



CITY OF LEBANON
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Lebanon Municipal Code Title 16: Development Code
Article Three: Community Development and Use Standards

Chapter 16.13:

**Transportation Improvements, and Design
Standards for Streets, Alleys and Pathways**

| | |
|---|---|
| 16.13.010 Purpose And Applicability | 1 |
| 16.13.020 Transportation Improvements: Outright Permitted and Conditionally Permitted Uses..... | 3 |
| 16.13.030 Design Standards for Improvements: Streets, Alleys, & Pathways..... | 5 |

**Adopted by City Council on
December 10, 2008**

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Chapter 16.13: Transportation Improvements, and Design Standards for Streets, and Alleys

Table of Contents:

| | |
|--|----|
| 16.13.010 Purpose And Applicability | 1 |
| A. Purpose | 1 |
| B. Important Cross-References to Other Standards | 1 |
| C. When Standards Apply and Exceptions | 2 |
| D. Standard Specifications | 2 |
| E. Basic Decision Criteria for Development Approval | 2 |
| F. Compliance with Transportation System Plan | 2 |
| 16.13.020 Transportation Improvements: Outright Permitted and Conditionally Permitted Uses | 3 |
| A. Transportation Uses Permitted Outright | 3 |
| B. Transportation Conditional Uses Permitted | 3 |
| 16.13.030 Design Standards for Improvements: Streets, Alleys, & Pathways | 5 |
| A. General Development Standards | 5 |
| B. Creation of Rights-of-Way for Streets and Related Purposes | 5 |
| C. Creation of Access Easements | 5 |
| D. Street Location, Width and Grade | 5 |
| E. Minimum Rights-of-Way and Street Sections | 6 |
| F. Traffic Signals and Traffic Calming Features | 8 |
| G. Future Street Plan and Extension of Streets | 8 |
| H. Street Alignment and Connections | 8 |
| I. Sidewalks, Planter Strips, Bicycle Lanes | 9 |
| J. Intersection Angles | 9 |
| K. Existing Rights-of-Way | 9 |
| L. Cul-de-sacs | 9 |
| M. Development Adjoining Arterial Streets | 9 |
| N. Private Street Standards | 10 |
| O. Gated Communities | 10 |
| P. Street Names | 10 |
| Q. Street Signage | 10 |
| R. Mailboxes | 10 |
| S. Street Light Standards | 10 |
| T. Utility Pedestals | 10 |

Chapter 16.13: Transportation Improvements, and Design Standards for Streets, and Alleys

16.13.010 PURPOSE AND APPLICABILITY

A. Purpose

The purpose of this Chapter is to provide planning and design standards for transportation improvements, and for public and private transportation facilities. Streets are the most common public spaces, touching virtually every parcel of land. Accordingly, one of the primary purposes of this Chapter is to provide standards for attractive and safe streets that can accommodate vehicle traffic, and provide a range of transportation options, including options for driving, walking, bicycling. This Chapter also provides standards for attractive and safe alleys. The provisions of this Chapter are consistent with and implement the City's Transportation System Plan. Key goals of this Chapter are to establish:

1. **Standards for local streets and accessways that minimize pavement width and total right-of-way** consistent with the operational needs of the facility to:
 - a. reduce excessive standards for local streets and accessways in order to reduce the cost of construction.
 - b. provide for more efficient use of urban land.
 - c. provide for emergency vehicle access.
 - d. discourage inappropriate traffic volumes and speeds.
 - e. accommodate convenient pedestrian and bicycle circulation.
2. **Standards that create circulation patterns that facilitate bicycle and pedestrian trips to meet local travel needs** in developed areas. Appropriate improvements shall provide for more direct, convenient and safer bicycle or pedestrian travel within and between residential areas and neighborhood activity centers (e.g., schools, shopping areas, transit stops). Specific measures may include constructing walkways between cul-de-sacs and adjacent roads, providing walkways between buildings, and providing direct access between adjacent uses.

