

**Chapter 340**  
**TRANSPORTATION STANDARDS**

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**340.01 Purpose and Intent.** The intent of this chapter is to provide and encourage a safe, convenient and economic transportation system. This chapter applies to all of Baker County's transportation system. The purpose of the transportation standards chapter is to consolidate all of the transportation related code into one chapter, Chapter 340. The contents of Chapter 340 apply to construction of new residential, industrial or commercial structures subject to a land use decision.

**340.02 Definitions.** For the purposes of this Chapter, 340, the definitions below shall apply.

**Abutting:** Contiguous or adjoining. It shall include the terms adjacent, adjoining and contiguous.

**Access easement:** An easement recorded for the purpose of providing vehicle, bicycle, and/or pedestrian access from a public street to a parcel across intervening property under separate ownership from the parcel being provided access.

**Access management:** Measures regulating access to arterials, collectors, local streets, and highways from public roads, private roads, and private driveways for the purpose of improving efficiency, safety, and/or operation of the roadway. These measures may include but are not limited to restrictions on the type and amount of access to roadways and the use of physical controls such as signals and channelization.

**Accessway:** A walkway that provides pedestrian and/or bicycle passage either between streets or from a street to a building or other destination such as a school park, or transit stop. Accessways generally include a walkway and additional land on either side of the walkway, often in the form of an easement or right-of-way, to provide clearance and separation between the walkway and adjacent uses. Accessways through parking lots are generally physically separated from adjacent vehicle parking or parallel vehicle traffic by curbs or similar devices and include landscaping, trees, and lighting. Where accessways cross driveways, they are generally raised, paved, or marked in a manner which provides convenient access for pedestrians.

**Adjacent:** See abutting.

**Administrative:** A discretionary action or permit decision made without a public hearing, but requiring public notification and an opportunity for appeal.

**ADT – Average Daily Traffic:** This term denotes the total traffic volume passing a point or segment of roadway in both directions for over an average weekday 24-hour period.

**Adverse impact:** Negative effect of a development that can be measured (eg., noise, air, pollution, vibration, traffic, dust, etc.).

**Arterial:** See Road, Arterial.

**Bicycle:** A vehicle having two tandem wheels, a minimum of 14" (35 cm) in diameter, propelled solely by human power, upon which any person or persons may ride. A three-wheeled adult tricycle is also considered a bicycle.

**Bicycle facility:** Any facility provided for the benefit of bicycle travel, including bikeways and parking facilities as well as all other roadways not specifically designated for bicycle use.

**Bicycle lane:** A portion of a roadway which has been designated by striping and pavement markings for the preferential or exclusive use of bicyclists.

**Bikeway:** A bikeway is created when a road has the appropriate design treatment for bicyclists, based on motor vehicle traffic volumes and speeds. The following facilities are considered bikeways: shared roadway, shoulder bikeway, bike lane or bicycle boulevard. Another type of bikeway facility is separated from the roadway and is called a multi-use path.

**Block:** An area of land whose boundaries are defined by public or private streets, excluding alleys.

**Block length:** The distance between intersections with other public or private roads as measured along the near-side right-of-way line.

**Capacity:** The maximum rate of flow at which persons or vehicles can be reasonably expected to traverse a point or uniform segment of a lane or roadway during a specified time period under prevailing roadway, traffic, and control conditions, usually expressed as vehicles per hour or persons per hour.

**City street:** See Road or street, City street.

**Collector roads:** See Road or street, Collector Road.

**Conditional use:** A use which requires a Conditional Use Permit (CUP).

**Corner radius:** The radius of a street corner, as measured around the curb or edge of pavement.

**County road:** See Road or street, County road.

**Crosswalk:** Portion of a roadway designated for pedestrian crossing, marked or unmarked. Unmarked crosswalks are the natural extension of the shoulder, curb line or sidewalk.

**Dedication:** A conveyance of right-of-way to the county.

**Development:** All improvements on a parcel or tract, including buildings, other structures, parking and loading areas, landscaping, paved or graveled areas, grading, and areas devoted to exterior display, storage, or activities. Development includes improved open areas such as plazas and walkways, but does not include natural geologic forms or landscapes.

**Driveway:** Provides private vehicular access to one or two residential structures. A driveway begins at the roadway and extends into the site. Driveways do not include parking, maneuvering, or circulation areas within parking space areas.

**Easement:** A right of usage of real property granted by an owner to the public or to specific persons, firms, and corporations.

**Flag lot:** A lot or parcel which has access to a road, street, or easement, by means of a narrow strip of lot or easement.

**Frontage:** The dimension of a property line abutting a public or private street.

**Frontage street or road:** A minor street which parallels an arterial street in order to provide access to abutting properties and minimize direct access onto the arterial.

**Level of service:** For transportation, a qualitative measure describing operational conditions within a traffic stream, generally described in terms of such factors as speed and travel time, freedom to maneuver, traffic interruptions, comfort and convenience, and safety. At intersections, level of service is measured in terms of average delay and correlated to grades from LOS A which indicated little delay, to LOS F which indicates significant delay.

**Local road:** See Road, Local road, next page.

**Minor arterial:** See Road, Arterial, Minor, next page.

**Mitigation:** To avoid, rectify, repair, or compensate for negative impacts which result from other actions (e.g., Improvements to a street may be required to mitigate for transportation impacts resulting from development.)

**Multi-use path:** A path physically separated from motor vehicle traffic by an open space or barrier and either within a roadway right-of-way or within an independent right-of-way, used by bicyclists, pedestrians, joggers, skaters, and other non-motorized travelers.

**Multi-use road:** See Road or street, Multi-use, next page.

**Non-resource zones:** Land that is zoned by Baker County for uses other than natural resource use, specifically, any zone that is not Exclusive Farm Use (EFU), Timber Grazing (TG), or Mineral Extraction (ME).

**Pavement markings:** Painted or applied lines or legends placed on a roadway surface for regulating, guiding, or warning traffic.

**Pedestrian:** A person on foot, in a wheelchair, or walking a bicycle.

**Pedestrian facility:** A facility provided for the benefit of pedestrian travel, including walkways, crosswalks, signs, signals, illumination, and benches.

**Principal arterial:** See Road, Arterial, Principal, next page.

**Private road:** See Road or street, Private road, next page.

**Public use road:** See Road or street, Public Use, this page.

**Resource zones:** Land that is zoned by Baker County for natural resource use, specifically the Exclusive Farm Use (EFU), Timber Grazing (TG), and Mineral Extraction (ME) zones.

**Right-of-way:** An area that allows for the passage of people, vehicles and/or utilities. Right-of-way includes passageways such as freeways, pedestrian connections, alleys, and all streets. A right-of-way may be dedicated or deeded to the public for public use and under the control of a public body, or it may be privately owned. A right-of-way that is not dedicated or deeded to the public will be in a tract.

**Roadway:** The improved portion of an easement or right-of-way, excluding curbs, sidewalks, and ditches. Road, roadway, and street will be considered interchangeable terms.

**Road or street:** A public or private way that is created to provide ingress and egress for a person to one or more lots, parcels, areas or tracts of land, excluding driveways and excluding a private way that is created to provide ingress and egress to such land in conjunction with the use of land for forestry, mining, or agricultural purposes without a residential facility.

- a. **Arterial:** Carries high volumes of traffic on a continuous network with no stub routes, but provides very little direct land access.

