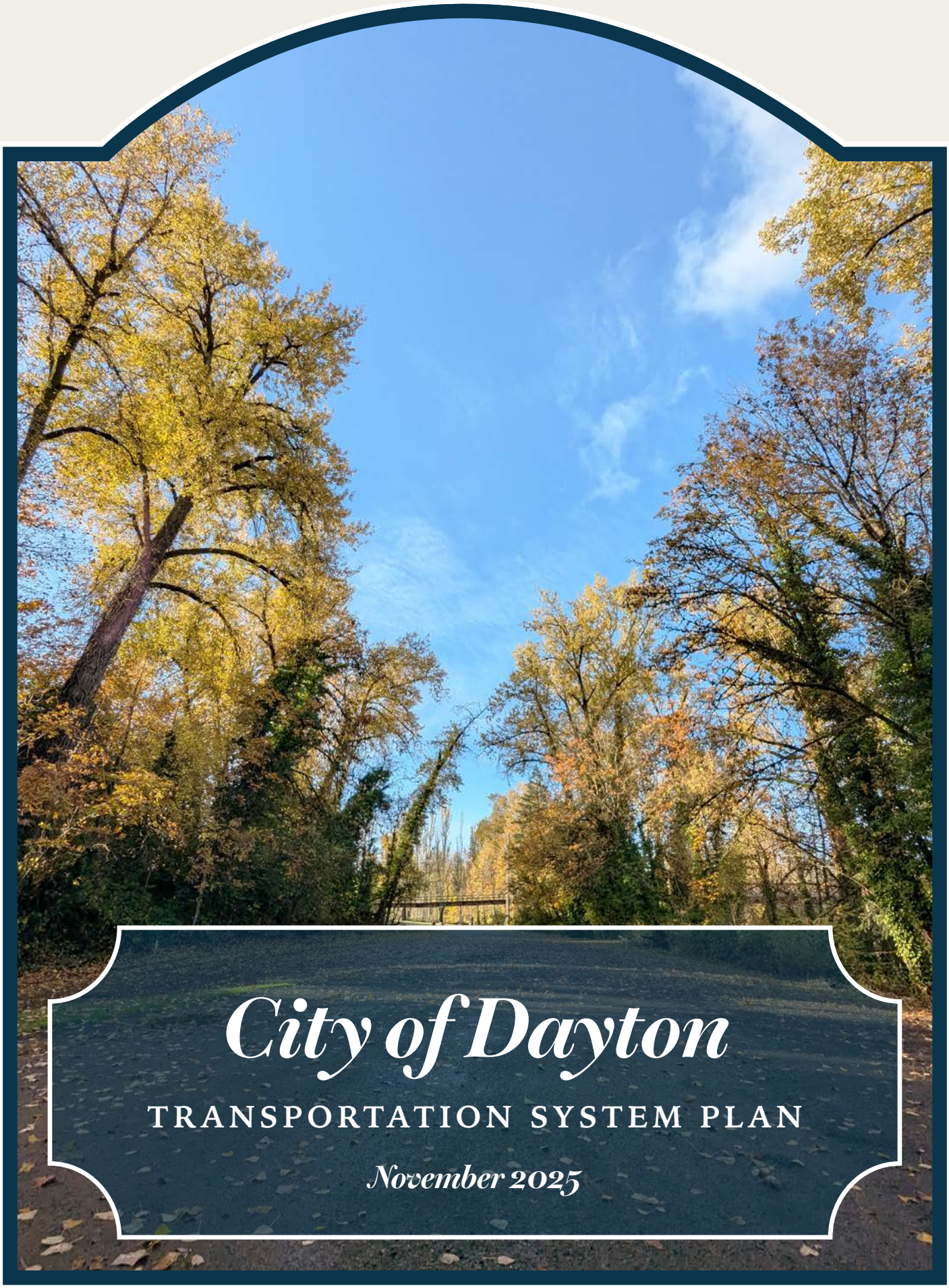

City of Dayton

TRANSPORTATION SYSTEM PLAN

November 2025

ACKNOWLEDGMENTS

City of Dayton

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This project is funded by a grant from the Transportation and Growth Management (TGM) program, a joint program of the Oregon Department of Land Conservation and Development (DLCD) and the Oregon Department of Transportation (ODOT). The goal of the TGM program is to create thriving, livable places with diverse transportation choices.

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01. INTRODUCTION

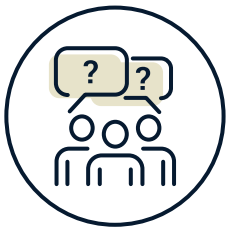
The City of Dayton 2025 Transportation System Plan (TSP) sets the framework for decisions about transportation investments that will support the City's future.

Purpose of the TSP

Dayton's last TSP was adopted in 2001. Since then, many of the projects from that plan have been completed. It is time to look ahead and update the plan to meet the community's current and future needs.

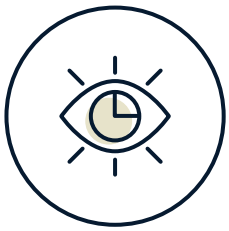
This updated TSP lays out a vision for how people will travel in and around Dayton through the Year 2045. It will help guide decisions about roads, sidewalks, bike lanes, transit, and other transportation options. The plan also includes cost estimates, funding strategies, and priorities so that the City can focus resources where they're needed most.

Having an adopted TSP is also important because it makes Dayton eligible for federal, state, and regional funding. In fact, the State of Oregon requires every city to have a TSP. This update is supported by a grant from the Transportation and Growth Management (TGM) program, which is a partnership between the Oregon Department of Transportation (ODOT) and the Department of Land Conservation and Development (DLCD). The TGM program helps cities like Dayton grow in ways that are livable, connected, and full of transportation choices.



What Do We Want?

What Do We Have Now?



What Will We Need in the Future?

How Will We Fund Our Project?

What Should We Do First?

Relationship to State and Regional Policies

This TSP complies with Oregon's Transportation Planning Rule (TPR) and supports the implementation of other statewide and local plans, including the Oregon Transportation Plan, the Oregon Highway Plan (OHP), and the Yamhill County Transportation System Plan.

- It ensures coordination with ODOT policies for state highways.
- It addresses statewide goals for mobility and multimodal access.
- It incorporates input from regional and local partners to ensure consistent and collaborative planning efforts.

Planning Area

The City of Dayton's planning area is outlined by its Urban Growth Boundary (UGB), which was last amended in 2022. It includes city limits plus several parcels on all sides of the city. One large tract, approximately 100 acres in size, lies west of the city limits between OR 18 and Ferry Street. This area is referred to as the "UGB swap area" and was part of the 2022 UGB amendment in which an area of land north of OR 18 was replaced with the UGB swap area. There are several smaller buildable tracts that are less than 60 acres each on Dayton's south side, north side near OR 18, and at its northeastern corner.

The TSP planning area is shown in **FIGURE 1**. The planning area within the UGB is where the City considered local transportation strategies. In selecting these strategies, the TSP considered both local and regional travel patterns and the diverse needs of road users throughout Yamhill County and beyond.

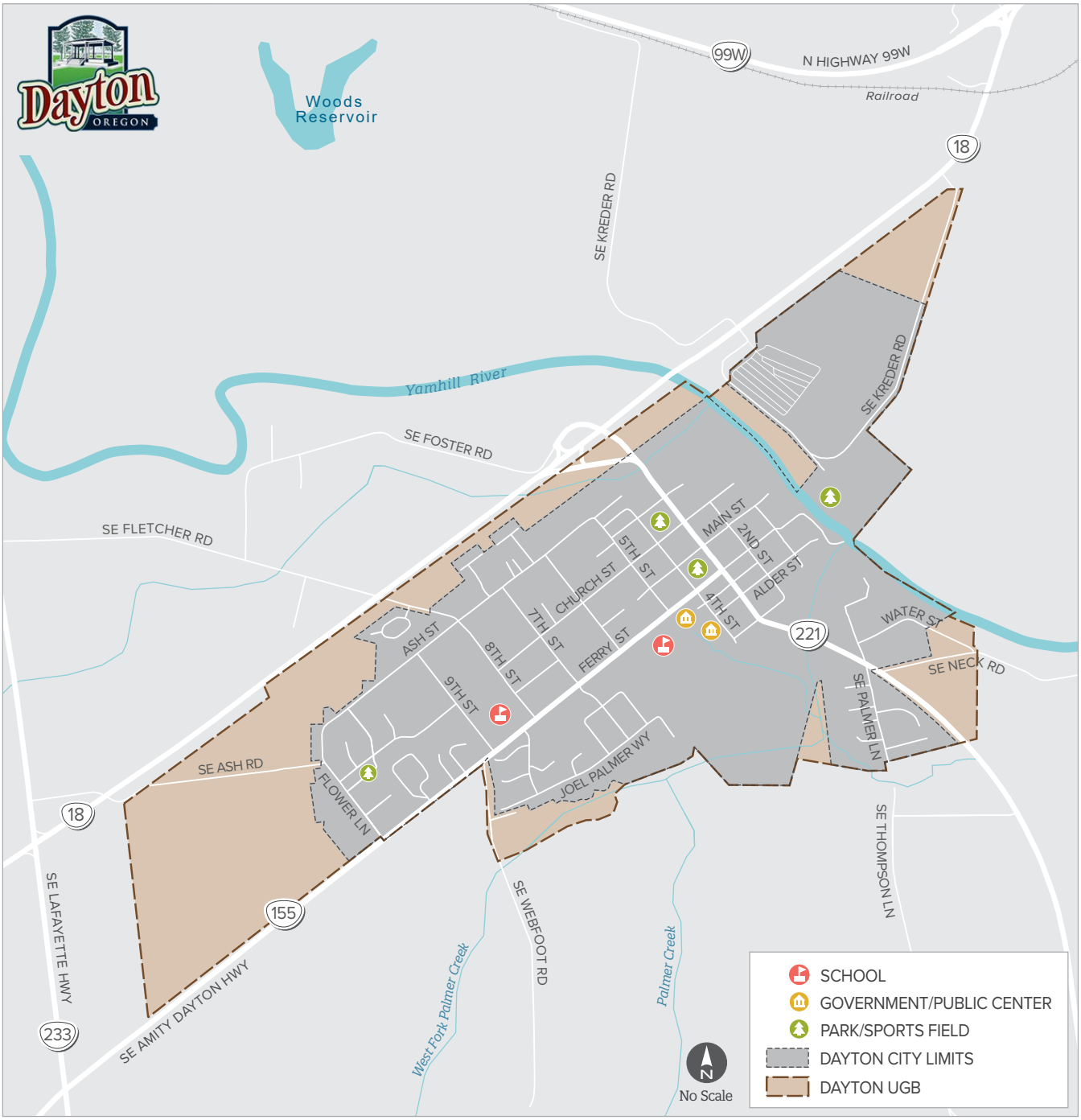
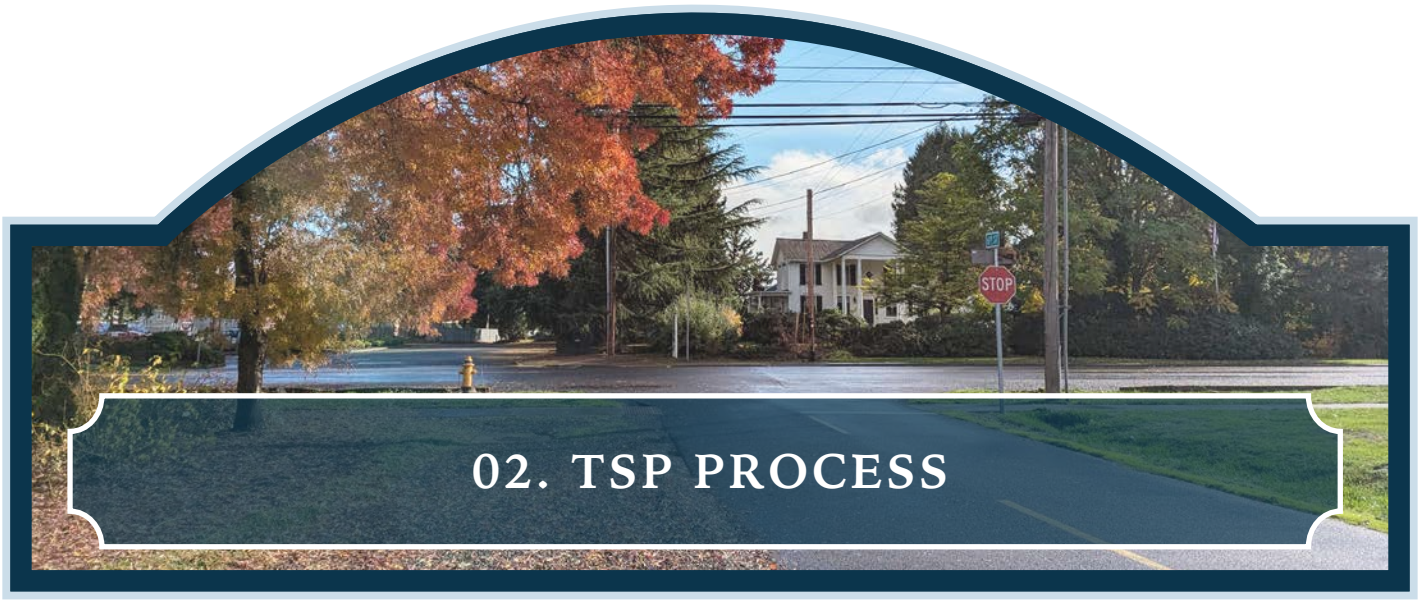


FIGURE 1. DAYTON TSP PLANNING AREA



02. TSP PROCESS

Developing the TSP update was a collaborative effort between City staff, technical experts, and the Dayton community.

Decision-Making Structure

The Dayton TSP update was guided by a collaborative decision-making structure that balances technical analysis with input from the public and City staff.

Project Management Team (PMT)	Project Advisory Committee (PAC)	City Council
The PMT provided technical oversight and day-to-day guidance throughout the TSP process. The PMT was composed of City staff, representatives from DKS Associates, and partners from ODOT and the Mid-Willamette Valley Council of Governments. The PMT met regularly and at project milestones to review deliverables, coordinate outreach, and ensure the TSP aligns with local and state transportation planning objectives.	The PAC was a diverse group of local stakeholders who provided guidance on community priorities and transportation issues and proposed solutions. Members included representatives from the City Council, Planning Commission, school district, local businesses, transit agencies, emergency services, freight and agriculture sectors, and accessibility advocates. The PAC met at four key points in the process to provide input on goals, existing transportation issues, solutions, and draft recommendations.	The City Council made all final decisions pertaining to this TSP update.

Throughout the process, the PMT developed several technical memorandums summarizing the analysis, findings, and recommendations that shaped the TSP. These memorandums are included in the TSP Appendix.

Public Engagement and Outreach

The TSP development process included public engagement to help the project team understand local travel patterns, safety concerns, and preferences for transportation solutions. Public involvement goals included:

- **Education and Awareness:** Building awareness of the TSP process by describing benefits and opportunities for public participation.
- **Reaching All Users:** Including traditionally underrepresented and transportation disadvantaged populations.
- **Making the Process Accessible:** Using a transparent process that fosters positive relationships among agencies and residents, builds trust, and creates ownership of outcomes.
- **On-Going Communication:** Creating early and ongoing opportunities to gather ideas, local knowledge, and feedback about problems and potential solutions.

Two in-person public events and two virtual open houses were conducted to provide a range of opportunities for community members to participate in the TSP update. The first round of outreach sought to introduce the plan and gather input on transportation challenges faced by community members. The second presented proposed solutions and asked for feedback on priorities. Additionally, a youth workshop engaged middle school and high school students to ensure the perspectives of younger residents were reflected in the plan.

Information was shared through a dedicated project website, which was maintained and updated by the City. The project website includes all technical memoranda and reports, meeting information, a sign-up form for project updates, a survey for community input, and a Spanish translation feature to ensure language access. Community outreach and communication materials were also distributed via social media platforms and flyers.

Technical Development

Each step of the TSP development process is illustrated in **FIGURE 2**.

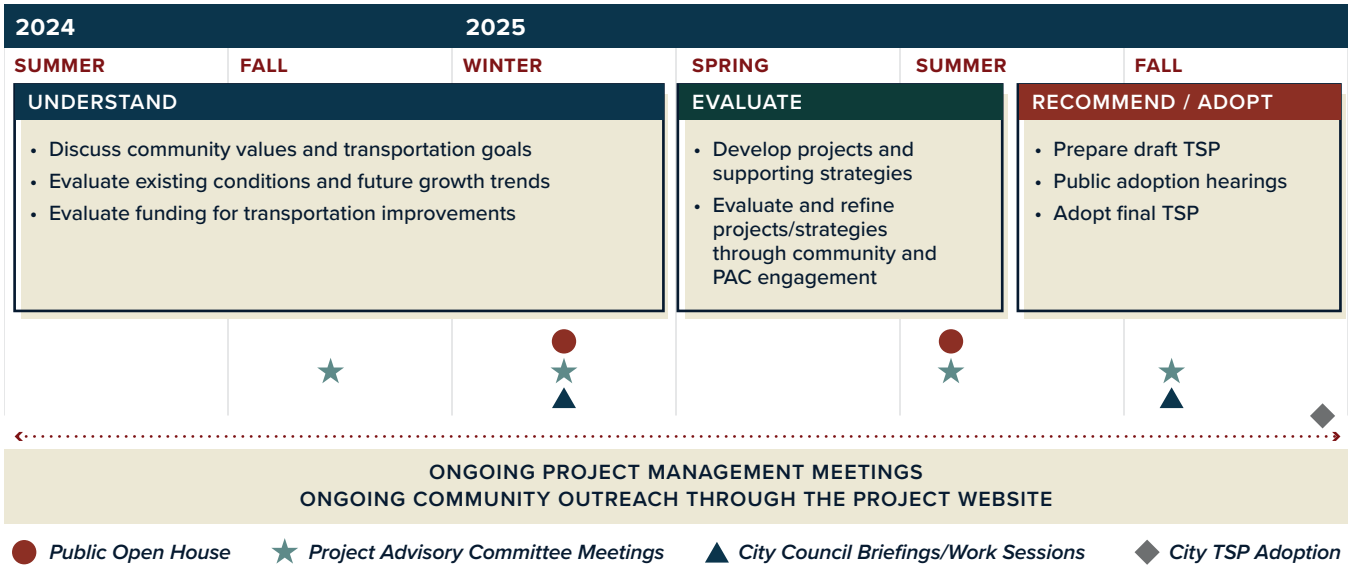


FIGURE 2. DAYTON TSP DEVELOPMENT PROCESS

03. SHARED VISION

A community vision centered on safety, access, livability, and collaboration guided every step of the TSP to ensure that Dayton's future is rooted in community priorities.

Goals and Objectives

Most people in Dayton travel by car, but many want safer and easier ways to walk, bike, and roll. Even though pedestrian activities and biking happen most often in downtown, many residents also travel daily between Dayton and nearby towns. The City's goals focus on increasing choices for travel, making roads safer for walkers and bikers, and improving connections with other cities in the area.

Goals and objectives help turn an overarching vision into manageable actions. **Goals** are broad statements that describe a desired outcome, and they may be challenging but achievable. Each goal is supported by specific **objectives**, which identify key issues related to achieving the goal. The TSP goals and objectives are in line with TGM objectives and will bolster the community's vision and goals for transportation.

GOAL 1

SAFETY

Provide safe routes, corridors, and intersections for all modes of transportation.

OBJECTIVES:

1. Prioritize development that creates opportunities for people walking, bicycling, and using mobility devices, including safe pedestrian crossing opportunities.
2. Address safety concerns at locations with a high crash frequency.
3. Identify and address safety concerns that discourage active transportation (including walking, biking, and using mobility devices) to key destinations within the City.
4. Evaluate street design and vehicle speeds on arterial and collector streets within the City.
5. Upgrade key intersection locations to meet federal and state requirements, such as the Americans with Disabilities Act (ADA).
6. Provide safe pedestrian and biking routes to/from schools for students.

Goals and Objectives (continued)

GOAL 2

MOBILITY, ACCESSIBILITY, AND CONNECTIVITY

Maintain transportation infrastructure that enables the efficient movement of people, goods, and services, balancing regional and local traffic needs.

OBJECTIVES:

1. Strengthen the downtown and central business core by maintaining mobility along the corridor while supporting reasonable access management to places of interest.
2. Consistent with roadway classification, design roads for non-passenger car types of vehicles and equipment, particularly freight, emergency vehicles, and agricultural equipment.
3. Address intersection capacity needs for present and future traffic volumes.
4. Identify future primary street connections between the existing City street network and unincorporated land inside the UGB.
5. Maintain a street functional classification system with associated cross-section standards so that streets are maintained and constructed consistent with the City's vision as development occurs.
6. Seek opportunities to support and encourage regional transit and public transportation programs.
7. Continue to investigate all sources of funding for street improvement and to upgrade City streets as funds become available.

GOAL 3

LIVABILITY & OPPORTUNITY

Provide a transportation network that preserves the character of the City and promotes changes in land use patterns and the transportation system that makes it more convenient for people to walk, bicycle, use transit, and drive less to meet their daily needs.

OBJECTIVES:

1. Maintain and enhance Dayton's compact, pedestrian-friendly, small-town character.
2. Support improvements that make the downtown area safe and comfortable for pedestrians, including the use of landscape elements such as street trees, public parks, and trail systems.
3. Increase efforts to develop sidewalks and bikeways between residential areas and activity centers.
4. Coordinate with Yamhill County and ODOT in the development of a county-wide bikeway plan and a designated bicycle route.
5. Promote bicycle paths between schools, parks, commercial areas, and residential areas throughout the City.
6. Install bicycle lanes as part of arterial and collector street improvements.
7. Improve the transportation systems that provide direct access to local employment and regional employment centers.
8. Support regional tourism and strategies to encourage stops by visitors.
9. Adequately involve the needs of agricultural enterprises to support the growth of sustainable agriculture sectors.
10. Balance the needs and desires of a small city with a major highway running through it and regional travel needs.

Goals and Objectives (continued)

GOAL 4

COORDINATION

Provide a cohesive regional transportation system that coordinates with regional partners for an inter-connected system.

OBJECTIVES:

1. Improve and maintain relationships with ODOT, Yamhill County, Yamhill County Transit, and neighboring municipalities such as McMinnville, Newberg, Dundee, Lafayette, and Salem.
2. Coordinate with regional, county, and state transportation policies and goals.
3. Adopt code revisions to implement the State TPR.
4. Work with transit service providers to provide services and amenities that encourage and increase ridership.
5. Develop strategies for regional project coordination and integration to improve congestion and alleviate delays on regional facilities and highways, including the Newberg-Dundee Bypass.
6. Seek from ODOT higher levels of maintenance for 3rd Street (OR 221) and Ferry Street (OR 155).
7. Pursue transfer of ownership of Ferry Street (OR 155) from ODOT to the City.

GOAL 5

EQUITY AND SUSTAINABILITY

Provide a transportation system that satisfies the present community without compromising the ability of future generations to meet their needs.

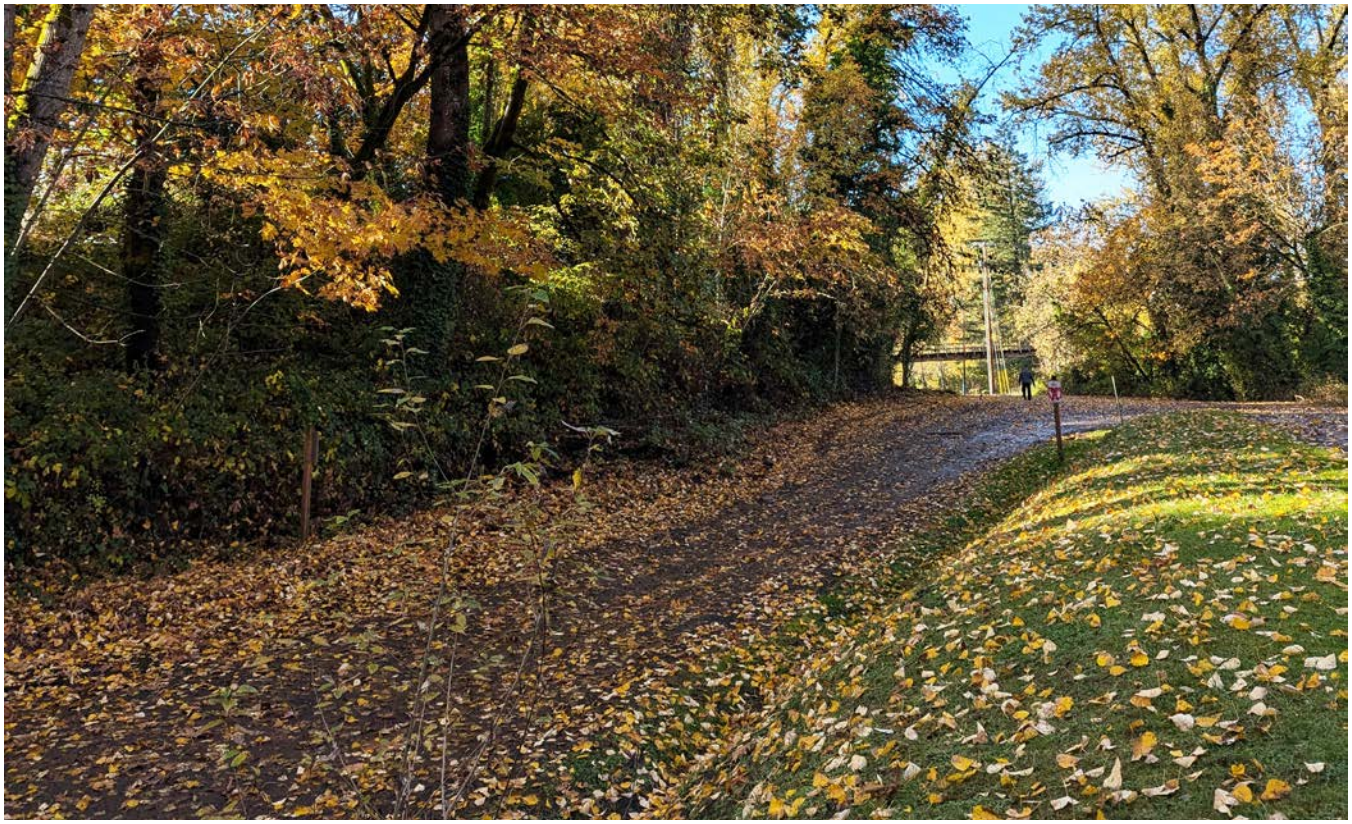
OBJECTIVES:

1. Ensure the transportation system provides equitable access for all people, taking into consideration the range of ages, abilities, and incomes of Dayton's residents.
2. Minimize the impacts of transportation system improvements on existing land uses, paying special attention to protecting natural resources.
3. Encourage infill development and placemaking within the existing fabric of the City and avoid auto-oriented commercial strip development.
4. Include the public in decision-making and planning processes to ensure transportation development continues to meet the needs of the community.
5. Align planning and development with ODOT Climate-Friendly and Equitable Communities (CFEC) recommendations to reduce greenhouse gas emissions and encourage climate-friendly transportation options.

04. CURRENT TRAVEL CONDITIONS

This TSP addresses the current conditions that shape how people move in and around Dayton.

The City of Dayton lies in the Willamette Valley, about 25 miles southwest of Portland and 5 miles east of McMinnville. (From Dayton city limits to McMinnville city limits, the distance is approximately 2.5 miles.) Dayton is home to approximately 2,700 people. The local economy is mainly supported by education, construction, hospitality, and agriculture. Farmland in the surrounding area drives regional travel and brings freight traffic to town.



Demographics

Population demographics, including age, income, and disability, influence travel choices. Older and younger residents, as well as those with lower incomes and disabilities, tend to drive less and walk, use mobility devices (such as wheelchairs, scooters, or walkers), or travel by bike more frequently. The travel needs of all members of the community should influence how Dayton designs and maintains its transportation system. Key demographic characteristics of Dayton's community are shown in **FIGURE 3**.

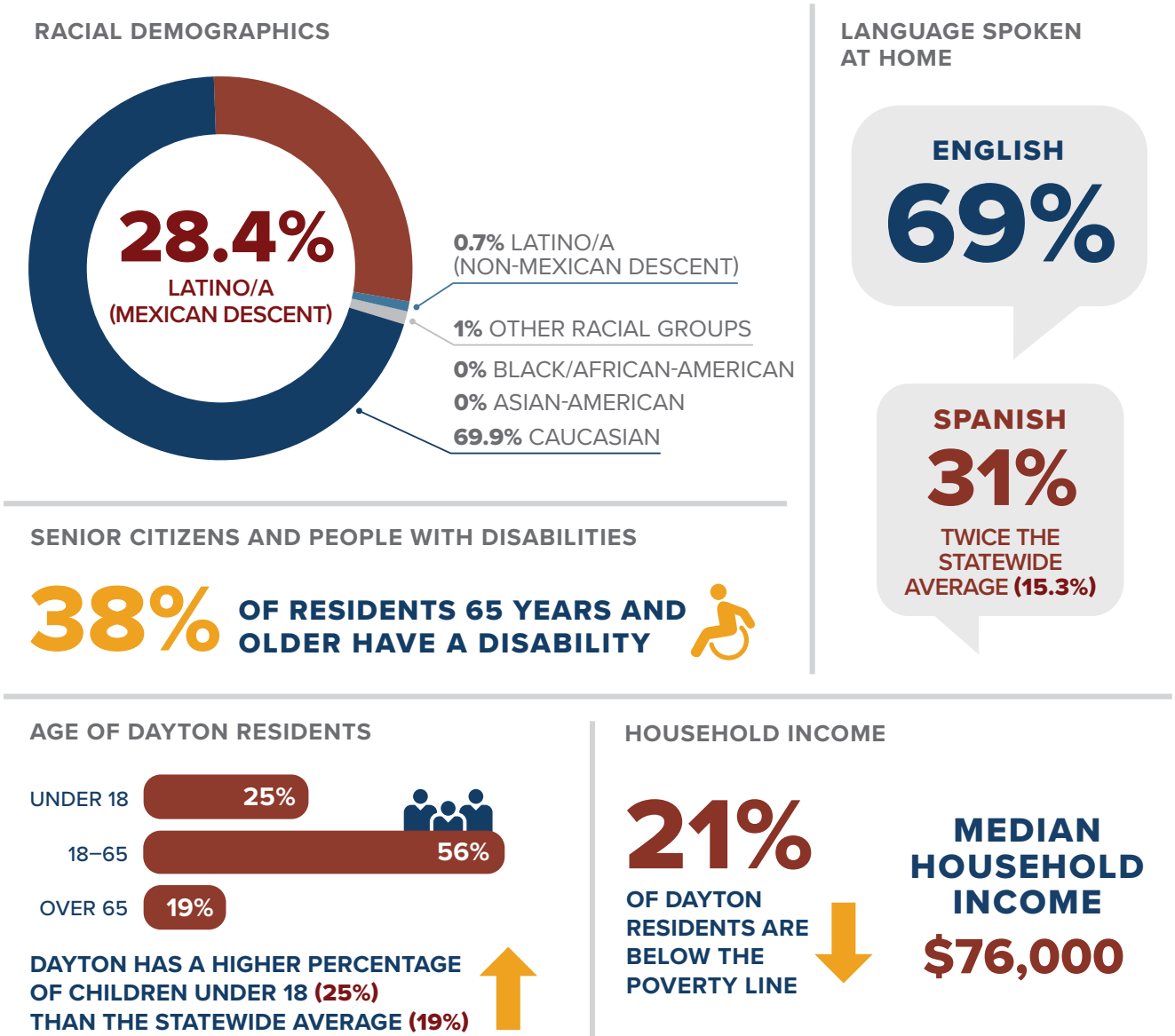


FIGURE 3. DAYTON DEMOGRAPHIC CHARACTERISTICS

Land Use and Transportation

Transportation demand in Dayton is directly related to how the land has been developed and is planned to be developed. Therefore, it is important to understand local land use patterns, how they are connected to the roadway system, and where growth is expected to occur. **FIGURE 4** shows the current zoning within the City.

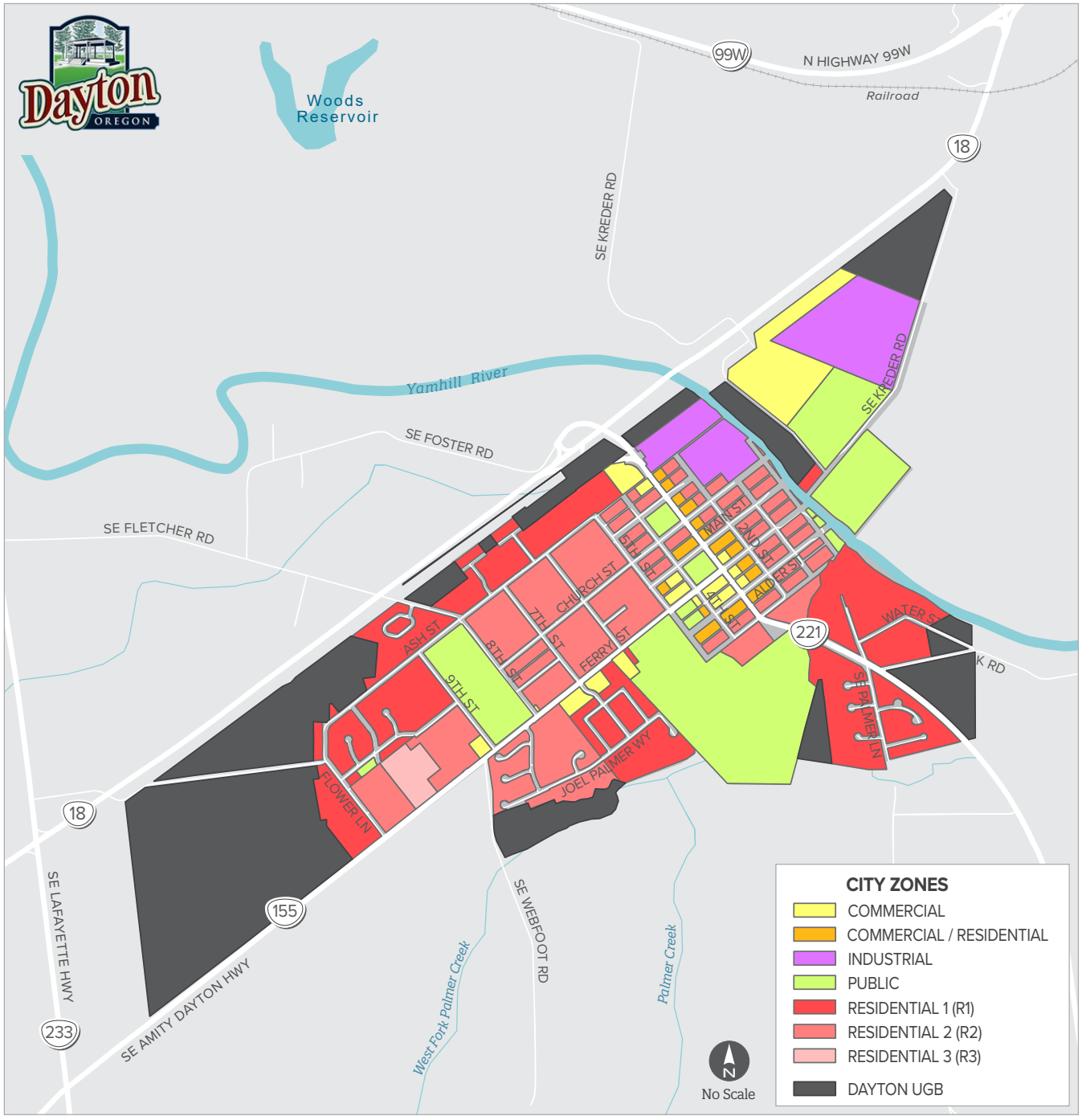


FIGURE 4. EXISTING LAND USE AND ZONING

Local activity centers that attract pedestrian and bicycle traffic, including schools, parks, and shops and restaurants in the downtown area, are concentrated along 3rd Street (OR 221) and Ferry Street (OR 155). In addition, over 40 locations in Dayton are listed on the National Register of Historic Places[1], many of which are located along Ferry Street and 4th Street, 5th Street, and 7th Street.

Travel Patterns

On a typical weekday, the highest number of vehicle trips occur between Dayton and McMinnville (about 30% via OR 18) and within Dayton (nearly 24%), as shown in **FIGURE 5**. A portion of residents travel outside the City on a regular basis to other cities such as Newberg, Lafayette, Salem, Hillsboro, and Portland.

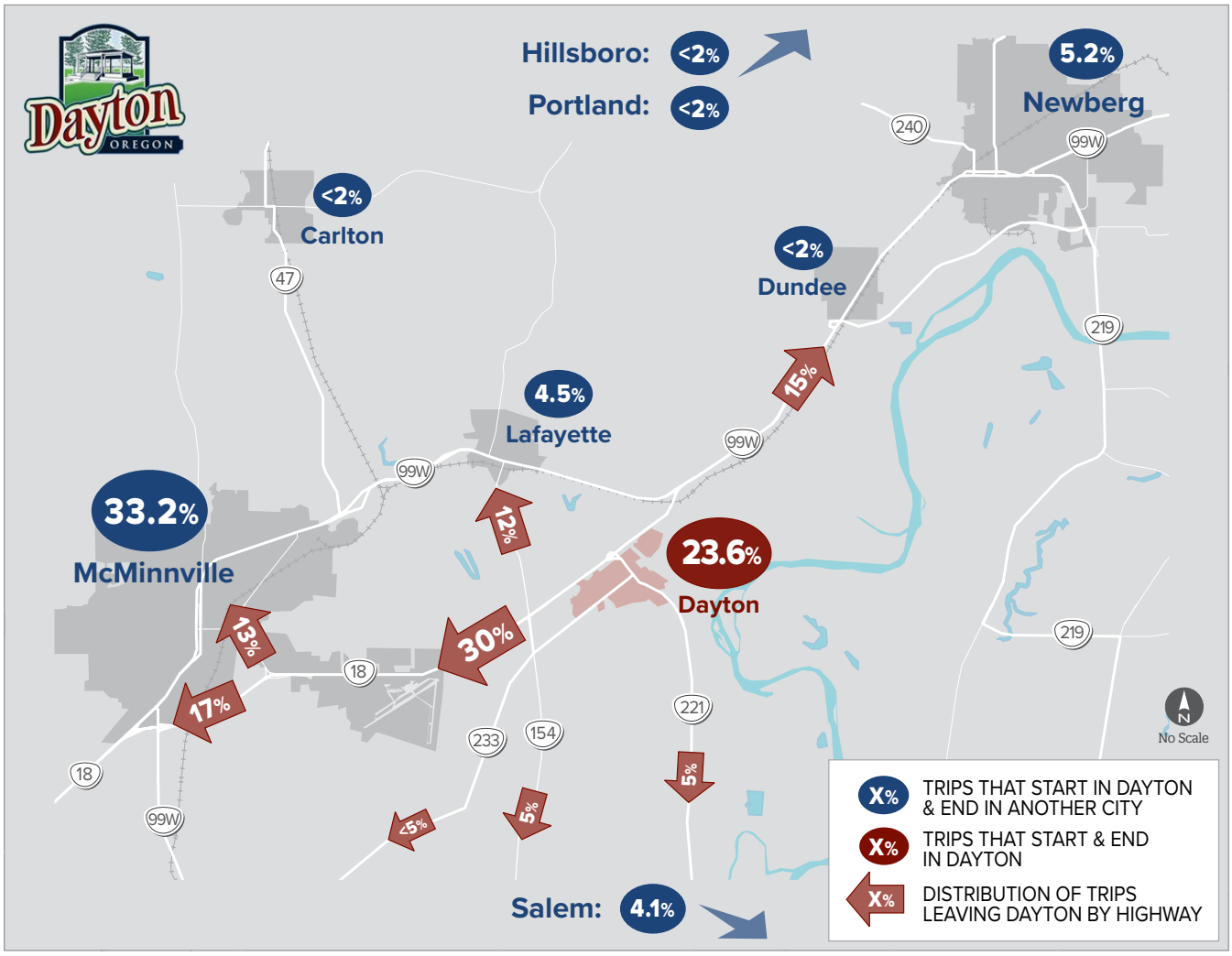


FIGURE 5. DESTINATIONS OF TRIPS ORIGINATING IN DAYTON

1 https://www.daytonoregon.org/historic-dayton-places/

Transportation System Overview

Dayton's transportation system reflects the character of a small but growing community, with a network that primarily serves local travel needs and connects to surrounding cities through state highways. OR 221 (3rd Street) and OR 155 (Ferry Street) function as the City's primary travel corridors.

The existing transportation system has many notable strengths.

- **Intersections**: Most intersections operate efficiently with minimal congestion. There are no traffic signals within the City, and there is no expected need for signals by Year 2045.
- **Walking, biking, and rolling**: Sidewalks are present in the historic downtown area and near schools, but along key residential routes, the sidewalk network is incomplete. Dedicated bicycle facilities are currently absent.
- **Transit**: Transit service is limited but provides essential connections to nearby communities.
- **Safety**: Safety conditions are generally good, with no fatal crashes reported over the past 5 years, although some intersections have higher-than-expected crash rates or visibility issues. Key safety concerns for Dayton residents include speeding and pedestrian and biking routes to schools.
- **Heavy vehicles**: The City's freight and agricultural users rely on state highway access for goods movement, particularly along OR 18 and OR 221 (3rd Street).

While the existing system meets many of Dayton's current needs, challenges remain related to connectivity, accessibility, and multimodal options—particularly for pedestrian activities, biking, or relying on transit. These limitations will become more pronounced as the City grows and travel patterns evolve.

Road Network

The City of Dayton's roadway network is composed of a combination of locally maintained streets and state highways that serve both community access and regional connectivity functions. Key state facilities include OR 221 (3rd Street), OR 155 (Ferry Street), OR 18, and OR 233 (near Dayton but outside its UGB), which fall under ODOT jurisdiction.

Most intersections in Dayton work well and are rarely crowded. Still, there are a few spots where safety is a concern due to documented crash history, especially at the eastbound entrance and exit ramps for OR 18 at 3rd Street (OR 221) and at the intersection of Ash Street/Ash Road/Flower Lane, where it's hard to see approaching vehicles and make turns safely. As Dayton continues to grow, especially in the southwest part of town, it will be important to monitor these areas and plan for safety improvements.

Pedestrian and Bike Infrastructure

Dayton's pedestrian and bicycle networks are limited in availability and connectivity, reflecting the community's historical development patterns and emphasis on vehicular travel. Sidewalks are primarily located in the City's downtown core, near schools, and along select residential blocks. Outside of these areas, sidewalk coverage is intermittent or absent, particularly along key corridors like Ash Road, Flower Lane, and segments of 3rd Street (OR 221) and Ferry Street (OR 155). Many sidewalk segments lack ADA-compliant ramps or sufficient buffer space from traffic, limiting accessibility for people who use mobility devices (including wheelchairs, scooters, and walkers), older adults, and children.

There are currently no designated bike lanes or marked bike routes in the City. All bikes must travel in mixed traffic, which can be challenging for some riders—especially along higher-traffic corridors such as 3rd Street (OR 221). Despite these limitations, local destinations such as schools, parks, and downtown businesses generate regular pedestrian and bicyclist activity, highlighting a strong potential for future investment in active transportation infrastructure.

The City's parks, schools, and historic downtown are well-positioned to serve as anchors for an improved pedestrian and bicycle network. As new development occurs, there is an opportunity to integrate sidewalks, crosswalks, multi-use paths, and bikeways that fill network gaps, support safer travel options, and expand access for all users. Prioritizing these improvements will be essential to meeting the community's goals for livability, equity, and sustainability.

Transit

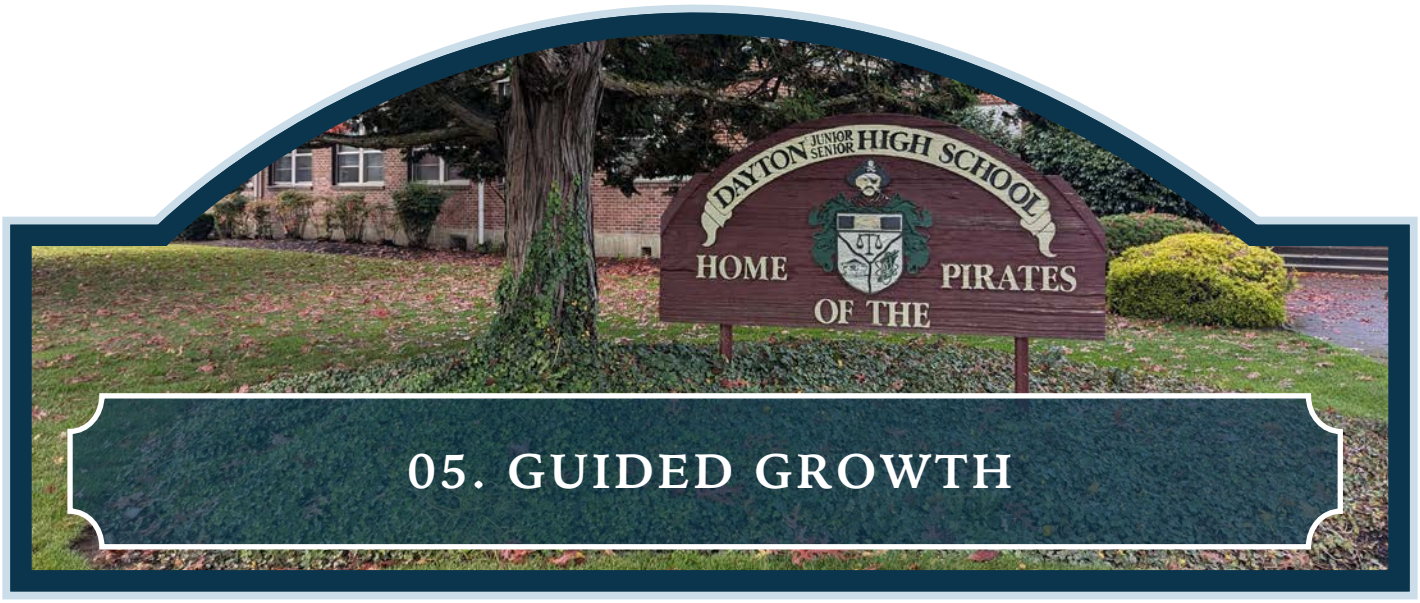
The City of Dayton is served by the Yamhill County Transit Area (YCTA). YCTA operates Route 44 between McMinnville and Tigard on weekdays that includes service in Dayton. Route 44 does not provide service on Sundays, and Saturday service is suspended until further notice. This limits transportation options for Dayton residents who use transit to commute to work, travel for social/recreational activities, or access essential services like grocery stores, medical appointments, banks, and legal services.

Freight

Trucks and freight vehicles travel to and from Dayton throughout Yamhill County and the surrounding region for construction and agricultural purposes. Major freight traffic generators include the Knife River asphalt plant accessed via 3rd Street (OR 221) and restaurants and stores along Ferry Street (OR 155).

OR 18 on the north side of the City is a designated freight route. Freight vehicles from OR 18 typically enter Dayton from the north via 3rd Street (OR 221) and likely travel to destinations along Ferry Street (OR 155). Although 3rd Street (OR 221) and Ferry Street (OR 155) are not designated freight routes, roadway cross -sections and intersections must be designed to ensure that lane width and turning radii allow trucks to travel safely.

Dayton can be accessed by freight traffic from the south via OR 221 (SE Dayton-Salem Highway No. 150) or SE Webfoot Road. From the west, Dayton can be accessed via OR 154 (Lafayette Highway No. 154) or OR 233 (Amity-Dayton Highway No. 155).



05. GUIDED GROWTH

Existing patterns set the stage for anticipating how growth will create new transportation pressures. As Dayton grows, its transportation system must adapt to new challenges and opportunities.

Growth Assumptions

According to forecasts from the Portland State University Population Research Center, Dayton's population is expected to grow from approximately 2,704 residents in 2024 to 3,177 by 2045, a 17% increase. The City anticipates the need for over 400 new housing units to accommodate future growth and identified a 100-acre tract in the southwest part of the City's UGB as the primary area for this growth. This development will require new collector and local street connections, expanded pedestrian and bicycle infrastructure, and enhanced access to regional highways.

In addition to residential growth, Dayton is preparing for steady commercial growth, particularly along Ferry Street (OR 155) and 3rd Street (OR 221) near the downtown area. These future land use changes within and around the City of Dayton's UGB will create new travel demands that are likely to impact the existing transportation system.

Regional Network Improvements

Planned and Funded Projects

As of August 2025, a roundabout is planned for construction at the intersection of OR 18/SE Lafayette Highway (OR 154) per the Yamhill County Transportation System Plan.[1] After construction, there will also be a turn restriction from full access to right-in, right-out at the intersection of Ash Road/OR 18.

Potential Projects

As of August 2025, Phase 3 of the Newberg-Dundee Bypass project is in the conceptual planning stage and may extend into Dayton city limits. This project is most likely to construct a partial cloverleaf interchange at Kreder Road and a new vehicle bridge over the Yamhill River connecting to Ferry Street (OR 155). This new connection may establish a vehicle route at the current site of the utility and foot bridge leading to Alderman Park.

1 Yamhill County Transportation System Plan. Adopted November 2015.

The project has no identified funding and was not considered during the development of projects for this TSP. However, if constructed, the project team notes that traffic patterns may affect Dayton through the following:

- Removal of access from Kreder Road to/from OR 18
- An increase in traffic on Ferry Street (OR 155) due to the new bridge
- Shifting of traffic destined for/originating in Dayton from the OR 18/OR 221 interchange to the new Ferry Street bridge.
- Traffic generated by future development along Kreder Road traveling along Ferry Street (OR 155) to the new bridge or the new partial cloverleaf interchange

Challenges and Opportunities

Based on current conditions and anticipated growth, Dayton's transportation system is expected to continue serving motor vehicles and freight efficiently through 2045. However, targeted upgrades will be needed to address growing multimodal demands, safety concerns, and future development. System challenges are listed below and shown in **FIGURE 6**.

- Traffic is projected to grow about 1–2% per year, with slightly higher growth along Ferry Street (OR 155). Despite this growth, all key intersections are expected to operate within capacity thresholds through the planning horizon.
- Gaps in sidewalks and the absence of designated bike lanes—particularly along Ash Street, Ash Road, 3rd Street (OR 221), and Ferry Street (OR 155)—create barriers for people walking, biking, using mobility devices, or relying on transit. These issues are most critical in areas slated for residential expansion.
- Planned development west of Flower Lane will require new collector and local streets to ensure a well-connected network. Some roadways in growth areas also lack clear design standards or functional classification, posing challenges for long-term consistency.
- Through documented crash history, notable intersection safety issues have been identified at the OR 18 eastbound ramps at 3rd Street and the Ash Street / Ash Road / Flower Lane intersection. These locations may require visibility improvements, reconfiguration, or enhanced multimodal treatments. Future development and increased travel volumes will also elevate safety risks, particularly where sight distance, geometric constraints, or multimodal conflicts exist today.

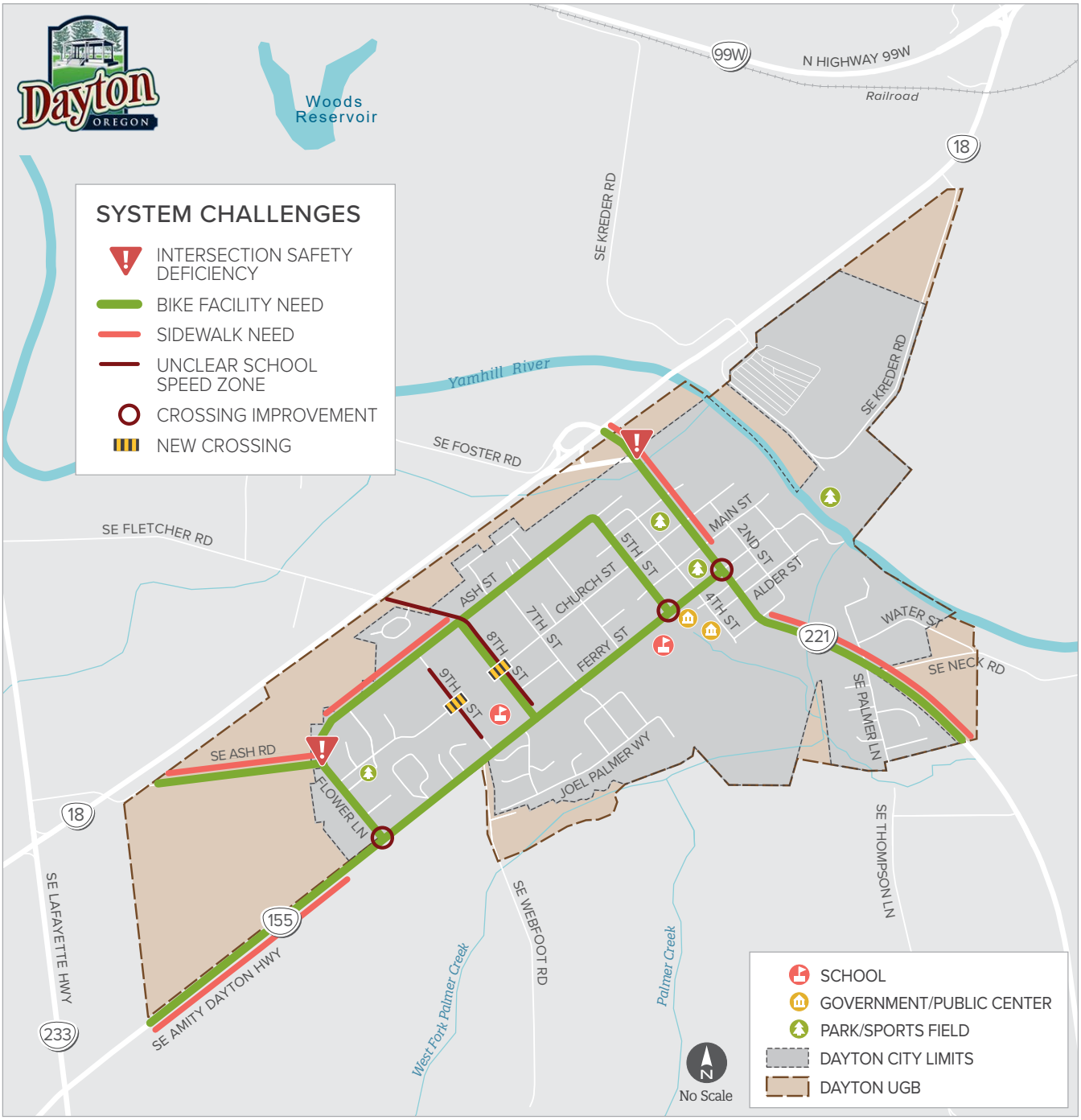


FIGURE 6. DAYTON TRANSPORTATION SYSTEM CHALLENGES

This TSP provides opportunities for strategic investments in infrastructure and design that will help Dayton maintain a safe, accessible, and resilient transportation system that supports all users as the community grows.

