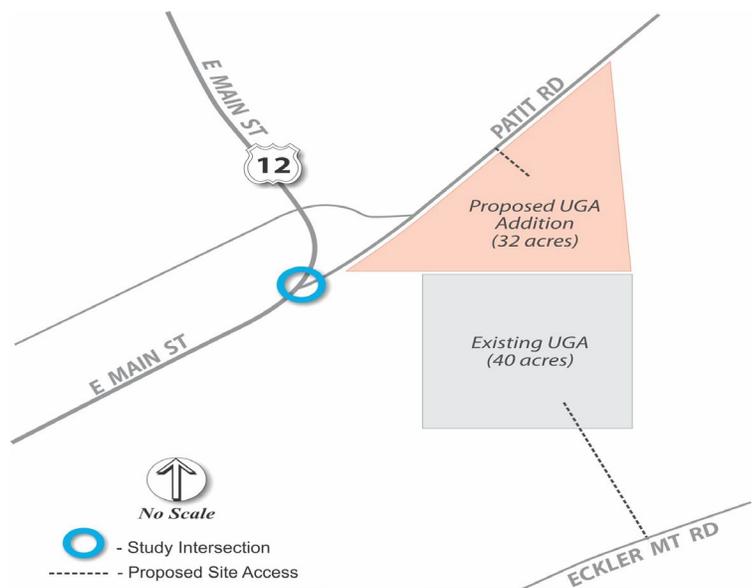


Figure 1: Study Area

Roadway Classification

The characteristics of the roadways within the study are shown in Table 1. The table includes the Washington State Department of Transportation (WSDOT) functional classification, the number of travel lanes, posted speed, and the bicycle/pedestrian facilities. The area near the site is rural.

Table 1: Roadway Classifications and Characteristics

Roadway	Functional Classification <i>WSDOT</i>	Number of Lanes	Posted Speed	Sidewalk	Bike Lanes
Highway 12 (Main Street)	Principal Arterial	2	35 mph	No ¹	No
Patit Road	Major Collector	2	30 mph ²	No	No

¹Sidewalk path exists on the east side of Highway 12, north of Patit Road

²Assumption; no posted speed near study intersection

Existing Traffic Volumes

Various traffic counts were compiled to estimate 2019 turning movement volumes at the Patit Road/Highway 12 intersection. 24-hour midblock tube counts were collected on Patit Road east of Highway 12 from 7/31-8/7/2018. The traffic counts collected from Tuesday-Thursday (7/31-8/2) were averaged. 24-hour midblock counts were collected on Highway 12 just north of Patit Road from 4/30-5/4/2012. The traffic counts collected from Tuesday-Thursday (5/1-5/3) were averaged.

Average Annual Growth Rate

An annual growth rate for the study area was calculated using the Annual Traffic Report (ATR) provided by WSDOT. A permanent traffic recorder station located on Highway 12 north of Patit Road was analyzed over the last four years of available data to determine an estimated background growth rate of 3 percent. Table 5 shows the traffic data used to calculate the background growth rate.

Table 2: Annual Traffic Report Data

Location on Highway 12	2013 AADT	2014 AADT	2015 AADT	2016 AADT	Average Growth Rate
Mile 367.63 north of Patit Road	2500	2600	2700	2800	3%

The 3 percent average annual growth rate was applied to the 2012 traffic counts on Highway 12 to obtain 2019 peak hour volumes. The estimated peak hour traffic volumes are shown in Figure 2. The detailed 24-hour traffic counts are included in the appendix. Before the analysis results of the study intersections are presented, discussion is provided for two important analysis issues: intersection performance measures (definitions of typical measures) and required operating standards (as specified by the agency with roadway jurisdiction).