- i. **Minor arterial:** Provides mobility between smaller cities and towns and other statewide traffic generators, such as resorts, that are not served by principal arterials.
- ii. **Principal arterial:** Provides statewide and interstate mobility, including the Interstate System and other rural freeways that serve long distance high-volume corridors.
- b. **City street:** A public way, right of way, or traveled way in whole or in part that is subject to the control of an incorporated city or town.
- c. **Collector roads:** Provides both mobility and land access, gathers trips from localized areas and feeds them onto the arterial network.
- d. **County road:** A public way, right of way, or traveled way which in whole or in part is subject to the control of the County and has been designated by the County as a part of the County road system for maintenance or repair.
- e. **Local road:** Low volume roadways that provide direct land access but are not designed to serve through traffic needs.
- f. **Multi-use road:** A road that services vehicle, bicycle and pedestrian traffic.
- g. **Private road:** A private way, right of way, or traveled way in whole or in part that is subject to the control of one or more private persons. A private road or street shall provide access only to three or more abutting parcels, lots or tracts.
- h. **Public road:** Any way, right of way, or traveled way in whole or in part that is subject to the control of one or more public bodies.
- i. **Public use road:** A public way, right of way, or traveled way in whole or in part that is subject to the jurisdiction of a public body but that is not a part of the County road system for maintenance or repair.
- j. **State highway:** A public way, right of way, or traveled way in whole or in part that is subject to the control of the State of Oregon.

**Shared driveway:** When land uses on two or more lots or parcels share one driveway. An easement or tract (owned in common) may be created for this purpose.

**Shared roadway:** A type of bikeway where bicyclists and motor vehicles share a travel lane.

**Shoulder:** The portion of a roadway that is contiguous to the travel lanes providing for pedestrians, bicyclists, emergency use by vehicles and for lateral support of base and surface courses.

**Shoulder bikeway:** A type of bikeway where bicyclists travel on a paved shoulder.

**Shy distance:** The distance between the edge of a travelway and a fixed object.

**Sidewalk:** A walkway separated from the roadway with a curb, constructed of a durable, hard and smooth surface, designed for preferential or exclusive use by pedestrians.

**Sight distance:** The distance a person can see along an unobstructed line of sight.

**State highway:** A public way, right of way, or traveled way in whole or in part that is subject to control of the State of Oregon.

**Street connectivity:** The number of street connections within a specific geographic area. Higher levels of connectivity provide for more direct transportation routes and better dispersion of traffic, resulting in less traffic on individual streets and potentially slower speeds through neighborhoods.

**Street stub:** A temporary street ending; i.e., where the street will be extended through adjacent property in the future, as those properties develop. Not a permanent street-end or dead-end street.

**Traffic calming devices:** Physical devices within the roadway designed to manage traffic speeds or which disperse traffic such as speed bumps/humps and traffic circles.

**V/C ratio:** The ratio of demand flow rate (volume) to capacity for a traffic facility.

**Volume:** The number of persons or vehicles passing a point on a lane, roadway, or other trafficway during some time interval, often taken to be one hour, expressed in vehicles.

**Walkway:** A transportation facility built for use by pedestrians, including persons in wheelchairs. Walkways include sidewalks, paths, and paved shoulders.

**Wide outside lane:** A wider than normal curbside travel lane that is provided for ease of bicycle operation where there is insufficient room for a bike lane or shoulder or shoulder bikeway.

### **340.03 ACCESS MANAGEMENT STANDARDS**

**340.03.01 Intent and Purpose.** This section of the zoning and subdivision ordinance identifies who is subject to apply for a road approach permit, how the number of accesses are determined, where the access(es) may be located, access standards that must be met, and development review procedure and submittal requirements in relation to access management. It primarily applies to new development that would be constructing a new approach onto an

existing road and/or a change in use. It also identifies when an access needs to be improved to meet the current access management requirements and standards.

### **340.03.02 Actions Requiring Road Approach Permits and Authority to Grant Road Approach Permits**

- a) Projects Requiring Road Approach Permits. Road Approach Permits are required for projects that result in a change in use. For the purposes of this chapter, a change in use is defined as: a change in land use, a land use decision, an expansion of an existing use, or the construction of a new dwelling. If the project meets the change in use criteria above, then the access shall meet the current access management requirements and standards and require a Road Approach Permit.
- b) Road Approach Permits onto County Roads. Road Approach Permits onto county roads shall be subject to review and approval by the County Roadmaster and/or his/her designee. The criteria for granting access permits shall be based on the standards contained in this section.
- c) State Highway Access Permits. Permits for access onto State highways shall be subject to review and approval by Oregon Department of Transportation (ODOT), except when ODOT has delegated this responsibility to Baker County. In that case, Baker County shall determine whether access is granted based on ODOT's adopted standards.
- d) City Roadway Access Permits. Permits for access onto city owned roadways shall be subject to review and approval by that city, except where the city has delegated this responsibility to Baker County. In that case, Baker County shall determine whether access is granted based on adopted city standards.
- e) Conditions of Approval with Granting of Access Permit. Baker County or other agencies with access permit jurisdiction may require the closing or consolidation of existing curb cuts or other vehicle access points, recording of reciprocal access easements (i.e. for shared driveways), development of a frontage road, installation of traffic control devices, and/or other mitigation as a condition of granting an access permit, to ensure the safe and efficient operation of the road system.
- f) Non-Conforming Access Features. Legal access connections in place as of the effective date of this section that do not conform with the standards herein are considered nonconforming features and shall be brought into compliance with applicable standards under the following conditions:
  - (1) Change in use as defined in 340.03.02.a);
  - (2) When new access connection permits are requested or required.
- g) County's Authority to Change Accesses.

- (1) Baker County has the authority to change accesses for all uses if it is constructing a capital improvement project along that section of the public road. The access changes shall meet all current standards. If it is not possible to change a particular access to meet all the current standards, then a non-conforming access shall be acceptable only if it improves the condition to more closely meet the current standards.
- (2) Baker County has the authority to change accesses for all uses if it is necessary to correct a safety problem related to access.

**340.03.03 Access from New Private Road Easements.** New proposed private road easements shall be designated on the tentative plan and may be approved by the Planning Director/Planning Commission if they meet the following conditions:

- a) If more than two proposed or potential parcels need access, then access shall be provided by a private road or public use road.
- b) On non-resource ground, private road easement shall be approved unless the Planning Director/Planning Commission is satisfied that such right-of-way is not presently needed, nor will ever be needed to be extended through to adjacent property, or to be utilized for public road purposes in the normal growth of the area. If there is a potential that additional right-of-way is needed in the future or that the right-of-way may need to be extended through to adjacent property, or that the road may need to be used for public purposes, then access shall be provided by a public use road. The public use road standard can be found in Figure 7-7 of Section 7 of the Baker County Transportation System Plan.
- c) No private road easement shall be less than 30-feet wide, except that a modification may be approved to allow a driveway easement of 20-feet to one parcel or lot.
- d) Surface improvements on private road easements shall be as prescribed in Figure 7-9 of Section 7 of the Baker County Transportation System Plan.
- e) Maintenance responsibility for private road easements shall be pre-determined before final plat approval according to OAR Chapter 660 through one of the following options:
  - (1) A maintenance agreement established by the developer with the legal mechanism for the agreement to be presented prior to approval of the final plat.
  - (2) Any other method of providing perpetual financing for maintenance services and improvements, provided the method is approved by the County.

**340.03.04 Access from Existing Private Road Easements.** There is a number of existing private access easements in Baker County providing access to more than two parcels. No additional access will be allowed on these private easements unless the following conditions are met.