06. SYSTEM STANDARDS

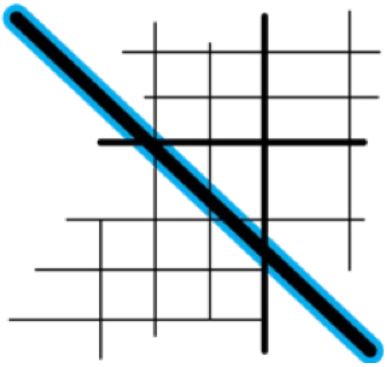
To effectively manage growth, Dayton relies on standards that guide how streets are designed. These standards are applied to all streets to ensure that the system functions as intended and that investments are used efficiently.

Street Functional Classification

Street functional classification is an important tool for managing the roadway network. The street functional classification system recognizes that individual streets do not act independently of one another but instead form a network in which each part works together to serve travel needs on a local and regional level. By designating the management and design requirements for each roadway classification, this hierarchal system supports a network of streets that perform as desired. The three primary levels of functional classification are arterials, collectors, and local streets.

Arterials

Arterials provide a high degree of mobility between major centers of metropolitan areas, as well as rural areas. They often serve high volumes of traffic (6,000 to 10,000 daily vehicles) over long distances, maintain higher posted speeds, and minimize direct access to adjacent land to support the safe and efficient movement of people and goods. Inside UGBs, speeds may be reduced to reflect the roadside environment and surrounding land uses. Ferry Street (OR 155) and 3rd Street (OR 221) are the only arterials in Dayton, both of which are under ODOT jurisdiction.



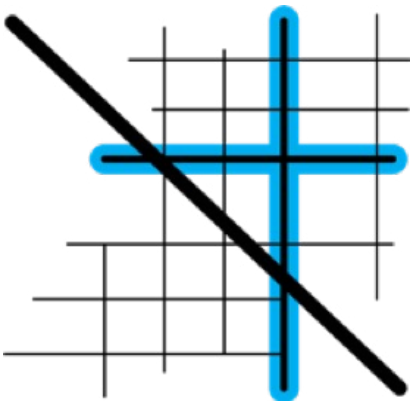
EXAMPLE OF ARTERIAL STREETS

Arterial streets are often the fastest and most direct routes for all modes of travel, including people walking, biking, and using mobility devices. However, facilities for pedestrians and bicyclists should be designed to provide a greater degree of separation from the higher volumes and speeds of auto traffic. Wider and more heavily traveled arterial streets can also present barriers for pedestrians and bicyclists where they need to cross the street to reach a destination. Therefore, the need for enhanced crossing opportunities may be greater.

Collectors

Collectors serve a critical role in the roadway network by connecting traffic from local streets with the arterial network. The general traffic volume on a collector ranges from 1,000 to 6,000 daily vehicles, and speeds are often managed between 25 miles per hour (mph) and 35 mph.

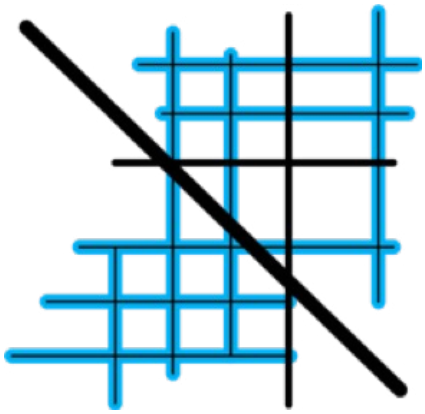
Due to the lower auto traffic volumes and speeds compared to arterials, traveling on major and minor collectors is generally more comfortable for pedestrian activities and bicyclists. However, separate biking facilities are still needed.



EXAMPLE OF COLLECTOR STREETS

Local Streets

Local streets prioritize providing immediate access to adjacent land. These streets should be designed to enhance the livability of neighborhoods and should generally accommodate less than 1,000 vehicles per day. When traffic volumes exceed 1,000 vehicles per day through residential areas, safety and livability can be compromised. A well-connected grid system of relatively short blocks can minimize excessive volumes of motor vehicles, limit out-of-direction travel, and encourage walking and biking. Speeds are not normally posted, with a statutory 25 mph speed limit in effect. Local streets are not intended to support long distance travel and are often designed to discourage through-traffic.



EXAMPLE OF LOCAL STREETS

Local streets typically provide low-stress travel routes for pedestrians and bicyclists. Due to lower vehicle volumes and speeds, dedicated bicycle facilities are not required on local streets and cyclists can share the lane with vehicles. Dedicated pedestrian facilities are required, and even curb-adjacent sidewalks on local streets can still provide a high level of comfort.

FIGURE 7 shows the functional classification for roadways in Dayton. **TABLE 1** and **TABLE 2** highlight the proposed changes in this TSP. For new roadways such as the future streets in the southwest area, the appropriate functional classification was selected based on expected land use, expected travel demands, and street spacing requirements.

TABLE 1. CHANGES TO FUNCTIONAL CLASSIFICATION ON EXISTING ROADWAYS

ROUTE	PREVIOUS FUNCTIONAL CLASSIFICATION	NEW FUNCTIONAL CLASSIFICATION
5TH STREET	Local street	Collector
ASH ROAD	Local street	Collector

TABLE 2. FUNCTIONAL CLASSIFICATION FOR PROPOSED ROADWAYS

FUTURE ROUTE	PROPOSED FUNCTIONAL CLASSIFICATION
NEW STREETS IN UGB SWAP AREA	Collector (three streets)

Note: Alignments of the new collector streets are conceptual, and final alignments are to be determined by the City at the time of development.

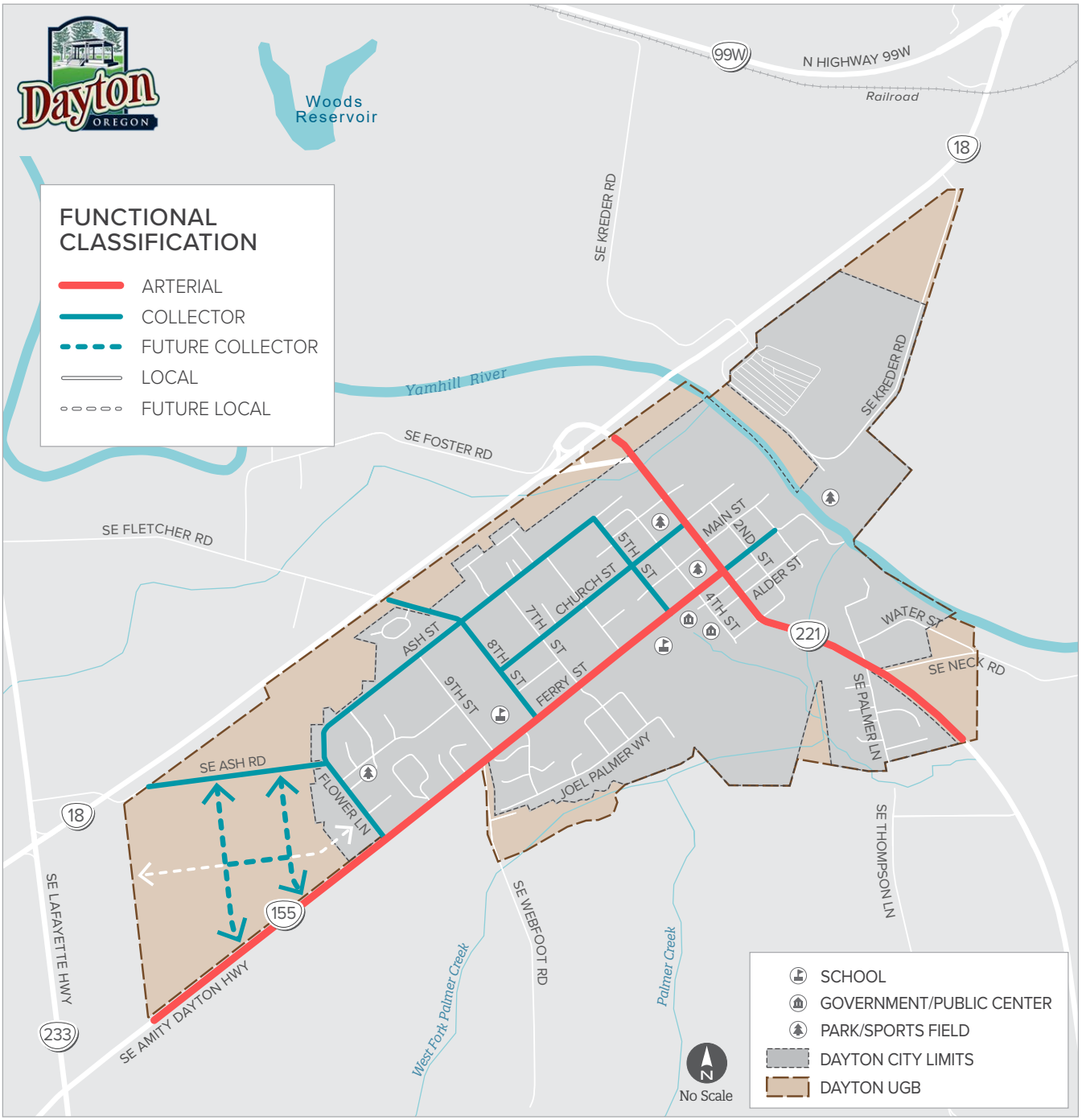


FIGURE 7. FUNCTIONAL CLASSIFICATION

Local Street Connectivity

Local street connectivity is required by the Oregon TPR (OAR 660-012) and is important for Dayton's continued development. Providing adequate connectivity can reduce the need for costly wider roads, traffic signals, and turn lanes. Increased connectivity can reduce a city's overall vehicle-miles traveled (VMT), balance the traffic load on major facilities, encourage community members to seek out other travel modes, and reduce emergency vehicle response times. While improving local street connectivity is easier to implement in newly developed areas, retrofitting existing areas to provide greater connectivity should also be attempted.

Local street connectivity is accomplished through development code requirements such as street spacing. The design and construction of new connecting streets must evaluate whether neighborhood traffic management strategies are necessary for the safety and livability of developing neighborhoods.

Street Design

Dayton's street design standards set expectations for how streets should look and function. Cross-section standards are defined in the Dayton Municipal Code (City Code)[1] and Dayton Public Works Design Standards (PWDS)[2]. For any new roadway, re-development, or urban upgrade within the Dayton UGB, the developer or controlling municipality is required to bring the street or adjacent right-of-way up to current standards, including any sidewalk infill. Additionally, all new streets and multimodal projects should incorporate current best practices for bike and pedestrian facilities.

Access Spacing and Street Spacing

Driveways and intersections are locations of high conflict among vehicles, bikes, and pedestrians. To keep traffic flowing smoothly and reduce crashes, Dayton uses spacing standards that regulate the distance between driveways and streets. Driveways/access points and streets must meet the spacing requirements outlined in **TABLE 3**.

TABLE 3. ACCESS SPACING STANDARDS FOR CITY STREETS

STREET CLASSIFICATION	MINIMUM DRIVEWAY/ ACCESS SPACING STANDARD	MINIMUM STREET SPACING STANDARD	MAXIMUM STREET SPACING STANDARD
COLLECTOR	75 feet	150 feet	600 feet
LOCAL	25 feet (No minimum for single-family residential driveways)	150 feet	600 feet

Driveway/access spacing is measured from centerline to centerline.

The City reserves the right to allow an access spacing variance where no reasonable alternatives exist or where strict application of the standards would introduce a hazard.

Because the City does not have jurisdiction over any arterial roadways, no arterial standards are provided. Access spacing standards for ODOT facilities are defined in the OHP.

1 Section 7.2.302, Dayton Municipal Code. Effective June 2025.

2 Division 2: Streets, Dayton Public Works Design Standards. Last updated September 2025.

Intersection Mobility Standards

Mobility standards, or targets, are the thresholds set by an agency for the maximum amount of motor vehicle congestion that is acceptable for a given roadway. Adopted mobility standards can be used to prioritize investment decisions, help the City ensure that transportation facilities are improved in a timely manner to support new growth, and prevent a proposed development's traffic demand from exceeding available capacity.

City Mobility Standards

The City of Dayton has adopted an intersection mobility standard of Level of Service (LOS) D as the minimum acceptable operating condition for the weekday peak hour.

ODOT Mobility Standards

All intersections under ODOT jurisdiction in Dayton must meet the mobility targets outlined in the OHP. ODOT uses volume-to-capacity (v/c) ratios as performance measures for mobility rather than LOS. The ODOT v/c targets vary with highway classification, area type, and posted speeds.

Transportation Impact Analysis Standards

The development review process is designed to manage growth in a responsible and sustainable manner. By assessing the transportation impacts associated with land use proposals and requiring adequate facilities to be in place to accommodate those impacts, the City of Dayton can maintain a safe and efficient transportation system concurrently with new development, diffusing the cost of system expansion. Transportation Impact Analysis (TIA) guidelines implement OAR 660-012-0045 of the state TPR, which requires a process to apply conditions to land use proposals to minimize impacts on and to protect transportation facilities.

A TIA report is required to be submitted with a land use application at the request of the City of Dayton or if the proposal is expected to involve one or more of the following criteria:

1. A change in use, zoning, Comprehensive Plan designation, or access.
2. An increase in net trip generation of 25 AM or PM peak hour trips, or more than 250 daily trips.
3. An increase in the use of adjacent streets by 10 or more vehicles per day that exceed the 20,000-pound gross vehicle weight.
4. A requirement by Yamhill County or ODOT to address operational or safety concerns on facilities under their jurisdiction.
5. *For non-residential developments:* Changes to local street connectivity that would impact travel patterns.
6. *For non-residential developments:* Potential impacts to pedestrian and bicycle routes, including Safe Routes to School.
7. *For non-residential developments:* The location of an existing or proposed access driveway that does not meet minimum access spacing or sight distance requirements.

The City maintains the right to waive a TIA, even if one of these criteria are met.

The study area must include all site accesses and adjacent roadways and intersections. The study area must also include all off-site major intersections impacted by 25 or more peak hour vehicle trips within 1 mile of the site. The City Engineer must approve the defined study area prior to commencement of the TIA and may choose to waive the study of certain intersections if deemed unnecessary. These standards and all other requirements related to development review are addressed in the City's Land Use and Development Code (LUDC).

07. PLANNED PROJECTS

This TSP provides a list of projects that address current and future needs. The project list translates the shared vision and system opportunities into transportation system improvements that Dayton can implement over the next 20 years.

Project Development

The project team developed the recommended transportation projects using guidance provided by the project goals and objectives and with input from the PMT. Consistent with the TSP goals, project development focused on creating a balanced system that could provide travel options for a wide variety of needs and users. The solutions include lower-cost improvements to enhance existing infrastructure and extend its useful life rather than relying solely on the construction of new facilities, which requires substantial funding and may have greater impacts on the environment and adjacent property.

The final priority rankings (i.e., high, medium, or low) are listed in **TABLE 4** below. The project priority rankings do not create an obligation to construct projects in any order, and it is recognized that these priorities may change over time. The City of Dayton will use the priorities listed in this TSP to guide investment decisions but will also regularly reassess local priorities to leverage new opportunities and reflect evolving community interests.

Project Categories

- **Roadway (R)**: Projects along segments that alter the roadway or roadside character, or new road construction projects
- **Safety (S)**: Projects that address transportation safety needs
- **Multimodal (M)**: Projects that provide upgrades for pedestrian and/or bicycle travel

In addition to each project's description, additional information is provided:

- *Jurisdiction* shows which agency (City or ODOT) has ownership of the roadway(s). While there may be projects on state facilities that the City would like to prioritize in the next 20 years, these decisions are ultimately up to ODOT.

- *Priority* shows which projects are most important to implement first. Higher priority projects may be necessary to implement sooner for safety or capacity reasons.
- *Timeline* describes how long it may take to implement the project. A project's timeline often depends on the amount of planning and engineering necessary to implement the project.
- *Cost* shows the approximate cost of each project. All costs are 2025 estimates.

The project design elements are identified to create a reasonable cost estimate for planning purposes. The actual design elements for any project are subject to change and will ultimately be determined through a preliminary and final design process and are subject to City and/or ODOT approval.

TABLE 4. DAYTON TSP PROPOSED SOLUTIONS

ID	PROJECT NAME	DESCRIPTION	JURISDICTION [A]	PRIORITY	TIMELINE	COST [B]
R-1	FERRY STREET IMPROVEMENTS	Redesign Ferry Street from 1st Street to the western city limits to include buffered or separated bicycle facilities, sidewalk improvements, street furniture, landscaping, lighting, and on-street parking improvements. *Associated Projects: M-3*	ODOT	High	Long-term	$9,300,000
R-2	NEW PUBLIC STREET 1 (COLLECTOR/ LOCAL)	New east-west collector/local street south of Ash Road and west of Flower Lane.[C] *Associated Projects: R-3, R-4*	City	Low	Long-term	$7,400,000
R-3	NEW PUBLIC STREET 2 (COLLECTOR)	New north-south collector street south of Ash Road and west of Flower Lane.[C] *Associated Projects: R-2, R-4*	City	Low	Long-term	$3,700,000
R-4	NEW PUBLIC STREET 3 (COLLECTOR)	New north-south collector street south of Ash Road and west of Flower Lane.[C] *Associated Projects: R-2, R-3*	City	Low	Long-term	$4,600,000
R-5	CHURCH STREET COLLECTOR UPGRADES	Upgrade Church Street to meet collector street cross-section standards; includes sidewalk and curb improvements. *Associated Projects: M-4*	City	Medium	Mid-term	$6,810,000
R-6	5TH STREET COLLECTOR UPGRADES	Upgrade 5th Street to meet collector street cross-section standards; includes sidewalk and curb improvements. *Associated Projects: M-6*	City	Medium	Mid-term	$3,590,000

[A] Projects at locations under ODOT jurisdiction will require ODOT coordination and approval.

[B] All costs are 2025 estimates.

[C] Alignment shown is conceptual and final alignments are to be determined by the City at the time of future development.

ID	PROJECT NAME	DESCRIPTION	JURISDICTION	PRIORITY	TIMELINE	COST
R-7	ASH STREET COLLECTOR UPGRADES	Upgrade Ash Street to meet collector street cross-section standards; includes sidewalk and curb improvements. Additionally, implement traffic calming treatments west of 8th Street such as: • Raised intersection at Ash/9th Streets • Marked crosswalks • Curb extensions *Associated Projects: M-6*	City	Medium	Mid-term	$10,570,000
R-8	FLOWER LANE COLLECTOR UPGRADES	Upgrade Flower Lane to meet collector street cross-section standards; includes sidewalk and curb improvements. *Associated Projects: M-6*	City	Medium	Mid-term	$2,970,000
R-9	ASH ROAD COLLECTOR UPGRADES	Upgrade Ash Road to meet collector street cross-section standards; includes sidewalk and curb improvements.	City	Medium	Mid-term	$5,400,000
S-1	OR 18 EB OFF-RAMP/OR 221 IMPROVEMENTS	Short-term: Install low-cost stop-controlled intersection visibility upgrades through signing and striping improvements. Long-term: Conduct an intersection control evaluation (ICE) to determine the long-term preferred traffic control and safety improvements.	ODOT	High/Low	Short-term/ Long-term	Short-term: $50,000 Long-term: $30,000 for ICE report; $3,000,000 to $6,000,000 for traffic control change
S-2	ASH STREET/ ASH ROAD/ FLOWER LANE IMPROVEMENTS	Construct a traffic circle or mini roundabout. Consider a mountable island to accommodate heavy vehicles.	City	Medium	Short-term	$150,000
S-3	FERRY STREET/3RD STREET SAFETY IMPROVEMENTS	Add striped marked pedestrian crosswalks and ADA-compliant curb ramps on all approaches. Install stop ahead signage and other stop sign visibility enhancements. Consider curb extensions, high-visibility crosswalk striping, and pedestrian-level lighting to improve visibility.	ODOT	High	Short-term	$600,000
S-4	OR 221 CURVE IMPROVEMENTS	Install horizontal curve enhancements such as centerline rumble strips or postmounted delineators along the OR 221 curve south of Mill Street.	ODOT	Low	Short-term	$75,000
S-5	OR 221 GATEWAY TREATMENT	At the existing gateway treatment, install additional traffic calming gateway treatments such as landscaping, raised medians, lighting, and curb extensions near Neck Road on OR 221 to encourage lower speeds approaching the downtown area.	ODOT	Low	Short-term	$750,000

ID	PROJECT NAME	DESCRIPTION	JURISDICTION	PRIORITY	TIMELINE	COST
S-6	FERRY STREET GATEWAY TREATMENT	At the existing gateway treatment, install additional traffic calming gateway treatments such as landscaping, raised medians, lighting, artwork, and curb extensions along Ferry Street (OR 155) to encourage lower speeds approaching the downtown area.	ODOT	Low	Short-term	$850,000
M-1	CITYWIDE SIDEWALK INFILL	Infill gaps in the sidewalk on key pedestrian routes.	City	High	Mid-term	$2,450,000
M-2	FLOWER LANE MARKED CROSSWALK	Improve pedestrian crossing on the Flower Lane approach at Ferry Street by striping a marked crosswalk and removing overgrown vegetation to maximize sight distance. *Associated Projects: R-8*	ODOT	High	Short-term	$150,000
M-3	FERRY STREET ENHANCED PEDESTRIAN CROSSING	Install pedestrian crossing enhancements at the marked crosswalks on Ferry Street at 5th Street OR near the elementary school by installing curb extensions and rectangular rapid flashing beacons (RRFB). Consider pedestrian-level lighting to improve visibility. *Location of pedestrian crossing enhancements to be determined based on ODOT traffic manual and approval. *Associated Projects: R-1*	ODOT	High	Short-term	$500,000
M-4	8TH STREET/ CHURCH STREET MARKED CROSSWALK	Construct a new marked pedestrian crossing of 8th Street at Church Street. Consider curb extensions, high-visibility crosswalk striping, pedestrian-level lighting, and school crossing signage to improve visibility. *Associated Projects: R-5*	City	Medium	Short-term	$400,000
M-5	OR 221 PEDESTRIAN AND BIKE IMPROVEMENTS	Construct multimodal improvements such as a multi-use path, bike lanes, sidewalks, and enhanced crossings along OR 221 (3rd Street) from Church Street to the southern UGB. Consider enhanced crossing near Neck Road.	ODOT	High	Long-term	$10,800,000
M-6	NEIGHBORHOOD GREENWAY IMPROVEMENTS	Create a neighborhood greenway loop on 5th Street, Ash Street, and Flower Lane using shared bike lane markings (sharrows) and signage. *Associated Projects: R-6, R-7, R-8*	City	High	Short-term	$150,000

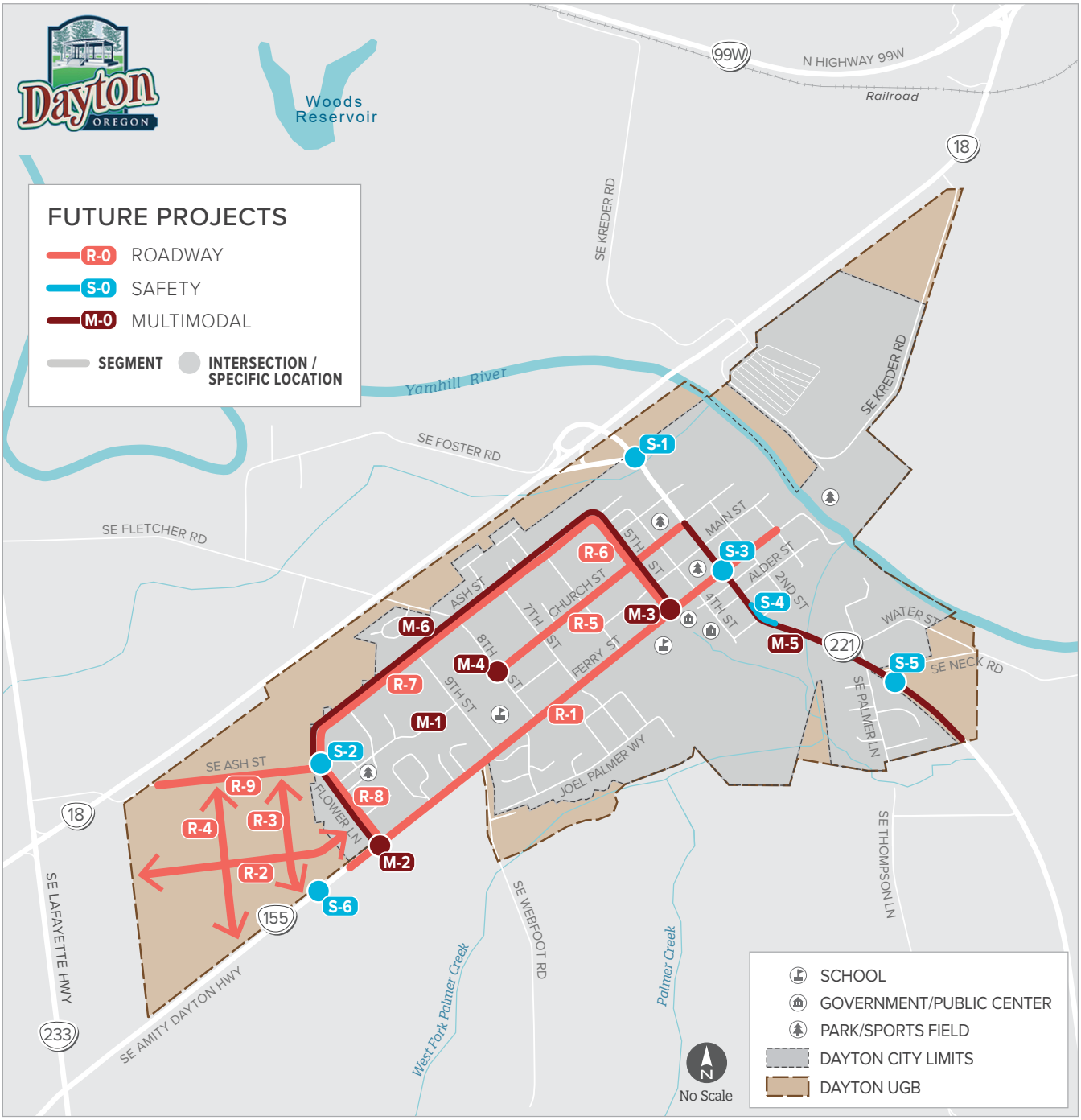


FIGURE 8. DAYTON TSP PROJECTS

Project Descriptions

Ferry Street Improvements

Project **R-1** will reconstruct Ferry Street (OR 155) to provide a multimodal corridor with improved sidewalks, bike facilities, and delineated on-street parking. The intent of this project is to establish Ferry Street (OR 155) as a primary travel route for pedestrian and bicycle activity in addition to vehicles and freight. The project will also consider adding electric vehicle chargers near key destinations such as Courthouse Square Park and City Hall to support the central business district. The City of Dayton will be responsible for any additional landscaping maintenance.

This TSP does not recommend a specific design, as extensive public outreach, coordination, and preliminary survey must take place to identify potential alternatives before selecting a preferred alternative. Important considerations during the project's design are listed as follows:

- Because Ferry Street (OR 155) is owned and maintained by ODOT, solutions are guided by the Highway Design Manual (HDM). All improvements on Ferry Street must consider the corridor's urban design context and comply with HDM descriptions for land use and roadway cross sections, including the pedestrian, transition, and travelway realms.
- Right-of-way widths vary from 60 feet to 80 feet along Ferry Street (OR 155), as shown below. The final design will have different cross sections on each block to accommodate the varying right-of-way; for example, parking on one side of the street may be removed. Example cross sections that may comply with the HDM are provided on the following page.
- Some aspects of the project, such as separated bike facilities, could be introduced using low-cost temporary strategies, such as pavement markings and post-mounted delineators, before they are permanently constructed.

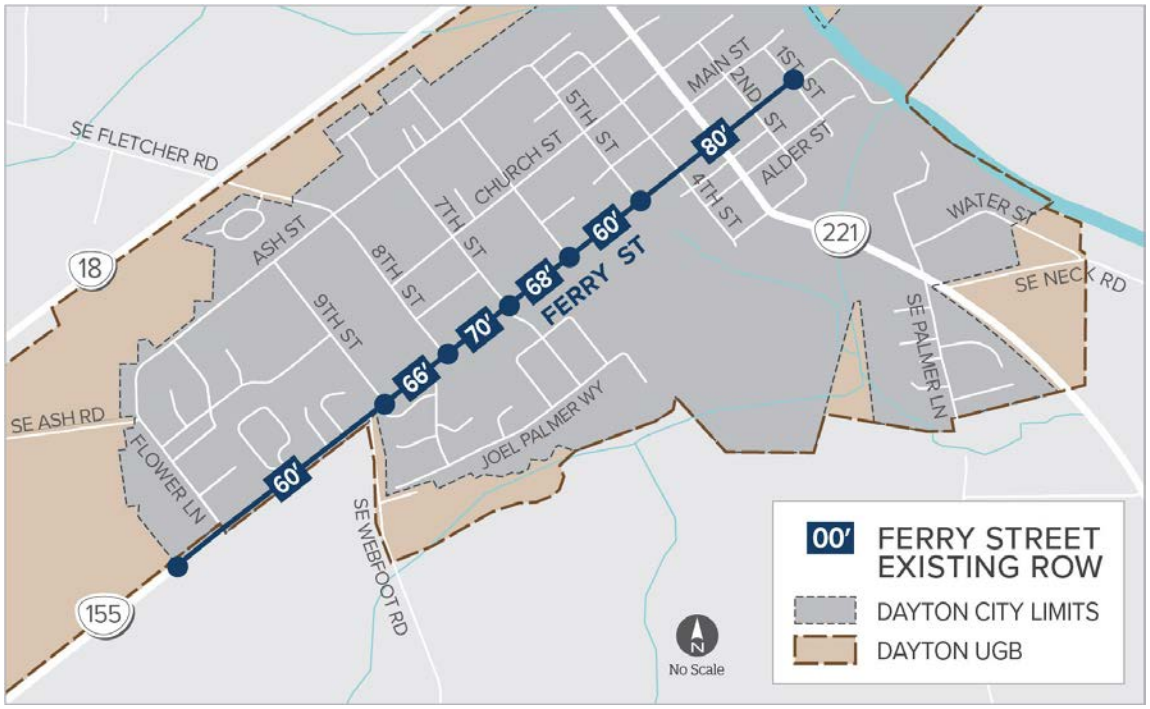


FIGURE 9. FERRY STREET EXISTING ROW

Ferry Street Option 1 – Two-Way Cycle Track

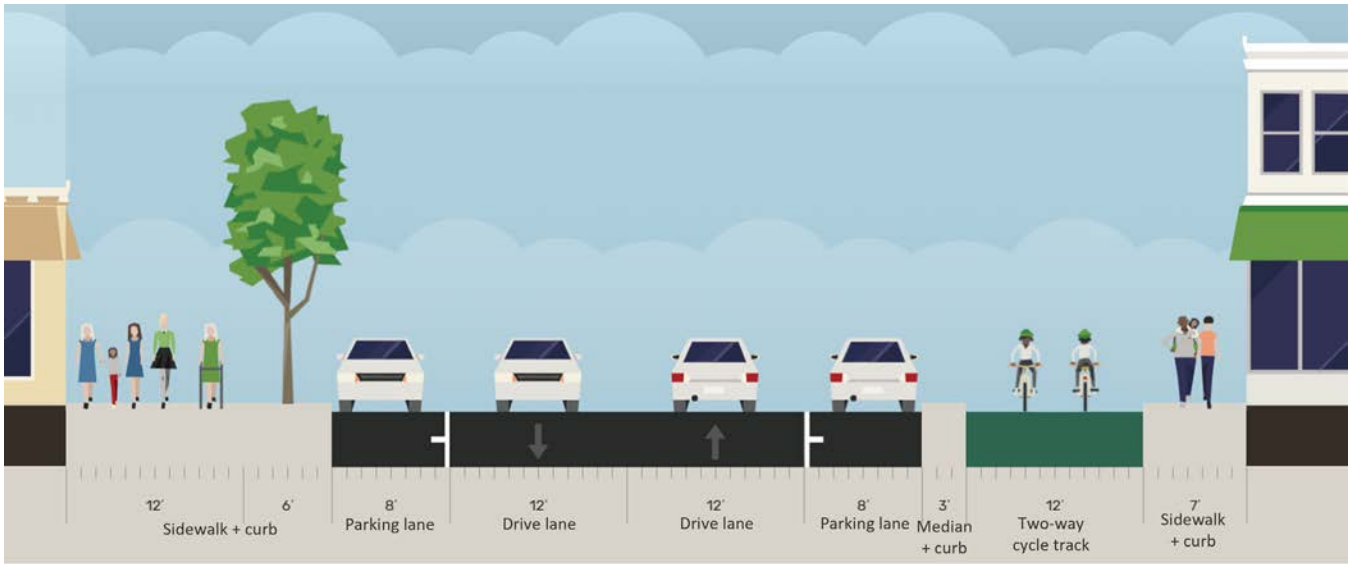


FIGURE 10. 80' RIGHT-OF-WAY EXAMPLE

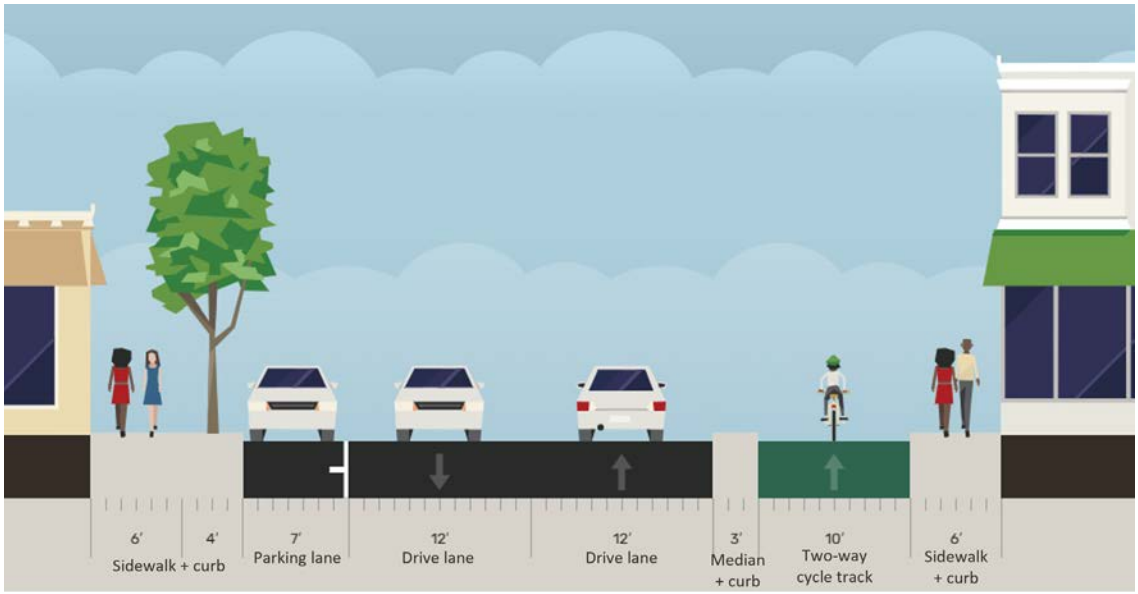


FIGURE 11. 60' RIGHT-OF-WAY EXAMPLE

Ferry Street Option 2 – Protected Bike Lanes (Outside Parking Area)

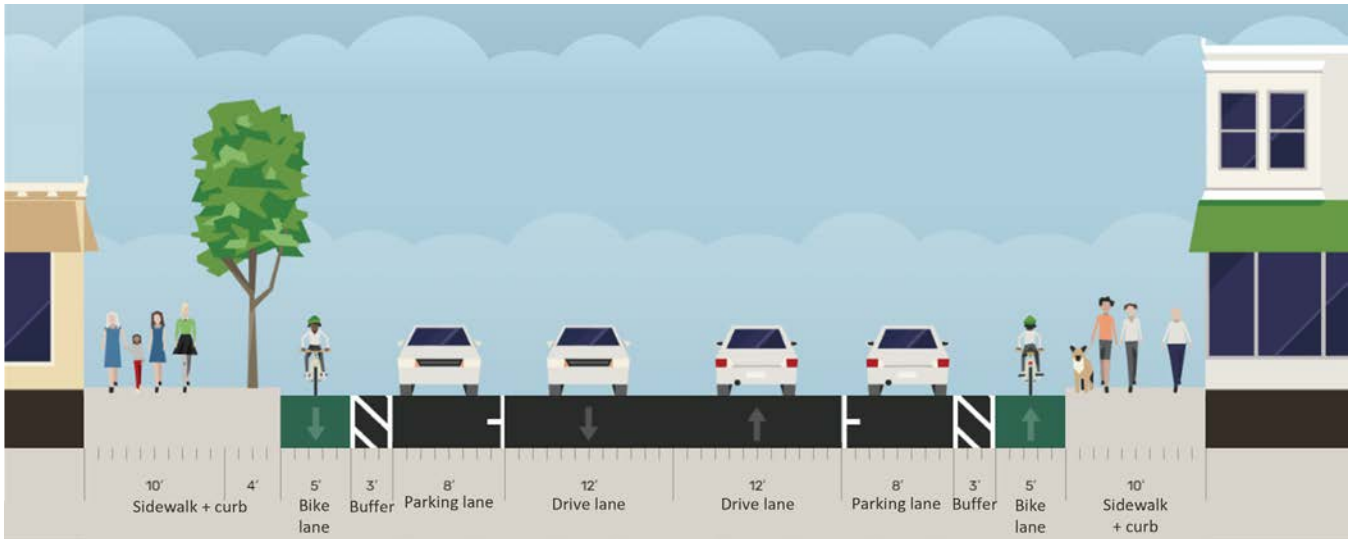


FIGURE 12. 80' RIGHT-OF-WAY EXAMPLE

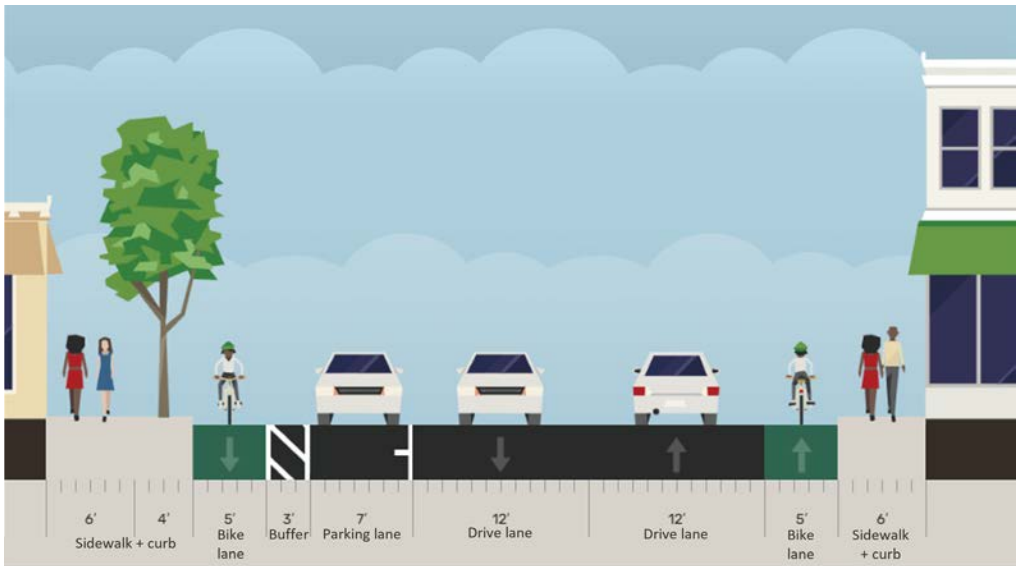


FIGURE 13. 60' RIGHT-OF-WAY EXAMPLE

Ferry Street Option 3 – Buffered Bike Lanes (Inside Parking Area)

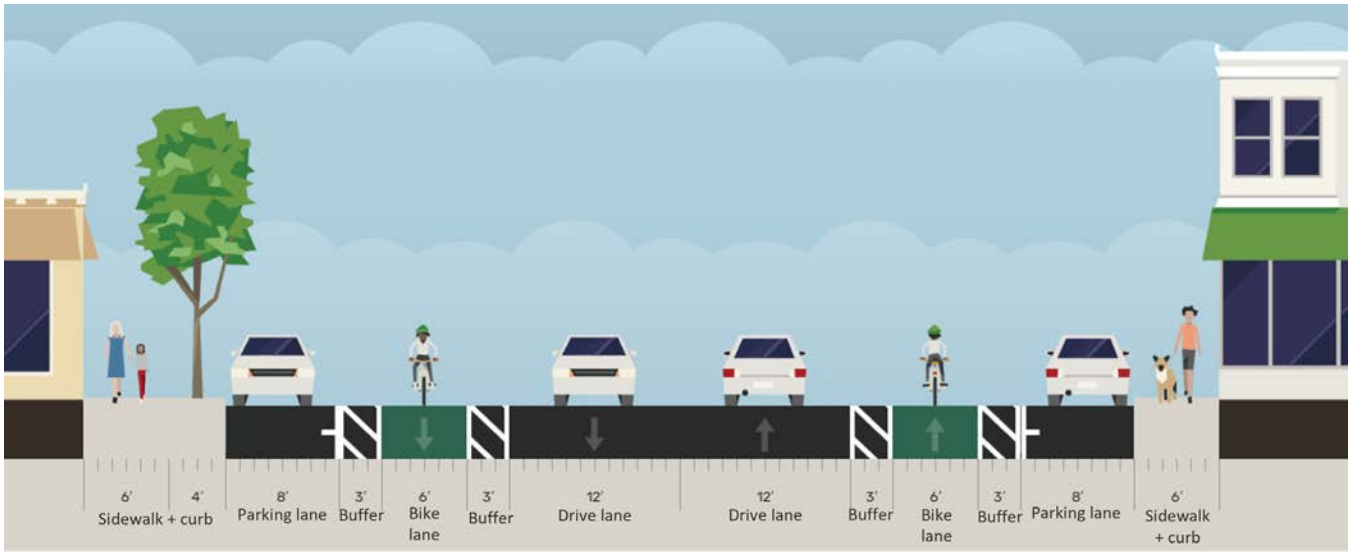


FIGURE 14. 80' RIGHT-OF-WAY EXAMPLE

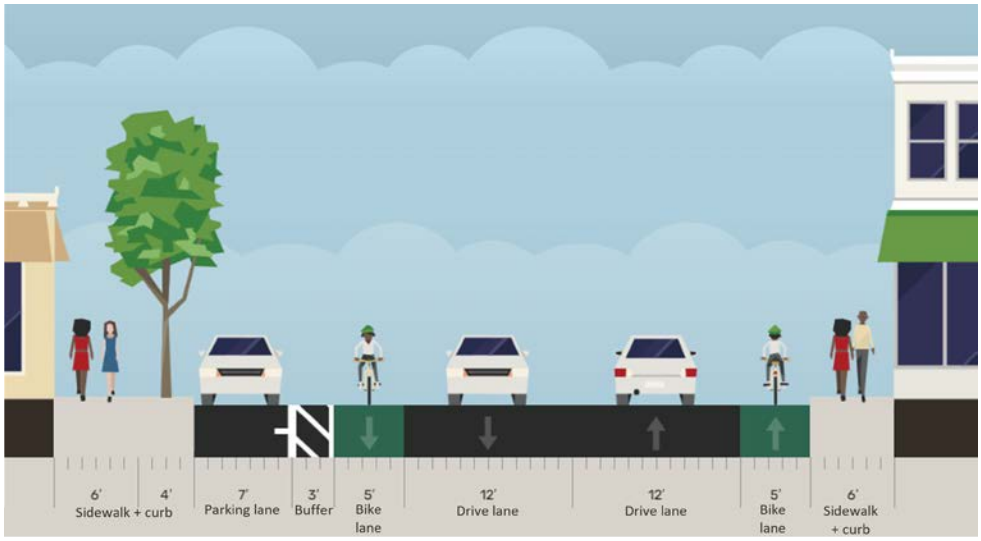


FIGURE 15. 60' RIGHT-OF-WAY EXAMPLE

High Priority Projects

The highest-value transportation projects for Dayton, regardless of the likelihood of funding or implementation, are summarized below. These projects rose to the top of the prioritization process based on the evaluation criteria developed to measure alignment with Dayton's transportation goals and objectives.

TABLE 5. HIGH PRIORITY PROJECTS

	PROJECT	COST (2025 DOLLARS)
R-1	Ferry Street Improvements	$9,300,000
M-3	Ferry Street Enhanced Pedestrian Crossing	$500,000
S-3	Ferry Street/3rd Street Improvements	$600,000
M-1	Citywide Sidewalk Infill	$2,450,000
M-6	Neighborhood Greenway Improvements	$150,000
M-5	OR 221 Pedestrian and Bike Improvements	$10,800,000
M-2	Flower Lane Marked Crosswalk	$150,000
	TOTAL	**$23,950,000**

08. FUNDING FRAMEWORK

Dayton faces typical small-city challenges in funding transportation improvements. With limited local revenue sources and a growing list of system needs, the City must explore new funding options to implement projects.

Funding Constraints

The amount of funding assumed to be available to construct projects in this TSP was estimated by reviewing transportation funding sources currently in place and projecting total revenue through 2045 based on past annual allocations. **TABLE 6** lists all the revenue sources assumed to be currently available to the City and indicates how much revenue is assumed to be available to implement the projects in this TSP. Overall, it is reasonable to assume that Dayton will have approximately $3.9 million to apply toward project implementation. It should be noted that some revenue sources have restrictions on the types of projects for which they can be used. With an estimated $24 million worth of high-priority transportation system projects, the City must make reasonable investment decisions to develop a set of transportation improvements that will likely be funded to meet identified needs through 2045.

TABLE 6. FUTURE FUNDING PROJECTION 2024 THROUGH 2045 (21 YEARS IN 2024 DOLLARS)

REVENUE SOURCE	FUNDING RESTRICTIONS	ESTIMATED THROUGH 2045	PERSONNEL, OPERATIONS, AND MAINTENANCE ALLOCATION	AVAILABLE AMOUNT FOR TSP PROJECTS
STATE GAS TAX	Transportation-related	$4,855,000	$2,560,000	$2,295,000
STREET AND STORMWATER SYSTEM DEVELOPMENT CHARGES (SDCS)	Capacity-adding projects	$1,480,000	$0	$1,480,000
MISCELLANEOUS REVENUE (E.G., SERVICES, INTEREST INCOME)	Unrestricted	$189,000	$0	$189,000
	TOTAL	**$6,524,000**	**$2,560,000**	**$3,964,000**

Since the total cost of all recommended transportation projects will greatly exceed the amount of expected funding available in the next 20 years, it is critical that the City explore new revenue sources and be attuned to grant opportunities. It should be noted that some projects (such as new collector streets in the UGB swap area) may be constructed and funded, completely or partially, by private development.

Potential Funding Sources

New transportation funding options include local taxes, assessments and charges, and state and federal appropriations, grants, and loans. All of these resources can be constrained based on a variety of factors, including the willingness of local leadership and the electorate to burden citizens and businesses, the availability of local funds to be dedicated or diverted to transportation issues from other competing City programs, and the availability of state and federal funds. Nonetheless, it is important for the City to consider available opportunities, such as those listed below, for enhanced funding for the transportation improvements that will be identified in the TSP, as the current sources will not be sufficient to meet the identified needs.

City Revenue Sources

Increasing System Development Charges (SDCs). SDCs from new developments are intended to offset the burden of development on the transportation system. The City of Dayton currently charges SDCs for streets/stormwater, parks, sewer, and water. Upon completion of this TSP update process, the City should re-evaluate the street/stormwater SDC rates based on the updated TSP. Increased SDC rates would generate additional funding beyond what is estimated in **TABLE 6** for transportation projects. For example, if the City of Dayton increases the street/stormwater SDC rate by $500, an additional $400,000 could be collected over the next 20 years.

General Fund Revenues. At the discretion of the City Council, the City can allocate General Fund revenues to pay for its transportation program (General Fund revenues primarily include taxes and fees imposed by the City). This allocation is completed as a part of the City's annual budget process, but the funding potential of this approach is constrained by competing community priorities

set by the City Council. General Fund resources can fund any aspect of the program, from capital improvements to operations, maintenance, and administration. Additional revenues available from this source are only available to the extent that either General Fund revenues are increased or City Council directs and diverts funding from other City programs.

Local Street Utility Fees. A street utility fee is a recurring monthly charge that is paid by all residents and businesses within the City to support the provision and maintenance of the local street system. These funds are restricted for transportation operations and maintenance related projects only. Typical utility fees range from $2 to $10 per month. If the City of Dayton increased street utility fees by $10 per month, up to $2 million in additional funding would be collected in the UGB swap area alone.

State Grants and Funds

Small City Allotment (SCA). The SCA program is an annual allocation of state funds for local transportation projects in incorporated cities with populations of 5,000 or less. SCA funds may only be used on streets with inadequate capacity or streets that are in an unsafe condition.

Safe Routes to School (SRTS). The SRTS program funds projects that improve connectivity for children to walk, bike, and roll to and from school. Funds are distributed as a reimbursement program through an open and competitive process. Funding is available for pedestrian and bicycle infrastructure projects within 2 miles of schools. These funds should be pursued for pedestrian and bicycle projects.

Oregon Community Paths (OCP). The OCP grant program helps communities create and maintain connections through multiuse paths and is funded by the state Multimodal Active Transportation fund and federal Transportation Alternatives Program fund.

ODOT All Road Transportation Safety (ARTS). ARTS is used to address safety challenges on public roads. Funding is distributed to each ODOT region, which collaborates with local governments to select projects that can reduce fatalities and serious injuries, regardless of whether they are local roads or state highways. Projects are built into the 4-year Statewide Transportation Improvement Program (STIP) timeframe.

ODOT STIP Enhance Funding. ODOT has modified the STIP funding process to allow local agencies to fund projects on non-state roadways. STIP projects enhance system connectivity and improve multimodal travel options. The updated TSP prepares the City to apply for STIP funding.

Oregon Transportation Infrastructure Bank (OTIB). The OTIB is a statewide revolving loan fund for roadway improvements, bicycle and pedestrian access, and transit capital projects. Projects are rated by OTIB staff with a regional advisory committee and require approval from the Oregon Transportation Commission.

Financially Constrained Projects

The Oregon TPR (OAR 660-012) requires that regional agencies identify a Financially Constrained list of projects within their TSP. Although the City of Dayton is not a regional agency, a Financially Constrained list is included in this plan so that it is consistent with regional plans and helps prioritize funding plans and identify gaps in funding. Additionally, this project list and the expected funding provide a basis of comparison for subsequent proposed land use amendments that may affect the TSP. For example, if a major land use amendment such as up-zoning from residential to commercial use is proposed, significantly intensifying travel activity beyond what is identified in the TSP, the City would need to demonstrate that the transportation system could still adequately serve the increased needs in the 2045 horizon year. In answering that question, the Financially Constrained system improvements would be assumed to be in place since it is reasonably likely, based on historical trends, that enough funding would be available to construct the improvements.

The Financially Constrained project list is typically different than the High Priority project list because it is limited by the anticipated amount and type of funding available, whereas the High Priority project list is not constrained by funding.

The Financially Constrained project list is shown in **TABLE 7**.

TABLE 7. FINANCIALLY CONSTRAINED PROJECT LIST

	PROJECT	COST (2025 DOLLARS)
M-3	Ferry Street Enhanced Pedestrian Crossing	$500,000
S-1	OR 221 / OR 18 EB Off-Ramp Improvements (Short-term)	$50,000
S-3	Ferry Street/3rd Street Improvements	$600,000
M-1	Citywide Sidewalk Infill	$2,450,000
M-6	Neighborhood Greenway Improvements	$150,000
M-2	Flower Lane Marked Crosswalk	$150,000
	TOTAL	**$3,900,000**

09. SUPPORTING STRATEGIES

Some transportation challenges can be addressed without a capital project. These transportation challenges in Dayton include vehicle speeding, providing safe walking and biking routes to schools, and meeting parking demand. However, these challenges require strategic policies and processes to address. The following sections provide strategies and guidance in these areas that complement and extend the impact of capital projects.

Neighborhood Traffic Management

Neighborhood traffic management (NTM) describes strategies that improve safety and livability on residential streets. Essentially, these neighborhood streets place a priority on access over mobility and favor active transportation (such as walking and biking) over vehicles while still allowing access for service vehicles and emergency responders. **TABLE 8** lists common neighborhood traffic management strategies that could be appropriate for neighborhood streets in Dayton.

TABLE 8. NEIGHBORHOOD TRAFFIC MANAGEMENT (NTM) STRATEGIES

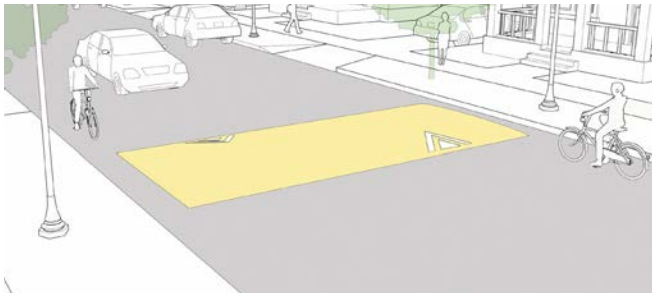
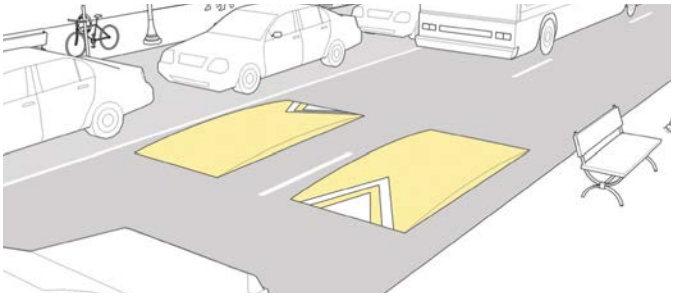
Speed Hump	*Speed Cushion*
Extends the entire width of the roadway and protrudes just a few inches off the roadway at their peak.	*Like speed humps, also extends the entire width but have wheel cutouts for vehicles with larger wheelbases (like emergency vehicles and buses).*
Impact: Lowers vehicle speed	*Impact:* Lowers vehicle speed
	
Source: NACTO Urban Street Design Guide	*Source: NACTO Urban Street Design Guide*

TABLE 8. NEIGHBORHOOD TRAFFIC MANAGEMENT (NTM) STRATEGIES (CONTINUED)

Speed Feedback Sign

Directs a driver's attention to the posted speed limit and digitally displays the vehicle's speed on a message board.

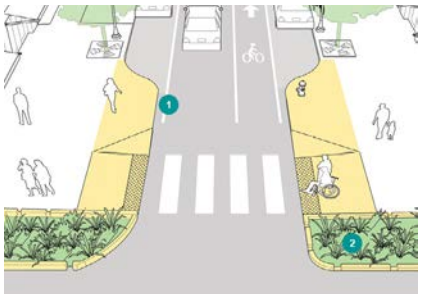
Impact: *Lowers vehicle speed*

Source: Trafficalm

Curb Extension

Also known as curb bulb-outs; extends the curb toward the center of the street to narrow the roadway and reduce crossing distance for pedestrians.

Impact: *Narrows travel lane and heightens pedestrian visibility*



Source: NACTO Urban Street Design Guide

Crosswalk Visibility Enhancements

Updates or adds crosswalk signage/ striping or a rectangular rapid flashing beacon (RRFB) to make pedestrian crossings more visible.