B. Important Cross-References to Other Standards

The City requires that streets provide direct and convenient access, including regular intersections, and there are other required provisions for Accessways. See Chapter 16.12 of this Code (subsections regarding Motor Vehicle Access and Management Requirements, Bicycle Access and Management Requirements, and Pedestrian Access and Management Requirements), the City's Public Improvement Standards, the City's Adopted Standards and Specifications for Construction, and relevant sections of the Lebanon Municipal Code, that collectively provide standards for transportation improvements such as intersections and blocks, and requirements for vehicle access, and pedestrian and bicycle access and circulation.

C. When Standards Apply and Exceptions

The standard specifications for construction, reconstruction or repair of transportation facilities within the City shall occur in accordance with the standards of this Chapter and other appropriate City improvement standards, unless site-specific considerations warrant exceptions as provided for in this Code. All such exceptions must be approved in writing by the City as part of development review. No development or redevelopment may occur unless the public facilities related to the development or redevelopment comply with the public facility requirements established in this Chapter.

D. Standard Specifications

The City Engineer shall establish standard construction specifications consistent with the design standards of this Chapter and application of engineering principles.

E. Basic Decision Criteria for Development Approval

Development may not occur unless

1. Key urban utility services (i.e., water, storm drainage, sanitary sewerage, and streets) to serve the proposed development are in place, guaranteed, are planned for, or are constructed concurrently with the proposed development in conformance with the provisions of this Code and other relevant City standards; or
2. There are on-site equivalent services approved by the appropriate review authority.

F. Compliance with Transportation System Plan

If review under this Chapter indicates that the use or activity is inconsistent with the Transportation System Plan, the procedures for Plan and/or Code amendments, as appropriate, shall be undertaken prior to or in conjunction with the required land use review.

16.13.020 TRANSPORTATION IMPROVEMENTS: OUTRIGHT PERMITTED AND CONDITIONALLY PERMITTED USES

A. *Transportation Uses Permitted Outright*

Except where otherwise specifically regulated by this Code, the following *Standard Transportation Improvements* are permitted outright:

1. Normal operation, maintenance, repair, and preservation activities of existing transportation facilities.
2. Installation of culverts, pathways, medians, fencing, guardrails, lighting, directional signs, and similar types of improvements within the right-of-way.
3. Projects specifically identified in the Transportation System Plan as not requiring further land use regulation.
4. City approved transportation facility related projects.
5. Landscaping as part of a transportation facility, as long as it complies with standards set forth in Chapter 16.15 (Landscaping/Street Trees), and Chapter 16.12 (16.12.030.H, Clear Vision) of this Code.
6. Emergency measures necessary for the safety and protection of property.
7. Acquisition of right-of-way for public roads, highways, and other transportation improvements deemed necessary in the public interest, and/or designated in the Transportation System Plan.
8. Construction of a street or road as part of an approved subdivision or land partition approved consistent with the applicable land division ordinance.
9. Changes in the frequency and intensity of transit, rail, and airport services.

B. *Transportation Conditional Uses Permitted*

1. Conditionally permitted transportation improvements include construction, reconstruction, or widening of highways, roads, bridges, or other transportation projects that:
 - a. **Are not** designated in the Transportation System Plan, or an adopted transportation facility plan, or a City- approved project, or
 - b. **Change** the character, function, or operation of an existing transportation-related facility as proposed or designated in the Transportation System Plan (TSP). Such projects shall comply with the overall standards of the TSP and other applicable standards, and shall address the following criteria:
 - (1) The project is designed to be compatible with existing land use and social patterns, including noise generation, safety and zoning.
 - (2) The project is designed to minimize avoidable environmental impacts to identified wetlands, wildlife habitat, air and water quality, cultural resources, and scenic qualities.
 - (3) The project preserves or improves the safety and function of the facility through access management, traffic calming, or other design features.
 - (4) The project includes provisions for bicycle and pedestrian circulation as consistent with the applicable requirements of this ordinance.