- a) It is demonstrated that the parcel has a legal right to use the existing private access easement or has an easement agreement from the property owners controlling the private easement.
- b) The private easement roadway meets the applicable standards of Section 340.05.008 or 340.05.009. If the private road easement roadway does not meet the standard above, then the applicant must make the necessary improvements to meet the standard prior to receiving access approval.
- c) The Planning Commission may grant the applicant a variance if condition b) above cannot be met. This variance may only be granted for existing substandard roadways if the applicant can demonstrate to the Planning Commission and the County Roadmaster that this condition does not create or make worse an unsafe condition. The County Roadmaster shall provide his/her opinion in writing to the Planning Commission.
- d) A turnaround shall be provided at the end of a private road easement. The turnaround standard is defined in Diagram B.

#### **340.03.05 Number of Allowed Accesses**

- a) Number of Allowed Accesses for Single-Family Residential Lots. A single-family residential lot may request up to two driveways off of a local road. If two residential driveways are requested from a single-family lot, then it shall be subject to spacing standards of 340.03.06.b).
- b) Number of Allowed Accesses for Non-Residential Uses. The number of driveways allowed for non-residential and non-resource uses shall be based on the daily trip generation of the site in question. One driveway shall be allowed for up to 2,500 daily trips generated with a maximum of two driveways. An exception shall be allowed if it is proven through a traffic impact study that this limitation creates a significant traffic operations hardship for on-site traffic. The primary criteria to allow more driveways will be level of service (see standards in 340.07) analysis, queuing analysis, and safety analysis of the site accesses. If a development has a need for more than two access points, then signalization of the main access shall be investigated as a potential option prior to allowing additional driveways. A signal warrant study will then be required to study whether or not signalization of the main access is required. The County Roadmaster or his/her designee shall determine whether the traffic study adequately proves that more accesses are needed for a particular project.
- c) Right in, Right Out Access.
  - (1) If a driveway cannot meet the access spacing standards in Table 340.02.06.h) and a variance is being sought for the development's access, then a right in, right out driveway shall be the first consideration to provide access. Only if a demonstrated hardship such as the creation of significant out of direction travel is demonstrated in

the variance shall consideration be given to a conditional full access driveway. Any conditional access shall be subject to 340.03.06.d).

- (2) Right in, right out driveways shall count toward the maximum number of driveways allowed under 340.03.05.

**340.03.06 Location of Accesses.** Vehicle access locations shall be provided based on the following criteria:

- a) Corner Lot Access. Corner lot driveways on local roads shall be a minimum of fifty (50) feet from the corner of the roadway or in the case where this is impractical, then the applicant shall file for a variance to this standard to the Roadmaster. Corner lots on arterial or collectors shall have driveways located on the minor cross road. If this is not feasible, then the corner lot driveway on an arterial or collector must follow the minimum access spacing standard in Table 340.03.06.h) or in the case where this is impractical, the applicant may file for a variance to this standard to the Roadmaster.
- b) Two Single-Family Residential Driveway Spacing for One Lot. Where two single-family residential driveways are permitted for one single-family residential lot, a minimum separation of 50 feet shall be required. The 50 feet separation shall be measured from the perpendicular near edge to perpendicular near edge. If this is not feasible or in the case where this is impractical, the applicant may file for a variance to this standard to the County Roadmaster.
- c) Access onto Lowest Functional Classification Roadway Requirement. Access shall be provided from the lowest functional classification roadway. If a tax lot has access to both an arterial and a lower classified roadway, then the arterial driveway shall be closed and access shall be granted along the lower functional classification roadway. This shall also apply for a series of non-residential contiguous tax lots under the same ownership or control of a development entity per the requirements set forth in 340.03.06.g).
- d) Conditional Access Permits. Conditional access permits may be given to developments that cannot meet current access spacing and access management standards as long as other standards such as sight distance and other geometric standards can be met. In conjunction with the conditional access permit, crossover easements shall be provided on all compatible parcels without topography and land use conflicts. The conditional access permit shall allow temporary access until it is possible to consolidate and share access points in such a manner to either improve toward the current standards or to meet the current access spacing standards. Figure 340.03.06.d) illustrates the concept of how the crossover easements eventually work toward meeting access spacing standards.
- e) Shared Driveway Requirement for Adjacent Non-Residential and Non-Resource Use Parcels with Non-Conforming Access(es). Adjacent non-residential parcels or non-resource use parcels with non-conforming access(es) shall be required to share driveways along arterial and collector roadways pursuant to 340.03.02 which defines when the requirement is

triggered. If the adjacent use refuses to allow for a shared driveway, then a conditional access permit may be given. As a condition of approval, cross-easements shall be granted to the adjacent non-residential parcel to secure a shared driveway later when the adjacent parcel redevelops, seeks to obtain an access permit, or becomes available.

- f) Residential Subdivision Access Requirements. Residential subdivisions fronting an arterial or collector roadway shall be required to provide access from secondary local roads for access to individual lots. When secondary local roads cannot be constructed due to topographic or physical constraints, access shall be provided by consolidating driveways per the requirements set forth in Table 340.03.06.h). In this situation, the residential subdivision shall still meet driveway spacing requirements of the arterial or collector roadway.
  
- g) Phased Development Plans. In the interest of promoting unified access and circulation systems, development sites under the same ownership or consolidated for the purposes of development and comprised of more than one building site shall be reviewed as a single property in relation to the access standards of this section. The number of access points permitted shall be as defined in 340.03.05. All necessary easement agreements and stipulations within the phased development shall be met to assure that all tenants within the phased development have adequate access. All access to individual uses or buildings within a phased development must be internalized within the site plan using the shared circulation system of the principal development.
  
- h) Access Spacing Standards. The roads within Baker County are classified as arterials, collectors, and local roads. The access spacing standards are shown in Table 340.03.06.h) for both full intersection spacing and driveway spacing.

<b>Table 340.03.06.h) Access Spacing Standard</b>				
<b>Classification</b>	<b>Minimum Posted Speed</b>	<b>Minimum Spacing Between Driveways/Roads<sup>1</sup></b>	<b>Minimum Spacing Between Intersections</b>	<b>Adjacent Land Use</b>
Arterial	55 mph	1200 feet	1 mile	Undeveloped or agricultural land between major population centers
Collector	23-55 mph	300 feet	½ mile	Undeveloped or agricultural land between and through cities or rural service centers
Local/ Public Use	25-50 mph	50 feet	220 feet	Residential
Private	25-50 mph	Access to each lot permitted	220 feet	Residential
RS2477	25-50 mph	Access to each lot permitted	220 feet	Forest & Rangeland

<b>Continued Figure 340.03.06.d)</b>	
<b>Example of Crossover Easement and Conditional Access Policy</b>	
<b>Step</b>	<b>Process</b>
1	<i>EXISTING</i> – Currently Lots A, B, C, and D have site-access driveways that neither meet the access spacing criteria of 500 feet or align with driveways or access points on the opposite side of the highway. <i>Under these conditions motorists are put into situations of potential conflict (conflicting left turns) with opposing traffic. Additionally, the number of side-street (or site-access driveway) intersections decreases the operation and safety of the highway</i>
2	<i>REDEVELOPMENT OF LOT B</i> – At the time that Lot B redevelops, the local jurisdiction would review the proposed site plan and make recommendations to ensure that the site could promote future crossover or consolidated access. Next, the local jurisdiction would issue conditional permits for the development to provide crossover easements with Lots A and C, and ODOT would grant a conditional access permit to the lot. <i>After evaluating the land use action, ODOT would determine that LOT B does not have either alternative access, nor can an access point be aligned with an opposing access point, nor can the available lot frontage provide an access point that meets the access spacing criteria set forth for this segment of highway.</i>
3	<i>REDEVELOPMENT OF LOT A</i> – At the time Lot A redevelops, the local jurisdiction and ODOT would undertake the same review process as with the redevelopment of LOT B (see Step 2); however, under this scenario ODOT and the local jurisdiction would use the previously obtained cross-over easement at Lot B to consolidate the access points of Lots A and B. ODOT would then relocate the conditional access of Lot B to align with the opposing access point and provide safe and efficient access to both Lots A and B. <i>The consolidation of site-access driveways for Lots A and B will not only reduce the number of driveways accessing the highway, but will also eliminate the conflicting left-turn movements on the highway by the alignment with the opposing access point.</i>
4	<i>REDEVELOPMENT OF LOT D</i> – The redevelopment of Lot D will be handled in the same manner as the redevelopment of Lot B (see Step 2)
5	<i>REDEVELOPMENT OF LOT C</i> – The redevelopment of Lot C will be reviewed once again to ensure that the site will accommodate crossover and/or consolidated access. Using the crossover agreements with Lots B and D, Lot C would share a consolidated access point with Lot D and will also have alternative frontage access via the shared site-access driveway of Lots A and B. <i>By using the crossover agreement and conditional access permit process, the local jurisdiction and ODOT will be able to eliminate another access point and provide the alignment with the opposing access points.</i>
6	<i>COMPLETE</i> – After Lots A, B, C, and D redevelop over time, the number of access points will be reduced and aligned, and the remaining access points will meet the <i>Category 4</i> access management standard of 500-foot spacing.

