



DRAFT Supporting Policies

This memorandum provides draft policy language to support the function and purpose of the roadway system described in the Transportation System Plan, support the orderly development of transportation facilities, and improve safety, accessibility, and promote multimodal opportunities. These policies are geared towards development review, and address traffic study requirements, access, and circulation.

TRANSPORTATION IMPACT ANALYSIS REQUIREMENTS

This section summarizes the purpose and recommended draft text to supplement the Transportation Impact Analysis Requirements identified within Deschutes County Code Chapter 17.16. The intent is to provide the City of La Pine with increased discretion in how it assesses the impact of new development on the public roadway system, an increased emphasis and priority towards roadway safety, and increased consideration of the multi-modal elements relevant to an urban environment.

- 1. Purpose:** Identify appropriate threshold requirements for traffic impact studies within the City.

Development generating less than 200 weekday or weekend daily trip ends and less than 20 weekday p.m. peak hour trip ends will be required to address all of the Site Traffic Report (STR) elements of DCC 17.16.115 as well as additional items as listed below. Developments generating 200 or more weekday or weekend daily trip ends or 20 or more weekday p.m. peak hour trips will be required to address all elements of the Traffic Impact Analysis (TIA) identified in DCC 17.16.115 as well as items listed below.

Discussion: This text clarifies what the City considers to be a “significant impact” on a transportation facility and adopts trip thresholds that are identical to Deschutes County.

- 2. Purpose:** require development to collaborate with City, County, and ODOT staff regarding study needs and critical study assumptions.

The applicant shall meet with City staff in a pre-application conference to discuss study requirements and analysis assumptions (trip generation, distribution, horizon period, analysis periods, etc.). The applicant may also be required to meet with ODOT and County staff as applicable. A project site plan identifying intended uses, size, access, and other pertinent details should be provided in advance.

Discussion: This text ensures that the City of La Pine and other affected jurisdictions receive appropriate notification and an opportunity to collaboratively discuss the study



needs prior to receipt of an application. The application needs to contain adequate information for jurisdiction staff to understand its potential impacts and corresponding study needs.

- 3. Purpose:** Allow the City to determine completeness rather than a checklist-style approach. This flexibility allows the City to respond to the specific project impacts given a site's location and adjacent land uses.

The City, in collaboration with Deschutes County and ODOT shall determine when a traffic study has satisfied all the requirements of the development's impact analysis. Incomplete reports shall be returned for completion.

Discussion: The unique nature of individual developments and individual sites may require additional assessment or considerations be appropriately addressed and adequately assessed (e.g., pedestrian crossing issues, emergency response concerns, site deliveries, etc.), with the determination of adequacy at the discretion of review staff.

- 4. Purpose:** Provides the City discretion in what a traffic study is required to assess.

Additional analyses may be required at the City's discretion to address specific safety or operational needs associated with a proposed land use.

Discussion: Provides further clarity that the purpose of the traffic study is not to complete a checklist but to provide a full understanding of the potential impacts, mitigation needs, and ensure the design is compatible from a roadway maintenance, management, and operations standpoint.

- 5. Purpose:** Emphasize the safety implications of an application that goes beyond simple historical crash rates. The crash analysis needs to consider the actual environment, pre-existing conditions, and should help inform the City of potential needs regardless of improvement responsibility.

Crash data shall be obtained from ODOT for all study intersections to assess historical crash trends. Crash records are to be reviewed to identify crash patterns, and are to be supplemented with field observations of conditions and factors that may affect safety. Where crash trends are identified the applicant must also identify potential improvements or considerations. Responsibility of providing the improvements as approval conditions will remain at the discretion of the City based on severity, proportionality, and other factors.

Discussion: The purpose of the safety evaluation is not only to meet a burden of proof related to development impacts, but to also assist the City in its planning and identification of citywide safety needs. Crash rates alone (crashes per million entering vehicles) are a poor indicator of potential problems and may not identify specific movement (e.g. eastbound left-turning) crash patterns. Intersections with crash rates below 1.0 crashes per million entering vehicles may still have safety deficiencies if all the reported crashes occur in a single location or on a specific movement.

