



Community Development Department

Planning Division

117 NW Lafayette Avenue, Bend, OR 97701-1925
(541) 388-6575 - Fax (541) 385-1764
<http://www.deschutes.org/cdd>

LAND USE APPLICATION

INCOMPLETE APPLICATIONS WILL NOT BE ACCEPTED

1. Complete the application form and provide appropriate original signatures.
2. Include a copy of the current deed showing the property owners.
3. Attach correct fee.
4. Include a plot plan that shows all property lines and existing and proposed structures, parking, landscaping, lighting, etc.
5. If this application includes oversized plans, a single, reduced-size plan no larger than 11" x 17" with graphic scale shall also be included.
6. All applicable standards and criteria must be addressed in writing prior to acceptance of the application. Detailed descriptions, maps and other relevant information must be attached to the application.

TYPE OF APPLICATION (check one):

FEE: _____

Conditional Use (CU) _____

Temporary Use (TU) _____

Setback Exception (SE) _____

Partition (MP) _____

Site Plan (SP) _____

Other _____

Subdivision (TP) _____

Variance (V) _____

Applicant's Name (print): _____ Phone: (____) _____

Mailing Address: _____ City/State/Zip: _____

Property Owner's Name (if different)*: _____ Phone: (____) _____

Mailing Address: _____ City/State/Zip: _____

1. Property Description: Township _____ Range _____ Section _____ Tax Lot _____

2. Property Zone(s): _____ Property Size (acres or sq. ft.): _____

3. Lot of Record? (State reason): _____

4. Property Address: _____

5. Present Use of Property: _____

6. Existing Structures: _____

7. Request: _____

8. Property will be served by: Sewer _____ Onsite Disposal System _____

9. Domestic Water Source: _____

Applicant's Signature: _____ Date: _____

Property Owner's Signature (if different)*: _____ Date: _____

Agent's Name (if applicable): _____ Phone: (____) _____

Mailing Address: _____ City/State/Zip: _____

***If this application is not signed by the property owner, a letter authorizing signature by the applicant must be attached.**



FINAL PLAT REQUIREMENTS FOR A PARTITION OR SUBDIVISION

To complete a final plat for a Partition or Subdivision, the following steps are necessary.

1. The final plat must be prepared in accordance with all requirements of Chapter 17.24 of the County Code and Oregon Revised Statutes Chapter 92. Copies of these requirements may be obtained from the Planning Division.
2. All conditions of approval specified in the findings and decision must be completed.
3. The applicant shall circulate the plat for signature of all owners who have an ownership interest in the property. Fees and bonds or security agreements must be paid prior to signature of the plat by department heads. Examples include: plat checking and filing by the County Surveyor; calculation and payment of taxes by the Assessor's and Treasurer's Offices (a copy of the plat is necessary for this purpose); road improvement and inspections by the County Road Department, as well as Improvement Agreements and financial assurances for road and utility improvements by the Planning Division and County Legal Counsel. Deeds for road dedications must be delivered to the County Road Department with the plat prior to the Road Department's approval. The plat is to be returned to the Community Development Department for the signature of the Environmental Health and Planning Director. Fees for various plat related costs are available for review.
4. Final plats are subject to a final plat review process and fee. This requires an application and fee at the time of leaving the final plat with the Planning Division. This application may be made at the Planning counter or by appointment with the planner who was the staff contact of the original application.
5. After submittal of the Final Plat to the Planning Division, it is reviewed for conformance with all conditions of approval. This may require a site visit by planning staff and possible review by County Legal Counsel. In most cases this can be completed within two weeks. When the plat is signed by all necessary parties, the Planning Division will take the Plat to the Board of County Commissioners for the signature of one of the Commissioners.
6. After a County Commissioner has signed the final plat, it must be picked up by the applicant for duplication. One mylar copy (which must be certified as a true and exact copy of the originals) and 12 paper copies are required. When the paper copies are prepared, they must be returned to the Planning Division.

7. The final step is recording the plat with the County Clerk. No plat may be recorded unless it is accompanied by a signed statement of water rights unless the plat displays approval of an irrigation district. A recording fee is required at the Clerk's Office. Signature in the space below by a planner will allow issuance of a plat number and recording by the County Clerk's Office. **The County Code prohibits the Clerk's Office from recording plats without final Planning Division approval.**

File # _____ is complete and the plat may be recorded by the County Clerk.

Planning Division

Date

File # _____ has been recorded in Volume _____ and Page _____

Plat Cabinet _____

Partition Plat No. _____

County Clerk's Office

Date

**Chapter 17.16. APPROVAL OF
SUBDIVISION
TENTATIVE PLANS
AND MASTER
DEVELOPMENT PLANS**

- 17.16.010. Application-Submission.**
- 17.16.020. Scale of tentative plan.**
- 17.16.030. Informational requirements.**
- 17.16.040. Protective covenants and homeowner association agreements.**
- 17.16.050. Master development plan.**
- 17.16.060. Master development plan-Approval.**
- 17.16.070. Development following approval.**
- 17.16.080. Tentative plan as a master plan.**
- 17.16.090. Tentative plan approval.**
- 17.16.100. Required findings for approval.**
- 17.16.105. Access to subdivisions.**
- 17.16.110. Resubmission of denied tentative plan.**
- 17.16.115. Traffic Impact Study.**

17.16.010. Application-Submission.

Any person proposing a subdivision, or his authorized agent or representative, shall include with an application and filing fee for a subdivision, a tentative plan, together with improvement plans and other supplementary material as may be required. A master development plan may also be required in accordance with DCC 17.16.050. The applicant must submit 20 copies of any plan required, together with all required accompanying material to the Planning Department.

(Ord. 90-003 § 1, Exhibit A, 1990; Ord. 81-043 § 1, Exhibit A, § 3.015, 1981)

17.16.020. Scale of tentative plan.

The tentative plan of a proposed subdivision shall be drawn on a sheet at a scale not greater than one inch per 400 feet, or as approved by the Planning Department.

(Ord. 90-003 § 1, Exhibit A, 1990; Ord. 81-043 § 1, Exhibit A, § 3.020, 1981)

17.16.030. Informational requirements.

The following information shall be shown on the tentative plan or provided in accompanying

materials. No tentative plan shall be considered complete unless all such information is provided.

A. General Information Required.

1. Proposed name of the subdivision;
2. Names, addresses and phone numbers of the owners of record, authorized agents or representatives, engineer or surveyor, and any assumed business names filed or to be filed with the Corporation Commission by the applicant;
3. Date of preparation, true north, scale and gross area of the proposed subdivision;
4. Appropriate identification of the drawing as a tentative plan for a subdivision;
5. Location and tract designation sufficient to define its location and boundaries, and a legal description of the tract boundaries in relation to existing plats and streets;
6. Certified copy of the recorded instrument under which the applicant claims an ownership interest, such as a copy of a land sales agreement or similar binding agreement, which binds the applicant in the event of tentative approval;
7. Title report or subdivision guarantee.

B. Information Concerning Existing Conditions.

1. Location, names and widths of existing improved and unimproved streets and roads in relation to existing right-of-way, bikeways and access corridors in the proposed subdivision and within 200 feet of the proposed subdivision;
2. Location of any existing features, such as section lines, section corners, special district boundary lines and survey monuments;
3. Location of existing structures, irrigation canals and ditches, pipelines, waterways, railroads and any natural features, such as rock outcroppings, marshes, wooded areas and natural hazards;
4. Location and direction of watercourses, and the location of areas subject to flooding and high water tables;
5. Location, width and use or purpose of any existing easement or right of way for utilities, bikeways and access corridors within and adjacent to the proposed subdivision;

6. Existing sewer lines, water mains, culverts and other underground and overhead utilities within and adjacent to the proposed subdivision, together with pipe sizes, grades and locations;
 7. Contour lines related to some established benchmark or other engineering acceptable datum and having minimum intervals of two feet for slopes of less than five percent, 10 feet for slopes of five to 20 percent, and 20 feet for slopes greater than 20 percent;
 8. Zoning classification of lands within and adjacent to the proposed subdivision;
 9. A map showing the location of any site zoned SM, Surface Mining, under DCC Title 18, within one-half mile of the proposed subdivision or partition boundary;
 10. The structures, trees, rock outcroppings or other shade producing objects, if the object will cast shade from or onto the subdivision.
- C. Information Concerning Proposed Subdivision.
1. Location, names, width, typical improvements, cross-sections, bridges, culverts, approximate grades, curve radii and centerline lengths of all proposed streets, and the relationship to all existing and proposed streets;
 2. Location, width and purpose of all proposed easements or rights of way for roads, utilities, bikeways and access corridors, and relationship to all existing easements and rights of way;
 3. Location of at least one temporary benchmark within the subdivision boundary;
 4. Location, approximate area and dimensions of each lot, and proposed lot numbers;
 5. Location, approximate area and dimensions of any lot or area proposed for public use, the use proposed, and plans for improvements or development thereof;
 6. Proposed use, location, approximate area and dimensions of any lot intended for nonresidential use;
 7. Phase boundaries outlined in bold lines, if phasing is contemplated for the subdivision;
 8. Source, method and preliminary plans for domestic and other water supplies, sewage disposal, solid waste disposal and all utilities;
 9. Description and location of any proposed community facility;
 10. Storm water and other drainage facility plans;
 11. Statement from each utility company proposed to serve the subdivision, stating that each such company is able and willing to serve the subdivision as set forth in the tentative plan;
 12. Proposed fire protection system for the subdivision;
 13. Solar access:
 - a. Provide a statement relative to the solar access to be provided by the subdivision plan.
 - b. Determine the location and type of street trees, if proposed.
 14. Location and design of all proposed bicycle and pedestrian facilities;
 15. Location and design of all proposed facilities providing for public transit.
- D. Information for lots located in Surface Mining Impact Area (SMIA) zones. For each lot located wholly or partially within a SMIA zone, an applicant shall submit a site plan, accompanied by appropriate site plan fees, indicating the location of proposed noise or dust sensitive uses (as defined in DCC Title 18), the location and dimensions of any mitigating berms or vegetation and data addressing the standards of DCC 18.56, as amended, with respect to proposed noise or dust sensitive uses.
- (Ord. 2006-007 § 2, 2006; Ord. 2006-004 § 1, 2006; Ord. 93-012 § 15, 1993; Ord. 90-003 § 1, Exhibit A, 1990; Ord. 83-039 §§ 3-5, 1983; Ord. 81-043 § 1, Exhibit A, § 3.025, 1981)

17.16.040. Protective covenants and homeowner association agreements.

Landowner covenants, conditions, and restrictions and homeowner association agreements are not relevant to approval of subdivisions and partitions under DCC Title 17, unless otherwise determined by the County to carry out certain conditions of approval, such as road maintenance or open space preservation. Any provisions in such agreements not in conformance with the provisions of DCC Title 17 or applicable zoning ordinances are void.

(Ord. 93-012 § 16, 1993; Ord. 90-003 § 1, Exhibit A, 1990)

17.16.050. Master development plan.

An overall master development plan shall be submitted for all developments affecting land under the same ownership for which phased development is contemplated. The master plan shall include, but not be limited to, the following elements:

- A. Overall development plan, including phase or unit sequence;
- B. Show compliance with the comprehensive plan and implementing land use ordinances and policies;
- C. Schedule of improvements, initiation and completion;
- D. Overall transportation and traffic pattern plan, including bicycle, pedestrian and public transit transportation facilities and access corridors;
- E. Program timetable projection;
- F. Development plans for any common elements or facilities;
- G. If the proposed subdivision has an unknown impact upon adjacent lands or lands within the general vicinity, the Planning Director or Hearings Body may require a potential development pattern for streets, bikeways and access corridors for adjoining lands to be submitted together with the tentative plan as part of the master development plan for the subject subdivision.

(Ord. 93-012 § 17, 1993; Ord. 81-043 § 1, Exhibit A, § 3.030, 1981)

17.16.060. Master development plan-Approval.

The Planning Director or Hearings Body shall review a master development plan at the same time the tentative plan for the first phase is reviewed. The Planning Director or Hearings Body may approve, modify or disapprove the master plan and shall set forth findings for such decision. The Planning Director or Hearings Body may also attach conditions necessary to bring the plan into compliance with all applicable land use ordinances and policies. Any tentative plan submitted for the plan area shall conform to the master plan unless approved otherwise by the County. Master plan approval shall be granted for a specified time period by the Planning Director or Hearings Body, and shall be included in the conditions of approval.

(Ord. 93-012 § 18, 1993; Ord. 90-003 § 1, Exhibit A, 1990; Ord. 81-043 § 1, Exhibit A, § 3.030, 1981)

17.16.070. Development following approval.

Once a master plan is approved by the County, the plan shall be binding upon both the County and the developer; provided, however, after five years from the date of approval of the plan, the County may initiate a review of the plan for conformance with applicable County regulations. If necessary, the County may require changes in the plan to bring it into conformance.

(Ord. 81-043 § 1, Exhibit A, § 3.040, 1981)

17.16.080. Tentative plan as a master plan.

- A. As an alternative to the filing of a master plan for phased development, the applicant may file a tentative plan for the entire development. The plan must comply with the provisions of DCC Title 17 for tentative plans.
- B. If the applicant proposed to phase development, he shall provide sufficient information regarding the overall development plan and phasing sequence when submitting the tentative plan.

- C. If the tentative plan is approved with phasing, the final plat for each phase shall be filed in accordance with DCC 17.24.020 through 17.24.110.

(Ord. 81-043 § 1, Exhibit A, § 3.045, 1981)

17.16.090. Tentative plan approval.

- A. The Hearings Body shall review the application and any comments submitted by other appropriate County, state, or federal agencies and shall render a decision in accordance with DCC 17.16.100, setting forth findings supporting its decision.
- B. Approval of the tentative plan shall not constitute final acceptance of the plat of the proposed subdivision for purposes of recording; however, approval of such tentative plan shall be binding upon the County for the purposes of preparation and review of the final plat. Upon review of the final plat, the County may require compliance with the terms of its tentative plan approval of the proposed subdivision and the terms of DCC Title 17.