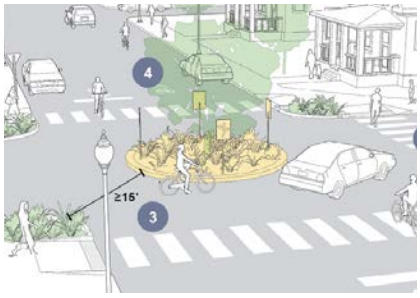
Impact: *Heightens pedestrian visibility*

Source: City of Raleigh

Center Island

A round island in the middle of an intersection.

Impact: *Lowers vehicle speed through intersection*

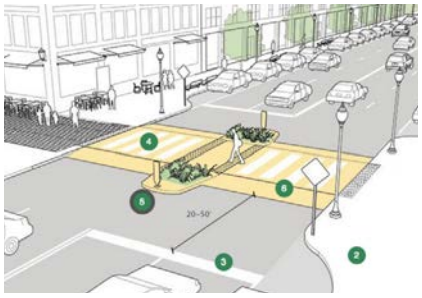


Source: NACTO Urban Street Design Guide

Raised Median

A raised curb, generally 2-3 feet in width, placed in the center of a roadway segment to divert traffic laterally to slow vehicle speeds.

Impact: *Lowers vehicle speeds along roadway segment*



Source: NACTO Urban Street Design Guide

Lane Striping

Delineates parking areas, travel lanes, bike lanes, and pedestrian areas; can be used to narrow travel lanes to reduce vehicle speeds.

Impact: *Enhances street design and driver predictability*

Source: www.douglas.co.us

Safe Routes to School

The City of Dayton could establish an SRTS program to improve the safety of not just students, but all people who bike and walk in the City. In Oregon, SRTS programs and funding are administered by ODOT. As part of the 2017 transportation package passed by the Oregon Legislature, the SRTS program was allocated $10 million per year in funding, increasing to $15 million per year starting in 2023. In the coming years, there will be funding opportunities to improve the safety of students and to encourage an active, healthy lifestyle for Dayton's youngest residents. The City will coordinate with ODOT staff to initiate an SRTS program and identify improvement projects within the walking boundaries of local schools.

Parking Supply and Management

The current parking supply in Dayton has not been recently evaluated. If future parking demand significantly outpaces supply, there are a variety of management options that Dayton may consider. Some options include the following:

- Time-limited parking regulations create time limits on continuous parking duration, encouraging vehicle turnover and thereby provide more parking opportunities.
- Pay-to-park meters put a cost on parking, often paired with time limits, that applies economic incentives to encourage vehicle turnover and thereby provides more parking opportunities. *(Note: marked or metered on-street parking must include ADA-accessible parking spaces.)*
- Various systems are available that could allow the City to price and manage parking differentially during high-demand time periods or in high-demand locations.
- Resident and employer permits allow exemptions for local residents and employers from a time-limited or pay-to-park system. This encourages visitors to limit their parking duration while allowing flexibility for other uses.

If implementing these management tools do not provide adequate parking availability, off-street parking lots or structures are an option for increasing the supply of parking. If off-street parking capacity is created, it is important that it is implemented as part of an overall parking management plan that encourages drivers to choose off-street parking. Ideally, off-street parking structures should be designed in a way that maintains the potential for current mixed-use or future repurposing. Mixed-use designs include features such as ground-floor retail, while design for future repurposing includes features such as level floors and exterior access ramps.

Other elements to consider when implementing parking policy reform include:

- **Bicycle parking.** Convenient and secure bicycle parking is an essential element of a complete multimodal transportation system. The City can improve the supply of bicycle parking by installing additional racks and setting standards for high-quality designs.
- **Loading zones.** In areas where business activity requires dedicated loading zones, or where private pick-up and drop-off activity is high, a loading zone can ensure curb availability even during high parking demand.

Land Use Planning

There is a fundamental relationship between transportation and land use. Travel demand is influenced by land use types and intensities, and by how they are connected to the community transportation services. Locating a robust, balanced mix of high-density land uses in a diverse, highly connected transportation system offers local travelers and freight operators a superior experience in terms of convenience, safety, mobility, and accessibility. In addition, strategic decisions about the location and type of development can leverage investments in the transportation system, such as increased transit ridership, and help to achieve community goals such as encouraging active transportation and reducing the number of trips made by single-occupancy vehicles.

Some key strategies for successfully implementing high-density, mixed-use developments include promoting a diversity of tenants, accommodating a wide range of tenant income levels, placing developments in strategic locations served by all modes of travel, and having a long-term plan for surrounding development and infrastructure improvements that support it.

Preparing for Smart Mobility

Emerging transportation technologies will shape our roads, communities, and daily lives for generations. Vehicles are becoming more connected, automated, shared, and electric. This future is highly uncertain, but it will have significant impacts for how we plan, design, build, and use our transportation system.

Below are some important definitions that provide the basis for potential impacts, policies, and action items.

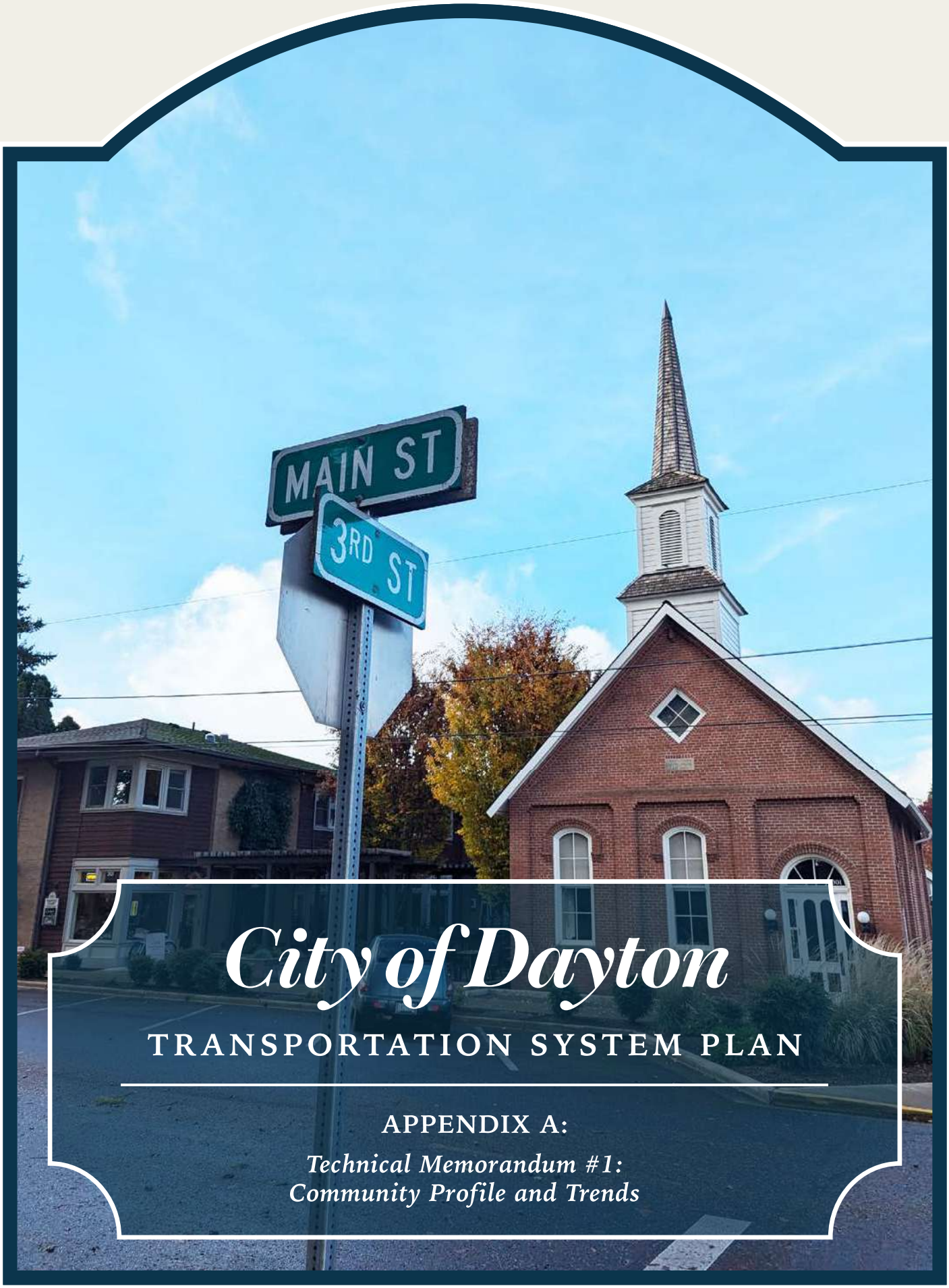
Connected vehicles (CVs) will enable communications between vehicles, infrastructure, and other road users. This means that vehicles will be able to assist human drivers and prevent crashes while making the system operate more smoothly.

Automated vehicles (AVs) will, to varying degrees, take over driving functions and allow travelers to focus their attention on other matters. Already today, vehicles today have combined automated functions like lane keeping and adaptive cruise control. However, these still require constant driver oversight. In the future, more sophisticated sensing and programming technology will allow vehicles to operate with little to no operator oversight.

Shared vehicles (SVs) allow ride-hailing companies to offer customers access to vehicles through cell phone applications. Ride-hailing applications allow for on-demand transportation with comparable convenience to car ownership without the hassle of maintenance and parking. Ride-hailing applications can enable customers to choose whether to share a trip with another person along their route, or travel alone.

Electric vehicles (EVs) have been on the road for decades and are becoming more economically feasible as the production costs of batteries decline.

Many of these vehicles will not be exclusive of the others and it is important to consider the implications that arise from the combination of these technologies. When discussing these vehicles as a whole, they can be referred to as connected, automated, shared, and electric (CASE) vehicles. Out of these, electric vehicles are likely to have the largest impact on Dayton in the next 20 years.



City of Dayton

TRANSPORTATION SYSTEM PLAN

APPENDIX A:

Technical Memorandum #1:
Community Profile and Trends

DKS 1050 SW 6TH AVENUE, SUITE 600 • PORTLAND, OR 97204 • 503.243.3500 • DKSASSOCIATES.COM

MEMORANDUM

DATE: October 4, 2024

TO: Dayton TSP Project Management Team

FROM: Carl Springer, PE | DKS Associates
Hallie Turk, EI, RSP_1 | DKS Associates

SUBJECT: Dayton Transportation System Plan Update DKS P#24439-000
Memorandum #1: Community Profile and Trends

INTRODUCTION

In the first stage of the Dayton Transportation System Plan (TSP) update, the project team examines Dayton's current transportation system and how well it serves the community. This requires that we examine the local land development patterns and community demographics. The findings from this first stage will guide the identification of focus areas and priorities in later stages of the TSP update.

The following sections of this memorandum summarize the City of Dayton's population, employment industries, and travel patterns.

PLANNING AREA

The City of Dayton's project area is outlined by the Urban Growth Boundary (UGB), which was last amended in 2022. It includes City limits plus several parcels on all sides of the City. One large tract, approximately 100 acres in size, lies west of the City limits between OR 18 and Ferry Street. There are several smaller buildable tracts that are less than 60 acres each on the City's south side, north side near OR 18, and at its northeastern corner. The Project Area is outlined in Figure 1 on the following page.

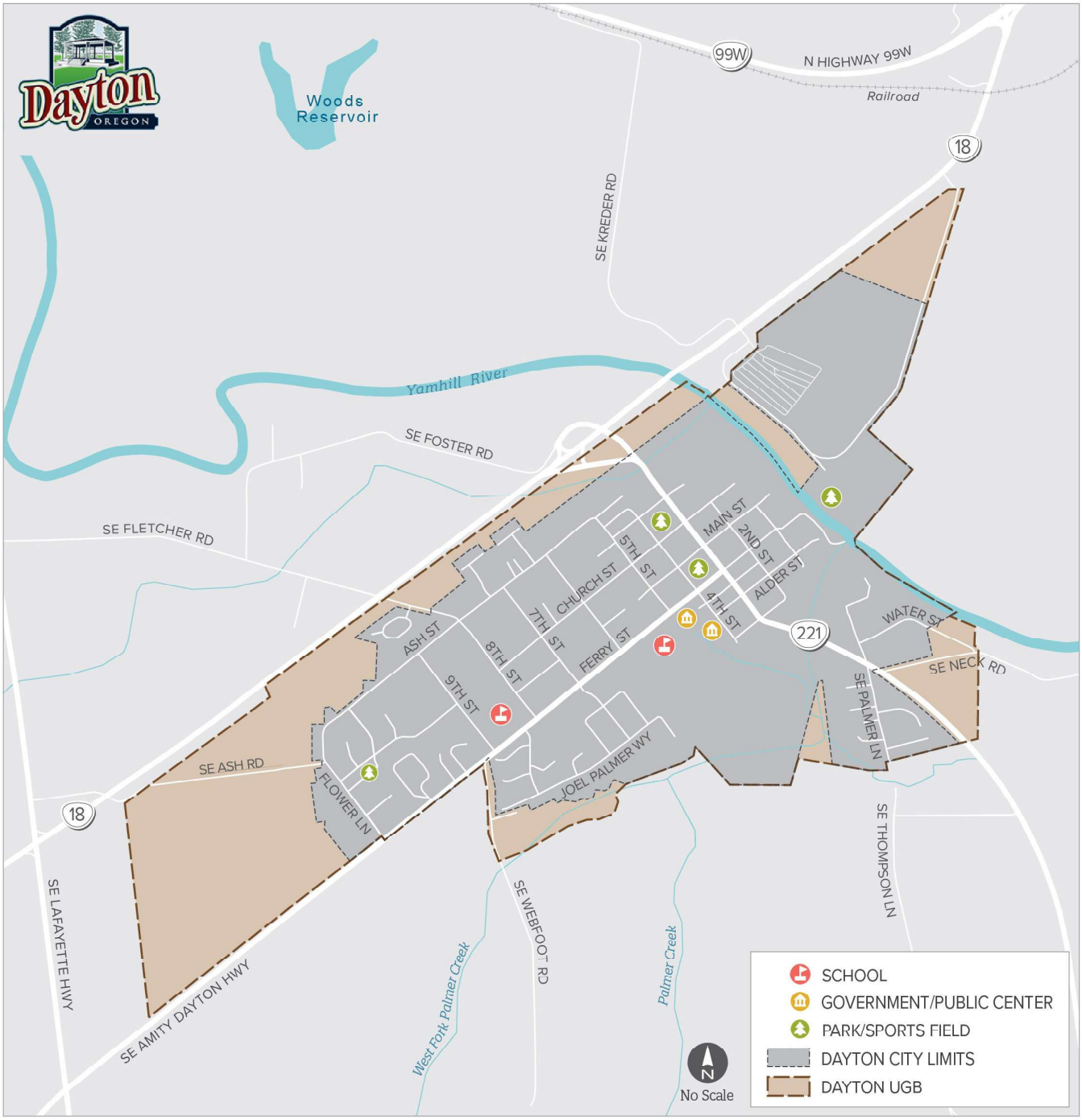


FIGURE 1. DAYTON PROJECT AREA

RESIDENTS

The City of Dayton was founded in 1850 and incorporated in 1880. Since its founding, Dayton has grown from less than 400 people to just over 2,700 people today, as shown in Figure 2. According to the Portland State University Population Research Center, the population is expected to grow by another 470 people by 2045.[1] The 100 acre tract at the southwest end of town will be the primary area that will accommodate future growth as it is annexed to the city, urban land use zoning is applied, city services are extended to serve future residents, and the area develops to urban density.

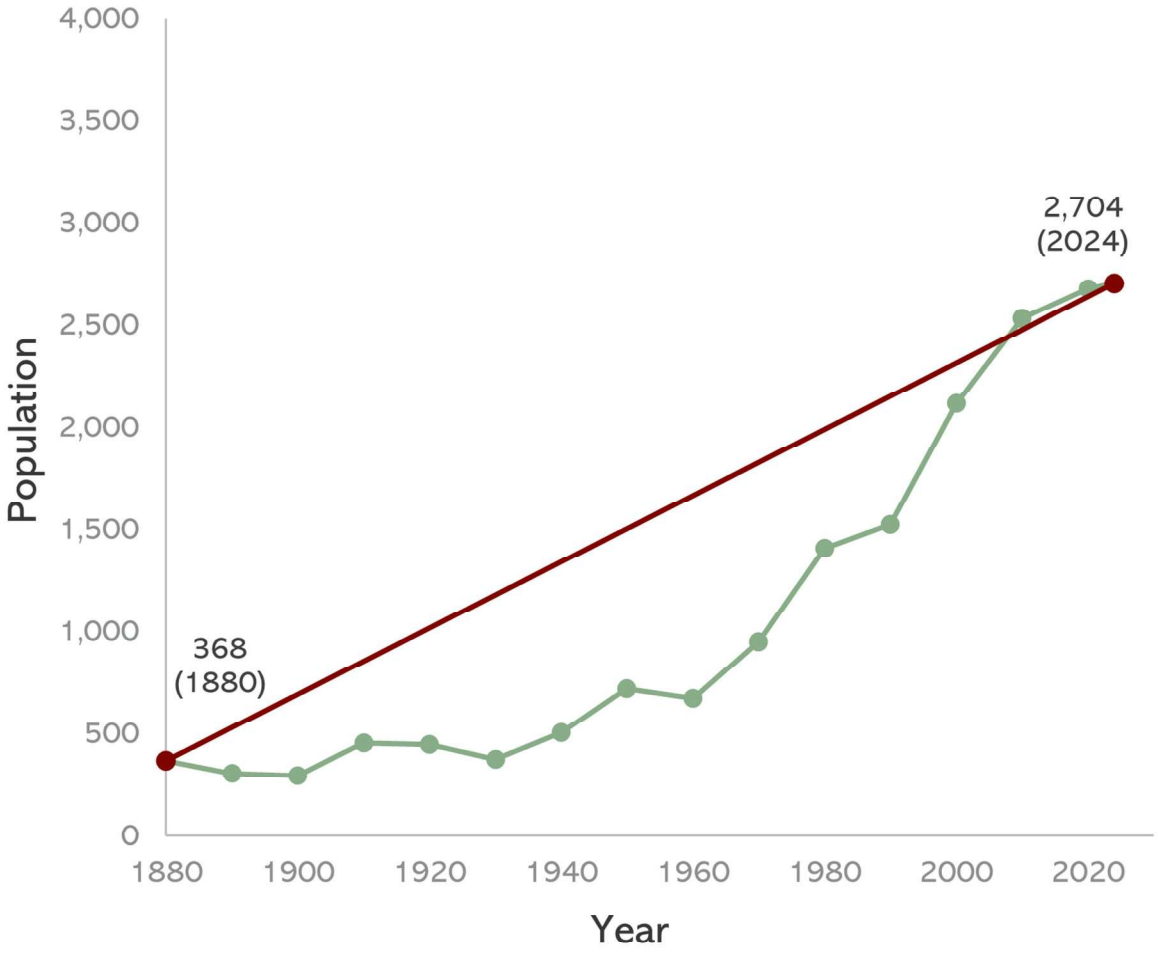


FIGURE 2. POPULATION OF DAYTON, OREGON (1880 – 2024) [2]

Various demographic characteristics of Dayton's population are shown in Figure 3.

[1] Portland State University Population Research Center, 2024 Forecast Summary.

[2] Data Source: U.S. Decennial Census and Portland State University Population Research Center

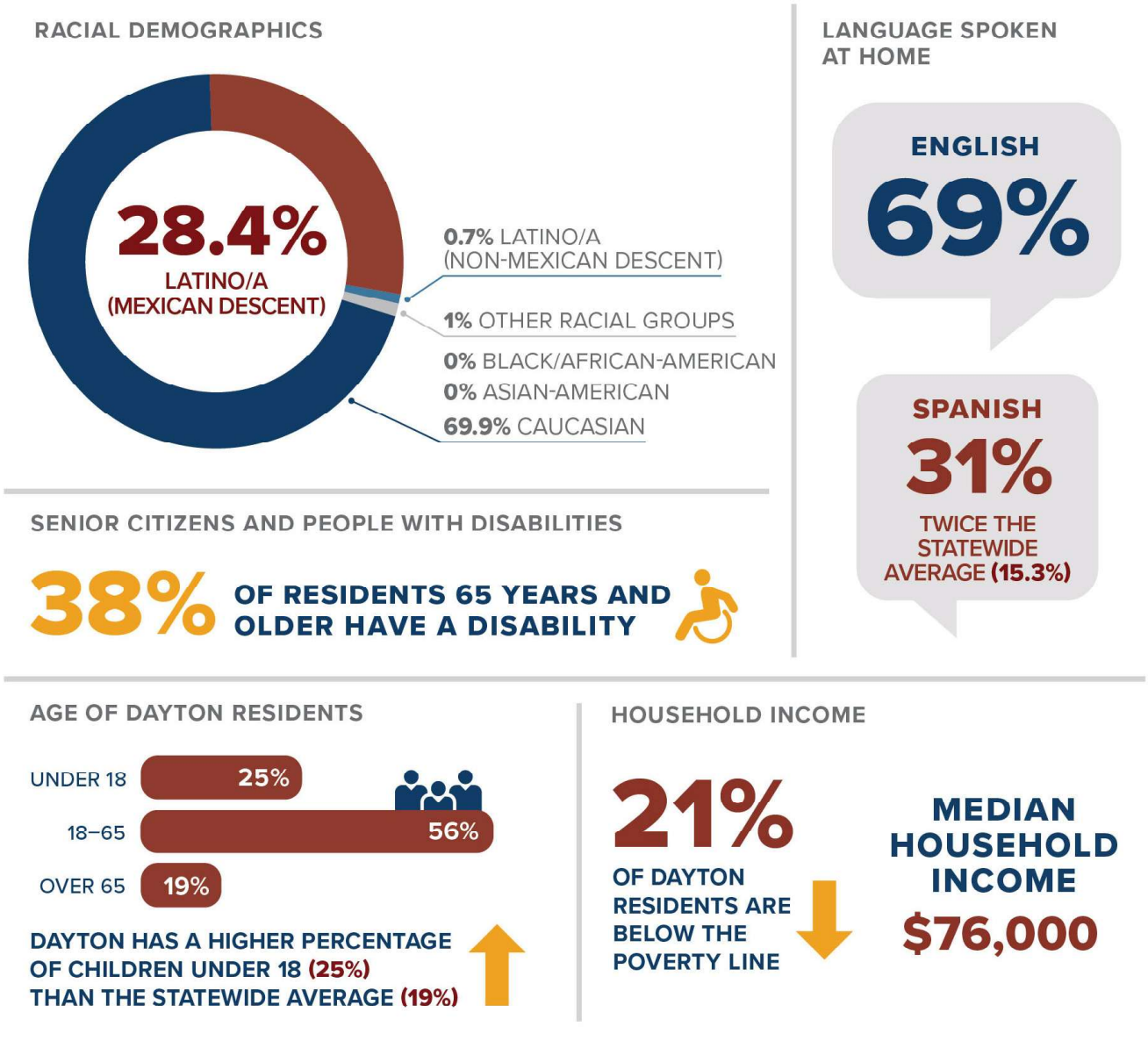


FIGURE 3. DAYTON POPULATION DEMOGRAPHICS [3]

[3] Sources:
American Community Survey, 2022 5-Year Estimates Table S1701: Poverty Status in the Past 12 Months.
American Community Survey, 2022 5-Year Estimates Table S1810: Disability Characteristics.
American Community Survey, 2022 5-Year Estimates Table S1601: Language Spoken at Home.
American Community Survey, 2022 5-Year Estimates Table S1901: Income in the Past 12 Months.

The Dayton community consists of underserved populations as defined by the Oregon Administrative Rule.[4] Notably, Dayton's demographic characteristics include:

- Twice the statewide percentage of Spanish speakers
- Nearly twice the statewide average of people below the poverty line
- A higher percentage of children than the statewide average
- A high percentage of residents above age 65 with a disability

The transportation-related needs of these populations must be considered when planning a transportation system that best serves all members of the community. To address this, the project team will identify bicycle and pedestrian network needs and prioritize projects in areas more frequented by disadvantaged communities.

Local activity centers that attract pedestrian and bicycle traffic, including schools and parks, are concentrated along 3rd Street (OR 221) and Ferry Street (OR 155). There are two schools in the City, Dayton Grade School at 526 Ferry Street and Dayton Middle School and High School at 801 Ferry Street. Parks include Alderman Park, Legion Field, Courthouse Square Park, and Andrew Smith Park. Dayton's downtown area is also a large pedestrian and bicycle traffic generator that includes the library, community event center, shops, and restaurants. In addition, over 40 locations in Dayton are on the National Register of Historic Places,[5] including churches, houses, and other community buildings. The City advertises a walking tour[6] of its historic places. Many are located along Ferry Street and 4th Street, 5th Street, and 7th Street.

Regarding housing in Dayton, there are four city zoning designations that allow residential land uses.

- R-1 (Single Family Residential): Land designated R-1 is located on Dayton's southeast corner along Palmer Lane, south of Ferry Street via 7th Street, and on the north and west sides of town accessed via Ash Street, Church Street, and Flower Lane.
- R-2 (Limited Density Residential): Land designated R-2 is mostly located in the central city, bordered by Ash Street to the north, Ferry Street to the south, 8th Street to the west, and 4th Street to the east. Some R-2 parcels are accessed near Flower Lane and Church Street, east of 2nd Street and west of 9th Street.
- R-3 (Medium Density Residential): Dayton has only one parcel designated R-3, a lot about 8 acres in size in the southwest corner of the city accessed via Ferry Street. The parcel serves a manufactured home community.
- CR (Commercial Residential): In the downtown area, land designated CR allows both commercial and residential uses along 3rd Street (OR 221), 4th Street, and Alder Street.

Figure 4 shows the zoning designations of each parcel in Dayton's UGB.

[4] Oregon Administrative Rule 660-012-0125. Retrieved from TSP Guidelines: Equity Analysis.

[5] https://www.daytonoregon.org/historic-dayton-places/

[6] https://www.daytonoregon.gov/page/city_historic_homes

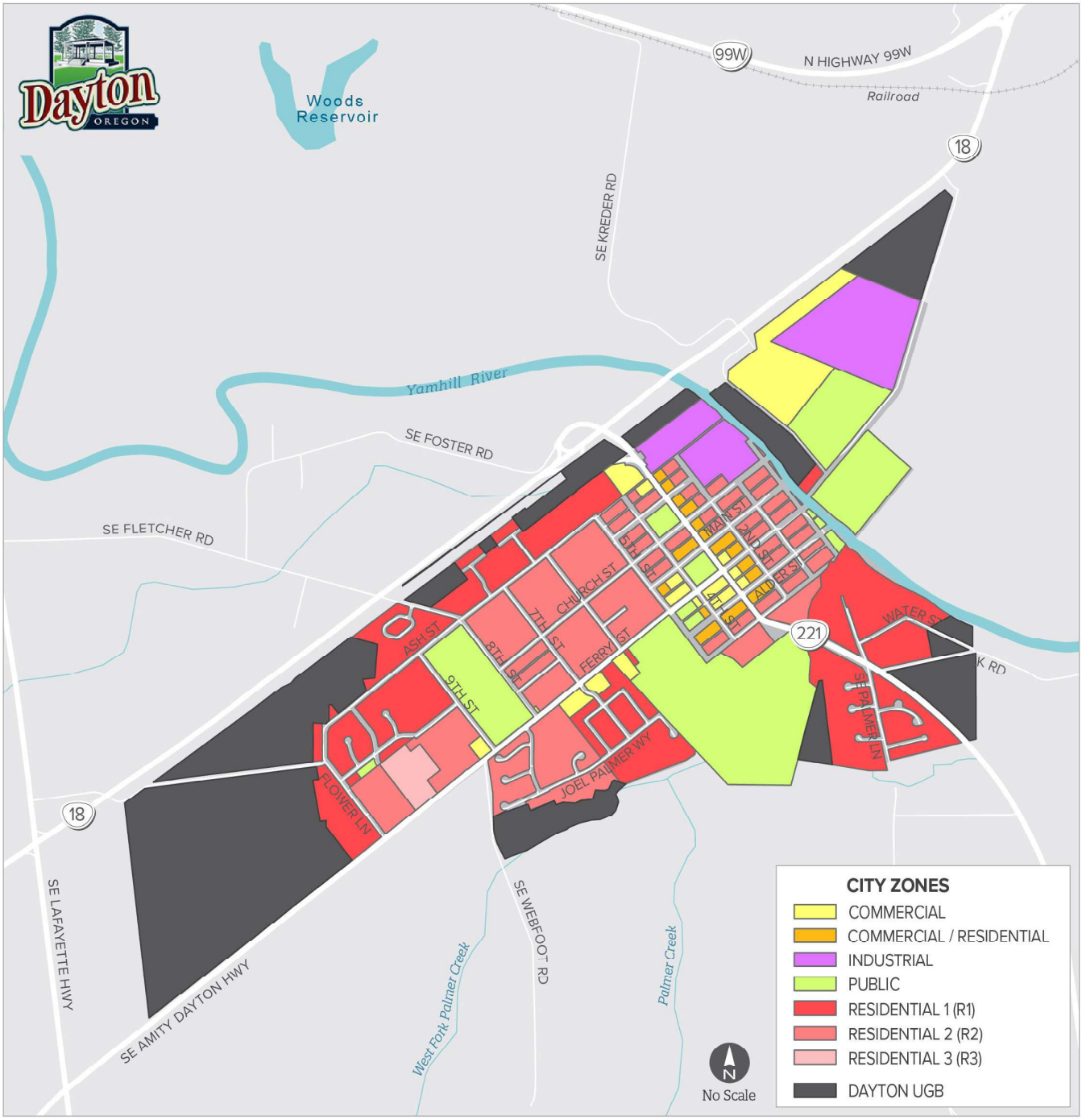


FIGURE 4. DAYTON ZONING MAP

EMPLOYMENT

EMPLOYMENT INDUSTRIES OF DAYTON RESIDENTS

There are 2,111 people in Dayton who are 16 years or older, and about 60% are employed. Most employees work in the private sector (over 75%), with some government workers (about 18%) and self-employed workers (less than 5%).[7]

The most common employment industries of Dayton residents are shown in Figure 5.[8] These metrics include Dayton residents who work in other cities.

About 330 jobs are based in Dayton. As shown in Figure 6, the most common employment industries are education (47.6%), construction (11.8%), and accommodation and food services (8.8%).[9]

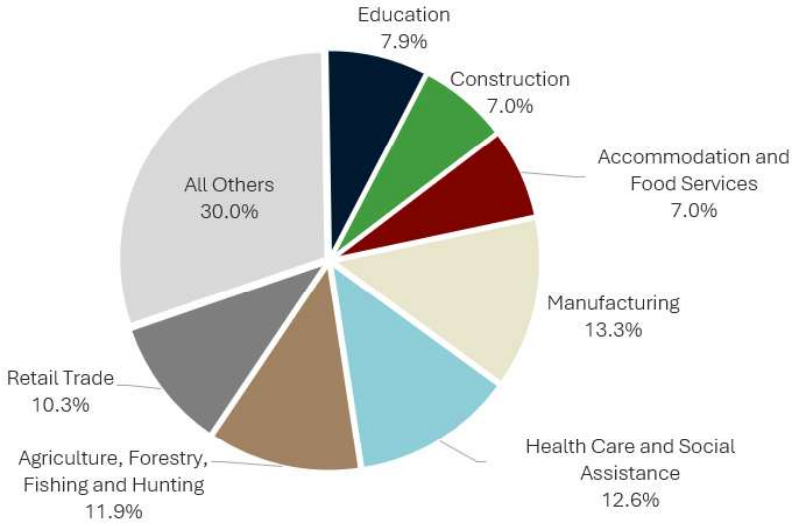


FIGURE 5. EMPLOYMENT INDUSTRIES OF DAYTON RESIDENTS

EMPLOYMENT LAND

Employers in Dayton are served by non-residential land uses in public, commercial, and industrial zones. Freight needs are likely limited to retail and industrial land uses.

Public land in Dayton includes schools, parks, reservoirs, and City services such as the post office and City Hall. Most public services are located along Ferry Street (OR 155), 3rd Street (OR 221), and 6th Street.

Dayton's commercial uses are found within C (Commercial) zones along 3rd Street (OR 221) and Ferry Street (OR 155), as well as CR (Commercial Residential) zones along 3rd Street (OR 221), 4th Street, and Alder Street.

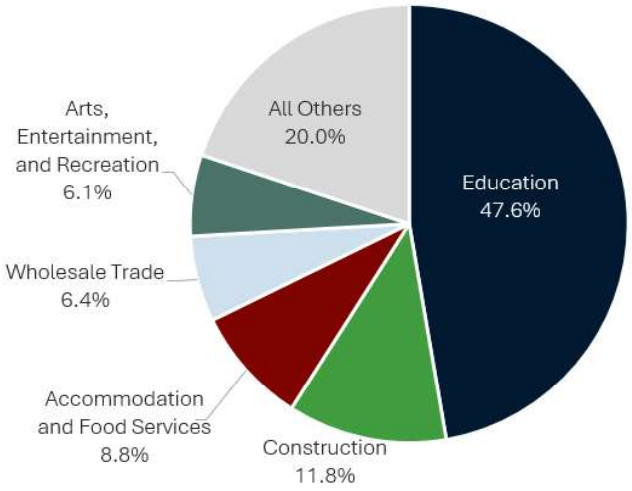


FIGURE 6. EMPLOYMENT INDUSTRIES OF JOBS BASED IN DAYTON

[7] American Community Survey, 2022 5-Year Estimates Table DP03: Selected Economic Characteristics.

[8] United States Census Bureau: OnTheMap. Home Area Profile Analysis. https://onthemap.ces.census.gov/

[9] United States Census Bureau: OnTheMap, Work Area Profile Analysis. https://onthemap.ces.census.gov/

Two parcels at Dayton's northeast corner are designated I (Industrial) zones. One parcel serves a construction materials company, and the other parcel is partially vacant. The southern portion of the property is used for an RV and boat storage facility.

TRAVEL NEEDS

The project team reviewed travel statistics for trips that start or end within City limits based on data provided by Replica, which provides historical travel pattern data across the United States.[10]

ROAD NETWORK

Dayton is served by several state facilities. These include OR 18 (Salmon River Hwy No. 39), OR 221 (Salem-Dayton Hwy No. 150), OR 233 (Amity-Dayton Hwy No. 155), and SE Lafayette Highway (Lafayette Hwy No. 154). OR 18 through Dayton serves as a bypass for OR 99W (Pacific Hwy No. 91) south and east of McMinnville.

AVERAGE DAILY TRAFFIC

Average daily traffic (ADT) estimates in the Dayton area are shown below in Figure 7.

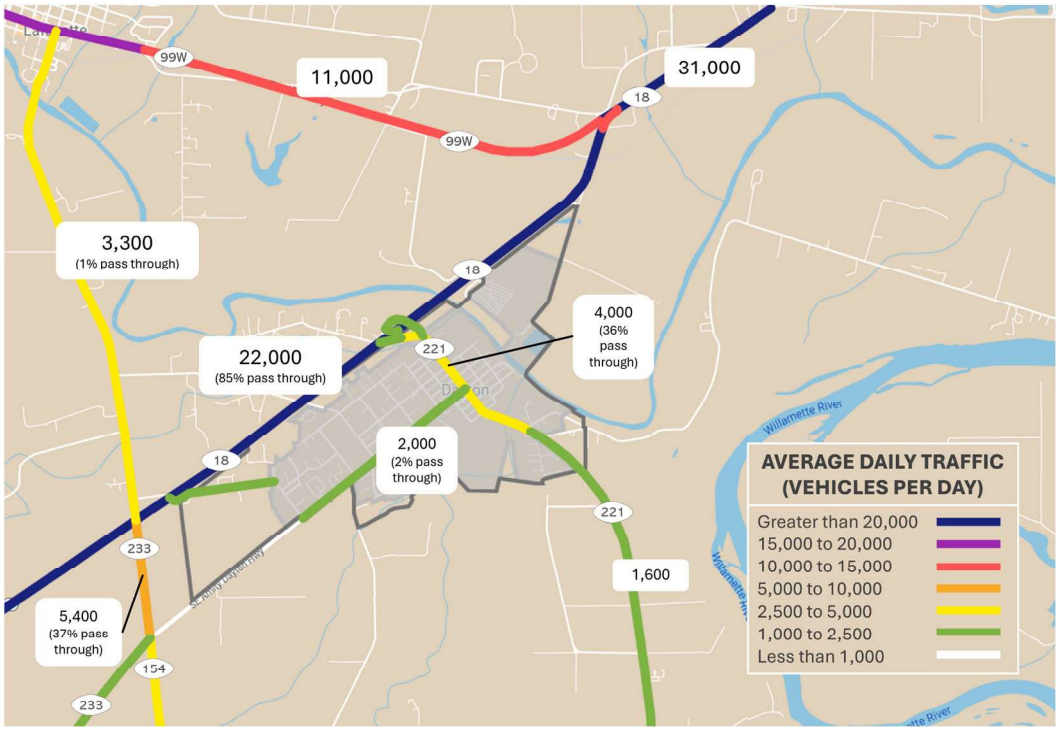


FIGURE 7. AVERAGE DAILY TRAFFIC [11]

[10] ReplicaHQ, Fall 2023 Data.

[11] Source: ReplicaHQ, Fall 2023 Data (Thursday).

REGIONAL TRAVEL TRENDS

On a typical weekday, many vehicle trips travel from Dayton to other cities.[12] As shown in Figure 8, the largest percentage of trips, over 33%, travel to McMinnville. Some trips travel to a handful of other cities such as Newberg (5%), Lafayette (5%), Salem (4%), and Hillsboro and Portland (less than 2% each), indicating that a portion of residents travel outside the City on a regular basis. Nearly one in four trips (24%) start and end in Dayton.

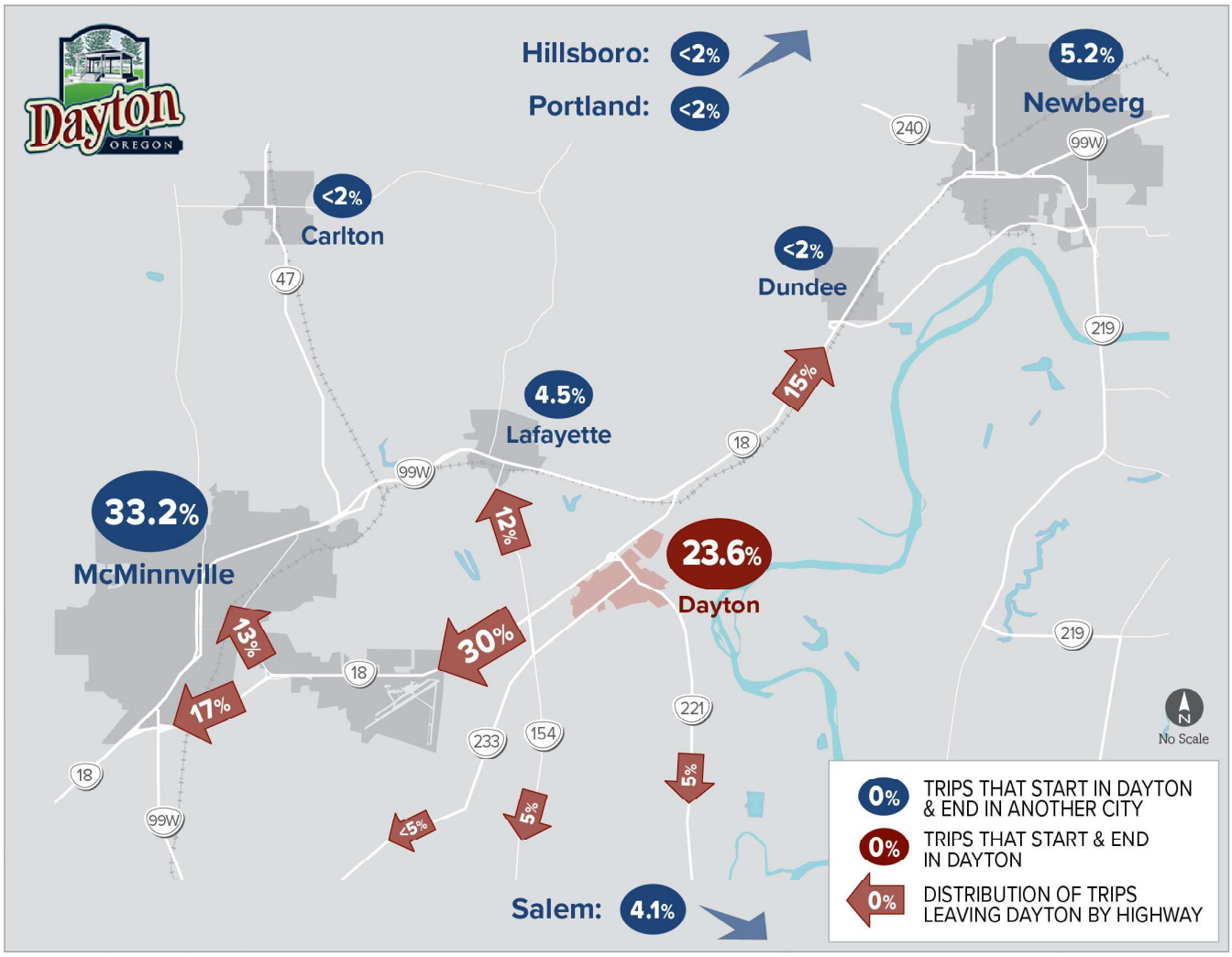


FIGURE 8. DESTINATIONS OF TRIPS ORIGINATING IN DAYTON

[12] Source: ReplicaHQ, Fall 2023 Data (Thursday).

COMMUTE TRIPS

Commute trips are those taken for work or school purposes. There are about 1,400 commute trips to and from Dayton each day. Of these, almost 29% travel between Dayton and McMinnville. Some travel to and from Salem to the southeast (7%) and Newberg to the northeast (6%). About 10% of commute trips start and end in Dayton.

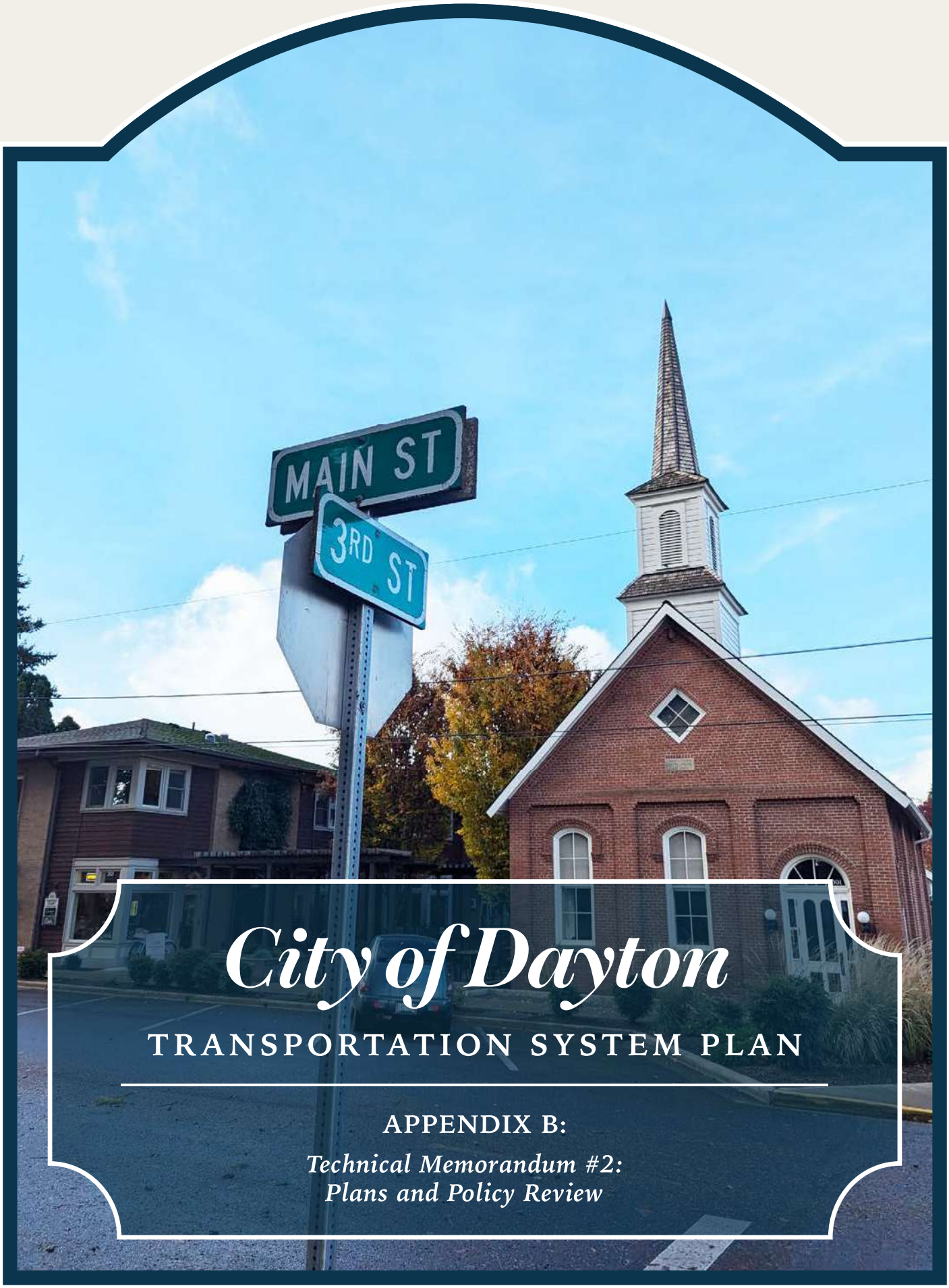
NON-COMMUTE TRIPS

Non-commute trips are those taken for dining, shopping, social, and other recreational purposes. There are about 3,000 non-commute trips to and from Dayton each day, mostly between Dayton and McMinnville (over 42%). Some non-commute trips travel to and from Lafayette to the north (6%), Newberg to the northeast (5%), and Salem to the southeast (2%).

FREIGHT NEEDS

Local freight traffic within Dayton travels to and from the commercial and tourist areas in Dayton's downtown as well as to farming areas throughout the Willamette Valley.

Freight traffic through Dayton is primarily found on OR 18 and OR 221. Freight traffic travels from Interstate 5 to McMinnville via OR 99W, which splits into OR 18, then rejoins OR 99W south of McMinnville. Freight trucks also travel on OR 221 to and from Salem, typically onto or off of OR 18.



City of Dayton

TRANSPORTATION SYSTEM PLAN

APPENDIX B:

Technical Memorandum #2:
Plans and Policy Review

DKS 1050 SW 6TH AVENUE, SUITE 600 • PORTLAND, OR 97204 • 503.243.3500 • DKSASSOCIATES.COM

PLANS AND POLICY REVIEW

DATE: September 27, 2024

TO: Dayton TSP Project Management Team

FROM: Carl Springer, PE | DKS Associates
Julia Cruz-Jones | DKS Associates

SUBJECT: Dayton Transportation System Plan Update DKS P#24439-000
Memorandum #2: Plans and Policy Review

INTRODUCTION

This memorandum provides a summary of the relevant existing plans, policies, standards, rules, regulations, and other applicable documents which should be considered throughout the development of the updated Dayton TSP. These documents are organized in the following pages by jurisdiction: local (City, County, and regional), and statewide (including ODOT).

LOCAL PLANS AND POLICIES

Applicable City, County, and regional plans and policies are outlined in Table 1, including a summary of each of these documents and their relevance to the Dayton TSP.

TABLE 1. LOCAL PLANS AND POLICIES

PLAN DOCUMENT DOC (YEAR)	PLAN DESCRIPTION	RELEVANCE TO DAYTON TSP
DAYTON TSP (2001)	The current Dayton TSP was adopted by the City Council in May of 2001. This document contains transportation plans and policies aimed at fulfilling the needs of the 2001-2020 populations. The TSP includes findings on traffic, street classifications and conditions, pedestrian and bicycle needs, public transit, rail systems, airports, and long-range transportation needs for the City. This plan establishes Dayton as a vehicle-centric community and identifies a variety of needs, opportunities, and constraints. It also recommends projects to support additional modes of travel within the city. Key transportation system improvements identified in the Dayton TSP are: • Prepare a complete engineering analysis of the existing streets • Work toward a refinement study for Third and Ferry Streets • Adopt new street access standards • Seek from ODOT higher levels of maintenance for Third and Ferry Streets • Re-designation of arterial and collector streets • Adopt street improvement priorities • Increase effort to develop sidewalks and bikeway between residential areas and activity centers • Adopt bicycle improvement priorities • Adopt code revisions to implement the State's Transportation Planning Rule • Adopt amendments to the comprehensive plan and planning atlas • Continue efforts for transportation grants to continue existing improvement programs	This plan will be foundational for developing a new TSP that addresses this community's current and future needs and aligns the City's transportation plans with relevant state goals and policies. This TSP update will confirm which improvements and goals have been addressed, carry over any incomplete projects, and recommend new projects or goals that better suit the community's needs. The TSP update process will provide an opportunity to review and update transportation policies, to better represent current state and local practices and objectives. Potential policy changes may reflect issues that have been evolving since the TSP was last updated. The functional classification system, typical street design standards, need for mobility standards, and access spacing standards for the City will also be revisited for the TSP update.

PLAN DOCUMENT DOC (YEAR)	PLAN DESCRIPTION	RELEVANCE TO DAYTON TSP
DAYTON PLANNING ATLAS AND COMPREHENSIVE PLAN (2008, REVISED 2022)	The Planning Atlas and Comprehensive Plan for the City of Dayton aims to provide a "snapshot" of the physical setting, population, land use, public and private facilities, economy, transportation system, housing, and existing and potential development. The document includes 10 chapters that address each of these characteristics, including background information, analysis, specific goals, and policies to support those goals. Chapter 10 pertains to transportation and summarizes the findings, goals, and policies outlined in the TSP and the policies proposed for the Newberg-Dundee Bypass (added in 2011).	The Planning Atlas and Comprehensive Plan incorporates many of the findings from the TSP in addition to the recommendations to support the Newberg-Dundee Bypass. The goals outlined in this plan are meant to guide the general direction for transportation for the City, and the policies should be read as specific actions the City deems necessary to achieve those goals. These will be taken into consideration for the updated TSP.
DAYTON FORWARD PLAN (2012)	Dayton Forward was a 24-week visioning process sponsored by the Dayton Community Development Association (DCDA) and the City of Dayton. Residents of Dayton and surrounding communities participated in meetings between June and December of 2012 to share their vision for Dayton and how it could "thrive economically while preserving its most treasured physical and social assets." The resulting Dayton Forward Plan outlines interdependent roles for the city and aims to position Dayton as an attractive and fruitful community within Yamhill County. The four roles are rooted in establishing the City as a wine and tourist destination, a center for sustainable agriculture and energy, and an ideal community for families to grow over multiple generations. The plan includes 15 goals for the City and recommended Next Steps for the City Council to take to move toward achieving those goals. Goal 13: Transportation reads: "Encourage a transportation system and modes of transportation that enhance and support the character of the town."	The updated TSP will review the most applicable goals, planning guidelines, and recommended action items from the Dayton Forward Plan, including but not limited to: • GOAL 2: URBAN FORM • GOAL 3: IMAGE/ENVIRONMENT • GOAL 6: LANDSCAPE & OPEN SPACE • GOAL 13: TRANSPORTATION
STRATEGIC PLAN GOALS (2024 - 2025)	The 2024-2025 Strategic Plan Goals for the City of Dayton contain various objectives listed in order of priority. Of the six goals, Goal A and Goal B include objectives pertaining to transportation. They are:	The TSP update will review the most applicable objectives and goals included in the 2024-2025 Strategic

PLAN DOCUMENT DOC (YEAR)	PLAN DESCRIPTION	RELEVANCE TO DAYTON TSP
	• Goal A: Develop and maintain resilient infrastructure to support operations and meet growth. • Goal B: Create a livable community that is aesthetically pleasing, affordable, inviting, and with a vibrant and diverse economy.	Plan Goals, taking into consideration the associated priority given to each objective.
YAMHILL COUNTY TSP (2015)	The Yamhill County TSP includes an analysis of current (2015) and future conditions (a 20-year planning horizon for 2035) for the entire County, including rural (unincorporated) areas. The County TSP does not include a review of roadways within city limits (including the City of Dayton), but calls out several needs and recommendations on roadways just outside the City of Dayton's limits. The recommended projects closest in proximity or directly feeding into the city are: **Roadway Improvement Options** 4. OR 99W/OR 18/McDougall Rd. intersection 5. OR 18 between Ash Rd. and OR 154/Lafayette Hwy. 8. OR 99W – Dundee city limits to OR 18 junction **Bicycle and Pedestrian Improvements** F. Lafayette Hwy. between Lafayette and OR 18 The County conducted interviews, meetings, online surveys, and two open house events to obtain input from the community on their experience using the roadway system and their perspective on the recommended projects. Overall, the majority (about 90%) of the respondents to the online survey rated the transportation system in the County as "good" or "fair." The most common concerns expressed by the community were: • Safety – in particular, intersections along OR 18 and OR 99W, such as OR 99W/OR 18 and OR 18/Lafayette Hwy. • Lack of bicycle and pedestrian facilities – shoulders are too narrow or there are no shoulders for bicyclists • Congestion and delay – need for the Newberg-Dundee Bypass and additional capacity on OR 18	The TSP update process will ensure that the City's plans and policies are in alignment with the County's vision for the transportation system and will take into account the feedback provided by community members and their major concerns for the transportation system in and around Dayton. The projects recommended in the County TSP will continue to be the responsibility of the County since they are outside city limits. Any additional changes to County facilities recommended through the Dayton TSP update process will be coordinated with the County.

PLAN DOCUMENT DOC (YEAR)	PLAN DESCRIPTION	RELEVANCE TO DAYTON TSP
	• Geometrics – narrow and winding county roads and narrow shoulders or no shoulders • Improved transit service and facilities – additional service to Portland and Salem and the lack of bus shelters and bus stop signage • Traffic operations – lack of turn lanes on state highways, particularly OR 18, and difficulty in crossing state highways • Roadway maintenance – need for repairs beyond spot maintenance	
YAMHILL COUNTY TRANSIT AREA TRANSIT DEVELOPMENT PLAN (2018)	The Yamhill County Transit Area (YCTA) operates bus service in 10 cities across Yamhill County and connects riders to regional destinations including Grand Ronde, Hillsboro, Tigard, and Salem. This includes a combination of fixed-route, intercity, and demand-response services. Although ridership is "reasonably strong relative to the amount of service provided," efforts to increase ridership and services to better meet community needs are recommended. The Transit Development Plan (TDP) provides strategic guidance over a 20-year planning period and serves as the basis for transit elements in local TSPs. The TDP aims to implement policies and changes to YCTA's service to provide a seamless transit system for residents, employees, and visitors alike. Currently, YCTA Route 44 (weekday), 45x (weekday express), and 46s (Saturday) provide service to and from Dayton (all three run between McMinnville and Tigard). The long-term vision for YCTA service would increase to "regular all-day service" on OR 99W (Route 44) connecting McMinnville, Lafayette, Dayton, Dundee, and Newberg, with some trips continuing to Sherwood and Tigard. According to input from community members and current riders, this enhancement is a top priority for 25% and among the top three priorities for 65% of survey participants. To achieve this goal, the TDP recommends the following immediate service adjustments (SI#), near-term projects (SN#), and long-term projects (SL#) relevant to the City of Dayton: • (SI7) Convert on-call stop at Dayton RV Park to a regular stop • (SN3 – Phase 1) Add trips on Route 44 between McMinnville and Newberg	The updated TSP will use the recommendations from the TDP as a baseline for the transit element of the new TSP. Attention will be paid to the expressed desires from community members and current riders documented in the TDP while shaping transit related goals for the updated TSP.

