ORDINANCE NO. NS-2263

AN ORDINANCE AMENDING CHAPTER 1.2, CHAPTER 4.2, CHAPTER 4.3, CHAPTER 4.5 AND CHAPTER 4.7 OF THE BEND DEVELOPMENT CODE

Findings:

A. The application was submitted in accordance with BDC 4.1.500. Timely and sufficient notice pursuant to Section 4.1.515 of the Development Code was provided.

B. The Planning Commission reviewed the proposed amendments during a work session and held a public hearing on February 22, 2016 and continued the public hearing to March 14, 2016. On March 14, 2016 the Planning Commission held the continued public hearing and at the conclusion of the hearing, the Planning Commission voted to recommend the proposed text amendments be approved by the City Council as amended.

C. Notice of the City Council public hearing was published in the Bend Bulletin on March 27, 2016 and sent to the neighborhood associations on March 23, 2016.

D. The Bend City Council held a work session on April 6, 2016 and a public hearing on April 20, 2016 to accept evidence, receive public testimony and consider the Planning Commission's recommendation. The City Council found that the text amendments satisfy the criteria for approval contained in Section 4.6.200 of the Bend Development Code and voted on the amendments to the Bend Development Code.

Based on these findings, the City of Bend ordains as follows:

Section 1 The Bend Development Code is amended as depicted in Exhibit A.

Section 2 In addition to the findings set forth above, the City Council adopts the findings in Exhibit B.

First Reading: April 20, 2016

Second reading and adoption by roll call vote: May 4, 2016

Yes: Jim Clinton, Mayor
Doug Knight
Victor Chudowsky
Sally Russell
Nathan Boddie
Casey Roats
Barb Campbell

No: None

Jim Clinton, Mayor

ATTEST:

Robyn Christie, City Recorder

Approved as to form:

Mary Winters, City Attorney

Updated 03.18.16

Exhibit A

Development Code Update
Draft

Prepared by:
City of Bend Planning Division

Note:
Text in underlined typeface is proposed to be added
Text in ~~strikethrough~~ typeface is proposed to be deleted.
***Indicates where text from the existing code has been omitted because it will remain unchanged.

Chapter 1.2
DEFINITIONS

***

City Engineer means the City Engineer of the City of Bend, Oregon, or his or her designee.

***

Concurrency means that the necessary public facilities and services to accommodate the impacts of a proposed development are available at the time the development occurs or at the time of need.

***

Major Intersections mean all collector and higher designated intersections and roadways.

***

Modes of Travel mean vehicular, walking, biking and transit.

***

Transportation Corridor means a linear or curvilinear area of existing or planned right of way, defined by the outer edges of the existing or planned right of way, which contains or will contain improvements intended for one or more modes of transportation**.** Transportation corridors are generally composed of collector streets and those of higher classification, but may include portions of the local street system where traffic on the local streets influences the higher classification streets.

Transportation Demand Management (TDM) means the application of strategies and policies to reduce travel demand (specifically that of private vehicles), or to redistribute this demand in space or in time.

***

Transportation Mitigation Plan means an adopted plan for an area in the City that contains alternate transportation designs and functionality standards. A Transportation Mitigation Plan is typically adopted into this code as part of a Special Area Plan or Master Plan Development.

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Chapter 4.2
MINIMUM DEVELOPMENT STANDARDS REVIEW, SITE PLAN REVIEW AND DESIGN REVIEW

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4.2.500 Site Plan Review.

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D. Site Plan Review Approval Criteria. The City shall approve, approve with conditions, or deny the proposed Site Plan Review application based on the following criteria:

1. The proposed land use is a permitted or conditional use in the zoning district;

2. Conditionally permitted uses require approval of a Conditional Use Permit and shall meet the criteria in BDC 4.4.400;

3. The land use, building/yard setback, lot area, lot dimensions, density, lot coverage, building height, design review standards and other applicable standards of the applicable zoning district(s) are met;

4. The proposal complies with the standards of the zoning district that implements the Bend Area General Plan designation of the subject property;

5. The applicable standards in BDC Title 3 are met;

6. All applicable building and fire code standards are or will be met;

7. All required public facilities have adequate capacity, as determined by the City, to serve the proposed use; and

8. The proposal complies with BDC Chapter 4.7, Transportation Analysis.

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Chapter 4.3
SUBDIVISIONS, PARTITIONS, REPLATS AND PROPERTY LINE ADJUSTMENTS

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4.3.300 Tentative Plan.

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E. Criteria for Subdivision, Partition or Replat Approval. The Review Authority shall not approve a tentative plan for a proposed subdivision, partition or replat unless the Review Authority finds that the subdivision, partition or replat will satisfy the following criteria of approval:

1. The proposal provides for the preservation of natural features and resources such as streams, lakes, natural vegetation, special terrain features, and other natural and historic resources to the maximum degree practicable.
2. The proposal allows for the development of adjacent property in accordance with the provisions of this code.
3. The proposal meets all standards and requirements of this code.
4. All required public facilities have adequate capacity, as determined by the City, to serve the proposed subdivision, partition or replat.
5. The proposal contributes to the orderly development of the Bend area transportation network of roads, bikeways, and pedestrian facilities, and allows for continuation and expansion of existing public access easements within or adjacent to the subdivision, partition or replat.
6. Each lot, parcel, or designated unit of land is suited for its intended use.
7. That the placement of utilities is in accordance with the adopted City standards.
8. The proposal meets the requirements of the Fire Code, adopted flood protection standards, and other adopted standards intended to protect against natural hazards.
9. The proposal is in substantial conformance with any applicable approved master development plan, master facilities plan, refinement plan and/or special area plan.
10. The proposal complies with the standards of the zoning district in which the project is located and the standards of the zoning district that implements the General Plan designation of the subject property.
11. <u>The proposal complies with BDC Chapter 4.7, Transportation Analysis.</u>

Chapter 4.5
MASTER PLANNING AND DEVELOPMENT ALTERNATIVES

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4.5.300 Master Planned Developments.

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C. Applicability of BDC Title 3, Design Standards. The development standards of BDC Title 3 apply to all Master Planned Developments, unless otherwise specified as part of a MPD concept proposal.

1. Concept Development Plan Submission.

a. General Submission Requirements. The applicant shall submit an application containing all of the general information required for a Type II or III procedure, as governed by BDC Chapter 4.1, Development Review and Procedures. In addition, the applicant shall submit the following information:

i. A statement of planning objectives to be achieved by the Master Planned Development through the particular approach proposed by the applicant. This statement should include a description of the character of the proposed development and the rationale behind the assumptions and choices made by the applicant.

ii. A concept schedule indicating the approximate dates when construction of the Master Planned Development and its various phases are expected to be initiated and completed.

iii. Narrative report or letter documenting compliance with the applicable approval criteria contained in this code.

iv. Special studies or reports prepared by qualified professionals, <u>including compliance with BDC Chapter 4.7, Transportation Analysis,</u> may be required by this code, the City Planning Director, Planning Commission or City Council to determine potential traffic, geologic, noise, environmental, natural resource and other impacts, and required mitigation.

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2. Concept Development Plan Approval Criteria. The applicant shall submit a narrative and plans detailing how the following criteria are satisfied. The City shall make findings demonstrating that all of the following criteria are satisfied when approving, or approving with conditions, the concept plan. The City shall make findings demonstrating that one or all of the criteria are not satisfied when denying an application:

a. Bend Area General Plan. All relevant provisions of the Bend Area General Plan are met except as proposed to be modified by the applicant in conformance with the submittal requirements and criteria of subsection (B)(2) of this section.

b. Land Division Chapter. All of the requirements for land divisions, as applicable, shall be in conformance with BDC Chapter 4.3, Subdivisions, Partitions, Replats and Property Line Adjustments; except as proposed to be modified by the applicant in conformance with subsection (B)(2) of this section.

c. Applicability of BDC Chapters 2.0 and 3.0. All of the land use and design standards contained in BDC Chapters 2.0, Land Use District Administration, and 3.0, Development Standards Administration, are met, except as proposed to be modified by the applicant in conformance with subsection (C)(1) of this section.

d. Requirements for Open Space. Public and private open space within a development is highly encouraged as a public benefit. Open space, consistent with the purpose of this chapter, shall be designated within a Master Planned Development when:

   i. The Master Planned Development area is 40 acres or greater; or

   ii. The applicant is seeking exceptions to Bend Area General Plan, zoning designations or the standard Development Code provisions and/or density.

e. Standards for Open Space Designation. The following standards shall apply:

   i. The open space area shall be shown on the concept development plan and recorded with the final plat or separate instrument; and

   ii. The open space shall be conveyed in accordance with one of the following methods:

      (A) By dedication to the Park District or City as publicly owned and maintained open space. Open space proposed for dedication to the Park District or City must be acceptable with regard to the size, shape, location, improvement, environmental condition, and budgetary and maintenance abilities;

(B) By leasing or conveying title (including beneficial ownership) to a corporation, owners association or other legal entity. The terms of such lease or other instrument of conveyance must include provisions (e.g., maintenance, property tax payment, etc.) suitable to the City.

f. Standards for Approval. In granting approval for a Master Planned Development concept development plan the applicant must demonstrate that the proposal is consistent with the criteria for land division approval in BDC 4.3.300, Tentative Plan.

g. Additional Approval Criteria for Master Planned Development Applications. A recommendation or a decision to approve, approve with conditions or to deny an application for a MPD application shall be based on the criteria listed in BDC 4.6.300(B), Criteria for Quasi-Judicial Amendments.

h. Transportation Analysis Chapter. The proposal complies with BDC Chapter 4.7, Transportation Analysis.

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Chapter 4.7

TRANSPORTATION ANALYSIS

Sections:

4.7.100 Purpose.

The City will review new development to ensure the transportation system provides for:

- Consistency with the Bend General Plan.
- Orderly construction of the Bend Urban Area Transportation System Plan network of streets and walking, biking and transit facilities.
- Safety and operations.

Therefore, the City requires applicants to complete an assessment of the transportation system within the study area of the development for adequacy to serve the new development and to assess the impacts of the development on the nearby transportation system. The City will use these assessments to ensure safety and operations of the transportation system are met for vehicle, biking, walking and transit and may impose reasonable conditions and mitigation requirements on development in proportion to its impacts.

4.7.200 Authority.

The City Engineer may modify or waive the required information upon written request by the applicant if, in the City Engineer's determination, the requested modification(s) or waiver(s) are consistent with the purpose and intent of this chapter. The written request must identify the special circumstances that apply to the particular situation and, explain how this chapter's purpose and intent are still fulfilled without the required information.