- j) Baker County may reduce the required separation distance of access points defined in Table 340.03.06.h) where they prove impractical as defined by the County Roadmaster or his/her designee, provided all of the following requirements are met:
- (1) Joint access driveways and cross access easements are provided in accordance with this section.
  - (2) The site plan incorporates a unified access and circulation system in accordance with this section.
  - (3) The property owner enters into a written agreement with Baker County, recorded with the deed, that pre-existing connections on the site will be closed and eliminated after construction of each side of the joint use driveway.
- (k) Baker County may modify or waive the requirements of this section where the characteristics or layout of abutting properties would make a development of a unified or shared access and circulation system impractical based on physical site characteristics that make meeting the access standards infeasible. Modification or waiver of the requirements of this section shall be based on the following:
- (1) The application of the location of access standard will result in the degradation of operational and safety integrity of the transportation system.
  - (2) The granting of the variance shall meet the purpose and intent of these regulations and shall not be considered until every feasible option for meeting access standards is explored.
  - (3) Applicants for variance from these standards must provide proof of unique or special conditions that make strict application of the provisions impractical. Applicants shall include proof that:
    - (a) Indirect or restricted access cannot be obtained;
    - (b) No engineering or construction solutions can be applied to mitigate the condition; and
    - (c) No alternative access is available from a road with a lower functional classification than the primary roadway.
  - (4) No variance shall be granted where such hardship is self-created.

### **340.03.07 Access Standards**

a) Access Standards

(1) With the exception of parking lots used in conjunction with accepted farm and forest practices, driveways providing access into off-road, surface parking lots shall be designed in such a manner to prevent vehicles from backing into the flow of traffic on the public road or to block on-site circulation. The driveway throat approaching the public road shall have adequate queue length for exiting vehicles to queue on-site without blocking on-site circulation of other vehicles. The driveway throat approaching the public road shall also have sufficient storage for entering traffic not to back into the flow of traffic onto the public road. A traffic impact study, subject to approval by the Roadmaster or his/her designee, shall be used to determine the adequate queue length of the driveway throat. This requirement shall be applied in conjunction with other design requirements of parking lots. If there is a conflict between these two code provisions, then this code provision supersedes the other parking lot code requirements.

(2) Driveway approaches must be designed and located to provide an exiting vehicle with an unobstructed view. Sight distance triangle requirements are identified in 340.03.07.c) and 340.03.07.d). Construction of driveways along acceleration lanes, deceleration lanes, or tapers shall be prohibited due to the potential for vehicular weaving conflicts unless there are no other alternatives for driveway locations. Only after a traffic impact study is conducted as defined in 340.06 and concludes that the driveway does not create a safety hazard along acceleration lanes, deceleration lanes, or taper shall the driveway be considered for approval. Approval of a driveway location along an acceleration lane, deceleration lane, or taper shall be based on the Roadmaster or his/her designee agreeing with the conclusions of the traffic impact study.

b) Public Road Stopping Sight Distance. Public roads shall have a minimum stopping sight distance requirement as summarized in Table 340.03.07.b). The minimum stopping sight distance is measured from a height of 3.5 feet to a target on the roadway nominally six (6) inches in height.

The minimum stopping sight distance is based on design speed of the roadway. If a design speed is not known, then the assumed design speed shall be at least 5 mph more than the posted speed or may be measured as the 85<sup>th</sup> percentile speed.

<b>Table 340.03.07.b) Stopping Sight Distance Requirement</b>	
<b>Design Speed (mph)</b>	<b>Minimum Distance (feet)</b>
25	155
30	200
35	250
40	305
45	360
50	425

- c) Sight Distance Triangle. Traffic entering an uncontrolled public road from a stop sign controlled public road, or from private roads or private driveways, shall have minimum sight distances, as shown in Table .03.07.c), except as allowed in 340.03.07.d).

The sight distance triangle is based on design speed of the roadway. If a design speed is not known, then the assumed design speed shall be at least 5 mph more than the posted speed or may be measured as the 85<sup>th</sup> percentile speed.

The intersection and driveway sight distance is measured from an eye height of 3.5 feet above the controlled road at least 15 feet from the edge of the vehicle travel lane of the uncontrolled public road to an object height of 4.25 feet on the uncontrolled public road in accordance with the table below. This definition for measuring sight distance is consistent with AASHTO (American Association of State Highway and Transportation Officials) standards.

<b>Table 340.03.07.c) Intersection/Driveway Sight Distance Triangle Requirement</b>	
<b>Design Speed (mph)</b>	<b>Minimum Distance (feet)</b>
20	200
25	250
30	300
35	350
40	400
45	450
50	500

- d) Uncontrolled Intersection and Driveway Sight Distance Triangle in Residential Areas. This subsection only applies to local access roads in urban and rural residential areas. Uncontrolled intersections shall have an unobstructed sight distance triangle of 30 feet along the property lines of both intersection approaches. Any vegetation within the sight distance triangle must be 24 inches in height or less. For driveways, the sight distance triangle along the driveway and property line adjacent to the public road shall be a minimum of 10 feet for each leg.

### **340.03.08 Connectivity and Circulation Standards**

- a) Connectivity

(1) The road system of proposed subdivisions shall be designed to connect with existing, proposed, and planned roads outside of the subdivision.

- (2) Wherever a proposed development abuts unplatted, developable land for a future development phase of the same development, road stubs with cul-de-sacs shall be provided to provide access to abutting properties or to logically extend the road system into the surrounding area.
- (3) Neighborhood collectors and local residential access roads shall connect with surrounding roads to permit the convenient movement of traffic between residential neighborhoods or facilitate emergency access and evacuation. Connections shall be designed to avoid or minimize through traffic on local roads. Appropriate design and traffic calming measures are the preferred means of discouraging through traffic.

b) Cul-de-sac and Accessways

- (1) Cul-de-sacs or permanent dead-end roads may be used as part of a development plan only if topographical, environmental, or existing adjacent land use constraints make connecting and through roads infeasible. Where cul-de-sacs are planned, accessways shall be provided connecting the ends of cul-de-sacs to each other, to other roads, or to neighborhood activity centers unless topographical, environmental, or existing adjacent land use constraints make it infeasible.
- (2) Accessways for pedestrians and bicyclists shall be 10 feet wide and located within a 15-foot-wide right-of-way or easement. If the roads within the subdivision are lighted, the accessways shall also be lighted at residential/residential illumination standard. Stairs or switchback paths may be used where grades are steep. Any vegetation planted within the accessway shall be less than 30 inches in height and must not create a safety issue for pedestrians and bicyclists.