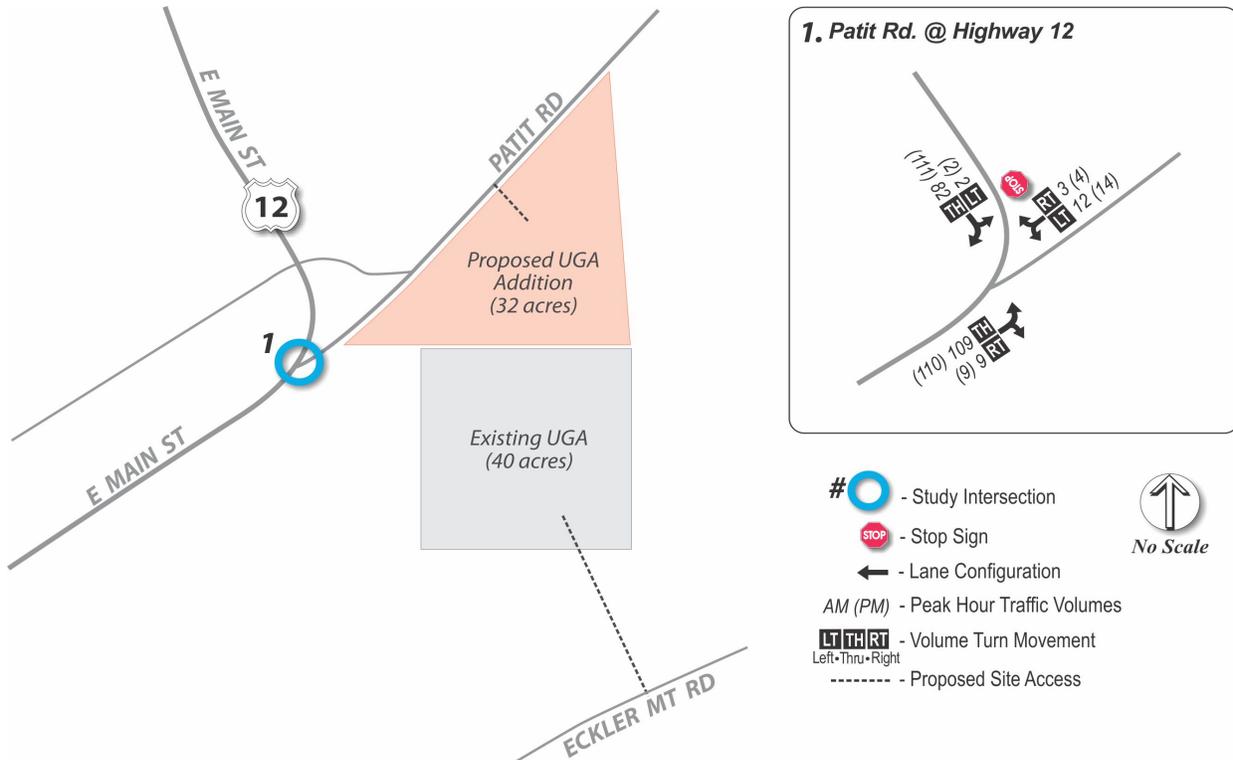


Figure 2: 2019 Existing Traffic Volumes

Intersection Performance Measures

Level of service (LOS) ratings and volume-to-capacity (v/c) ratios are two commonly used performance measures that provide a good picture of intersection operations. In addition, they are often incorporated into agency mobility standards.

- Level of service (LOS): A “report card” rating (A through F) based on the average delay experienced by vehicles at the intersection. LOS A, B, and C indicate conditions where traffic moves without significant delays over periods of peak hour travel demand. LOS D and E are progressively worse operating conditions. LOS F represents conditions where average vehicle delay has become excessive and demand has exceeded capacity. This condition is typically evident in long queues and delays.
- Volume-to-capacity (v/c) ratio: A decimal representation (typically between 0.00 and 1.00) of the proportion of capacity that is being used at a turn movement, approach leg, or intersection. It is determined by dividing the peak hour traffic volume by the hourly capacity of a given intersection or movement. A lower ratio indicates smooth operations and minimal delays. As the ratio approaches 0.95, congestion increases and performance is reduced. If the ratio is greater than 1.00, the turn movement, approach leg, or intersection is oversaturated and usually results in excessive queues and long delays.

Required Operating Standards

The study intersection is inside of the city limits of Dayton, WA. Highway 12 is a WSDOT facility and is subject to the LOS standard of C set forth by WSDOT in the *Level of Service Standards for Washington State Highways* document¹.

Existing Operating Conditions

The existing traffic operations at the study intersections were determined for the a.m. and afternoon peak hours using the *Highway Capacity Manual, 6th Edition* methodology.² The level of service (LOS) and volume to capacity (v/c) ratio of the study intersection is listed in Table 2. As shown, the intersection meets its respective operating standard.