The City Engineer may expand the transportation study requirements and/or study area to address existing operational issues and/or any issue identified after the initial approval of a scope of work.

4.7.300 Process.

A. The following steps describe the process for assessing the transportation system:

Step 1. The applicant must prepare and submit a Transportation Facilities Report in accordance to BDC 4.7.400 containing the following information organized as follows:

a. Description of the Development
b. Trip Generation
c. Transportation Demand Management
d. Major Intersections
e. Trip Distribution
f. Transportation Facilities Evaluation

Step 2. The City Engineer will review and evaluate the Transportation Facilities Report in accordance to BDC 4.7.400.D to determine if a Transportation Impact Analysis is required. If a Transportation Impact Analysis is not required, the applicant may submit a development application including the Transportation Facilities Report. If a Transportation Impact Analysis is required, see Step 3. Step 1 and Step 3 may be combined.

Step 3. If required after Step 2 or if the applicant chooses do so concurrently with Step 1, the applicant must prepare and submit a Transportation Impact Analysis in accordance with BDC 4.7.500 containing the following information organized as follows:

a. Study Area
b. Study Analysis Years
c. Study Time Periods
d. Traffic Counts

e. Future Traffic Forecasts

f. Operations Analysis Methodology

g. Arterial and Collector Left Turn, Median Refuge, and Right Turn Lane Assessment

h. Safety Review

i. Walking, Biking and Transit Friendly Developments

j. Proportionate Share Contribution

Step 4. If no significant impacts are identified, the applicant may submit a development application including the Transportation Impact Analysis and may also have to pay a proportionate share contribution if required under BDC 4.7.700 Proportionate Share Contribution. Development with significant impacts will be required to propose mitigation in compliance with BDC 4.7.600 Significant Impacts and Mitigation Measures as part of the development application and may also have to pay a proportionate share contribution if required under BDC 4.7.700 Proportionate Share Contribution. If mitigation measures have been determined for any significant impacts, then the applicant must include the Transportation Impact Analysis with the mitigation measures identified as part of a development application.

4.7.400 Transportation Facilities Report.

A. Applicability. A Transportation Facilities Report will be required when a development involves one or more of the following:

1. Land division application;
2. Site Plan Review application;
3. Master Plan;
4. Bend Area General Plan map amendment;
5. Other development proposals as determined by the City Engineer.

B. Preparation. The Transportation Facilities Report must be prepared by a licensed Professional Engineer especially qualified in civil or traffic engineering by the State of Oregon. It is the responsibility of the Engineer to provide enough detailed information for the City Engineer to determine if a Transportation Impact Analysis is required.

C. Contents of the Transportation Facilities Report.

1. **Description of the Development.** Provide a description of the development sufficient to understand the proposed development's size, uses, operations, and interaction with the transportation system. At a minimum, the description must include both qualitative and quantitative descriptions, such as scale of development, day-to-day operations, deliveries, staffing, customer base (visitors, patients, employees, students, etc.), peak hours of operation, and identification of site access and on-site circulation needs.

2. **Trip Generation.** Provide a trip generation description for the proposal with the following applicable information:
    a. **Trip Credits and Vested Trips.** If trip credits are being utilized from the existing on-site development or from a separate development approval, the trip generation description shall provide supporting documentation of those trip credits, and documentation of the authority to use those trip credits for the development proposal.
    b. **Base Trip Generation Rates.** The City Engineer will determine which of the following to use for the base trip generation rates:
        i. Local data;
        ii. Average trip generation rates from the latest edition of the publication *Trip Generation* by the Institute of Transportation Engineers (ITE); or
        iii. Other method approved by the City.

        The procedure for identifying local trip generation rates shall comply with the guidelines for "Conducting a Trip Generation Study" in the ITE Trip Generation document.
    c. **General Plan Amendments.** For Bend General Plan amendment applications, the trip generation shall represent a reasonable build-out scenario supported through citation of nearby existing site trip generation rates and densities in order to ensure reasonable trip generation comparisons. If the General Plan amendment is accompanied by a concurrent Site Plan Review application, the trip generation for the site plan review application may be utilized instead. The amendment must comply with the Transportation Planning Rule, OAR 660-012-0060.
    d. **Pass-by Trips.** Adjustments for pass-by trips may be applied depending on the adjacent transportation facility and City Engineer approval. The published average pass-by rate will typically be allowed for those land use categories that are provided in the ITE Trip Generation publication. Pass-by trips must always be accounted for in the site access analyses and sufficiently documented. Pass-by trip maps must be created for each pass-by route separately rather than a single combined map.
    e. **Site Internalization/Trip Sharing.** Demonstrate how the site reduces vehicle trips through site design, including parking supply, land use mixes, and densities that promote reduced rates based upon those elements. City review of the proposal based on guidance from the state's Transportation Planning Rule may result in trip generation reductions.
3. **Transportation Demand Management (TDM).** The applicant may choose to develop a detailed TDM program to reduce net new trip generation for a proposed development. The TDM program must show that the proposed trip reductions will reduce the proposed development's trips. The applicant must

demonstrate that there are adequate resources to manage and maintain the proposed TDM program. The proposed elements of the TDM program will be evaluated to determine trip reduction rates. The trip reduction rates will be applied if the detailed TDM program is approved by the City. A maximum trip reduction of 25% will be considered for combined TDM program elements. The City will review the TDM program to ensure on-going program support. The following TDM Trip Reductions table identifies basic trip reductions allowed to be taken to the trip generation:

TDM Trip Reductions	
Facility Provisions	**Trip Generation Reduction**
Provide employee showers, lockers, and secure indoor bike parking according to requirements of this code	5%
Project provides no more than the minimum required parking and achieves that by providing the maximum on-street parking that is permitted and/or using shared parking agreements	5%
Project provides a minimum of 5% of the overall required parking for free priority parking for carpools/vanpools designated by signs	5%
Project provides twice as many covered, secured bike parking racks or facilities as required by Chapter 3.3	5%
On-going Incentives	**Trip Generation Reduction**
Project is located within ¼ mile of a transit facility and employer participates in CET's Group Bus Program.	10%
Project charges the actual cost to provide on-site parking on an annual basis for employee parking and provides free priority parking for carpools/vanpools.	10%
Participation in a TDM incentive program recognized by the City	5%
Other TDM elements as approved by the City	Up to 20%

4. **Major Intersections.** From each access point (driveway or street) of the development onto and along the transportation system for a distance of one mile, identify the major (Collector and Arterial) intersections on a map.
5. **Trip Distribution.** Provide a trip distribution description and map that contains the following information:

a. Trip distribution assignments that replicate overall origin/destination patterns, including the major intersections identified in subsection 4 above. Existing field count turning movement patterns are to be used as a guide for trip assignments as appropriate. The assignment should be adjusted to reflect future funded transportation facilities, improvements or services that are authorized in the Transportation System Plan and for which funding is in the City's approved Capital Improvements Program (CIP), the Statewide Transportation Improvement Program (STIP) or other approved funding plan.

b. Description of truck delivery routes, including over dimensional loads if applicable, of travel to and from the site for a distance of one mile. The distance may be extended to identify freight routes for freight-intensive sites or those that generate over-dimensional loads.

6. **Transportation Facilities Evaluation.** The report must evaluate and document the following for compliance with this code, the Transportation System Plan and the City of Bend Standards and Specifications:

   a. The existing transportation system infrastructure serving the site within the study area. The evaluation must include any future funded transportation system elements included in the City's approved 5-year Capital Improvement Program, Statewide Transportation Improvement Program or other approved funding plan.

   b. The following right-of-way information along the frontage of the proposed development:

      i. Compliance with the required right-of-way width for the roadway classification.

      ii. Compliance with the required street widths.

      iii. Compliance with the required right-of-way or easement width for all trail and access corridors.

      iv. Compliance with the required street frontage elements including curbs, bike facilities, park strips, sidewalks, driveways and driveway aprons, as well as curb ramps. All applicable elements shall be accessible per the City of Bend Standards and Specifications.

   c. The following access information:

      i. Legal access and recorded easements for all driveway and access systems serving the site. For all driveways and new intersections created by the development, intersection sight distance measurements must be provided for all movements into and out of the proposed accesses. Field measurements should be used wherever possible, although plan measurements from civil drawings may be utilized, particularly for planned intersections or driveways. Measurements need to account for vertical and horizontal curvature, grades, landscaping, and right of way limitations. Sight distance measurements shall comply with City of Bend Standards and Specifications for the posted speed of the road or as approved by the City Engineer.

ii. For arterial and collector street accesses and new street connections document the location of all existing driveways and street connecting points within 300 feet of the frontage of the property. Provide a driveway conflicting movement diagram and assessment showing overlapping conflicts with nearby existing driveways and street intersections.

d. The following on-site circulation and/or street plan access information:

i. The proposed street layout and determine if it matches the Transportation System Plan and if it matches into abutting and nearby approved development street layouts, abutting and nearby master plans or special planned areas and requirements of this code and provides for logical orderly development of adjoining properties.

ii. ~~T~~truck circulation and entry/egress assessment including routing, turning movement, and delivery needs for all truck and emergency service vehicles. Identify any proposed special truck accommodations for freight service.

iii. Necessary public access, shared access, and shared parking easements are in place or will be required to be in place.

e. The following existing and planned walking, biking and transit facilities and infrastructure serving the site from each access point (driveway or street) of the proposed development onto and along the transportation system for a distance of ¼ mile:

i. Location of all sidewalks, curb ramps, bike lanes, paths, crosswalks, pedestrian signal heads, push buttons, related signage, striping, and transit facilities along with pedestrian paths of travel between the transit facility and the site and to the buildings on the site.

ii. Barriers, deficiencies and high-pedestrian demand land uses including schools, parks, parking, senior housing facilities, and transit facilities.

f. Truck circulation and entry/egress including routing, turning movement, and delivery needs for all truck and emergency service vehicles. Identify any proposed special truck accommodations for freight service.