2. If review under this Chapter indicates that the use or activity is inconsistent with the Transportation System Plan, the Development Code, or the Public Improvement Standards, the procedures for plan and zoning amendments, as appropriate, shall be undertaken prior to or in conjunction with the conditional permit review.
3. **Time Limitations on Transportation-Related Conditional Use Permits:** Authorization of a conditional use shall be void after a period specified by the applicant as reasonable and necessary based on season, right-of-way acquisition, and other pertinent factors. This period shall not exceed three years, or a period of time approved or extended by the Review Authority.

16.13.030 DESIGN STANDARDS FOR IMPROVEMENTS: STREETS, ALLEYS, & PATHWAYS

A. General Development Standards

Development shall not occur unless the development has frontage or approved access to a public street, in conformity with the provisions of Section 16.12.020 in Chapter 16.12, **and** the following additional standards are met:

1. Streets within or adjacent to a development shall be improved to City standards in accordance with the Transportation System Plan, Public Improvement Standards, and the provisions of this Chapter.
2. Development of new streets, additional street width or improvements planned as a portion of an existing street, shall be improved in accordance with this Chapter, and other applicable City standards.
3. All driveway approaches and driveways shall be paved, as per adopted City engineering standards.
4. Minor sections of non-contiguous street improvements may be deferred until contiguous to City standard street improvements as determined by the City Engineer.

B. Creation of Rights-of-Way for Streets and Related Purposes

Streets shall be created through the approval and recording of a final subdivision or partition plat; except the City may approve the creation of a street by acceptance of a dedication by the City Council for the purpose of implementing the *Transportation System Plan*, and the dedication of right-of-way conforms to the standards of this **Code**. All dedications shall be in a form approved by the City Engineer.

C. Creation of Access Easements

The City may approve an access easement when the easement is necessary to provide for access and circulation in conformance with Chapter 16.12 of this Code (*Transportation Access, Access Management, and Circulation*). Access easements shall be created and maintained in accordance with this Code, the Oregon Fire Code, and Lebanon Fire District's requirements as determined by the Fire Code Official.

D. Street Location, Width and Grade

Except as noted below, the location, width and grade of all new public streets shall conform to the *Transportation System Plan*, as applicable, and an approved street plan or subdivision plat. Street location, width and grade shall be determined in relation to existing and planned streets, topographic conditions, public convenience and safety, and in appropriate relation to the proposed use of the land to be served by such streets:

1. Street grades shall be approved by the City Engineer in accordance with the design standards in the City's Transportation System Plan, and Public Improvement Standards.
2. Where the location of a street is not shown in an existing street plan (See Subsection "H" below), the location of streets in a development shall either:
 - a. Provide for the continuation and connection of existing streets in the surrounding areas, conforming to the street standards of this Chapter, Chapter 16.13; or

- b. Conform to a site development plan approved by the review authority if it is impractical to connect with existing street patterns because of particular topographical or other existing conditions of the land. Such a plan shall be based on the type of land use to be served, the volume of traffic, the capacity of adjoining streets and the need for public convenience and safety.

E. Minimum Rights-of-Way and Street Sections

The City of Lebanon Street Cross-Section Standards are summarized in **Table 16.13.030-1** (also see **TSP Table 6-1**), and the Right-of-Way and Street Design Standards are shown in **Table 16.13.030-2** (also see **TSP Tables 6-2 thru 6-5**). **Table 16.13.030-1** also contains typical alley and cul-de-sac information.