Table 3: Existing Study Intersection Operations (AM and PM Peak Hours)

Intersection	Operating Standard	AM Peak		PM Peak	
		LOS	v/c	LOS	v/c
Patit Road/Highway 12	LOS C	A/A	0.03 WB	A/B	0.03 WB

Two-Way Stop Controlled intersections:

LOS = Level of Service of Major Street/Minor Street

v/c = Volume-to-Capacity Ratio of Worst Movement

¹ Revised Code of Washington, Section 47.06.140(2), 2010

² Highway Capacity Manual, 6th Edition, Transportation Research Board, 2016.

PROPOSED DEVELOPMENT

The City of Dayton is planning to add a 32-acre parcel of land east of the Patit Road/Highway 12 intersection that is to the UGA that would allow for development of approximately 100 single family houses. There is also an additional 40-acre parcel of land that already exists in the UGA allowing for the development of approximately 120 single family houses. For this study, the 40-acre parcel of land is expected to have access to both Patit Road and Eckler Mountain Road, while the 32-acre parcel of land is expected to only have access to Patit Road

Trip Generation

Trip generation is the method used to estimate the number of vehicles that are added to the site driveways and roadway network by the proposed project during a specified period (i.e., such as a peak hour or an entire day.) National trip generation rates are provided in the Institute of Transportation Engineers (ITE) *Trip Generation Manual, 10th Edition*. Table 5 shows the estimated trip generation for the site.

Table 4: Trip Generation

Land Use (ITE Code)	Quantity	Daily Trips	AM Trips			PM Trips		
			In	Out	Total	In	Out	Total
32-acre Parcel Added to UGA								
Single-Family Detached Housing (210)	100 DU	944	18	56	74	62	37	99
40-acre Parcel in Existing UGA								
Single-Family Detached Housing (210)	120 DU	1,133	22	67	89	75	44	119
Total Trips	220 DU	2,077	40	123	163	137	81	218

Trip Distribution

Trip distribution provides an estimate of where project-related trips would be coming from and going to. The trip distribution was estimated based on existing land uses nearby. All traffic generated by the 32-acre parcel of land is expected to travel through the Patit Road/Highway 12 intersection. All traffic generated by the 40-acre parcel of land heading to and from the north on Highway 12 (20%) is expected to travel through the Highway 12/Patit Road intersection; the rest of the generated traffic is expected to use the site access on Eckler Mountain Road. The trip distribution for the site is shown in Figure 3.