D. City Review and Evaluation.

1. If it is determined that any of the infrastructure or facilities are missing or substandard as identified in the Transportation Facilities Report, then the applicant will be required to comply with BDC Title 3 Design Standards and with the City of Bend Standards and Specification.
2. Based on information provided in the Transportation Facilities Report, the City Engineer will notify the applicant in writing if the Report is complete, and if not, what additional evaluation information is required. If no additional information is needed, the City Engineer will notify the applicant whether a Transportation

Impact Analysis is required. The City Engineer will determine if a Transportation Impact Analysis is required by considering the following criteria.

a. Operations.

i. Poor roadway configuration and/or alignment, or capacity deficiencies that are likely to be compounded as a result of the proposed development;

ii. Proposed street design creates inadequate circulation and does not minimize cut-through traffic or accommodate orderly development of adjacent properties;

iii. It is anticipated that the current or projected increase in trip generation of the roadway system in the vicinity of the proposed development will exceed the minimum operational criteria in BDC 4.7.500.B.6; and

iv. Potential improvements to accommodate freight.

b. Safety.

i. Existing safety issues;

ii. Projected increase in trip generation that may have the potential to impact the safety of the existing transportation system; and

iii. A traffic safety hazard is created or exacerbated on any street, roadway segment, or intersection within the study area as a direct result of the proposed development.

c. Walking, Biking and Transit Facilities.

i. Potential impacts to priority walking and biking routes, school routes, transit connectivity and multimodal street improvements identified in the Transportation System Plan;

ii. Bike access to site has gaps and/or the bike lane is dropped, missing, or otherwise unusable; and

iii. Identified transit facilities and/or their pedestrian paths of travel between the transit facility and the site and to the buildings on site are not complete and additional analysis may be required.

3. In all instances, a Transportation Impact Analysis must be submitted for any proposed development that:

a. Considers modification, installation, or removal of any traffic control device; or

b. Forecasts net increase in site traffic volumes greater than 100 average daily vehicle trips or off site major intersections are impacted by 15 or more peak-hour vehicle trips per lane group within 1 mile.

4.7.500 Transportation Impact Analysis.

A. Preparation. If the City Engineer determines that a Transportation Impact Analysis is required, it must be prepared by a licensed Professional Engineer especially qualified in traffic engineering by the State of Oregon. The applicant's Engineer shall consult with the City Engineer prior to preparing the Transportation Impact Analysis to determine the level of details to be included in the Analysis.

B. Contents of the Transportation Impact Analysis Report.

1. **Study Area.** The study area must include all site access and adjacent roadways and intersections. The study area must also include all off-site major intersections impacted by 15 or more peak-hour vehicle trips per lane group within one mile of the site. The City Engineer must approve the defined study area prior to commencement of the Transportation Impact Analysis. The City Engineer may choose to waive the study of certain intersections if deemed unnecessary.
2. **Study Analysis Years.** The analysis shall be performed for all study roadways and intersections for the following years with and without the proposed development:
    a. Existing conditions (current year);
    b. Year of completion of the final phase (for phased projects, intermediate phases may be required to be analyzed); and
    c. For an amendment to a functional plan, the General Plan, or a land use regulation the analysis year shall reflect the Transportation Planning Rule OAR 660-012-0060 requirements but in no case shall the analysis year be less than 10 years from the date of the preparation of the Transportation Impact Analysis. An analysis for an amendment to a functional plan, the General Plan or land use regulation must use the City of Bend's model as determined by the City Engineer.
3. **Study Time Periods.** Within each study year, an analysis must be performed for the following time periods:
    a. Weekday PM Peak hour (i.e. one hour between 4 and 6 PM); and
    b. Additional time periods may be required based on City Engineer direction for the following;
        i. Peak hour of the generator (i.e. peak hour for the proposed development);
        ii. Peak hour of nearby generator sites (e.g. a non-school site may study a nearby school's peak hour); and
        iii. Peak hour of cumulative nearby generators.
4. **Traffic Counts.** Once the study periods have been determined traffic counts must be done as follows:
    a. Counts must be taken Tuesday through Thursday;
    b. Counts may need to be adjusted as required by the City Engineer to reflect seasonal, schools, or other variations in traffic;
    c. Unless approved by the City Engineer, counts must be no more than 12 months old from the date of development application submittal;
    d. Additional hours of classified turning movement counts may be required based on City Engineer direction for the following:
        i. To determine compliance with traffic signal or all-way stop warrants; or,

ii. To determine the extent of over-capacity conditions.

e. Counts must include passenger cars, trucks, bikes and pedestrians. If high pedestrian and/or bike traffic is expected to be generated by the proposed development, as determined by the City Engineer, the Transportation Impact Analysis must consider improvements and connectivity to existing and proposed facilities.

5. **Future Traffic Forecasts.**

a. Traffic Forecast for Projects and Project Phasing.

i. Traffic forecast shall include all projects within the study area that have received approvals for development (master plans, land divisions, site plans, conditional use permits, and similar approvals.). They shall be identified, and their traffic generation included as cumulative traffic in the study. Proposed projects in the study area that have been submitted to the City for processing, but not yet approved, may also be included at the discretion of the City Engineer. The City Engineer will also specify an annual growth rate to be applied to existing volumes to account for other general traffic growth in and around the study area.

ii. For phased developments, the traffic forecasts for the year of completion of each phase shall be calculated to be field counts plus traffic from projects within the study area that have received approvals for development (approved master plans, land divisions, site plans, conditional use permits, and similar approvals.), plus an annual growth factor which would factor the existing counts up to the analysis year.

b. Build-Out Studies for General Plan Amendments and Zone Changes.

i. Traffic projections for build-out scenarios must utilize the current transportation model used by the City or other approved model as approved by the City Engineer. The applicant's Engineer shall use the model projections post processed using NCHRP 255 as the basis for determining turning-movement volumes for the required intersection analysis. A manual assignment of the project traffic added to the build-out traffic may typically be used to determine total future traffic, as approved by the City Engineer.

6. **Operations Analysis Methodology.**

a. The operations analysis must include the following:

i. Software inputs must utilize field conditions (e.g., measured field peak hour factor, saturation flow rates, lane utilization percentages, lane configurations, actual signal phasing and timing, and truck percentages). Other references and the City of Bend Standards and Specifications may be required to be utilized as approved by the City Engineer;

ii. An operations analysis for roundabouts performed in conformance with the City's Roundabout Operational Analysis Guidelines;

iii. An operations analysis for traffic signal and stop controlled intersections performed in conformance with the most recent version of the Highway Capacity Manual (HCM), the City of Bend Standards and Specifications or other reference approved by the City Engineer;

iv. Identify intersection operations in a table including volume to capacity ratios, delay, and queuing for critical movements as well as for the intersection as a whole including the following:

(A) Delays for two-way and four-way stop controlled study intersections including delays for lane groups, approaches, and intersections as a whole;

(B) 95th percentile queue projected to block nearby critical system elements such as adjacent traffic signals, roundabouts, or at-grade rail crossings, or such that line of sight safety issues are identifiable; and

(C) Volume to capacity ratio for any approach or for the intersection as a whole for signalized and roundabout controlled study intersections.

v. Microsimulation modeling and analysis using a calibrated model for the transportation corridor as defined must be performed for interconnected traffic signals. Calibration must include field measured saturation flow rates, existing timing and phasing rotations, peak hour factors, available queue storage and queuing; and

b. The operations analysis must use existing transportation system conditions (intersection control type and street roadway geometry). Committed funded transportation facilities may also be considered in the analyses. Committed funded transportation facilities means future funded transportation facilities, improvements or services that are authorized in a local transportation system plan and for which funding is in the approved Capital Improvements Program (CIP), the Statewide Transportation Improvement Program (STIP) or other approved funding plan.

c. Operations Standards. The intersection analyses provided in the Transportation Impact Analysis will be evaluated for safety deficiencies and queuing deficiencies and compliance with this code, the Transportation Planning Rule, the Bend Urban Area Transportation System Plan, any applicable development agreements, and regional transportation system plans. Intersections under the jurisdiction of the Oregon Department of Transportation shall also be evaluated using the ODOT Analysis Procedures Manual for compliance with the Oregon Highway Plan. Intersections under the jurisdiction of Deschutes County that are outside the Urban Growth Boundary shall also be evaluated for compliance with Deschutes County Code. Intersections that do not comply with the

criteria listed in those documents will be considered to have significant impacts for purposes of BDC 4.7.600.

d. Projects are considered to have significant impacts on the arterial-collector system for purposes of BDC 4.7.600 as identified below:

i. Two-Way Stop Control. Average delay for the critical lane group for approaches of an arterial or collector to another arterial or collector with greater than 100 peak hour trips is greater than or equal to 50 seconds during the peak hour;

ii. All-Way Stop Control. Average delay for the collector to collector and higher order intersection as a whole is greater than or equal to 80 seconds during the peak hour;

iii. If the 95th percentile queue exceeds the existing available storage or is projected to block nearby critical system elements such as adjacent traffic signals, roundabouts, or at-grade rail crossings, or such that line of sight safety issues are identifiable; or

iv. For signalized and roundabout collector to collector and higher order intersections under the jurisdiction of the City, the volume-to-capacity ratio for the intersection as a whole is greater than or equal to 1.0 during the peak hour.

e. Intersections under ODOT Jurisdiction.

i. In addition to the City operations standards, intersections on ODOT facilities will also be required to comply with ODOT mobility targets. Coordination with ODOT is required in the study process.

7. **Arterial and Collector Left Turn, Median Refuge, and Right Turn Lane Assessment.** Meeting the following criteria does not automatically require a pedestrian refuge or a turn lane to be installed. The City Engineer has the final determination during the review of proposed mitigation on the installation of a pedestrian refuge or a turn lane based on safety and operations of the system.

a. A median refuge assessment and a left and right turn lane assessment on arterial and collector streets must include the following information:

i. An assessment using Table 11 of the Safety Effects of Marked Versus Unmarked Crosswalks at Uncontrolled Locations Final Report and Recommended Guidelines (FHWA Publication Number HRT-04-100, September, 2005);

ii. An assessment using the Left and Right Turn Lane Criteria in the ODOT Analysis Procedures Manual (APM); and

iii. Provide the 95th percentile queue length for left, right and through turning vehicles.

b. Projects are considered to have significant impacts for purposes of BDC 4.7.600 if Table 11 of the Safety Effects of Marked Versus Unmarked Crosswalks at Uncontrolled Locations Final Report and

Recommended Guidelines identifies a candidate site(s) for the installation of a marked crosswalk or other needed pedestrian improvements at uncontrolled locations.

c. If the proposed development meets the criteria in the APM or exceeds the 95th percentile queue length for left or right turning vehicles, then the City Engineer has the final determination whether it is a significant impact for purposes of BDC 4.7.600

8. **Safety Review.**

a. For the study area or those locations required by the City Engineer, document and review crash data from the ODOT Crash Analysis and Reporting Section (ODOT-CARS). Crash data can be requested directly from ODOT or the Bend Urban Area Metropolitan Planning Organization. Crash data must provide a five year history of ODOT reported crashes and must be presented in tabular and crash diagram form. Crash data must include the following information:

i. Crash histories and a calculated crash rate;

ii. Crash patterns (was there an identifiable pattern to the crashes), crash types, and crash patterns affecting proposed development trips; and

iii. Whether any location within the study area is included within published safety studies, such as the Oregon Department of Transportation Safety Priority Index System lists, ODOT Safety Action Plan, or the City's Arterial and Collector Multimodal Safety Study.

b. Projects are considered to have significant impacts for purposes of BDC 4.7.600 if there is a crash pattern, one or more fatalities or severe injury crashes, one or more reported crashes per one million entering vehicles, or if it is included within a published safety study.