| Table 16.13.030-1: Typical Street Cross-Sections | | | | | | | |
|--|------------------------------------|--|--------------------------------|--|-----------|---|----------------|
| Facility | ROW | Travel Lanes (volumes) | Median Type | Bike Lanes | Sidewalks | On-Street Parking | Planting Strip |
| Arterial: | | | TWLTL or Raised Median | Yes (new construction only unless specified in bikeway plan) | Yes | No | Yes |
| Minor | 75 feet | 3 (14,000 to 18,000 ADT) | | | | | |
| Major | 105 feet | 5 (18,000 ADT and above) | | | | | |
| Parkway | 130 feet | 4 (40,000 ADT) | | Sidewalk/ Multi-Use Path | No | | |
| Collector | 60 to 75 feet | 2 to 3 (10,000 to 14,000 ADT) depending on access density & zoning | None or TWLTL or Raised Median | Yes | Yes | No | Yes |
| Local | 50 to 56 feet | 2 (less than 10,000 ADT) | None | Shared | Yes | 1 side or 2 if multi-family residential | Yes |
| Cul-de-sacs (See Note # 3 Below) | 50 to 56 feet | 2 (less than 10,000 ADT) | None | Shared | Yes | 1 side or 2 if multi-family residential | Yes |
| Alleys | 16 to 20 feet (See Note # 4 Below) | One Lane – Residential Area: can vary from 12 to 20 feet of paved surface (See Note # 5 Below) | None | None | None | See Note # 6 Below | None |

- (1) **TWLTL** = two-way left-turn lane; **ADT** = Average Daily Traffic.
- (2) **Raised median** may be constructed in lieu of the center turn lane for access management and safety.
- (3) **Cul-de-sacs**: the “bulb” must have a minimum radius of 48 feet. For additional standards on **cul-de-sacs**, see Section 16.12.030.K.7 (Chapter 16.12), and Section 16.13.030.I (in this Chapter).
- (4) If required for **emergency access**, an alley must have a minimum ROW of 20 feet, but a greater width may be required by the Fire Code Official.
- (5) Alleys in **Commercial Areas (Z-CCM and Z-HCM)** and **Industrial Areas (Z-IND)** require a minimum of 16 feet of paved surface, but no setback is required, unless abutting a residential zone.
- (6) **Garage doors or carports facing alleys** must be at least 44 feet from the farthest side of the alley when parking is provided in front of these structures. Garages and carports facing an alley may be located 24 feet from the farthest side of the alley when no parking is required in front of these structures.

**Table 16.13.030-2: Typical Street Design Standards
(Subject to Engineering Site Plan Reviews)**

| DESIGN CRITERION | TYPICAL PARKWAY SEGMENT | TYPICAL ARTERIAL STREET | TYPICAL COLLECTOR STREET | TYPICAL LOCAL STREET (or a Cul-de-sac) |
|---|---|--|---|--|
| Minimum ROW (ft) | 130 | 75 to 105 | 60 to 75 | 50' for parking on one side; 56' for parking on both sides |
| Lane Width (ft) | 12/12.5/15/12.5/12 | 14/12/14/12/14 for 105' ROW for major arterial; 12/14/12 for 75' ROW for minor arterial | 12/12 for 60' ROW; 12/14/12 for 75' ROW | 20 |
| Shoulder/Parking (ft) | N/A | N/A | 8 (where permitted) | 8 |
| Roadway Width Including Bike Lane(ft) | 64 | 78' for 5-lane configuration; 50' for 3-lane configuration | 34' for 2-lane configuration; 48' for 3-lane configuration | 28' for parking on one side; 34' for parking on both sides |
| Design Speed (mph) | 45 | 40 | 35 | 25 |
| Maximum Grade (%) | 5 | 6 | 10 | 15 |
| Minimum Centerline Radius (ft) | 1,200 | 500 | 300 | 100 |
| Design Volume (ADT) | 40,000 | 18,000 | 14,000 | 3,000 |
| Bike Lane (ft) | N/A | 6 | 5 | N/A |
| Sidewalk (ft) | See Notes | 6 | 5 | 5 |
| Planter (includes 6-inch curb) | See Notes | 5.5 feet (minimum) | 5.5 feet (minimum) | 5.5 feet (minimum) |
| Curb and Gutter Required (inches) | Ditch - Variable depending on drainage requirement | 30 | 30 | 30 |
| Minimum Intersection Curb Radius (ft) | 45 | 35 | 20 | 20 |
| <u>Notes:</u> | <ul style="list-style-type: none"> Multi-use Path: 12 ft generally located on side of roadway towards the City Center Sidewalk: 6 ft sidewalk should be constructed on opposite side of the roadway where there is no other alternative for pedestrian traffic. | <ul style="list-style-type: none"> A larger Minimum Intersection Curb Radius may be required if there is a significant amount of truck traffic. Bike lanes provided where specified in Bicycle Plan, or as part of new construction. | <ul style="list-style-type: none"> On-street parking may be permitted in residential areas A larger Minimum Intersection Curb Radius may be required if there is a significant amount of truck traffic. 5 ft Bicycle lanes provided in each direction. 14ft center lane in industrial or commercial areas. No parking unless insufficient off-street. | <ul style="list-style-type: none"> Exceptions may be granted when connecting to existing substandard local street improvements. 5-foot bike lanes provided where specified in Bicycle Plan, otherwise bicycles share travelway |
| As noted in the TSP, standards developed specifically for neighborhood areas (e.g., Russell Drive Neighborhood Refinement Plan) may supersede these standards. | | | | |