(Ord. 90-003 § 1, Exhibit A, 1990; Ord. 81-043 § 1, Exhibit A, § 3.055(1), 1981)

17.16.100. Required findings for approval.

A tentative plan for a proposed subdivision shall not be approved unless the Planning Director or Hearings Body finds that the subdivision as proposed or modified will meet the requirements of DCC Title 17 and DCC Title 18 through 21, and is in compliance with the comprehensive plan. Such findings shall include, but not be limited to, the following:

- A. The subdivision contributes to orderly development and land use patterns in the area, and provides for the preservation of natural features and resources such as streams, lakes, natural vegetation, special terrain features, agricultural and forest lands and other natural resources.
- B. The subdivision will not create excessive demand on public facilities and services, and utilities required to serve the development.

- C. The tentative plan for the proposed subdivision meets the requirements of ORS 92.090.

- D. For subdivision or portions thereof proposed within a Surface Mining Impact Area (SMIA) zone under DCC Title 18, the subdivision creates lots on which noise or dust sensitive uses can be sited consistent with the requirements of DCC 18.56, as amended, as demonstrated by the site plan and accompanying information required under DCC 17.16.030.

- E. The subdivision name has been approved by the County Surveyor.

(Ord. 93-012 § 19, 1993; Ord. 90-003 § 1, Exhibit A, 1990; Ord. 81-043 § 1, Exhibit A, § 3.060, 1981)

17.16.105. Access to subdivisions.

No proposed subdivision shall be approved unless it would be accessed by roads constructed to County standards and by roads accepted for maintenance responsibility by a unit of local or state government. This standard is met if the subdivision would have direct access to an improved collector or arterial, or in cases where the subdivision has no direct access to such a collector or arterial, by demonstrating that the road accessing the subdivision from a collector or arterial meets relevant County standards and has been accepted for maintenance purposes.

(Ord. 93-012 § 19(A), 1993)

17.16.110. Resubmission of denied tentative plan.

- A. If the tentative plan for a subdivision is denied, resubmittal thereof shall not be accepted for a period of six months after the date of the final action denying such plan. Upon resubmission, the applicant shall consider all items upon which the prior denial was based, and the resubmission shall be accompanied by a new filing fee.
- B. A tentative plan resubmitted in accordance with DCC 17.16.110 shall be reviewed in the same manner as any other tentative plan.

(Ord. 90-003 § 1, Exhibit A, 1990; Ord. 81-043 § 1, Exhibit A, § 3.035, 1981)

17.16.115. Traffic Impact Studies.

A. For purposes of DCC 17.16.115, the transportation system includes public and private roads, intersections, sidewalks, bike facilities, trails, and transit systems.

B. The applicant shall meet with County staff in a pre-application conference to discuss study requirements, then generate the traffic study and submit it concurrently with the land use application.

C. Guidelines for Traffic Impact Studies

1. All traffic impact studies shall be conducted under the direction of a professional traffic engineer who is licensed in the State of Oregon and is otherwise qualified to prepare traffic studies.
2. The final report shall be stamped and signed by the Registered Professional Traffic Engineer responsible for the document.
3. The County Engineer shall determine when the report has satisfied all the requirements of the development's impact analysis. Incomplete reports shall be returned for completion.
4. The following vehicle trip generation thresholds shall determine the level and scope of transportation analysis required for a new or expanded development.
 - a. **No Report** is required if there are fewer than 50 trips per day generated during a weekday.
 - b. **Site Traffic Report (STR)**: If the development or change in use will cause the site to generate 50-200 daily trip ends, and less than 20 PM peak hour trips, a Site Traffic Report will be required.
 - c. **Traffic Impact Analysis (TIA)**: If the development or change in use will generate more than 200 trip ends and 20 or more PM peak hour trips, then a Traffic Impact Analysis (TIA) shall be required.

D. Traffic Study Area

1. After consulting with other affected jurisdictions, the County Engineer shall determine the impact analysis area.
2. The impact analysis study area shall include, at a minimum:
 - a. All site access points to the public roadway system via either a driveway or private roadway;
 - b. Nearest intersecting collector or arterial roads to the development that would experience an increase of 25 additional peak hour trips;
 - c. Any other collector or arterial intersection requested by staff.

E. Study Time Frames

1. The analysis shall include the following time frames:
 - a. Existing conditions (including approved, but not yet built developments as identified by the County Engineer);
 - b. Completion year of each significant phase of the development;
 - c. Five year forecast after build out for each phase of development or the final phase of development.
 - d. Generators of large volumes of traffic (>5,000 daily and >500 peak hour trips), zone changes, and any destination resort development will also require an analysis of traffic conditions in a twenty-year horizon.

F. Minimum Study Requirements for a Site Traffic Report (STR)

1. The minimum study requirements for a Site Traffic Report are:
 - a. A vicinity map showing the location of the project in relation to the transportation system of the area;
 - b. Trip generation forecast using data from the most recent edition of the Institute of Transportation Engineers (ITE) *Trip Generation Manual* unless more appropriate data is available and approved by the County Engineer;
 - c. Trip distribution and assignment;
 - d. Safety analysis of the site accesses, including sight distance and

- operation characteristics;
- e. Description of the proposed development and surrounding land uses;

G. Minimum Study Requirements for a Traffic Impact Analysis (TIA)

1. The minimum study requirements for a Traffic Impact Report are:
 - a. A vicinity map showing the location of the project in relation to the transportation system of the area;
 - b. All of the elements of a STR;
 - c. Traffic signal progression analysis and interconnection if a new signal is proposed;
 - d. A response in the final report to any supplemental study issues identified by other affected jurisdictions;
 - e. Appropriate traffic calming techniques if the project distributes trips to a residential local road and is projected to increase the volumes on that road to a volume greater than 1,000 ADT;
 - f. Trip generation forecasts using data from the most recent edition of the Institute of Transportation Engineers (ITE) *Trip Generation Manual* unless the County Engineer approves an alternate data source;
 - g. Trip distribution assumptions are based on historical data, existing and future travel characteristics, and capacity constraints;
 - h. A complete description and drawing of the proposed development.
 - i. Existing traffic volumes;
 - j. Existing and future levels of service, average vehicle delay and volume /capacity ratios (V/C) for all intersections and road sections within the study area for conditions with and without the proposed project;
 - k. Forecast traffic volumes with and without the development;
 - l. Safety analysis of the site accesses, include sight distance and operation characteristics;
 - m. Analysis of right and left turn lane

warrants (ODOT standards);

- n. Analysis of parking needs of the proposed development;
- o. When needed, warrant analysis for traffic control devices;
- p. Findings and conclusions including a recommendation of suggested potential mitigation for off-site impacts and an evaluation of the effectiveness of those solutions.

H. Operation And Safety Standards

1. The minimum operational and safety standards for use on Deschutes County's roads are:
 - a. The minimum level of service for intersections and roads, during the P.M. Peak Hour, shall be LOS "D" on existing facilities and LOS "C" on new facilities.
 - b. The minimum sight distance for driveways and intersections is defined in ASSHTO's "GEOMETRIC DESIGN OF HIGHWAYS AND STREETS" and the AASHTO "Design Guidelines for Very-Low Volume Local Roads (< 400 ADT)".

I. Mitigation

1. The applicant shall be responsible to mitigate any safety or capacity problems that are caused by their proposed development.
2. At the County Engineer's discretion, if there are pre-existing safety deficiencies and/or capacity failures at relevant intersections or road frontages within the impact analysis area, then no additional development shall be allowed until a solution that accounts for the proposed project's additional impacts is funded or built.

(Ord. 2006-004 § 1, 2006)

Chapter 17.20. ZERO LOT SUBDIVISION

17.20.010. Requirements.

17.20.010. Requirements.

In addition to the general provisions for subdivision and partitioning set forth in DCC Title 17, any application for a zero lot line subdivision or partition shall meet the following requirements:

- A. The tentative plan shall indicate all lot divisions, including those along the common wall of duplex units.
- B. Independent utility service shall be provided to each unit, including, but not limited to, water, electricity and natural gas, unless common utilities are approved by the affected utility agency and are adequately covered by easements.
- C. Prior to the granting of final approval for creation of a zero lot line subdivision or partition, the Planning Director shall require the applicant(s) to enter into a written agreement in a form approved by the County Legal Counsel that establishes the rights, responsibilities and liabilities of the parties with respect to maintenance and use of any common areas of the unit, such as, but not limited to, common walls, roofing, water pipes and electrical wiring. Such agreement shall be in a form suitable for recording, and shall be binding upon the heirs, executors, administrators and assigns of the parties.
- D. Each zero lot line subdivision or partition proposal shall receive site plan approval prior to submission of the final plat. Site plan approval shall be granted only upon a finding that the design, materials and colors proposed for each dwelling are harmonious and do not detract from the general appearance of the neighborhood.

(Ord. 90-003 § 1, Exhibit A, 1990; Ord. 81-043 § 1, § 3.050, 1981)

**Chapter 17.22. APPROVAL OF
TENTATIVE PLANS
FOR PARTITIONS**

- 17.22.010. Filing procedures and requirements.**
- 17.22.020. Requirements for approval.**
- 17.22.030. Improvement requirements.**
- 17.22.040. Application review.**
- 17.22.100. Special partition regulations.**

17.22.010. Filing procedures and requirements.

- A. Any person, or his authorized agent or representative, proposing a land partition, shall prepare and submit a minimum of 10 copies of the documents hereinafter described, unless more copies are required by the Planning Director, in accordance with the prescribed procedures, and the appropriate filing fee, to the Planning Division.
- B. The tentative plan shall include the following:
 - 1. A vicinity map locating the proposed partition in relation to parcels zoned SM, Surface Mining, under DCC Title 18, which are within one-half mile of the subject partition, and to adjacent subdivisions, roadways and adjoining land use and ownership patterns. The map must include names of all existing roadways shown therein;
 - 2. A plan of the proposed partitioning showing tract boundaries and dimensions, the area of each tract or parcel, locations of all easements, and the names, rights of way, widths and improvement standards of existing roads in relation to the existing right-of-way. The tentative plan shall also show the location of all existing buildings, canals, ditches, septic tanks and drainfields; it shall also show the location of any topographical feature which could impact the partition, such as canyons, bluffs, rock outcroppings, natural springs and floodplains. In addition, the tentative plan shall show the location width, curve

radius and grade of proposed rights of way;

- 3. If the partition is to be accessed by a U.S. Forest Service or Bureau of Land

Management road, the applicant shall submit a written agreement with the appropriate land management agency providing for permanent legal access to the road and any required maintenance;

- 4. Names and addresses of the landowner, the applicant (if different), a mortgagee if applicable and the engineer or surveyor employed or to be employed to make the necessary surveys;
 - 5. A statement regarding contemplated water supply, telephone and electric service, sewage disposal, fire protection and access, etc. If domestic water is to be provided by an on-site well, the application must include at least two well logs for wells in the area;
 - 6. True north, scale and date of map and property identification by tax lot, section, township and range;
 - 7. Statement regarding present and intended use of the parcels to be created, or the use for which the parcels are to be offered;
 - 8. If a tract of land has water rights, the application shall be accompanied by a water rights division plan which can be reviewed by the irrigation district or other water district holding the water rights, or when there is no such district, the County Watermaster;
 - 9. Title report or subdivision guarantee.
- C. Information for parcels located within a Surface Mining Impact Area (SMIA) zones. For each parcel wholly or partially within a SMIA zone under DCC Title 18, an applicant shall submit a site plan, accompanied by appropriate site plan fees, indicating the location of proposed noise or dust sensitive uses (as defined in DCC Title 18), the location and dimensions of any mitigating berms or vegetation and data addressing the standards of DCC 18.56, with respect to allowed noise or dust sensitive uses.

(Ord. 2006-007 § 3, 2005; Ord. 93-012 § 21, 1993; Ord. 90-003 § 1, Exhibit A, 1990; Ord. 81-043 § 1, Exhibit A, § 5.015, 1981)

17.22.020. Requirements for approval.

A. No application for partition shall be approved unless the following requirements are met:

1. Proposal is in compliance with ORS 92, the applicable comprehensive plan and applicable zoning ordinance. A proposed partition is not in compliance with the zoning ordinance if it would conflict with the terms of a previously issued approval for a land use on the property or would otherwise create a nonconforming use on any of the newly described parcels with respect to an existing structure or use;
2. Proposal does not conflict with existing public access easements within or adjacent to the partition;
3. The partition is accessed either by roads dedicated to the public or by way of United States Forest Service or Bureau of Land Management roads where applicant has submitted a written agreement with the appropriate land management agency providing for permanent legal access to the parcels and any required maintenance. This provision shall not be subject to variance;
4. An access permit can be obtained from either the Community Development Department, the City Public Works Department or the State Highway Division;
5. Each parcel is suited for the use intended or offered, considering the size of the parcels, natural hazards, topography and access;
6. All required utilities, public services and facilities are available and adequate and are proposed to be provided by the petitioner;
7. A water rights division plan, reviewed and approved by the appropriate irrigation district or the Watermaster's office, if water rights are associated with the subject property;

8. For partitions or portions thereof within one-half mile of SM zones, the applicant shows that a noise or dust sensitive use, as defined in DCC Title 18, can be sited consistent with the requirements of DCC 18.56, as demonstrated by the site plan and accompanying information required to be submitted under DCC 17.28.010(C).

B. If the Planning Director determines that the proposed partition constitutes series partitioning, or if series partitioning has occurred in the past, then the Planning Director may refer the application to the hearings officer for a determination as to whether the application should be subject to the requirements of DCC 17.36.300, Public Water Supply System, and DCC 17.48.160, Road Development Requirements for Subdivisions.

C. Protective covenants and homeowner's association agreements are irrelevant to any partition approval and will not be reviewed by the County. Any provision in such agreements not in conformance with the provisions of DCC Title 17 or applicable zoning ordinance are void as against the County.

(Ord. 2006-007 § 3, 2005; Ord. 93-012 § 22, 1993; Ord. 90-003 § 1, Exhibit A, 1990; Ord. 81-043 § 1, Exhibit A, § 5.020, 1981)

17.22.030. Improvement requirements.

In the approval of a land partition, the County shall consider the need for street and other improvements, and may require as a condition of approval any improvements that may be required for a subdivision under the provisions of DCC Title 17. All roads in partitions shall be dedicated to the public without reservation or restriction, except where private roads are allowed by the applicable zoning regulations, such as in planned or cluster developments.