9. **Walking, Biking and Transit Friendly Developments.**

a. **Public and Private Schools (K-12), Colleges and Universities**. Provide an analysis of walking, biking and transit facilities along and across arterial and collector roadways, which accommodate safe, accessible and convenient access to and from the school. Elementary schools shall analyze the facilities within one mile of the school. All other schools, colleges and universities shall analyze the facilities within 1.5 miles of the school.

b. **All other uses.** Provide an analysis of walking, biking and transit facilities, including street crossings and access ways, which accommodate safe, accessible and convenient access from within new residential areas, planned developments, shopping centers, and commercial districts and residential areas, parks, shopping centers and transit facilities within ¼ of a mile of the development. Residential developments must also provide the analysis to elementary schools within one mile and all other schools, colleges and universities within 1.5 miles of the development.

c. Projects are considered to have significant impacts for purposes of BDC 4.7.600 if:

i. A project fails to provide accessible and safe pedestrian and bike connections (i.e. curb extensions, pedestrian refuges, striping and/or signage) to schools, residential areas, parks, shopping areas, transit facilities and adjacent streets; or

ii. The project disrupts existing or planned biking or walking facilities or conflicts with the adopted Bend Urban Area Bicycle and Pedestrian System Plan.

10. **Proportionate Share Contribution.** Provided proportionate share calculations in compliance with BDC 4.7.700 Proportionate Share Contribution.

4.7.600 Significant Impacts and Mitigation Measures.

A. Applicability. When significant impacts are identified as part of the Transportation Impact Analysis, mitigation measures must be included to address those impacts.

B. Preparation. Prior to proposing mitigation, the applicant's Engineer shall consult with the City Engineer regarding potential mitigation options. The proposed mitigation and a concept-level drawing of the final intersection form must be prepared and submitted prior to a development application being deemed complete, unless approved otherwise by the City Engineer. Mitigation measures may be proposed by the applicant or recommended by ODOT or Deschutes County in circumstances where a state or county facility will be impacted by a proposed development. Deschutes County and/or ODOT must be consulted to determine if improvements proposed for their facilities comply with their standards and are supported by the respective agencies.

C. Intersection Operation Standards. If the Transportation Impact Analysis shows that the operation standards at the intersection will be exceeded or if the intersection already exceeds the standards, the applicant will be required to provide mitigation measures in compliance with Section 4.7.600.F. impacts.

D. Unique Situations.

1. Development proposals within Master Planned Developments or Special Planned Areas, as described in BDC Chapter 4.5, Master Planning and Development Alternatives, where a Transportation Mitigation Plan has been approved, may exceed the operation standards at affected intersections as long as the proposed development is consistent with the approved Transportation Mitigation Plan.
2. Widening to accommodate additional travel lanes will not be permitted in the following situations:
   a. Intersections and streets that are already constructed consistent with the Bend Urban Area Transportation System Plan (TSP) including streets identified by the TSP as *"not being authorized for lane expansion"*;
   b. Intersections and streets located within or directly adjoining the City's Central Business District or historic district;

c. Where no physical mitigation is available to improve intersection operations to the performance standard; or

d. Where improvements may result in unacceptable tradeoffs to other modes of travel.

E. Timing of Improvements.

1. Unless a unique situation is identified in BDC 4.7.600.D, Unique Situations, mitigation shall be in place at the time of final platting of a land division, or at the time of final occupancy for commercial, industrial, institutional, mixed use, multi-family housing, triplex buildings and all other development. Mitigation for phased developments must be in place at the time specified in the approved decision.

   Exception: Construction of emergency services access requirements may be needed earlier.

2. Development proposals within Master Planned Developments or Special Planned Areas, as described in BDC Chapter 4.5, Master Planning and Development Alternatives, where a Transportation Mitigation Plan has been approved, shall refer to the Plan for the extent and timing of improvements.

F. Mitigation Measures. Mitigation measures must consider all users and include all or a combination of the following mitigation measures as approved at the discretion of the City Engineer, to mitigate the impacts of the proposed development.

1. Construct Transportation Mitigation.

a. The intersection form will be determined through the City's *Intersection Form Evaluation Framework* located in the City's *Roundabout Evaluation and Design Guidelines* document.

b. Mitigation must include the construction of the full intersection infrastructure and control required to bring the intersection into compliance with this code, the Bend Urban Area Transportation System Plan, and the City of Bend Standards and Specifications. Final intersection improvements, including type and geometry, will be determined by the City Engineer.

c. Intersection improvements must improve corridor operations in terms of progression and reduced corridor delay, and must be shown to cause no significant adverse impact to the corridor during integrated corridor operations.

d. Mitigation in the form of street widening must be constructed in conformance with the street classification of the Bend Urban Area Transportation System Plan and the cross-sections contained in this code or the City of Bend Standards and Specifications. As part of the development review process, the City Engineer may approve an alternate cross section if it meets operations standards.

e. Intersection and street improvements must balance operations and safety for all modes of travel. Walking and biking accommodations must be considered as part of any improvement.

2. Construct Interim Transportation Mitigation.

a. Construct interim mitigations. Interim mitigation measures may include but are not limited to upgraded operations controls, interconnected signals, signage, striping, pedestrian refuge, etc.

b. Improved signal timing and phasing may be achieved by installing the necessary communications and field equipment that would provide the increased capacity necessary to achieve the operation standards. For this to be acceptable as an interim measure, the applicant shall demonstrate through a field calibrated corridor operations model approved by the City Engineer that the proposed signal timing and phasing will provide the additional capacity necessary to meet the concurrency standards. Timing and phasing communications and field equipment are subject to approval of the City Engineer and/or ODOT.

3. **Transportation Demand Management (TDM).** Implement an approved TDM program as described in BDC 4.7.400.C.3, Transportation Demand Management.

4. **Walking, Biking and Transit.** In addition to accommodating walking and biking as part of the intersection and street improvement mitigation, walking, biking and transit improvements may be considered as potential mitigation measures, particularly when they reduce the number of study area-generated vehicle-trips. Mitigation improvements may include accessible sidewalks, pedestrian refuges, bike lanes, curb extensions, traffic control devices, curb ramps, striping, signage and other elements. Negative impacts of intersection and street mitigation measures on walking and biking infrastructure, such as on crosswalks and roadway shoulders, must be avoided, minimized, and/or mitigated themselves. The City may require accessibility improvements, including compliant curb ramps along the proposed development and including safe and accessible paths of travel to and from the development, depending on the type and impacts of the development.

5. **Payment In Lieu of Construction.** If infrastructure construction is required above, the City may elect to accept a payment in an amount equal to the cost estimated by the City for the design, right-of-way acquisition, utility relocation and construction cost of the improvements in lieu of actual construction. The City will use these funds on the impacted corridor to improve multi-modal safety, operations and to relieve congestion. Once the City accepts a payment in lieu of construction, the proposed development may proceed even if the impact of the proposed development causes the operation standards to be exceeded.

6. **Alternate Location Mitigation.** Mitigation strategies at alternative locations or affecting alternative modes of travel may be proposed by the applicant and may be accepted by the City Engineer. At a minimum, the proposed improvements should meet the following criteria:

a. The overall improvements proposed should be proportional to the impacts created by the application;

b. The proposed improvement strategies must address a critical need or issue within the study area such as safety, connectivity, system capacity, and parallel routes;

c. The locations proposed for improvement must be within the study area;

d. The proposed improvements must not already be, or be in the process of being, a condition of approval of another development; and

e. All applicable analysis requirements for the primary locations(s) shall apply to the analysis of the alternative location(s).

7. **Suspend The Mobility Standard.** The City Manager may suspend the mobility standard for a particular intersection or series of intersections under the City's jurisdiction when the intersection(s) may be in a condition that interim mitigation is not practical due to the large scale of the improvements or the City desires to maintain the current intersection's form. In such cases, developments impacting the intersection(s) do not have to analyze or mitigate impacts on the intersection(s). The City Manager will issue a written statement providing the duration and reason for the suspension of the mobility standard, and will maintain a list of all intersections where the mobility standard has been suspended. Suspending the mobility standard is not a limited land use decision or a land use decision.

4.7.700 Proportionate Share Contribution.

Each proposed development that submits a Transportation Impact Analysis will be required to contribute a proportionate share of the costs of the final improvements to the transportation system that will be required as a result of the cumulative impact that various developments combined will have on the intersections.

Developments must contribute their proportionate share or contribution for all intersections within the analysis area.

The City may use the proportionate share contributions for multi modal improvements on the transportation corridor and surrounding system if the improvement project benefits safety and operations and helps to reduce congestion.

Proportionate share calculations must be submitted with the Transportation Impact Analysis. Proportionate share calculations are calculated based on the ratio of development trips to growth trips for the anticipated cost of the full Bend Urban Area Transportation System Plan intersection infrastructure. The formula is provided below:

Proportionate Share Contribution = [Net New Trips/(Planning Period Trips–Existing Trips)] X Estimated Construction Cost

Net new trips are the total entering trips that are proposed to be added to the analysis area intersection by the development.

Exception: Intersections within the analysis area that are included in the City's Capital Improvement Plan or that are on the most current System Development Charge (SDC) fiscally constrained project list are exempt from proportionate share contribution.

Sections:

4.7.100 Purpose and Authority.

A. Purpose. This chapter is based on sound planning and engineering principles. The City will review land use actions and major roadway projects for potential impacts and to ensure that new development contributes to the orderly development of the Bend Urban Area Transportation System Plan network of roads, bikeways, and pedestrian facilities by:

- Establishing policies and procedures for evaluation of land use actions and major roadway projects to protect existing and future operations of roadways;
- Establishing service level standards (operations standards) for transportation facilities identified in the Bend Urban Area Transportation System Plan;
- Ensuring consistency with the functions, capacities, and service level standards of facilities identified in local and regional transportation system plans and the City of Bend Development Code;
- Extending transportation facilities to and through development property;
- Ensuring conditions are applied to mitigate the full extent of impacts and protect transportation facilities so that all land use proposals contribute their fair share towards the transportation system plan.