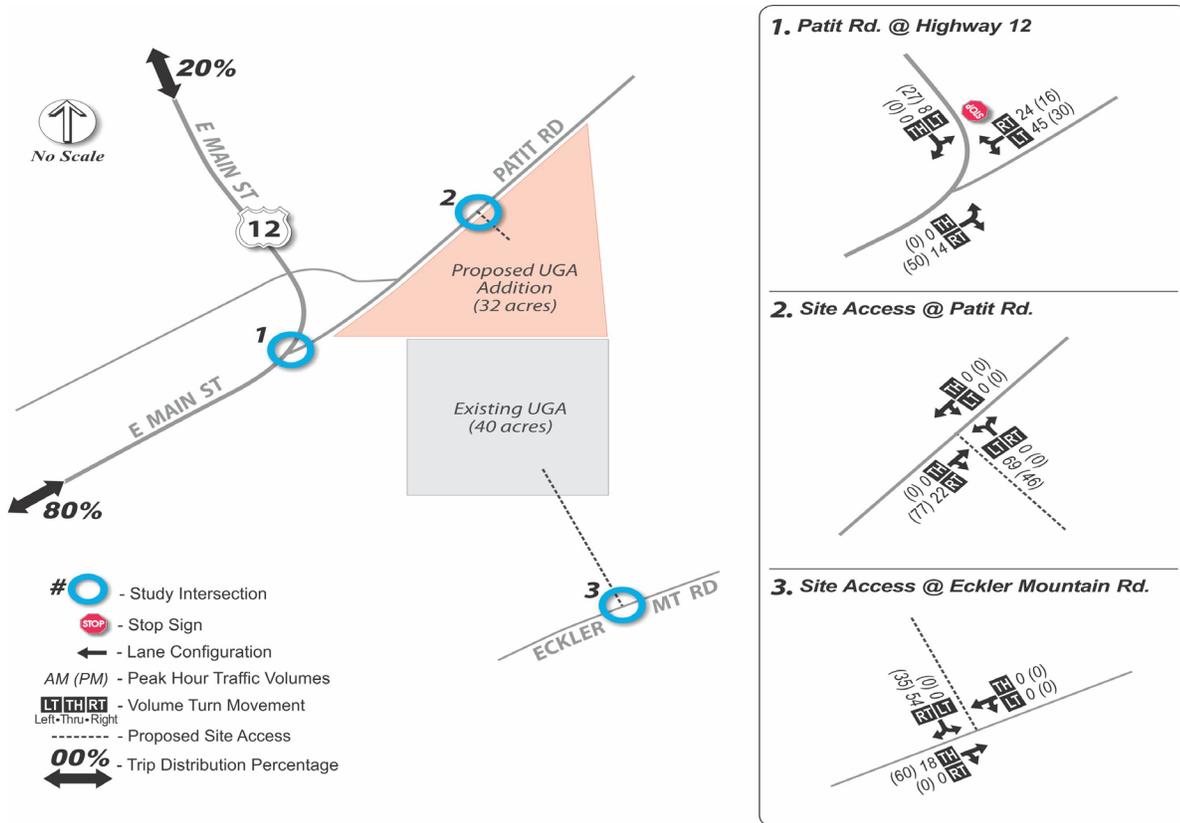


Figure 3: Site Trip Distribution

FUTURE TRAFFIC CONDITIONS

Future traffic operating conditions were analyzed at the study intersection to determine if the transportation network can support the future residential development. When WSDOT standards are not met, mitigation may need to be considered to improve network performance.

Future Traffic Volumes

The 2039 Background traffic volumes were developed by adding 20 years of background growth (3%) to the 2019 Highway 12 traffic volumes. There were no approved developments in the project vicinity that were considered in this evaluation. The AM and PM peak hour traffic volumes are shown in Figure 4. The full build-out 2039 AM and PM peak hour traffic volumes including the residential development generated trips are shown in Figure 5.