PLAN DOCUMENT DOC (YEAR)	PLAN DESCRIPTION	RELEVANCE TO DAYTON TSP
	• (SN6) Implement a pilot shopper/medical shuttle serving Sheridan/Willamina/Amity, Carlton/Yamhill, Dayton/Lafayette, Newberg/Dundee, and McMinnville • (SN3 and SS5) Expand the Shopper Shuttle pilot projects to flex-route service in two geographic areas (3 days per week, 10 hours per day) • (SL5) Expand small city flex-routes to three days per week in a third geographic area (Dayton/Lafayette is assumed)	
OR 99W NEWBERG DUNDEE BYPASS PROJECT	The Newberg-Dundee Bypass will address increasing traffic congestion in the Newberg and Dundee areas in Yamhill County. Phase 1 of the project was completed and opened in 2018, and extends 5.5 miles from OR 99 (at Springbrook Road) in Newberg to OR 99W south of Dundee. The bypass is located northeast of the City of Dayton, but congestion on these highways can impact travel in and around the City of Dayton. Funding has been allocated for Phase 2A of the project, which will include improvements for the interchange where OR 18 meets OR 219, including the realignment of NE Wynooski Road. Construction for Phase 2A is anticipated to begin in 2024 and end in 2026. Phase 2B will include designing a road connecting the new interchange with OR 99W. Phase 2B is not yet funded for construction. Phase 3 of the project has not received funding and is not anticipated for the near future. However, Phase 3 of the bypass will extend into Dayton City Limits, as shown in Figure 1 below, and should continue to be kept in consideration during the TSP update.	The Newberg-Dundee Bypass is located northeast of the City of Dayton. Congestion on these highways can impact regional travel in and around the City of Dayton. The TSP update will address any subsequent changes to travel patterns and capacity in Dayton that may be the result of the completed bypass extension. The future Phase 3 is relevant to Dayton, even if it is too far in the future to directly impact the recommendations in this TSP update.

PLAN DOCUMENT DOC (YEAR)	PLAN DESCRIPTION	RELEVANCE TO DAYTON TSP

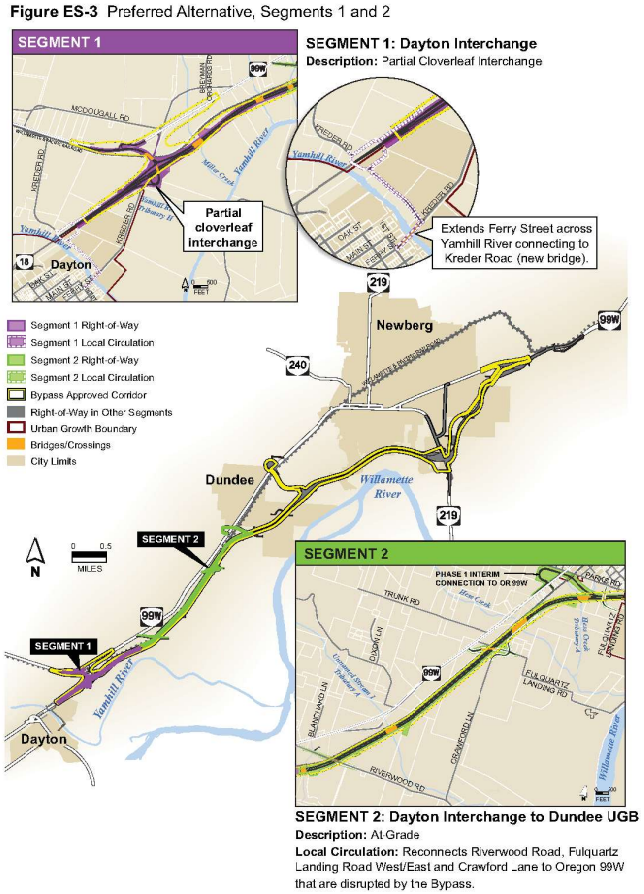


FIGURE 1. NEWBERG-DUNDEE BYPASS PHASE 3; DAYTON INTERCHANGE[1]

[1] ODOT & FHWA Newberg Dundee Bypass Tier 2 FEIS Executive Summary

STATEWIDE PLANS AND POLICIES

Applicable ODOT and other State of Oregon plans and policies are outlined in Table 2, including a summary of each of these documents and their relevance to the Dayton TSP.

TABLE 2. STATEWIDE PLANS AND POLICIES

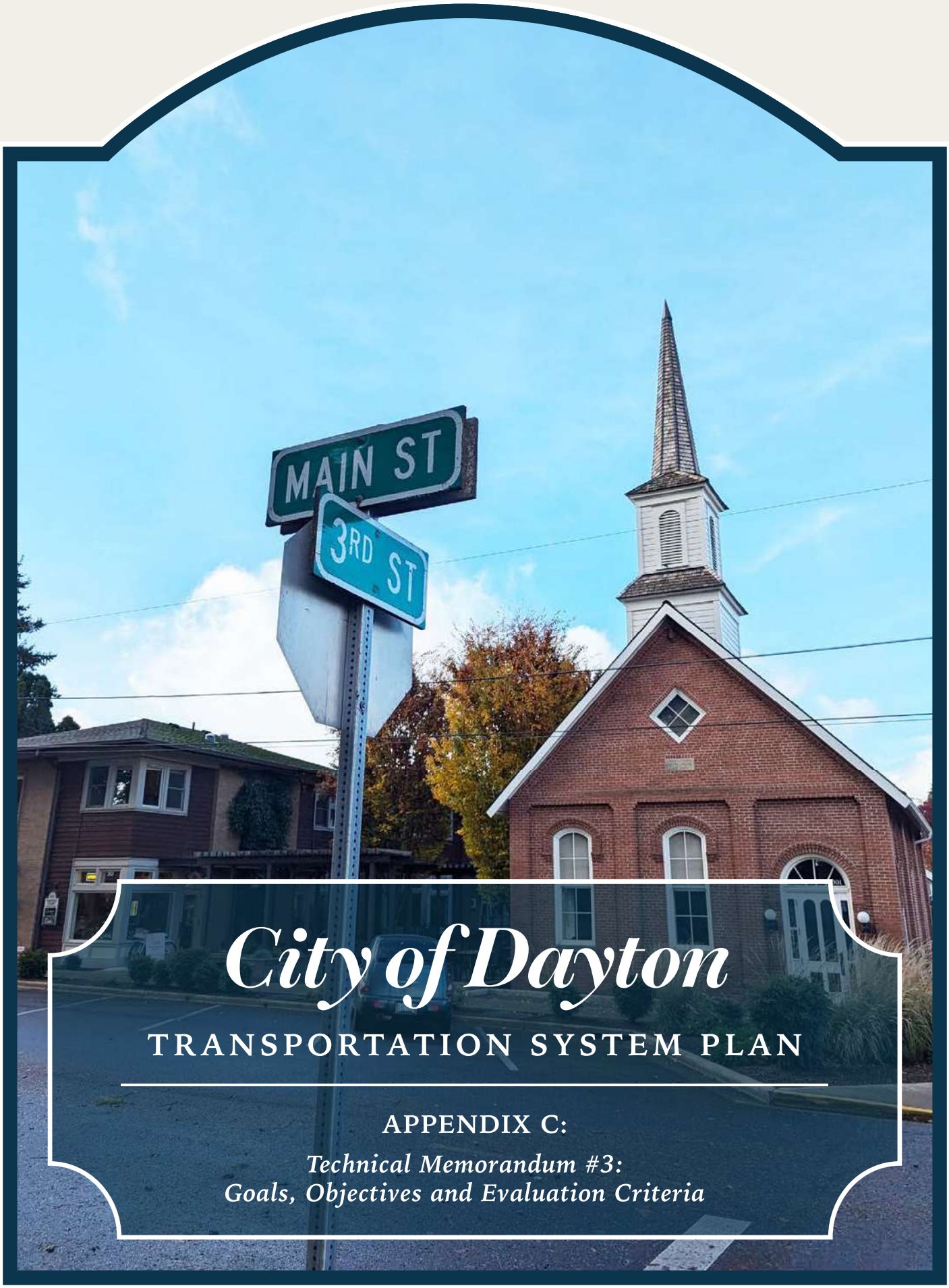
PLAN DOCUMENT (YEAR)	PLAN DESCRIPTION	RELEVANCE TO DAYTON TSP
TGM MISSION, GOALS, AND OBJECTIVES (2018)	The Transportation and Growth Management Program (TGM) links transportation planning and land use efforts to expand and support transportation options throughout the state. The mission of the TGM program is to work with local agencies to ultimately create livable, convenient, and safe communities through transportation. The program includes 5 goals: 1. Provide transportation choices to support communities with the balanced and interconnected transportation networks necessary for mobility, equity, and economic growth. 2. Create communities composed of vibrant neighborhoods and lively centers linked by accessible transportation. 3. Support economic vitality and growth by planning for land uses and the movement of people and goods. 4. Save public and private costs with compact land uses and well-connected transportation patterns. 5. Promote environmental stewardship through sustainable land use and transportation planning. TGM provides support to local agencies to achieve these goals through planning grants and direct community assistance. They also offer TSP Assessments to provide input on the strengths and weaknesses of a TSP, and discuss recommendations for a potential update. Funding to support a TSP update is also available through the program. The City of Dayton applied for and received funding for this TSP update.	The updated TSP is funded in part by the TGM program, and this support will be acknowledged in the final TSP document. The updated TSP will be developed in accordance with current TGM guidelines and will consider the program's goals and objectives when developing the final TSP.
STATEWIDE PLANNING GOALS (2019)	There are 19 Statewide Planning Goals in Oregon that govern and guide the state's land use planning program. The goals express the state's policies on land use and related topics, such as	The updated TSP will be done in accordance with state standards, as

PLAN DOCUMENT (YEAR)	PLAN DESCRIPTION	RELEVANCE TO DAYTON TSP
	transportation, citizen involvement, housing, and natural resources. These goals are accompanied by guidelines that recommend how to apply them and are adopted as administrative rules. The statewide planning program mandates that cities and counties are responsible for adopting local comprehensive plans, zoning land to implement the plan, administering land use regulations, and handling land use permits for Oregon's non-federal land. Goal 12, "TRANSPORTATION," aims to provide "a safe, convenient and economical transportation system." It asks communities to address the needs of the "transportation disadvantaged." The Transportation Planning Rule (TPR) implements Oregon Statewide Planning Goal 12, as outlined below.	outlined by the state planning goals and administrative rules.
TRANSPORTATION PLANNING RULE (OAR 660-012) (ORIGINAL ADOPTION 1974)	The Transportation Planning Rule (TPR) implements Oregon Statewide Planning Goal 12, which supports transportation facilities and systems that are safe, efficient, and cost-effective and are designed to reduce reliance on single-occupancy vehicles. The objective of the TPR is to reduce air pollution, congestion, and other negative impacts to livability, and to maximize investments made in the transportation system. The following subsections of the TPR are relevant to the Dayton TSP update: • 660-012-0020 – ELEMENTS OF TRANSPORTATION SYSTEM PLANS • 660-012-0035 – EVALUATION AND SELECTION OF TRANSPORTATION SYSTEM ALTERNATIVES • 660-012-0045 – IMPLEMENTATION OF THE TRANSPORTATION SYSTEM PLAN • 660-012-0050 – TRANSPORTATION PROJECT DEVELOPMENT • 660-012-0060 – PLAN AND LAND USE REGULATION AMENDMENTS	Requirements in TPR Sections -0020 and -0035 will direct the development and final contents of the updated TSP. Requirements in Sections -0045 and -0060 will direct potential amendments to the City's Municipal Code, specifically Title 7, the Dayton Land Use and Development Code, during the implementation stage of this update process.
STATEWIDE TRANSPORTATION IMPROVEMENT PROGRAM (STIP) (2024-2027)	The Oregon Statewide Transportation Improvement Program (STIP) is the state's four-year transportation improvement program for state and regional systems. The STIP is adopted by the Oregon Transportation Commission (OTC) and is approved by the Federal	There are no projects listed in the 2021-2024 or 2024-2027 STIP within Dayton city limits. The TSP update will take into account the projects

PLAN DOCUMENT (YEAR)	PLAN DESCRIPTION	RELEVANCE TO DAYTON TSP
	Highway Administration (FHWA) and the Federal Transit Administration (FTA) as required by federal law. The STIP is a project scheduling and funding document, not a plan. The projects in the STIP are consistent with adopted transportation plans. Additionally, the STIP is financially constrained, indicating that the projects included have committed funding available.	included in the STIP list that are nearby and could impact travel to and from Dayton. The nearest projects to the City of Dayton include: 1. NW Oregon lighting & enhanced intersection warning (2027): on the Salem-Dayton Hwy (OR 221) near mileposts 9.55 and 14.98, which are about 9 and 15 miles outside of Dayton (respectively). 2. OR18: SE Lafayette Highway to SE Ash Rd: roundabout project at the intersection of OR18 and SE Lafayette Hwy (OR233). 3. OR99W Corridor Safety & Intersection Improvements: Design and construct improvements to intersections throughout the OR99W corridor, near the intersection with OR-18, with various safety features including turn lanes and improved/enhanced signing to improve driver and pedestrian safety. These projects are all listed in the 2024-2027 STIP.

PLAN DOCUMENT (YEAR)	PLAN DESCRIPTION	RELEVANCE TO DAYTON TSP
OREGON TRANSPORTATION PLAN (INCLUDING MODAL AND TOPIC PLANS) (2023)	As the guiding document for local TSPs, the Oregon Transportation Plan (OTP) establishes goals, policies, strategies, and initiatives that address the core challenges and opportunities facing transportation in Oregon. The goals and policies are further implemented by various modal plans, including the Aviation System Plan, Bicycle and Pedestrian Plan, Freight Plan, Highway Plan, Public Transportation Plan, Rail Plan, and Transportation Safety Action Plan. The 2023 OTP contains various goals, objectives, policies, and strategies that are designed to support the overall vision and values of the state. Those values include: 1. Economic and Community Vitality 2. Social Equity 3. Mobility 4. Stewardship of Public Resources 5. Safety 6. Sustainability and Climate Action	The TSP update will support the goals and policies outlined in the 2023 OTP. This will include the goals, policies, and recommended strategies listed under each of the big-picture Visions and Values.
ODOT HIGHWAY DESIGN MANUAL	The ODOT Highway Design Manual (HDM) is the primary document for roadway design on the state highway system. Since urban design concepts have evolved the most since the last update of the HDM, it is important to incorporate current urban design criteria into ODOT designs as quickly as possible. This document provides revised criteria to be used when designing urban projects on the state system until such time that all Oregon Department of Transportation manuals related to urban design can be updated to include these revised design criteria. The criteria in this document impact the following topics: • Designing Based on Context and Roadway Classification • Integrating Design, Operations, and Safety • Evaluating and Prioritizing Design Element Application	The Highway Design Manual will be used to ensure that new design of new construction, major reconstruction, resurfacing, restoration, and rehabilitation of state roadways meet ODOT standards.

PLAN DOCUMENT (YEAR)	PLAN DESCRIPTION	RELEVANCE TO DAYTON TSP
	• Design Based on Performance	
BLUEPRINT FOR URBAN DESIGN (2020)	The Blueprint for Urban Design (BUD) is a "bridging document" that establishes revised criteria to be used when design urban projects on the state system. The document provides guidance for urban design on Oregon state highways until such time that all ODOT manuals related to urban areas are updated. The BUD was formerly a temporary companion document to the HDM and other ODOT design manuals. However, the policies of the BUD are now incorporated into the HDM, as described above.	The guidelines and criteria outlined in the BUD may be referenced to determine how best to meet ODOT criteria on state highway facilities.
OREGON ACCESS MANAGEMENT RULE (OAR 734-051)	The Oregon Access Management Rule (OAR 734-051) attempts to balance the safety and mobility needs of travelers along state highways with the access needs of property and business owners. ODOT's rules manage access to the state's highway facilities in order to maintain highway function, operations, safety, and the preservation of public investment consistent with the policies of the 1999 OHP. Access management rules allow ODOT to control the issuing of permits for access to state highways, state highway rights of way and other properties under the State's jurisdiction. In addition, the ability to close existing approaches, set access spacing standards and establish a formal appeals process in relation to access issues is identified. These rules enable the State to direct location and spacing of intersections and approaches on state highways, ensuring the relevance of the functional classification system and preserving the efficient operation of state routes.	ODOT access spacing standards for highways should be referenced in the TSP, along with supporting policies that work towards meeting the access spacing standards.



City of Dayton

TRANSPORTATION SYSTEM PLAN

APPENDIX C:

Technical Memorandum #3:
Goals, Objectives and Evaluation Criteria

DKS 1050 SW 6TH AVENUE, SUITE 600 • PORTLAND, OR 97204 • 503.243.3500 • DKSASSOCIATES.COM

MEMORANDUM #3

DATE: November 4, 2024

TO: Dayton TSP Project Management Team

FROM: Carl Springer, PE | DKS Associates
Julia Cruz-Jones | DKS Associates

SUBJECT: Dayton Transportation System Plan Update DKS P#24439-000
Memorandum #3: Goals, Objectives, and Evaluation Criteria

INTRODUCTION

This memorandum identifies potential goals and objectives for the updated Dayton TSP, which will be used to create evaluation criteria for developing and prioritizing transportation solutions. While the goals and objectives of the current TSP will serve as a starting point, this memorandum outlines a broader list of goals suggested for consideration which may better reflect the current and future priorities of the community.

The following sections summarize the existing goals and objectives in the 2001 Dayton TSP and provide a list of recommended goals with objectives for consideration by the City. A framework of possible evaluation criteria follows. These sections will serve as a baseline for the development of final goals, objectives, and evaluation criteria that are consistent with TGM objectives, Project Objectives, and the community's goals and best interests as expressed in the Comprehensive Plan and other relevant adopted plans (which are summarized in Memorandums 1 and 2).

EXISTING PLAN SUMMARIES

The current Dayton TSP (2001), Comprehensive Plan (2008, revised 2022), Dayton Forward Plan (2012), and Strategic Plan (2022-2023) include transportation goals that are relevant to this update. These pertinent goals are listed below.

DAYTON TSP (2001)

The current Dayton TSP contains transportation plans and policies aimed at meeting the needs of the 2001-2020 populations. The TSP identifies one objective from the 1986 update and one recommended objective from the TAC:

Objective 1: To provide a safe, convenient, aesthetic, and economic transportation system through a variety of transportation means. (Originally in 1986 TSP, reiterated in 2001 TSP)

Objective 2: Create conditions which provide workable alternatives to the automobile. (TAC)

The TSP includes a list of recommended improvements, which will be carried over as objectives into the updated TSP, as appropriate. The key transportation system improvements identified in the 2001 Dayton TSP are:

- Prepare a complete engineering analysis of the existing streets
- Work toward a refinement study for Third and Ferry Streets
- Adopt new street access standards
- Seek from ODOT higher levels of maintenance for Third and Ferry Streets
- Re-designation of arterial and collector streets.
- Adopt street improvement priorities
- Increase effort to develop sidewalks and bikeway between residential areas and activity centers
- Adopt bicycle improvement priorities
- Adopt code revisions to implement the State's Transportation Planning Rule
- Adopt amendments to the *Comprehensive Plan and Planning Atlas*
- Continue efforts for transportation grants to continue existing improvement programs

CITY OF DAYTON PLANNING ATLAS AND COMPREHENSIVE PLAN (2008)

Chapter 10 of the Planning Atlas and Comprehensive Plan for the City of Dayton pertains to transportation and summarizes the findings, goals, and policies outlined in the TSP and the policies proposed for the Newberg-Dundee Bypass (added in 2011). The 2011 update also includes ODOT's intent to support the City's TSP update. Because of the great impact this future bypass could have on the city, the TSP should address the future bypass to the extent feasible and necessary to document the future anticipated conditions and to avoid projects that might otherwise preclude the future construction of the bypass.

This chapter also includes one goal, which is the same as the first bullet in the previous section (2001 Dayton TSP).

Goal 1: To provide a safe, convenient, aesthetic, and economic transportation system through a variety of transportation means.

Chapter 8, "Economy of the City" also contains goals and policies that could be impacted by transportation, or for which transportation and access play a key role:

Goal 2: To provide sufficient, orderly and convenient commercial and industrial development that will enhance the livability of the community and meet the needs of the citizens.

Goal 3: Create an environment that will enhance the downtown and provide a focal point for both residents and visitors.

DAYTON FORWARD PLAN (2012)

The Dayton Forward plan includes 15 goals for the City and recommended Next Steps for the City Council to take to move toward achieving those goals. The most applicable goals from the Dayton Forward Plan include:

Goal 2 Urban Form: Maintain Dayton's compact, pedestrian friendly, small town character. Revitalize its central business core with appropriately scaled development. Focus on infill development and placemaking within the existing fabric. Avoid auto oriented commercial strip development.

Goal 3 Image/Environment: Use Dayton's historic, cultural, and natural resources to transform it into an authentic and charming community which appeals to individuals with high disposable incomes.

Goal 6 Landscape & Open Space: Transform Dayton's character through the use of landscape elements such as street trees, public parks and trail systems.

Goal 13 Transportation: Encourage a transportation system and modes of transportation that enhance and support the character of the town.

STRATEGIC PLAN GOALS (2024-2025)

The City Council updates the Strategic Plan Goals for the City of Dayton every year. Each goal is implemented with specific objectives that are assigned priority levels (1-4, with 1 being the highest priority). The following Goals and Objectives are identified in the most recent update of the plan and are most applicable to the TSP update:

Goal A: Develop and maintain resilient infrastructure to support operations and meet growth.

Priority 1 Objectives:

- Complete Construction of a Steel Truss Bridge Main Span Replacement with Infrastructure Upgrades
- Complete HWY 221 Lift Station
- Research Transfer of Ownership of Ferry Street from ODOT to the City
- Transportation System Plan Update (TSP)
- Complete Road Overlays East of 3rd Street through Small City Allotment Grant

Priority 2 Objectives:

- Evaluate Funding Models for Establishing Pavement Management Program

Priority 3 Objectives:

- Complete 8th Street Rebuild and Overlay

Goal B: Create a livable community that is aesthetically pleasing, affordable, inviting, and with a vibrant and diverse economy.

Priority 1 Objectives:

- Work with ODOT to Install a Hwy 18 Welcome Sign

Priority 2 Objectives:

- Establish a 50/50 Sidewalk Program for Dayton Residents

Priority 4 Objectives:

- Coordinate Wayfinding/Tourism Signage and Include the Footbridge

YAMHILL COUNTY TSP (2015)

The Yamhill County TSP includes an analysis of the 2015 and future conditions (a 20-year planning horizon for 2035) for the entire County, including transportation facilities in rural (unincorporated) areas. The TSP features a set of goals that "describe the desired outcomes of future transportation improvements in the County" and objectives that "identify actions to be taken to accomplish the goals." There are many objectives listed to support each goal; they can be viewed in the attached full version of the County TSP.

Goal 1: Provide for efficient and convenient motor vehicle travel.

Goal 2: Provide for the safety of all transportation modes.

Goal 3: Provide an equitable, balanced and connected multi-modal transportation system.

Goal 4: Increase the quality and availability of pedestrian and bicycle facilities.

Goal 5: Work with transit service providers to provide transit service and amenities that encourage and increase ridership.

Goal 6: Manage the transportation system to support a prosperous and competitive economy.

Goal 7: Provide transportation facilities and services that are fiscally responsible and economically feasible.

Goal 8: Provide a transportation system that conserves energy and protects and improves the environment.

Goal 9: Coordinate with local and state agencies and transportation plans.

YAMHILL COUNTY TRANSIT AREA TRANSIT DEVELOPMENT PLAN (2018)

The Yamhill County Transit Area (YCTA) Transit Development Plan (TDP) provides strategic guidance over a 20-year planning period and serves as the basis for transit elements in local TSPs.

The TDP goals and objectives reflect the public transportation priorities for YCTA and are coordinated with goals and policies developed in other Yamhill County, state, and Federal transit-related plans.

Goal 1: Mobility – provide convenient, reliable public transportation serving a range of customer needs.

Goal 2: Accessibility – provide public transportation services that are equitable and address the needs of all users.

Goal 3: Passenger experience – make public transportation a convenient, attractive and welcoming way to travel.

Goal 4: Safety and security – ensure transit riders and drivers have safe and secure vehicles and facilities.

Goal 5: Livability and economy – integrate public transit in the transportation system to support a prosperous, healthy community.

Goal 6: Efficiency and financial accountability – manage the transit system in a fiscally responsible way to maximize return on investment.

TGM MISSION, GOALS, AND OBJECTIVES (2018)

The Transportation and Growth Management Program (TGM) links transportation planning and land use efforts to expand and support transportation options throughout the state. The mission of the TGM program is to work with local agencies to ultimately create livable, convenient, and safe communities through transportation. The program includes 5 goals:

Goal 1: Provide transportation choices to support communities with the balanced and interconnected transportation networks necessary for mobility, equity, and economic growth.

Goal 2: Create communities composed of vibrant neighborhoods and lively centers linked by accessible transportation.

Goal 3: Support economic vitality and growth by planning for land uses and the movement of people and goods.

Goal 4: Save public and private costs with compact land uses and well-connected transportation patterns.

Goal 5: Promote environmental stewardship through sustainable land use and transportation planning.

OREGON SAFE ROUTES TO SCHOOL PROGRAM

Today, there is a need to provide options that allow all children, including those with disabilities, to walk and bicycle to school safely. Safe Routes to School (SRTS) can improve safety for children and a community of pedestrians and bicyclists. SRTS provide opportunities for people to become more

physically active and to rely less on their cars. They also benefit the environment and a community's quality of life by reducing traffic congestion and motor vehicle emissions.

One of the basic tenets of pedestrian and bicycle safety is that to be effective, safety programs must be comprehensive, involving all of the elements listed below:

- Education
- Encouragement
- Enforcement
- Engineering
- Evaluation

RECOMMENDED GOALS AND OBJECTIVES

The primary mode of transportation in Dayton is through personal vehicles, but there is a desire to increase opportunities for multimodal trips, especially for active transportation. Many of the goals listed in the City's documents pertain to the transportation experience within Dayton's downtown core and planning for new development, but many daily trips are made between Dayton and neighboring cities. The adopted goals should reflect these travel patterns as well as capture still-relevant adopted City objectives. More information about the demographic makeup of the community and local travel patterns are found in Memorandum #1.

Goals and objectives help to break down a bigger vision into manageable actions. **Goals** are broad statements that describe a desired outcome, and they should be challenging but achievable. Each goal should be supported by specific **objectives**, which identify key issues related to achieving the goal. The TSP goals and objectives provided below will be shared with the Project Advisory Committee (PAC) and the general public for further discussion and, where necessary, refinement to ensure they reflect the desires of the community. These goals are in line with TGM objectives and will bolster the community's vision and goals for transportation.

GOAL 1 - SAFETY

Provide safe routes, corridors, and intersections for all modes of transportation.

Objectives:

1. Prioritize development that creates walking and bicycling opportunities, including safe pedestrian crossing opportunities.
2. Address safety concerns at locations with a high crash frequency
3. Identify and address safety concerns that discourage active transportation (walking and biking) to key destinations within the City.
4. Evaluate street design and vehicle speeds on arterial and collector streets within the City.
5. Upgrade key intersection locations to meet federal and state requirements, such as the Americans with Disabilities Act (ADA).
6. Provide safe walking and biking routes to/from schools for students.

GOAL 2 – MOBILITY, ACCESSIBILITY, AND CONNECTIVITY

Maintain transportation infrastructure that enables the efficient movement of people, goods, and services, balancing regional and local traffic needs.

Objectives:

1. Strengthen the downtown and central business core by maintaining mobility along the corridor while supporting reasonable access management to places of interest.
2. Consistent with roadway classification, design roads for non-passenger car types of vehicles and equipment, particularly freight, emergency vehicles, and agricultural equipment.
3. Address intersection capacity needs for present and future traffic volumes.
4. Identify future primary street connections between the existing City street network and unincorporated land inside the UGB.
5. Maintain a street functional classification system with associated cross-section standards so that streets are maintained and constructed consistent with the City's vision as development occurs.
6. Seek opportunities to support and encourage regional transit and public transportation programs.
7. Continue to investigate all sources of funding for street improvement and to upgrade City streets as funds become available

GOAL 3 – LIVABILITY AND OPPORTUNITY

Provide a transportation network that preserves the character of the city and promotes changes in land use patterns and the transportation system that makes it more convenient for people to walk, bicycle, use transit, and drive less to meet their daily needs.

Objectives:

1. Maintain and enhance Dayton's compact, pedestrian-friendly, small-town character.
2. Support improvements that make the downtown area safe and comfortable for walking, including the use of landscape elements such as street trees, public parks, and trail systems.
3. Increase effort to develop sidewalks and bikeways between residential areas and activity centers.
4. Coordinate with Yamhill County and the Oregon Department of Transportation in the development of a county-wide bikeway plan and a designated bicycle route.
5. Promote bicycle paths between schools, parks, commercial areas and residential areas throughout the City.
6. Install bicycle lanes as part of arterial and collector street improvements.
7. Improve the transportation systems that provide direct access to employment and regional employment centers.

8. Support regional tourism and strategies to encourage stops by visitors.
9. Adequately involve the needs of agricultural enterprises to support the growth of sustainable agriculture sectors.
10. Balance the needs and desires of a small city with a major highway running through it/regional travel needs.

GOAL 4 – COORDINATION

Provide a cohesive regional transportation system that coordinates with regional partners to have an inter-connected system.

Objectives:

1. Improve and maintain relationships with the Oregon Department of Transportation (ODOT), Yamhill County, Yamhill County Transit, and neighboring municipalities such as McMinnville, Newberg, Lafayette, and Salem.
2. Coordinate with regional, county, and state transportation policies and goals.
3. Adopt code revisions to implement the State's Transportation Planning Rule.
4. Work with transit service providers to provide transit service and amenities that encourage and increase ridership.
5. Develop strategies for regional project coordination and integration to improve congestion and delay on regional facilities and highways, including the Newberg-Dundee Bypass.
6. Pursue transfer of ownership of Ferry Street from ODOT to the City.
7. Seek from ODOT higher levels of maintenance for Third and Ferry Streets.

GOAL 5 – EQUITY AND SUSTAINABILITY

Provide a transportation system that satisfies the present community without compromising the ability of future generations to meet their needs.

Objectives:

1. Ensure the transportation system provides equitable access for all people, taking into consideration the range of ages, abilities, and incomes of Dayton’s residents.
2. Minimize the impacts of transportation system improvements on existing land uses, paying special attention to protecting natural resources.
3. Encourage infill development and placemaking within the existing fabric of the City and avoid auto-oriented commercial strip development.
4. Include the public in decision-making and planning processes to ensure transportation development continues to meet the needs of the community.
5. Align planning and development with ODOT Climate-Friendly and Equitable Communities (CFEC) recommendations to reduce greenhouse gas emissions and encourage climate-friendly transportation options.

EVALUATION CRITERIA

The evaluation criteria outlined below will serve as the framework for evaluating the performance of programs and projects identified in later tasks and the final TSP. They will help the City identify the need for transportation improvements and rank and prioritize a list of competing projects.

Using the evaluation criteria, recommended projects will be rated and categorized as high, medium, or low priorities according to their ability to meet a broad range of community objectives.

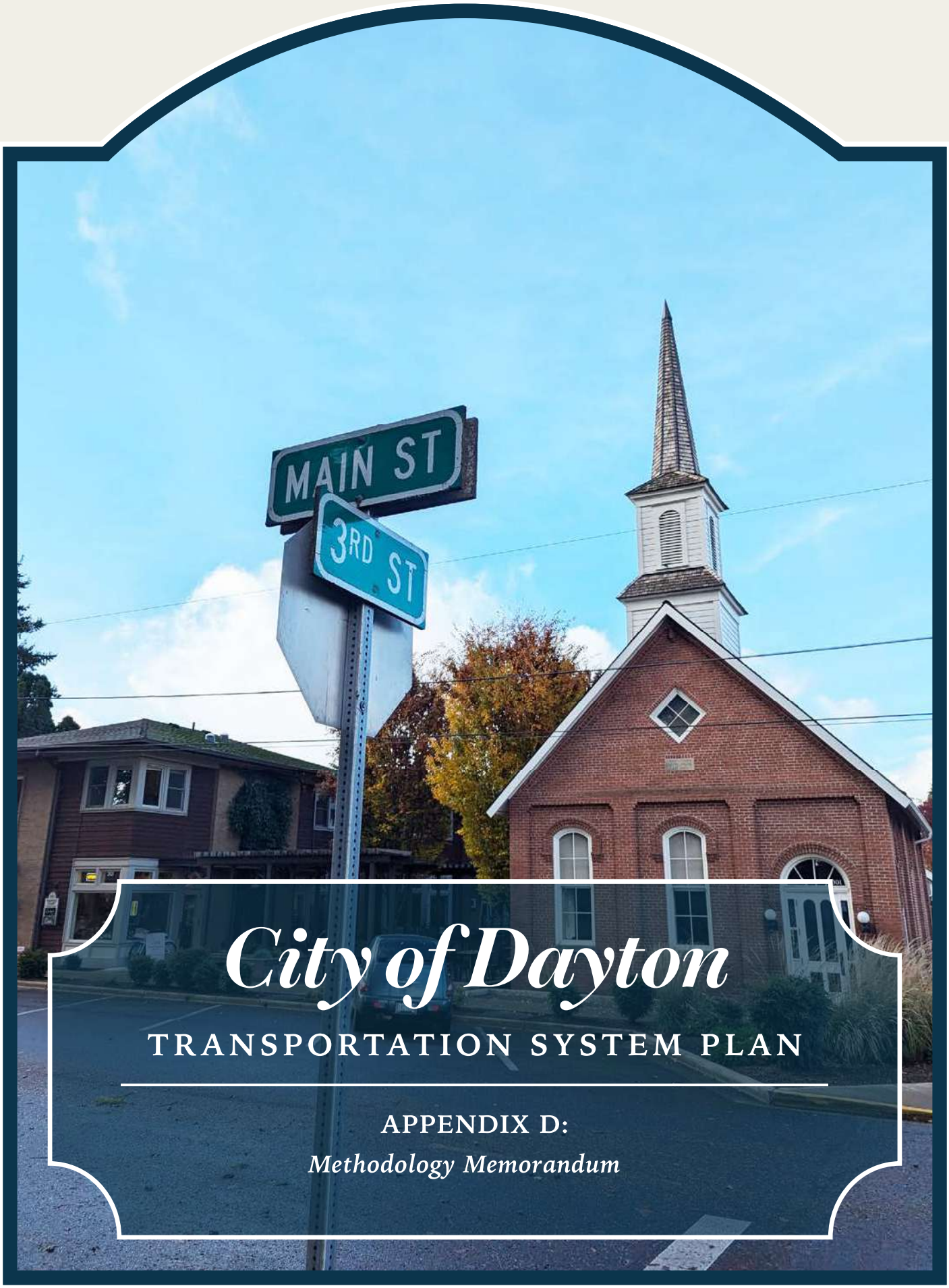
Although evaluation criteria are both qualitative and quantitative in nature, each criterion will receive a numerical score of -2 to +2 for each project. Projects will be evaluated on whether they predominately have a positive, negative, or neutral (or no known) impact to the stated criterion, including whether the positive or negative impact is high or small.

- High positive impact: +2
- Small positive impact: +1
- Neutral (no known) impact: 0
- Small negative impact: -1
- High negative impact: -2

Using this methodology, projects could earn up to 40 total impact points, with a higher impact score equating to a higher applicability or priority of a project, as shown in Table 1.

TABLE 1: EVALUATION CRITERIA

CATEGORY	CRITERIA	POTENTIAL SCORE PER CATEGORY
GOAL 1: SAFETY	- Reduces crash frequency or severity by a proven crash reduction factor - Mitigates a condition that discourages active transportation - Improves safety for all ages and abilities (people with disabilities, children, etc.) - Improves safe walking and biking routes to/from schools	-8 to +8
GOAL 2: MOBILITY, ACCESSIBILITY, AND CONNECTIVITY	- Mitigates traffic operation deficiency (i.e., volume to capacity, delay, queuing) - Improves mobility and access to the downtown and central business core - Increases transportation mode choices - Encourages regional transit use - Improves street network connectivity	-10 to +10
GOAL 3: LIVABILITY AND OPPORTUNITY	- Promotes opportunities for recreation & provides healthy lifestyle opportunities - Promotes a pedestrian-friendly downtown - Provides better access or connectivity between residential areas and activity centers - Improves access to local and regional employment centers - Improves Level of Traffic Stress (bike and pedestrian comfort)	-10 to +10
GOAL 4: COORDINATION	- Improves congestion and delay on regional facilities/highways - Aligns with other local and regional policies and plans	-4 to +4
GOAL 5: EQUITY AND SUSTAINABILITY	- Project is located within an Underserved Community - Is supported by the community through public engagement - Provides a social benefit, including impact and benefit for Underserved Populations - Reduces greenhouse gas emissions	-8 to +8
	Total:	-40 to +40



City of Dayton

TRANSPORTATION SYSTEM PLAN

APPENDIX D:

Methodology Memorandum

DKS 1050 SW 6TH AVENUE, SUITE 600 • PORTLAND, OR 97204 • 503.243.3500 • DKSASSOCIATES.COM

MEMORANDUM

DATE: November 11, 2024

TO: Dayton TSP Project Management Team

FROM: Carl Springer, Jenna Bogert, and Hallie Turk | DKS Associates

SUBJECT: Dayton Transportation System Plan Update DKS P#24439-000
Task 4.1 Methodology Memorandum

INTRODUCTION

In the first stage of the Dayton Transportation System Plan (TSP) update, the project team examines Dayton's current transportation system and how well it serves the community. The purpose of this memorandum is to establish the methods and assumptions to be used for the existing and future conditions transportation analysis for the Dayton TSP update.

The project's study area directly corresponds with Dayton's Urban Growth Boundary (UGB). The following sections summarize the study intersections and describe the proposed methodology to calculate and analyze the existing and future traffic volumes, intersection operations, and safety performance. The Oregon Department of Transportation (ODOT) Analysis Procedures Manual (APM) will guide the methodologies and assumptions for this analysis.

STUDY INTERSECTIONS

Eight study intersections were identified for analysis, which are listed below and shown in Figure 1. Traffic counts at the OR 18 ramp intersections will be collected by DKS. All other traffic counts were provided by ODOT.

1. OR 18 WB/Foster Road
2. OR 18 EB/3rd Street (OR 221)
3. Ferry Street (OR 155)/3rd Street (OR 221)
4. Ferry Street (OR 155)/5th Street
5. Ferry Street (OR 155)/8th Street
6. Ferry Street (OR 155)/Flower Lane
7. Ash Street/8th Street
8. Ash Street/Flower Lane/Ash Road

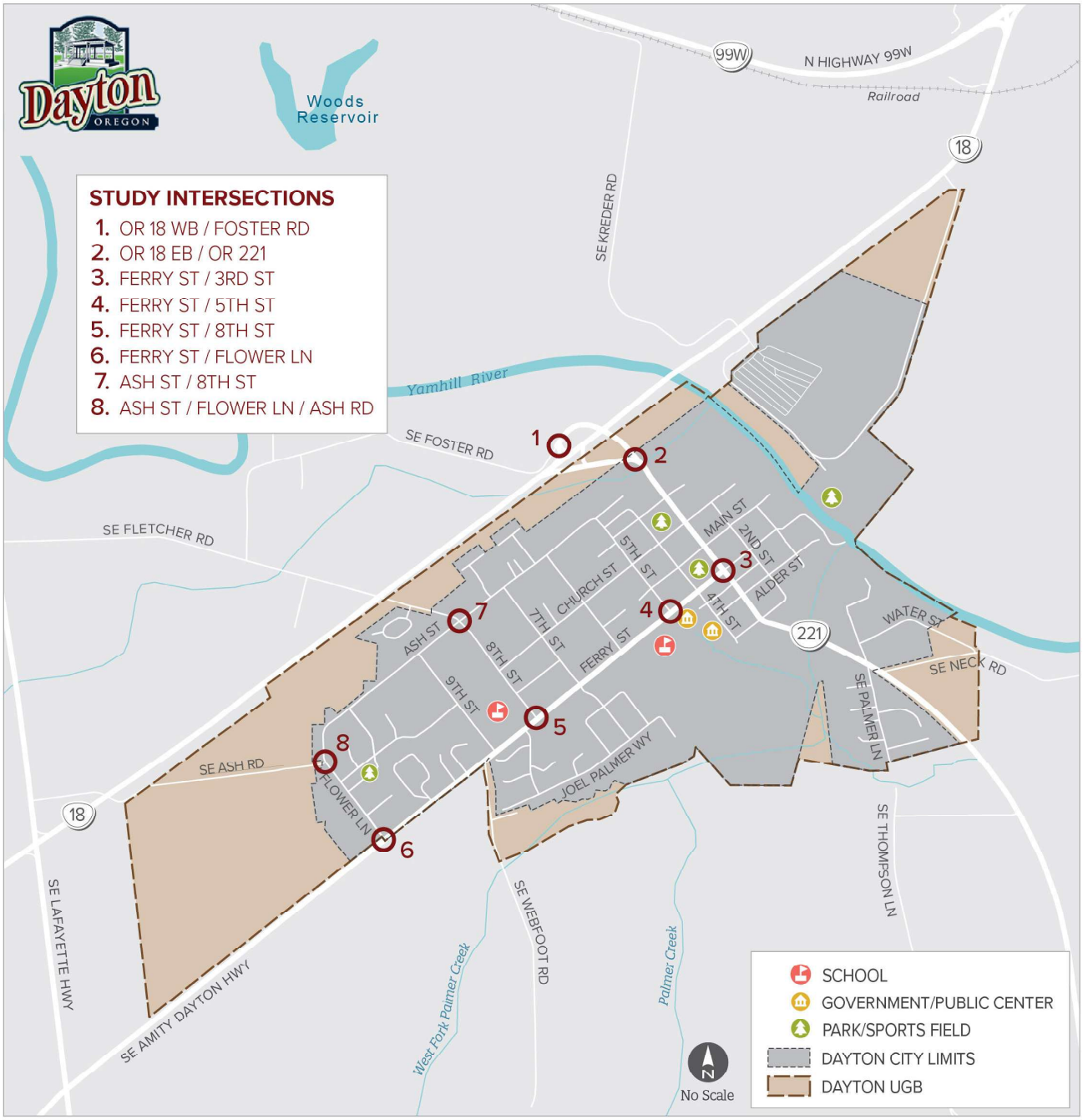


FIGURE 1. DAYTON TSP STUDY INTERSECTIONS

TRAFFIC VOLUME DEVELOPMENT

Study intersection traffic operations will be analyzed using estimated 30th highest hour traffic volume (30 HV) conditions. The 30 HV development process for existing conditions includes determination of the system peak hour and seasonal adjustments.

PEAK HOUR SELECTION

Typically, a singular system peak hour is used for all counts across the study intersections, which will be aggregated to the highest 15-minute interval. This peak hour is used to compare operational results to ODOT, County, and City mobility targets/operating standards. However, the peak hours at collected TMC locations (shown in Table 1) demonstrate that local afternoon traffic peaks at different times in the afternoon.

Therefore, the project team proposes not using a system peak hour for this study. This allows the estimated volumes to be the most conservative at each study intersection.

TABLE 1. INTERSECTION COUNT DATA

	INTERSECTION	COUNT DATE	TYPE [A]	DURATION	PM PEAK HOUR
1	OR 18 WB/Foster Rd	10/15/24	TMC	3-hour (3pm-6pm)	3:45pm-4:45pm
2	OR 18 EB/ 3rd Street (OR 221)	10/15/24	TMC	3-hour (3pm-6pm)	4:30pm-5:30pm
3	Ferry Street (OR 155)/ 3rd Street (OR 221)	5/21/24	TMC	16-hour (6am-10pm)	3:30pm-4:30pm
4	Ferry Street (OR 155)/ 5th Street	5/21/24	TMC	16-hour (6am-10pm)	3:30pm-4:30pm
5	Ferry Street (OR 155)/ 8th Street	5/21/24	TMC	16-hour (6am-10pm)	4:45pm-5:45pm
6	Ferry Street (OR 155)/ Flower Lane	5/21/24	TMC	16-hour (6am-10pm)	4:45pm-5:45pm
7	Ash Street/8th Street	5/21/24	TMC	16-hour (6am-10pm)	3:00pm-4:00pm
8	Ash Street/Flower Lane/ Ash Road	5/21/24	TMC	16-hour (6am-10pm)	4:30pm-5:30pm

[A] TMC = Turning Movement Count

SEASONAL ADJUSTMENT FACTOR

The traffic count data collected in Dayton during May will be seasonally adjusted to represent the 30HV conditions. Per the APM, the On-Site ATR Method for calculating a seasonal adjustment factor is not recommended for Dayton, as the two nearest ATRs (#36-004 east of Newberg and #36-006 west of McMinnville) are unlikely to represent Dayton's seasonal travel patterns. Because Dayton is a rural populated area, using a single seasonal trend per the ATR Characteristic Table Method is also unlikely to represent Dayton's seasonal travel patterns. Therefore, the ATR Seasonal Trend Table Method[1] was used to calculate a seasonal adjustment factor.

The average of the commuter and summer trends for the count month of May is shown in Table 2. As shown, the seasonal adjustment factor for May counts is 1.05.

TABLE 2. DAYTON TSP SEASONAL ADJUSTMENT FACTOR, MAY COUNTS

SEASONAL TREND	MAY 15 FACTOR	JUNE 1 FACTOR	MAY 21 FACTOR (INTERPOLATED)	PEAK PERIOD FACTOR	MAY 21 FACTOR / PEAK PERIOD FACTOR
COMMUTER	0.9594	0.9485	0.9555	0.9376	0.9555 ÷ 0.9376 = **1.019**
SUMMER	0.9190	0.8867	0.9076	0.8449	0.9076 ÷ 0.8449 = **1.074**
AVERAGE OF COMMUTER TREND AND SUMMER TREND					**1.05**

Because turning movement counts will be collected at two of the eight study intersections in October, the average of the commuter and summer trends was also calculated for the count month of October, shown in Table 3. As shown, the seasonal adjustment factor for October counts is 1.10.

TABLE 3. DAYTON TSP SEASONAL ADJUSTMENT FACTOR, OCTOBER COUNTS

SEASONAL TREND	OCTOBER 15 FACTOR	PEAK PERIOD FACTOR	OCTOBER 15 FACTOR / PEAK PERIOD FACTOR
COMMUTER	0.9753	0.9376	0.9753 ÷ 0.9376 = **1.040**
SUMMER	0.9829	0.8449	0.9829 ÷ 0.8449 = **1.163**
AVERAGE OF COMMUTER TREND AND SUMMER TREND			**1.10**

FUTURE VOLUME FORECASTING

Future traffic volume forecasts will be estimated for the year 2045, which is the horizon year for this TSP update. Although the City of Dayton is partially modeled by the McMinnville Travel Demand Model, ODOT staff noted that not all of Dayton is included in the model, and the future

[1] Chapter 5.5.4, Analysis Procedures Manual. Oregon Department of Transportation. Last updated November 2022.

land uses are likely to be outdated. Therefore, future volumes will be calculated by combining conclusions from the following methods:

- *Regional Growth*: The Oregon Statewide Integrated Model (SWIM) will be used to estimate regional growth in and near Dayton on state highways. Historical trends using the Future Volumes Table are incorporated in the SWIM model output.
- *Local Growth*: Zonal cumulative analysis will be used to estimate growth generated by local land uses in Dayton. Land use trip generation will be estimated using the Institute of Transportation Engineers (ITE) Trip Generation Manual, 11th Edition. To establish volumes entering and exiting the project area, traffic counts (turning movement counts or tube counts) at the following screenline locations will be used.
    - OR 233 at OR 154
    - OR 18 at OR 233
    - OR 18 at SE Ash Road
    - SE Fletcher Rd and SE Foster Rd or SE Fletcher Rd and OR 154
    - OR 18 at Kreder Road
    - OR 221 at SE Neck Street or OR 221 at SE Thompson Lane
    - Ferry Street (OR 155) at SE Webfoot Road

OPERATIONS ANALYSIS METHODOLOGY

ANALYSIS PARAMETERS

Parameters for traffic analysis will be gathered using varying sources and methodologies. Table 4 lists the sources of information for each analysis parameter.

TABLE 4. ANALYSIS PARAMETERS

PARAMETER	DESCRIPTION	SOURCE
INTERSECTION/ROADWAY GEOMETRY	• Number of lanes • Lane configuration • Signal phasing • Cross-sectional information	Aerial photos, Google Street View Confirmed during field work
OPERATIONAL DATA	• Posted speeds • Intersection control • Parking • Transit • Rail crossings	ODOT TransGIS, aerial photos, Google Street View Confirmed during field work
PEAK HOUR FACTOR	• PHF	Calculated from traffic counts
TRAFFIC VOLUMES	• Average annual daily traffic (AADT) • Design hour volumes (p.m. peak hour)	Calculated from traffic counts
SIGNAL TIMING DATA	Not applicable (no signals in Dayton)	N/a
TRAFFIC OPERATIONS	• Delay • v/c ratio • Level of service (LOS)	Calculated using HCM 7th Edition
QUEUING	Not applicable	N/a

VEHICLE OPERATIONAL ANALYSIS

Traffic operations (LOS, delay, and v/c ratio) will be analyzed for all study intersections under existing (2024) and future (2045) baseline conditions. The Highway Capacity Manual (HCM) 7th Edition methodology on Vistro software will be used for the analysis.[2]

[2] Highway Capacity Manual, 7th Edition, Transportation Research Board, 2022.

TABLE 5. CHANGES FROM ODOT DEFAULT IN VISTRO SOFTWARE

VISTRO PROGRAM ASSUMPTIONS	CHANGE FROM DEFAULT
PERFORMANCE MEASURE	N/a
BASIC SATURATION FLOW RATE	1750 vehicles/hour
CAPACITY MODEL	HCM 7th Edition
WALKING SPEED	N/a
CROSSING SPEED	N/a
GROWTH RATE	N/a
PRIORITY INPUTS	N/a

VEHICLE OPERATING STANDARDS

All intersection operating standards are based on jurisdictional ownership. Intersections under ODOT jurisdiction must comply with the v/c ratios in the Oregon Highway Plan (OHP). The ODOT v/c targets are based on the highway category, location, and posted speeds.

TABLE 6. DAYTON TSP STUDY INTERSECTION OPERATING STANDARDS

	INTERSECTION	JURISDICTION	OREGON HIGHWAY PLAN CLASSIFICATION	MAJOR STREET POSTED SPEED	TRAFFIC CONTROL [A]	OPERATING STANDARD
1	OR 18 WB/Foster Rd	ODOT	Expressway/Freight Route on Statewide Hwy (Outside UGB)	55 mph	TWSC	v/c ≤ 0.70
2	OR 18 EB/ 3rd Street (OR 221)	ODOT	Expressway/Freight Route on Statewide Hwy (Inside UGB)	55 mph	TWSC	v/c ≤ 0.80
3	Ferry Street (OR 155)/ 3rd Street (OR 221)	ODOT	District Highway (Inside UGB)	25 mph	AWSC	v/c ≤ 0.95
4	Ferry Street (OR 155)/ 5th Street	ODOT	District Highway (Inside UGB)	25 mph	TWSC	v/c ≤ 0.95
5	Ferry Street (OR 155)/ 8th Street	ODOT	District Highway (Inside UGB)	25 mph	TWSC	v/c ≤ 0.95

	INTERSECTION	JURISDICTION	OREGON HIGHWAY PLAN CLASSIFICATION	MAJOR STREET POSTED SPEED	TRAFFIC CONTROL [A]	OPERATING STANDARD
6	Ferry Street (OR 155)/ Flower Lane	ODOT	District Highway (Inside UGB)	45 mph	TWSC	v/c ≤ 0.90
7	Ash Street/8th Street	City	Local Street (Inside UGB)	25 mph	AWSC	none
8	Ash Street/Flower Lane/ Ash Road	City	Local Street (Inside UGB)	25 mph	AWSC	none

[A] TWSC = TWO-WAY STOP CONTROL, AWSC = ALL-WAY STOP CONTROL

The City of Dayton does not have a mobility standard for intersections under City jurisdiction. The project team will report operations at these intersections without comparing them to a mobility standard.

BICYCLE, PEDESTRIAN, AND TRANSIT ANALYSIS

NETWORK IDENTIFICATION

A multimodal network inventory will be completed in order to determine transportation needs for all road users. The following will be addressed in the *Existing Conditions Analysis* Memo #4:

- Identify standards for a complete pedestrian and bicycle system
- Identify gaps in sidewalk and crossing network for access to/from key destinations, including schools, transit stops, shopping areas, and parks
- Identify opportunities for bike network (separated bike facilities do not currently exist in Dayton), especially regarding access to/from key destinations such as schools, transit stops, shopping areas, and parks
- Assess transit stops and amenities for ADA accessibility

QUALITATIVE MULTIMODAL ASSESSMENT

Multimodal analysis will be performed using Qualitative Multimodal Level of Service (MMLOS) methodology described in APM Section 14.3. Existing bicycle, pedestrian, and transit facilities will be inventoried and assessed using a qualitative, context-based subjective rating of Excellent, Good, Fair, or Poor. Roadway characteristics will be gathered from aerial and street view maps. A map of study area roadways and table for the study intersections will be provided to summarize qualitative ratings for existing and future conditions.

FREIGHT ANALYSIS

To identify deficiencies in the freight network, the *Existing Conditions Analysis* Memo #4 will address the following related to truck freight:

- Deficiencies at the OR 18 Ramps, along Ferry Street, and along 3rd Street that affect freight movement
- Truck pinch points such as locations with weight, height, or length restrictions

SAFETY ANALYSIS METHODOLOGY

Crash trends will be identified by analyzing the most recent five years of available crash data (2018 to 2022) for all roadways within Dayton's Urban Growth Boundary (UGB).