This chapter also identifies elements that will need to constitute the scope of work for traffic studies used to evaluate major roadway projects.

B. City's Authority. The City Engineer may, at his/her discretion, modify or waive the required content of this chapter when, in his/her judgment, special circumstances dictate such change. The City Engineer may at his/her discretion expand the requirements and/or study area if needed to address any issue that comes to light after the initial approval of a scope of work. Certain information may come to light over the course of the analysis that causes the City to require additional analysis to address traffic operations or safety issues that had not been anticipated.

C. Applicability. Land use actions will be reviewed for impacts and potential mitigation through a Transportation Impact Study.

1. Land Use Actions. A Transportation Impact Study (TIS) shall be required for development projects when the land use involves one or more of the following actions:

   a. A Comprehensive Plan Map amendment; or

   b. A zone change; or

   c. A land use action that takes access or seeks to take access directly onto an arterial or collector facility or within 300 feet of an interchange, ramp terminal, arterial-arterial intersection, arterial-collector intersection or collector-collector intersection; or

   d. A land use action where the forecast net increase in site traffic volume is greater than 100 average daily trips (ADT).

2. Roadway Projects Initiated by a Public Agency. A Transportation Impact Study shall be performed to determine geometric requirements when a major roadway infrastructure project involves one or more of the following:

   a. The project is inconsistent with the regional or local Bend Urban Area Transportation System Plan (TSP); or

   b. The project considers removal of an existing traffic signal or roundabout; or

   c. The project considers installation of a traffic signal or roundabout at an intersection other than a ramp terminal, arterial-arterial intersection, arterial-collector intersection or a collector-collector intersection.

3. Exceptions. A Trip Generation Letter may be provided in lieu of a Transportation Impact Study for applications that do not involve a General Plan Map amendment or zone change; provided, that the applicant can demonstrate that the project will generate fewer than 100 vehicle trips per day, and that the site access driveways meet sight distance, operations and safety requirements.

4.7.200 Transportation Impact Study.

~~A. The Transportation Impact Study shall be prepared under the responsible charge of a professional engineer licensed in Oregon, and qualified to perform such studies.~~

~~The Transportation Impact Study needs to provide sufficient information to the City so that the City can assess the impact to the transportation system, evaluate proposed mitigation measures, and craft reasonable conditions for the proposed land use action. Engineers are reminded of their responsibilities under State law which specifies that they shall at all times recognize that their primary obligation is to protect the safety, health, property and welfare of the public in the performance of their professional duties. These standards provided herein in no way serve as a substitute for the application of sound professional engineering judgment expected to be used by practitioners in the preparation and documentation of transportation analyses.~~

1. ~~Determination of Scope of Work. It shall be required that the person responsible for preparing the transportation impact analysis, first receive approval from the City Engineer for the scope of work for the report. The scope of work at a minimum shall identify the study area, and the study area intersections as indicated below. Requests for deviation from the provisions of this chapter shall be submitted in writing to the City Engineer.~~

2. ~~Scope of Work. The Transportation Impact Study Scope of Work shall include these elements:~~

   a. ~~Study Area. The study area shall include:~~

      i. ~~The existing street infrastructure along the property frontage (i.e., right-of-way, sidewalks, bicycle lanes, medians, driveway aprons);~~

      ii. ~~All driveway access points except single-family residential dwellings;~~

      iii. ~~All street connection points to abutting arterials or collectors;~~

      iv. ~~Any intersection with an interchange, or ramp terminal, and any arterial-arterial intersection, arterial-collector intersection or collector-collector intersection, that is within one-mile driving distance of the site and has more than 15 peak hour trips added to any lane group. The driving distance shall be measured from each access point (driveway or street) of the development onto the transportation system;~~

      v. ~~Other transportation facilities required to be studied by the Transportation Planning Rule, OAR 660-012-0060.~~

b. Analysis Period. At a minimum, an operations analysis shall be performed for the weekday p.m. peak hour at the study area intersections. Certain land use applications may also be required to study the a.m. peak hour, the peak hour of the proposed project, the peak hour of a nearby generator (e.g., school arrival/dismissal times), or a weekend peak hour. The peak traffic times to be studied in the Transportation Impact Study shall be determined at the discretion of the City Engineer.

For each of the study years, analyses with and without the proposed project shall be provided.

c. Study Years. The intersection operations analysis and traffic forecasts shall include the following study years:

i. Existing conditions (current year); and

ii. Year of completion of each phase; and

iii. Five years beyond final development phase; and

iv. For those projects that involve a zone change, Bend Urban Area General Plan Map amendment, or a major roadway infrastructure project an additional study year shall be provided. This study year shall reflect the Transportation Planning Rule, OAR 660-012-0060, requirements.

Transportation Planning Rule analysis year shall be either the 15-year projection of traffic or the traffic projections from the 20-year period beginning with the date of adoption of the Bend Urban Area Transportation System Plan, whichever provides the longest projection. These traffic projections, whether for the 15-year projection or the Bend Urban Area Transportation System Plan planning year, shall be provided by the City Engineer. The Bend Urban Area Transportation System Plan traffic model will be used as a basis for these projections.

d. Exceptions. For a development proposal that results in a net reduction in traffic, the five-year estimate analysis period may be deleted at the discretion of the City Engineer. [Ord. NS-2016, 2006]

4.7.300 Analysis Methodology.

~~The analysis methodology described herein shall apply to all required transportation impact analysis including Transportation Impact Studies and Trip Generation Letters.~~

~~A. Forecasts and Operations.~~

~~1. For each of the analysis years defined in BDC 4.7.200 (except for existing conditions), the traffic forecast and operations analysis shall be prepared for conditions with and without the proposed project. The operations analysis shall be performed in conformance with the Highway Capacity Manual (HCM) or other reference approved by the City Engineer.~~

~~2. Traffic counts for the existing conditions analysis shall be no more than one year old dated from the date of land use application. If pertinent transportation system conditions have changed since the count, then new field counts shall be performed.~~

~~3. Field counts shall include a minimum of a two-hour turning movement count for each peak period studied (between 4:00 and 6:00 for p.m. peak hour counts). Additional hours of turning movement counts will be needed to determine compliance with traffic signal warrants, all-way stop warrants or to determine the extent of over-capacity conditions. Counts for other hours will be determined as needed. Counts may need to be seasonally adjusted as required by the City Engineer to reflect peak conditions (i.e., summer peak, ski season/winter peak, or school traffic peak) for the transportation system element being analyzed.~~

~~4. The traffic forecasts for the year of completion of each phase shall be calculated to be field counts plus 100 percent of the traffic from the other approved but not yet constructed developments, plus an annual growth factor which would factor the existing counts up to the analysis year. The City Engineer or designee will supply traffic assignments for other approved but not yet constructed development; however, it is the study engineer's responsibility to determine build-out status of these developments.~~

~~The annual growth factor shall be determined by the City Engineer after considering first ODOT's Transportation Planning Analysis Unit (TPAU) traffic growth rates for the roadway in question, then the City of Bend's traffic growth rates. If no data are available, the annual traffic growth factor shall be three percent per year.~~

~~5. Trip Distribution. Trip assignments should replicate overall origin/destination patterns in the City. Existing field count turning movement patterns should be used as a guide for trip assignments as~~

appropriate. The assignment should be adjusted to reflect future committed transportation facilities, changes in zoning or development patterns.

6. Intersection Control Type and Roadway Geometry. The operations analysis shall use existing transportation system conditions (control type and roadway geometry). Committed transportation facilities may also be considered in the analyses. **Committed transportation facilities** means those proposed transportation facilities and infrastructure which are consistent with the acknowledged Comprehensive Plan and have approved funding for construction in a public facilities plan or the Six-Year Highway or Transportation Improvement Program.

7. Trip Generation. Project-generated traffic shall be forecast using average trip generation rates from the latest edition of the publication Trip Generation (ITE) or shall be created from local data (the procedure for collecting such data shall comply with the guidelines in the ITE Trip Generation Handbook). Adjustments such as those applicable for pass-by trips, that are well supported by multiple studies in the ITE Trip Generation Handbook, may be applied.

   For Bend Urban Area General Plan Map amendments or zone change applications, the trip generation shall represent the worst case trip generation of the existing and proposed zoning. This accommodates the highest trip generator allowed outright in the zone. However, if General Plan Map amendments or zone changes are accompanied by a concurrent site plan application, the trip generation for the site plan may be utilized instead.

B. Required Information.

1. Sight Distance Measurements. For all driveways, study area intersections, and new intersections created by the development (with the exception of single-family residential driveways), an intersection sight distance measurement shall be provided that shows compliance with City of Bend Standards and Specifications for the posted or eighty-fifth percentile speed (whichever is greater). Field measurements shall be used wherever possible, and plan measurements from civil drawings provided for planned intersections or driveways.

2. Adjacent and Nearby Driveways and Street Connecting Points. For arterial and collector roadways, the applicant's Transportation Impact Study shall document the location of all existing driveways and street connecting points near the frontage of the property. This shall be used in evaluating compliance with access management standards as provided in BDC Chapter 3.1, Lot, Parcel and Block Design, Access

and Circulation. In all instances, the documentation shall provide sufficient detail to address the requirements of BDC Chapter 3.1, Lot, Parcel and Block Design, Access and Circulation.

3. Pedestrian and Bicycle System. The applicant's Transportation Impact Study shall document the location of all existing and planned sidewalk and trail system elements within the study area of the proposed project for use in evaluating compliance with the Bend Urban Area Transportation System Plan, City of Bend Standards and Specifications, and the City of Bend Development Code.

4. Crash Histories. Crash histories and a calculated crash rate shall be reported for all study area intersections or those locations required by the City Engineer or designee. Crash histories shall provide a three-year history of ODOT and Bend Police Department reported crashes.

5. Access Management Standards. Land use applications that take access or seek to take access directly onto a collector or arterial facility or access within 300 feet of an interchange, ramp terminal, arterial-arterial intersection, arterial-collector intersection or collector-collector intersection will need to demonstrate compliance with the access management standards provided in BDC Chapter 3.1, Lot, Parcel and Block Design, Access and Circulation. Access to a State facility or within jurisdictional coverage of a State facility shall comply with Oregon Department of Transportation (ODOT) requirements.