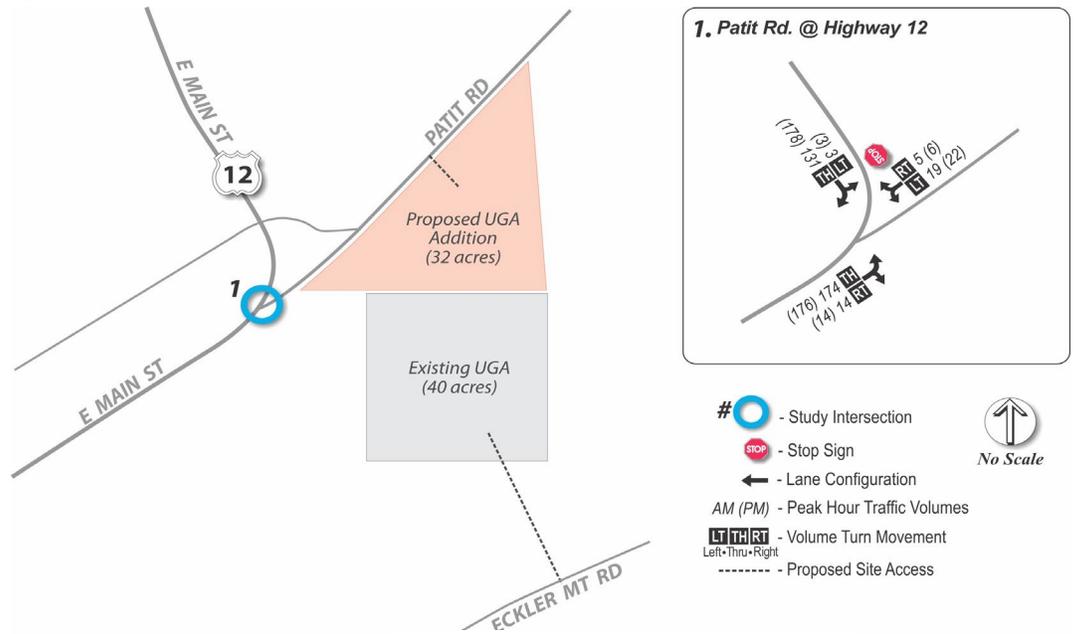


Figure 4: 2039 Background Trips

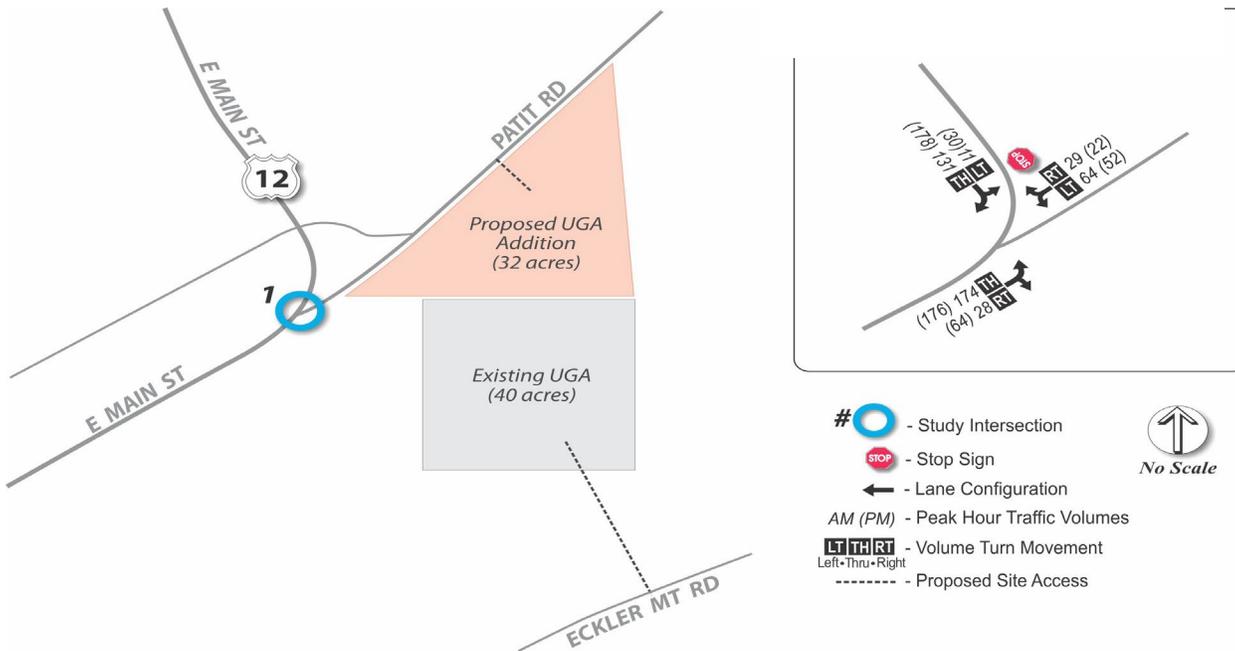


Figure 5: 2039 Background + Development Trips

Future Operating Conditions

The following section presents the results of the future traffic operations evaluation at the study intersection for a 20 year horizon. Table 6 lists the No Build and Build intersection operations for year 2039. As shown, the Patit Road/Highway 12 intersection meets operating standards with the addition of future growth and project trips.

Table 5: Future No Build and Build Intersection Operations

Intersection	Operating Standard	AM Peak		PM Peak	
		LOS	v/c	LOS	v/c
<i>2039 No Build</i>					
Patit Road/Highway 12	LOS C	A/B	0.05 WB	A/B	0.06 WB
<i>2039 Build</i>					
Patit Road/Highway 12	LOS C	A/B	0.19 WB	A/B	0.18 WB

Two-Way Stop Controlled intersections:

LOS = Level of Service of Major Street/Minor Street

v/c = Volume-to-Capacity Ratio of Worst Movement

Queing Analysis

A 95th percentile queuing analysis was conducted at the Patit Road/Highway 12 intersection to evaluate for potential spillback blockage at nearby driveways for the 2039 Full Build-out scenario. Table 8 summarizes the queuing analysis results. As shown, the longest observed queue length was approximately 75 feet on the westbound approach during the AM peak hour. This queue length is not expected to cause any issues.

Table 6: 2039 Full Build-out Queueing Analysis (AM and PM Peak)

	AM Peak Hour		PM Peak Hour	
	WB L/R	SB L/T	WB L/R	SB L/T
95th Queue (ft)	75	20	50	40
Average Queue (ft)	45	5	35	10

Intersection Control

Various potential intersection improvement solutions were evaluated for the proposed Patit Road realignment on Highway 12. The following common intersection control types were considered and are discussed in greater detail in Chapter 1300 of WSDOT’s design manual.³

³ Chapter 1300.03: Common Types of Intersection Control, WSDOT Design Manual, July 2018.