(Ord. 2004-025 § 1, 2004; Ord. 93-012 § 23, 1993; Ord. 90-003 § 1, Exhibit A, 1990; Ord. 81-043 § 1, Exhibit A, § 5.020, 1981)

17.22.040. Application review.

Following submission of an application for a land partition, the application shall be reviewed in accordance with DCC Title 22.

(Ord. 93-012 § 24, 1993; Ord. 90-003 § 1, Exhibit A, 1990; Ord. 81-043 § 1, Exhibit A, § 5.040, 1981)

17.22.100. Special partition regulations.

The partitioning of a tract of land in which not more than one additional parcel is created, and transferred to a governmental agency or special district for the purpose of a road, railroad, electric substation, canal right of way or irrigation district use, may be approved by the Planning Director without going through a variance procedure. The new parcel may be less than the minimum lot size in the zone within which it is located, provided it is utilized for one of the above purposes. A partition application shall be required.

(Ord. 93-012 § 15, 1993; Ord. 90-003 § 1, Exhibit A, 1990; Ord. 81-043 § 1, Exhibit A, § 5.090, 1981)

Chapter 17.24. FINAL PLAT

- 17.24.010. Applicability.**
- 17.24.020. Submission-Extensions.**
- 17.24.030. Submission for phased development.**
- 17.24.040. Form.**
- 17.24.050. Requirements of survey and plat.**
- 17.24.060. Required information.**
- 17.24.070. Supplemental information.**
- 17.24.080. Repealed.**
- 17.24.090. Approval by irrigation districts.**
- 17.24.100. Technical review.**
- 17.24.105. Final plat review.**
- 17.24.110. Conditions of approval.**
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- 17.24.140. Approval.**
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- 17.24.160. Approval and recordation of subdivision interior monuments.**
- 17.24.170. Correction of errors.**

17.24.010. Applicability.

- A. DCC 17.24 shall apply to approval of plats for subdivisions and major and minor partitions within the County. A final plat is required for all subdivisions and partitions approved by the County.
- B. With respect to partitions and subdivisions located within the boundaries of a city that has by resolution or ordinance directed that the city surveyor serve in lieu of the County Surveyor, DCC 17.24.040, 17.24.150, 17.24.160 and 17.24.170 shall apply.
- C. With respect to partitions and subdivisions located within the boundaries of a city that has not by resolution or ordinance directed its surveyor to serve in lieu of the County Surveyor, DCC 17.24.040, 17.24.100(A), 17.24.150, 17.24.160 and 17.24.170 shall apply.

(Ord. 90-015 § 2, 1990; Ord. 90-003 § 1, Exhibit A, 1990)

17.24.020. Submission-Extensions.

- A. Filing Time Period Requirements. Except as provided for in DCC 17.24.030, the applicant shall prepare and submit to the planning department a final plat that is in conformance with the tentative plan as approved. Within two years of the approval date for the tentative plan for a subdivision or partition, the applicant shall submit an original drawing, a filing fee and any supplementary information required by DCC Title 17 and the Hearings Body. If the applicant fails to proceed with such a submission before the expiration of the two-year period following the approval of the tentative plan, the plan approval shall be void. The applicant may, however, submit a new tentative plan together with the appropriate filing fee.

B. Extension.

- 1. An extension may only be granted in conformance with the applicable provisions of the Deschutes County Development Procedures Ordinance.

(Ord. 95-018 § 15, 1995; Ord. 90-003 § 1, Exhibit A, 1990; Ord. 86-030 § 1, 1986; Ord. 81-043 § 1, Exhibit A, § 4.005(2), 1981)

17.24.030. Submission for phased development.

- A. If a tentative plan is approved for phased development, the final plat for the first phase shall be filed within two years of the approval date for the tentative plan.
- B. The final plats for any subsequent phase shall be filed within three years of the recording date of the final plat for the first phase.
- C. The applicant may request an extension for any final plat under DCC 17.24 in the manner provided for in DCC 17.24.020(B).
- D. If the applicant fails to file a final plat, the tentative plan for those phases shall become null and void.

(Ord. 95-018 § 16, 1995; Ord. 90-003 § 1, Exhibit A, 1990; Ord. 81-043 § 1, Exhibit A, § 4.010, 1981)

17.24.040. Form.

The final plat shall be submitted in the form prescribed by state statute and DCC Title 17. All plats and other writings or dedications made a part of such plats offered for recording shall be made in black India ink upon an 18 inch by 24-inch sheet, with an additional three-inch binding edge on the left side. The plat shall be made upon drafting material of at least four mil thickness that is suitable for binding and copying and have such other characteristics of strength and permanency as may be required by the County Surveyor. All signatures on the original subdivision or partition plat shall be in permanent black India-type ink. The plat shall be of such a scale as established by the County Surveyor, and the lettering of the approvals, dedications, the Surveyor's certificate, and all other information shall be of such size or type as will be clearly legible, but no part shall come nearer to any edge of the sheet than one inch. The plat may contain as many sheets as necessary, but an index page shall be included for plats of three or more sheets.

(Ord. 93-012 § 25(A), 1993; Ord. 90-003 § 1, Exhibit A, 1990; Ord. 81-043 § 1, Exhibit A, § 4.015, 1981)

17.24.050. Requirements of survey and plat.

A. Any final subdivision or partition plat shall meet the survey and monumentation requirements of ORS 92.

B. Parcels of 10 acres or more created by partition are subject to all survey and monument requirements.

(Ord. 93-012 § 25(AA), 1993; Ord. 90-003 § 1, Exhibit A, 1990; Ord. 81-043 § 1, Exhibit A, § 4.020, 1981)

17.24.060. Required information.

In addition to that required for the tentative plan or otherwise specified by law, the following information shall be shown on the submitted plat:

A. Name of subdivision and plat number for a final subdivision plat, or the partition application number and space for the partition plat number for a final partition plat.

B. Name of owner, applicant and surveyor.

C. The date, scale, true north, key to symbols, controlling topography such as bluffs, creeks and other bodies of water, and existing highways and railroads.

D. Legal description of the tract boundaries.

E. The exact location and width of streets and easements intercepting the boundary of the tract.

F. Tract, lot or parcel boundary lines and street rights of way and centerlines, with dimensions, bearing or deflection angles, radii, arcs, points of curvature and tangent bearings. Normal high water lines for any creek, bay or other body of water. Tract boundaries and street bearings shall be shown to the nearest second with the basis of bearings. Distances shall be shown to the nearest 0.01 feet.

G. Streets. The width of the streets being dedicated and the curve data shall be based on the street centerline. In addition to the centerline dimensions, the radius and central angle shall be indicated, together with the long chord distance and bearing.

H. Easements. The location, dimensions and purpose of all recorded and proposed public easements shall be shown on the plat along with the County Clerk's recording reference if the easement has been recorded with the County Clerk. All such easements shall be denoted by fine dotted lines and clearly identified. If an easement is not of record, a statement of the grant of easement shall be given. If the easement is being dedicated by the plat, it shall be properly referenced in the owner's certificate of dedication.

I. Southern Building Line. The southern building line shall be shown on each lot or parcel which is benefited by solar height restrictions on burdened lots within the subdivision or partition.

J. Bicycle and Pedestrian Facilities. The location, width and type (i.e., route, lane or path) of all bicycle and pedestrian facilities, including access corridors.

- K. Lot or Parcel Numbers. Lot or parcel numbers beginning with the number one and numbered consecutively.
- L. Block Numbers. Block numbers shall not be allowed for any subdivision application submitted for tentative approval after January 1, 1992, unless such subdivision is a continued phase of a previously recorded subdivision, bearing the same name, that has previously used block numbers or letters. The numbers shall begin with the number one and continue consecutively without omission or duplication throughout the subdivision. The numbers shall be placed so as not to obliterate any figure. Block numbers in an addition to a subdivision of the same name shall be a continuation of the numbering in the original subdivision.
- M. Public Lands. Public lands, including strips and easements, shall be clearly marked to distinguish them from lots or parcels intended for sale.
- N. Access Restrictions. Limitations on rights of access to and from streets, lots or parcels and other tracts of land.
- O. Area. The area of each lot or parcel, if larger than one acre, to the nearest hundredth of an acre; and the area of each lot or parcel less than one acre, to the nearest square foot.
- P. Statement of Water Rights.
 - 1. Each subdivision or partition plat shall include a statement of water rights on the plat. The statement shall indicate whether a water right or permit is appurtenant to the subject property. If a water right is appurtenant, the certificate number must appear with the statement. If a water permit rather than a perfected water right is appurtenant, the permit number shall be included on the plat.
 - 2. If a water right is appurtenant, the applicant shall submit a copy of the final plat to the State Water Resources Department, except for those plats with lots or parcels served by irrigation districts.
- 3. All final plats for parcels within an irrigation district shall be signed by an authorized person from the district.
- Q. Statements. The following statements are required:
 - 1. Land Divider's Declaration.
 - a. An acknowledged affidavit of the person proposing the land division (declarant) stating that he has caused the plat to be prepared in accordance with the provisions of ORS 92 and dedicating any common improvements, such as streets, bike paths or walkways, parks or open space, sewage disposal or water supply systems, required under DCC 17.24.060 or as a condition of approval of the tentative plan or plat. The declaration shall also include the creation of any other public or private easements.
 - b. If the declarant is not the fee owner of the property, the fee owner and the vendor under any instrument of sale shall also execute the declaration for the purpose of consenting to the property being divided and to any dedication or creation of an easement or other restriction. Likewise, the holder of any mortgage or trust deed shall also execute the declaration for purposes of consenting to the property being divided and for the purpose of assenting to any dedication or creation of an easement or other restriction.
 - c. In lieu of signing the declaration on the plat, any required signatory to the declaration other than the declarant may record an acknowledged affidavit consenting to the declaration and to any dedication or donation of property for public purposes or creation of an easement or other restriction.
 - 2. A certificate certifying preparation of the plat in conformance with the provisions of state law signed by the surveyor

responsible for the survey and final plat and stamped with his seal.

3. Any other affidavit required by state regulations.
- R. Signature Lines. Unless otherwise stated herein, signature lines for the following officials signifying their approval:
 1. County Surveyor.
 2. Road Department Director.
 3. County Environmental Health Director, unless the property is to be connected to a municipal sewer system.
 4. County Assessor (subdivisions and nonfarm partitions only).
 5. County Tax Collector (subdivisions only).
 6. Authorized agent for any irrigation district servicing the subdivision or partition.
 7. County Planning Director.
 8. County Commissioners.
 9. Any other signature required by state regulation.
- S. The plat shall contain a statement located directly beneath the signatures of the County Commissioners stating as follows: "Signature by the Board of Commissioners constitutes acceptance by the County of any dedication made herein to the public."
- T. Adjacent SM Zone. Any plat of a subdivision or partition adjoining an SM zone must clearly show where such zone is located in relation to the subdivision or partition boundaries.
(Ord. 2006-007 § 4, 2005; Ord. 93-012 § 26, 1993; Ord. 90-015 § 1, 1990; Ord. 90-003 § 1, Exhibit A, 1990; Ord. 83-039 § 6, 1983; Ord. 81-043 § 1, Exhibit A, § 4.030, 1981)

17.24.070. Supplemental information.

The following data shall accompany the plat:

- A. Title Report. A subdivision guarantee report or other similar title report issued by a title insurance company showing the current status of title to the property. Such report shall show evidence of marketable title.

- B. Record of Survey Plat. Sheets and drawings for submission to the County Surveyor containing the following information:
 1. Traverse data, including the coordinates of the boundary of the subdivision or partition and ties to section corners and donation land claim corners, and showing the error of closure. A survey control work sheet may be substituted for this item;
 2. The computation of distances, angles and courses shown on the plat;
 3. Ties to existing monuments, proposed monuments, adjacent subdivisions or partitions, street corners and state highway stationing.
- C. Dedications. A copy of any dedication requiring separate documents with specific reference to parks, playgrounds, etc.
- D. Taxes. A list of all taxes and assessments on the tract which have become a lien on the land being divided.
- E. Improvements. If grading, street improvements, sewer or water facilities are required as a condition of approval of the final plat, the following shall be required to be submitted with the final plat:
 1. Improvement plan, in accordance with DCC 17.40.010;
 2. Plans and profiles of sanitary sewers, location of manholes and drainage system;
 3. Plan and profiles of the water distribution system, showing pipe sizes and location of valves and fire hydrants;
 4. Specifications for the construction of all utilities;
 5. Grading plans and specifications as required for areas other than streets and ways;
 6. Planting plans and specifications for street trees and other plantings in public areas;
 7. Plans for improvements, design factors or other provisions for fire protection or fire hazard reduction.

8. A Map showing the location of existing roads in relation to the dedicated right-of-way.
(Ord. 2006-007 § 4, 2006; Ord. 90-003 § 1, Exhibit A, 1990; Ord. 81-043 § 1, Exhibit A, § 4.035, 1981)

17.24.080. (Renumbered to 17.24.110 by Ord. 90-003, 1990)

17.24.090. Approval by irrigation districts.

- A. All plats or replats of subdivisions or partitions located within the boundaries of an irrigation district, drainage district, water control district, district improvement company or similar service district, shall be submitted to the Board of Directors of the district or company for its approval of such plat or replat of any subdivision or partition.
- B. If the applicant is unable to obtain action or approval of any such district or company within 45 days of submission to such district or company, the applicant shall notify the Board in writing, and thereafter the Board shall serve notice on such district or company by certified mail advising the district or company that any objections to the plat or replat must be filed with the Board within 20 days. Failure of the district or company to so respond shall be considered to be an approval of such plat or replat.