6. Individual scopes of work for Transportation Impact Studies for major roadway infrastructure will vary depending on the project, but shall be established by the City Engineer or designee for non-ODOT projects. The scope of the study for ODOT projects shall be coordinated with the City and agreed upon by the City Engineer or designee. The purpose of this requirement is to promote cooperative planning efforts and to help assure that the impacts of major transportation projects consider system-wide impacts.

   Scopes for major roadway projects, in addition to the items previously listed in this chapter, shall include at a minimum:

   - Determination and identification of existing system status (access management, queuing/storage, crash rates, sight distance, volumes, operations, etc.);
   - Projection of future demands (volumes, queuing/storage, etc.);

- Development of alternatives that will mitigate existing system deficiencies and operate within the operations standards of the facility as defined in this code;

- Assess compliance with OAR Chapter 660 Division 12, Transportation Planning, the Bend Urban Area Transportation System Plan, and the City of Bend Development Code.

C. Transportation Planning Rule Compliance. This section implements the City's Bend Urban Area Transportation System Plan with regard to level of service and operation standards. The Transportation Impact Study provided for a zone change and/or Bend Urban Area General Plan Map amendment shall comply with and provide information on the requirements of the OAR 660-012-060 (TPR) and demonstrate that the proposed land uses are consistent with the identified function, capacity, and performance standards (level of service, volume-to-capacity ratio and widths) of the facility as defined in the adopted Bend Urban Area Transportation System Plan and the City of Bend Development Code. The operations standards in the City of Bend Development Code implement the policies of the Bend Urban Area Transportation System Plan.

4.7.400 Approval Criteria.

Prior to land use approval, the City must review the applicant's transportation analysis to determine whether or not the proposal will create excessive demand on the public facilities and services required to serve the proposed development. The City will assess the impacts of new development on the transportation system. The key factors used to assess the impacts to the transportation system include, but are not necessarily limited to:

- Number of trips by all modes associated with the proposal;

- Turning movement demand by vehicles of various types;

- Operations analyses results;

- Location of the project;

- Safety issues, location of the driveways (evaluated for conflict points and location criteria established in BDC Chapter 3.1, Lot, Parcel and Block Design, Access and Circulation).

The City Engineer will determine if the development or study area has adequate transportation facilities to support the proposed development based on compliance with the operations standards. The City shall also evaluate the crash histories and crash rates provided to identify any queuing issues. Crash rates greater than

1.0 per million entering vehicles and inadequate queue storage may need to be mitigated. Mitigation shall ensure that the transportation facilities are providing adequate capacity and safety concurrent with the development of the property.

Zone changes and Bend Urban Area General Plan Map amendments cannot be granted if the Transportation Impact Study shows that the proposed development would overburden the City's existing or planned transportation facilities now or in the future. The Transportation Impact Study must demonstrate that compliance with the TPR and the operations standards of the City of Bend Development Code can be achieved within the adopted Bend Urban Area Transportation System Plan.

Similarly, major roadway infrastructure projects should not be approved if the Transportation Impact Study shows that the proposed infrastructure projects would overburden the City's existing or planned transportation facilities now or in the future. The Transportation Impact Study must demonstrate that compliance with the TPR and the operations standards of the City of Bend Development Code can be achieved within the adopted Bend Urban Area Transportation System Plan.

A. Transportation System Assessment. This assessment of the transportation system will be used as the basis for requiring mitigation and imposing conditions of approval. Review measures for the transportation system include an evaluation of the existing and proposed transportation system. The applicant shall assess the presence and extent of:

- Right-of-way dedications;
- Public utility and access easements;
- ADA facilities;
- Sidewalks, trails, and pedestrian connections;
- Bike lanes;
- Turn lanes;
- Travel lanes;
- Intersection operations and queuing;
- Crash rates and crash type/patterns in the vicinity of the proposal; and

- Access management and circulation.

At a minimum, development proposals shall be required to provide adequate setbacks, create public access and utility easements, and dedicate right-of-way for roadways and trails to allow construction of the transportation system and facilities in accordance with the Bend Urban Area Transportation System Plan and the City of Bend Development Code. Other exactions and mitigations will be required on a rough proportionality basis.

B. Operations Standards. The intersection analyses provided in the Transportation Impact Study will be evaluated for safety deficiencies, queuing deficiencies, compliance with the Transportation Planning Rule, and the Bend Urban Area Transportation System Plan, any applicable Development Agreements, and regional transportation system plans. Intersections under the jurisdiction of the Oregon Department of Transportation shall also be evaluated for compliance with the Oregon Highway Plan. Intersections that do not comply with the criteria listed in those documents, as well as those criteria listed below, may be required to be mitigated.

1. Two-Way Stop Control. Approaches with greater than 100 peak hour trips; average delay for the critical lane group is less than or equal to 50 seconds during the peak hour;

2. All-Way Stop Control. Average delay for the intersection as a whole is less than or equal to 80 seconds during the peak hour;

3. Roundabout. Volume-to-capacity ratio for the intersection as a whole is less than or equal to 1.0 during the peak hour;

4. Signalized Intersection under the Jurisdiction of the City of Bend.

    a. For intersections that are not constructed to the widths and infrastructure elements of the Bend Urban Area Transportation System Plan or other approved master plan and not located within or directly adjoining a historic district or Central Business Zone, the volume-to-capacity ratio for the intersection as a whole is less than or equal to 1.0 during the peak hour.

    b. For intersections that are not constructed to the widths and infrastructure elements of the Bend Urban Area Transportation System Plan or other approved master plan and are located within or directly adjoining a historic district or Central Business Zone, the volume-to-capacity ratio for the intersection as a whole is less than or equal to 1.0 during the hour directly preceding and following the peak hour.

c. For intersections that are already constructed to the widths and infrastructure elements of the Bend Urban Area Transportation System Plan or other approved master plan, the operation standard shall be a volume-to-capacity ratio less than or equal to 1.0 for the intersection as a whole during the hour directly preceding and following the peak hour.

5. Signalized Intersection under ODOT Jurisdiction.

a. In addition to the City of Bend operations standards, intersections on ODOT facilities will also be required to comply with ODOT mobility standards, which are typically a higher standard (lower volume-to-capacity ratio). The concurrency requirements may vary with ODOT. Coordination with ODOT should be considered in the study process. City operations standards and concurrency standards will apply as a minimum on ODOT facilities.

Table 4.7.400.A

Signalized Intersection Operations Standards

Intersection Status/Jurisdiction	**City of Bend Operations Standards**	**ODOT Operations Standards and Concurrency**
Built to TSP/Master Plan; within CB/historic district	v/c less than 1.0 for hour preceding and following peak hour	N/A
Built to TSP/Master Plan; outside of CB/historic district	v/c less than 1.0 for hour preceding and following peak hour	City Operations Standards and ODOT Mobility Standards or Concurrency Standards
Not Built to TSP/Master Plan; within CB/historic district	v/c less than 1.0 for hour preceding and following peak hour	N/A
Not Built to TSP/Master Plan; outside of CB/historic district	v/c less than 1.0 for peak hour	City Operations Standards and ODOT Mobility Standards or Concurrency Standards

C. Pro Rata Share Contributions. Each development shall contribute its proportional share to the costs of the transportation system that will be required as a result of the cumulative impact that various developments

combined will have on the system, regardless of whether the impact of an individual development would by itself cause a facility to fall below the operations standards set forth above. Developments shall be required to contribute their proportional share for all intersections within the study area as well as mitigate operations as described below.

4.7.500 Mitigation Requirements/Conditions of Approval.

The transportation impact analyses for each of the study time frames need to show compliance with the operations criteria listed in BDC 4.7.400, or the applicant will be required to mitigate to bring the operations into compliance. Mitigation shall be in compliance with City of Bend Standards and Specifications, the Bend Urban Area Transportation System Plan and the requirements of the Bend Development Code.

Exception: The five-year projected analyses are used only for planning purposes and will not require mitigation.

If mitigation is identified as being necessary, but cannot be imposed due to rough proportionality limitations, the City of Bend may deny the application or require modifications to limit impacts.

Concurrency for the City of Bend requires that the mitigation be in place at the time of final platting of the residential subdivision (or individual phases of the residential subdivision), or at the time of occupancy permits for commercial, industrial, duplex, triplex buildings, and all other non-single-family buildings.

Exception: Construction of emergency service access requirements may be needed earlier.

Requirements for Existing Year Traffic, Year of Completion of Each Phase, and Year of Completion of Each Phase plus Project. Mitigations shall:

- Comply with applicable requirements and design elements of the City of Bend Development Code and the Bend Urban Area Transportation System Plan and regional transportation system plan;
- Meet appropriate installation warrants (all-way stop warrants for both all-way stop and roundabout installations, traffic signal warrants for new signal installations, and left or right turn lane warrants);
- Have the least negative impact on all applicable transportation facilities;
- Be shown to operate the best of similar threshold mitigations for the intersection itself as well as for the corridor as a whole; and

- Have construction plans approved by the City Engineer.

Requirements for Transportation Planning Rule Analyses Years shall:

- Be included in the Bend Urban Area Transportation System Plan at the time of final platting of the subdivision (or individual phases of the subdivision), or at the time of commercial building permits;

- Have the least negative impact on all applicable transportation facilities;

- Be shown to operate the best of similar threshold mitigations for the intersection itself as well as for the corridor as a whole; and

- Comply with applicable requirements and design elements of the City of Bend Development Code and the Bend Urban Area Transportation System Plan and regional transportation system plan.

The following mitigation measures are acceptable to such an extent that the concurrency standard can be achieved.

A. Construct Transportation System Operations Mitigation. Operations mitigations shall include the construction of the full intersection infrastructure and control, to bring the intersection into compliance with the Bend Urban Area Transportation System Plan. Intersection improvements of this nature will be identified by the City Engineer or designee.

Proposed new traffic signals shall show concurrency operations as well as improved corridor operations in terms of signal progression and reduced corridor delay, and be shown to cause no significant adverse impact to the corridor during integrated corridor operations. The City Engineer and the Oregon Department of Transportation Region 4 Transportation Manager or their designees must approve design of all new traffic signals.

Mitigation in the form of roadway widening shall be constructed in conformance with the roadway classification of the Bend Urban Area Transportation System Plan, and the cross-sections as set forth in BDC Chapter 3.4, Public Improvement Standards, including sidewalks, bike lanes, medians and total roadway widths. Roadways wider than five lanes are not approvable at this time.