Two-Way Stop Control – Two-way stop control requires the traffic on the minor roadway to stop and yield to the mainline traffic before entering the major roadway and is a lower cost control.

Multi-way Stop Control – Multi-way stop control usually requires all approaches to stop before entering the intersection and is mainly used for lower speed roadways with similar volumes on all legs.

Roundabouts – Roundabouts (or traffic circles) are an intersection control where traffic on the approaches yield to traffic within the circulating roadway. Roundabouts enhance safety while also reducing traffic delays, however cost significantly more than stop controls.

Traffic Signals – Signalized intersections allow for more capacity than stop controlled intersections and can be used to improve progression within a coordinated system. MUTCD traffic signal warrants should be met when deciding to install a traffic signal.

Based on the traffic operations analysis performed at the study intersection, a two-way stop control would continue to provide sufficient capacity to the intersection in the future year 2039 full build-out scenario. A two-way stop control is the best option due to the low minor street traffic volumes. Additional development and future minor street traffic growth could eventually warrant a different control type such as a traffic signal or roundabout.

SUMMARY

The following list summarizes the key transportation findings associated with the proposed development.

- The City of Dayton is planning for the future development of 72 total acres of land in the urban growth area that is located in the vicinity of the Patit Road/Highway 12 intersection in Dayton, Washington.
- The existing Patit Road/Highway 12 intersection currently meets WSDOT operating standards for all scenarios.
- There are some preliminary plans that would allow for development of approximately 220 total single family houses.
- With the addition of the future residential development project trips, the Patit Road/Highway 12 intersection would continue to meet WSDOT operating standards.
- Based on the traffic operations analysis performed at the proposed realigned intersection, a two-way stop control would continue to provide sufficient capacity to the intersection in the future year 2039 full build-out scenario.

13. The Commission shall deliberate either following the public hearing or at a later date if necessary. All decisions of the Commission must be supported by Planning Commission minutes, documenting the comment received and following discussion.

SECTION V – QUORUM

A majority of the membership, three of the five members of the Planning Commission, shall constitute a quorum for the transaction of business. Any action taken by a majority of those present, when those present constitute a quorum, at any regular or special meeting of the Planning Commission, shall be deemed and taken as the action of the Commission.

SECTION VI – DUTIES/AUTHORITY OF ELECTED OFFICERS

A. Chairperson

1. Preside at all meeting of the Commission
2. Call special meetings of the commission in accordance with the rules of procedure
3. Sign documents of the Commission
4. See that all actions of the Commission are properly taken
5. The Chairperson, as a member of the Commission, shall have the full right of his/her own vote, recorded only in a tie breaking situation.

B. Vice-Chairperson

1. During the absence, disability, or disqualifications of the Chairperson, the Vice-Chairperson shall exercise or perform all duties and be subject to all the responsibilities of the Chairperson.

SECTION VII– ELECTION OF OFFICERS

1. The Officers of the Planning Commission shall be a Chairperson and a Vice-Chairperson elected by the appointed members of the planning Commission.
2. The election of Officers shall take place each year in the month of March. The term of each Officer shall run until the subsequent election.
3. The Chairperson will appoint a person, not the current Chairperson or Vice-Chairperson, to run the election of Officers.
4. Election of each Officer shall be by vote with the nominee receiving the majority of the votes for a particular office being declared elected.
5. In the event the Chairperson position is vacated, the position shall be replaced by the Vice-Chairperson, and the Vice-Chairperson position shall be replaced by a vote of the members of the Planning commission.

SECTION VIII– ABSENCE OF MEMBERS

In the event of a member having three (3) consecutive absences, the member's record shall be forwarded by the Chairperson to the Mayor for consideration of asking for the member's resignation.

SECTION IX– MODIFICATION OF RULES

The rules of procedure may be amended at any meeting of the Planning Commission by a majority of a quorum of the Commission, provided that notice of said amendments is given to each member in writing at least 5 days prior to said meeting.

SECTION X– COMPENSATION

As specified in R.C.W. 35.63.030, the members of the Planning Commission, including the Chairperson and Vice-Chairperson while acting as such, shall serve without compensation.