**340.03.09 Review Procedure for Access Management for Creating Four (4) or more Large Development Parcels over any Period of Time**

- a) Applicants for Development Reviews impacting access shall submit a preliminary site plan that shows:
  - (1) Location of existing and proposed access point(s) on both sides of the road for a distance great enough to show that access spacing requirements are met;
  - (2) Distances from proposed access point to neighboring constructed access points, median openings (where applicable), traffic signals (where applicable), intersections, and other transportation features on both sides of the property;
  - (3) Number and direction of lanes to be constructed on the driveway plus striping plans;
  - (4) All planned transportation features (such as sidewalks, bikeways, signs, signals, etc.);
- b) Development Reviews shall address the following access criteria:



- (1) Access shall be properly placed in relation to sight distance, driveway spacing, health and safety, and other related considerations, including opportunities for joint and cross access.
  - (2) The external road system to the project site and internal road system within the project site shall provide adequate access to buildings for residents, visitors, deliveries, emergency vehicles, and garbage collection.
- c) The Oregon Department of Transportation shall review any application that involves access to the State Highway System for conformance with state access management standards.
- d) Baker County Road Department staff shall review any application that involves road development or access to the Baker County road system.

**340.04 BICYCLE AND PEDESTRIAN STANDARDS.** At the discretion of the Planning Director/ Planning Commission, special uses can be required to provide pedestrian and bicycle amenities. The bicycle and pedestrian facility standards can be found in Section 7 of the Baker County Transportation System Plan. The Baker County Transportation System Plan uses the standards for non-motorized facilities that are contained in the Oregon Bicycle and Pedestrian Plan, ODOT, June 14, 1995.

**340.04.001 Bicycle and Pedestrian Circulation and Access Requirements for Site Plans.** Required elements for a site plan shall include bicycle and pedestrian circulation elements such as accessways and walkways. The following shall be included in the site plan:

- a) Pedestrian Access and Circulation. Internal pedestrian circulation shall be provided in new commercial, office, and multi-family residential developments through the clustering of buildings, construction of hard surface walkways, landscaping, accessways, or similar techniques.
- b) All site plans (industrial and commercial) shall clearly show how the site's internal pedestrian and bicycle facilities connect with external existing or planned facilities or systems.

**340.04.002 Bicycle and Pedestrian Circulation and Access Requirements for Approval of Subdivision Tentative Plans and Final Plats.** Information required shall include the location and design of all proposed pedestrian and bicycle facilities, including accessways. The following shall be included in subdivision tentative plans and final plats:

- a) Cul-de-Sacs and Accessways.

- (1) Cul-de-sacs or permanent dead-end streets may be used as part of a development plan; however, through streets are encouraged except where topographical, environmental,

or existing adjacent land use constraints make connecting streets infeasible. If cul-de-sacs are planned, accessways shall be provided connecting the ends of cul-de-sacs to each other, to other streets, or to neighborhood activity centers.

(2) The Hearings Body or Planning Director may determine, based upon evidence in the record, that an accessway is impracticable. Such evidence may include but is not limited to:

- (b) Physical or topographic conditions make an access-way connection impractical. Such conditions include but are not limited to freeways, railroads, extremely steep slopes, wetlands, or other bodies of water where a connection cannot reasonable be provided.
- (c) Buildings or other existing development on adjacent lands physically preclude a connection now or in the future, considering potential for redevelopment.
- (d) If accessways would violate provisions of leases, easements, covenants, restrictions, or other agreements existing as of May 1, 1995 that preclude a required accessway connection.

### **340.05 ROAD STANDARDS**

**340.05.001 Road Design Conformity.** The arrangement, character, extent, width, grade and location of all roads shall be designed to coordinate with existing and planned roads, topographical conditions, construction and maintenance costs, public conveniences and safety, and in their appropriate relation to the proposed uses of the land to be served by such road. Where not shown on an area plan, the arrangement and other design standards of roads shall conform to the provisions found in the Baker County Transportation System Plan and herein.

**340.05.002 Relation to Adjoining Road System.** The arrangement of roads in partitions and subdivisions shall be designed to coordinate with existing or desired roads in adjoining areas.

**340.05.003 Projection of Roads.** Where adjoining areas are not partitioned or subdivided to the maximum density allowed by the applicable zone(s), the arrangement of roads in new subdivisions shall make provisions for the proper projection of roads.

**340.05.004 Dead-end Road or Cul-de-sac.** No dead-end roads shall be constructed without a turn-around or cul-de-sac. See Diagram B.

**340.05.005 Roads to be Carried to Property Lines.** When a proposed partition or subdivision joins land capable of further division, road rights-of-way shall be carried to the boundaries of the tract to be partitioned or subdivided.

**340.05.006 Frontage Roads.** For non-resource ground, where a partition or subdivision abuts or contains an existing arterial road, the Planning Commission may require frontage roads or

other such treatment as may be necessary for adequate protection of abutting properties and to afford separation of through and local traffic in order to preserve mobility on the arterial.

#### **340.05.007 Road Widths and Improvements**

- (a) Road standards shall not be less than those set forth in Figures 7-2 to 7-10 in the Baker County Transportation System Plan, except where it can be shown that probable future traffic development or physical characteristics are such as to justify modification of the standards.
- (b) In areas designed and zoned for commercial use, road widths may be increased by such amount as may be deemed necessary by the Planning Commission to provide for the free flow of through traffic without interference by parked or parking vehicles, and to provide safe parking space for such commercial or business districts.
- (c) For subdivisions, road and related improvements shall be completed or bonded for completion prior to final plat consideration and shall be constructed and reviewed by the County Roadmaster, according to the minimum Road Standards set forth in Figures 7-2 to 7-10 in the Baker County Transportation System Plan.

#### **340.05.008 Driveways**

- (a) All Driveways for Residential Use within 150 feet of a public road:
  - (1) Driveways shall be a minimum of 12 feet wide. The driveway or private road shall be constructed from the site of development to the point where the driveway connects to a public road. See Diagrams A, B, and C of this chapter.
- (b) All driveways accessing a development more than 150 feet from a public road that is located within a fire protection district shall:
  - (1) Be a minimum of 12 feet wide with an all-weather load bearing surface, except any turn sharper than a 50' radius shall maintain a load bearing surface that is 14 feet wide for 50 feet on either side of the center point of the turn. The driveway or private road shall be developed from the site of development to the point where the driveway connects to a public road. See Diagram A.
  - (2) Provide vertical clearance of 14 feet and horizontal clearance of 14 feet. Clearance area shall be free from all obstructions impeding emergency vehicle access. Gates must exceed 14 feet of horizontal clearance.
  - (3) Have an entrance/exit at the point where the driveway connects to a road. The entrance/exit shall be 22 feet wide for 30 feet of length before returning to 12 feet wide. See Diagram A. Gates be placed more than 30 feet from the property line or the point where the driveway joins the road.