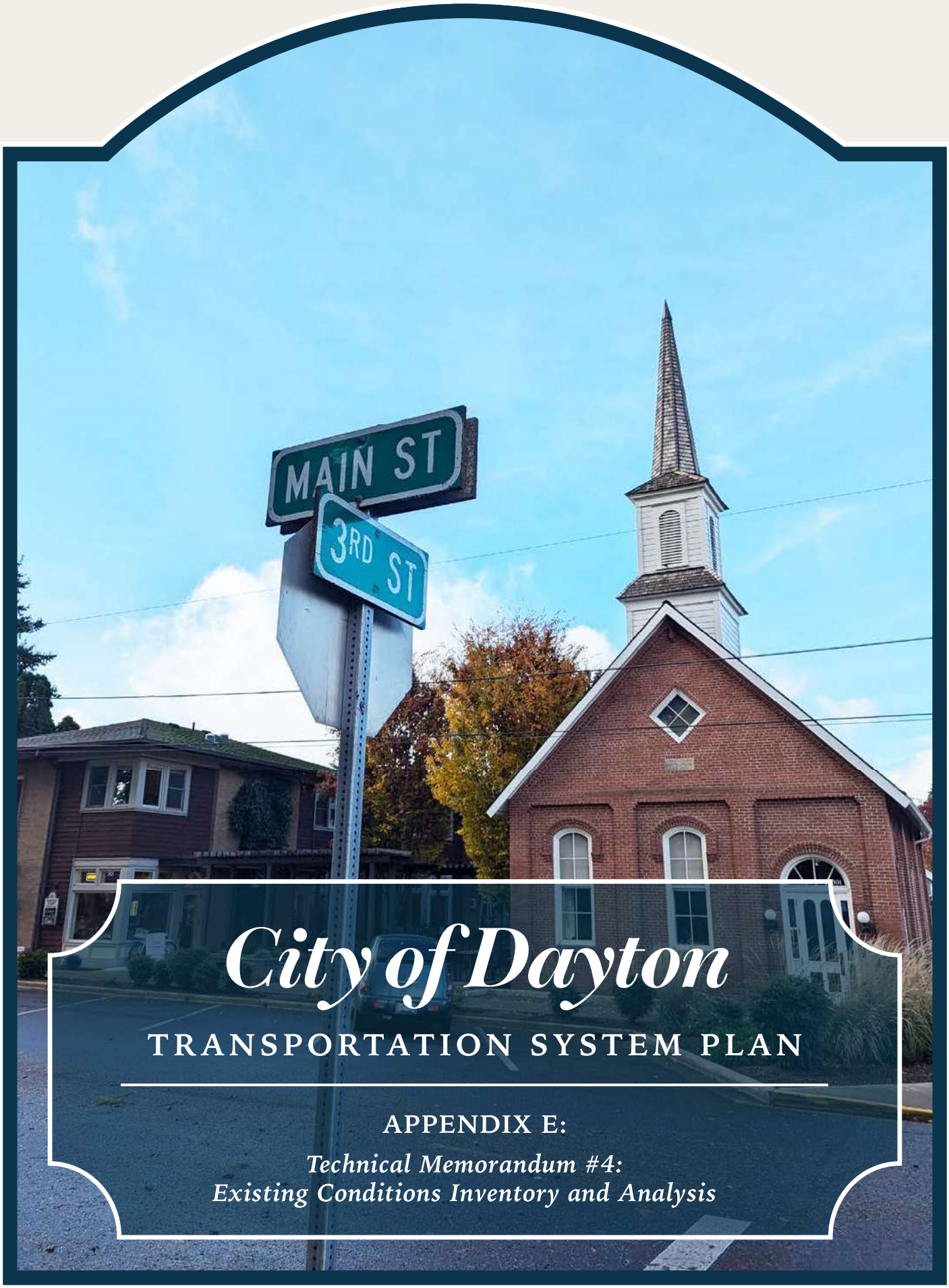
The analysis will include the calculation of critical crash rates at all study intersections as outlined in the APM. Intersection crash rates will be compared to the published 90th percentile crash rates in Table 4-1 of the APM, as well as the critical crash rate of the reference population (for two-way stop-controlled intersections). Any intersection with a crash rate that exceeds its critical rate or the 90th percentile cash rate will be flagged for further review. All bicycle and pedestrian related crashes will be identified and reviewed.

ODOT's State Highway Crash Rate Tables will also be reviewed in the analysis to identify highway segments experiencing crash rates greater than the statewide average for similar facilities. Top 15% ODOT Safety Priority Index System (SPIS) sites will also be identified.

Future projects developed specifically to address safety concerns will be selected using countermeasures in the ODOT Crash Reduction Factor Appendix[3] (or, if needed, CMF Clearinghouse[4]). The potential crash reduction for safety countermeasures will be indicated in the project's description.

[3] Crash Reduction Factor Manual, Oregon Department of Department. All Roads Transportation System Program. January 2023.

[4] Crash Modification Factors (CMF) Clearinghouse, Federal Highway Administration. https://cmfclearinghouse.fhwa.dot.gov/



City of Dayton

TRANSPORTATION SYSTEM PLAN

APPENDIX E:

Technical Memorandum #4:
Existing Conditions Inventory and Analysis

DKS 1050 SW 6TH AVENUE, SUITE 600 • PORTLAND, OR 97204 • 503.243.3500 • DKSASSOCIATES.COM

EXISTING CONDITIONS MEMORANDUM

DATE: April 16, 2025

TO: Dayton TSP Project Management Team

FROM: Carl Springer, Jenna Bogert, and Hallie Turk | DKS Associates

SUBJECT: Dayton Transportation System Plan Update DKS P#24439-000
Task 4.2 Existing Conditions and Inventory Memorandum #4

INTRODUCTION

In the first stage of the Dayton Transportation System Plan (TSP) update, the project team examines Dayton's current transportation system and how well it serves the community. The purpose of this memorandum is to describe the existing roadway and multimodal facilities in Dayton, summarize existing operating conditions and safety performance at study intersections, and identify deficiencies and needs that will be considered later in this plan update process.

More information about how the analysis was conducted can be found in the Methodology Memorandum.[1]

SUMMARY

The City of Dayton is located in the Willamette Valley, about 25 miles southwest of Portland and 7 miles east of McMinnville. As of the 2020 census, Dayton had a population of approximately 2,678 people. Dayton's economy is primarily based on education, construction, accommodation and food services. Just outside Dayton, there are farming areas that employ residents and bring freight traffic to town. Schools are served by the Dayton School District, which includes Dayton Grade School, Dayton Middle School and Dayton High School.

Dayton's transportation system has notable strengths. Motor vehicle traffic generally flows smoothly through key intersections, with minimal delay for drivers. From 2018 to 2022, there were no fatal or serious injury crashes, nor were there any crashes involving pedestrians or cyclists. This highlights the relatively high level of road safety in Dayton. Additionally, sidewalks are well-maintained downtown and in areas near schools and churches.

[1] Task 4.1 Methodology Memorandum. DKS Associates. November 11, 2024.

The Yamhill County Transit Area (YCTA), specifically Route 44, provides an important weekday service that links Dayton to regional destinations like McMinnville, Newberg, and Tigard. This service is vital for residents who need to commute for work, school, or other essential services.

TRANSPORTATION CHALLENGES AND OPPORTUNITIES

Based on our review of the city today, we found that the transportation system serves autos and trucks efficiently with minimal travel delays and a lower risk of crashes. However, many areas of the city require attention when it comes to the walking and bicycle travel system. The specific transportation-related challenges that should be considered in this planning update process are listed below, along with several preliminary solution ideas.

- **Pedestrian Travel:** Some neighborhoods lack adequate sidewalks, forcing residents to walk on streets or unpaved paths. Outside of the downtown area, about one-third of the existing sidewalks are in poor condition, with cracks or debris obstructing passage. This makes for an uncomfortable and less safe environment for people who walk in Dayton, especially children, older adults, and individuals with mobility challenges.
    - Improvements to sidewalks could include filling gaps in the sidewalk network or restoring existing sidewalks in fair or poor condition.
    - Improvements to crossings could include enhanced pedestrian treatments, such as curb extensions, signage and street lighting, especially near activity centers such as schools and parks.
- **Bike Travel:** Dayton lacks designated bicycle facilities, edgeline striping, and significant amounts of on-street parking. This means that bicyclists are expected to share the road with cars, which is uncomfortable and unsafe on higher traffic streets such as Ferry Street (OR 155) and 3rd Street (OR 221).
    - Establishing dedicated bike lanes, particularly near activity centers such as schools and public buildings, would significantly enhance safety for bicyclists and promote biking as a comfortable mode of transportation.
    - Enhanced bicycle infrastructure would also support the broader goals of maintaining low traffic levels and promoting environmentally friendly travel alternatives.
- **Public Transit:** While the transit system is a regional mobility link for Dayton residents, it currently does not operate on weekends, which significantly limits travel options for people who use public transportation for commuting, social connection, recreational activities, and accessing essential services like medical appointments and grocery stores.
    - Advocate with Yamhill County Transit Agency about expanding bus service to weekends would allow all residents, regardless of access to personal vehicles, to have more transportation options.
- **Safety Upgrades:** Several locations in Dayton have safety challenges. Specifically, the intersection at OR 18 EB Ramps/3rd Street (OR 221) was flagged for a safety deficiency. In addition, school speed zones along 8th Street and 9th Street lack clear boundaries, which may be confusing for drivers and increase risk to schoolchildren.
    - Improvement opportunities at selected locations may include upgrades to signs and pavement markings.

By making targeted investments to address these challenges in infrastructure and services, Dayton can foster a safer, more accessible, and sustainable transportation network that meets the needs of its growing community and enhances quality of life for all residents.

Figure 1 summarizes the existing transportation system challenges for the City of Dayton.

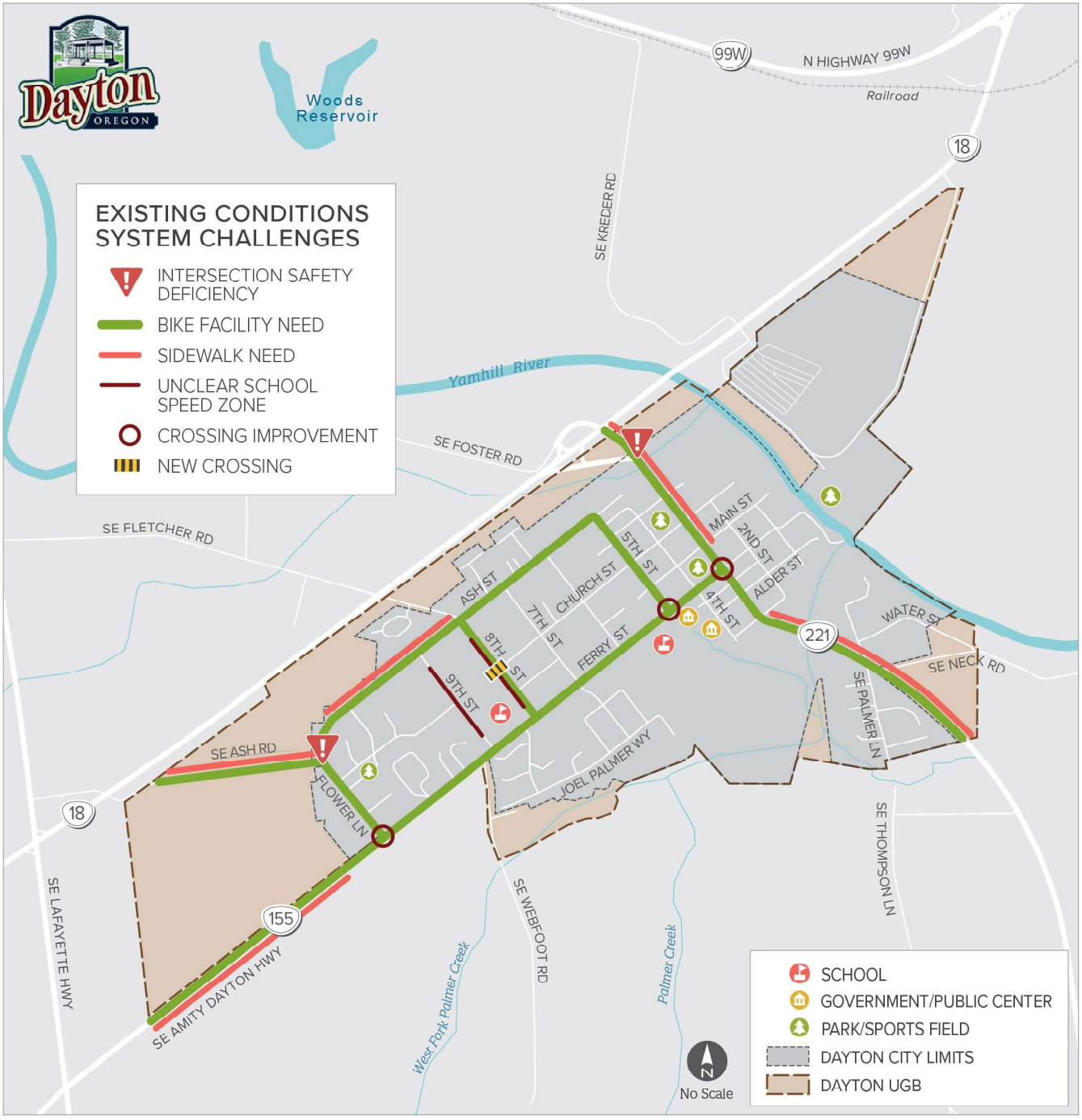


FIGURE 1: DAYTON TSP EXISTING TRANSPORTATION SYSTEM CHALLENGES

LANDS AND POPULATION

This section provides information on Dayton's population, land use, and areas of future growth.

Transportation demand in Dayton is directly related to how the land has been developed, so it is important to understand local land use patterns, how they are connected to the roadway system, and where growth is expected to occur. In addition, the demographic of the community can also influence travel preferences.

POPULATION

As shown in Figure 2, key indicators of Dayton's demographics include age, ability, race/ethnicity, language spoken at home, and household income.

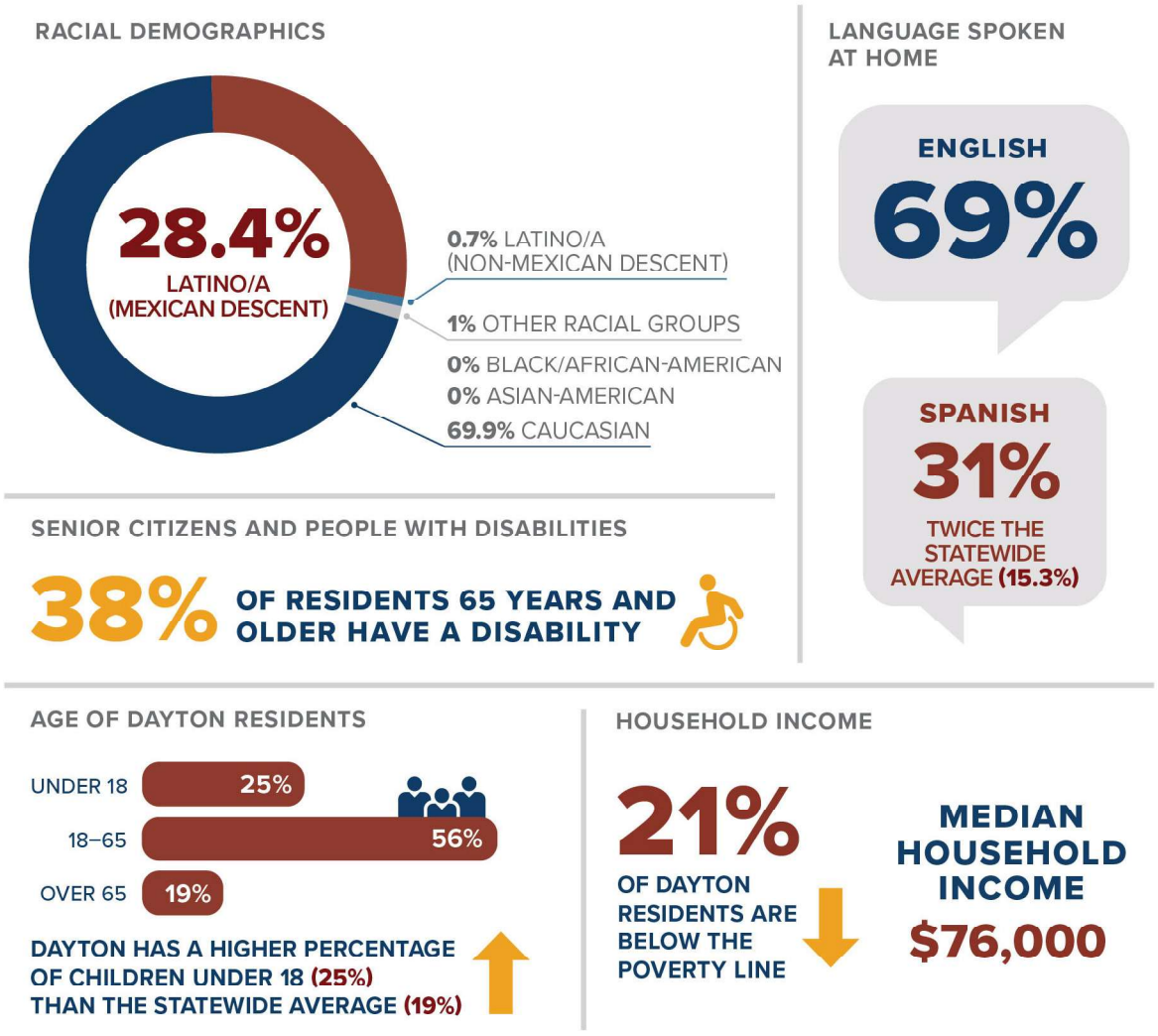


FIGURE 2: DAYTON CITYWIDE DEMOGRAPHICS

More information on citywide population data and local activity centers can be found in Memo 1.[2]

LAND USE

Figure 3 denotes the zoning for the city.

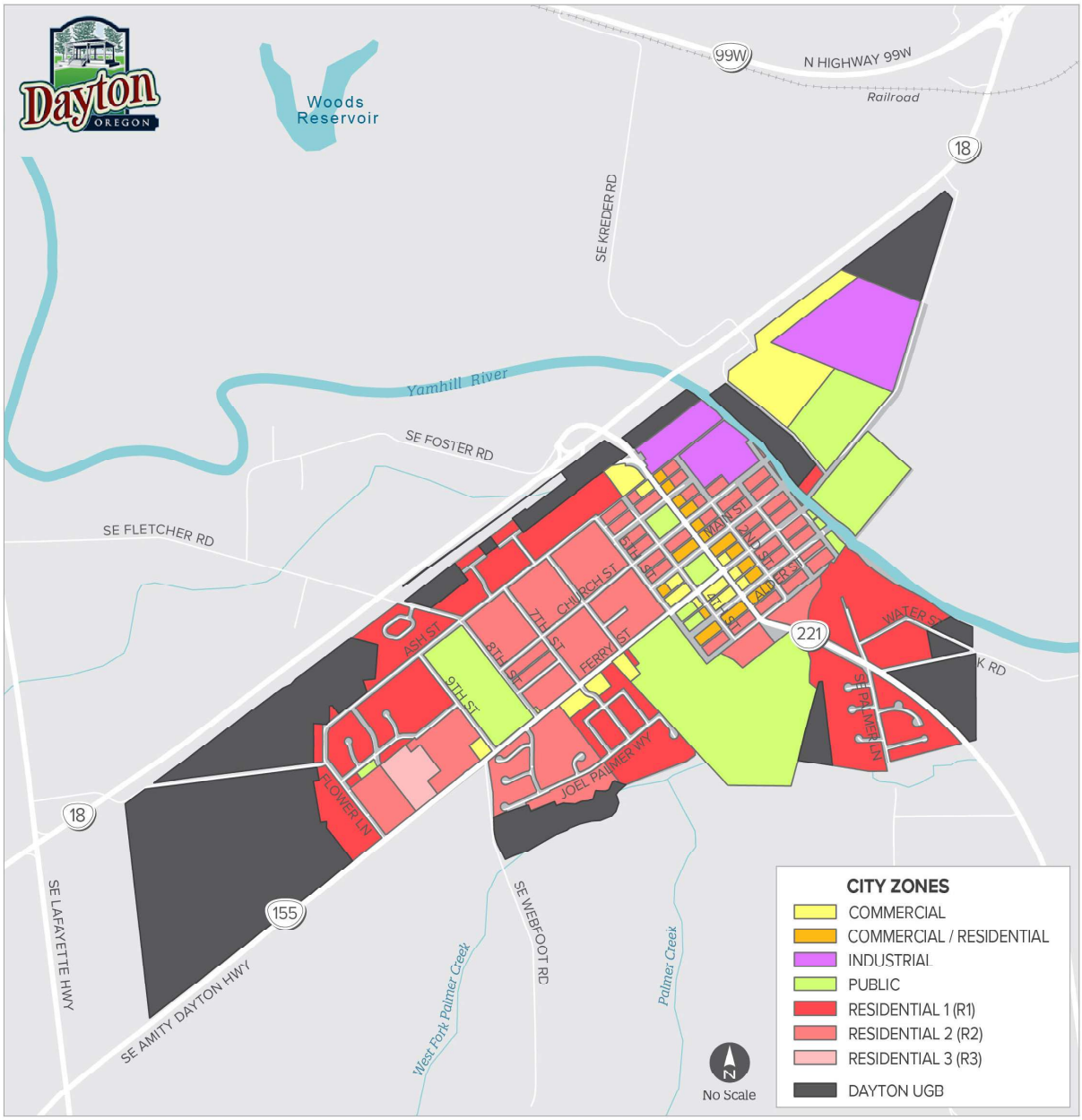


FIGURE 3: DAYTON EXISTING ZONING

[2] Memorandum #1: Community Profile and Trends. DKS Associates. October 4, 2024.

Table 1 shows the proportion of zoning designations within Dayton city limits.

TABLE 1: DAYTON PROPORTION OF ZONING DESIGNATIONS

ZONING DESIGNATION	SIZE (ACRES)	PERCENT OF TOTAL
COMMERCIAL (C)	30.2	**6.9%**
COMMERCIAL/RESIDENTIAL (C/R)	8.3	**1.9%**
INDUSTRIAL (I)	42.1	**9.7%**
PUBLIC (P)	107.0	**24.6%**
RESIDENTIAL 1 (R-1)	126.0	**29.0%**
RESIDENTIAL 2 (R-2)	115.0	**26.4%**
RESIDENTIAL 3 (R-3)	6.3	**1.5%**
RESIDENTIAL TOTAL	247.3	**56.8%**
TOTAL	434.9	**100.0%**

Within City limits, over half of the land area is zoned Residential (56.8%), which is divided into R-1, R-2, and R-3 zones. According to City code, R-1 is intended for single-family homes and has a maximum density of six dwelling units per acre. R-2 permits limited density residential uses, allowing multiple detached dwelling units on a single lot with a maximum density of 12 units per acre. R-3 is intended for medium density residential uses with a maximum density of 20 units per acre.[3] There is one parcel zoned R-3 that contains a manufactured home park.

The second largest zoning designation is Public (24.6%), followed by Industrial, Commercial, and Commercial/Residential.

Several areas within the Urban Growth Boundary are locations of likely future growth. The largest growth opportunity is a 120-acre parcel on the western edge of town. The area currently contains a handful of agricultural or industrial facilities as well as a low density of single-family residences. Other growth opportunities are small parcels less than 15 acres in size, all of which are most likely to accommodate residential or industrial growth.

There are several opportunities for redevelopment that may host future activity centers. Within city limits, small retail shops could be built in commercial or commercial/residential zones. Within the UGB but outside city limits, there may be opportunities to develop wineries in agricultural or industrial zones.

[3] Section 7.2.1: Land Use Zoning. Dayton Municipal Code.

VEHICLE INVENTORY AND ANALYSIS

This section provides an inventory of existing transportation facilities and analysis results for roadway and freight vehicles in Dayton.

ROADWAY

The City of Dayton's major streets and their existing characteristics are summarized in

Table 2. Functional classifications in Table 2 and Figure 4 are Federal Functional Classifications found on ODOT TransGIS.[4]

TABLE 2: DAYTON MAJOR ROADWAYS

ROADWAY	JURISDICTION	FUNCTIONAL CLASSIFICATION	NO. OF LANES	POSTED SPEED	SIDE-WALKS	BIKE LANES	MARKED SHOULDER	ON-STREET PARKING
OR 18	ODOT	Urban Other Principal Arterial	2	55 mph	No	No	Yes	No
FERRY STREET (OR 155)	ODOT	Urban Collector	2	25 mph/ 35 mph/ 45 mph/ 55 mph [A]	Yes	No	No	Yes
3RD STREET (OR 221)	ODOT	Urban Minor Arterial	2	25 mph/ 35 mph/ 55 mph [B]	Some	No	Yes	Yes
5TH STREET	City of Dayton	Local Street	2	25 mph	Some	No	No	No
8TH STREET	City of Dayton	Local Street	2	25 mph	Some	No	No	Yes
FLOWER LANE	City of Dayton	Local Street	2	25 mph	No	No	No	No
ASH STREET	City of Dayton	Local Street	2	25 mph	Some	No	No	No

[A] Posted speed on Ferry Street (OR 155) is 25 mph from 3rd Street to Webfoot Road, 35 mph from Webfoot Road to Flower Lane, 45 mph for 0.2 miles west of Flower Lane, and 55 mph traveling west toward OR 233.

[B] Posted speed on 3rd Street (OR 221) is 25 mph from the OR 18 EB off-ramp to Palmer Lane, 35 mph south of Palmer Lane, and 55 mph traveling north from the OR 18 EB off-ramp.

[4] ODOT TransGIS. https://gis.odot.state.or.us/transgis/

Outside city limits, functional classifications of the state highways change from urban to rural. For example:

- OR 18 is a Rural Other Principal Arterial west of Kreder Road.
- 3rd Street (OR 221) is a Rural Minor Arterial approximately 1,000 feet south of SE Neck Road.
- Ferry Street (OR 155) is a Rural Major Collector approximately 900 feet west of Flower Lane.

FIGURE 4: EXISTING FUNCTIONAL CLASSIFICATION

SCHOOL SPEED ZONES

Schools are centrally located in Dayton along Ferry Street near 6th Street, 8th Street, and 9th Street. Because these roadways serve a high proportion of city traffic, there are several school speed zones.

- *Ferry Street:* There are two 20 mph school speed zones between 5th Street and 6th Street and between 8th Street and 9th Street.

- *8th Street:* There is a 20 mph school speed zone. Boundaries of the school speed zone are unclear.
- *9th Street:* There is a 20 mph school speed zone. Boundaries of the school speed zone are unclear.
- *Church Street:* There is a 20 mph school speed zone on Church Street approaching 9th Street.

ELECTRIC VEHICLES

Electric vehicle charging stations are present at the Joel Palmer House, a regional fine dining destination, and on the west side of Courthouse Square Park.

INTERSECTION ANALYSIS

STUDY INTERSECTIONS

The eight study intersections are listed below and shown in Figure 5.

1. OR 18 WB/Foster Road
2. OR 18 EB/3rd Street (OR 221)
3. Ferry Street (OR 155)/3rd Street (OR 221)
4. Ferry Street (OR 155)/5th Street
5. Ferry Street (OR 155)/8th Street
6. Ferry Street (OR 155)/Flower Lane
7. Ash Street/8th Street
8. Ash Street/Flower Lane/Ash Road

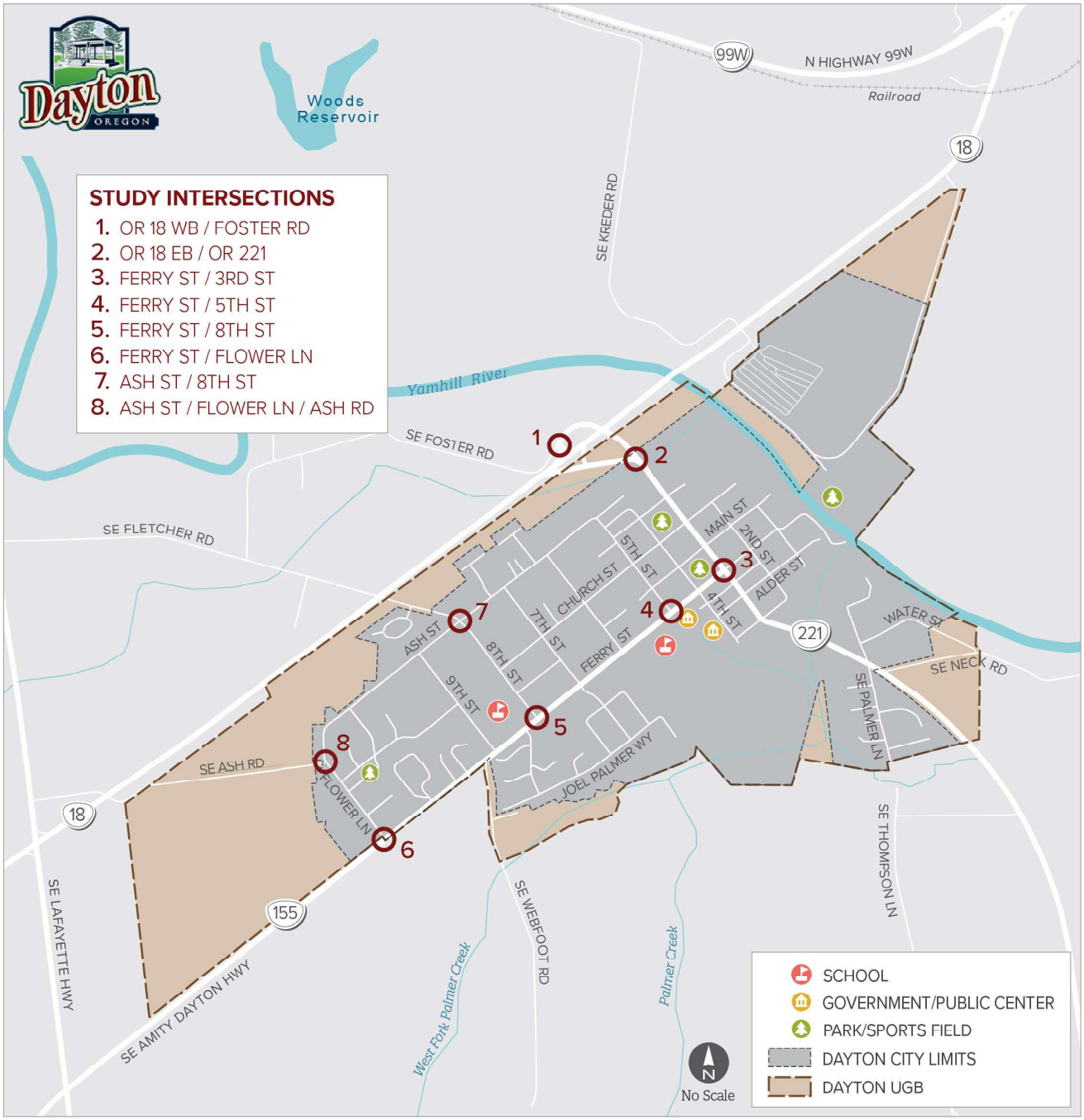


FIGURE 5: DAYTON TSP STUDY INTERSECTIONS

EXISTING (2024) VOLUMES

Intersection turning movement count (TMC) data was collected at the study intersections in May 2024 and October 2024 on a typical weekday for the p.m. peak period (3:00-6:00 p.m.). Turning movement counts were seasonally adjusted to the 30th highest hour (30HV) volumes, as outlined in the Methodology Memorandum. The 2024 30HV existing traffic volumes are shown in Figure 6.

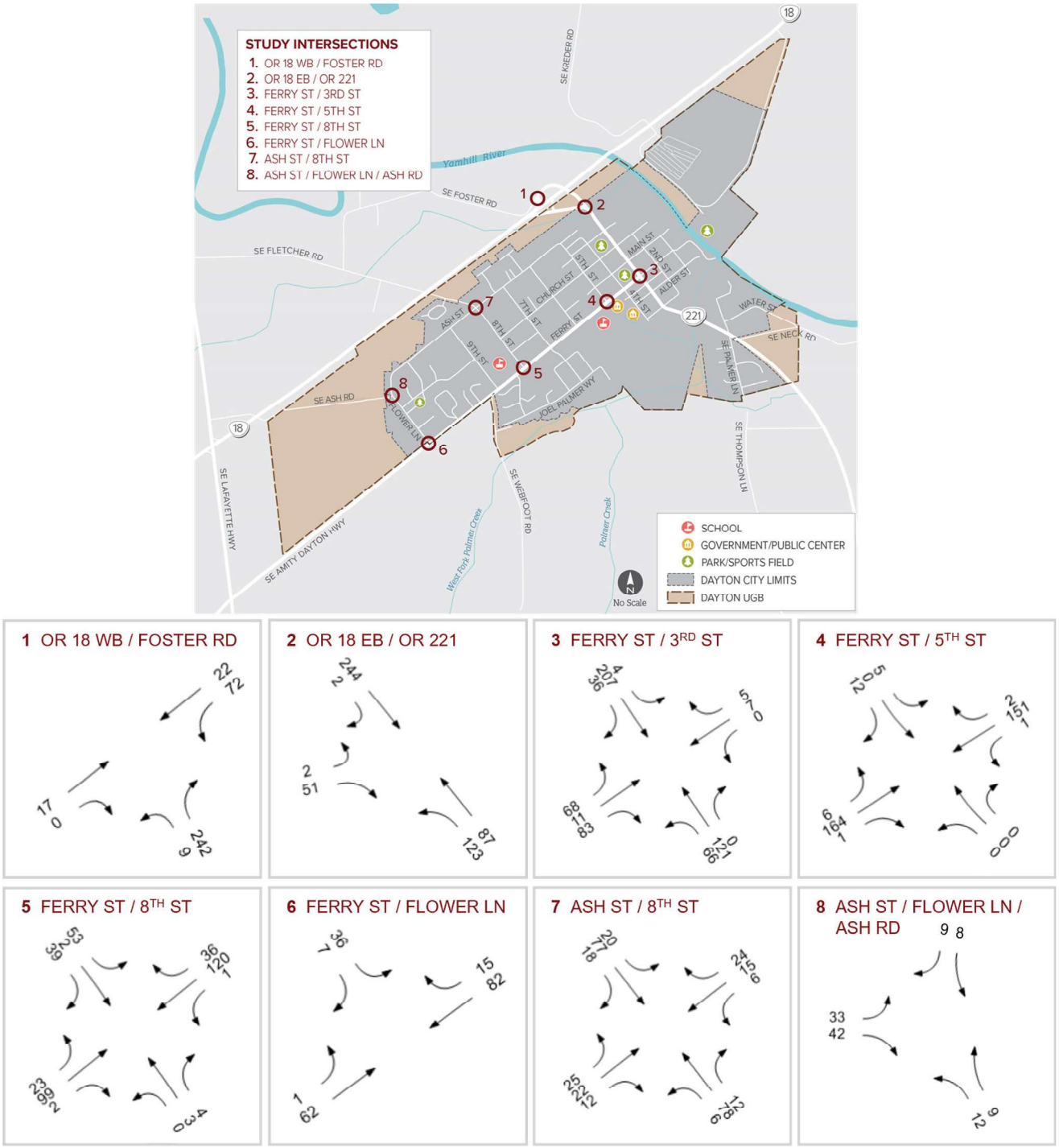


FIGURE 6: DAYTON TSP EXISTING (2024) 30HV VOLUMES

INTERSECTION MOBILITY STANDARDS

Level of service (LOS) ratings and volume-to-capacity (v/c) ratios provide a good picture of intersection operations.

- **Level of Service (LOS):** A "report card" rating (A through F) based on the average delay experienced by vehicles. LOS A, B, and C indicate conditions minimal delays over periods of peak hour travel demand. LOS D and E have higher average delay, and LOS F represents conditions where average vehicle delay has become excessive.
- **Volume-to-capacity (v/c) ratio:** This metric compares the peak hour traffic volume to the hourly capacity of a given intersection or movement. As the ratio approaches 1.00, congestion increases, and performance is reduced.

EXISTING INTERSECTION OPERATIONS

Existing traffic operations at the study intersections were determined for the p.m. peak hour based on Highway Capacity Manual (HCM) 7th Edition methodology.[5] The results were then compared with applicable operating standards. Because the City of Dayton does not have intersection mobility standards, existing operations at local street intersections are reported without comparison to a standard. Table 4 lists the estimated v/c ratio, delay, and LOS of each study intersection for existing conditions.

TABLE 3: EXISTING (2024) INTERSECTION OPERATIONS

	INTERSECTION	TRAFFIC CONTROL [A]	OPERATING STANDARD	PM PEAK HOUR		
				V/C RATIO	DELAY (SEC)	LOS
1	OR 18 WB/Foster Rd	TWSC	v/c ≤ 0.70	0.26	9.7	A
2	OR 18 EB/ 3rd Street (OR 221)	TWSC	v/c ≤ 0.80	0.11	4.7	A
3	Ferry Street (OR 155)/ 3rd Street (OR 221)	AWSC	v/c ≤ 0.95	0.38	10.3	B
4	Ferry Street (OR 155)/ 5th Street	TWSC	v/c ≤ 0.95	0.03	10.4	B
5	Ferry Street (OR 155)/ 8th Street	TWSC	v/c ≤ 0.95	0.18	11.6	B
6	Ferry Street (OR 155)/ Flower Lane	TWSC	v/c ≤ 0.95	0.07	9.8	A
7	Ash Street/8th Street	AWSC	none	0.21	8.4	A

[5] Highway Capacity Manual, 7th Edition, Transportation Research Board, 2022.

	INTERSECTION	TRAFFIC CONTROL [A]	OPERATING STANDARD	PM PEAK HOUR		
				V/C RATIO	DELAY (SEC)	LOS
8	Ash Street/Flower Ln/ Ash Road	AWSC	none	0.11	7.4	A

[A] TWSC = Two-Way Stop Controlled,
AWSC = All-Way Stop Controlled

All-Way Stop Controlled:
v/c = Total Volume-to-Capacity Ratio
Delay = Average Intersection Delay (secs)
LOS = Total Level of Service

Two-Way Stop Controlled:
v/c = Highest Approach Volume-to-Capacity Ratio
Delay = Highest Approach Delay, secs
LOS = Level of Service

As shown, all study intersections under ODOT jurisdiction meet operating standards. Both local street intersections with no operating standard report a delay of less than ten seconds and LOS A, showing efficient intersection operations with no congestion in the p.m. peak hour.

TRUCK FREIGHT

Trucks and freight vehicles travel to and from Dayton throughout Yamhill County and the surrounding region for construction and agricultural purposes. Major freight traffic generators include the Knife River asphalt plant accessed via 3rd Street (OR 221) and restaurants and stores along Ferry Street (OR 155).

OR 18 on the north side of the City is a designated freight route. Freight vehicles from OR 18 typically enter Dayton from the north via 3rd Street (OR 221) and likely travel to destinations along Ferry Street (OR 155). Although 3rd Street (OR 221) and Ferry Street (OR 155) are not designated freight routes, roadway cross sections and intersections must be designed to ensure that lane width and turning radii allow trucks to travel safely.

Dayton can be accessed by freight traffic from the south via OR 221 (SE Dayton-Salem Highway No. 150) or SE Webfoot Road. From the west, Dayton can be accessed via OR 154 (Lafayette Highway No. 154) or OR 233 (Amity-Dayton Highway No. 155).

FREIGHT ANALYSIS

Dayton has no posted bridges, and there are no truck pinch points with weight, height, or length restrictions. Lane width and turning radii at the OR 18 Ramps, along Ferry Street (OR 155), and along 3rd Street (OR 221) appear to be adequate for freight vehicle travel.

MULTIMODAL INVENTORY AND ANALYSIS

This section provides an inventory of existing transportation facilities and analysis results for pedestrian, bicycle, and transit travel in Dayton. It is important to examine these facilities in Dayton because there is a significant presence of communities that typically face limited access to vehicles, including young people, elderly people, people with disabilities, and people in poverty.

Figure 7 shows the existing inventory of pedestrian, bicycle, and transit facilities in Dayton.

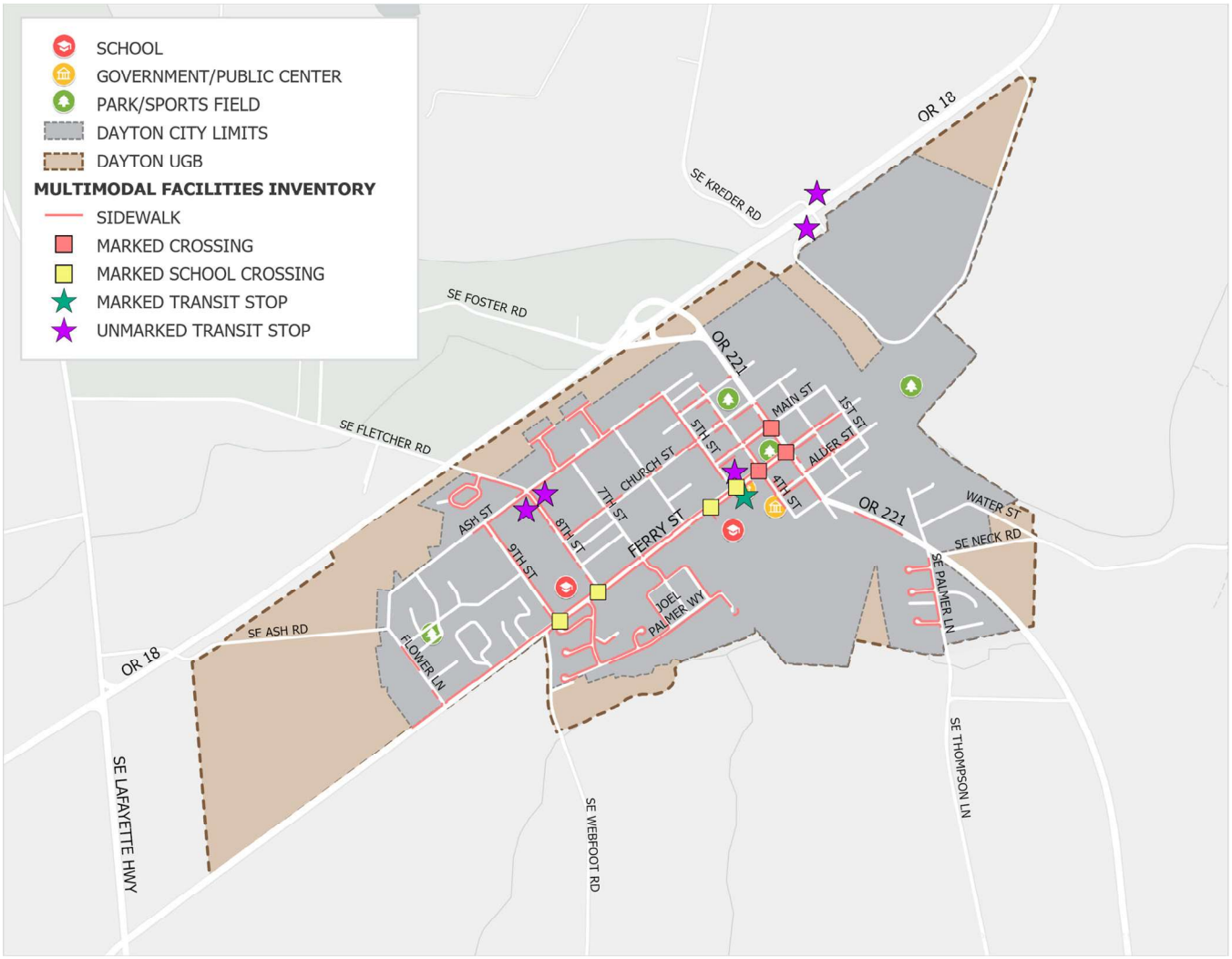


FIGURE 7: DAYTON MULTIMODAL FACILITIES

SIDEWALKS

Along 3rd Street (OR 221) and Ash Street, sidewalks are mostly present with some small gaps. On most local streets, sidewalks are present only near community destinations such as churches and schools. As demonstrated in Figures 8A and 8B, most local streets within neighborhoods do not have a continuous sidewalk network, which means pedestrians must walk unprotected on the

street or along a gravel or grass shoulder. In Dayton's downtown area, a network of continuous 6' wide sidewalks along Ferry Street is well maintained, as shown in Figure 8C.

FIGURE 8: SIDEWALK CONDITIONS AT VARIOUS LOCATIONS IN DAYTON[6]

During a field visit, the project team noted that about one-third of the existing sidewalk network was in poor or fair condition, meaning that the sidewalk was cracked or covered in debris.

MARKED CROSSINGS

There are seven marked crossings in Dayton, with six along Ferry Street (OR 155) and one along 3rd Street (OR 221) near Main Street. Four of the crossings are school crossings on Ferry Street (OR 155) leading to the Dayton Middle/High School campus and Dayton Grade School. The remaining three crossings are located at intersections on the northwest, southwest, and southeast corners of Courthouse Square Park.

During a field visit, the project team noted all existing crossings are in good or fair condition with appropriate signage. Where present, curb ramps throughout Dayton appear to comply or partially comply with current Americans with Disabilities Act (ADA) standards. One example is shown in Figure 9C. Additional evaluation is needed to determine actual slopes and widths.

[6] Pictures in Figure 8 were taken during a field visit on November 4, 2024 at the following locations:
8A: Northeast corner of Church Street and 6th Street
8B: Ash Street west of 8th Street
8C: Ferry Street west of 7th Street near fire station

FIGURE 9: CROSSING CONDITIONS AT VARIOUS LOCATIONS IN DAYTON[7]

BICYCLE FACILITIES

There are no designated bicycle facilities in Dayton. Bicyclists must ride in the street or along an unmarked road shoulder.

According to Replica data, Ferry Street is the most heavily used street by bicyclists. On an average weekday, up to 20 bicycle trips take place on Ferry Street between 4th Street and 9th Street. Many bike trips are likely headed to Ferry Street destinations such as Center Market, schools, and the Palmer Creek Lodge community event center.

In Yamhill County and the surrounding area, there are no regional bicycle routes. Given Dayton's location in a winery region, the City could explore opportunities to collaborate with nearby agencies on a recreational trail similar to the South Willamette Wine Trail.

TRANSIT

The City of Dayton is served by the Yamhill County Transit Area (YCTA). YCTA operates a fixed route between McMinnville and Tigard (Route 44) with service in Dayton. YCTA does not charge transit fares, so bus travel is accessible to everyone regardless of income. There are eastbound and westbound Route 44 bus stops at three locations in Dayton:

1. Ferry Street (OR 155)/5th Street near City Hall
2. Ash Street/8th Street near Dayton High School
3. OR 18/SE Kreder Road near Vintages RV Park
   (Outside UGB, but provides access to The Vintages RV Park within UGB)

[7] Pictures in Figure 9 were taken during a field visit on November 4, 2024 at the following locations:
9A: Crossing and transit stop at Ferry Street and 5th Street near City Hall
9B: Ferry Street and 8th Street near Dayton High School
9C: Curb ramp on northwest corner of Ferry Street and 4th Street

All Route 44 stops are unmarked except for the eastbound Ferry Street (OR 155)/5th Street stop. This stop has an existing shelter and appears to be ADA accessible.

On weekdays, Route 44 has nine scheduled travel times between 5:00 a.m. and 9:00 p.m. with headways varying from one to two hours. This route does not provide service on Sundays, and Saturday service is suspended until further notice. This limits transportation options for Dayton residents who use transit to commute to work, travel for social/recreational activities, or access essential services like grocery stores, medical appointments, banks, and legal services.

YCTA's Bus Stop Improvements project plans to enhance accessibility and amenities at all Dayton bus stops over the next few years.[8] Also, the Yamhill County Transit Development Plan[9] shows intent to increase the frequency of Route 44 service (Project SN3) and implement shopper/medical shuttle pilot projects (Project SN6).

QUALITATIVE MULTIMODAL ASSESSMENT

A Qualitative Multimodal Assessment (QMA) was performed to evaluate pedestrian and bicycle conditions on nine roadway segments and all eight study intersections. Using aerial and street view maps, the current condition of sidewalks, crossings, and bike facilities were inventoried and assessed using a qualitative, context-based subjective rating of Excellent, Good, Fair, or Poor.

For road segments, the evaluation considered variables such as the relative level of traffic, gaps in sidewalk, number of marked crossings, presence of street parking, shoulder width, and posted speed. For intersections, the evaluation considered variables such as the traffic control (two-way stop or all-way stop), number of marked crossings, and number of approaches with sidewalks.

Regarding pedestrian QMA:

- Road segments are rated Excellent if sidewalks are present on both sides and there are several marked crossings. If sidewalks are present on one side or there are gaps in the sidewalk, the segment is rated Fair. Road segments are rated Poor if there are no sidewalks or marked crossings.
- Intersections are rated Excellent if there is at least one marked crossing and complete sidewalks on at least half of the approaches. If there are no marked crossings and approximately half of the approaches have sidewalks, the intersection is rated Fair. Intersections are rated Poor if there are no sidewalks or marked crossings on any approach.
    - On average, all-way stop controlled intersections are rated better than two-way stop controlled intersections.

Regarding bicycle QMA:

- No road segment is rated Excellent because there are no bike lanes. Road segments are rated Good if the posted speed is 25 mph and the traffic volume is relatively low. Road segments are rated Fair if the posted speed is 25 to 35 mph and there are narrow road

[8] "Bus Stops," Yamhill County Transit. Accessed December 10, 2024. https://ycbus.org/bus-stops/

[9] Section 6, Yamhill County Transit Development Plan, September 2018.

shoulders. Segments rated Poor serve the highest traffic volumes and have posted speeds at or above 45 mph.

- No intersection is rated Excellent because there are no bike lanes or bike signals. Intersections are rated Good if they are all-way stop controlled, intersect streets with speed limits below 35 mph, and serve relatively low traffic volumes. Intersections rated Fair are two-way stop controlled or serve slightly higher traffic volumes. If an intersection approach has a posted speed above 45 mph and accommodates the highest traffic volumes, it is rated Poor.
    - On average, all-way stop controlled intersections are rated better than two-way stop controlled intersections.

Figures 10 and 11 show the results of the assessment for pedestrian and bicycle conditions, respectively.

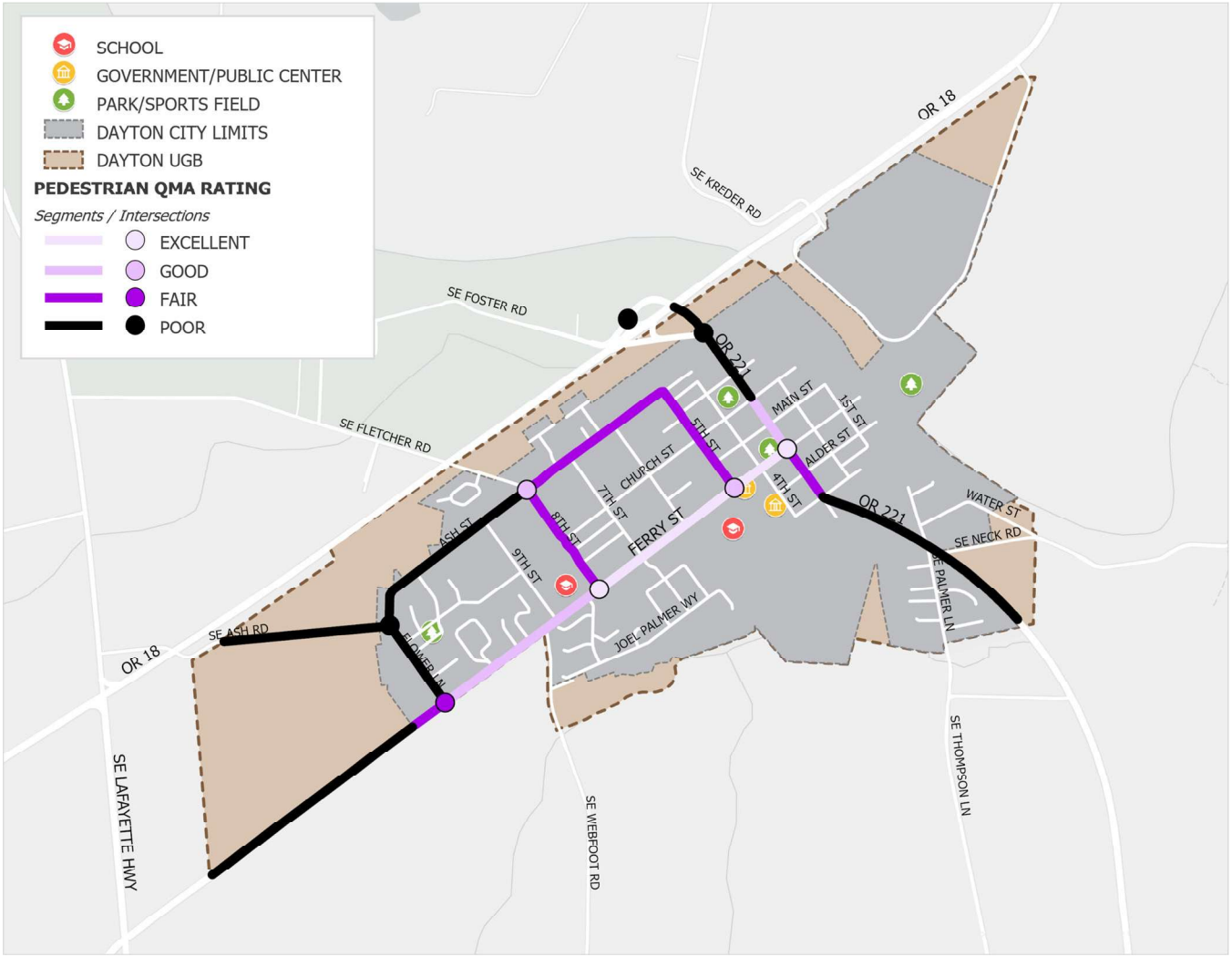


FIGURE 10: DAYTON TSP PEDESTRIAN QMA RESULTS

As shown, pedestrian conditions were rated Poor along 3rd Street (OR 221) north of Church Street and south of Mill Street, Ash Street and Ash Road west of 8th Street, Flower Lane, and Ferry Street (OR 155) west of City limits.

FIGURE 11: DAYTON TSP BICYCLE QMA RESULTS

As shown, bicycle conditions were rated poor along 3rd Street (OR 221) north of Church Street and south of Mill Street and along Ferry Street (OR 155) west of Flower Lane. No locations in Dayton have excellent bicycle conditions.

Transit access and stop amenities were evaluated on the two roadway segments and two study intersections served by Route 44 within Dayton's UGB. Along this route, posted speeds are relatively low (25 mph), and bicycle and pedestrian QMA are rated Fair or better. Transit QMA is rated Good if there is at least one marked transit stop or Fair if transit stops are present but unmarked.

Figure 12 shows the results of the assessment for transit conditions.

FIGURE 12: DAYTON TSP TRANSIT QMA RESULTS

As shown, transit conditions were rated fair along Ferry Street (OR 155) and 8th Street and at Ash Street/8th Street. No locations in Dayton have excellent transit conditions.

Table 3 lists every TSP study intersection along with their QMA ratings.

TABLE 4: DAYTON TSP STUDY INTERSECTION QMA RATINGS

	INTERSECTION	PEDESTRIAN QMA	BICYCLE QMA	TRANSIT QMA
1	OR 18 WB Ramps/Foster Rd	Poor	Poor	-
2	OR 18 EB Ramps/3rd Street (OR 221)	Poor	Poor	-
3	Ferry Street (OR 155)/3rd Street (OR 221)	Excellent	Fair	-
4	Ferry Street (OR 155)/5th Street	Good	Fair	Good
5	Ferry Street (OR 155)/8th Street	Excellent	Fair	-
6	Ferry Street (OR 155)/Flower Lane	Fair	Fair	-
7	Ash Street/8th Street	Good	Good	Fair
8	Ash Street/Flower Lane/Ash Road	Poor	Good	-

As shown in Table 3, out of the eight total study intersections, three have poor pedestrian conditions and two have poor bicycle conditions. Most areas were rated fair or good multimodal conditions, with only two locations rated excellent for pedestrian facilities.