6. **Purpose:** Remove the sole focus on the automotive system. Requires an assessment of the multimodal facilities and potential conflicts between modes.

All traffic assessments (TIA and STRs) shall address any impacts to pedestrian and bicycle facilities, crossings, and general safety, accessibility, and connectivity. Assessments shall also identify any transit facilities or stops within ¼ mile of the site.

Discussion: The purpose of this statement is to allow a better integration of land uses with the pedestrian, bicycle, and transit system. This can be especially useful in the vicinity of schools and school zones.

7. **Purpose:** Enable City staff to perform an objective and holistic look at how the site can be served and how adjacent properties will also be served in the future. Allows the City to implement access management for the subject property and develop an access plans that will allow for development or redevelopment of future properties.

Site plans must include diagrams of existing access, proposed access, surrounding roadways/alleys, and access spacing from adjacent parcel access points. An accompanying analysis must include a discussion of the applicability of shared access with adjoining parcels or provision of shared access easements for future development of adjoining parcels.

Discussion: This text enables the City to not only provide access to the proposed site plan application, but also allows City staff to look at adjacent properties and ensure that access plans are in place to meet long-term roadway management objectives and make efficient use of the roadway hierarchy.

8. **Purpose:** Document where deviations from standards are proposed as part of the study methodology.

Site trip generation calculations, including pass-by, internal, or other trip reductions must be based on information contained in current editions of standard reference manuals. In the absence of applicable data, a minimum of three site specific studies of comparable uses must be performed. The data collection methodologies must be reviewed by City staff prior to application in the study.

Discussion: Materials within the ITE Trip Generation manuals can be dated or inappropriate to address the range of land use applications and flexibility should be provided. However, this flexibility should be provided along with adequate information for the City to ensure that the data estimation methodology conforms with sound engineering practice and the data collection methodologies used within the ITE manuals.

9. **Purpose:** Require applicants to provide diagrams showing that delivery and emergency vehicles can be appropriately accommodated on-site.

Turning movement diagrams must be submitted for all commercial, industrial and retail applications illustrating delivery, emergency, and passenger vehicle access and circulation within

the site. Truck turning diagrams may also be required along routes beyond the site frontage where deemed appropriate by the City.

Discussion: This provision helps sites function without truck loading occurring along the public roadway system and ensures emergency responders have adequate access to buildings.

- 10. Purpose:** Requires that the investment in infrastructure provides reasonable longevity beyond a single application. This provision will ensure that traffic signals, roundabouts, and all-way stop-controlled intersections are appropriately sized or planned for expansion over time.

Modifications to intersection control should consider horizon period volume conditions based on growth and the horizon period identified within the City or County TSP. This analysis is intended to inform planning efforts to ensure that right-of-way acquisition and future widening needs are anticipated.

Discussion: Traffic signals, roundabouts, and other intersection forms should be adequately planned to accommodate needed future expansion without placing the burden of reconstruction costs on the City. This provision will help to ensure that the placement of signal poles, right-of-way dedications, and placement of conduit is provided in a way that minimizes the disruption reconstruction places on the traveling public.

- 11. Purpose:** Establish vehicular performance goals that recognize the need to create a balanced multimodal system.

City performance standards are a Level of Service "D" and a volume-to-capacity ratio less than 0.90 for signalized and all-way stop-controlled intersections. A volume-to-capacity ratio of less than 0.90 and a Level of Service "E" must be maintained for the critical movement at unsignalized and at roundabout-controlled intersections. A queuing analysis must be performed to assess whether existing turn lane storage is adequate to accommodate 95th percentile vehicular queuing during the peak hour. At the City's discretion, an assessment of conditions during peak periods outside of the weekday evening commute period (4:00 to 6:00 p.m.) may be required. Mitigation to satisfy intersection performance standards should also consider impacts to the multi-modal system and provide adequate accommodations to maintain a safe and efficient multi-modal system.