- (4) All driveways exceeding 150 feet in length shall provide a turnaround at the site of development. The turnaround shall conform to the standards of Diagram B.
  - (5) Turnouts shall be placed so that they are visible from the next turnout, but spaced no more than  $\frac{1}{4}$  mile apart. See Diagram C. Modification from placement of turnouts may be approved upon written consent of the verifying authority.
  - (6) All Driveways shall be all-weather roads capable of supporting a minimum of 60,000 lbs gross vehicle weight on the entirety of the load bearing surface, including bridges and culverts. A bridge equaling or exceeding 20 feet in length shall be engineered and certified by an Oregon licensed engineer, and a sign shall be permanently posted showing the weight limit.
  - (7) No Driveway grade shall exceed an average of 10%, not to exceed 12%, for no more than 100 feet where no turns or stops are required within the length of driveway that exceeds 10%.
- (c) Baker County shall verify access standards for driveways, private roads, and fire, life and safety issues. A fire protection district may enter into an intergovernmental agreement with Baker County to assume responsibility within the fire district for verifying driveways or private roads for residential use exceeding 150 feet in length meet the applicable standards of Section 340.05.008. In the absence of said agreement, Baker County shall be the verifying authority.
- (d) A modification from the standards of Section 340.05.008 (A)-(B) or 340.05.009 may be requested by application to Baker County. The purpose of the modification is to recognize the variation in properties and conditions in Baker County and to provide a procedure for modification of the above-stated requirements. The County Roadmaster, in consultation with the local fire protection district and the applicant, shall develop a modification plan taking into consideration i - xvi of this section. A modification plan shall be considered a Type II decision. The following criteria shall be considered when formulating a modification plan:
- i. Public safety and emergency vehicle access
  - ii. Any need for public use
  - iii. Right-of-way or easement width
  - iv. Connectivity
  - v. Resource or non-resource zoning
  - vi. Geographical conditions
  - vii. Population density
  - viii. Property size
  - ix. Fuel load
  - x. Bridges and culverts
  - xi. Turnouts and turnarounds
  - xii. Road width and length

- xiii. Dwelling size
- xiv. Cost in relation to benefit
- xv. Rough proportionality of offsite improvements
- xvi. Nexus of improvements to development

- e) The Roadmaster shall submit the modification plan in writing to the Planning Director.
- f) Access to development outside of a fire protection district will meet the requirements of an individual emergency access plan developed by Baker County, in consultation with the applicant, which takes into consideration the totality of the circumstances related to that particular development. For parcels abutting a fire protection district, the emergency access plan will be developed in consultation with the local fire protection district. The modification plan shall be submitted to the Planning Director in writing.
- g) A modification plan may be appealed in accordance with the provisions for appealing a Type II decision described in Section 205.05 (G) of this ordinance.

**340.05.009 Private Roads for Residential Use/ Public Use Roads.** When three or more dwellings are to be served by the same vehicular access, that access shall become a private road. The road must be named in accordance with the Baker County Road Naming and Rural Addressing Ordinance when the road provides access to three addressed dwellings or commercial buildings.

- a) A private road or a public use road shall be a minimum of 22 feet wide with an all-weather load bearing surface capable of supporting a minimum of 60,000 lbs gross vehicle weight on the entirety of the load bearing surface, including bridges and culverts. A bridge equaling or exceeding 20 feet in length shall be engineered and certified by an Oregon licensed engineer, and a sign shall be permanently posted showing the weight limit.
- b) If the private road or public use road dead-ends, a turnaround shall be provided at the end of the road. The turnaround shall conform to the standards of Diagram B.
- c) A modification from the standards of Section 340.05.009 (A)-(B) may be requested by application to Baker County. See modification procedure in Section 340.05.008.

**340.05.010 Reverse Curve.** A tangent at least 100-feet long shall be introduced between reverse curves on arterial roads.

**340.05.011 Large Parcel Partitions and Large Lot Subdivisions.** Where a tract is partitioned or subdivided into larger parcels or lots than permitted by the applicable zone, such parcels or lots shall be arranged so as to allow the opening of future roads and logical further partitioning or subdividing.

**340.05.012 Reserve Strips.** Reserve strips controlling access to roads shall be prohibited except under conditions approved by the Planning Commission.

**340.05.013 Road Grades.** No new road shall exceed a 10% grade, with due allowance for reasonable vertical curves:

Road Type	Percent Grade
Arterial	10
Collector	10
Minor	10
Local Road	10
Public Use Road	10
Driveway/Private Road for Residential Use	10*
<i>*Refer to 340.08.007</i>	

**340.05.014 Railroad or Limited Access Highway On or Abutting a Partition or Subdivision.** Where a partition or subdivision is bordered on or contains a railroad right-of-way or limited access highway right-of-way, the Planning Director/Planning Commission may require a road approximately parallel to and on each side of such right-of-way at a distance suitable for the requirements of approach grades and future grade separations.

**340.05.015 Road Names and Numbers.** Road names and numbers shall be assigned and conform to the Baker County Road Naming and Rural Address Ordinance No. 94-05.

**340.05.016 Access to Roads Across Ditches.** The developer shall provide access to all proposed lots or parcels, across all ditches and streams to accommodate a gross vehicle weight of 60,000 pounds and by a standard method approved by the County Roadmaster.

**340.05.017 Dedication.** Streets and roads for public use are dedicated without any reservation or restriction other than reversionary rights upon vacation of any street or road and easements for public utilities [ORS 92.090(3)]. Baker County shall preserve right-of-way for planned transportation facilities through exactions, voluntary dedications, or setbacks.

**340.05.018 Alleys**

- a) Commercial and Industrial Districts: Alleys shall be required in commercial and industrial districts, except that the Planning Commission may waive this requirement where other definite and assured provisions are made for service access, such as off-road loading, or unloading and parking consistent with and adequate for the uses proposed.
- b) Width: The right-of-way width of an alley shall be that width determined necessary by the Planning Commission, upon recommendation of the County Roadmaster.
- c) Dead-end: Dead-end alleys shall not be permitted, except that the Planning Commission may waive this requirement where such dead-end alley is unavoidable, and where adequate turn-around facilities have been provided.

## **340.06 APPROVAL OF TRANSPORTATION IMPROVEMENT PROJECTS IDENTIFIED IN THE TRANSPORTATION SYSTEM PLAN**

**340.06.001 Uses Permitted Outright.** Except where otherwise specifically regulated by this ordinance, the following improvements are permitted outright:

- a) Normal operation, maintenance, repair, and preservation activities of existing transportation facilities.
- b) Installation of culverts, pathways, medians, fencing, guardrails, lighting, and similar types of improvements within the existing right-of-way.
- c) Projects specifically identified in the Transportation System Plan as not requiring further land use regulation.
- d) Landscaping as part of a transportation facility.
- e) Emergency measures necessary for the safety and protection of property
- f) Acquisition of right-of-way for public roads, highways, and other transportation improvements designated in the Transportation System Plan except for those that are located in exclusive farm use or forest zones.
- g) Construction of a street or road as part of an approved subdivision or land partition approved consistent with the applicable land division ordinance.

**340.06.002 Conditional Uses Permitted.** Construction, reconstruction, or widening of highways, roads, bridges or other transportation projects that are: (1) not improvements designated in the Transportation System Plan or (2) not designed and constructed as part of a subdivision or planned development subject to site plan and/or conditional use review, shall comply with the Transportation System Plan and applicable standards, and shall address the following criteria. For State projects that require an Environmental Impact Statement (EIS) or EA (Environmental Assessment), the draft EIS or EA shall be reviewed and used as the basis for findings to comply with the following criteria:

- a) The project is designed to be compatible with existing land use and social patterns, including noise generation, safety, and zoning.
- b) The project is designed to minimize avoidable environmental impacts to identified wetlands, wildlife habitat, air and water quality, cultural resources, and scenic qualities.
- c) The project preserves or improves the safety and function of the facility through access management, traffic calming, or other design features.

d) Project includes provision for bicycle and pedestrian circulation as consistent with the comprehensive plan and other requirements of this ordinance.

**340.06.003.** If review under this Section indicates that the use or activity is inconsistent with the Transportation System Plan, the procedure for a plan amendment shall be undertaken prior to or in conjunction with the conditional permit review.