Overall, Dayton's multimodal network has significant gaps that demonstrate a deficiency in safe, accessible facilities. The next stage of the project will consider this need when choosing and prioritizing future projects.

AIR, MARINE, PIPELINE, AND RAIL

There are no airports within Dayton's UGB. The nearest regional airport is McMinnville Municipal Airport (MMV). It is about two miles west of Dayton via OR 18. The nearest international airport is Portland International Airport (PDX), which is approximately 1.5 hours away by car.

There are no marine, pipeline, or rail transportation facilities within Dayton's UGB.

SAFETY PERFORMANCE AND DEFICIENCIES

This section describes crash history and crash analysis for the City of Dayton. The most recent five years of available crash data (2018 – 2022) within Dayton's UGB was obtained from ODOT and used to evaluate safety performance.

CRASH STATISTICS

Over the five-year period, a total of 35 crashes were reported in Dayton's UGB. Out of the 35 total crashes, one resulted in serious injury, four resulted in minor injury, seven resulted in possible injury, and 23 resulted in property damage only (PDO). No crashes were fatal, and no crashes involved bicyclists or pedestrians. Over one-third of all crashes occurred in 2022.

The number of crashes by year and severity are shown in Figure 13. Crash locations are shown in Figure 14.

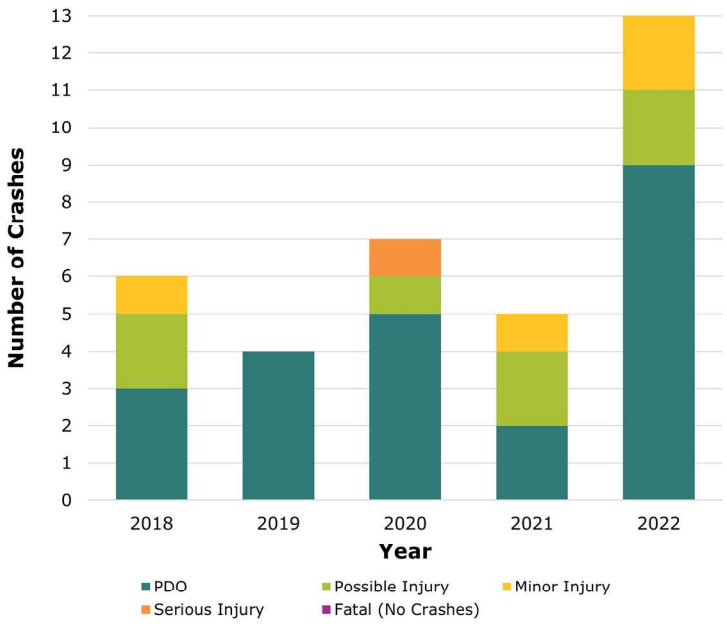


FIGURE 13: CRASHES IN DAYTON BY YEAR AND SEVERITY

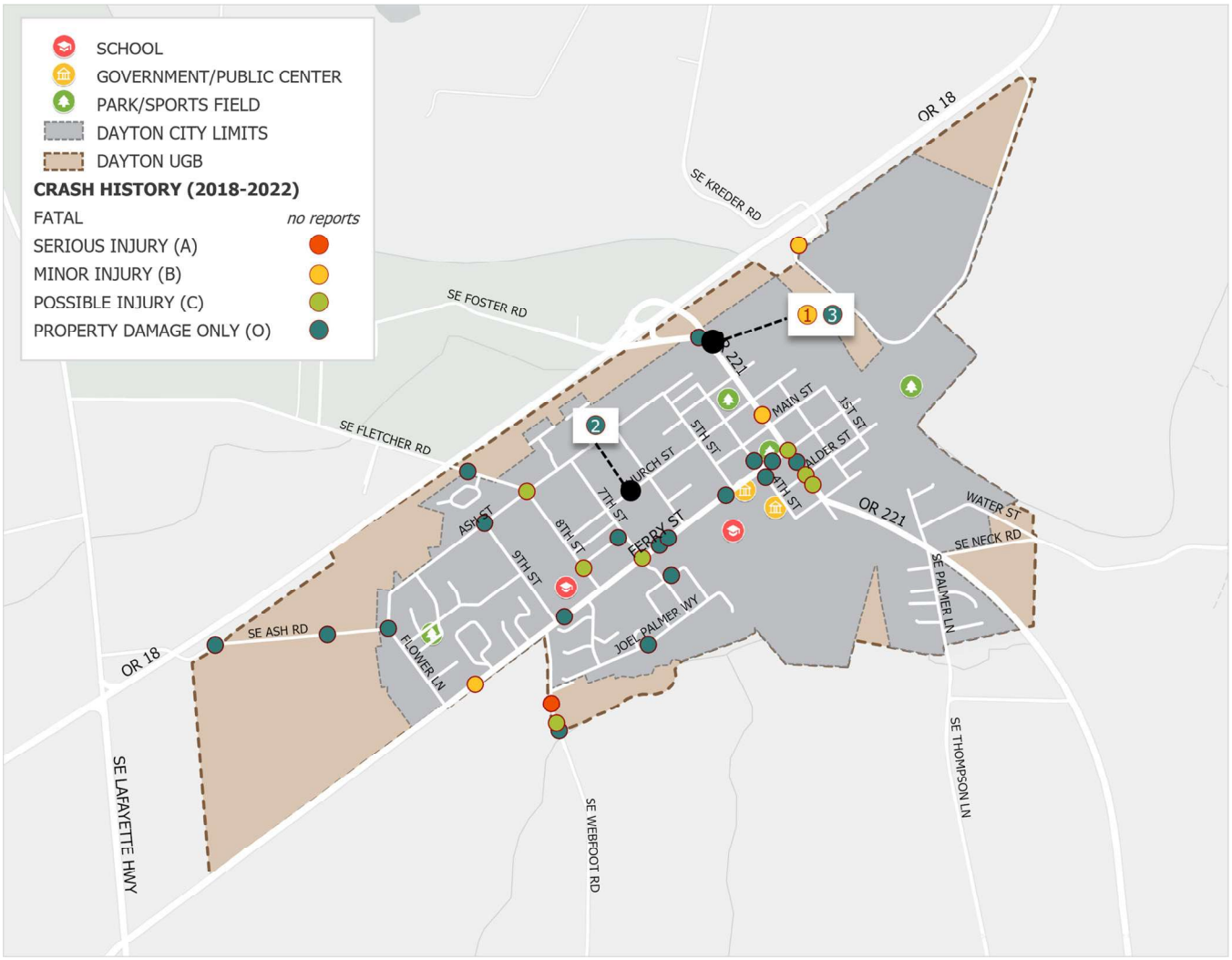


FIGURE 14: CRASH LOCATIONS IN DAYTON

Crashes were concentrated in Dayton's downtown area along 3rd Street (OR 221) and Ferry Street (OR 155). Five crashes took place at or near OR 18 EB Ramps/3rd Street (OR 221); four of these were intersection-related. There were no crashes reported at OR 18 WB Ramps/Foster Road.

There were ten crashes reported at intersections, approximately 29% of all crashes. The most common crash types included fixed object (13 crashes), rear end (7 crashes), and turning (6 crashes), followed by angle (4), sideswipe (3), and backing (2) crashes.

The serious injury crash took place in 2020. A driver traveling north on Webfoot Road departed the roadway and struck a ditch. The crash occurred on a clear, dry day in 2020. The contributing circumstance was listed as improper driving.

CRITICAL CRASH RATE CALCULATIONS

Crash rates describe crash frequency in relation to traffic volume. Crash rates at intersections are typically given in units of crashes per million entering vehicles (crashes/MEV). For each analysis site, the crash rate is calculated based on crash frequency, vehicle volume, and type of

intersection. Then, the rate is compared to the critical crash rate (which is the calculated 90th percentile crash rate for intersections located on ODOT's highway system statewide) in ODOT's State Highway Crash Rate Tables to identify any sites where the calculated crash rate is greater than the critical crash rate. Any rates above ODOT's critical crash rate are flagged for further analysis.

Due to the number of similar intersections types in Dayton, calculated crash rates were compared to two critical crash rates: one calculated using a local reference population, and one calculated using statewide crash statistics at similar locations. Table 5 shows the crash rate calculations for each study intersection compared to the local critical crash rate and the statewide critical crash rate.

TABLE 5: DAYTON TSP CRITICAL CRASH RATES

	INTERSECTION	INTERSECTION TYPE [A]	DAILY TEV [B]	TOTAL CRASHES, 2018-2022	CRASH RATE	LOCAL CRITICAL CRASH RATE		STATEWIDE CRITICAL CRASH RATE	
						CRASH RATE	CRASH RATE EXCEEDS?	CRASH RATE	CRASH RATE EXCEEDS?
1	OR 18 WB/ Foster Rd	Urban 3ST	3,620	0	**0.000**	0.464	No	0.293	No
2	OR 18 EB/ 3rd Street (OR 221)	Urban 3ST	5,090	4	**0.431**	0.404	Yes	0.293	Yes
3	Ferry Street (OR 155)/ 3rd Street (OR 221)	Urban 4ST	6,080	1	**0.090**	0.198	No	0.408	No
4	Ferry Street (OR 155)/ 5th Street	Urban 3ST	3,420	0	**0.000**	0.475	No	0.293	No
5	Ferry Street (OR 155)/ 8th Street	Urban 3ST	3,820	0	**0.000**	0.453	No	0.293	No
6	Ferry Street (OR 155)/ Flower Lane	Urban 3ST	2,030	0	**0.000**	0.605	No	0.293	No
7	Ash Street/ 8th Street	Urban 4ST	3,150	0	**0.000**	0.198	No	0.408	No
8	Ash Street/ Flower Lane/ Ash Road	Urban 3ST	960	1	**0.571**	0.900	No	0.293	Yes

[A] Urban 3ST = Urban Three-Leg Stop Controlled, Urban 4ST = Urban Four-Leg Stop Controlled

[B] TEV = Total Entering Volume (TEV). Daily TEV was calculated as 10 times the p.m. peak hour TEV.

One intersection, OR 18 EB Ramps/3rd Street (OR 221), exceeds both the local and statewide critical crash rates. Although there were only four crashes at this location over a period of five years,[10] the intersection's total entering volume (TEV) is relatively low, approximately 5,000 vehicles. Crash trends at this location are listed below.

- This location is a three-leg, two-way stop controlled intersection.
- Two of the four crashes at this location were fixed object crashes, including one striking the stop sign on the eastbound approach, and the other striking another sign at the intersection.
- Three of the four crashes involved northbound left turns.
- Two of the four crashes occurred in dark conditions.
- Three of the crashes resulted in property damage only (PDO), and one resulted in minor injury. None of the crashes resulted in fatal or serious injury, and none involved bicyclists or pedestrians.

Safety improvements at OR 18 EB Ramps/3rd Street (OR 221) will be considered when selecting future projects. Because this intersection is under ODOT jurisdiction, coordination with ODOT will be required to approve and install improvements.

One intersection, Ash Street/Ash Road/Flower Lane, exceeds the statewide critical crash rate. Ash Only one crash occurred at this location during the study period, but the intersection's TEV is less than 1,000 vehicles per day. The reported crash, which occurred in 2022, was a turning crash that resulted in property damage only. A northbound vehicle turning left from Flower Lane onto Ash Road struck an eastbound vehicle on Ash Road turning left onto Ash Street. The crash occurred on a clear, dry day. This intersection is a skewed four-leg intersection with all-way stop control.

The crash history at Ash Street/Ash Road/Flower Lane does not indicate a significant trend. However, safety improvements will be considered at this location when selecting future projects due to its unique geometry and potential for future development.

ODOT SAFETY PRIORITY INDEX SYSTEM (SPIS)

The Safety Priority Index System (SPIS) is a ranking system developed by ODOT to identify and compare locations with safety problems on state highways. SPIS scores are developed based upon crash frequency, crash severity, and rate for a 0.10 mile or variable length segment along the state highway over a rolling three-year window (i.e., every year it is updated with the most recent three years). A prioritized list of the top 15% of statewide SPIS sites is created for each region, and the top 5% are investigated by the Safety Investigations Team in the Region Traffic Manager's office.

The percentile rankings are based on the percentage of SPIS scores that are the same or lower than a selected SPIS score. For example, a SPIS score that is higher than 95 percent of all SPIS scores is at the 95th percentile. Similarly, 90th percentile SPIS score is higher than 90 percent of

[10] Figure 10 shows that five crashes took place at or near OR 18 EB Ramps/3rd Street (OR 221), while Table 6 states that four crashes took place at this location. This discrepancy is because only intersection-related crashes were counted in the critical crash rate calculation. Four of the crashes were flagged as intersection-related, and one was not flagged as intersection-related.

all SPIS scores (i.e., in the top 10 percent), but it is below and not within the top 5 percent (95th percentile) of all SPIS scores.

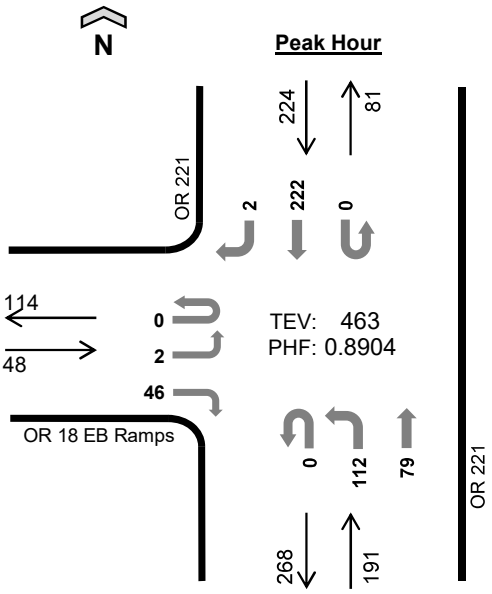
There are no SPIS sites within the Dayton TSP study area.

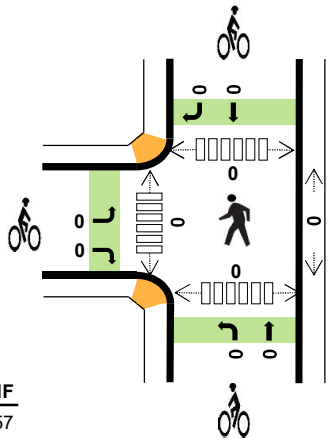
APPENDIX

A. Traffic Counts
B. HCM 7th Vistro Reports
C. Crash Data
D. ODOT Critical Crash Rate Calculator
E. Excess Proportion of Specific Crash Types

OR 221
OR 18 EB Ramps

Date: 10/15/2024
Count Period: 3:00 PM to 6:00 PM
Peak Hour: 4:30 PM to 5:30 PM





	HV%	PHF
EB	0%	0.57
WB	--	--
NB	3%	0.97
SB	3%	0.89
TOTAL	2%	0.89

Peak Hour Count Summaries

Peak Hour Interval Start		OR 18 EB Ramps				n/a				OR 221				OR 221				15-min Total	Rolling Hour Total
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:30 PM		0	0	0	6	0	0	0	0	0	27	20	0	0	0	59	2	114	0
4:45 PM		0	0	0	8	0	0	0	0	0	31	18	0	0	0	57	0	114	0
5:00 PM		0	0	0	13	0	0	0	0	0	31	18	0	0	0	43	0	105	0
5:15 PM		0	2	0	19	0	0	0	0	0	23	23	0	0	0	63	0	130	463
Pk Hr	All	0	2	0	46	0	0	0	0	0	112	79	0	0	0	222	2	463	
	HV	0	0	0	0	0	0	0	0	0	2	3	0	0	0	5	1	11	
	HV%	-	0%	-	0%	-	-	-	-	-	2%	4%	-	-	-	2%	50%	2%	

Note: For complete count summary (all intervals), see following pages.
*** Heavy Vehicle Classifications include FHWA Classes 4-13.*
*** Count Summaries include heavy vehicles, but exclude bicycles in overall count.*

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
4:30 PM	0	0	1	2	*3*	0	0	0	0	*0*	0	0	0	0	*0*
4:45 PM	0	0	1	0	*1*	0	0	0	0	*0*	0	0	0	0	*0*
5:00 PM	0	0	1	1	*2*	0	0	0	0	*0*	0	0	0	0	*0*
5:15 PM	0	0	2	3	*5*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	0	0	5	6	*11*	0	0	0	0	*0*	0	0	0	0	*0*

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(425) 213-7345
project.manager.wa@idaxdata.com

Count Summaries - All Vehicles

Interval Start	OR 18 EB Ramps				n/a				OR 221				OR 221				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
3:00 PM	0	0	0	6	0	0	0	0	0	38	25	0	0	0	34	1	104	0
3:15 PM	0	0	0	8	0	0	0	0	0	46	15	0	0	0	31	0	100	0
3:30 PM	0	2	0	6	0	0	0	0	0	31	25	0	0	0	44	1	109	0
3:45 PM	0	1	0	13	0	0	0	0	0	32	21	0	1	0	52	4	124	437
4:00 PM	0	0	0	6	0	0	0	0	0	27	15	0	0	0	51	0	99	432
4:15 PM	0	0	0	8	0	0	0	0	0	22	26	0	0	0	61	2	119	451
4:30 PM	**0**	**0**	**0**	**6**	**0**	**0**	**0**	**0**	**0**	**27**	**20**	**0**	**0**	**0**	**59**	**2**	**114**	**456**
4:45 PM	**0**	**0**	**0**	**8**	**0**	**0**	**0**	**0**	**0**	**31**	**18**	**0**	**0**	**0**	**57**	**0**	**114**	**446**
5:00 PM	**0**	**0**	**0**	**13**	**0**	**0**	**0**	**0**	**0**	**31**	**18**	**0**	**0**	**0**	**43**	**0**	**105**	**452**
5:15 PM	**0**	**2**	**0**	**19**	**0**	**0**	**0**	**0**	**0**	**23**	**23**	**0**	**0**	**0**	**63**	**0**	**130**	**463**
5:30 PM	0	0	0	12	0	0	0	0	0	28	16	0	0	0	51	4	111	460
5:45 PM	0	0	0	8	0	0	0	0	0	22	11	0	0	0	50	0	91	437
Count Total	0	5	0	113	0	0	0	0	0	358	233	0	1	0	596	14	1,320	
Pk Hr All	**0**	**2**	**0**	**46**	**0**	**0**	**0**	**0**	**0**	**112**	**79**	**0**	**0**	**0**	**222**	**2**	**463**	
Pk Hr HV	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**3**	**0**	**0**	**0**	**5**	**1**	**11**	
Pk Hr HV%	**-**	**0%**	**-**	**0%**	**-**	**-**	**-**	**-**	**-**	**2%**	**4%**	**-**	**-**	**-**	**2%**	**50%**	**2%**	

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
3:00 PM	2	0	7	4	*13*	0	0	0	0	*0*	0	0	0	0	*0*
3:15 PM	4	0	9	3	*16*	0	0	0	0	*0*	0	0	0	0	*0*
3:30 PM	1	0	7	5	*13*	0	0	0	0	*0*	0	0	0	0	*0*
3:45 PM	1	0	1	2	*4*	0	0	0	0	*0*	0	0	0	0	*0*
4:00 PM	0	0	4	3	*7*	0	0	0	0	*0*	0	0	0	0	*0*
4:15 PM	1	0	3	2	*6*	0	0	0	0	*0*	0	2	0	0	*2*
4:30 PM	**0**	**0**	**1**	**2**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
4:45 PM	**0**	**0**	**1**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
5:00 PM	**0**	**0**	**1**	**1**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
5:15 PM	**0**	**0**	**2**	**3**	**5**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
5:30 PM	0	0	0	2	*2*	0	0	0	0	*0*	0	0	0	0	*0*
5:45 PM	0	0	0	2	*2*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	9	0	36	29	*74*	0	0	0	0	*0*	0	2	0	0	*2*
Peak Hour	**0**	**0**	**5**	**6**	***11***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	**0**

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Count Summaries - Heavy Vehicles

Interval Start	OR 18 EB Ramps				n/a				OR 221				OR 221				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
3:00 PM	0	0	0	2	0	0	0	0	0	6	1	0	0	0	3	1	13	0
3:15 PM	0	0	0	4	0	0	0	0	0	8	1	0	0	0	3	0	16	0
3:30 PM	0	0	0	1	0	0	0	0	0	2	5	0	0	0	5	0	13	0
3:45 PM	0	0	0	1	0	0	0	0	0	1	0	0	0	0	2	0	4	46
4:00 PM	0	0	0	0	0	0	0	0	0	3	1	0	0	0	3	0	7	40
4:15 PM	0	0	0	1	0	0	0	0	0	1	2	0	0	0	2	0	6	30
4:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**1**	**1**	**3**	**20**
4:45 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**17**
5:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**1**	**0**	**2**	**12**
5:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**3**	**0**	**5**	**11**
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	10
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	11
Count Total	0	0	0	9	0	0	0	0	0	23	13	0	0	0	27	2	74	
Pk Hr Heavy	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**3**	**0**	**0**	**0**	**5**	**1**	**11**	

Count Summaries - Bikes

Interval Start	OR 18 EB Ramps				n/a				OR 221				OR 221				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
4:45 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
5:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
5:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Pk Hr Bike	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	

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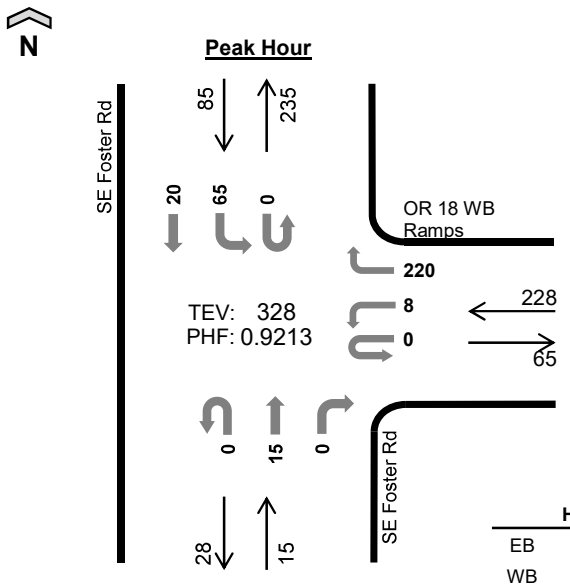
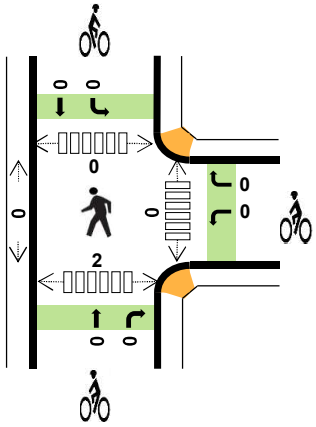
SE Foster Rd
OR 18 WB Ramps

Date: 10/15/2024
Count Period: 3:00 PM to 6:00 PM
Peak Hour: 3:45 PM to 4:45 PM





	HV%	PHF
EB	--	--
WB	4%	0.89
NB	0%	0.63
SB	2%	0.82
TOTAL	4%	0.92

Peak Hour Count Summaries

Peak Hour Interval Start		n/a				OR 18 WB Ramps				SE Foster Rd				SE Foster Rd				15-min Total	Rolling Hour Total
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
3:45 PM		0	0	0	0	0	1	0	51	0	0	6	0	0	17	6	0	81	0
4:00 PM		0	0	0	0	0	3	0	51	0	0	1	0	0	13	2	0	70	0
4:15 PM		0	0	0	0	0	3	0	55	0	0	5	0	0	20	6	0	89	0
4:30 PM		0	0	0	0	0	1	0	63	0	0	3	0	0	15	6	0	88	328
Pk Hr	All	0	0	0	0	0	8	0	220	0	0	15	0	0	65	20	0	328	
	HV	0	0	0	0	0	2	0	8	0	0	0	0	0	2	0	0	12	
	HV%	-	-	-	-	-	25%	-	4%	-	-	0%	-	-	3%	0%	-	4%	

Note: For complete count summary (all intervals), see following pages.
*** Heavy Vehicle Classifications include FHWA Classes 4-13.*
*** Count Summaries include heavy vehicles, but exclude bicycles in overall count.*

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
3:45 PM	0	4	0	0	*4*	0	0	0	0	*0*	0	0	0	0	*0*
4:00 PM	0	3	0	1	*4*	0	0	0	0	*0*	0	0	0	0	*0*
4:15 PM	0	2	0	1	*3*	0	0	0	0	*0*	0	0	0	0	*0*
4:30 PM	0	1	0	0	*1*	0	0	0	0	*0*	0	0	0	2	*2*
Peak Hour	0	10	0	2	*12*	0	0	0	0	*0*	0	0	0	2	*2*

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Count Summaries - All Vehicles

Interval Start	n/a				OR 18 WB Ramps				SE Foster Rd				SE Foster Rd				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
3:00 PM	0	0	0	0	0	2	0	35	0	0	2	0	0	22	2	0	63	0
3:15 PM	0	0	0	0	0	2	0	29	0	0	2	0	0	15	2	0	50	0
3:30 PM	0	0	0	0	0	2	0	44	0	0	5	0	0	19	6	0	76	0
3:45 PM	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**51**	**0**	**0**	**6**	**0**	**0**	**17**	**6**	**0**	**81**	**270**
4:00 PM	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**51**	**0**	**0**	**1**	**0**	**0**	**13**	**2**	**0**	**70**	**277**
4:15 PM	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**55**	**0**	**0**	**5**	**0**	**0**	**20**	**6**	**0**	**89**	**316**
4:30 PM	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**63**	**0**	**0**	**3**	**0**	**0**	**15**	**6**	**0**	**88**	**328**
4:45 PM	0	0	0	0	0	1	0	50	0	0	2	1	0	12	5	0	71	318
5:00 PM	0	0	0	0	0	0	0	41	0	0	3	1	0	14	3	0	62	310
5:15 PM	0	0	0	0	0	1	0	60	0	0	1	0	0	19	7	0	88	309
5:30 PM	0	0	0	0	0	3	0	46	0	0	5	3	0	11	5	0	73	294
5:45 PM	0	0	0	0	0	0	0	49	0	0	1	1	0	8	2	0	61	284
Count Total	0	0	0	0	0	19	0	574	0	0	36	6	0	185	52	0	872	
Pk Hr All	**0**	**0**	**0**	**0**	**0**	**8**	**0**	**220**	**0**	**0**	**15**	**0**	**0**	**65**	**20**	**0**	**328**	
Pk Hr HV	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**8**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**12**	
Pk Hr HV%	**-**	**-**	**-**	**-**	**-**	**25%**	**-**	**4%**	**-**	**-**	**0%**	**-**	**-**	**3%**	**0%**	**-**	**4%**	

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
3:00 PM	0	3	1	1	*5*	0	0	0	0	*0*	0	0	0	0	*0*
3:15 PM	0	2	1	1	*4*	0	0	0	0	*0*	0	0	0	0	*0*
3:30 PM	0	5	0	5	*10*	0	0	0	0	*0*	0	0	0	0	*0*
3:45 PM	**0**	**4**	**0**	**0**	**4**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
4:00 PM	**0**	**3**	**0**	**1**	**4**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
4:15 PM	**0**	**2**	**0**	**1**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
4:30 PM	**0**	**1**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**2**
4:45 PM	0	1	0	0	*1*	0	0	0	0	*0*	0	0	0	0	*0*
5:00 PM	0	1	0	1	*2*	0	0	0	0	*0*	0	0	0	0	*0*
5:15 PM	0	3	0	3	*6*	0	0	0	0	*0*	0	0	0	0	*0*
5:30 PM	0	2	0	0	*2*	0	0	0	0	*0*	0	0	0	0	*0*
5:45 PM	0	3	0	0	*3*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	0	30	2	13	*45*	0	0	0	0	*0*	0	0	0	2	*2*
Peak Hour	**0**	**10**	**0**	**2**	***12***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**2**	**2**

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Count Summaries - Heavy Vehicles

Interval Start	n/a				OR 18 WB Ramps				SE Foster Rd				SE Foster Rd				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
3:00 PM	0	0	0	0	0	0	0	3	0	0	1	0	0	1	0	0	5	0
3:15 PM	0	0	0	0	0	0	0	2	0	0	1	0	0	1	0	0	4	0
3:30 PM	0	0	0	0	0	1	0	4	0	0	0	0	0	4	1	0	10	0
3:45 PM	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**4**	**23**
4:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**4**	**22**
4:15 PM	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**3**	**21**
4:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**12**
4:45 PM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	9
5:00 PM	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	2	7
5:15 PM	0	0	0	0	0	0	0	3	0	0	0	0	0	2	1	0	6	10
5:30 PM	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	2	11
5:45 PM	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	3	13
Count Total	0	0	0	0	0	3	0	27	0	0	2	0	0	11	2	0	45	
Pk Hr Heavy	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**8**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**12**	

Count Summaries - Bikes

Interval Start	n/a				OR 18 WB Ramps				SE Foster Rd				SE Foster Rd				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
4:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
4:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
4:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Pk Hr Bike	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	

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Connecting Nodes 8 and 7
93
37
56
37
56
37
56
28
122%
25
57%
0
0%
0
0%
Ash Street/8th Street
7
109
121
5/21/24
Tue
15:00
17
73
19
24
21
11
TEV
299
23
14
6
6
74
11
37
56
43
51
0.6987291
PHF
90
91
1
1%
32
43%
Connecting Nodes 2, , and
235
185
235
235
185
235
185
0
0%
0
0%
Ash Street/Flower Lane/Ash Road
8
9
31
5/21/24
Tue
16:30
0
9
31
TEV
91
40
11
0
11
71
0.7013889
PHF
49
11
8
18%
4
31%
Connecting Nodes 7, 5, and
89
59
89
89
59
89
59
0
0%
0
0%
Connecting Nodes , 3, and
235
185
235
235
185
235
185
0
0%
0
0%
Ferry Street/Flower Lane
6
41
15
5/21/24
Tue
16:45
7
34
1
59
TEV
193
14
78
85
92
60
93
59
25
0.7412953
PHF
Ferry Street/8th Street
5
89
59
5/21/24
Tue
16:45
37
2
50
22
94
2
TEV
363
34
114
1
0
3
4
151
149
118
148
49%
24%
6
15
0.8121763
PHF
5
7
Ferry Street/5th Street
4
16
8
5/21/24
Tue
15:30
11
0
5
6
156
1
TEV
326
2
144
1
0
0
0
155
147
163
161
4%
10%
43
7
0.750092
PHF
2
0
Ferry Street/3rd Street
3
235
185
5/21/24
Tue
15:30
34
197
4
65
10
79
TEV
579
5
7
0
63
115
0
104
12
154
14
34%
4%
0.8559585
PHF
276
178

Intersection Level Of Service Report
Intersection 1: OR 18 WB/Foster Road

Control Type:	Two-way stop	Delay (sec / veh):	11.4
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.014

Intersection Setup

Name						
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		Yes		Yes	

Volumes

Name						
Base Volume Input [veh/h]	17	0	72	22	9	242
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	3.00	0.00	25.00	4.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	17	0	72	22	9	242
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	0	20	6	2	66
Total Analysis Volume [veh/h]	18	0	78	24	10	263
Pedestrian Volume [ped/h]	0		2		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.05	0.00	0.01	0.25
d_M, Delay for Movement [s/veh]	0.00	0.00	7.35	0.00	11.36	9.68
Movement LOS	A	A	A	A	B	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.14	0.14	1.07	1.07
95th-Percentile Queue Length [ft/ln]	0.00	0.00	3.40	3.40	26.69	26.69
d_A, Approach Delay [s/veh]	0.00		5.62		9.74	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	8.23					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 2: OR 18 EB/3rd Street (OR 221)

Control Type:	Two-way stop	Delay (sec / veh):	14.7
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.005

Intersection Setup

Name						
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		Yes		Yes	

Volumes

Name						
Base Volume Input [veh/h]	123	87	244	2	2	51
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	4.00	2.00	50.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	123	87	244	2	2	51
Peak Hour Factor	0.8900	0.8900	0.8900	0.8900	0.8900	0.8900
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	35	24	69	1	1	14
Total Analysis Volume [veh/h]	138	98	274	2	2	57
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.11	0.00	0.00	0.00	0.01	0.07
d_M, Delay for Movement [s/veh]	7.96	0.00	0.00	0.00	14.70	10.10
Movement LOS	A	A	A	A	B	B
95th-Percentile Queue Length [veh/ln]	0.25	0.25	0.00	0.00	0.26	0.26
95th-Percentile Queue Length [ft/ln]	6.22	6.22	0.00	0.00	6.44	6.44
d_A, Approach Delay [s/veh]	4.66		0.00		10.26	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	2.98					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 3: Ferry Street (OR 155)/3rd Street (OR 221)

Control Type:	All-way stop	Delay (sec / veh):	10.3
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.383

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	66	121	0	4	207	36	68	11	83	0	7	5
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	6.00	8.00	0.00	0.00	9.00	2.00	8.00	10.00	15.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	66	121	0	4	207	36	68	11	83	0	7	5
Peak Hour Factor	0.8600	0.8600	0.8600	0.8600	0.8600	0.8600	0.8600	0.8600	0.8600	0.8600	0.8600	0.8600
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	19	35	0	1	60	10	20	3	24	0	2	1
Total Analysis Volume [veh/h]	77	141	0	5	241	42	79	13	97	0	8	6
Pedestrian Volume [ped/h]	2			6			6			3		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	719	752	701	692
Degree of Utilization, x	0.30	0.38	0.27	0.02

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	1.28	1.81	1.09	0.06
95th-Percentile Queue Length [ft]	32.01	45.15	27.24	1.55
Approach Delay [s/veh]	10.18	10.73	10.03	8.32
Approach LOS	B	B	B	A
Intersection Delay [s/veh]	10.32			
Intersection LOS	B			

Intersection Level Of Service Report
Intersection 4: Ferry Street (OR 155)/5th Street

Control Type:	Two-way stop	Delay (sec / veh):	12.2
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.014

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	0	0	0	5	0	12	6	164	1	1	151	2
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.00	0.00	0.00	1.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	5	0	12	6	164	1	1	151	2
Peak Hour Factor	0.7500	0.7500	0.7500	0.7500	0.7500	0.7500	0.7500	0.7500	0.7500	0.7500	0.7500	0.7500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	2	0	4	2	55	0	0	50	1
Total Analysis Volume [veh/h]	0	0	0	7	0	16	8	219	1	1	201	3
Pedestrian Volume [ped/h]	0			10			0			2		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.01	0.00	0.02	0.01	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	12.05	12.23	9.38	12.22	12.40	9.54	7.67	0.00	0.00	7.65	0.00	0.00
Movement LOS	B	B	A	B	B	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.10	0.10	0.10	0.01	0.01	0.01	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	2.56	2.56	2.56	0.34	0.34	0.34	0.04	0.04	0.04
d_A, Approach Delay [s/veh]	11.22			10.36			0.27			0.04		
Approach LOS	B			B			A			A		
d_I, Intersection Delay [s/veh]	0.67											
Intersection LOS	B											

Intersection Level Of Service Report
Intersection 5: Ferry Street (OR 155)/8th Street

Control Type:	Two-way stop	Delay (sec / veh):	12.6
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.004

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	0	3	4	53	2	39	23	99	2	1	120	36
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	4.00	0.00	0.00	5.00	1.00	0.00	0.00	1.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	3	4	53	2	39	23	99	2	1	120	36
Peak Hour Factor	0.8100	0.8100	0.8100	0.8100	0.8100	0.8100	0.8100	0.8100	0.8100	0.8100	0.8100	0.8100
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	1	1	16	1	12	7	31	1	0	37	11
Total Analysis Volume [veh/h]	0	4	5	65	2	48	28	122	2	1	148	44
Pedestrian Volume [ped/h]	0			5			0			2		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.01	0.01	0.12	0.00	0.06	0.02	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	11.76	11.71	8.94	12.51	12.61	10.28	7.70	0.00	0.00	7.44	0.00	0.00
Movement LOS	B	B	A	B	B	B	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.04	0.04	0.04	0.63	0.63	0.63	0.05	0.05	0.05	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.97	0.97	0.97	15.64	15.64	15.64	1.19	1.19	1.19	0.04	0.04	0.04
d_A, Approach Delay [s/veh]	10.17			11.58			1.42			0.04		
Approach LOS	B			B			A			A		
d_I, Intersection Delay [s/veh]	3.51											
Intersection LOS	B											

Intersection Level Of Service Report
Intersection 6: Ferry Street (OR 155)/Flower Lane

Control Type:	Two-way stop	Delay (sec / veh):	9.9
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.062

Intersection Setup

Name						
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		Yes		Yes	

Volumes

Name						
Base Volume Input [veh/h]	36	7	1	62	82	15
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	3.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	36	7	1	62	82	15
Peak Hour Factor	0.7400	0.7400	0.7400	0.7400	0.7400	0.7400
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	12	2	0	21	28	5
Total Analysis Volume [veh/h]	49	9	1	84	111	20
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.06	0.01	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	9.93	9.19	7.46	0.00	0.00	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.23	0.23	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	5.81	5.81	0.04	0.04	0.00	0.00
d_A, Approach Delay [s/veh]	9.82		0.09		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	2.11					
Intersection LOS	A					

Intersection Level Of Service Report
Intersection 7: Ash Street/8th Street

Control Type:	All-way stop	Delay (sec / veh):	8.4
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.207

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	6	78	12	20	77	18	25	22	12	6	15	24
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	5.00	9.00	0.00	14.00	0.00	4.00	0.00	9.00	0.00	7.00	4.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	6	78	12	20	77	18	25	22	12	6	15	24
Peak Hour Factor	0.7000	0.7000	0.7000	0.7000	0.7000	0.7000	0.7000	0.7000	0.7000	0.7000	0.7000	0.7000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	28	4	7	28	6	9	8	4	2	5	9
Total Analysis Volume [veh/h]	9	111	17	29	110	26	36	31	17	9	21	34
Pedestrian Volume [ped/h]	1			5			0			2		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	804	798	764	800
Degree of Utilization, x	0.17	0.21	0.11	0.08

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.61	0.78	0.37	0.26
95th-Percentile Queue Length [ft]	15.29	19.38	9.22	6.50
Approach Delay [s/veh]	8.39	8.69	8.29	7.89
Approach LOS	A	A	A	A
Intersection Delay [s/veh]	8.41			
Intersection LOS	A			

Intersection Level Of Service Report
Intersection 8: Ash Street/Flower Lane/Ash Road

Control Type:	All-way stop	Delay (sec / veh):	7.3
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.113

Intersection Setup

Name						
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		Yes		Yes	

Volumes

Name						
Base Volume Input [veh/h]	12	9	8	9	33	42
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	3.00	3.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	12	9	8	9	33	42
Peak Hour Factor	0.7000	0.7000	0.7000	0.7000	0.7000	0.7000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	3	3	3	12	15
Total Analysis Volume [veh/h]	17	13	11	13	47	60
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	846	941	943
Degree of Utilization, x	0.04	0.03	0.11

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.11	0.08	0.38
95th-Percentile Queue Length [ft]	2.76	1.96	9.56
Approach Delay [s/veh]	7.41	6.93	7.31
Approach LOS	A	A	A
Intersection Delay [s/veh]	7.27		
Intersection LOS	A		

000 Crash Id	LOCATION DKS	STUDY INT DKS	013 Lat	014 Long	117 Severity	002 Year	008 Jurisdi	015 Street Name	021 Road C
1989309	OR 18 EB Ramps/3rd St	2	45.22405	-123.079	PDO	2022	Dayton	SALEM-DAYTON	INTER
1910469	OR 18 EB Ramps/3rd St	2	45.22454	-123.08	PDO	2020		SALEM-DAYTON	INTER
2005661	OR 18 EB Ramps/3rd St	2	45.22405	-123.079	PDO	2022	Dayton	SALEM-DAYTON	INTER
1939231	OR 18 EB Ramps/3rd St	2	45.22405	-123.079	Minor Injury (B)	2021	Dayton	SALEM-DAYTON	INTER
1800199	Ferry St/3rd St	3	45.22083	-123.076	Possible Injury (C)	2018	Dayton	SALEM-DAYTON	INTER
1995634	Ash St/Flower Ln/Ash Rd	8	45.21497	-123.093	PDO	2022	Dayton	ASH ST	INTER
1961018	Ash St/8th St		45.21932	-123.087	Possible Injury (C)	2022	Dayton	ASH ST	INTER
1810771	Ash St/9th St		45.21831	-123.089	PDO	2018	Dayton	ASH ST	INTER
1881569	Ferry St/7th St		45.21738	-123.082	Possible Injury (C)	2020	Dayton	AMITY-DAYTON	INTER
1820589			45.21942	-123.082	PDO	2018	Dayton	CHURCH ST	ALLEY
1866547			45.21941	-123.082	PDO	2019	Dayton	CHURCH ST	ALLEY
1790487	Alder St/3rd St		45.22009	-123.075	Possible Injury (C)	2018	Dayton	SALEM-DAYTON	INTER
1818886			45.22414	-123.079	PDO	2018	Dayton	SALEM-DAYTON	CURVE
1994596			45.2194	-123.078	PDO	2022	Dayton	AMITY-DAYTON	STRGHT
1968986			45.22711	-123.075	Minor Injury (B)	2022	Dayton	KREDER RD	CURVE
1902054			45.21799	-123.083	PDO	2020	Dayton	MAIN ST	STRGHT
1783165			45.21336	-123.089	Minor Injury (B)	2018	Dayton	AMITY-DAYTON	STRGHT
1937523			45.21981	-123.074	Possible Injury (C)	2021	Dayton	SALEM-DAYTON	STRGHT
1970222			45.22188	-123.077	Minor Injury (B)	2022	Dayton	SALEM-DAYTON	ALLEY
1992922			45.22046	-123.077	PDO	2022	Dayton	4TH ST	STRGHT
2005437			45.21998	-123.076	PDO	2022	Dayton	4TH ST	STRGHT
1979226			45.22047	-123.076	PDO	2022	Dayton	AMITY-DAYTON	STRGHT
1867138			45.21551	-123.085	PDO	2019	Dayton	AMITY-DAYTON	ALLEY
1871192			45.21689	-123.08	PDO	2019	Dayton	RODEO DR	STRGHT
1943406			45.21785	-123.081	PDO	2021	Dayton	AMITY-DAYTON	STRGHT
1993291			45.21474	-123.081	PDO	2022	Dayton	JOEL PALMER WAY	CURVE
1902753			45.22047	-123.075	PDO	2020	Dayton	SALEM-DAYTON	ALLEY
1994997			45.21701	-123.084	Possible Injury (C)	2022	Dayton	8TH ST	ALLEY
1867220			45.21795	-123.081	PDO	2019	Dayton	AMITY-DAYTON	STRGHT
1984811			45.21473	-123.095	PDO	2022		ASH RD	GRADE
1911010			45.2143	-123.1	PDO	2020		ASH RD	CURVE
1876414			45.21284	-123.085	Serious Injury (A)	2020		WEBFOOT RD	GRADE
1932128			45.21218	-123.085	Possible Injury (C)	2021		WEBFOOT RD	GRADE
1912709			45.21203	-123.085	PDO	2020		WEBFOOT RD	BRIDGE
1940050			45.21987	-123.09	PDO	2021		FLETCHER RD	STRGHT

000 Crash Id	LOCATION DKS	022 Off Ro	036 Crash Cause	114 Road Departure Fl	119 State H	126 Bike / Ped Related	127 Driven	028 Crash Type
1989309	OR 18 EB Ramps/3rd St	TRUE	ILLNESS	No	Yes	Neither	No	FIX OBJ
1910469	OR 18 EB Ramps/3rd St	TRUE	IMP-TURN	No	Yes	Neither	No	FIX OBJ
2005661	OR 18 EB Ramps/3rd St	FALSE	NO-YIELD	No	Yes	Neither	No	O-1 L-TURN
1939231	OR 18 EB Ramps/3rd St	FALSE	NO-YIELD	No	Yes	Neither	No	O-1 L-TURN
1800199	Ferry St/3rd St	FALSE	FATIGUE	No	Yes	Neither	No	S-1STOP
1995634	Ash St/Flower Ln/Ash Rd	FALSE	INATTENT	No	No	Neither	No	ANGL-STP
1961018	Ash St/8th St	FALSE	NO-YIELD	No	No	Neither	No	ANGL-OTH
1810771	Ash St/9th St	FALSE	NO-YIELD	No	No	Neither	No	ANGL-OTH
1881569	Ferry St/7th St	FALSE	NO-YIELD	No	Yes	Neither	No	ANGL-OTH
1820589		TRUE	INATTENT	Yes	No	Neither	Yes	PRKD MV
1866547		TRUE	OTHR-IMP	Yes	No	Neither	Yes	ANGL-OTH
1790487	Alder St/3rd St	TRUE	TOO-FAST	No	Yes	Neither	No	FIX OBJ
1818886		TRUE	IMP-TURN	Yes	Yes	Neither	No	FIX OBJ
1994596		TRUE	FATIGUE	Yes	Yes	Neither	No	FIX OBJ
1968986		TRUE	FATIGUE	Yes	No	Neither	No	FIX OBJ
1902054		TRUE	TOO-FAST	Yes	No	Neither	No	FIX OBJ
1783165		TRUE	TOO-FAST	Yes	Yes	Neither	No	FIX OBJ
1937523		TRUE	SPEED	Yes	Yes	Neither	No	FIX OBJ
1970222		FALSE	F AVOID	No	Yes	Neither	Yes	S-1STOP
1992922		FALSE	INATTENT	No	No	Neither	No	PRKD MV
2005437		FALSE	INATTENT	No	No	Neither	No	PRKD MV
1979226		FALSE	F AVOID	No	Yes	Neither	No	PRKD MV
1867138		FALSE	TOO-CLOS	No	Yes	Neither	Yes	S-STRGHT
1871192		TRUE	INATTENT	Yes	No	Neither	No	PRKD MV
1943406		FALSE	INATTENT	No	Yes	Neither	No	PRKD MV
1993291		FALSE	RECKLESS	No	No	Neither	No	PRKD MV
1902753		FALSE	NO-YIELD	No	Yes	Neither	Yes	ANGL-OTH
1994997		FALSE	SPEED	No	No	Neither	Yes	ANGL-OTH
1867220		FALSE	LEFT-CTR	No	Yes	Neither	No	ANGL-OTH
1984811		TRUE	OTHR-IMP	Yes	No	Neither	No	PRKD MV
1911010		TRUE	OTHR-IMP	Yes	No	Neither	No	FIX OBJ
1876414		TRUE	OTHR-IMP	Yes	No	Neither	No	FIX OBJ
1932128		FALSE	F AVOID	No	No	Neither	No	S-1STOP
1912709		TRUE	PHANTOM	Yes	No	Neither	No	FIX OBJ
1940050		TRUE	TOO-FAST	Yes	No	Neither	No	FIX OBJ

000 Crash Id	LOCATION DKS	029 Collision Type	031 Weather Con	032 Road Surface	033 Lighting Conditio	034 Traffic Control	118 Intersection Flag
1989309	OR 18 EB Ramps/3rd St	FIX	CLR	DRY	DAY	STOP SIGN	Yes
1910469	OR 18 EB Ramps/3rd St	FIX	CLR	DRY	DARK	NONE	Yes
2005661	OR 18 EB Ramps/3rd St	TURN	RAIN	WET	DARK	STOP SIGN	Yes
1939231	OR 18 EB Ramps/3rd St	TURN	CLR	DRY	DAY	STOP SIGN	Yes
1800199	Ferry St/3rd St	REAR	CLR	DRY	DAY	STOP SIGN	Yes
1995634	Ash St/Flower Ln/Ash Rd	TURN	CLR	DRY	DAY	STOP SIGN	Yes
1961018	Ash St/8th St	ANGL	CLR	DRY	DAY	STOP SIGN	Yes
1810771	Ash St/9th St	ANGL	RAIN	WET	DLIT	STOP SIGN	Yes
1881569	Ferry St/7th St	ANGL	CLR	DRY	DAY	STOP SIGN	Yes
1820589		BACK	CLR	DRY	DLIT	UNKNOWN	No
1866547		BACK	RAIN	WET	DLIT	UNKNOWN	No
1790487	Alder St/3rd St	FIX	CLD	DRY	DAY	STOP SIGN	Yes
1818886		FIX	RAIN	WET	DLIT	UNKNOWN	No
1994596		FIX	CLR	DRY	DAY	NONE	No
1968986		FIX	CLR	DRY	DARK	NONE	No
1902054		FIX	CLR	DRY	DAWN	UNKNOWN	No
1783165		FIX	CLR	DRY	DARK	UNKNOWN	No
1937523		FIX	CLR	DRY	DAY	NONE	No
1970222		REAR	CLR	DRY	DAY	NONE	No
1992922		REAR	CLR	DRY	DLIT	NONE	No
2005437		REAR	CLD	WET	DAY	NONE	No
1979226		REAR	CLR	DRY	DLIT	NONE	No
1867138		REAR	RAIN	WET	DAWN	UNKNOWN	No
1871192		SS-M	CLR	DRY	DAY	UNKNOWN	No
1943406		SS-O	CLR	DRY	DLIT	NONE	No
1993291		SS-O	CLR	DRY	DLIT	NONE	No
1902753		TURN	CLR	DRY	DAY	NONE	No
1994997		TURN	RAIN	WET	DAY	NONE	No
1867220		TURN	CLD	WET	DAY	UNKNOWN	No
1984811		ANGL	CLR	DRY	DAY	NONE	No
1911010		FIX	CLR	DRY	DAY	NONE	No
1876414		FIX	CLR	DRY	DAY	NONE	No
1932128		REAR	RAIN	WET	DAY	UNKNOWN	No
1912709		FIX	CLR	DRY	DUSK	NONE	No
1940050		FIX	CLR	ICE	DARK	UNKNOWN	No

000 Crash Id	LOCATION DKS	053 Veh1 VHCL T	054 Veh1 MVMN	055 Veh1 VHCL CMPSS DIR FROM SHOI	056 Veh1 VHCL CMPSS DIR TO SHORT	058 Veh1 V
1989309	OR 18 EB Ramps/3rd St	PSNGR CAR	STRGHT	S	N	
1910469	OR 18 EB Ramps/3rd St	PSNGR CAR	TURN-L	S	SW	
2005661	OR 18 EB Ramps/3rd St	PSNGR CAR	TURN-L	S	NW	
1939231	OR 18 EB Ramps/3rd St	PSNGR CAR	STRGHT	N	S	
1800199	Ferry St/3rd St	PSNGR CAR	STRGHT	NW	SE	
1995634	Ash St/Flower Ln/Ash Rd	PSNGR CAR	TURN-L	SE	SW	
1961018	Ash St/8th St	PSNGR CAR	STRGHT	SW	NE	
1810771	Ash St/9th St	PSNGR CAR	STRGHT	SW	NE	
1881569	Ferry St/7th St	PSNGR CAR	STRGHT	NE	SW	
1820589		PSNGR CAR	BACK	NW	SE	
1866547		PSNGR CAR	BACK	SE	NW	
1790487	Alder St/3rd St	MTRCYCLE	STRGHT	SE	NW	DITCH
1818886		PSNGR CAR	STRGHT	SE	NW	
1994596		PSNGR CAR	STRGHT	NE	SW	
1968986		PSNGR CAR	STRGHT	SE	NW	TREE
1902054		PSNGR CAR	STRGHT	SW	NE	
1783165		PSNGR CAR	STRGHT	SW	NE	DITCH
1937523		PSNGR CAR	STRGHT	S	N	CURB
1970222		PSNGR CAR	STRGHT	SE	NW	
1992922		PSNGR CAR	STRGHT	SE	NW	
2005437		PSNGR CAR	STRGHT	SE	NW	
1979226		PSNGR CAR	STRGHT	SW	NE	
1867138		PSNGR CAR	STRGHT	SW	NE	
1871192		PSNGR CAR	STRGHT	NE	SW	
1943406		PSNGR CAR	STRGHT	SW	NE	
1993291		PSNGR CAR	STRGHT	E	W	
1902753		PSNGR CAR	TURN-L	NE	SE	
1994997		PSNGR CAR	STRGHT	SE	NW	
1867220		PSNGR CAR	TURN-L	NW	NE	
1984811		PSNGR CAR	STRGHT	E	W	
1911010		PSNGR CAR	STRGHT	W	E	
1876414		PSNGR CAR	STRGHT	S	N	DITCH
1932128		PSNGR CAR	STRGHT	N	S	
1912709		PSNGR CAR	STRGHT	N	S	
1940050		PSNGR CAR	STRGHT	E	W	

000 Crash Id	LOCATION DKS	063 Veh2 VHCL TY	064 Veh2 MVMNT SH	065 Veh2 VHCL CMPSS DIR FROM SHC	066 Veh2 VHCL CMPSS DIR TO SHO
1989309	OR 18 EB Ramps/3rd St				
1910469	OR 18 EB Ramps/3rd St				
2005661	OR 18 EB Ramps/3rd St	PSNGR CAR	STRGHT	N	S
1939231	OR 18 EB Ramps/3rd St	PSNGR CAR	TURN-L	S	NW
1800199	Ferry St/3rd St	PSNGR CAR	STOP	NW	SE
1995634	Ash St/Flower Ln/Ash Rd	PSNGR CAR	STOP	SW	NE
1961018	Ash St/8th St	PSNGR CAR	STRGHT	NW	SE
1810771	Ash St/9th St	PSNGR CAR	TURN-L	NE	SE
1881569	Ferry St/7th St	PSNGR CAR	STRGHT	NW	SE
1820589		PSNGR CAR	PRKD-I	NE	SW
1866547					
1790487	Alder St/3rd St				
1818886					
1994596					
1968986					
1902054					
1783165					
1937523					
1970222		PSNGR CAR	STOP	SE	NW
1992922		PSNGR CAR	PRKD-P	SE	NW
2005437		PSNGR CAR	PRKD-P	SE	NW
1979226		PSNGR CAR	PRKD-P	SW	NE
1867138		PSNGR CAR	STRGHT	SW	NE
1871192					
1943406		PSNGR CAR	PRKD-P	SW	NE
1993291		PSNGR CAR	PRKD-P	E	W
1902753		PSNGR CAR	STRGHT	NW	SE
1994997		PSNGR CAR	TURN-L	W	NW
1867220		SCHL BUS	STRGHT	NE	SW
1984811		PSNGR CAR	PRKD-P	S	N
1911010					
1876414					
1932128		PSNGR CAR	STOP	N	N
1912709					
1940050					