Discussion: Level of Service, volume-to-capacity ratios, and queuing are separate intersection operational performance metrics that describe different attributes of an intersection. Intersection Level of Service describes the delay drivers experience and is most relevant metric for the traveling public. Volume-to-capacity ratios describe the physical ability of an intersection to accommodate the combination of movements, and queue analyses identify if the vehicular demand is physically able to efficiently use the available lanes without blocking other movements or other adjacent access points. Not meeting any one of these three standards would be considered unacceptable and require some type of mitigation, noting that capacity mitigation should also consider the multi-

modal system. The relatively high unsignalized delay tolerance (LOS “E”) allows for more congestion without the need for expensive infrastructure investments.

- 12. Purpose:** Provide the City with the flexibility to modify the traffic study guidelines based on site-specific needs. This provision may be applicable for master-planned areas where infrastructure needs and timing has already been established.

The City retains the discretion to reduce or supplement these traffic study guidelines, as appropriate, based on the specific project, location, and potential impacts.

Discussion: Master-planned land uses should be required to demonstrate compliance with the master plan, but the requirement for a full Transportation Impact Analysis may be unnecessary if the proposed application is compliant and the impacts have already been assessed.

ACCESS MANAGEMENT AND CIRCULATION REQUIREMENTS

This section presents standards and procedures for evaluating and managing property access and circulation during development review to maintain adequate safety and operational performance, while preserving the functional classification of roadways as required by the City’s Transportation System Plan. This code balances providing reasonable property access, multimodal connectivity, and ensuring safe and efficient travel. This section applies to all properties that abut public and private streets.

- 1. Purpose:** Limit the number of access points to a property.

All lots should be granted only a single access point. Exceptions to allow additional accesses will need to demonstrate that the additional access improves on-site circulation and does not impact the operation of the transportation system. If the second access is to a collector or arterial, the following may be required:

- The access should be located the maximum distance from nearby intersections or other driveways;*
- Restrictions may be required if within the influence area of an intersection;*
- Shared access with adjoining parcels may be required;*
- Cross-access easements with adjoining properties may be required.*

Discussion: Limiting the number of accesses to a property reduces the number of conflict points with the pedestrian and bicycle system, and allows other drivers to better anticipate conflict areas. Additional accesses to a property should seek to reduce access to other properties or serve a system benefit.

- 2. Purpose:** Limit direct access to higher-order facilities to support the mobility function of those facilities. Require access from local streets consistent with their higher priority for access.

If a parcel has frontage on two or more streets, access should be provided to property from the lowest-order facility.

Discussion: This policy is intended to apply to new development and redevelopment, so that even existing facilities can better comply with their intended function.

3. **Purpose:** Require a review of adjacent parcels to ensure that cross-access easements, roadway extensions, and internal circulation routes support the orderly development of adjacent parcels and accommodate future access needs.

The application shall consider future access to adjoining properties, and the potential need to connect or extend of roadways.

Discussion: Reviewing adjacent parcels and future roadway connectivity will allow the City to assess whether shared access easements, shared access drives, roadway extensions, and building orientation can support the development of adjoining properties. The goal of this text is to enable other adjoining properties to also avoid direct arterial access where possible and to facilitate the completion of a grid network.

4. **Purpose:** Require a review of multimodal connectivity to new development within La Pine.

The application shall assess how pedestrian, transit, and bicycle connectivity can occur between the surrounding roadway system, adjacent parcels, through the parking areas, and connect patrons, employees, and visitors to the building entrances.

Discussion: This text will help assess whether the layout of the site adequately supports multimodal travel from the adjacent system to the proposed building(s).

5. **Purpose:** Require site circulation is properly designed to maintain the function of the public roadway network.

Internal parking areas shall be designed so as not to be reliant on the public roadway system for internal circulation needs. Backing from an access onto a public street shall not be permitted with exception of driveways to single-family or duplex residences. Driveway design must accommodate the anticipated storage length for entering and exiting vehicles, in order to prevent vehicles from backing into the flow of traffic on the public street or causing un-safe conflicts with site circulation.