**340.06.004 Time Limitation on Transportation-Related Conditional Use Permits.** Authorization of a conditional use shall be void after a period specified by the applicant as reasonable and necessary based on season, right-of-way acquisition, and other pertinent factors. This period shall not exceed three years.

### **340.07 TRAFFIC IMPACT STUDY REQUIREMENT**

**340.07.001 Intent and Purpose.** A transportation impact analysis (TIA) provides an objective assessment of the anticipated modal transportation impacts associated with a specific land use action. The purpose of the scope of the TIA is to demonstrate compliance with the TPR (OAR 660-0012-0060) and Statewide Planning Goal 12, Transportation. For the project to demonstrate compliance with the TPR and Statewide Planning Goal 12, it must be demonstrated that the proposed project's traffic impacts are either within the performance standards of the impacted transportation facilities or that adverse impacts are mitigated within the adopted performance standards. A TIA answers important transportation-related questions such as:

- Can the existing transportation system accommodate the proposed development from a capacity and safety standpoint?
- What transportation system improvements are necessary to accommodate the proposed development?
- How will access to the proposed development affect the traffic operations on the existing transportation system?
- What transportation impacts will the proposed development have on the adjacent land uses?
- Will the proposed development meet current standards for roadway design?

Throughout the development of the TIA (and beginning as early as possible), cooperation between Baker County staff, the applicant, and the applicant's traffic engineer is encouraged to provide an efficient and effective process.

Baker County staff may, at its discretion, and depending on the specific situation, require additional study components in a TIA beyond what is outlined in this section or waive requirements deemed inappropriate.



Baker County assumes no liability for any costs or time delays (either direct or consequential) associated with the preparation and review of a transportation impact analysis.

**340.07.002 When a Transportation Impact Analysis (TIA) is Required.** For purposes of appeal only, TIA requirement determinations shall be considered a land use decision. A TIA shall be required at the discretion of the County Roadmaster when:

- a) The development generates 25 or more peak-hour trips or 250 or more daily trips.
- b) An access spacing exception is required for the site access driveway(s) and the development generates 10 or more peak-hour trips or 100 or more daily trips.
- c) The development is expected to impact intersections that are currently operating at the upper limits of the acceptable range of level of service during the peak operating hour.
- d) The development is expected to significantly impact adjacent roadways and intersections that have previously been identified as high crash locations or areas that contain a high concentration of pedestrians or bicyclists such as school zones.
- e) A plan or land use regulation amendment significantly affects a transportation facility. This is defined by if a plan or land use regulation amendment does the following:
  - (1) Changes the functional classification of an existing or planned transportation facility;
  - (2) Changes standards implementing a functional classification system;
  - (3) Allows types or levels of land uses that would result in levels of travel or access that are inconsistent with the functional classification of a transportation facility; or
  - (4) Would reduce the level of service of the facility below the minimum acceptable level identified in the Transportation System Plan.

**340.07.003 When a Transportation Assessment Letter is Required.** If a TIA is not required by the County Roadmaster, the applicant's traffic engineer shall submit a transportation assessment letter to Baker County indicating the proposed land use action is exempt. This letter shall outline the trip-generating characteristics of the proposed land use and verify that the site-access driveways or roadways meet Baker County's sight-distance requirements and roadway design standards.

**340.07.004 Contents of a Transportation Impact Analysis.** The following format shall be used in preparing a transportation impact analysis.

- a) Table of Contents. Listing of all sections, figures, and tables included in the report.

- b) Executive Summary. Summary of the findings and recommendations contained within the report.
- c) Introduction. Proposed land use action, including site location, building square footage, and project scope. Map showing the proposed site, building footprint, access driveways, and parking facilities. Map of the study area, which shows site location and surrounding roadway facilities.
- d) Existing Conditions. Existing site conditions and adjacent land uses. Roadway characteristics (all transportation facilities and modal opportunities located within the study area, including roadway functional classifications, street cross section descriptions, posted speeds, bicycle and pedestrian facilities, on-street parking, and transit facilities). Existing lane configurations and traffic control devices at the study area intersections. Existing traffic volumes and operational analysis of the study area roadways and intersections. Roadway and intersection crash history analysis.
- e) Background Conditions (without the proposed land use action). Approved developments and funded transportation improvements in the study area. Traffic growth assumptions. Addition of traffic from other planned developments. Background traffic volumes and operational analysis.
- f) Full Buildout Traffic Conditions (with the proposed land use action). Description of the proposed development plans. Trip-generation characteristics of the proposed development (including trip reduction documentation). Trip distribution assumptions. Full buildout traffic volumes and intersection operational analysis. Intersection and site-access driveway queuing analysis. Expected safety impacts. Recommended roadway and intersection mitigations (if necessary).
- g) Site Circulation Review. Evaluate internal site access and circulation. Review pedestrian paths between parking lots and buildings. Ensure adequate throat depth is available at the driveways and that vehicles entering the site do not block the public facilities. Review truck paths for the design vehicle.
- h) Turn Lane Warrant Evaluation. Evaluate the need to provide turn lanes at the site driveways.
- i) Conclusions and Recommendations. Bullet summary of key conclusions and recommendations from the transportation impact analysis.
- j) Appendix. Traffic counts summary sheets, crash analysis summary sheets, and existing/background/full buildout traffic operational analysis worksheets. Other analysis summary sheets such as queuing and signal warrant analyses.
- k) Figures. The following list of figures shall be included in the Transportation Impact Analysis: Site Vicinity Map; Existing Lane Configurations and Traffic Control Devices; Existing Traffic

Volumes and Levels of Service (all peak hours evaluated); Future Year Background Traffic Volumes and Levels of Service (all peak hours evaluated); Proposed Site Plan; Future Year Assumed Lane Configurations and Traffic Control Devices; Estimated Trip Distribution Pattern; Site-Generated Traffic Volumes (all peak hours evaluated); Full Buildout Traffic Volumes and Levels of Service (all peak hours evaluated).

- l) Preparer Qualifications. A professional engineer registered in the State of Oregon shall prepare the Transportation Impact Analyses. In addition, the preparer shall have extensive experience in the methods and concepts associated with transportation impact studies.

**340.07.005 Study Area.** The study area shall include, at a minimum, all site-access points and intersections (signalized and unsignalized) adjacent to the proposed site. If the proposed site fronts an arterial or collector street; the study shall include all intersections along the site frontage and within the access spacing distances extending out from the boundary of the site frontage. Beyond the minimum study area, the transportation impact analysis shall evaluate all intersections that receive site-generated trips that comprise at least 10% or more of the total intersection volume. In addition to these requirements, the Public Works Director (or his/her designee) shall determine any additional intersections or roadway links that might be adversely affected as a result of the proposed development. The applicant and the Public Works Director (or his/her designee) will agree on these intersections prior to the start of the transportation impact analysis.

**340.07.006 Study Years to be Analyzed in the Transportation Impact Analysis.** A level-of-service analysis shall be performed for all study roadways and intersections for the following horizon years:

- a) Existing Year. Evaluate all existing study roadways and intersections under existing conditions.
- c) Background Year. Evaluate the study roadways and intersections in the year the proposed land use is expected to be fully built out, without traffic from the proposed land use. This analysis shall include traffic from all approved developments that impact the study intersections, or planned developments that are expected to be fully built out in the horizon year.
- c) Full Buildout Year. Evaluate the expected roadway, intersection, and land use conditions resulting from the background growth and the proposed land use action assuming full build-out and occupancy. For phased developments, an analysis shall be performed during each year a phase is expected to be completed.
- d) Twenty-Year Analysis. For all land use actions requesting a Comprehensive Plan Amendment and/or a Zone Change, a long-term level-of-service analysis shall be performed for all study intersections assuming buildout of the proposed site with and without the comprehensive plan designation and/or zoning designation in place. The analysis should be performed using the future year traffic volumes identified in the

Transportation System Plan (TSP). If the applicant's traffic engineer proposes to use different future year traffic volumes, justification for not using the TSP volumes must be provided along with documentation of the forecasting methodology.