000 Crash Id	LOCATION DKS	120 Bike U	121 Driver	122 Pedest	123 Bike O	124 Driver	125 Pedestrian Over Age 64
1989309	OR 18 EB Ramps/3rd St	No	Yes	No	No	No	No
1910469	OR 18 EB Ramps/3rd St	No	Yes	No	No	No	No
2005661	OR 18 EB Ramps/3rd St	No	Yes	No	No	No	No
1939231	OR 18 EB Ramps/3rd St	No	No	No	No	No	No
1800199	Ferry St/3rd St	No	No	No	No	Yes	No
1995634	Ash St/Flower Ln/Ash Rd	No	Yes	No	No	No	No
1961018	Ash St/8th St	No	No	No	No	No	No
1810771	Ash St/9th St	No	Yes	No	No	No	No
1881569	Ferry St/7th St	No	Yes	No	No	No	No
1820589		No	Yes	No	No	No	No
1866547		No	Yes	No	No	No	No
1790487	Alder St/3rd St	No	No	No	No	No	No
1818886		No	Yes	No	No	No	No
1994596		No	Yes	No	No	No	No
1968986		No	No	No	No	No	No
1902054		No	Yes	No	No	No	No
1783165		No	No	No	No	No	No
1937523		No	No	No	No	No	No
1970222		No	No	No	No	No	No
1992922		No	Yes	No	No	No	No
2005437		No	Yes	No	No	No	No
1979226		No	Yes	No	No	No	No
1867138		No	Yes	No	No	No	No
1871192		No	Yes	No	No	No	No
1943406		No	Yes	No	No	No	No
1993291		No	Yes	No	No	No	No
1902753		No	Yes	No	No	No	No
1994997		No	Yes	No	No	No	No
1867220		No	Yes	No	No	No	No
1984811		No	Yes	No	No	No	No
1911010		No	Yes	No	No	No	No
1876414		No	No	No	No	No	No
1932128		No	Yes	No	No	No	No
1912709		No	Yes	No	No	No	No
1940050		No	Yes	No	No	No	No

General & Site Information	
Analyst:	HRT
Agency/Company:	DKS Associates
Date:	11/5/2024
Project Name:	Dayton TSP Update

Intersection Crash Data

Intersection	Intersection Type	Year 2018	2019	2020	2021	2022	Total
OR 18 WB/Foster Rd	Urban 3ST	0	0	0	0	0	0
OR 18 EB/3rd St (OR 221)	Urban 3ST	1	0	1	0	2	4
Ferry St (OR 155)/3rd St (OR 221)	Urban 4ST	1	0	0	0	0	1
Ferry St (OR 155)/5th St	Urban 3ST	0	0	0	0	0	0
Ferry St (OR 155)/8th St	Urban 3ST	0	0	0	0	0	0
Ferry St (OR 155)/Flower Ln	Urban 3ST	0	0	0	0	0	0
Ash St/8th St	Urban 4ST	0	0	0	0	0	0
Ash St/Flower Ln/Ash Rd	Urban 3ST	0	0	0	0	1	1
	Total	2	0	1	0	3	6

Intersection Population Type Crash Rate
Average Crash Rate per intersection type

Intersection Pop. Type	Sum of Crashes	Sum of 5-year MEV	Avg Crash Rate for Ref Pop.	INT in Pop
Urban 3ST	5	35	0.1447	6
Urban 4ST	1	17	0.0594	2

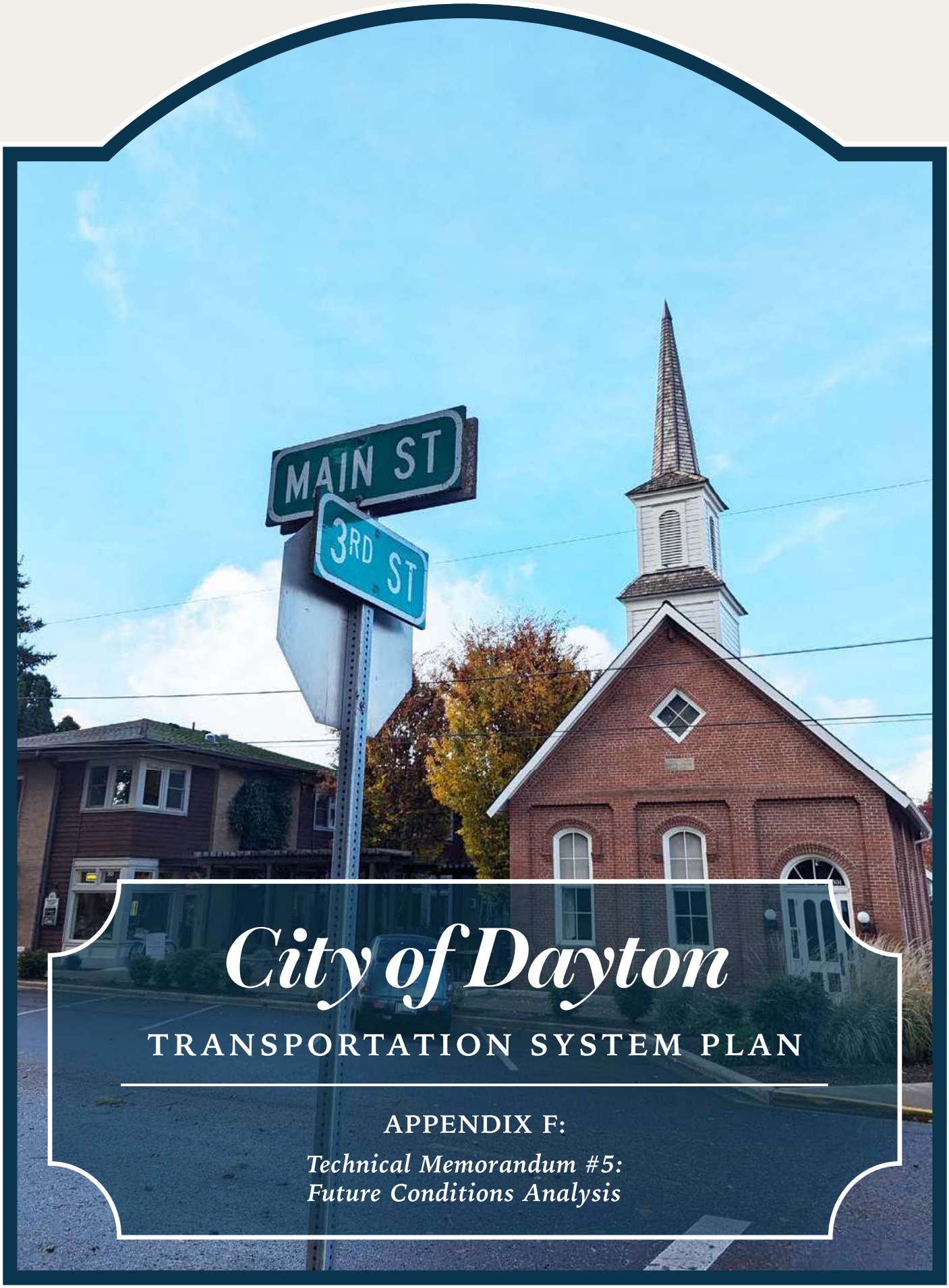
Critical Rate Calculation

Intersection	AADT Entering Intersection	5-year MEV	Crash Total	Intersection Population Type	Intersection Crash Rate	Reference Population Crash Rate	Critical Rate (3ST) or Mean Crash Rate (4ST)	Over Critical	Statewide Crash Rate (APM Exhibit 4-1)	Over Statewide Crash Rate
OR 18 WB/Foster Rd	3,620	6.6	0	Urban 3ST	0.000	0.14	0.464	Under	0.293	Under
OR 18 EB/3rd St (OR 221)	5,090	9.3	4	Urban 3ST	0.431	0.14	0.404	**Over**	0.293	**Over**
Ferry St (OR 155)/3rd St (OR 221)	6,080	11.1	1	Urban 4ST	0.090	-	0.198	Under	0.408	Under
Ferry St (OR 155)/5th St	3,420	6.2	0	Urban 3ST	0.000	0.14	0.475	Under	0.293	Under
Ferry St (OR 155)/8th St	3,820	7.0	0	Urban 3ST	0.000	0.14	0.453	Under	0.293	Under
Ferry St (OR 155)/Flower Ln	2,030	3.7	0	Urban 3ST	0.000	0.14	0.605	Under	0.293	Under
Ash St/8th St	3,150	5.7	0	Urban 4ST	0.000	-	0.198	Under	0.408	Under
Ash St/Flower Ln/Ash Rd	960	1.8	1	Urban 3ST	0.571	0.14	0.903	Under	0.293	**Over**

Appendix E

Excess Proportion of Specific Crash Types not applicable to Dayton TSP:

A. There are not enough sites for the 4ST reference population (only two)
B. The target crash types have very low frequencies (a maximum of 2 crashes)



City of Dayton

TRANSPORTATION SYSTEM PLAN

APPENDIX F:

Technical Memorandum #5:
Future Conditions Analysis

DKS 1050 SW 6TH AVENUE, SUITE 600 • PORTLAND, OR 97204 • 503.243.3500 • DKSASSOCIATES.COM

FUTURE CONDITIONS ANALYSIS

DATE: April 22, 2025

TO: Dayton TSP Project Management Team

FROM: Carl Springer, Jenna Bogert, and Hallie Turk | DKS Associates

SUBJECT: Dayton Transportation System Plan Update DKS P#24439-000
Task 4.3 Future Conditions Analysis Memorandum #5

INTRODUCTION

In this stage of the Dayton Transportation System Plan (TSP) update, the project team examines how Dayton's current transportation system is expected to serve the community through the horizon year of 2045. The purpose of this memorandum is to describe the expected population growth and traffic growth in Dayton, summarize future roadway capacity, and identify deficiencies and needs for all modes of travel that will be considered later in this plan update process.

More information about how the analysis was conducted can be found in the Methodology Memorandum.[1]

SUMMARY

The City of Dayton is expected to grow in population by 17%, reaching 3,177 residents by the year 2045.[2] Areas with potential for redevelopment have been identified in six main areas of Dayton (shown in Figure 1), and traffic demand is expected to increase as housing, commercial, and industrial uses are constructed.

FUTURE CHALLENGES AND OPPORTUNITIES

Based on our assessment of the city's expected growth, we found that the transportation system is expected to serve motor vehicles and trucks efficiently in the next 20 years. However, some areas of the transportation system will need to be upgraded as the City develops.

[1] Task 4.1 Methodology Memorandum. DKS Associates. November 11, 2024.

[2] Portland State University Population Forecasts. Yamhill County table. Accessed February 14, 2025.

- **Travel Demand and Capacity:** Overall, traffic is expected to grow at a rate of 1-2% per year, with slightly higher growth along Ferry Street (OR 155). Even so, all key intersections in Dayton are expected to provide adequate capacity through 2045.
- **Multimodal Travel:** Existing roadways, including Ash Street, Ash Road, 3rd Street (OR 221), and Ferry Street (OR 155), lack adequate sidewalks and bike facilities, creating barriers for multimodal travel in areas expected to see residential growth.
- **Local Street Connectivity:** New development west of Flower Lane will require new collector and local streets to continue connectivity.

By making targeted investments to address these challenges in infrastructure and services, Dayton can foster a safer, more accessible, and sustainable transportation network that meets the needs of its growing community and enhances quality of life for all residents.

POPULATION AND LAND USE GROWTH

According to the Portland State University Population Research Center, the City of Dayton is projected to grow to about 3,200 people by the year 2045, which is up from 2,700 today. This is a population growth rate of 17% from the 2024 estimate of 2,704 people.

The City of Dayton is currently updating their Housing Plan to accommodate the recent Oregon Housing Needs Analysis, which identified the need for 188 total new housing units to accommodate growth in the next 20 years.[3] For the purposes of the TSP update, this analysis includes more conservative housing estimates (over 400 units) based on the amount of vacant land in residential zones and housing density assumptions outlined in City code.

FUTURE TRAVEL DEMAND

This section provides a summary of future growth and travel demand in Dayton over the next 20 years.

FUTURE 2045 VOLUME FORECASTS

Future year volumes were developed by combining estimates for regional and local growth and adding it to the recent traffic counts.

GROWTH ESTIMATES

The Methodology Memorandum initially proposed using the Oregon Statewide Integrated Model (SWIM) to estimate regional growth on state highways. However, following discussions with ODOT staff, the project team collaborated with ODOT to update the land use assumptions in the McMinnville Travel Demand Model and use it to estimate future growth in Dayton rather than

[3] Meeting with City of Dayton and ODOT staff, January 14, 2025.

SWIM. Results from the updated McMinnville Travel Demand Model were compared to estimates based on a third methodology, the Historical Trends method. This comparison showed that the Historical Trends method projected more conservative growth than the updated McMinnville model. As a result, the regional growth on state highways reflected in the future 2045 volumes is based on the Historical Trends method.[4]

- Over the next twenty years, the growth rate for 3rd Street (OR 221) appears to be approximately 0.5% per year near downtown Dayton, but growth increases to about 8.7% per year by the OR 18 ramps.
- During the same period, locations along Ferry Street (OR 155) between Flower Lane and 3rd Street (OR 221) expect an average of about 4% growth per year.[5] Local growth represents approximately 2% of this growth and the remaining 2% per year reflects growth of regional through traffic.

On city streets in and around Dayton, regional traffic growth will be lower, about 1% per year. Therefore, a 1% growth rate per year was applied to movements to and from local streets along Ferry Street (OR 155), as well as every movement at all remaining study intersections to reflect regional growth.

Local Growth

Local growth from potential future development within Dayton was estimated using zonal cumulative analysis. Zonal cumulative analysis is a method of estimating traffic growth that divides areas of potential development into zones. Each zone is expected to develop into a specific land use that generates new trips. These new trips are then distributed across the City's road network to assess future traffic patterns.

Parcels of land with potential for redevelopment were identified in six main areas of the City (shown in Figure 1 and Table 1) and assigned a future land use in alignment with comprehensive plan zoning. Land use assumptions were confirmed by City staff. Further detail can be found in Appendix A.

[4] Section 6.5, Analysis Procedures Manual. Oregon Department of Transportation.

[5] On Ferry Street (OR 155) from Flower Lane to 3rd Street (OR 221), the average growth rate is about 3.8% per year.
The segment from 3rd Street (OR 221) to 5th Street shows about 4.4% growth per year.
The segment from 8th Street to Flower Lane shows about 3.1% growth per year.

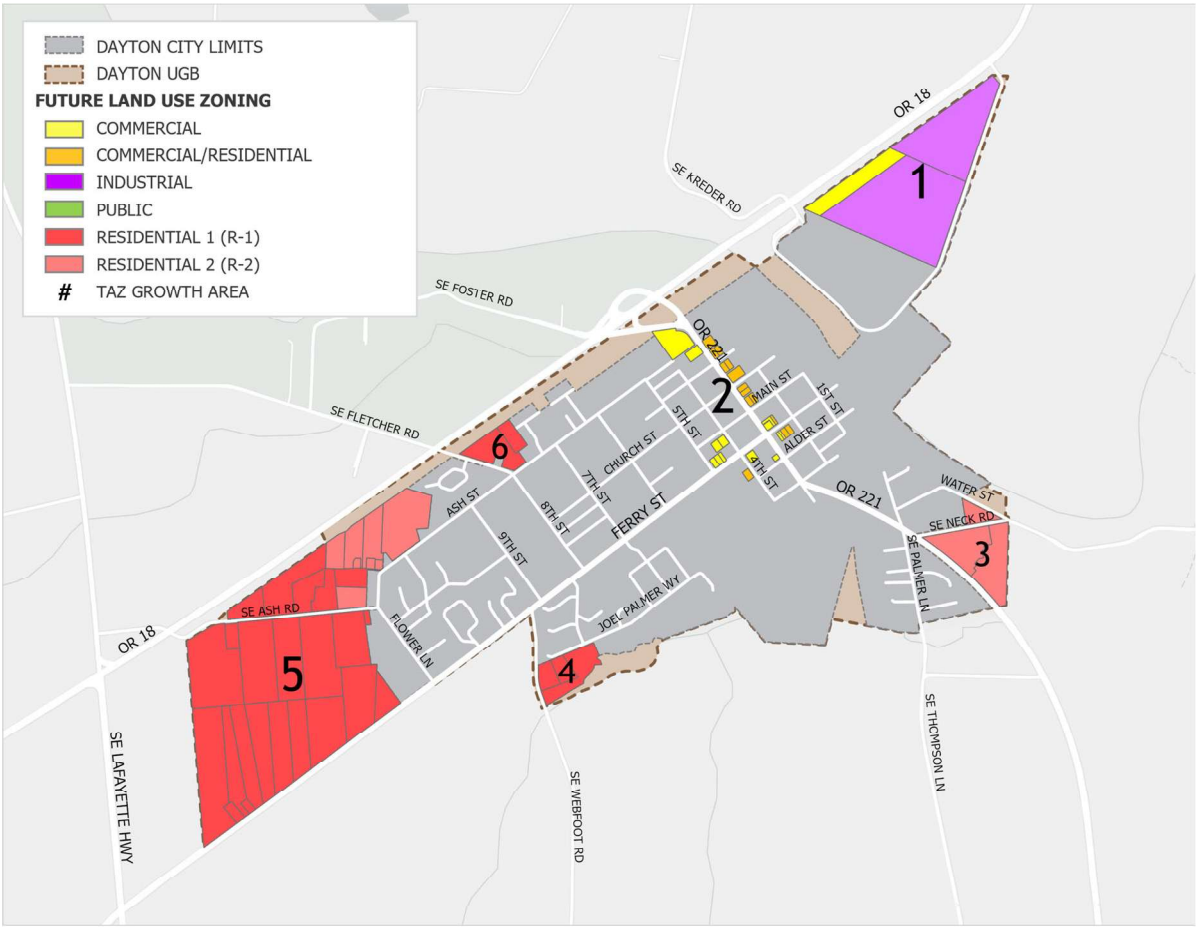


FIGURE 1: DAYTON FUTURE LAND USE ZONING

Table 1 shows the area to be developed within each transportation analysis zone (TAZ).

TABLE 1: AREA TO BE DEVELOPED BY TAZ

TAZ	AREA TO BE DEVELOPED (ACRES)
1	12.14
2	2.01
3	9.37
4	1.63
5	99.61
6	5.28
TOTAL	**130.05**

Land use trip generation was estimated using the Institute of Transportation Engineers (ITE) Trip Generation Manual, 11th Edition. Trip distribution was estimated using existing turning movement

counts and confirmed using Replica. The trip distribution reflects existing traffic patterns among local homes and businesses and the state highways leading into and out of the City of Dayton.

FUTURE (2045) VOLUMES

The future 2045 traffic volumes are shown in Figure 2.

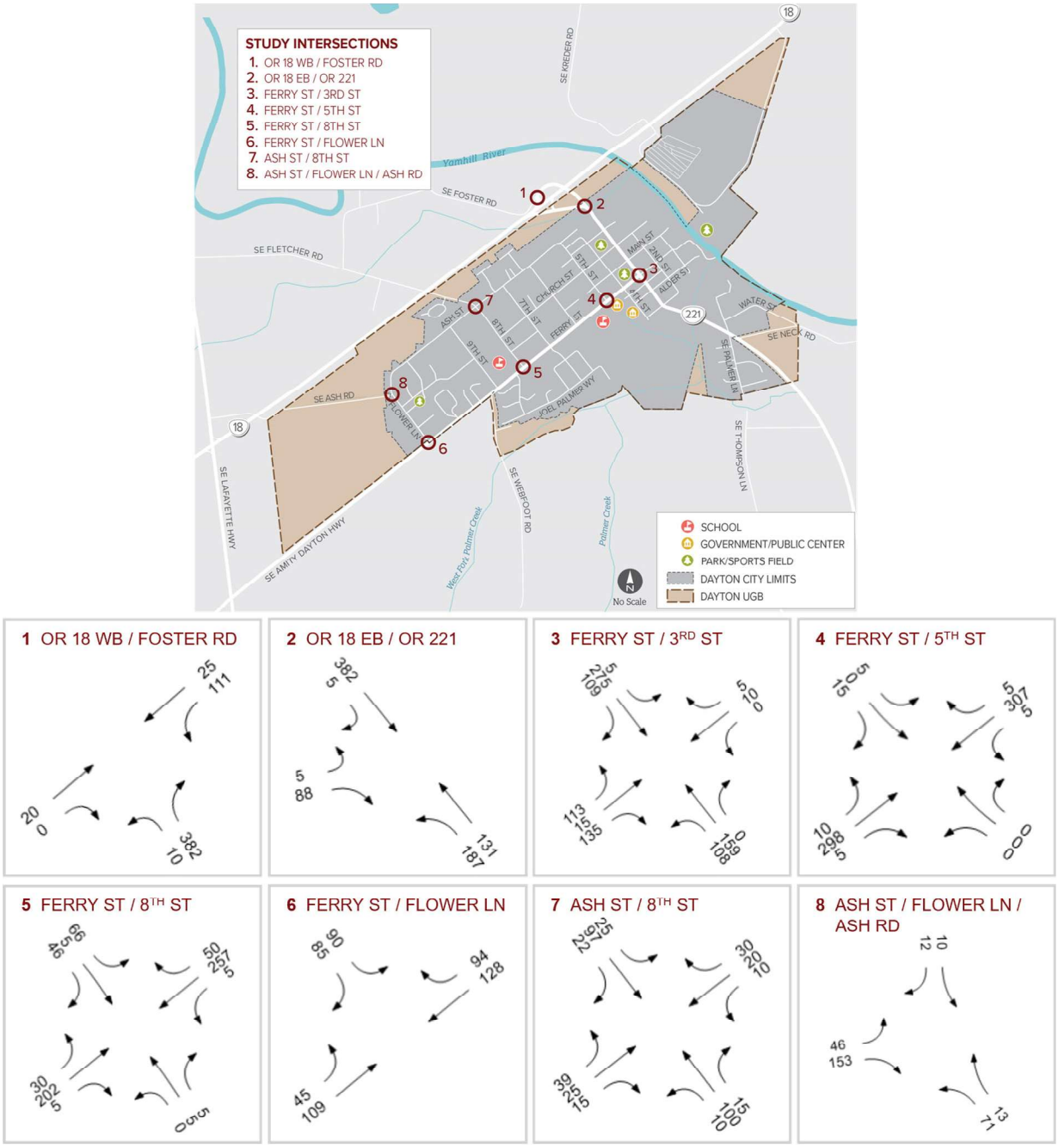


FIGURE 2: DAYTON FUTURE (2045) TRAFFIC VOLUMES

FUTURE CAPACITY

This section describes planned improvements that may affect traffic conditions in Dayton as well as future capacity of key study intersections.

PLANNED IMPROVEMENTS

OR 18 FROM SE LAFAYETTE HIGHWAY (OR 154) TO ASH ROAD

Per the Yamhill County Transportation System Plan, Roadway Improvement Project 5 will construct a roundabout at the intersection of OR 18/SE Lafayette Highway (OR 154).[6] ODOT staff members also confirmed a planned turn restriction from full access to right-in, right-out at the intersection of Ash Road/OR 18.[7] These projects were included in the future conditions analysis.

NEWBERG-DUNDEE BYPASS

Phase 3 of the Newberg-Dundee Bypass project will extend into Dayton city limits, as shown in Figure 3. The project is in the conceptual planning stage and will likely construct a partial cloverleaf interchange at Kreder Road and a new vehicle bridge over the Yamhill River connecting to Ferry Street (OR 155). This new connection may establish a vehicle route at the existing site of the utility & foot bridge (which was recently reconstructed & renovated) leading to Alderman Park.

Because Phase 3 of the project isn't currently funded, it is not included in the future conditions analysis. However, the project team notes that traffic patterns may be affected if the project does receive funding. Some effects may include:

- Removal of access from Kreder Road to/from OR 18
- An increase in traffic on Ferry Street (OR 155) due to the new bridge
- Shifting of traffic destined for/originating in Dayton from Hwy 18/Hwy 221 interchange to new Ferry Street bridge
- Traffic generated by future development along Kreder Road traveling along Ferry Street (OR 155) to the new bridge or the new partial cloverleaf interchange

[6] Yamhill County Transportation System Plan. Adopted November 2015.

[7] Meeting with City of Dayton and ODOT staff, January 14, 2025.

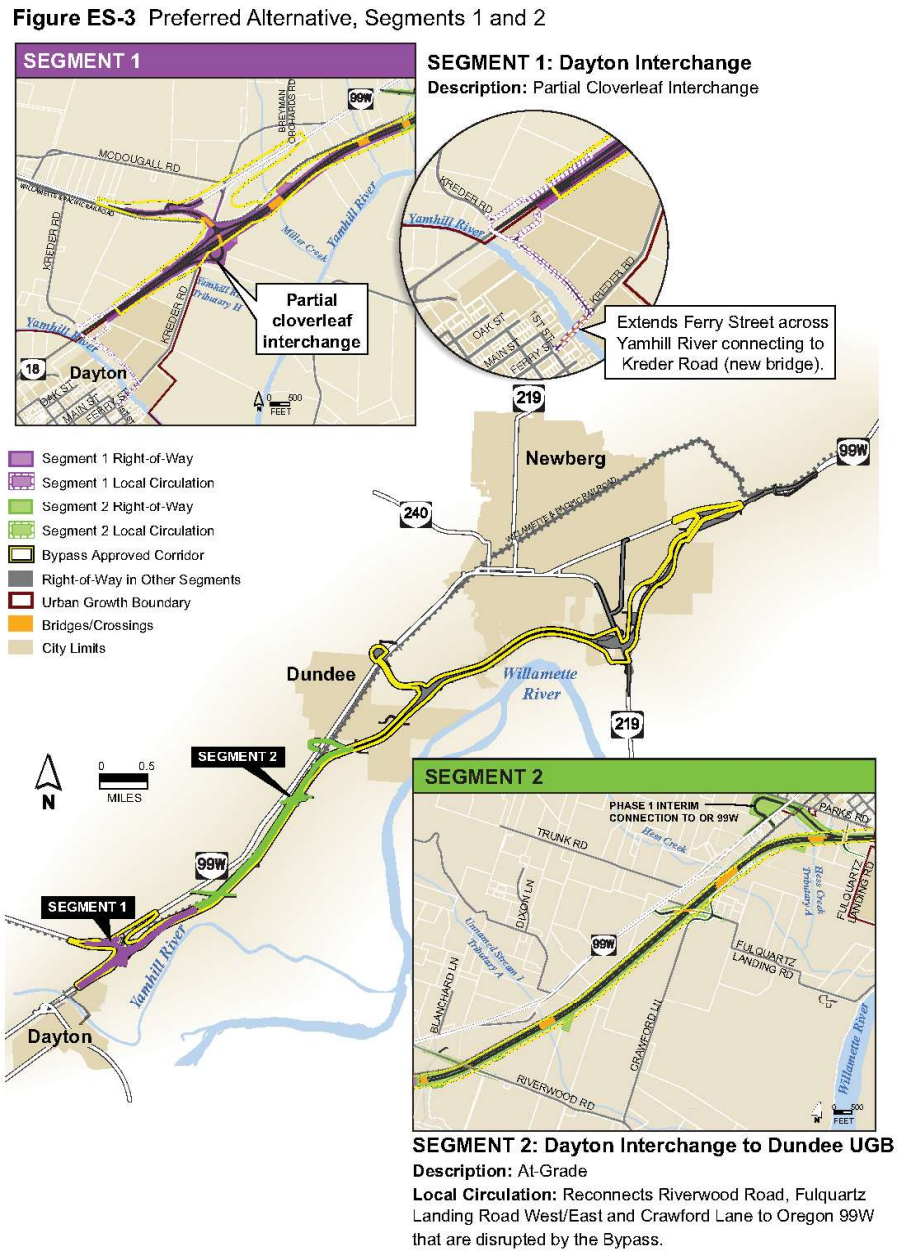


FIGURE 3: NEWBERG-DUNDEE BYPASS PROJECT PHASE 3 CONCEPT

PLANNED IMPROVEMENTS INSIDE UGB

There are no STIP projects within Dayton's UGB. Therefore, no changes to the street network were included in the future conditions analysis.

INTERSECTION OPERATIONS

Future traffic operations at the study intersections were determined for the p.m. peak hour based on Highway Capacity Manual (HCM) 7th Edition methodology.[8] The results were then compared with applicable operating standards. Because the City of Dayton does not have intersection mobility standards, operations at local street intersections are reported without comparison to a standard.[9] Table 2 lists the estimated v/c ratio, delay, and LOS of each study intersection for future conditions.

TABLE 2: FUTURE (2045) INTERSECTION OPERATIONS

	INTERSECTION	TRAFFIC CONTROL	OPERATING STANDARD	PM PEAK HOUR		
				V/C RATIO	DELAY (SEC)	LOS
1	OR 18 WB/Foster Rd	TWSC	v/c ≤ 0.70	0.42	11.0	B
2	OR 18 EB/ 3rd Street (OR 221)	TWSC	v/c ≤ 0.80	0.19	12.7	B
3	Ferry Street (OR 155)/ 3rd Street (OR 221)	AWSC	v/c ≤ 0.95	0.66	15.8	C
4	Ferry Street (OR 155)/ 5th Street	TWSC	v/c ≤ 0.95	0.05	12.2	B
5	Ferry Street (OR 155)/ 8th Street	TWSC	v/c ≤ 0.95	0.33	17.2	C
6	Ferry Street (OR 155)/ Flower Lane	TWSC	v/c ≤ 0.95	0.31	12.9	B
7	Ash Street/8th Street	AWSC	none	0.22	8.6	A
8	Ash Street/Flower Ln/ Ash Road	AWSC	none	0.25	8.1	A

All-Way Stop Controlled (AWSC):
v/c = Total Volume-to-Capacity Ratio
Delay = Average Intersection Delay (secs)
LOS = Total Level of Service

Two-Way Stop Controlled (TWSC):
v/c = Highest Approach Volume-to-Capacity Ratio
Delay = Highest Approach Delay, secs
LOS = Level of Service

As shown, all study intersections under ODOT jurisdiction meet operating standards. Both local street intersections with no operating standard report a delay of less than ten seconds and LOS A, showing efficient intersection operations with no congestion in the p.m. peak hour.

[8] Highway Capacity Manual, 7th Edition, Transportation Research Board, 2022.

[9] The City will consider developing a mobility standard in Memo #6: Proposed Solutions.

FUTURE DEFICIENCIES AND NEEDS

This section describes future deficiencies and needs for all modes of travel.

MOTOR VEHICLES

Future 2045 intersection operations are shown in Table 2. With the current infrastructure, none of the study intersections are expected to fail during the p.m. peak hour.

The Existing Conditions memorandum identified the need for safety improvements at two study intersections: OR 18 EB Ramps/3rd Street (OR 221) and Ash Street/Flower Lane/Ash Road. Both intersections were found to have a calculated crash rate higher than the statewide critical crash rate. Safety improvements for all modes of travel are needed at these intersections.

TRUCK FREIGHT

OR 18 on the north side of the City is a designated freight route. Although 3rd Street (OR 221) and Ferry Street (OR 155) are not designated freight routes, future freight traffic from OR 18 is likely enter Dayton from the north via 3rd Street (OR 221) and travel to destinations along Ferry Street (OR 155).

As presented in the Existing Conditions memorandum, Dayton has no posted bridges, and there are no truck pinch points with weight, height, or length restrictions. Lane width and turning radii at the OR 18 Ramps, along Ferry Street (OR 155), and along 3rd Street (OR 221) appear to be adequate for freight vehicle travel. All future changes to 3rd Street (OR 221) and Ferry Street (OR 155) must maintain proper lane width and turning radii to allow trucks to travel safely.

PEDESTRIANS, BICYCLES, AND TRANSIT

The Existing Conditions memorandum identified the need for a new marked pedestrian crossing of 8th Street, sidewalks along Ash Street, Ash Road, 3rd Street (OR 221), and Ferry Street (OR 155) as well as the need for bicycle facilities on all high-volume roads throughout Dayton. As shown in Figure 1, there is a significant amount of residential growth expected in the vacant areas served by these streets, especially Ash Street, Ash Road, and Ferry Street (OR 155).

East of downtown Dayton, there is a utility & foot bridge across the Yamhill River connecting Ferry Street (OR 155)/Water Street to Kreder Road at Alderman Park. The bridge span across the river was recently replaced, and the approach span bridge decks were recently renovated by the City. This bridge is the proposed location of a new vehicle connection that may be constructed as part of the Newberg-Dundee Bypass Phase 3.

Along City streets, developers are required to provide street frontage improvements per City code.[10] Coordination with ODOT will be required for frontage improvements (such as construction of sidewalks and bike facilities) along Ferry Street (OR 155) and 3rd Street (OR 221). The City will

[10] Section 7.2.3 General Development Standards, Dayton Municipal Code. Updated March 2025.

consider developing typical cross-sections including right-of-way width, sidewalks, and bike facilities in Memo #6: Proposed Solutions.

YCTA's Bus Stop Improvements project plans to enhance accessibility and amenities at all Dayton bus stops over the next few years.[11] Also, the Yamhill County Transit Development Plan[12] shows intent to increase the frequency of Route 44 service (Project SN3) and implement shopper/medical shuttle pilot projects (Project SN6).

ROADWAY SYSTEM

Street functional classification is an important tool for managing the roadway network. In Dayton, the functional classification system includes arterials, collectors, and local streets. This hierarchal system of roadways supports a network of streets that work together to serve travel needs on a local and regional level. Proper street functional classification ensures that expected travel demands can be safely served for all travel modes.

Arterial streets should generally be spaced about 1 mile apart, and collectors should be spaced approximately ¼ to ½ mile apart. Implementing formal street spacing standards should be considered.

Future land development will require construction of new streets to adequately serve areas of growth. This provides an opportunity for new collector streets (or improvements to existing streets) to provide north-south and east-west connectivity in the area west of Flower Lane. The City will consider providing a high-level concept of the new collector street alignments in Memo #6: Proposed Solutions.

AIR, MARINE, PIPELINE, AND RAIL

There are no air, marine, pipeline, or rail transportation facilities within Dayton's UGB that must be considered as part of the future conditions analysis.

[11] "Bus Stops," Yamhill County Transit. Accessed December 10, 2024. https://ycbus.org/bus-stops/

[12] Section 6, Yamhill County Transit Development Plan, September 2018.

APPENDIX

A. Zonal Cumulative Analysis (Trip Generation)
B. HCM 7th Vistro Reports

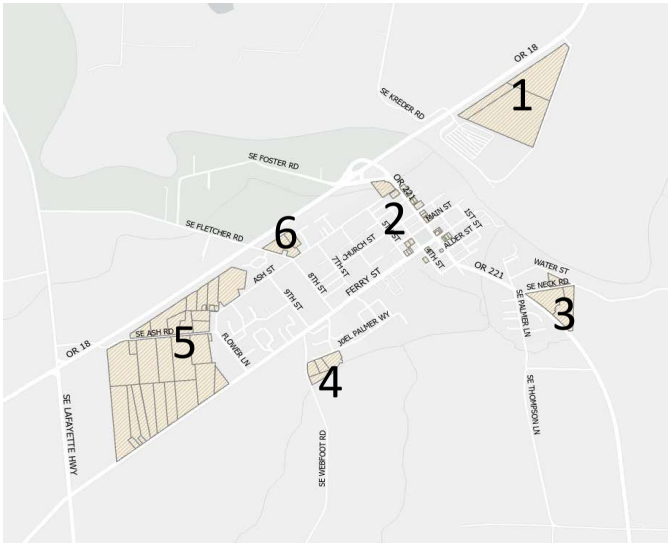
Totals by TAZ

TAZ	Future Zoning	Total Fueling Positions (Gas Station)	Total Acres (Park)	Total Building KSF	Total Housing Units (rounded up)		PM Peak Trips Generated	TAZ Total PM Peak Trips	
1	C (TAZ 1)	8.000	N/A	N/A	N/A		65	**160**	*includes passby reduction of 56%
	I	N/A	N/A	528.894	N/A		95		
2	C/R	N/A	N/A	19.735	N/A		78	**155**	*includes passby reduction of 40%
	C/R Residential	N/A	N/A	N/A	23		12		
	C	N/A	N/A	45.133	N/A		65		
3	R-2	N/A	N/A	N/A	113		64	**64**	
4	R-1	N/A	N/A	N/A	9		8	**8**	
5	R-1	N/A	N/A	N/A	318	447	299	**396**	
	R-2	N/A	N/A	N/A	129		73		
	C (TAZ 5)	N/A	N/A	14.748	N/A		21		
	P	N/A	22.865	N/A	N/A		3		
6	R-1	N/A	N/A	N/A	27		25	**25**	
							TOTAL	**807**	

Totals by Future Zoning Designation

Future Zoning	Total Fueling Positions (Gas Station)	Total Acres (Park)	Total Building KSF	Total Housing Units (rounded up)	PM Peak Trips Generated
C	N/A	N/A	45.133	N/A	65
C (TAZ 1)	8.000	N/A	N/A	N/A	65
C (TAZ 5)	N/A	N/A	14.748	N/A	21
C/R	N/A	N/A	19.735	N/A	78
C/R Residential	N/A	N/A	N/A	23	12
P	N/A	22.865	N/A	N/A	3
I	N/A	N/A	528.894	N/A	95
R-1	N/A	N/A	N/A	354	331
R-2	N/A	N/A	N/A	242	138
TOTAL				**619**	**807**

Map of Future Growth TAZs



Trip Generation Rates

Zone DKS	ITE Trip Gen	LUC	Weekday PM Peak Hour Average Trip Rate	Trip Rate Unit	notes	Passby Rate	In%	Out%
C	General Office Building	710	1.44	KSF			50%	50%
C (TAZ 1)	Convenience Store/Gas Station (TAZ 1 ONLY)	945	18.42	fueling position	assumed 8 fueling positions	56%	50%	50%
C (TAZ 5)	General Office Building	710	1.44	KSF			50%	50%
C/R	Strip Retail Plaza	822	6.59	KSF	assume 1/3 of area is lowrise multifamily housing, 2/3 is strip retail plaza	40%	50%	50%
C/R Residential	Multifamily Housing (Low-Rise)	220	0.51	dwelling unit			63%	37%
P	Public Park	411	0.11	acre			55%	45%
I	Warehousing	150	0.18	KSF	assumed 10% of developable area is building footprint		28%	72%
R-1	Single Family Detached	210	0.94	dwelling unit	5 units per acre (max		63%	37%
R-2	Single Family Attached	215	0.57	dwelling unit	10 units per acre		59%	41%

Intersection Level Of Service Report
Intersection 1: OR 18 WB/Foster Road

Control Type:	Two-way stop	Delay (sec / veh):	13.4
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.018

Intersection Setup

Name						
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	55.00		55.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		Yes		Yes	

Volumes

Name						
Base Volume Input [veh/h]	20	0	111	25	10	382
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	3.00	0.00	25.00	4.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	20	0	111	25	10	382
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	0	30	7	3	104
Total Analysis Volume [veh/h]	22	0	121	27	11	415
Pedestrian Volume [ped/h]	0		2		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.08	0.00	0.02	0.40
d_M, Delay for Movement [s/veh]	0.00	0.00	7.41	0.00	13.44	10.92
Movement LOS	A	A	A	A	B	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.22	0.22	2.07	2.07
95th-Percentile Queue Length [ft/ln]	0.00	0.00	5.40	5.40	51.87	51.87
d_A, Approach Delay [s/veh]	0.00		6.06		10.98	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	9.36					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 2: OR 18 EB/3rd Street (OR 221)

Control Type:	Two-way stop	Delay (sec / veh):	22.7
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.027

Intersection Setup

Name						
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	55.00		30.00		55.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		Yes		Yes	

Volumes

Name						
Base Volume Input [veh/h]	187	131	382	5	5	88
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	4.00	2.00	50.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	187	131	382	5	5	88
Peak Hour Factor	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	52	36	106	1	1	24
Total Analysis Volume [veh/h]	208	146	424	6	6	98
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.18	0.00	0.00	0.00	0.03	0.16
d_M, Delay for Movement [s/veh]	8.46	0.00	0.00	0.00	22.72	12.10
Movement LOS	A	A	A	A	C	B
95th-Percentile Queue Length [veh/ln]	0.40	0.40	0.00	0.00	0.66	0.66
95th-Percentile Queue Length [ft/ln]	9.99	9.99	0.00	0.00	16.53	16.53
d_A, Approach Delay [s/veh]	4.97		0.00		12.71	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	3.47					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 3: Ferry Street (OR 155)/3rd Street (OR 221)

Control Type:	All-way stop	Delay (sec / veh):	15.8
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.658

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	108	159	0	5	275	109	113	15	135	0	10	5
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	6.00	8.00	0.00	0.00	9.00	2.00	8.00	10.00	9.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	108	159	0	5	275	109	113	15	135	0	10	5
Peak Hour Factor	0.8800	0.8800	0.8800	0.8800	0.8800	0.8800	0.8800	0.8800	0.8800	0.8800	0.8800	0.8800
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	31	45	0	1	78	31	32	4	38	0	3	1
Total Analysis Volume [veh/h]	123	181	0	6	313	124	128	17	153	0	11	6
Pedestrian Volume [ped/h]	2			6			6			3		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	622	673	614	556
Degree of Utilization, x	0.49	0.66	0.49	0.03

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	2.68	4.93	2.65	0.09
95th-Percentile Queue Length [ft]	67.12	123.37	66.34	2.36
Approach Delay [s/veh]	14.19	18.05	14.28	9.67
Approach LOS	B	C	B	A
Intersection Delay [s/veh]	15.75			
Intersection LOS	C			

Intersection Level Of Service Report
Intersection 4: Ferry Street (OR 155)/5th Street

Control Type:	Two-way stop	Delay (sec / veh):	16.9
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.019

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	0	0	0	5	0	15	10	298	5	5	307	5
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.00	0.00	0.00	1.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	5	0	15	10	298	5	5	307	5
Peak Hour Factor	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	1	0	4	3	88	1	1	90	1
Total Analysis Volume [veh/h]	0	0	0	6	0	18	12	351	6	6	361	6
Pedestrian Volume [ped/h]	0			10			0			2		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.02	0.00	0.03	0.01	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	16.65	16.06	10.21	16.86	16.40	10.70	8.06	0.00	0.00	7.97	0.00	0.00
Movement LOS	C	C	B	C	C	B	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.14	0.14	0.14	0.02	0.02	0.02	0.01	0.01	0.01
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	3.61	3.61	3.61	0.51	0.51	0.51	0.25	0.25	0.25
d_A, Approach Delay [s/veh]	14.31			12.24			0.26			0.13		
Approach LOS	B			B			A			A		
d_I, Intersection Delay [s/veh]	0.57											
Intersection LOS	C											

Intersection Level Of Service Report
Intersection 5: Ferry Street (OR 155)/8th Street

Control Type:	Two-way stop	Delay (sec / veh):	19.3
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.227

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	0	5	5	66	5	46	30	202	5	5	257	50
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	4.00	0.00	0.00	5.00	1.00	0.00	0.00	1.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	5	5	66	5	46	30	202	5	5	257	50
Peak Hour Factor	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	1	1	19	1	14	9	59	1	1	76	15
Total Analysis Volume [veh/h]	0	6	6	78	6	54	35	238	6	6	302	59
Pedestrian Volume [ped/h]	0			5			0			2		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.02	0.01	0.23	0.02	0.08	0.03	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	16.48	15.33	9.69	19.34	18.67	13.96	8.12	0.00	0.00	7.71	0.00	0.00
Movement LOS	C	C	A	C	C	B	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.08	0.08	0.08	1.36	1.36	1.36	0.06	0.06	0.06	0.01	0.01	0.01
95th-Percentile Queue Length [ft/ln]	1.88	1.88	1.88	33.97	33.97	33.97	1.49	1.49	1.49	0.26	0.26	0.26
d_A, Approach Delay [s/veh]	12.51			17.20			1.02			0.13		
Approach LOS	B			C			A			A		
d_I, Intersection Delay [s/veh]	3.59											
Intersection LOS	C											

Intersection Level Of Service Report
Intersection 6: Ferry Street (OR 155)/Flower Lane

Control Type:	Two-way stop	Delay (sec / veh):	13.9
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.192

Intersection Setup

Name						
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		45.00		35.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		Yes		Yes	

Volumes

Name						
Base Volume Input [veh/h]	90	85	45	109	128	94
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	3.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	90	85	45	109	128	94
Peak Hour Factor	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	26	25	13	32	38	28
Total Analysis Volume [veh/h]	106	100	53	128	151	111
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.19	0.12	0.04	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	13.95	11.72	7.80	0.00	0.00	0.00
Movement LOS	B	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	1.32	1.32	0.09	0.09	0.00	0.00
95th-Percentile Queue Length [ft/ln]	33.08	33.08	2.27	2.27	0.00	0.00
d_A, Approach Delay [s/veh]	12.87		2.28		0.00	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	4.72					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 7: Ash Street/8th Street

Control Type:	All-way stop	Delay (sec / veh):	8.6
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.215

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	10	100	15	25	97	22	39	25	15	10	20	30
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	5.00	9.00	0.00	14.00	0.00	4.00	0.00	9.00	0.00	7.00	4.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	10	100	15	25	97	22	39	25	15	10	20	30
Peak Hour Factor	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	29	4	7	29	6	11	7	4	3	6	9
Total Analysis Volume [veh/h]	12	118	18	29	114	26	46	29	18	12	24	35
Pedestrian Volume [ped/h]	1			5			0			2		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	794	786	752	785
Degree of Utilization, x	0.19	0.22	0.12	0.09

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.68	0.81	0.42	0.30
95th-Percentile Queue Length [ft]	17.04	20.33	10.53	7.43
Approach Delay [s/veh]	8.57	8.83	8.46	8.04
Approach LOS	A	A	A	A
Intersection Delay [s/veh]	8.56			
Intersection LOS	A			

Intersection Level Of Service Report
Intersection 8: Ash Street/Flower Lane/Ash Road

Control Type:	All-way stop	Delay (sec / veh):	8.1
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.249

Intersection Setup

Name						
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		Yes		Yes	

Volumes

Name						
Base Volume Input [veh/h]	71	13	10	12	46	153
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	3.00	3.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	71	13	10	12	46	153
Peak Hour Factor	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	21	4	3	4	14	45
Total Analysis Volume [veh/h]	84	15	12	14	54	180
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

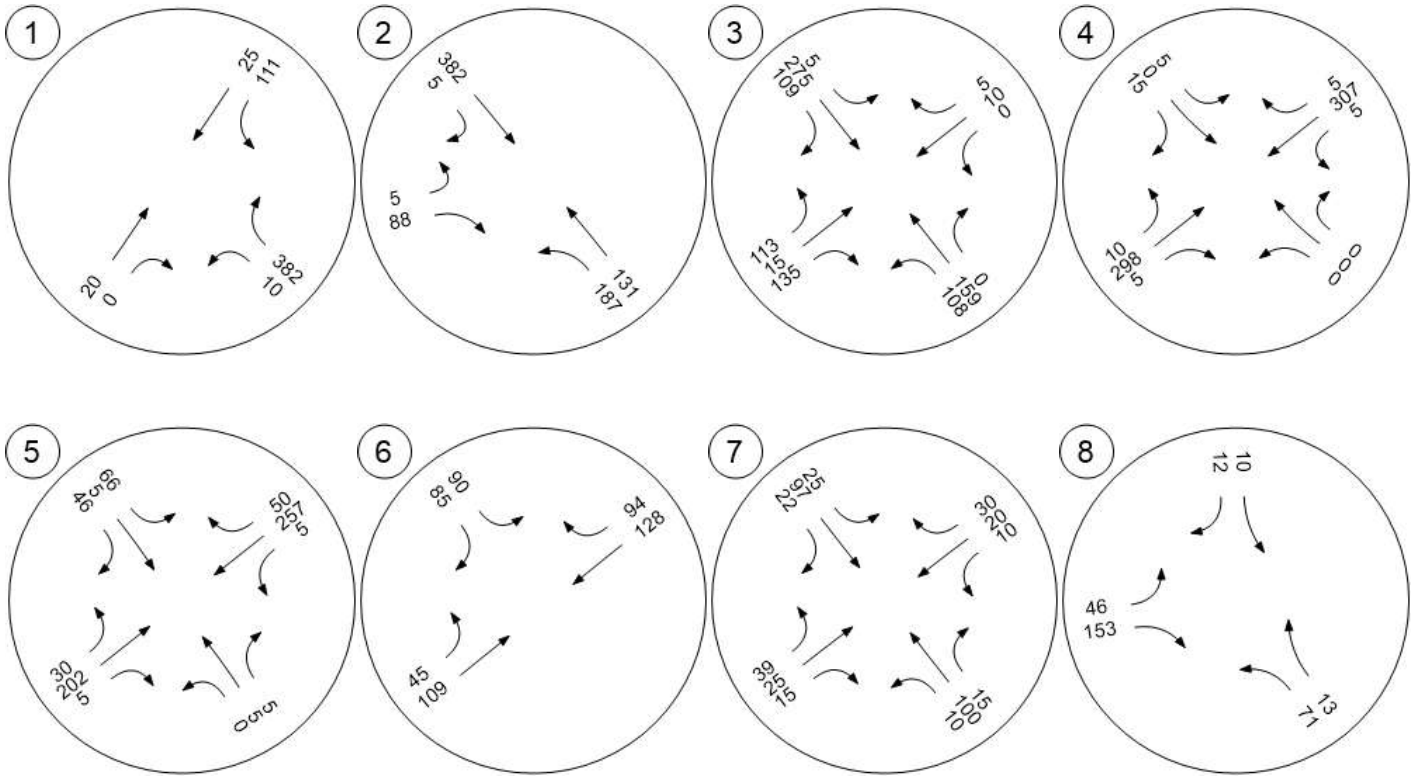
Lanes

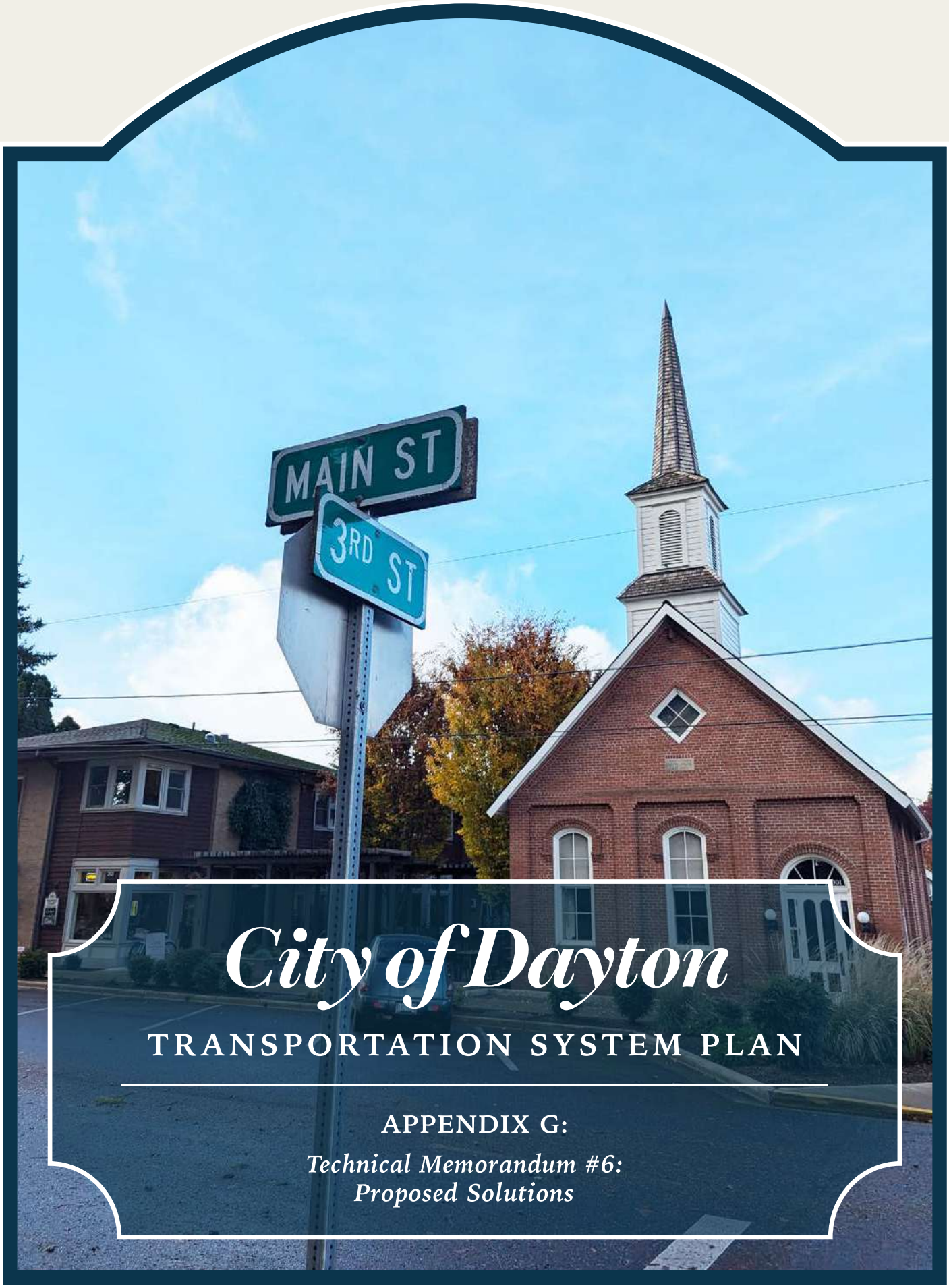
Capacity per Entry Lane [veh/h]	785	861	939
Degree of Utilization, x	0.13	0.03	0.25

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.43	0.09	0.98
95th-Percentile Queue Length [ft]	10.77	2.33	24.60
Approach Delay [s/veh]	8.25	7.31	8.10
Approach LOS	A	A	A
Intersection Delay [s/veh]	8.08		
Intersection LOS	A		

Traffic Volume - Base Volume





City of Dayton

TRANSPORTATION SYSTEM PLAN

APPENDIX G:

Technical Memorandum #6: Proposed Solutions

DKS 1050 SW 6TH AVENUE, SUITE 600 • PORTLAND, OR 97204 • 503.243.3500 • DKSASSOCIATES.COM

PROPOSED SOLUTIONS

DATE: July 31, 2025

TO: Dayton TSP Project Management Team

FROM: Carl Springer, Jenna Bogert, and Hallie Turk | DKS Associates

SUBJECT: Dayton Transportation System Plan Update DKS P#24439-000
Task 5.1 Proposed Solutions Memorandum #6

INTRODUCTION

In this stage of the Dayton Transportation System Plan (TSP) update, the project team presents proposed solutions that address the transportation challenges identified in the Existing Conditions Memo #4 and Future Conditions Memo #5. These solutions aim to create a safe, comfortable, and well-connected multimodal transportation network that will accommodate Dayton's projected growth through 2045. This memorandum lists the proposed solutions for Dayton's transportation system needs that were identified in the existing conditions analysis, future conditions analysis, and community input.

SUMMARY

Key components of the proposed solutions include:

Updates to street standards and classifications: New collector street cross-section standards, updates to street functional classification, and new minimum street spacing standards will align with growth projections and modern transportation needs.

Proposed transportation projects: Projects are grouped into roadway, safety, and multimodal categories. Notable projects include a redesign of Ferry Street (OR 155), collector street upgrades, and new pedestrian crossings.

Evaluation and prioritization: Each project was evaluated using a scoring system based on safety, mobility, livability, jurisdictional coordination, and equity. After scoring, projects were designated high, medium, or low priority to help guide implementation sequence.

Funding: Through 2045, Dayton is expected to have $3.96 million in available funding to allocate to transportation projects. Additional revenue sources such as grants and local funding mechanisms will be needed to supplement the expected sources of revenue.

STANDARDS, RECOMMENDATIONS, AND RESOURCES

STREET FUNCTIONAL CLASSIFICATION

Street functional classification is an important tool for managing the roadway network. The street functional classification system recognizes that individual streets do not act independently of one another but instead form a network that serves travel needs on local and regional levels. By designating the management and design requirements for each street classification, a hierarchal system is established to support a network of streets that perform as desired.