(Ord. 90-003 § 1, Exhibit A, 1990)

17.24.100. Technical review.

- A. Review by Surveyor.
 1. The County Surveyor shall, after receipt of such fees provided by law or County ordinance, review the plat for conformance with the requirements of ORS 92.
 2. The surveyor shall not approve a partition unless he is satisfied that all required monuments on the exterior boundary and all required parcel corner monuments have been set.
 3. The County Surveyor may require that the setting of interior corners for a subdivision be delayed if the installation of street and utility improvements has not

been completed or if other contingencies justify the delay. In such cases, the surveyor shall require payment of a bond to the County as provided for in DCC 17.24.130.

4. Any plat prepared by the County Surveyor in his private capacity shall be approved by the County Surveyor of another County in accordance with ORS 92.100(4).

- B. Field Check. The Road Department Director, the Planning Director and the County Surveyor or their designated representatives may make such checks in the field as are required by law or are otherwise desirable to verify that the plat is sufficiently correct. They may enter the property for this purpose.

(Ord. 2006-007 § 4, 2005; Ord. 93-012 § 27, 1993; Ord. 90-003 § 1, Exhibit A, 1990; Ord. 81-043 § 1, Exhibit A, § 4.040, 1981)

17.24.105. Final plat review.

- A. Upon payment by the applicant of any fees required by the County, the Planning Director and such other County departments as he shall deem appropriate shall review the plat and other data submitted with it to determine whether or not the subdivision or partition as shown is substantially the same as it appeared on the approved tentative plan and for compliance with provisions of DCC Title 17, the tentative approval, and other applicable laws. If the Planning Director determines all conditions of approval have been satisfied, the final plan shall be submitted to the Board of county Commissioners for approval. A final plan may be approved by signature of the chairperson or vice chairperson of the Board.

- B. Review and approval under DCC 17.24 shall occur in accordance with DCC 17.24.110.

(Ord. 97-045, § 1, 1997; Ord 93-012 § 28, 1993)

17.24.110. Conditions of approval.

- A. The Planning Director and Road Department Director shall determine whether or not the plat conforms with the approved tentative plan and DCC Title 17. If the Planning

Director and/or Road Department Director does not approve the plat, they shall advise the applicant of the changes or additions that must be made, and shall afford him an opportunity to make corrections. If the Planning Director and Road Department Director determine that the plat conforms to all requirements and if, in the case of partitions, they determine that all current taxes and assessments are paid, they shall recommend approval, provided supplemental documents and provisions for required improvements are satisfactory. Recommendation of approval of the plat does not constitute final approval, such authority for final approval being vested with the governing body.

B. No plat of a proposed subdivision or partition shall be approved unless:

1. Streets and roads for public use are to be dedicated without any reservation or restriction.
2. Streets and roads held for private use and indicated on the tentative plan have been approved by the County;
3. The plat contains provisions for dedication to the public of all common improvements, including, but not limited to, streets, roads, parks, sewage disposal and water supply systems, if made a condition of the approval of the tentative plan;
4. Explanations of all common improvements required as conditions of approval of the tentative plan shall be recorded and referenced on the final plat.

(Ord. 93-012 § 29, 1993; Ord. 90-003 § 1, Exhibit A, 1990; Ord. 81-043 § 1, Exhibit A, § 3.050, 1981).

17.24.120. Improvement agreement.

- A. The subdivider may, in lieu of completion of the required repairs to existing streets and facilities, and improvements as specified in the tentative plan, request the County to approve an agreement between himself and the County specifying the schedule by which the required improvements and repairs shall

be completed; provided, however, any schedule of improvements and repairs agreed to shall not exceed on year from the date the final plat is recorded, except as otherwise allowed by DCC 17.24.120(F) below. The agreement shall also provide the following:

1. A list of all the contractors who will construct or complete the improvements and repairs;
2. The cost of the improvements and repairs;
3. That the County may call upon the security for the construction or completion of the improvements and repairs, upon failure of the subdivider to adhere to the schedule for improvements and repairs;
4. That the County shall recover the full cost and expense of any work performed by or on behalf of the County to complete construction of the improvements and repairs, including, but not limited to, attorneys and engineering fees;
5. That a one-year warranty bond shall be deposited with the County following acceptance of the improvements and repairs. The bond shall be in the amount of 10 percent of the value of the improvements.

- B. Except as provided for in DCC 17.24.120©, no building permit shall be issued for any lot or parcel of a platted subdivision or partition until the required improvements are completed and accepted by the County. One building permit for a dwelling may be allowed for the entire parent parcel of a subdivision or partition prior to final plat approval, provided there are no other dwellings on the subject property, all land use approvals have been obtained and the siting of the dwelling is not inconsistent with the tentative plat approval.

- C. The restrictions of DCC 17.24.120(B) shall not apply to a destination resort approved under DCC 18.113, provided that the required fire protection facilities have been constructed in compliance with the master plan or tentative plat approval and approved access

roads have been completed to minimal fire code standards. Issuance of building permits under DCC 17.24.120 shall not preclude the County from calling upon the security at a later date if the roads are not later completed to the standards required by the approval.

- D. The County may reject an agreement authorized by DCC 17.24.120 for any sufficient reason.
- E. The applicant shall file with any agreement specified in DCC 17.24.120 a bond or other form of security provided for in DCC 17.24.130.
- F. Required curb improvements within the La Pine UUC may be bonded for up to three (3) years while the county develops a storm water management plan.

(Ord. 2002-026 § 1, 2002; Ord. 97-016 § 1, 1997; Ord. 93-012 § 30, 1993; Ord. 90-003 § 1, Exhibit A, 1990; Ord. 81-043 § 1, Exhibit A, § 4.050, 1981).

17.24.130. Security.

- A. Where a bond is required by any provision of DCC 17.24, an applicant may submit:
 - 1. A surety bond executed by a surety company authorized to transact business in the state in a form approved by the county legal Counsel;
 - 2. Cash deposit with the County; or
 - 3. An unconditional, irrevocable standby letter of credit.
- B. Such assurance of full and faithful performance shall be for 120 percent of the cost of performing the work as determined by the County.
- C. If the subdivider fails to carry out the provisions of any agreement secured by any security provided for in DCC 17.24.130(A), the County shall call upon the bond or cash deposit to finance any cost and expenses resulting from such failure. If the amount called upon and realized by the County from the cash deposit or bond exceeds the cost and expense incurred in completing the improvements and repairs, the County shall release the remainder. If the amount called

upon and realized by the county from the cash deposit and bond is less than the cost and expense incurred by the County in completing the improvements and repairs, the subdivider shall be liable to the County for the difference.

(Ord. 90-003 § 1, Exhibit A, 1990; Ord. 81-043 § Exhibit A., § 4.055, 1981).

17.24.140. Approval.

After the final plat has been checked and approved as provided for in DCC 17.24, and when all signatures appear thereon except those of the Planning Director and board, the Planning Director shall approve the final plat and submit it to the Board for final approval.

(Ord. 90-003 § 1, Exhibit A, 1990; Ord. 81-043 § 1, Exhibit A, § 4.060, 1981)

17.24.150. Recording.

- A. No plat shall have any force or effect until it has been recorded. No title to property described in any dedication on the plat shall pass until recording of the plat.
- B. The applicant must present the original approved plat plus two exact mylar copies at the time of recording. The Surveyor who made the plat shall make an affidavit on the mylar copies indicating that the copy or tracing is a true and exact copy of the plat. Prior to submission to the County Clerk of a plat of a County-approved subdivision or partition, the applicant shall provide 15 blue line copies of the plat to the planning division and pay the appropriate cartography fee. No plat shall be recorded with the County Clerk unless accompanied by a written statement from the Planning Division that all requirements have been met.
- C. No plat may be recorded unless all city or County approvals required under ORS 92 with respect to land division and surveying and mapping have been obtained. If the plat or the circumstances of its presentation do not allow the Clerk to make this determination, the Clerk may make such inquiry as is necessary to establish that such requirements have been met.

- D. No subdivision plat shall be recorded unless all ad valorem taxes and all special assessments, fees or other charges required by law to be placed upon the tax roll that have become a lien upon the subdivision or that will become a lien upon the subdivision during the tax year have been paid.
- E. No plat shall be recorded unless it is accompanied by a signed statement of water rights and, if there are water rights appurtenant to the property being divided, an acknowledgment of receipt by the Oregon Department of Water Resources of applicant's statement of water rights. This provision shall not apply if the partition or subdivision plat displays the approval of any special district referred to in DCC 17.24.090.
- F. No plat shall be recorded unless it complies with the provisions of DCC 17.24.040 regarding form.
- G. Following submission of the approved plat and required copies, and upon payment of such recording fees as prescribed by the County, the original shall be recorded in the County Clerk's plat records. One copy of the final plat submitted shall be preserved without folding in the archives of the County Clerk. The other copy shall be filed with the County Surveyor.

(Ord. 2006-007 § 4, 2006; Ord. 2005-044 § 1, 2005; Ord 93-012 § 31, 1993; Ord. 90-003 § 1, Exhibit A, 1990; Ord. 81-043 § 1, Exhibit A, § 4.065, 1981)

17.24.160. Approval and recordation of subdivision interior monuments.

- A. Approval. Within five days of completion of the setting of interior monuments as allowed by the County Surveyor under DCC 17.24.100, the Surveyor performing the work shall notify the City or County Surveyor, as the case may be, of the completion of the work. At that time the Surveyor performing the work shall submit to the city or County Surveyor such documentation as the City or county Surveyor shall require demonstrating that the work has been completed in accordance with the Surveyor's affidavit

recorded on the plat and ORS 92, including an affidavit in conformance to the requirements of ORS 92.070(3)(b).

- B. Recordation of Affidavit. upon approval by the City or County Surveyor, as the case may be, the monumentation affidavit shall be recorded in the office of the County Clerk.
- C. Reference of Monumentation. The County Surveyor shall, in all cases, note the monuments set and the recorder's information on the original subdivision plat and any true and exact copies filed in accordance with DCC 17.24.150.
- D. Reference of County Surveyor's Approval. in all cases, the County Surveyor shall reference his approval on the original subdivision plat previously recorded.
(Ord. 90-003 § 1, Exhibit A, 1990)

17.243.170. Correction of errors.

- A. A plat may be amended to correct errors specified in ORS 92.170(1).
- B. Amendment of a plat pursuant to DCC 17.24.170 shall be made by an affidavit of correction prepared in accordance with ORS 92.170(3).
- C. The affidavit shall be submitted to the City or County Surveyor, as the case may be, who shall certify that the affidavit has been examined and that the changes shown on the affidavit are permitted under ORS 92.170(1). After approval by the Surveyor, the affidavit shall be recorded with the Clerk upon payment of such recording and Surveyor's fees as set by the Board.
- D. The County Surveyor shall, in all cases, not the correction and the recording reference from the affidavit upon the original plat and upon the true and exact copies filed pursuant to DCC 17.24.150.

(Ord. 90-003 § 1, Exhibit A, 1990; Ord. 81-043 § 1, Exhibit A, § 4.070, 1981)

Chapter 17.36. DESIGN STANDARDS

- 17.36.010. Compliance required.**
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- 17.36.300. Public water system.**

17.36.010. Compliance required.

Except as otherwise set forth in a zoning ordinance, all land divisions shall be in compliance with the design standards set forth in DCC 17.36 and in DCC 17.48.

(Ord. 95-082 § 2, 1995; Ord. 81-043 § 1, Exhibit A, § 6.010, 1981)

17.36.020. Streets.

- A. The location, width and grade of streets shall be considered in their relation to existing and planned streets, topographical conditions,

public convenience and safety, and the proposed use of land to be served by the streets. The street system shall assure an adequate traffic circulation system for all modes of transportation, including pedestrians, bicycles and automobiles, with intersection angles, grades, tangents and curves appropriate for the traffic to be carried, considering the terrain. The subdivision or partition shall provide for the continuation of the principal streets existing in the adjoining subdivision or partition or of their property projection when adjoining property which is not subdivided, and such streets shall be of a width not less than the minimum requirements for streets set forth in DCC 17.36.

- B. Streets in subdivisions shall be dedicated to the public, unless located in a destination resort, planned community or planned or cluster development, where roads can be privately owned. Planned developments shall include public streets where necessary to accommodate present and future through traffic.

- C. Streets in partitions shall be dedicated to the public.

(Ord. 93-012 § 31(A), 1993; Ord. 90-003 § 1, Exhibit A, 1990; Ord. 81-043 § 1, Exhibit A, § 6.015(1), 1981)

17.36.030. Division of land.

Any proposal for a condominium conversion which results in a division of real property shall comply with the provisions of DCC Title 17 and ORS 92.

(Ord. 93-012 § 32, 1993; Ord. 81-043 § 1, Exhibit A, § 6.015(10), 1981)

17.36.040. Existing streets.

Whenever existing streets, adjacent to or within a tract, are of inadequate width to accommodate the increase in traffic expected from the subdivision or partition or by the County roadway network plan, additional rights of way shall be provided at the time of the land division by the applicant. During consideration of the tentative plan for the subdivision or partition, the Planning Director or Hearings Body, together with the Road

Department Director, shall determine whether improvements to existing streets adjacent to or within the tract, are required. If so determined, such improvements shall be required as a condition of approval for the tentative plan. Improvements to adjacent streets shall be required where traffic on such streets will be directly affected by the proposed subdivision or partition.

(Ord. 93-012 § 33, 1993; Ord. 90-003 § 1, Exhibit A, 1990; Ord. 81-043 § 1, Exhibit A, § 6.015(3), 1981)

17.36.050. Continuation of streets.

Subdivision or partition streets which constitute the continuation of streets in contiguous territory shall be aligned so that their centerlines coincide.

(Ord. 90-003 § 1, Exhibit A, 1990; Ord. 81-043 § 1, Exhibit A, § 6.015(9), 1981)

17.36.060. Minimum right of way and roadway width.

The street right of way and roadway surfacing widths shall be in conformance with standards and specifications set forth in DCC 17.48. Where DCC 17.48 refers to street standards found in a zoning ordinance, the standards in the zoning ordinance shall prevail.

(Ord. 97-005 § 2, 1997; Ord. 81-043 § 1, Exhibit A, § 6.015(1), 1981)

17.36.070. Future resubdivision.

Where a tract of land is divided into lots or parcels of an acre or more, the Hearings Body may require an arrangement of lots or parcels and streets such as to permit future resubdivision in conformity to the street requirements and other requirements contained in DCC Title 17.