(See Section 6 of TSP for Figures depicting these typical Street Design Standards.)

F. Traffic Signals and Traffic Calming Features

1. **Traffic-calming features**, such as traffic circles, curb extensions, narrow residential streets, and special paving may be used to slow traffic in neighborhoods and areas with high pedestrian and/or bicycle traffic.
2. **Traffic signals** may be required when traffic signal warrants are met, in conformance with the Highway Capacity Manual, and Manual of Uniform Traffic Control Devices. The location of traffic signals shall be noted on approved street plans. Where a proposed street intersection will result in an immediate need for a traffic signal, a signal meeting approved specifications shall be installed. The developer's cost and the schedule of improvements may be included as a condition of development approval.

G. Future Street Plan and Extension of Streets

1. When a new subdivision or planned development includes the creation of a new street(s), the subdivision proposal must include a proposed street plan as part of the application for the subdivision in order to facilitate orderly development of the street system. The plan shall show the pattern of existing and proposed future streets from the boundaries of the proposed land division and shall include other parcels within 600 feet surrounding and adjacent to the proposed land division. The plan must demonstrate that connectivity can be achieved in a practical manner by connections with potential street extensions within future development on the surrounding and adjacent parcels.
2. **Streets shall be extended** to the boundary lines of the parcel or tract to be developed. These extended streets or street stubs to adjoining properties are not considered to be cul-de-sacs since they are intended to continue as through streets when the adjoining property is developed. The point where the streets temporarily end shall conform to Subsections "a" and "b" below:
 - a. A MUTCD barricade shall be constructed at the end of the street and shall not be removed until authorized by the City or other applicable agency with jurisdiction over the street. The cost of the barricade shall be included in the street construction cost.
 - b. Emergency Vehicle turnarounds (e.g., hammerhead or bulb-shaped configuration) shall be constructed for stub streets in compliance with the Oregon Fire Code and Lebanon Fire District's requirements, as determined by the Fire Code Official.

H. Street Alignment and Connections

1. **Spacing between street intersections** shall have a minimum separation of 300 feet, except where more closely spaced intersections are warranted by site specific considerations.
2. **Through Circulation of Local and Collector Streets:** Unless superseded by a local street network plan, all local and collector streets that abut a development site shall be extended within the site to provide through circulation and connection to abutting streets unless prevented by environmental or topographical constraints, existing development patterns or compliance with other standards in this code.