The proposed functional classification map, Figure 1, identifies recommended changes to existing street classifications and introduces new collector streets to support future development. Table 2 and Table 3 highlight the proposed changes.

TABLE 1: PROPOSED CHANGES TO FUNCTIONAL CLASSIFICATION ON EXISTING ROADWAYS

ROUTE	EXISTING FUNCTIONAL CLASSIFICATION	PROPOSED FUNCTIONAL CLASSIFICATION
5TH STREET	Local street	Collector
ASH ROAD	Local street	Collector

TABLE 2: FUNCTIONAL CLASSIFICATION FOR PROPOSED ROADWAYS

FUTURE ROUTE	PROPOSED FUNCTIONAL CLASSIFICATION
NEW STREETS IN UGB SWAP AREA	Collector (three streets)

Note: Alignments of the new collector streets are conceptual, and final alignments are to be determined by the City at the time of development.

STREET STANDARDS

Street cross-section standards for the City of Dayton are defined in the Dayton Municipal Code (City Code)[1] and Dayton Public Works Design Standards.[2] Local streets within neighborhoods may be designed using ODOT's Neighborhood Street Design Guidelines.[3] For pedestrian and bicycle facilities, standards can be found in the Oregon Bicycle and Pedestrian Plan.[4]

Section 7.2.302.04 of the City Code currently outlines local street standards using three designations:

[1] Section 7.2.302, Dayton Municipal Code. Effective October 2021.

[2] Division 2: Streets, Dayton Public Works Design Standards. Last updated June 2024.

[3] Neighborhood Street Design Guidelines, Oregon Department of Transportation, June 2001.

[4] Oregon Bicycle and Pedestrian Plan, Oregon Department of Transportation, May 2016.

- Local Street I, for streets serving up to 190 Average Daily Trips (ADT), or up to 79,999 square feet
- Local Street II, for streets serving 200-790 ADT, or 79,999-319,999 square feet
- Local Street III, for streets serving 800 or more ADT, or more than 320,000 square feet

City Code does not currently provide standards for collector or arterial streets, instead stating that streets will be evaluated on an individual basis. However, it is recommended to adopt the collector street standards in Table 3.

TABLE 3: RECOMMENDED COLLECTOR STREET MINIMUM STANDARDS

STREET CLASSIFICATION	CURB-TO-CURB WIDTH	CURB	MIN. SIDEWALK WIDTH FROM BACK OF CURB	MIN. ROW WIDTH
COLLECTOR	38 feet Two 12-foot travel lanes Parking 2 sides (7-foot parallel parking lanes)	6” per side (1 foot total)	5 feet Both sides	52 feet

Because the City does not have jurisdiction over any arterial roadways, the existing footnote in Section 7.2.302.04 of the City Code for arterial street standards should remain.

For any new roadway, re-development, or urban upgrade within the Dayton Urban Growth Boundary (UGB), the developer or controlling municipality is required to bring the street or adjacent right-of-way up to current standards, including any sidewalk infill. In addition, any new streets or modernization projects should incorporate current best practices for designing bicycle and pedestrian facilities.

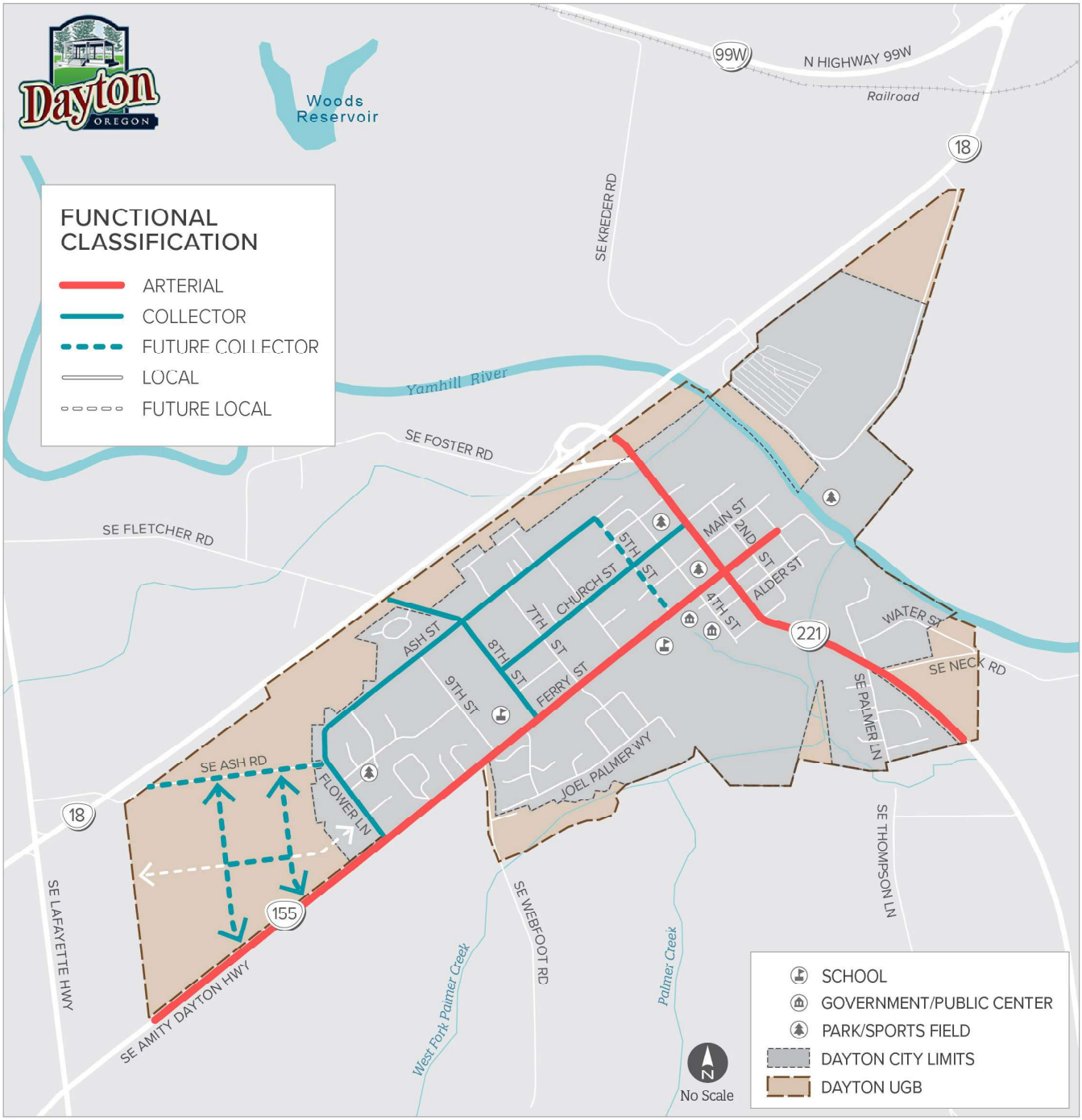


FIGURE 1: PROPOSED DAYTON FUNCTIONAL CLASSIFICATIONS

ACCESS SPACING

Access management is a broad set of techniques that balance the need for efficient, safe, and timely travel with the ability to allow access to individual destinations. Appropriate access management standards and techniques can reduce congestion and accident rates and may reduce the need for construction of additional roadway capacity.

For City-owned collector and local streets,[5] driveway spacing standards are currently in place; however, no standards have been adopted for street-to-street spacing. It is recommended that the City adopt minimum street spacing guidelines for its collector and local streets. These standards are presented in Table 4.

TABLE 4: RECOMMENDED ACCESS SPACING STANDARDS FOR CITY STREETS

STREET CLASSIFICATION	(EXISTING) MINIMUM DRIVEWAY/ACCESS SPACING STANDARD [A]	(RECOMMENDED) MINIMUM STREET SPACING STANDARD
COLLECTOR	75 feet	150 feet
LOCAL	25 feet	150 feet

[A] Driveway/access spacing standards are listed in the City Code Section 7.2.307.03.

New street subdivision standards state a maximum block length of 600 feet per the City Code Section 7.2.307.04.

MOBILITY STANDARDS

Mobility standards, or targets, are the thresholds set by an agency for the maximum amount of motor vehicle congestion that is acceptable for a given roadway. Adopted mobility standards can be used to prioritize investment decisions, help the City ensure that transportation facilities are improved in a timely manner to support new growth, and prevent a proposed development's traffic demand from exceeding available capacity.

CITY MOBILITY STANDARDS

The City of Dayton has not adopted an intersection mobility standard. A typical mobility standard for cities of its size is Level of Service (LOS) D, which equates to a maximum allowed average delay per vehicle for the critical approach lane of 35 seconds at stop-controlled intersections during either the AM peak hour or PM peak hour.

The future 2045 no build conditions analysis from Memo #5, Future Conditions Analysis, showed that all study intersections are projected to operate at LOS C or better. This indicates that a

[5] There are no City-owned arterial streets in Dayton. The streets classified as arterials – OR 18, Ferry Street (OR 155), and 3rd Street (OR 221) – fall under ODOT jurisdiction, and their access spacing standards are defined in the Oregon Highway Plan. Therefore, no arterial access spacing standards are recommended.

mobility standard of LOS D is appropriate and attainable for City streets. Therefore, it is recommended to adopt an intersection mobility standard of LOS D for the peak hour.

ODOT MOBILITY STANDARDS

All intersections under ODOT jurisdiction in Dayton must comply with the mobility targets set forth in the Oregon Highway Plan (OHP). ODOT uses volume-to-capacity (v/c) ratios as performance measures for mobility rather than LOS. The ODOT v/c targets vary with highway classification, area type, and posted speeds.

As noted in the Future Conditions Analysis (Memo #5), all study intersections under ODOT jurisdiction are projected to meet these mobility targets through 2045.

TRANSPORTATION IMPACT ANALYSIS (TIA) GUIDELINES

The development review process is designed to manage growth in a responsible and sustainable manner. By assessing the transportation impacts associated with land use proposals and requiring adequate facilities to be in place to accommodate those impacts, the City of Dayton can maintain a safe and efficient transportation system concurrently with new development, diffusing the cost of system expansion. Transportation Impact Analysis (TIA) guidelines implement Section 660-012-0045 of the State Transportation Planning Rule (TPR), which require a process to apply conditions to land use proposals to minimize impacts on and to protect transportation facilities.

A TIA must be submitted with a land use application at the request of the City of Dayton or if the proposal is expected to involve one or more of the following criteria:

1. A change in use, a change in zoning, a change in Comprehensive Plan designation, or a change in access.
2. An increase in net trip generation of 25 AM or PM peak hour trips, or more than 250 daily trips.
3. An increase in the use of adjacent streets by 10 or more vehicles per day exceeding 20,000-pound gross vehicle weight.
4. A requirement by Yamhill County or ODOT to address operational or safety concerns on facilities under their jurisdiction.
5. *For non-residential developments:* Changes to local street connectivity that would impact travel patterns.
6. *For non-residential developments:* Potential impacts to pedestrian and bicycle routes, including Safe Routes to School.
7. *For non-residential developments:* The location of an existing or proposed access driveway does not meet minimum access spacing or sight distance requirements.

The City shall maintain the right to waive a TIA, even if one of these criteria are met.

The study area must include all site accesses and adjacent roadways and intersections. The study area must also include all off-site major intersections impacted by 25 or more peak hour vehicle trips within one mile of the site. The City Engineer must approve the defined study area prior to commencement of the TIA and may choose to waive the study of certain intersections if deemed unnecessary.

NEIGHBORHOOD TRAFFIC MANAGEMENT

Neighborhood Traffic Management (NTM) describes strategies that improve safety and livability on residential streets. Essentially, these neighborhood streets place a priority on access over mobility and favor active transportation (such as walking and biking) over vehicles while still allowing access for service vehicles and emergency responders. Table 5 lists common neighborhood traffic management strategies that could be appropriate for neighborhood streets in Dayton.

TABLE 5: NEIGHBORHOOD TRAFFIC MANAGEMENT (NTM) STRATEGIES

NTM STRATEGY	DESCRIPTION	IMPACT
SPEED HUMP/ SPEED CUSHION	Speed humps extend the entire width of the roadway and protrude just a few inches off the roadway at their peak. Speed cushions also extend the entire width but have wheel cutouts for vehicles with larger wheelbases (like emergency vehicles and buses).	Lowers vehicle speed
SPEED FEEDBACK SIGN	Direct's a driver's attention to the posted speed limit and digitally displays the vehicle's speed on a message board	Lowers vehicle speed
CURB EXTENSION	Also known as curb bulb-outs; extends the curb toward the center of the street to narrow the roadway and reduce crossing distance for pedestrians	Narrows travel lane and heightens pedestrian visibility
CROSSWALK VISIBILITY ENHANCEMENTS	Updating or adding crosswalk signage/striping or rectangular rapid flashing beacon (RRFB) to make pedestrian crossings more visible	Heightens pedestrian visibility
CENTER ISLAND	A round island in the middle of an intersection	Lowers vehicle speed through intersection
RAISED MEDIAN	A raised curb, generally 2-3 feet in width, placed in the center of a roadway segment to divert traffic laterally to slow vehicle speeds	Lowers vehicle speeds along roadway segment
LANE STRIPING	Delineates parking areas, travel lanes, bike lanes, and walking areas; can be used to narrow travel lanes to reduce vehicle speeds	Enhances street design and driver predictability

SOLUTIONS

This section describes all proposed solutions to address Dayton's transportation deficiencies and needs.

PROJECT CATEGORIES

Solutions are organized into projects across three categories:

- Roadway (R): Projects along segments that alter the roadway or roadside character, or new road construction projects
- Safety (S): Projects that address transportation safety needs
- Multimodal (M): Projects that provide upgrades for pedestrian and/or bicycle travel

Projects are shown on a map in Figure 2 and described in Table 6.

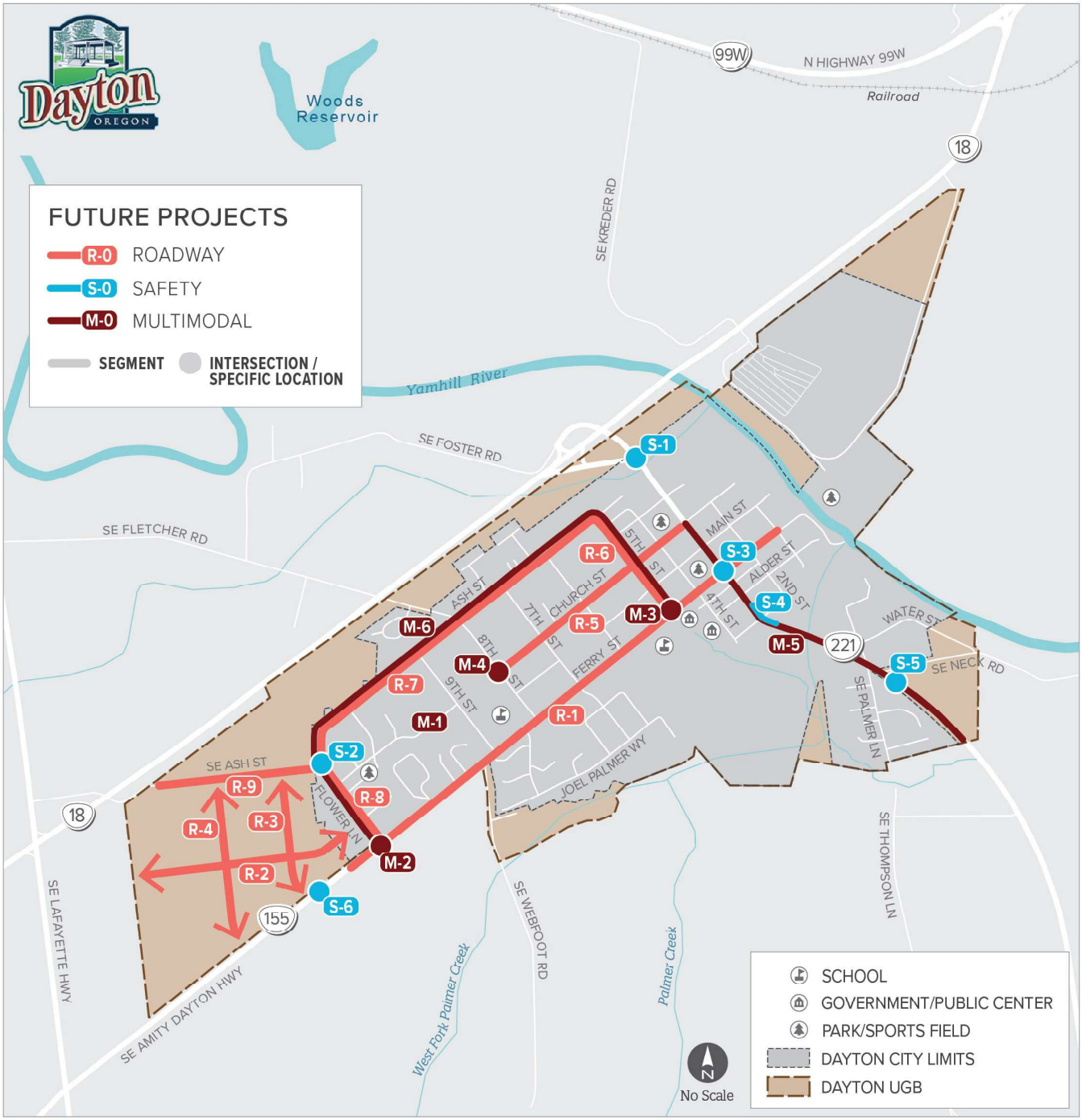


FIGURE 2: DAYTON TSP PROJECTS

TABLE 6: DAYTON TSP PROPOSED SOLUTIONS

CATEGORY	PROJECT NAME	DESCRIPTION	GAPS/NEED ADDRESSED
R-1	**Ferry Street Improvements**	Redesign Ferry Street from 1st Street to the western city limits to include buffered or separated bicycle facilities, sidewalk improvements, street furniture, landscaping, and on-street parking improvements.	Bike facility need under existing conditions
R-2	**New Public Street 1 (Collector/Local)**	New east-west collector/local street south of Ash Road and west of Flower Lane [A]	Collector street to support future development
R-3	**New Public Street 2 (Collector)**	New north-south collector street south of Ash Road and west of Flower Lane [A]	Collector street to support future development
R-4	**New Public Street 3 (Collector)**	New north-south collector street south of Ash Road and west of Flower Lane [A]	Collector street to support future development
R-5	**Church Street Collector Upgrades**	Upgrade Church Street to meet collector street cross-section standards; includes sidewalk and curb improvements	Improve street to meet standards
R-6	**5th Street Collector Upgrades**	Upgrade 5th Street to meet collector street cross-section standards; includes sidewalk and curb improvements	Improve street to meet standards
R-7	**Ash Street Collector Upgrades**	Upgrade Ash Street to meet collector street cross-section standards; includes sidewalk and curb improvements Additionally, implement traffic calming treatments west of 8th Street such as: • Raised intersection at Ash Street/9th Street • Marked crosswalks • Curb extensions	Improve street to meet standards
R-8	**Flower Lane Collector Upgrades**	Upgrade Flower Lane to meet collector street cross-section standards; includes sidewalk and curb improvements	Improve street to meet standards
R-9	**Ash Road Collector Upgrades**	Upgrade Ash Road to meet collector street cross-section standards; includes sidewalk and curb improvements	Improve street to meet standards

CATEGORY	PROJECT NAME	DESCRIPTION	GAPS/NEED ADDRESSED
S-1	**OR 18 EB Off-Ramp/ OR 221 Improvements**	**Short-term**: Install low-cost stop-controlled intersection visibility upgrades through signing and striping improvements **Long-term:** Conduct intersection control evaluation (ICE) to determine preferred traffic control and safety improvements	Safety deficiency under existing conditions
S-2	**Ash Street/Ash Road/ Flower Lane Improvements**	Construct traffic island/mini roundabout. Consider mountable island for heavy vehicle access.	Safety deficiency under existing conditions
S-3	**Ferry Street/3rd Street Safety Improvements**	Install pedestrian crosswalks and Americans with Disabilities Act (ADA)-compliant curb ramps on all approaches; install "Stop Ahead" signage and other stop sign visibility enhancements	Traffic calming need per community feedback
S-4	**OR 221 Rumble Strips**	Install centerline rumble strips or other horizontal curve enhancements along OR 221 curve south of Mill Street.	Safety deficiency per community feedback
S-5	**OR 221 Gateway Treatment**	At existing gateway treatment, install additional traffic calming gateway treatments such as landscaping, raised medians, lighting, artwork, and curb extensions near Neck Road on OR 221 to encourage lower speeds approaching the downtown area	Traffic calming need per community feedback
S-6	**Ferry Street Gateway Treatment**	At existing gateway treatment, install additional traffic calming gateway treatments such as landscaping, raised medians, lighting, artwork, and curb extensions along Ferry Street (OR 155) to encourage lower speeds approaching the downtown area	Traffic calming need per community feedback
M-1	**Citywide Sidewalk Infill**	Infill gaps in sidewalk on key walking routes	Improve streets to provide pedestrian connectivity
M-2	**Flower Lane Marked Crosswalk**	Improve pedestrian crossing of Flower Lane at Ferry Street approach by striping a marked crosswalk and removing overgrown vegetation to maximize sight distance	Safety deficiency per community feedback

CATEGORY	PROJECT NAME	DESCRIPTION	GAPS/NEED ADDRESSED
M-3	**Ferry Street Enhanced Pedestrian Crossing**	Install pedestrian crossing enhancements at marked crosswalks on Ferry Street at 5th Street *OR* near the elementary school by installing curb extensions and rectangular rapid flashing beacons (RRFB*)* **Location of pedestrian crossing enhancements to be determined based on traffic analysis*	Crossing need under existing conditions
M-4	**8th Street Marked Crosswalk**	Construct new marked pedestrian crossing of 8th Street at Church Street. Consider curb extensions, high-visibility crosswalk striping, and school crossing signage to improve visibility	Crossing need under existing conditions and safety deficiency per community feedback
M-5	**OR 221 Pedestrian and Bike Improvements**	Construct multimodal improvements such as bike lanes, sidewalks, and enhanced crossings along OR 221 (3rd Street) from Church Street to southern UGB. Consider enhanced crossing near Neck Road	Bike facility need under existing conditions
M-6	**Neighborhood Greenway Improvements**	Create neighborhood greenway loop on 5th Street, Ash Street, and Flower Lane using shared bike lane markings (sharrows) and signage	Bike facility need under existing conditions

[A] Alignment shown is conceptual and final alignments are to be determined by the City at the time of future development.

PROJECT R-1: FERRY STREET IMPROVEMENTS (OR 155)

Project **R-1** will reconstruct Ferry Street to provide a multimodal corridor with improved sidewalks, bike facilities, and delineated on-street parking. These upgrades address the need for bike facilities on the City's highest-volume roadway. The project will also consider adding electric vehicle chargers near key destinations such as Courthouse Square Park and City Hall to support the central business district. The City of Dayton will be responsible for any additional landscaping maintenance.

Because Ferry Street (OR 155) is owned and maintained by ODOT, solutions are guided by the Highway Design Manual (HDM).[6] All improvements on Ferry Street must consider the corridor's

[6] Part 300: Cross Section Elements, Highway Design Manual. Oregon Department of Transportation. January 2025.

urban design context and comply with HDM descriptions for land use and roadway cross sections (including the pedestrian, transition, and travelway realms).

Potential urban design contexts for the project corridor are listed below:

- 1st Street to 2nd Street: Residential Corridor
- 2nd Street to 5th Street: Traditional Downtown/Central Business District (CBD)
- 5th Street to Flower Lane: Urban Mix

For Ferry Street improvements to comply with the HDM, cross section elements must be constructed to the minimum widths shown below. Minimum widths may change if other design elements, such as turn lanes, become part of the project.

TABLE 7: HDM DESIGN ELEMENT WIDTHS

REALM	DESIGN ELEMENT	DESIGN ELEMENT WIDTH			
		TRADITIONAL DOWNTOWN/ CENTRAL BUSINESS DISTRICT	URBAN MIX	RESIDENTIAL CORRIDOR	SUBURBAN FRINGE
PEDESTRIAN REALM	Frontage zone	2′ to 4′	1′		
	Pedestrian zone	8′ to 10′	5′ to 8′		
	Buffer/furniture zone	0′ to 6′			
	Curb/gutter	0.5′ to 2′			
TRANSITION REALM	Curb-separated bike lane width	7′ to 8′			
	On-street bike lane width	5′ to 6′			6′
	Bike/street buffer	2′ to 3′	2′ to 4′	2′ to 5′	
	On-street parking	7′ to 8′	8′	n/a	
TRAVELWAY REALM	Travel lane	11′ preferred 12′ optional	11′ to 12′		
	Left side/right side shy distance	0′ to 1′			

No specific design is being recommended at this time, as extensive public outreach, coordination, and preliminary survey must take place to finalize a design. Example cross sections that may

comply with the HDM are provided below. (Parking on one side of the street may be removed due to right-of-way constraints.)

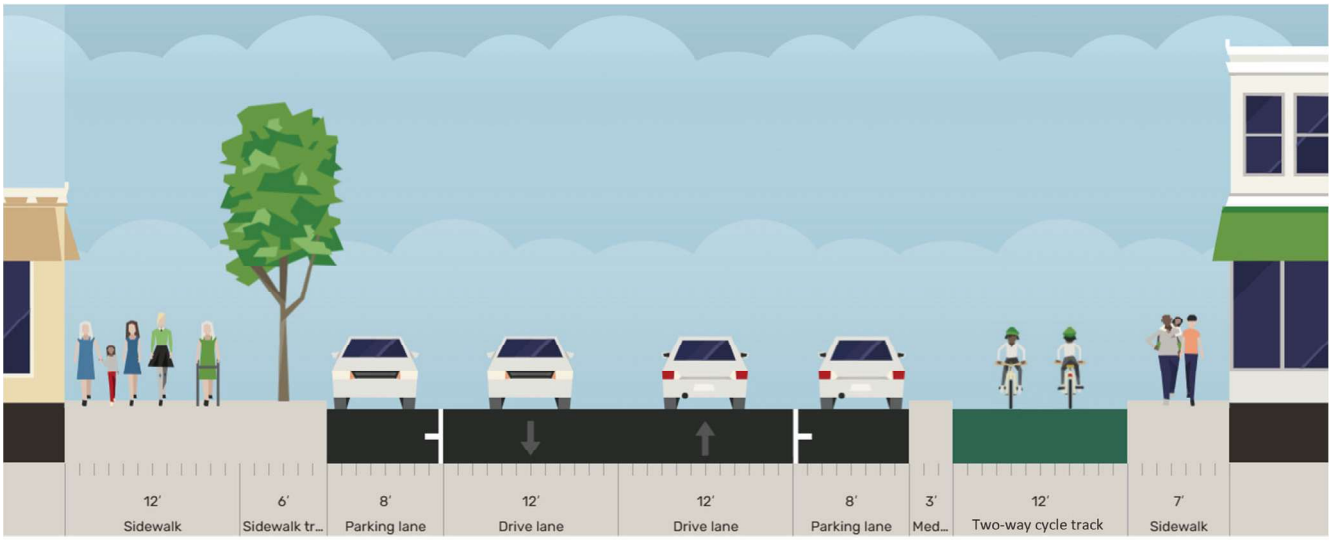


FIGURE 3: FERRY STREET OPTION 1 – TWO-WAY CYCLE TRACK

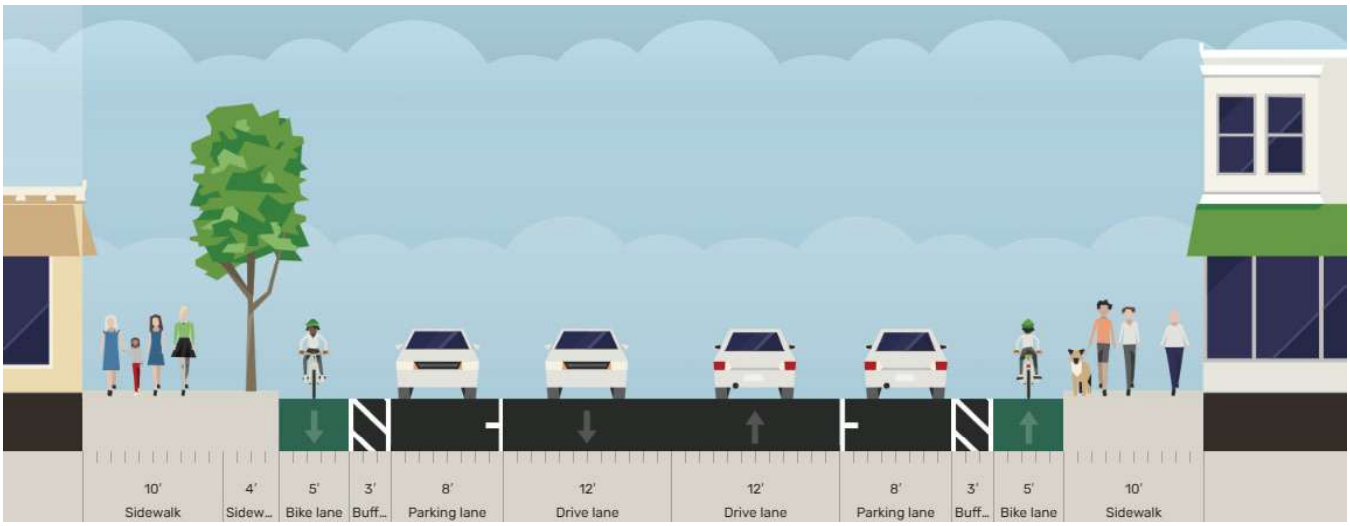


FIGURE 4: FERRY STREET OPTION 2 – PROTECTED BIKE LANES (OUTSIDE PARKING AREA)

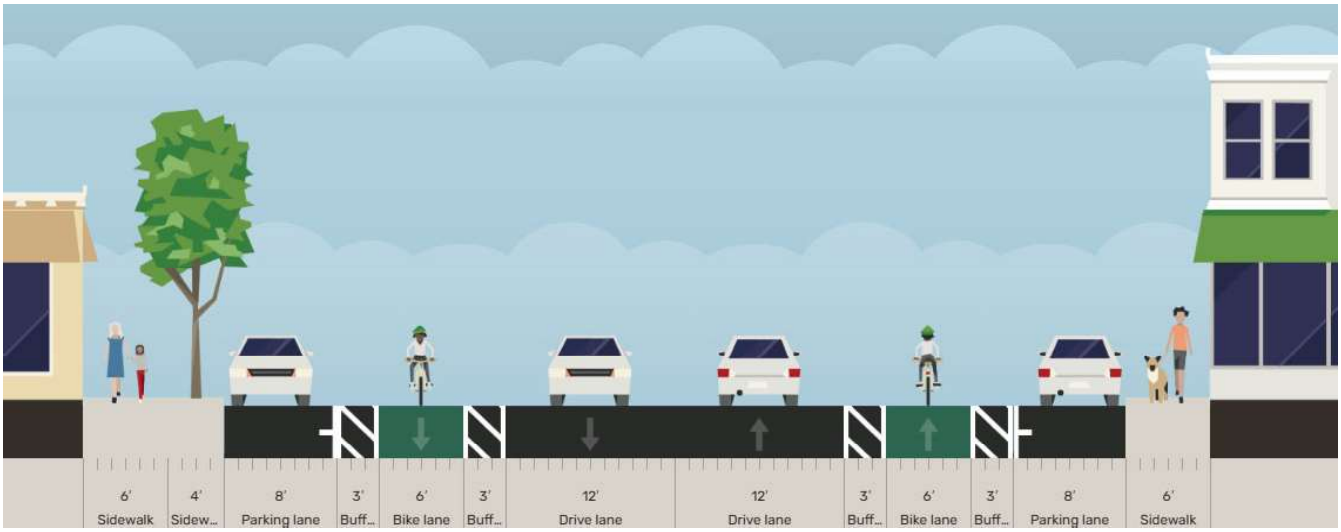


FIGURE 5: FERRY STREET OPTION 3 – BUFFERED BIKE LANES (INSIDE PARKING AREA)

EVALUATION AND PRIORITIZATION

Proposed projects were scored based on the evaluation criteria shown in Table 8. Although the evaluation criteria are a mix of qualitative and quantitative criteria, each criterion will receive a numerical score of -2 to +2 for each project. Projects will be evaluated on whether they have a predominately positive, negative, or neutral (or unknown) impact related to the stated criterion, including whether the positive or negative impact is high or low.

TABLE 8: EVALUATION CRITERIA

CATEGORY	CRITERIA	POTENTIAL SCORE PER CATEGORY
GOAL 1: SAFETY	- Reduces crash frequency or severity by a proven crash reduction factor - Mitigates a condition that discourages active transportation - Improves safety for all ages and abilities (people with disabilities, children, etc.) - Improves safe walking and biking routes to/from schools	-8 to +8
GOAL 2: MOBILITY, ACCESSIBILITY, AND CONNECTIVITY	- Mitigates traffic operation deficiency (i.e., volume to capacity, delay, queuing) - Improves mobility and access to the downtown and central business core - Increases transportation mode choices - Encourages regional transit use - Improves street network connectivity	-10 to +10
GOAL 3: LIVABILITY AND OPPORTUNITY	- Promotes opportunities for recreation and provides healthy lifestyle opportunities - Promotes a pedestrian-friendly downtown - Provides better access or connectivity between residential areas and activity centers - Improves access to local and regional employment centers - Improves Level of Traffic Stress (bike and pedestrian comfort)	-10 to +10
GOAL 4: COORDINATION	- Improves congestion and delay on regional facilities/highways - Aligns with other local and regional policies and plans	-4 to +4

CATEGORY	CRITERIA	POTENTIAL SCORE PER CATEGORY
GOAL 5: EQUITY AND SUSTAINABILITY	- Is located within an underserved community - Is supported by the community through public engagement - Provides a social benefit, including impact and benefit for underserved populations - Reduces greenhouse gas emissions	-8 to +8
	Total:	-40 to +40

After each project was evaluated, a priority ranking was assigned based on the number of points received.

High Priority: >25 Points

Medium Priority: 15-25 Points

Low Priority: <15 Points

High priority projects are listed in Table 9.

TABLE 9: DAYTON TSP HIGH PRIORITY PROJECTS

Project ID	Project Name	Description	Total Points	Priority
R-1	**Ferry Street Improvements**	Redesign Ferry Street from 1st Street to western city limits to include buffered or separated bicycle facilities, sidewalk improvements, street furniture, landscaping, and on-street parking improvements	31	High
M-3	**Ferry Street Enhanced Pedestrian Crossing**	Install pedestrian crossing enhancements at the marked crosswalks on Ferry Street at 5th Street *OR* near the elementary school by installing curb extensions and rectangular rapid flashing beacons (RRFB*)* **Location of pedestrian crossing enhancements to be determined based on traffic analysis*	29	High
S-3	**Ferry Street/3rd Street Safety Improvements**	Install pedestrian crosswalks, ADA-compliant curb ramps on all approaches; install "Stop Ahead" signage and other stop sign visibility enhancements	28	High
M-1	**Citywide Sidewalk Infill**	Infill gaps in sidewalk on key walking routes	27	High
M-6	**Neighborhood Greenway Improvements**	Create neighborhood greenway using shared bike lane markings (sharrows) and signage	27	High
M-5	**OR 221 Pedestrian and Bike Improvements**	Construct multimodal improvements such as bike lanes, sidewalks, and enhanced crossings along OR 221 (3rd Street) from Church Street to southern UGB	26	High
S-1*	**OR 18 EB Off-Ramp/OR 221 Improvements**	**Short-term:** Install low-cost stop-controlled intersection visibility upgrades through signing and striping improvements	-	High

The short-term Project **S-1 is included as a high-priority project because it includes low-cost safety countermeasures that can be implemented quickly.*

Medium priority projects are listed in Table 10.

TABLE 10: DAYTON TSP MEDIUM PRIORITY PROJECTS

Project ID	Project Name	Description	Total Points	Priority
R-5	**Church Street Collector Upgrades**	Upgrade Church Street to meet collector street cross-section standards; includes sidewalk and curb improvements	25	Medium
R-6	**5th Street Collector Upgrades**	Upgrade 5th Street to meet collector street cross-section standards; includes sidewalk and curb improvements	25	Medium
M-4	**8th Street Marked School Crosswalk**	Construct new marked school crossing of 8th Street at Church Street. Consider curb extensions, high-visibility crosswalk striping, and school crossing signage to improve visibility	25	Medium
R-7	**Ash Street Collector Upgrades**	Upgrade Ash Street to meet collector street cross-section standards; includes sidewalk and curb improvements Implement traffic calming treatments west of 8th Street such as: • Raised intersection at Ash Street/9th Street • Marked crosswalks • Curb extensions	24	Medium
R-8	**Flower Lane Collector Upgrades**	Upgrade Flower Lane to meet collector street cross-section standards; includes sidewalk and curb improvements	24	Medium
R-9	**Ash Road Collector Upgrades**	Upgrade Ash Road to meet collector street cross-section standards; includes sidewalk and curb improvements	24	Medium
M-2	**Flower Lane Marked Crosswalk**	Improve pedestrian crossing of Flower Lane at Ferry Street approach by striping a marked crosswalk and removing overgrown vegetation to maximize sight distance	22	Medium
S-2	**Ash Street/Ash Road/Flower Lane Improvements**	Construct traffic island/mini roundabout	21	Medium

Low priority projects are listed in Table 11.

TABLE 11: DAYTON TSP LOW PRIORITY PROJECTS

Project ID	Project Name	Description	Total Points	Priority
S-1	**OR 18 EB Off-Ramp/OR 221 Improvements**	**Long-term:** Conduct intersection control evaluation (ICE) to determine preferred traffic control and safety improvements	12	Low
R-2	**New Collector Street 1**	New east-west collector street south of Ash Road and west of Flower Lane [A]	11	Low
R-3	**New Collector Street 2**	New north-south collector street south of Ash Road and west of Flower Lane [A]	11	Low
R-4	**New Collector Street 3**	New north-south collector street south of Ash Road and west of Flower Lane [A]	11	Low
S-4	**OR 221 Rumble Strips**	Install centerline rumble strips or other horizontal curve enhancements along OR 221 curve south of Mill Street	6	Low
S-5	**OR 221 Gateway Treatment**	At existing gateway treatment, install additional traffic calming gateway treatments such as landscaping, raised medians, lighting, artwork, and curb extensions near Neck Road on OR 221 to encourage lower speeds approaching the downtown area	4	Low
S-6	**Ferry Street Gateway Treatment**	At existing gateway treatment, install additional traffic calming gateway treatments such as landscaping, raised medians, lighting, artwork, and curb extensions along Ferry Street (OR 155) to encourage lower speeds approaching the downtown area	4	Low

[A] Alignment shown is conceptual and final alignments are to be determined by the City at the time of future development.

A detailed breakdown of each project's evaluation score is provided in Appendix A.

FUNDING

CURRENT FUNDING SOURCES

The City currently has two consistent revenue sources to fund transportation expenses: the State Gas Tax and System Development Charges (SDCs). Figure 6 summarizes the transportation revenue from the State Gas Tax and SDCs during the past five fiscal years for the City of Dayton. The average revenue per year for that period is $206,500.

Other historic transportation funding sources include the Small City Allotment Grant, Safe Routes to School Grant, and the Sidewalk Improvement Reimbursement Fund. These additional funds and grants are competitive and can have restrictions on the types of projects for which they can be used.

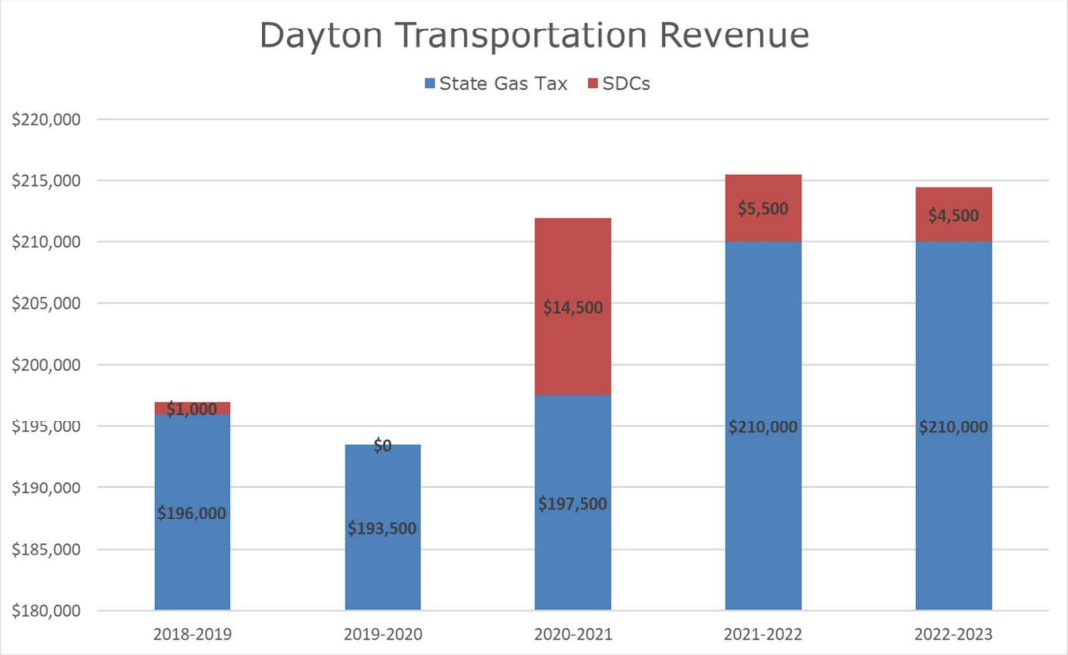


FIGURE 6: CONSISTENT SOURCES OF REVENUE FOR CITY OF DAYTON (2019-2023)

STATE GAS TAX (OR HIGHWAY TRUST FUND)

The Highway Trust Fund is funded by vehicle registration fees, gas tax, and other taxes/fees and is used for the creation, preservation, and maintenance of Oregon's transportation infrastructure. Cities and counties receive allocations of the fund on a per capita basis. Funds can be used only for the construction, reconstruction, maintenance, etc. of highways, roads, streets, bike paths, foot paths, and rest areas. The City of Dayton has received an average of $201,400 per year over the last 5 years.

SYSTEM DEVELOPMENT CHARGES (SDCS)

The City of Dayton collects an SDC fee from new developments to fund street and stormwater projects. State law restricts the use of SDC funds to capacity-adding projects, generally for constructing or improving portions of roadways impacted by the applicable development. SDCs cannot be used to fund improvements for existing deficiencies. The transportation SDC is a one-time development fee. The street and stormwater SDC rate is currently set at $1,125 per detached

single-family dwelling unit.[7] The SDC fee rate for other types of land use depends on the size of water meter needed.

ESTIMATED FUTURE FUNDING

The current revenue sources (State Gas Tax, SDCs, and miscellaneous) are estimated to provide a total of $6.524 million through 2045. This dollar amount consists of revenue from the City's street and stormwater SDC fee that reflects the assumed growth in housing and commercial/retail infill in the downtown area over the next 20 years. Actual revenues could potentially be less than these estimates.

Table 12 shows the total projected revenue through 2045 and the estimated expenses due to maintaining personnel, operations, and street maintenance. After those expenses, the remaining $3,964,000 can be spent on street and transportation projects.

Note that funds from grant sources, such as the Small City Allotment Fund or Safe Routes to School Grant, are included in Table 12. These funds would be pursued only with specific projects in mind.

TABLE 12: FUTURE FUNDING PROJECTION 2024 THROUGH 2045 (21 YEARS IN 2024 DOLLARS)

REVENUE SOURCE	FUNDING RESTRICTIONS	ESTIMATED THROUGH 2045	PERSONNEL, OPERATIONS, & MAINTENANCE ALLOCATION	AVAILABLE AMOUNT FOR TSP PROJECTS
STATE GAS TAX	Transportation-related	$4,855,000	$2,560,000	**$2,295,000**
STREET AND STORMWATER SYSTEM DEVELOPMENT CHARGES (SDC)	Capacity-adding projects	$1,480,000	$0	**$1,480,000**
MISCELLANEOUS REVENUE (E.G., SERVICES, INTEREST INCOME)	Unrestricted	$189,000	$0	**$189,000**
	TOTAL	**$6,524,000**	**$2,560,000**	**$3,964,000**

DEVELOPING A FINANCIALLY CONSTRAINED PROJECT LIST

The recommended transportation project list includes all identified projects for improving the City of Dayton transportation system, regardless of their priority or their likelihood of being funded. The

[7] https://www.daytonoregon.gov/page/admin_fee_schedule

TSP planning process eliminates any project that may not be feasible for reasons other than financial limitations (such as environmental or existing development limitations). The recommended projects will be divided into two lists based on their priority and likelihood of being funded.

- The Financially Constrained Project List identifies the highest priority projects that could be constructed with anticipated funding through 2045. Developing this list establishes reasonable expectations for planning purposes but does not commit the City to constructing them, nor does it limit the City to constructing those projects first.
- The Aspirational Project List refers to all other recommended projects that are not included in the Financially Constrained Project List.

Since the total cost of all recommended transportation projects will greatly exceed the amount of expected funding available in the next 20 years, it is critical that the City explore new revenue sources and be attuned to grant opportunities. It should be noted that some projects (such as new collector streets in the urban growth area) may be constructed and funded, completely or partially, by private development.

Table 13 lists the cost estimates for each TSP project.

TABLE 13: DAYTON TSP PROJECTS COST ESTIMATES

	PROJECT	COST ESTIMATE
R-1	**Ferry Street Improvements**	$9,300,000
R-2	**New Collector Street 1**	$7,400,000
R-3	**New Collector Street 2**	$3,700,000
R-4	**New Collector Street 3**	$4,600,000
R-5	**Church Street Collector Upgrades**	$6,810,000
R-6	**5th Street Collector Upgrades**	$3,590,000
R-7	**Ash Street Collector Upgrades**	$10,570,000
R-8	**Flower Lane Collector Upgrades**	$2,970,000
R-9	**Ash Road Collector Upgrades**	$5,400,000
S-1	**OR 18 EB Off-Ramp/OR 221 Improvements**	**Short-term***:* $50,000 **Long-term:** $30,000 for ICE report $3,000,000 to $6,000,000 for traffic control change
S-2	**Ash Street/Ash Road/Flower Lane Improvements**	$150,000
S-3	**Ferry Street/3rd Street Safety Improvements**	$600,000
S-4	**OR 221 Rumble Strips**	$75,000
S-5	**OR 221 Gateway Treatment**	$750,000
S-6	**Ferry Street Gateway Treatment**	$750,000
M-1	**Citywide Sidewalk Infill**	$2,450,000
M-2	**Flower Lane Crossing**	$150,000
M-3	**Ferry Street Enhanced Pedestrian Crossing**	$500,000
M-4	**8th Street Marked Crosswalk**	$250,000
M-5	**OR 221 Pedestrian and Bike Improvements**	$10,800,000
M-6	**Neighborhood Greenway Improvements**	$150,000
	TOTAL	**$77,045,000**

POTENTIAL ADDITIONAL FUNDING SOURCES

New transportation funding options include local taxes, assessments and charges, and state and federal appropriations, grants, and loans. All of these resources can be constrained based on a variety of factors, including the willingness of local leadership and the electorate to burden citizens and businesses, the availability of local funds to be dedicated or diverted to transportation issues from other competing City programs, and the availability of state and federal funds. Nonetheless, it is important for the City to consider available opportunities, such as those listed below, for enhanced funding for the transportation improvements that will be identified in the TSP, as the current sources will not be sufficient to meet the identified needs.

CITY REVENUE SOURCES

Increasing SDCs. SDCs from new developments are intended to offset the burden of development on the transportation system. The City of Dayton currently charges SDCs for streets/stormwater, parks, sewer, and water. Upon completion of this TSP update process, the City should re-evaluate the street/stormwater SDC rates based on the updated TSP. Increased SDC rates would generate additional funding beyond what is estimated in Table 12 for transportation projects.

General Fund revenues. At the discretion of the City Council, the City can allocate General Fund revenues to pay for its transportation program (General Fund revenues primarily include taxes and fees imposed by the City). This allocation is completed as a part of the City's annual budget process, but the funding potential of this approach is constrained by competing community priorities set by the City Council. General Fund resources can fund any aspect of the program, from capital improvements to operations, maintenance, and administration. Additional revenues available from this source are only available to the extent that either General Fund revenues are increased or City Council directs and diverts funding from other City programs.

Local street utility fees. A street utility fee is a recurring monthly charge that is paid by all residents and businesses within the city to support the provision and maintenance of the local street system. These funds are restricted for transportation operations and maintenance related projects only. Typical utility fees range from $2 to $10 per month.

STATE GRANTS AND FUNDS

Small city allotment (SCA). The SCA program is an annual allocation of state funds for local transportation projects in incorporated cities with populations of 5,000 or less. SCA funds may only be used on streets with inadequate capacity or streets that are in an unsafe condition.

Safe Routes to School (SRTS). The SRTS Program funds projects that improve connectivity for children to walk, bike, and roll to and from school. Funds are distributed as a reimbursement program through an open and competitive process. Funding is available for pedestrian and bicycle infrastructure projects within 2 miles of schools. These funds should be pursued for pedestrian and bicycle projects.

Oregon Community Paths (OCP). The OCP grant program helps communities create and maintain connections through multiuse paths and is funded by the state Multimodal Active Transportation fund and federal Transportation Alternatives Program fund.

ODOT All Road Transportation Safety (ARTS). ARTS is used to address safety challenges on public roads. Funding is distributed to each ODOT region, which collaborates with local governments to select projects that can reduce fatalities and serious injuries, regardless of whether they are local roads or state highways. Projects are built into the 4-year Statewide Transportation Improvement Program (STIP) timeframe (see below).

ODOT STIP Enhance funding. ODOT has modified the STIP funding process to allow local agencies to fund projects on non-state roadways. STIP projects enhance system connectivity and improve multimodal travel options. The updated TSP prepares the City to apply for STIP funding.

Oregon Transportation Infrastructure Bank (OTIB). The OTIB is a statewide revolving loan fund for roadway improvements, bicycle and pedestrian access, and transit capital projects. Projects are rated by OTIB staff with a regional advisory committee and require approval from the Oregon Transportation Commission.

NEXT STEPS

The list of proposed transportation projects will be presented to the Project Advisory Committee (PAC) and the general public at the second project Open House. The PAC meeting and Open House event will take place in Summer 2025.

Once feedback has been received from these groups, adjustments to the project list and project prioritization will be finalized, and planning-level cost estimates will be developed. The project team can then identify the financially constrained project list and aspirational project list and develop the Draft TSP.

APPENDIX

A. Dayton TSP Full Project List

Dayton TSP Update
Future Project List

Project ID	Project Name	Description	Associated Projects	Priority	Timeline	Cost
R-1	**Ferry Street Improvements**	Redesign Ferry Street from 1st Street to the western city limits to include buffered or separated bicycle facilities, sidewalk improvements, street furniture, landscaping, and on-street parking improvements	M-3	High	Long-term	High
R-2	**New Public Street 1 (Collector/Local)**	New east-west collector street south of Ash Road and west of Flower Lane **Alignment shown is conceptual and final alignments are to be determined by the City at the time of future development.*	R-3, R-4	Low	Long-term	High
R-3	**New Public Street 2 (Collector)**	New north-south collector street south of Ash Road and west of Flower Lane **Alignment shown is conceptual and final alignments are to be determined by the City at the time of future development.*	R-2, R-4	Low	Long-term	High
R-4	**New Public Street 3 (Collector)**	New north-south collector street south of Ash Road and west of Flower Lane **Alignment shown is conceptual and final alignments are to be determined by the City at the time of future development.*	R-2, R-3	Low	Long-term	High
R-5	**Church Street Collector Upgrades**	Upgrade Church Street to meet collector street cross-section standards, including sidewalk and curb improvements	M-4	Medium	Mid-term	High
R-6	**5th Street Collector Upgrades**	Upgrade 5th Street to meet collector street cross-section standards; includes sidewalk and curb improvements	M-6	Medium	Mid-term	High
R-7	**Ash Street Collector Upgrades**	Upgrade Ash Street to meet collector street cross-section standards; includes sidewalk and curb improvements Implement traffic calming treatments west of 8th Street such as: - Rasied intersection at Ash Street/9th Street - Marked crosswalks - Curb extensions	M-6	Medium	Mid-term	High
R-8	**Flower Lane Collector Upgrades**	Upgrade Flower Lane to meet collector street cross-section standards; includes sidewalk and curb improvements	M-6	Medium	Mid-term	High
R-9	**Ash Road Collector Upgrades**	Upgrade Ash Road to meet collector street cross-section standards, including sidewalk and curb improvements		Medium	Mid-term	High
S-1	**OR 18 EB Off-Ramp/OR 221 Improvements**	**Short-term**: Install low-cost stop-controlled intersection visibility upgrades through signing and striping improvements **Long-term:** Conduct intersection control evaluation (ICE) to determine preferred traffic control and safety improvements		High/Low	Short-Term/Long-Term	Low/High
S-2	**Ash Street/Ash Road/Flower Lane Improvements**	Construct traffic island/mini roundabout. Consider mountable island for heavy vehicle access		Medium	Short-term	Medium
S-3	**Ferry Street/3rd Street Improvements**	Install pedestrian crosswalks and ADA curb ramps on all approaches; install stop ahead signage and other stop sign visibility enhancements		High	Short-term	Low
S-4	**OR 221 Rumble Strips**	Install centerline rumble strips or other horizontal curve enhancements along OR 221 curve south of Mill Street		Low	Short-term	Low
S-5	**OR 221 Gateway Treatment**	At existing gateway treatment, install additional traffic calming gateway treatments such as landscaping, raised medians, lighting, artwork, and curb extensions near Neck Road on OR 221 to encourage lower speeds approaching the downtown area		Low	Short-term	Low
S-6	**Ferry Street Gateway Treatment**	At existing gateway treatment, install additional traffic calming gateway treatments such as landscaping, raised medians, lighting, artwork, and curb extensions along Ferry Street (OR 155) to encourage lower speeds approaching the downtown area		Low	Short-term	Low
M-1	**Citywide Sidewalk Infill**	Infill gaps in sidewalk on key walking routes		High	Mid-term	Low
M-2	**Flower Lane Marked Crosswalk**	Improve pedestrian crossing of Flower Lane at Ferry Street approach by striping a marked crosswalk and removing overgrown vegetation to maximize sight distance	R-8	Medium	Short-term	Low
M-3	**Ferry Street Enhanced Pedestrian Crossing**	Improve pedestrian crossing of Ferry Street at 5th Street *OR* near elementary school by installing curb extensions and rectangular rapid flashing beacons (RRFB) **Location of pedestrian crossing enhancements to be determined based on traffic analysis*	R-1	High	Short-term	Low
M-4	**8th Street Marked Crosswalk**	Construct new marked pedestrian crossing of 8th Street at Church Street. Consider curb extensions, high visibility crosswalk striping, and school crossing signage to improve visibility	R-5	Medium	Short-term	Low
M-5	**OR 221 Pedestrian and Bike Improvements**	Construct multimodal improvements such as bike lanes, sidewalks, and enhanced crossings along OR 221 (3rd Street) from Church Street to southern UGB		High	Long-term	High
M-6	**Neighborhood Greenway Improvements**	Create neighborhood greenway using shared bike lane markings (sharrows) and signage	R-6, R-7, R-8	High	Short-term	Low