(Ord. 90-003 § 1, Exhibit A, 1990; Ord. 81-043 § 1, Exhibit A, § 6.015(2), 1981)

17.36.080. Future extension of streets.

When necessary to give access to or permit a satisfactory future division of adjoining land, streets shall be extended to the boundary of the subdivision or partition.

(Ord. 81-043 § 1, Exhibit A, § 6.015(6), 1981)

17.36.090. (Repealed by Ord. 93-012, 1993)

17.36.100. Frontage roads.

If a land division abuts or contains an existing or proposed collector or arterial street, the Planning Director or Hearings Body may require frontage roads, reverse frontage lots or parcels with suitable depth, screen planting contained in a nonaccess reservation along the rear or side property line, or other treatment necessary for adequate protection of residential properties and to afford separation of through and local traffic. All frontage roads shall comply with the applicable standards of Table A of DCC Title 17, unless specifications included in a particular zone provide other standards applicable to frontage roads.

(Ord. 97-005 § 3, 1997; Ord. 93-057 § 1, 1993; Ord. 93-057 § 1, 1993; Ord. 93-012 § 35, 1993; Ord. 81-043 § 1, Exhibit A, § 6.015(7), 1981)

17.36.110. Streets adjacent to railroads, freeways and parkways.

When the area to be divided adjoins or contains a railroad, freeway or parkway, provision may be required for a street approximately parallel to and on each side of such right of way at a distance suitable for use of the land between the street and railroad, freeway or parkway. In the case of a railroad, there shall be a land strip of not less than 25 feet in width adjacent and along the railroad right of way and residential property. If the intervening property between such parallel streets and a freeway or a parkway is less than 80 feet in width, such intervening property shall be dedicated to park or thoroughfare use. The intersections of such parallel streets, where they intersect with streets that cross a railroad, shall be determined with due consideration at cross streets of a minimum distance required for approach grades to a future grade separation and right of way widths of the cross street.

(Ord. 90-003 § 1, Exhibit A, 1990; Ord. 81-043 § 1, Exhibit A, § 6.015(8), 1981)

17.36.120. Street names.

Except for extensions of existing streets, no street name shall be used which will duplicate or be confused with the name of an existing street in a nearby city or in the County. Street names and numbers shall conform to the established pattern

in the County and shall require approval from the County Property Address Coordinator.

(Ord. 93-012 § 36, 1993; Ord. 81-043 § 1, Exhibit A, § 6.015(11), 1981)

17.36.130. Sidewalks.

- A. Within an urban growth boundary, sidewalks shall be installed on both sides of a public road or street and in any special pedestrian way within the subdivision or partition, and along any collectors and arterials improved in accordance with the subdivision or partition approval.
- B. Within an urban area, sidewalks shall be required along frontage roads only on the side of the frontage road abutting the development.
- C. Sidewalk requirements for areas outside of urban areas are set forth in DCC 17.48.175. In the absence of a special requirement set forth by the Road Department Director under DCC 17.48.030, sidewalks and curbs are never required in rural areas outside unincorporated communities as that term is defined in DCC Title 18.

(Ord. 96-003 § 11, 1996; Ord. 93-012 § 37, 1993; Ord. 90-003 § 1, Exhibit A, 1990; Ord. 88-015 § 3, 1988; Ord. 81-043 § 1, Exhibit A, § 6.015(12), 1981)

17.36.140. Bicycle, pedestrian and transit requirements.

- A. Pedestrian and Bicycle Circulation within Subdivision.
 - 1. The tentative plan for a proposed subdivision shall provide for bicycle and pedestrian routes, facilities and improvements within the subdivision and to nearby existing or planned neighborhood activity centers, such as schools, shopping areas and parks in a manner that will:
 - a. Minimize such interference from automobile traffic that would discourage pedestrian or cycle travel for short trips;
 - b. Provide a direct route of travel between destinations within the

subdivision and existing or planned neighborhood activity centers, and

- c. Otherwise meet the needs of cyclists and pedestrians, considering the destination and length of trip.
- 2. Subdivision layout.
 - a. Cul-de-sacs or dead-end streets shall be allowed only where, due to topographical or environmental constraints, the size and shape of the parcel, or a lack of through-street connections in the area, a street connection is determined by the Planning Director or Hearings Body to be infeasible or inappropriate. In such instances, where applicable and feasible, there shall be a bicycle and pedestrian connection connecting the ends of cul-de-sacs to streets or neighborhood activity centers on the opposite side of the block.
 - b. Bicycle and pedestrian connections between streets shall be provided at mid-block where the addition of a connection would reduce the walking or cycling distance to an existing or planned neighborhood activity center by 400 feet and by at least 50 percent over other available routes.
 - c. Local roads shall align and connect with themselves across collectors and arterials. Connections to existing or planned streets and undeveloped properties shall be provided at no greater than 400-foot intervals.
 - d. Connections shall not be more than 400 feet long and shall be as straight as possible.
 - 3. Facilities and Improvements.
 - a. Bikeways may be provided by either a separate paved path or an on-street bike lane, consistent with the requirements of DCC Title 17.
 - b. Pedestrian access may be provided by sidewalks or a separate paved path, consistent with the requirements of DCC Title 17.
 - c. Connections shall have a 20-foot right of way, with at least a 10-foot usable surface.

(Ord. 93-012 § 38, 1993; Ord. 81-043 § 1, Exhibit A, § 6.015(13), 1981)

17.36.150. Blocks.

- A. General. The length, width and shape of blocks shall accommodate the need for adequate building site size, street width and direct travel routes for pedestrians and cyclists through the subdivision and to nearby neighborhood activity centers, and shall be compatible with the limitations of the topography.
- B. Size. Within an urban growth boundary, no block shall be longer than 1,200 feet between street centerlines. In blocks over 800 feet in length, there shall be a cross connection consistent with the provisions of DCC 17.36.140.

(Ord. 95-082 § 3, 1995; Ord. 93-012 § 38(A), 1993; Ord. 81-043 § 1, Exhibit A, § 6.020(1) and (2), 1981)

17.36.160. Easements.

- A. Utility Easements. Easements shall be provided along property lines when necessary for the placement of overhead or underground utilities, and to provide the subdivision or partition with electric power, communication facilities, street lighting, sewer lines, water lines, gas lines or drainage. Such easements shall be labeled "Public Utility Easement" on the tentative and final plat; they shall be at least 12 feet in width and centered on lot lines where possible, except utility pole guyline easements along the rear of lots or parcels adjacent to unsubdivided land may be reduced to 10 feet in width.
- B. Drainage. If a tract is traversed by a watercourse such as a drainageway, channel or stream, there shall be provided a stormwater easement or drainage right of way conforming substantially with the lines of the watercourse, or in such further width as will be adequate for the purpose. Streets or parkways parallel to major watercourses or drainageways may be required.

(Ord. 90-003 § 1, Exhibit A, 1990; Ord. 81-043 § 1, Exhibit A, § 6.020(3), 1981)

17.36.170. Lots-Size and shape.

The size, width and orientation of lots or parcels shall be appropriate for the location of the land division and for the type of development and use contemplated, and shall be consistent with the lot or parcel size provisions of DCC Title 18 through 21, with the following exceptions:

- A. In areas not to be served by a public sewer, minimum lot and parcel sizes shall permit compliance with the requirements of the Department of Environmental Quality and the County Sanitarian, and shall be sufficient to permit adequate sewage disposal. Any problems posed by soil structure and water table and related to sewage disposal by septic tank shall be addressed and resolved in the applicant's initial plan.
- B. Where property is zoned and planned for business or industrial use, other widths and areas may be permitted by the Hearings Body. Depth and width of properties reserved or laid out for commercial and industrial purposes shall be adequate to provide for the off-street service and parking facilities required by the type of use and development contemplated.

(Ord. 90-003 § 1, Exhibit A, 1990; Ord. 81-043 § 1, Exhibit A, § 6.025, 1981)

17.36.180. Frontage.

- A. Each lot or parcel shall abut upon a public road, or when located in a planned development or cluster development, a private road, for at least 50 feet, except for lots or parcels fronting on the bulb of a cul-de-sac, then the minimum frontage shall be 30 feet, and except for partitions off of U.S. Forest Service or Bureau of Land Management roads. Frontage for partitions off U.S. Forest Service or Bureau of Land Management roads shall be decided on a case by case basis based on the location of the property, the condition of the road, and the orientation of the proposed parcels, but shall be at least 20 feet. In the La Pine Neighborhood Planning Area Residential Center District, lot widths may be less than

50 feet in width, as specified in DCC 18.61, Table 2: La Pine Neighborhood Planning Area Zoning Standards. Road frontage standards in destination resorts shall be subject to review in the conceptual master plan.

- B. All side lot lines shall be at right angles to street lines or radial to curved streets wherever practical.

(Ord. 2006-007 § 5, 2006; Ord. 2004-025 § 2, 2004; Ord. 2003-029 § 1, 2003; Ord. 93-012 § 39, 1993; Ord. 90-003 § 1, Exhibit A, 1990; Ord. 81-043 § 1, Exhibit A, § 6.030(1) and (2), 1981)

17.36.190. Through lots.

Lots or parcels with double frontage should be avoided except where they are essential to provide separation of residential development from major street or adjacent nonresidential activities to overcome specific disadvantages of topography and orientation. A planting screen easement of at least 10 feet in width and across which there shall be no right of access may be required along the lines of lots or parcels abutting such a traffic artery or other incompatible use.

(Ord. 90-003 § 1, Exhibit A, 1990; Ord. 81-043 § 1, Exhibit A, § 6.030(3), 1981)

17.36.200. Corner lots.

Within an urban growth boundary, corner lots or parcels shall be a minimum of five feet more in width than other lots or parcels, and also shall have sufficient extra width to meet the additional side yard requirements of the zoning district in which they are located.

(Ord. 90-003 § 1, Exhibit A, 1990; Ord. 81-043 § 1, Exhibit A, § 6.030(4), 1981)

17.36.210. Solar access performance.

- A. As much solar access as feasible shall be provided each lot or parcel in every new subdivision or partition, considering topography, development pattern and existing vegetation. The lot lines of lots or parcels, as far as feasible, shall be oriented to provide solar access at ground level at the southern building line two hours before and after the solar zenith from September 22nd to March 21st. If it is not feasible to provide solar

access to the southern building line, then solar access, if feasible, shall be provided at 10 feet above ground level at the southern building line two hours before and after the solar zenith from September 22nd to March 21st, and three hours before and after the solar zenith from March 22nd to September 21st.

- B. This solar access shall be protected by solar height restrictions on burdened properties for the benefit of lots or parcels receiving the solar access.

- C. If the solar access for any lot or parcel, either at the southern building line or at 10 feet above the southern building line, required by this performance standard is not feasible, supporting information must be filed with the application.

(Ord. 90-003 § 1, Exhibit A, 1990; Ord. 83-039 § 7, 1983; Ord. 81-043 § 1, Exhibit A, § 6.030(5), 1981)

17.36.220. Underground facilities.

Within an urban growth boundary, all permanent utility services to lots or parcels in a subdivision or partition shall be provided from underground facilities; provided, however, the Hearings Body may allow overhead utilities if the surrounding area is already served by overhead utilities and the proposed subdivision or partition would create less than 10 lots. The subdivision or partition shall be responsible for complying with requirements of DCC 17.36.220, and shall:

- A. Obtain a permit from the Road Department for placement of all underground utilities.
- B. Make all necessary arrangements with the utility companies and other persons or corporations affected by the installation of such underground utilities in accordance with the rules and regulations of the State Public Utility Commission.
- C. All underground utilities, sanitary sewers and storm drains installed in streets shall be constructed prior to the surfacing of such streets to the extent practicable, and sanitary sewers shall be placed to such length as will obviate the necessity for disturbing the street

improvements when service connections are made.

(Ord. 2006-007 § 5, 2006; Ord. 90-003 § 1, Exhibit A, 1990; Ord. 81-043 § 1, Exhibit A, § 6.030(6), 1981)

17.36.230. Grading of building sites.

Grading of building sites shall conform to the following standards, unless physical conditions demonstrate the property of other standards:

- A. Cut slope ratios shall not exceed one foot vertically to one and one-half feet horizontally.
- B. Fill slope ratios shall not exceed one foot vertically to two feet horizontally.
- C. The composition of soil for fill and the characteristics of lots and parcels made usable by fill shall be suitable for the purpose intended.
- D. When filling or grading is contemplated by the subdivider, he shall submit plans showing existing and finished grades for the approval of the Community Development Director. In reviewing these plans, the Community Development Director shall consider the need for drainage and effect of filling on adjacent property. Grading shall be finished in such a manner as not to create steep banks or unsightly areas to adjacent property.

(Ord. 90-003 § 1, Exhibit A, 1990; Ord. 81-043 § 1, Exhibit A, § 6.040, 1981)

17.36.240. (Repealed by Ord. 93-012, 1993)

17.36.250. Lighting.

Within an urban growth boundary, the subdivider shall provide underground wiring to the County standards, and a base for any proposed ornamental street lights at locations approved by the affected utility company.

(Ord. 81-043 § 1, Exhibit A, § 6.035(1), 1981)

17.36.260. Fire hazards.

Whenever possible, a minimum of two points of access to the subdivision or partition shall be provided to provide assured access for emergency vehicles and ease resident evacuation.

(Ord. 90-003 § 1, Exhibit A, 1990; Ord. 81-043 § 1, Exhibit A, § 6.035(2), 1981)

17.36.270. Street tree planting.

Street tree planting plans, if proposed, for a subdivision or partition, shall be submitted to the Planning Director and receive his approval before the planting is begun.

(Ord. 90-003 § 1, Exhibit A, 1990; Ord. 81-043 § 1, Exhibit A, § 6.035(3), 1981)

17.36.280. Water and sewer lines.

Where required by the applicable zoning ordinance, water and sewer lines shall be constructed to County and city standards and specifications. Required water mains and service lines shall be installed prior to the curbing and paving of new streets in all new subdivisions or partitions.