Discussion: This section will reduce reliance on the public roadway system for private maneuvering and loading.

6. **Purpose:** Establish driveway width.

Driveway openings (or curb cuts) shall be the minimum width necessary to provide the required number of travel lanes. Maximum width for two lanes is 30 feet, and 40 feet for three lanes. Exceptions may be granted to industrial uses if the need for a wider driveway is justified.

Discussion: Driveways create a conflict for pedestrians and bicyclists; narrowing driveways reduces this conflict area and provides a safer maneuver space.

7. **Purpose:** Establish Clear Vision Areas.

In all zones, clear vision areas shall be established at the intersection of two streets, streets and driveways, streets and alleys, and streets and railroads. Within the clear vision area no obstructions (to include temporary obstructions such as parking, seasonal landscaping obstructions, or utilities, posts, signs, fences, walls, or monuments) shall be placed that would restrict the visibility for drivers of potential conflicts with other multimodal users. The length of the clear zone should be a minimum of 20 feet on local streets and alleys, and conform with AASHTO guidance for classified facilities based on the posted speed for higher-order facilities.

Discussion: This requirement ensures drivers have a clear vision when entering or exiting a driveway.

8. **Purpose:** Establish access authority.

Proposals for new accesses shall comply with City of La Pine, Deschutes County, and ODOT review and approval, as applicable.

Discussion: This code highlights that other agencies may have jurisdiction on facilities within La Pine City limits, and other approval and/or permitting requirements beyond those of La Pine may need to be met.

9. **Purpose:** Establish ability for the City to review and condition access changes.

To ensure the safe and efficient operation of the City, County, and State system, the City may require closing, consolidating, or relocating existing curb cuts or other access points, recording of reciprocal access easements (for shared driveways and cross access routes), development of frontage or backage streets, installation of traffic control or restriction devices, or other mitigation measures that comply with the purpose and intent of this code.

Discussion: Highlights that the City may require changes, improvements, or measures to facilitate the orderly development of access to public and private streets.

CONNECTIVITY REQUIREMENTS

1. **Purpose:** Create a grid of local streets that reduce arterial reliance, allow opportunities for multi-modal trips, and reduce overall vehicle miles travelled.

New development shall construct and extend planned streets (arterials, collectors, and local streets) in their proper projection to create continuous through streets and provide the desirable pattern of orderly developed streets and blocks. Streets shall be developed within a framework that is established by the Comprehensive Plan, Transportation System Plan, Corridor Plans, Subdivision Plans, Master Plans, or Special Plan Areas.

If not otherwise specified in established plans, the following block length standards shall apply:

- a) 600 foot maximum block length in Residential zones
- b) 500 foot maximum block length in commercial zones

Exceptions can be requested where the maximum block length cannot be satisfied due to topography, natural features, existing development, or other encumbrances. Exceptions may include replacement of streets with trails or walkways to minimize out-of-direction travel.

Discussion: This section establishes a framework for the development of a street network. The formation of smaller blocks reduces out-of-direction travel for pedestrians and bicyclists.

2. **Purpose:** Promote pedestrian connectivity between uses on a parcel and provide connections to the surrounding pedestrian sidewalk and trail network.

Pedestrian ways shall connect building entrances within a development to one another; connect parking areas, storage areas, recreational facilities, common areas (as applicable), and adjacent development to the building's entrances and exits. Pedestrian ways shall extend throughout the development site and connect to future phases, adjacent trails, public parks and open spaces. Pedestrian ways shall also connect or stub to adjacent streets and private property.

Discussion: Connecting the sidewalks, trails, and amenities within a development allows people to safely and conveniently walk from parking areas or between buildings.

3. **Purpose:** Ensure design of pedestrian facilities encourages and accommodates pedestrians.

Provide pedestrian facilities within developments that are safe, accessible, reasonably direct, and convenient.

Discussion: This broadly provides the intent of pedestrian design.