~~Mitigation in the form of intersection widening shall be constructed in conformance with the Transportation System Plan designation widths. Right turn lanes, when approved by the City Engineer and Region 4 ODOT Traffic Manager, or their designees, proposed for intersection operations mitigation, shall be implemented with appropriately designed pedestrian island refuges in compliance with City and/or ODOT standards.~~

~~Operations mitigations shall not include widening to accommodate additional travel lanes for the following situations:~~

- ~~Roadways that are already constructed to the widths consistent with the Bend Urban Area Transportation System Plan;~~
- ~~Roadways located within or directly adjoining the City's Central Business Zone; and~~
- ~~Intersections and roadways located within or directly adjoining a historic overlay zone or historic district.~~

~~The City acknowledges that in certain situations, no physical mitigation may be available to improve intersection operations to the operations criteria. In these situations, other forms of mitigation shall be proposed by the applicant as discussed below and conditions of approval will be created to minimize the application's impact on the intersections in question.~~

~~B. Construct Interim Transportation System Operations Mitigation. Applicants may choose to construct interim operations mitigations, as approved by the City Engineer, that will bring the intersection into concurrency compliance with the operations standards outlined in this chapter, and, as well, pay their proportionate share towards the full intersection infrastructure to bring the intersection into compliance with the Bend Urban Area Transportation System Plan as described above.~~

~~Interim operations mitigations may include the construction of additional turn lanes, additional travel lanes, upgraded operations controls, etc., considering the following limitations and requirements.~~

~~Interim mitigation in the form of improved signal timing and phasing may be achieved by installing the necessary communications and field equipment that would provide the increased capacity necessary to achieve the concurrency standards. The applicant needs to demonstrate through a field calibrated corridor operations model (approved by the City Engineer or designee) that the proposed signal timing and phasing changes will provide the additional capacity necessary to meet the concurrency standards. The City Engineer~~

and the Oregon Department of Transportation Region 4 Transportation Manager or their designees must approve timing and phasing, communications and field equipment.

Proportionate share calculations will be calculated based on the ratio of development trips to growth trips for the anticipated cost of the full Bend Urban Area Transportation System Plan intersection infrastructure. The calculation is provided herein:

Proportionate Share Contribution = [Net New Trips/(Planning Period Trips – Existing Trips)] X Estimated Construction Cost

Where net new trips are the total entering trips that are proposed to be added to the study area intersection by the development; estimated construction cost is the cost to construct the master planned infrastructure from the transportation system plan in today's dollars.

C. Limit Proposed Land Uses. When impacts are greater than can be mitigated by the applicant due to rough proportionality limitations, the applicant may need to reduce the proposed trip generation by restricting uses within the site or by applying for a more appropriate land use to achieve the concurrent operations standards. The Transportation Impact Study will need to show that the proposed limitations will be adequate to reduce the trips and bring the transportation system into compliance with the operations criteria.

D. Amend Bend Urban Area Transportation System Plan to Add Arterial and/or Collector Facilities. In cases where mitigation is necessary, but would require widening of a roadway or an intersection beyond the limits allowed in the Bend Urban Area Transportation System Plan or the City of Bend Development Code, the applicant may choose to provide additional off-site capacity by amending the Transportation System Plan to include additional arterial or collector routes. The applicant's Transportation Impact Study will need to show that the proposed mitigation will be adequate to redistribute the transportation system's trips and bring the transportation system into compliance with the Operations Standards. In this case, unless the proposed roadways are contained within the development's site, the proposed mitigation (alternate route(s)) would not need to be physically constructed, but the Bend Urban Area Transportation System Plan amendments must have been approved prior to approval of the land use application.

E. Amend Bend Urban Area Transportation System Plan to Provide Alternative Transportation Elements. In cases where mitigation is necessary, but would require widening of a roadway or an intersection beyond the limits allowed in the Bend Urban Area Transportation System Plan or the City of Bend Development Code, the applicant may choose to provide additional capacity by amending the Transportation System Plan to include additional off-site trail, pedestrian or transit facilities. The Transportation Impact Study will need to show that

~~the proposed additional off-site trail, pedestrian, or transit facilities will be adequate to enhance mode splits sufficiently to bring the transportation system into compliance with the operations criteria. In this case, unless the proposed elements are contained within the development's site, the proposed mitigation would not need to be physically constructed, but the Bend Urban Area Transportation System Plan amendments must have been approved prior to approval of the land use application.~~

~~F. Reduce Impacts with a Travel Demand Management (TDM) Program. The applicant may choose to develop a TDM program to reduce net new trip generation for a proposed project when trip reductions are necessary to minimize off-site mitigation requirements. Proposed elements of the TDM program will be evaluated to determine trip reduction rates. The following trip reduction rates shall be applied if a TDM program with these elements were to be developed by the applicant:~~

- ~~Provide employee showers, lockers, and secure bike parking according to requirements of the Bend Development Code – five percent trip reduction;~~
- ~~Project is located within one-fourth mile of a transit route – five percent trip reduction;~~
- ~~Project is located within one-fourth mile of a transit route and employer provides free or significantly reduced monthly bus passes to employees – 10 percent trip reduction;~~
- ~~Project provides free priority parking for carpools/vanpools – five percent trip reduction;~~
- ~~Project provides free priority parking for carpools/vanpools but fee nonpriority parking for other employees – 10 percent trip reduction;~~
- ~~Other TDM elements as approved by the City Engineer;~~
- ~~Maximum trip reduction for combined TDM program elements – 25 percent trip reduction.~~

~~The Transportation Impact Study will need to show that the proposed trip reductions will be adequate to reduce the development's trips and bring the transportation system into compliance with the operations criteria. A modification to the original site plan approval would need to be obtained if TDM program elements change significantly.~~

EXHIBIT B
FINDINGS OF FACT
DEVELOPMENT CODE UPDATE
AMENDMENT PZ 16-0054

Procedural Findings

The application was initiated by the city in accordance with BDC 4.1.500. Timely and sufficient notice of the public hearings was provided pursuant to BDC 4.1.515. Notice of the proposed amendments was provided to the Department of Land Conservation and Development (DLCD) on January 13, 2016 and a revision was sent on March 4, 2016. A notice of the Planning Commission public hearing was published in the Bend Bulletin on January 31, 2016 and sent to the neighborhood associations on January 27, 2016. The Planning Commission reviewed the proposed amendments during a work session and held a public hearing on February 22, 2016 and continued the public hearing to March 14, 2016. On March 14, 2016 the Planning Commission held the continued public hearing and made a recommendation to the City Council for approval. A notice of the City Council public hearing was published in the Bend Bulletin on March 27, 2016 and sent to the neighborhood associations on March 23, 2016. The City Council held a work session on April 6, 2016 and a public hearing on April 20, 2016 and conducted the first reading. On May 4, 2016 the Council held a second reading and voted to approve the amendments.

Criteria of Approval

(1) The Bend Area General Plan

(2) Bend Development Code

(a) Chapter 4.6, Land Use District Map and Text Amendments;
Section 4.6.200(B), Criteria for Legislative Amendments

Applicable Procedures

(1) Bend Development Code

(a) Chapter 4.1, Land Use Review and Procedures

Findings Regarding Compliance with Applicable Criteria:

CONFORMANCE WITH CITY OF BEND DEVELOPMENT CODE, CHAPTER 4.6, LAND USE DISTRICT MAP AND TEXT AMENDMENTS

4.6.200 Legislative Amendments.

A. Applicability, Procedure and Authority. Legislative amendments generally involve broad public policy decisions that apply to other than an individual property owner. These include, without limitation, amendments to the text of the comprehensive plan and map, Development Code and changes in the zoning map not directed at a small number of properties. They are reviewed using the Type IV procedure in accordance with Chapter 4.1, Land Use Review and Procedures and shall conform to Section 4.6.600, Transportation Planning Rule Compliance. A Legislative Amendment may be approved or denied.

FINDING: The recommended amendments to the text of the Development Code involve broad public policy rather than an individual property owner. Therefore, the Legislative Amendment Procedures of this section are the appropriate procedures for this review.

B. Criteria for Legislative Amendments. The applicant shall submit a written narrative which explains how the approval criteria will be met. A recommendation or a decision to approve or to deny an application for a Legislative Amendment shall be based on all of the following criteria:

1. The request is consistent with the applicable State land use law;

FINDING: The proposed amendments are consistent with the applicable State land use laws. In particular, they satisfy Goal 1: Citizen Involvement, Goal 2: Land Use Planning, and Goal 12: Transportation.

Goal 1, Citizen Involvement, is satisfied through following the City's acknowledged text amendment process that includes a Planning Commission public hearing, followed by a City Council public hearing. Staff emailed the changes to a technical committee for their review on January 14, 2016. The Planning Commission reviewed the proposed amendments during a work session and public hearing held on February 22, 2016 and continued the public hearing to March 14, 2016. On March 14, 2016 the Planning Commission held the continued public hearing and made a recommendation to the City Council for approval.

Goal 2, Land Use Planning, requires a land use planning process and policy framework as a basis for all decision and actions related to use of land and to assure an adequate factual base for such decisions and actions. The Goal is met because the City followed the land use planning process and policy framework established in the City's acknowledged Comprehensive Plan (General Plan) and Development Code as a basis for the decisions and actions related to the new regulations regarding the use of land and transportation and to assure an adequate factual base for these decisions and actions. The proposed amendments will be adopted by the City Council after a public

hearing. Multiple opportunities were provided for review and comment by citizens and affected governmental units during the preparation of this ordinance.

Goal 2 specifically states that minor plan changes such as the amendments to Chapter 4.7 Transportation Analysis should be based on special studies or other information which will serve as the factual basis to support the change. The public need and justification for the particular change should be established. The Bend Area General Plan Chapter 7: Transportation Systems and the City's Transportation Systems Plan have the following applicable objectives, policies and implementation measures that support the amendments:

6.9.1 TRANSPORTATION AND LAND USE

Objectives:

- *To ensure that future development, including re-development will not interfere with the completion of Bend's transportation system.*

Policies:

2. The City shall continue to use and develop performance standards and guidelines that can reduce vehicle trip lengths and/or promote non-vehicle transportation modes.

3. The City shall consider potential land needs for long-range transportation system corridor improvements and related facilities including transit during the review of subdivisions, partitions, and individual site applications.

5. The Zoning Ordinance shall be revised so that building design, building orientation and site plans for commercial and public facilities promote pedestrian and bicycle access to and from nearby neighborhoods.