(Ord. 93-012 § 41, 1993; Ord. 90-003 § 1, Exhibit A, 1990; Ord. 81-043 § 1, Exhibit A, § 6.035(4), 1981)

17.36.290. Individual wells.

In any subdivision or partition where individual wells are proposed, the applicant shall provide documentation of the depth and quantity of potable water available from a minimum of two wells within one mile of the proposed land division. Notwithstanding DCC 17.36.300, individual wells for subdivisions are allowed when parcels are larger than 10 acres.

(Ord. 93-012 § 42, 1993; Ord. 81-043 § 1, Exhibit A, § 6.035(5), 1981)

17.36.300. Public water system.

In any subdivision or partition where a public water system is required or proposed, plans for the water system shall be submitted and approved by the appropriate state or federal agency. A community water system shall be required where lot or parcel sizes are less than one acre or where potable water sources are at depths greater than 500 feet, excepting land partitions. Except as provided for in DCC 17.24.120 and 17.24.130, a required water system shall be constructed and operational, with lines extended to the lot line of each and every lot depicted in the proposed subdivision or partition plat, prior to final approval.

(Ord. 93-012 § 43, 1993; Ord. 90-003 § 1, Exhibit A, 1990; Ord. 81-043 § 1, Exhibit A, § 6.035(6), 1981)

Chapter 17.40. IMPROVEMENTS

17.40.010. Conformance required.

17.40.020. Plan review and approval.

17.40.030. Improvement plans-Filing.

17.40.040. Inspection and approval.

17.40.050. Public improvements-Submittal of plans.

17.40.060. Partitions.

17.40.070. Acceptance after inspection.

17.40.010. Conformance required.

In addition to other requirements, improvements to be installed by the applicant, either as a requirement of DCC Title 17 or other applicable regulations or at this own option, shall conform to the requirements of DCC 17.40.

(Ord. 81-043 § 1, Exhibit A, § 6.050, 1981)

17.40.020. Plan review and approval.

Improvement work shall not be started until plans therefor have been reviewed and approved by the Road Department Director. To the extent necessary for evaluation of a proposed development, such improvement plans may be required before approval of the tentative plan.

(Ord. 90-003 § 1, Exhibit A, 1990; Ord. 81-043 § 1, Exhibit A, § 6.050(1), 1981)

17.40.030. Improvement plans-Filing.

Improvements shall be designed, installed and constructed as platted and approved, and plans therefor shall be filed with the final plat at the time of recordation or upon completion.

(Ord. 81-043 § 1, Exhibit A, § 6.050(2), 1981)

17.40.040. Inspection and approval.

Improvements shall be constructed under the inspection and approval of the Road Department Director. The Road Department Director may accept certification of a registered professional engineer consistent with ORS 92.097. Expenses incurred thereby shall be borne by the applicant.

(Ord. 81-043 § 1, Exhibit A, § 6.050(3), 1981)

17.40.050. Public improvements-Submittal of plans.

A map showing public improvements shall be filed with the Road Department upon completion of the improvements.

(Ord. 81-043 § 1, Exhibit A, § 6.050(4), 1981)

17.40.060. Partitions.

The same improvements may be required to be installed to serve each building site of a partition as are required of a subdivision.

(Ord. 81-043 § 1, Exhibit A, § 6.055, 1981)

17.40.070. Acceptance after inspection.

Improvements shall be considered for acceptance after inspection at the time the improvements are constructed.

(Ord. 81-043 § 1, Exhibit A, § 6.060, 1981)

Chapter 17.44. PARK DEVELOPMENT

17.44.010. Dedication of land.

17.44.020. Fee in lieu of dedication.

17.44.030. Annexation agreement.

17.44.010. Dedication of land.

- A. For subdivisions or partitions inside an urban growth boundary, the developer shall set aside and dedicate to the public for park and recreation purposes not less than eight percent of the gross area of such development, if the land is suitable and adaptable for such purposes and is generally located in an area planned for parks.
- B. For subdivisions or partitions outside of an urban growth boundary, the developer shall set aside a minimum area of the development equal to \$350 per dwelling unit within the development, if the land is suitable and adaptable for such purposes and is generally located in an area planned for parks.
- C. For either DCC 17.44.010 (A) or (B), the developer shall either dedicate the land set aside to the public or develop and provide maintenance for the land set aside as a private park open to the public.
- D. The Planning Director or Hearings Body shall determine whether or not such land is suitable for park purposes.
- E. If the developer dedicates the land set aside in accordance with DCC 17.44.010 (A) or (B), any approval by the Planning Director or Hearings Body shall be subject to the condition that the County or appropriate park district accept the deed dedicating such land.
- F. DCC 17.44.010 shall not apply to the subdivision or partition of lands located within the boundaries of the Bend Metro Park and Recreation District or the Central Oregon Park and Recreation District.

(Ord. 2003-076 § 1, 2003; Ord. 97-075 § 1, 1997; Ord. 95-010 § 2, 1995; Ord. 93-054 § 2, 1993; Ord. 93-012 §§ 45 and 46, 1993; Ord. 81-043 § 1, Exhibit A, § 6.080, 1981)

17.44.020. Fee in lieu of dedication.

- A. In the event there is no suitable park or recreation area or site in the proposed subdivision or partition, or adjacent thereto, then the developer shall, in lieu of setting aside land, pay into a park acquisition and development fund a sum of money equal to the fair market value of the land that would have been donated under DCC 17.44.010 above. For the purpose of determining the fair market value, the latest value of the land, unplatted and without improvements, as shown on the County Assessor's tax roll shall be used. The sum so contributed shall be deposited with the County Treasurer and be used for acquisition of suitable area for park and recreation purposes or for the development of recreation facilities. Such expenditures shall be made for neighborhood or community facilities at the discretion of the Board and/or applicable park district.

- B. DCC 17.44.020 shall not apply to subdivision or partition of lands located within the boundaries of the Bend Metro Park and Recreation District or the Central Oregon Park and Recreation District.

(Ord. 97-075 § 1, 1997; Ord. 95-010 § 2, 1995; Ord. 93-054 § 2, 1993; Ord. 93-012 §§ 45 and 46, 1993; Ord. 81-043 § 1, Exhibit A, § 6.080, 1981)

17.44.030. Annexation agreement.

No partition or subdivision of land lying within the Bend Urban Growth Boundary, including the urban reserve areas, but outside the boundaries of the Bend Metro Park and Recreation District, shall be approved unless the landowner has signed an annexation agreement with the Bend Metro park and Recreation District.

(Ord. 97-075 § 2, 1997)

**Chapter 17.48. DESIGN AND
CONSTRUCTION
SPECIFICATIONS**

- 17.48.010. Minimum standards established.
- 17.48.020. Implementation of requirements.
- 17.48.030. Additional design requirements.
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- 17.48.270. Utilities-Construction-Backfilling and restoring.
- 17.48.280. Utilities-Construction-Inspection.
- 17.48.290. Fees.
- 17.48.300. Bonds.
- 17.48.310. Insurance.
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- 17.48.330. Construction-General specifications.
- 17.48.340. Construction-Testing.
- 17.48.350. Construction-Inspection.
- 17.48.360. Construction-Handling of explosives.

- 17.48.370. Construction-Cooperation with utilities.
- 17.48.380. Construction-Temporary traffic control.
- 17.48.390. Construction-Clearing and grubbing.
- 17.48.400. Construction-Dust control.
- 17.48.410. Construction-Subgrade construction.
- 17.48.420. Construction-Surfacing requirements.
- 17.48.430. Construction-Concrete curb.
- 17.48.440. Construction-Sidewalks.
- 17.48.450. Construction-Slopes and backfill.
- 17.48.460. Construction-Catchbasins.
- 17.48.470. Construction-Permanent traffic control.
- 17.48.480. Construction-Final cleanup.
- 17.48.490. Road and street project.

17.48.010. Minimum standards established.

A. Except as otherwise noted, the standard specifications for design and construction contained within DCC 17.48 are the minimum standards governing construction of roads and other improvements and facilities.

B. The minimum standards governing construction of roads and other improvements and facilities within the Redmond Unincorporated Urban Growth Area shall be the standards and specifications set forth in the current "City of Redmond Public Works Standards and Specifications" which document is incorporated herein by reference. Subject areas not covered by the Redmond Standards and Specifications shall continue to be covered by applicable provisions of DCC 17.48.

(Ord. 2001-016 § 1, 2001; Ord. 95-082 § 4, 1995; Ord. 81-043 § 1, Exhibit A, § 8.010, 1981)

17.48.020. Implementation of requirements.

It is the duty of the Road Department Director, or his authorized representative, to implement the provisions and requirements of these standards in such a way as to carry out their intent and purpose.

(Ord. 2001-016 § 1, 2001; Ord. 81-043 § 1, Exhibit A, § 8.015, 1981)

17.48.030. Additional design requirements.

The Road Department Director may impose additional design requirements as are reasonably necessary to protect the interests of the public.

(Ord. 2001-016 § 1, 2001; Ord. 81-043 § 1, Exhibit A, § 8.020, 1981)

17.48.040. Approval of variations.

A. The Planning Director or Hearings Body may approve proposed variations in the improvement standards of up to 10 percent of the standards of DCC Title 17 at the time a tentative plat application is reviewed without the need for a variance to the standards provided the Planning Director or Hearings Body finds, after consultation with the County Road Department Director, that:

1. There is no adverse impact to the public in allowing the variations;
2. The variation promotes the intent and purposes of the ordinances; and
3. There are practical difficulties that will create an unreasonable construction expense that will not result in a significant public benefit.

B. If a request for a variance from the standards is made after approval of a tentative plat and before the final plat, the applicant shall file a separate variance application, to be reviewed under the criteria set forth in DCC 17.48.040(A).

(Ord. 2001-016 § 1, 2001; Ord. 93-012 § 47, 1993; Ord. 81-043 § 1, Exhibit A, § 8.700, 1981)

17.48.050. Road design.

The design of roads covered by DCC Title 17 is to be prepared by a registered professional engineer and shall at a minimum conform to the design standards for new or existing roads set forth in Table A of DCC Title 17 (or in the design standards set forth for a particular zone in a zoning ordinance) and shall otherwise conform with AASHTO standards. Base and pavement dimensions set forth in Table A (or in specifications set forth for a particular zone) may

be increased by the Road Department Director if necessitated by anticipated traffic volumes.

(Ord. 2001-016 § 1, 2001; Ord. 97-005 § 4, 1997; Ord. 95-082 § 5, 1995; Ord. 93-057 § 1, 1993; Ord. 93-012 § 48, 1993; Ord. 81-043 § 1, Exhibit A, § 8.110(1), 1981)

17.48.060. Improvement plans.

A. A complete set of certified mylar improvement plans shall be approved by the Road Department Director prior to the start of construction or the signing of the final plat. The improvement plans shall become the property of the County and will remain at the Road Department.

B. The improvement plans which shall be 24 by 36 inches shall include, but not be limited to:

1. A plan view showing:
 - a. Centerline alignment showing points of curve and point of tangent stationing on all curves, necessary curve data and bearing of tangents,
 - b. Dimensioning necessary to survey and relocate the roadway,
 - c. Right of way lines as shown on the final plat,
 - d. Existing easements and recording references,
 - e. Type, location and size of all existing and proposed drainage and irrigation structures and utilities within the right of way,
 - f. Location and type of all existing and proposed signs and barricades,
 - g. Vicinity map showing the complete roadway network complete with names of roads,
 - h. Toe and fills and top of cuts,
 - i. Scale,
 - j. North arrow, and
 - k. Stamp and signature of the registered engineer;
2. A profile showing:
 - a. Centerline grades and vertical curves, complete with point of intersection elevations and stations and length of vertical curves,
 - b. Original ground at centerline and extending 500 feet past the

- construction limits and at ditch lines if a significant transverse slope exists,
 - c. Curb profiles, where curbs are required,
 - d. Superelevation transition diagrams for horizontal curves if curbs are not required,
 - e. Type, location and size of all existing and proposed drainage and irrigation structures and utilities within the right of way, and
 - f. Scale;
 - 3. Typical roadway cross-section showing:
 - a. Width, depth and type of base,
 - b. Width, depth and type of paving,
 - c. Curbs, if required,
 - d. Side slopes,
 - e. Ditch section,
 - f. Crown slope, and
 - g. Utilities;
 - 4. Structural and detail plans of all structures, including, but not limited to, bridges, drainage structures, irrigation structures and sewer lines stamped by a registered engineer;
 - 5. A signature box with spaces provided for County approval and for approval by all affected utility companies and irrigation districts;
 - 6. The developer shall submit, with his proposed improvement plans, an itemized construction cost estimate. This estimate shall include all related roadwork and affected utility installation and/or related relocation;
 - 7. Any other information required by the Road Department Director.
- (Ord. 2001-016 § 1, 2001; Ord. 81-043 § 1, Exhibit A, § 8.110(11), 1981)

17.48.070. Horizontal alignment.

- A. Horizontal curves and tangent distances shall meet current AASHTO minimum standards for all streets except principal arterials, which shall conform to current ODOT standards.
- B. The centerline of road improvements shall coincide with the centerline of the right of way.

- C. Superelevation shall be designed in accordance with current AASHTO specifications with the maximum superelevation being six percent.
(Ord. 2001-016 § 1, 2001; Ord. 97-005 § 5, 1997; Ord. 93-057 § 1, 1993; Ord. 81-043 § 1, Exhibit A, § 8.110(6), 1981)

17.48.080. Vertical alignment.

- A. Vertical curves shall be designed to be consistent with and complimentary to the horizontal curves. Vertical curves shall be designed in accordance with current AASHTO standards or, for principal arterials, to current ODOT standards.
- B. Maximum percent of grade shall be as shown in Table A (or in right of way specifications, if any, set forth for a particular zone in a zoning ordinance). (See Table A set out at the end of DCC Title 17.) Minimum grade shall be one half percent for all roads, unless a drainage plan is submitted to and approved by the Road Department Director.
- C. Angle points shall not be allowed on grade breaks over one percent.
(Ord. 2001-016 § 1, 2001; Ord. 97-005 § 6, 1997; Ord. 93-057 § 1, 1993; Ord. 93-012 § 48(A), 1993; Ord. 81-043 § 1, Exhibit A, § 8.110(7), 1981)

17.48.090. Intersections.

- A. All intersections shall be planned for through traffic on the street with the greatest projected average daily traffic (ADT). The side street shall be at right angles to the main street. Horizontal and vertical alignment for an intersection shall be as shown in drawing No. 2-8. (See drawing 2-8 set out at the end of DCC Title 17 and by this reference incorporated herein.)
- B. Intersecting streets, including driveways to commercial and industrial properties, shall be separated by at least the following distances when the through road is:
 - 1. Arterial, 500 feet;
 - 2. Collector, 300 feet;
 - 3. Local, 100 feet;

4. Industrial park, 250 feet; and
5. Primary access, 250 feet.

To be measured between the intersecting centerlines of the streets or driveways.