**340.07.007 Study Time Periods to be Analyzed in the Transportation Impact Analysis.**

Within each horizon year, a level-of-service analysis shall be performed for the time period(s) that experience the highest degree of network travel. These periods typically occur during the mid-week (Tuesday through Thursday) morning (7:00 a.m. to 9:00 a.m.), mid-week evening (4:00 p.m. to 6:00 p.m.), and Saturday afternoon (12:00 p.m. to 3:00 p.m.) periods. The transportation impact analysis shall always address the weekday a.m. and p.m. peak hours when the proposed lane use action is expected to generate 25 trips or more during the peak time periods unless there is negligible traffic generated by the proposed project in those time periods. If the applicant can demonstrate that the peak-hour trip generation of the proposed land use action is negligible during one of the two peak study periods and the peak trip generation of the land use action corresponds to the roadway system peak, then only the worst-case study period shall be analyzed.

Depending on the proposed land use action and the expected trip-generating characteristics of that development, consideration of non-peak travel periods may be appropriate. Examples of land uses that have non-typical trip generating characteristics include schools, movie theaters, and churches. The Public Works Director (or his/her designee) and applicant shall discuss the potential for additional study periods prior to the start of the transportation impact analysis. The Public Works Director (or his/her designee) has the right to condition the applicant to study a non-peak period.

**340.07.008 Traffic Count Requirements.** Once the study periods have been determined, turning movement counts shall be collected at all study area intersections to determine the base traffic conditions. These turning movement counts shall be conducted during the weekday (Tuesday through Thursday) between 7:00 and 9:00 a.m. and between 4:00 and 6:00 p.m., depending on the proposed land use. Historical turning movement counts may be used if the data are less than 12 months old, but must be factored to meet the existing traffic conditions.

**340.07.009 Trip Generation for the Proposed Development.** To determine the impacts of a proposed development on the surrounding transportation network, the trip-generating characteristics of that development must be estimated. Trip-generating characteristics shall be obtained from one of the following acceptable sources:

- Institute of Transportation Engineers (ITE) Trip Generation Manual (latest edition).
- Specific trip generation studies that have been conducted for the particular land use action for the purposes of estimating peak-hour trip-generating characteristics. The Public Works Director (or his/her designee) shall approve the use of these studies prior to their inclusion in the transportation impact analysis.

In addition to new site-generated trips, several land uses typically generate additional trips that are not added to the adjacent traffic network. These trips include pass-by trips and internal trips and are considered to be separate from the total number of new trips generated by the proposed development. The procedures listed in the most recent version of the *Trip Generation Handbook* (ITE) shall be used to account for pass-by and internal trips.

**340.07.010 Trip Distribution.** Estimated site-generated traffic from the proposed development shall be distributed and assigned on the existing or proposed arterial/collector street network. Trip distribution methods shall be based on a reasonable assumption of local travel patterns and the locations of off-site origin/destination points within the site vicinity. Acceptable trip distribution methods shall be based on one of the following procedures:

- An analysis of local traffic patterns and intersection turning movement counts gathered within the previous 12 months.
- A detailed market study specific to the proposed development and surrounding land uses.

**340.07.011 Intersection Operation Standards.** Baker County evaluates intersection operational performance based on levels of service and “volume-to-capacity” (v/c) ratio. When evaluating the volume-to-capacity ratio, the total traffic demand shall be considered.

- a) Intersection Volume-to-Capacity Analysis. A capacity analysis shall be performed at all intersections within the identified study area. The methods identified in the latest edition of the *Highway Capacity Manual*, published by the Transportation Research Board, are to be used for all intersection capacity calculations. Baker County requires that all intersections within the study area must maintain a v/c ratio of 0.95 or less. It should be noted that the mobility standards in the Oregon Highway Plan apply to Oregon Department of Transportation facilities.
- b) Intersection Levels of Service. Baker County requires all intersections within the study area to maintain an acceptable level of service (LOS) upon full buildout of the proposed land use action. LOS calculations for signalized intersections are based on the average control delay per vehicle, while LOS calculations for unsignalized intersections are based on the average control delay and volume-to-capacity ratio for the worst or critical movement. All LOS calculations shall be made using the methods identified in the most recent version of the *Highway Capacity Manual* (or by field studies), published by the Transportation Research Board. The minimum acceptable level of service for signalized intersections is LOS “D”. The minimum acceptable level of service for all-way stop controlled intersections and roundabouts is LOS “D”. The minimum acceptable level of service for unsignalized two-way stop controlled intersections is LOS “E” or LOS “F” with a v/c ratio of 0.95 or less for the critical movement. Any intersections not operating at these standards will be considered to be unacceptable.

**340.07.012 Review Policy and Procedure.** The following criteria shall be used in reviewing a transportation impact analysis as part of a subdivision or site plan review.

- a) The road system is designed to meet the projected traffic demand at full build-out.
- b) Proposed driveways do not adversely affect the functional character of the surrounding roadways.
- c) Adequate intersection and stopping sight distance is available at all driveways.
- d) Proposed driveways meet Baker County's access spacing standard or sufficient justification is provided to allow a deviation from the spacing standard.
- e) Opportunities for providing joint or crossover access have been pursued.
- f) The site does not rely upon the surrounding roadway network for internal circulation.
- g) The road system provides adequate access to buildings for residents, visitors, deliveries, emergency vehicles, and garbage collection.
- h) A pedestrian path system is provided that links buildings with parking areas, entrances to the development, open space, recreational facilities, and other community facilities per the Transportation Planning Rule.

**340.07.013 Conditions of Approval.** As part of every land use action, Baker County (if access to a County roadway is proposed) and ODOT (if access to a state roadway is proposed) is required to identify conditions of approval needed to meet operations and safety standards and provide the necessary right-of-way and improvements to develop the future planned transportation system. Conditions of Approval that should be evaluated as part of subdivision and site plan reviews include:

- a) Crossover easement agreements for all adjoining parcels to facilitate future access between parcels.
- b) Conditional access permits for new developments which have proposed access points that do not meet the designated access spacing policy and/or have the ability to align with opposing access driveways.
- c) Right-of-way dedications for future planned roadway improvements.
- d) Off-site improvements to bring transportation facilities impacted by development to current standards identified in the Transportation System Plan.

**340.07.014 Conditions of Approval for Comprehensive Plan and Land Use Regulation Amendments.** Amendments to the comprehensive plan and land use regulations which

significantly affect a transportation facility shall assure that allowed land uses are consistent with the function, capacity, and level of service of the facility identified in the Transportation System Plan. This shall be accomplished by one of the following:

- a) Limiting allowed land uses to be consistent with the planned function of the transportation facility;
- b) Amending the Transportation System Plan to ensure that existing, improved, or new transportation facilities are adequate to support the proposed land uses consistent with the requirement of the Transportation Planning Rule; or,
- c) Altering land use designations, densities, or design requirements to reduce demand for automobile travel and meet travel needs through other modes.

**340.07.015 Transportation Impact Analysis Checklist.** As part of the transportation impact analysis review process, all transportation impact analyses submitted to Baker County must satisfy the requirements illustrated in the Checklist for Acceptance of Transportation Impact Analyses.