14. The city of Bend shall continue to work with ODOT and Deschutes County to coordinate solutions to highway and non-highway road issues that cross over jurisdictional boundaries.

Implementation:

1. In general, implementation of these objectives and policies will occur during the review and processing of individual land use applications.

5. City staff will review development codes from other cities for examples of performance standards that continue to improve the transportation system. After review of standards from other cities, Bend has identified a set of performance standards that balances operations criteria with financial constraints, safety impacts, quality of living aspects and community values. These operations criteria are included in the City's Development Code and included in this TSP by reference.

Finding: The proposed amendments provide a process for the City to evaluate a development's impacts and to ensure the transportation system provides for orderly construction of the Bend Urban Area Transportation System Plan network of streets and walking, biking and transit facilities. The proposed Transportation Facilities Report and Transportation Impact Analysis will evaluate the adequacy of the existing transportation system to serve the proposed development, and the expected impacts of the proposed development on the system. The City will use these assessments to ensure safety and operations are met for all modes of travel and may impose reasonable conditions and mitigations.

The proposed mitigation measure options promote non-vehicle transportation modes of travel through a Transportation Demand Management (TDM) program and through the construction of walking and biking facility improvements.

Also, an applicant is required to coordinate with Deschutes County and/or ODOT when improvements are proposed to their facilities.

6.9.2 TRANSPORTATION SYSTEM MANAGEMENT

Objective:

- Provide cost effective transportation improvements and implement strategies that will improve the efficiency and function of existing roadways

Policies:

1. The City shall adopt land use regulations to limit the location and number of driveways and access points, and other access management strategies on all major collector and arterial streets.

3. The City and State shall implement transportation system management measures to increase safety, reduce traffic congestion to improve the function of arterial and collector streets, and protect the function of all travel modes.

Finding: The proposed amendments will implement transportation system management measures by allowing the following mitigation measure improvements;

- Altering traffic signal timing and phasing
- Providing new traffic controls
- Providing new interconnects and detection to allow better communication between signals

6.9.3 TRANSPORTATION DEMAND MANAGEMENT

Objectives:

- *To reduce peak hour traffic loading on the roadway system*
- *To reduce single occupant vehicle travel*

- *Implementation of a TDM Plan (Central Oregon Commute Options Program) for the city of Bend*

Policies:

2. The City shall work with businesses, especially those with more than 25 employees, to develop and implement a transportation demand management plan. These plans shall be designed to reduce peak hour traffic volumes by establishing trip reduction targets over five years.

*3. The City and County shall work with business groups, schools**,** the Park District and other governmental agencies to develop and implement transportation demand management programs.*

Finding: A proposed mitigation option for an applicant includes developing a detailed Transportation Demand Management (TDM) program to reduce the development's trips.

6.9.4 PEDESTRIAN AND BICYCLE SYSTEMS

Objectives:

To support and encourage increased levels of bicycling and walking as an alternative to the automobile

6.9.5 PUBLIC TRANSPORTATION SYSTEM

Objectives:

- *Continue to develop public transportation services for the transportation disadvantaged*
- *Reduce reliance on automobiles and develop public transportation facilities*
- *Increase mobility and accessibility throughout the urban area*
- *Continue to provide infrastructure and land use planning to support transit*

Policies:

5. To accommodate a fixed-route transit system, land use ordinance and other regulations shall be implemented that establish pedestrian and transit-friendly design along potential or existing transit routes.

Finding: The proposed amendments will consider walking, biking and transit improvements as potential mitigation measures, particularly when it reduces the number of study area-generated vehicle-trips. Mitigation improvements may include accessible sidewalks, pedestrian refuges, bike lanes, curb extensions, traffic control devices, curb ramps, striping, signage and other elements.

Goal 12, Transportation System, encourages a safe, convenient and economic transportation system. Goal 12 is satisfied because the proposed Transportation Facilities Report requires the applicant to analyze existing safety issues, projected increase in trip generation that may have the potential to impact the safety of the existing transportation system, and traffic safety hazards created or exacerbated on any

street, roadway segment, or intersection within the study area as a direct result of the project. The proposed Transportation Impact Analysis requires an applicant to analyze crash data. If significant impacts are identified the applicant will be required to provide mitigation to ensure safety of the transportation system.

The proposed amendments also require an applicant to assess the transportation system for all modes of travel, including freight, for adequacy to serve the new development and to assess the impacts of the development on the nearby transportation system. The City will use these assessments to ensure safety and operations of the transportation system are met and may impose reasonable conditions and mitigations upon development in proportion to its impacts.

Based on the above discussion, the proposed text amendments to the Development Code are consistent with the statewide planning goals and therefore comply with the requirement that the amendments be consistent with state land use planning law.

2. The request is consistent with the applicable Bend Area General Plan goals and policies;

FINDING: The "goals" established in the general plan express the desires of the residents of Bend as the City progresses into the future. The "goals" are generally carried out through "policies," which are statements of public policy. The following Goals and Policies are applicable:

Chapter 1: Plan Management and Citizen Involvement
Goals:

- *Transportation Options Appropriate to Bend* — Foster transportation systems that provide opportunities for all practical modes to facilitate the livability of neighborhoods and the community.

The proposed amendments to Chapter 4.7 require an analysis of all modes of travel and their facilities and mitigation measures must consider all users.

- *Implementing Consistent Ordinances — Implement the plan through effective, clear and consistent ordinances and language that reflect the intent of the vision.*

The proposed amendments provide the following review steps that implement the General Plan and Transportation System Plan that are effective, clear and consistent.

Step 1. The applicant must prepare and submit a Transportation Facilities Report. The Transportation Facilities Report section includes the contents that must be submitted.

Step 2. The City Engineer will review and evaluate the Transportation Facilities Report and determine if a Transportation Impact Analysis is required based on specific review criteria. If a Transportation Impact Analysis is not required, the applicant may submit

their development application. If a Transportation Impact Analysis is required, the applicant moves onto Step 3.

Step 3. The applicant must prepare and submit a Transportation Impact Analysis**.** The Transportation Impact Analysis section includes the contents that must be submitted and thresholds that constitute a significant impact.

Step 4. If no significant impacts are identified, the applicant may submit for a development application. When significant impacts are identified, mitigation measures must be included to address those impacts.

- *Public/Civic Involvement* — Encourage involvement by all citizens, corporate and individual, to keep the city vital and the Plan an "evolving vision".

Over the past year, city staff met several times to work on the update to Chapter 4.7 Transportation Analysis. After staff's work on the initial draft was completed, Kittelson and Associates reviewed the draft and provided comments which were incorporated. Then staff emailed the proposed amendments to a large committee comprised of technical experts from the private and public sectors. Staff received comments from several of the members, including ODOT and Deschutes County, and made additional revisions. This public outreach effort implements this goal.

Chapter 7: Transportation Systems

As previously discussed in the findings for Statewide Planning Goal 2 Land Use Planning, Chapter 7: Transportation Systems has several objectives, policies and implementation measures that the proposed amendments comply with. In addition, Chapter 7: Transportation Systems has the following applicable goals:

5.0.1.2 Plan Goals

Mobility and Balance:

- *Develop a transportation system that serves all modes of travel and reduces the reliance on the automobile.*
- *Provide a variety of practical and convenient means to move people and goods within the urban area.*

Efficiency:

- *Address traffic congestion and problem areas by evaluating the broadest range of transportation solutions.*

Accessibility and Equity:

- *Provide all transportation modes access to all parts of the community.*

Safety:

- *Design and construct the transportation system to enhance travel safety for all modes.*

Finding: The proposed amendments require an analysis of the transportation system for all modes of travel. It requires an analysis of the operations, including congestion, and safety of the system. It also requires an analysis of walking, biking and transit facilities, including street crossings and access ways, to accommodate safe, accessible and convenient access. Based on the analysis, mitigation measures will be required when significant impacts are identified.

The Bend Area General Plan also has the following policies;

7.5 TRANSPORTATION FUNDING AND PRIORITIZATION POLICIES

Funding Policies:
1. The Bend City Council should regularly evaluate existing funding sources and explore the use of new funding opportunities to increase resources for maintenance operations and capital improvements.

Finding: The proposed amendments to Chapter 4.7 will require an applicant to provide mitigation measures when significant impacts are identified and they will also be required to contribute a proportionate share of the costs of the final improvements for intersections within their study area. The City may use the proportionate share contributions for multi modal improvements on the transportation corridor and surrounding system if the improvement project benefits safety and operations and helps to reduce congestion.

7. The Financing Program projections show that sufficient funding will be available to build the twenty-year needs of the transportation system that are included in the TSP and further defined as the near- and mid-term priorities. However, if existing and future funding levels do not fully cover increased demand on the system, the City Council may accept additional congestion on the roadway system to allow transportation projects to be postponed beyond the planning period.

Finding: The following amendment implements Policy 7.5.7:

- The City Manager may suspend the mobility standard for a particular intersection or series of intersections under the City's jurisdiction when the intersection(s) may be in a condition that interim mitigation is not practical due to the large scale of the improvements or the City desires to maintain the current intersection's form. In such cases, developments impacting the intersection(s) do not have to analyze or mitigate impacts on the intersection(s).

3. The applicant can demonstrate a public need or benefit for the proposed amendment.

FINDING: A well-prepared analysis will provide the applicant, the City of Bend and the general public with information needed to properly assess the adequacy of existing and

planned transportation infrastructure to accommodate the proposed project, as well as the development's impacts and mitigation measures. This will benefit the public.

4.6.500 Record of Amendments.

The City Recorder shall maintain a record of amendments to the text of this Code and the land use districts map in a format convenient for public use.

FINDING: In the event the Development Code text amendment is adopted by ordinance, the City Recorder will maintain a record of the amendments and the revised provisions will be included as part of the Bend Development Code available to the public on the City's website.

4.6.600 Transportation Planning Rule Compliance.

When a development application includes a proposed comprehensive plan amendment or land use district change, or both, the proposal shall be reviewed to determine whether it significantly affects a transportation facility, in accordance with Oregon Administrative Rule (OAR) 660-012-0060.

FINDING: The proposed text amends the Bend Development Code, a functional component of the General Plan, and is an amendment to a land use regulation as noted in OAR 660-012-0060. The proposed amendments implement the City's Transportation System Plan. The proposed amendments will have no measurable impacts on the amount of traffic on the existing transportation system; therefore the proposed text amendments do not cause a "significant effect" under ORS 660-012-0060.

VI. CONCLUSIONS:

Based on the above Findings, the proposed Development Code text amendment meets all applicable criteria for adoption.