(Ord. 2001-016 § 1, 2001; Ord. 93-012 § 48(AA), 1993; Ord. 81-043 § 1, Exhibit A, § 8.110(8), 1981)

17.48.100. Minimum right of way width.

The minimum right of way width is 60 feet unless specified otherwise in Table A (or in any right of way specifications set forth for a particular zone in a zoning ordinance). (See Table A set out at the end of DCC Title 17.)

(Ord. 2001-016 § 2, 2001; Ord. 97-005 § 7, 1997; Ord. 93-057 § 1, 1993; Ord. 81-043 § 1, Exhibit A, § 8.110(9), 1981)

17.48.110. Turn lanes.

When a turn lane is required, it shall be a minimum of 14 feet in width, except where road specifications in a zoning ordinance provide for travel lanes of lesser width. Additional right of way may be required.

(Ord. 2001-016 § 2, 2001; Ord. 97-005 § 8, 1997; Ord. 81-043 § 1, Exhibit A, § 8.110(5), 1981)

17.48.120. Partial width roads.

Partial width roads or half streets shall not be allowed.

(Ord. 2001-016 § 2, 2001; Ord. 81-043 § 1, Exhibit A, § 8.110(5), 1981)

17.48.130. Road names.

All roads shall be named in conformance with the provisions of the Deschutes County uniform road naming system set forth in DCC Title 16.

(Ord. 2001-016 § 1, 2001; Ord. 90-003 § 1, Exhibit A, 1990; Ord. 81-043 § 1, Exhibit A, § 8.110(2), 1981)

17.48.140. Bikeways.

A. General Design Criteria.

1. Bikeways shall be designed in accordance with the current standards and guidelines of the Oregon (ODOT) Bicycle and Pedestrian Plan, the American Association of State Highway Transportation Officials (AASHTO)

Guide for Development of New Bicycle Facilities, and the Deschutes County Bicycle Master Plan. See DCC 17.48 Table B.

2. All collectors and arterials shown on the County Transportation Plan map shall be constructed to include bikeways as defined by the Deschutes County Bicycle Master Plan.
3. If interim road standards are used, interim bikeways and/or walkways shall be provided. These interim facilities shall be adequate to serve bicyclists and pedestrians until the time of road upgrade.

B. Multi-use Paths.

1. Multi-use paths shall be used where aesthetic, recreation and safety concerns are primary and a direct route with few intersections can be established. If private roads are constructed to a width of less than 28 feet, multi-use paths shall be provided.
2. Multi-use paths are two-way facilities with a standard width of 10 feet, but with a 12-foot width if they are subjected to high use by multiple users. These paths shall meet County multi-use path standards and shall connect with bike facilities on public roads.

C. Bike Lanes. Six-foot bike lanes shall be used on new construction of curbed arterials and collectors.

D. Shoulder Bikeways.

1. Shoulder bikeways shall be used on new construction of uncurbed arterials and collectors.
2. Shoulder bikeways shall be at least four feet wide. Where the travel lane on an existing arterial or collector is not greater than eleven feet, the bikeway shall be a minimum of four feet wide.

E. Mountain Bike Trails.

1. Mountain bike (dirt or other unpaved surface) trails may be used as recreational or interim transportation facilities.
2. Trails used for transportation shall have a two-foot minimum tread width and a

six-foot minimum clearing width centered over the trail, and a minimum overhead clearance of seven feet. Trails used solely for recreational use may be narrower with less clearing of vegetation. (Ord. 2001-016 § 1, 2001; Ord. 93-012 § 49, 1993; Ord. 88-015 § 4, 1988; Ord. 81-043 § 1, Exhibit A, § 8.110(3), 1981)

17.48.150. Structures.

All structures that carry a road or cross over a road shall be designed to have a 50-year life span. All designs must be approved by the Road Department Director and other affected public or private agencies.

(Ord. 2001-016 § 1, 2001; Ord. 81-043 § 1, Exhibit A, § 8.110(10), 1981)

17.48.160. Road development requirements-Standards.

A. Subdivision Standards. All roads in new subdivisions shall either be constructed to a standard acceptable for inclusion in the County maintained system or the subdivision shall be part of a special road district or a homeowners association in a planned unit development.

B. Improvements of Public Rights of Way.

1. The developer of a subdivision or partition will be required to improve all public ways that are adjacent or within the land development.
2. All improvements within public rights of way shall conform to the improvement standards designated in DCC Title 17 for the applicable road classification, except where a zoning ordinance sets forth different standards for a particular zone.

C. Primary Access Roads. The primary access road for any new subdivision shall be improved to the applicable standard set forth in Table A. The applicable standard shall be determined with reference to the road's classification under the relevant transportation plan. For the purposes of DCC 17.48.160 a primary access road is a road leading to the subdivision from an existing paved county, city or state maintained road

that provides the primary access to the subdivision from such a road.

D. Secondary Access Roads. When deemed necessary by the County Road Department or Community Development Department, a secondary access road shall be constructed to the subdivision. Construction shall be to the same standard used for roads within the subdivision.

E. Stubbed Roads. Any proposed road that terminates at a development boundary shall be constructed with a paved cul-de-sac bulb.

F. Cul-de-sacs. Cul-de-sacs shall have a length of less than 600 feet, unless a longer length is approved by the applicable fire protection district, and more than 100 feet from the center of the bulb to the intersection with the main road. The maximum grade on the bulb shall be four percent.

G. Frontage Roads. Right of way widths shall be 40 feet when immediately adjacent to a main highway/arterial; 60 feet when the frontage road is separated from the highway or arterial by private land or as set forth for a particular zone in the zoning ordinance.

(Ord. 2001-016 § 1, 2001; Ord. 98-004 § 1, 1998; Ord. 97-005 § 9, 1997; Ord. 93-057 § 1, 1993; Ord. 93-012 § 50, 1993; Ord. 81-043 § 1, Exhibit A, § 8.120(1)-(6), 1981)

17.48.170. Road development requirements-Partitions.

Roadway improvements within a partition and to a road maintained by a public agency shall be constructed prior to final approval of the partition, depending on the maximum parcel size as follows:

- A. For a parcel size of 10 acres or larger, the minimum road improvement standard shall be 20 feet wide with five inches of aggregate surfacing (cinders are acceptable), the centerline of which coincides with the centerline of the right of way;
- B. For a parcel size of less than 10 acres, the road standards used shall be the same as for a subdivision.

(Ord. 2001-016 § 1, 2001; Ord. 93-012 § 51, 1993; Ord. 81-043 § 1, Exhibit A, § 8.120(7), 1981)

**17.48.175. Road development requirements-
Unincorporated communities.**

A. Standards.

1. In the La Pine Urban Unincorporated Community, all roads shall be improved as specified for the applicable classification in Table A of DCC Title 17.
2. In the Terrebonne Rural Community, all improvements to public rights of way shall conform to the road development standards for Terrebonne in Table A of DCC Title 17, except for improvements to roads servicing parcels of 10 acres or greater created by a partition.
3. In the Tumalo Rural Community, all improvements to public rights of way shall conform to the Tumalo road development standards in Table A of DCC Title 17, except for improvements to roads servicing parcels of 10 acres or greater created by a partition.
4. In the Sunriver Urban Unincorporated Community, all roads shall conform to the road development standards in DCC 17.48.180.
5. No curbs or sidewalks are required in the Sunriver UUC or the rural service centers of Alfalfa, Brothers, Hampton, Millican, Whistle Stop, Wickiup Junction, Wild Hunt, Deschutes River Woods and Spring River.

- B. All required road improvements shall be located on the applicant's side of the road, unless the subject property lies on both sides of the road.**

(Ord. 2001-041 § 2, 2001; Ord. 2001-016 § 1, 2001; Ord. 98-004 § 2, 1998; Ord. 97-035 § 1, 1997; Ord. 97-005 § 10, 1997; Ord. 96-003 § 12, 1996; Ord. 93-057 § 1, 1993; Ord. 93-012 § 52, 1993)

17.48.180. Private roads.

The following minimum road standards shall apply for private roads:

- A. The minimum paved roadway width shall be 204 feet in planned unit developments and cluster developments with two-foot wide gravel shoulders;
- B. Minimum radius of curvature, 50 feet;
- C. Maximum grade, 12 percent;
- D. At least one road name sign will be provided at each intersection for each road;
- E. A method for continuing road maintenance acceptable to the County;
- F. Private road systems shall include provisions for bicycle and pedestrian traffic. In cluster and planned developments limited to ten dwelling units, the bicycle and pedestrian traffic can be accommodated within the 20-foot wide road. In other developments, shoulder bikeways shall be a minimum of four feet wide, paved and striped, with no on-street parking allowed within the bikeway, and when private roads are developed to a width of less than 28 feet, bike paths constructed to County standards shall be required.

(Ord. 2004-025 § 3, 2004; Ord. 2001-016 § 1, 2001; Ord. 93-012 § 53, 1993; Ord. 81-043 § 1, Exhibit A, § 8.130, 1981)

17.48.190. Drainage.

- A. Minimum Requirements.** Drainage facilities shall be designed and constructed to receive and/or transport at least a design storm as defined in the Oregon Department of Transportation hydraulics manual and all surface drainage water coming to and/or passing through the development or roadway. The system shall be designed for maximum allowable development.

B. Curbed Sections.

1. Storm drains within curbed streets shall have a minimum diameter of 18 inches and shall meet the current Standard Specifications for Public Works Construction - APWA Oregon Chapter.
2. Catchbasins shall be constructed in accordance with drawing Nos. 3-3, 3-4 and 3-5. (See drawings 3-3, 3-4 3-5 set

out at the end of DCC Title 17 and by this reference incorporated herein.)

- C. Noncurbed Sections. Road culverts shall be concrete or metal with a minimum design life of 50 years. All cross culverts shall be 18 inches in diameter or larger. Culverts shall be placed in natural drainage areas and shall provide positive drainage.
- D. Drainage Swales. The Design Engineer is responsible to design a drainage swale adequate to control a design storm as defined in the Oregon Department of Transportation hydraulics manual.
- E. Drainage Plans. A complete set of drainage plans including hydraulic and hydrologic calculations shall be incorporated in all road improvement plans.
- F. Drill Holes. Drill holes are prohibited.
- G. Injection wells (drywells) are to be constructed to current DEQ standards and in accordance with drawing nos. 3-1 and 3-2 (see drawings 3-1 and 3-2 set out at the end of DCC Title 17 and by this reference incorporated herein.).

(Ord. 2001-016 § 1, 2001; Ord. 97-005 § 11, 1997; Ord. 81-043 § 1, Exhibit A, § 8.140, 1981)

17.48.200. Surveying.

- A. Preliminary Procedures. All roads shall be staked prior to construction by a registered land surveyor on the horizontal and vertical alignments shown on the improvement plans.
- B. Cuts and Fills. Sections with a cut or fill and any superelevated sections shall be staked every 50 feet or less with:
 - 1. A clearing lath; and
 - 2. Offset stakes marked with the offset distance and the cut or fill to the subgrade shoulder, except that offset stakes may be the same stakes as the clearing lath; and
 - 3. Shoulder lath for the aggregate base.
- D. Curbs. Curb sections shall require offset hubs every 25 feet with stakes marked with the offset distance and the cut or fill to the subgrade shoulder and the top of the curb.

E. Centerline Monuments.

- 1. Centerline monuments, as approved by the Road Department Director, shall be installed at all centerline intersections where they fall in the paved section, point of curvatures and point of tangencies of each curve and at all centers of cul-de-sacs.
- 2. All metal caps shall be stamped to identify the monument, i.e., P.I., P.C., P.T., Int, and carry the registration number of the surveyor or engineer setting the monument.

(Ord. 2001-016 § 1, 2001; Ord. 81-043 § 1, Exhibit A, § 8.300, 1981)

17.48.210. Access.

- A. Permit Required. Access onto public right of way or change in type of access shall require a permit. Permits are applied for at offices of the Community Development Department.
- B. Access Restrictions and Limitations. The creation of access onto arterials and collectors is prohibited unless there is no other possible means of accessing the parcel. In any event, residential access onto arterials and collectors shall not be permitted within 100 feet of an intersection or the maximum distance obtainable on the parcel, whichever is less.
- C. Commercial and Industrial Access. Requirements for commercial and industrial access will be determined by the Road Department Director in accordance with DCC 17.48.090. Safety improvements, including left turn lanes and traffic signals, may be required.
- D. Sight Distance. Access shall be denied at locations that do not meet AASHTO sight distance standards.

(Ord. 2001-016 § 1, 2001; Ord. 93-012 § 53(A), 1993; Ord. 81-043 § 1, Exhibit A, § 8.400(1)-(4), 1981)

17.48.220. Driveways.

A. Access Width. The following are the maximum width of driveways:

Type	Width (in feet)
Residential	14(single), 20(double)
Agricultural	20
Commercial/Industrial	35

B. Culverts. Where culverts are required for driveways, the minimum pipe size shall be 12 inches.

C. Drainage. Driveways shall be constructed in such a manner that water, aggregate or any other substance that is hazardous to the traveling public will not enter on roadway.

D. Construction. Construction of the driveway shall be in accordance with the design standards of the County Road Department.

(Ord. 2001-016 § 1, 2001; Ord. 81-043 § 1, Exhibit A, § 8.400(5)-(8), 1981)

17.48.230. Utilities-Standards.

A. Minimum Standards Established. In accordance with the provisions of ORS 374 and 758, DCC 17.48.240 through 17.48.280 set forth the minimum standards governing the placing, relocation, building, maintenance and construction of all facilities and appurtenances, upon public rights of way.