I. Sidewalks, Planter Strips, Bicycle Lanes

Sidewalks, planter strips, and bicycle lanes shall be installed in conformance with the standards in **Table 16.13.030-2**, applicable provisions of the *Transportation System Plan*, Public Improvement standards, and adopted street plans. Maintenance of sidewalks, and planter strips is the continuing obligation of the adjacent property owner. Also see Chapter 16.12 of this Code, subsections 16.12.040 (*Bicycle Access and Management Requirements*), and 16.12.050 (*Pedestrian Access and Management Requirements*) for further details on Bicycle and Pedestrian pathways.

J. Intersection Angles

Streets shall be laid out so as to intersect at an angle as near to a right angle as practicable, except where topography requires a lesser angle or where a reduced angle is necessary to provide an open space, park, common area or similar neighborhood amenity.

K. Existing Rights-of-Way

Whenever existing rights-of-way adjacent to or within a tract are of less than standard width, additional rights-of-way shall be provided at the time of subdivision or development.

L. Cul-de-sacs

1. The length of a cul-de-sac street shall not exceed 400 feet. However, cul-de-sacs may be up to 600 feet in length with a pedestrian/bicycle accessway to neighboring streets and/or pathways for connectivity that includes a dedicated right-of-way for utilities, and subject to approval of the Lebanon Fire District.
2. The length of a cul-de-sac is measured from the edge of the street right-of-way along the length of the "stem" to the back of the "bulb."
3. All cul-de-sacs of more than 150 feet in length shall terminate with a circular turnaround. Such Emergency Vehicle turnarounds shall be constructed in compliance with the Oregon Fire Code and Lebanon Fire District's requirements.
4. Also see Section 16.12.030.K.7 (Chapter 16.12), and Table 16.13.030-1 (in this Chapter).

M. Development Adjoining Arterial Streets

Where a development adjoins or is crossed by an existing or proposed arterial street, the development design shall separate residential access and through traffic, and shall minimize traffic conflicts. The design shall include one or more of the following:

1. **Parallel access street** along the arterial with a landscape buffer separating the two streets;
2. **Deep lots** abutting the arterial or major collector to provide adequate buffering with frontage along another street (double-frontage lots shall conform to the buffering standards in Section 16.12.030.O (Chapter 16.12) of this Code;
3. **Screen planting** at the rear or side property line to be contained in a non-access reservation (e.g., public easement or tract) along the arterial; or
4. **Other** treatment suitable to meet the objectives of this subsection;

5. If a lot has **access to two streets with different classifications**, primary access shall be from the lower classification street, in conformance with Section 16.12.030.O (Chapter 16.12) of this Code.

N. Private Streets Standards

1. Private streets shall not be used to avoid connections with public streets.
2. All private streets shall conform to the adopted City Standards for Private Streets, and with the Oregon Fire Code and Lebanon Fire District's requirements.

O. Gated Communities

Developments that have a gate limiting access from a public street (i.e., a "Gated Community") shall allow unrestricted access for emergency service vehicles and the vehicles of public and private utility providers that service the community.

P. Street Names

Proposed new street names must conform to City of Lebanon requirements, and with the requirements of the Linn County Sheriff's Office, Emergency Services division. Accordingly, no street name shall be used that will duplicate or be confused with the names of existing streets except for extensions of existing streets. Street names, signs and addresses shall conform to the established City standards in the surrounding area, except as requested by emergency service providers.

Q. Street Signage

The developer shall be responsible for funding and installing all signs for traffic control and street names. Street name signs shall be installed at all street intersections. Stop signs and other signs may be required. All signage shall conform to the applicable City, County, and State Standards, and be subject to the approval of the appropriate jurisdiction.

R. Mailboxes

Plans for mailboxes to be installed shall be approved by the United States Postal Service. All such units shall comply with clear vision area restrictions, including appropriate height limitations.

S. Street Light Standards

Streetlights shall be installed in accordance with City standards.

T. Utility Pedestals

The plans and locations for all utility Pedestals to be installed shall be subject to the approval of the appropriate jurisdiction. All such units shall comply with clear vision area restrictions, including appropriate height limitations.