B. All utilities governed by DCC 17.48.240 through 17.48.28 shall be underground unless overhead utilities are permitted as a result of a land use action.

(Ord. 2001-016 § 1, 2001; Ord. 81-043 § 1, Exhibit A, § 8.500(1), 1981)

17.48.240. Utilities-Permit.

A. Prior to any work being done in a public right of way, a permit shall be obtained from the Road Department. A minimum of two weeks prior to the desired commencement date of the project, the applicant shall deliver to the Road Department the following:

1. A completed permit on the Deschutes County Road Department standard form containing the following:

- a. Applicant's name, address and telephone number;
 - b. Name, address and telephone number of the contractor and foreman or other person responsible for the work if different from the contractor;
 - c. Location of project, including:
 - i. Township, range and section,
 - ii. Road name,
 - iii. Nearest intersecting roads.
 - d. Type of facility;
 - e. The proposed starting and completion dates.
2. Two sets of construction plans showing all pertinent construction details;
 3. A plan for traffic control; in the case of a road closure, a proposed detour and/or other method of controlling traffic;
 4. A bond or cash deposit as required in DCC 17.48.300, with an improvement agreement in a form approved by the Road Department Director.

B. One set of the documents described in DCC 17.48.240(A) shall be signed by the Road Department Director and returned to the applicant together with any necessary supplemental instructions. The approved documents and supplemental instructions shall become a part of the permit and be binding on the applicant.

C. In granting any permit, the Road Department Director may attach such other conditions thereto as may be reasonably necessary to prevent damage to public or private property or to prevent the operation from being conducted in a manner hazardous to life or property or in a manner likely to create a nuisance. Such conditions may include but shall not be limited to:

1. Limitations on the period of the year in which the work may be performed;
2. Restrictions as to the size and type of equipment;
3. Designation of routes upon which material may be transported;
4. The place and manner of disposal of excavated material;
5. Requirements as to the control of dust, the cleaning of streets, the prevention of

noise and other results offensive or injurious to the neighborhood, the general public or any portion thereof; and

6. Regulations as to the use of roads in the course of the work.

(Ord. 2001-016 § 1, 2001; Ord. 93-012 § 53(AA), 1993; Ord. 81-043 § 1, Exhibit A, § 8.500(2), 1981)

17.48.250. Utilities-Construction-Performance standards.

- A. The work to be performed under this permit shall be carried out in accordance with the current Standard Specifications and Drawings for Public Works Construction by the Oregon Chapter of the American Public Works Association (APWA) and in accordance with drawing nos. 1-1, 1-2 and 1-3 (see drawings 1-1, 1-2 and 1-3 set out at the end of DCC Title 17 and by this reference incorporated herein.).
- B. Work authorized by a permit shall be performed between the hours of eight a.m. and four p.m., Monday through Friday.
- C. Access to private driveways shall be provided except during working hours when construction operations prohibit provision of such access.
- D. Free access must be provided at all times to fire hydrants.
- E. Monuments of concrete, iron or other lasting materials set out for the purpose of locating or preserving the lines of any street or property subdivision, or precise survey reference point, or a permanent survey bench mark within the County shall not be removed or disturbed or caused to be removed or disturbed unless permission to do so is first obtained in writing from the County surveyor. Permission shall be granted only upon condition that the applicant shall pay all expenses incidental to the proper replacement of the monument.

(Ord. 2001-016 § 1, 2001; Ord. 81-043 § 1, Exhibit A, § 8.500(3)(A), 1981)

17.48.260. Utilities-Construction-Excavation.

- A. The minimum cover between the top of a buried utility and road or ground surface shall be 30 inches. Where practical, underground utilities shall be jacked, pushed, bored or washed under roads when crossing same.
- B. No opening or excavation in any road shall extend beyond the centerline of the road before being backfilled and the surface of the road temporarily restored.
- C. No more than 250 feet of trench, measured longitudinally, shall be opened along a road at one time.
- D. Excavated materials shall be laid compactly along the side of the trench and kept trimmed so as to cause as little inconvenience as possible to public travel.
- E. All utility facilities shall be located sufficiently ahead of trench excavation work to avoid damage to those facilities and to permit their relocation, if necessary.

(Ord. 2001-016 § 2, 2001; Ord. 81-043 § 1, Exhibit A, § 8.500(3)(B), 1981)

17.48.270. Utilities-Construction-Backfilling and restoring.

All backfilled material shall be compacted to 95 percent of its relative maximum density when within the roadway to 90 percent when between the shoulder (or curb) and the right of way line. Trenches shall be backfilled as follows:

- A. Unimproved Roads and Area Outside Roadway. The trench shall be backfilled with the excavated or other suitable materials and the entire backfill shall be compacted in layers of not to exceed six inches by use of a mechanical tamper.
- B. Aggregate Surfaces. The trench shall be backfilled according to drawing no. 1-3 (see drawing no. 1-3 set out at the end of DCC Title 17 and by this reference incorporated herein.)
- C. Paved Surfaces. The trench shall be backfilled according to drawing nos. 1-1 and 1-2 (see drawing nos. 1-1 and 1-2 set out at

the end of DCC Title 17 and by this reference incorporated herein.)
(Ord. 2001-016 § 1, 2001; Ord. 81-043 § 1, Exhibit A, § 8.500(3)(C), 1981)

17.48.280. Utilities-Construction-Inspection.

A. The Oregon Utility Notification Center shall be notified at 1-800-332-2344 two working days in advance of any excavation. The Road Department shall be notified two working days in advance of the time of backfilling.

B. All inspection costs shall be borne by the applicant. Such costs shall be based on a schedule of charges on file in the Road Department Building, 61150 SE 27th Street, Bend, Oregon 97702, (541) 388-6581.

(Ord. 2001-016 § 1, 2001; Ord. 81-043 § 1, Exhibit A, § 8.500(3)(D), 1981)

17.48.290. Fees.

All plan review and field inspection costs shall be borne by the applicant. Such costs shall be based on a schedule of charges on file in the Road Department.

(Ord. 2001-016 § 1, 2001; Ord. 81-043 § 1, Exhibit A, § 8.610, 1981)

17.48.300. Bonds.

A. Required. When, in the opinion of the Road Department Director, an existing public way is endangered by an applicant, such applicant shall be required to file an agreement and security with the County.

B. Type of Security. The applicant shall file with the agreement, to assure his full performance thereof, one of the following:

1. A surety bond executed by a surety company authorized to transact business in the state in a form approved by the County; or
2. Cash.

C. Amount Required. Such assurance of full performance shall be for a sum approved by the Road Department Director as sufficient to cover the cost of improvements and repairs, including related engineering, inspection and incidental expenses.

D. Default Status. If the applicant fails to carry out provisions of the agreement and the County has unreimbursed costs or expenses resulting from such failure, the County shall call on the bond or cash deposit for reimbursement. If the amount of the bond or cash deposit exceeds the cost and expense incurred by the County, it shall release the remainder. If the amount of the bond or cash deposit is less than the cost and expense incurred by the County, the applicant shall be liable to the County for the difference.

E. Expiration. The bond shall not be released by the County until one year from the improvement completion date specified by the applicant.

F. The bonds shall not be released by the County until County inspectors have inspected the improvements and approved them in writing.

(Ord. 2001-016 § 1, 2001; Ord. 81-043 § 1, Exhibit A, § 8.620, 1981)

17.48.310. Insurance.

The licensee shall procure and continue to carry during the term of the license, public liability and property damage insurance in a responsible company, with limits of not less than one million dollars combined single limit.

(Ord. 2001-016 § 1, 2001; Ord. 81-043 § 1, Exhibit A, § 8.640, 1981)

17.48.320. Indemnification.

The licensee shall be responsible and liable for all injuries to other persons or property resulting from any negligence or otherwise tortious acts or omissions of the licensee, its servants or agents. The licensee shall indemnify the County and hold it harmless against any and all claims, demands, lawsuits, injuries, damages or costs, including litigation costs, which the County may sustain by reason of any such acts or omissions.

(Ord. 2001-016 § 1, 2001; Ord. 81-043 § 1, Exhibit A, § 8.630, 1981)

17.48.330. Construction-General specifications.

Unless otherwise detailed in DCC 17.48, all roadway excavation, fill construction, subgrade

preparation, aggregate base, surfacing, prime coats and paving will be done in accordance with the 1984 Edition of Oregon State Highway Division's Standard Specifications for Highway Construction, hereinafter referred to as the general specifications. Whenever these specifications refer to the state, they shall be taken to mean the County, the appropriate County address, and likewise, reference to the commission or the engineer shall be taken to mean the Board of County Commissioners or the Road Department Director.

(Ord. 2001-016 § 1, 2001; Ord. 88-017 § 1, 1988; Ord. 81-043 § 1, Exhibit A, § 8.200(2), 1981)

17.48.340. Construction-Testing.

All testing shall conform to methods described in AASHTO Materials, Part II, Tests, 1993 Edition, or the Oregon State Highway Division Laboratory Manual of Test Procedure, 1993 Edition.

(Ord. 2001-016 § 2, 2001; Ord. 93-012 § 53(AAA), 1993; Ord. 81-043 § 1, Exhibit A, § 8.200(2), 1981)

17.48.350. Construction-Inspection.

The Road Department shall be notified two working days in advance of the time for subgrade inspection, two working days in advance of the time for base inspection and two working days in advance of the time for paving inspection. Each stage of construction must be inspected and approved prior to the commencement of the next stage of construction. The final inspection shall be requested seven working days in advance.

(Ord. 2001-016 § 1, 2001; Ord. 81-043 § 1, Exhibit A, § 8.200(3), 1981)

17.48.360. Construction-Handling of explosives.

In the handling of explosives, the contractor must comply with federal, state and local laws, and the County will in no way be responsible for any noncompliance therewith or for damages to property or injury to persons resulting from accidental or premature explosions.

(Ord. 2001-016 § 1, 2001; Ord. 81-043 § 1, Exhibit A, § 8.200(4), 1981)

17.48.370. Construction-Cooperation with utilities.

The contractor shall, at least 24 hours in advance of performing any work in the immediate vicinity of utility lines, contact the utilities to request the location and marking of buried utility facilities. The County is covered by the Oregon Utility Notification Center, which has been set up on a one-call system for notifying all owners of utilities of work being performed in the vicinity of their facilities. The one call system telephone number is 1-800-332-2344.

(Ord. 2001-016 § 1, 2001; Ord. 81-043 § 1, Exhibit A, § 8.200(5), 1981)

17.48.380. Construction-Temporary traffic control.

A. Temporary protective and directional measures for traffic control shall be in conformance with the Federal Highway Administration's current Manual on Uniform Traffic Control Devices.

B. The contractor shall be required to allow one-way traffic through the project during working hours. However, one-way traffic operation will not be permitted until such time as the contractor has labor, equipment and materials on the project necessary to proceed without delaying the work. Once one-way traffic is established, the contractor shall perform the construction work in a continuous and efficient manner.

C. The contractor shall have a person on the job during working hours and on-call at all other times, who shall have the responsibility to maintain all directional and warning devices in proper position. The County will be provided with the name and telephone number of such person.

(Ord. 2001-016 § 1, 2001; Ord. 81-043 § 1, Exhibit A, § 8.200(6), 1981)

17.48.390. Construction-Clearing and grubbing.

All work shall be performed in accordance with section 201 of the General Specifications supplemented and/or modified as follows: The right of way shall be cleared of all fixed objects.

However, in developments where traffic safety would not be involved, and a lesser requirement would not create a hazard, the right of way shall be cleared a minimum of 40 feet or four feet beyond the edge of the shoulder or curb line of the finished road.

(Ord. 2001-016 § 2, 2001; Ord. 81-043 § 1, Exhibit A, § 8.200(7), 1981)

17.48.400. Construction-Dust control.

- A. The work shall consist of the furnishing and applying of water for the alleviation or prevention of dust nuisance in accordance with section 233 of the General Specifications.
- B. Responsibility for dust abatement will be the contractor's.
- C. Watering will be done when ordered by the Road Department Director. The contractor shall supply his own water source.

(Ord. 2001-016 § 1, 2001; Ord. 81-043 § 1, Exhibit A, § 8.200(8), 1981)

17.48.410. Construction-Subgrade construction.

All work shall be performed in accordance with section 203 of the General Specifications, supplemented and/or modified as follows: Excavated materials not required nor suitable for filling and backfilling, within the limits of the project, will be classed as excess materials and shall become the property of the contractor at the point of excavation and shall be disposed of by him at a location and in a manner satisfactory to the Road Department. In the event rock is encountered in excavation, the rock will be excavated to a depth not less than six inches below subgrade, and then backfilled with suitable material.

Material shall be considered unsuitable for fill, subgrade, shoulders and other uses if it contains organic matter, soft spongy earth or other material of such nature that compaction to the specified density is unobtainable.

No material having a maximum dimension of three inches or more shall be considered suitable

for fill material in the top one foot of subgrade, including the fill side slopes.

Compaction shall be a minimum of 95 percent of the relative maximum density.

(Ord. 2001-016 § 2, 2001; Ord. 81-043 § 1, Exhibit A, § 8.200(9), 1981)

17.48.420. Construction-Surfacing requirements.

A. Aggregate Base.

- 1. Crushed aggregate meeting the requirements of section 703.07 of the General Specifications shall be used.
- 2. All work shall be performed in accordance with section 304 of the General Specifications.
- 3. In the case of a rural local road or a primary access road, three inch minus cinder aggregate from a source approved by the Road Department Director is allowable.

B. Asphalt Prime Coat. For all roadway sections using an asphalt penetration macadam, an asphalt prime coat will be applied to the aggregate base in accordance with section 408 of the General Specifications and in accordance with drawing no. 2-9 (see drawing 2-9 set out at the end of DCC Title 17 and by this reference incorporated herein.).

C. Asphalt Penetration Macadam. When an oil mat is placed, it shall be applied in accordance with section 406 of the General Specifications and in accordance with drawing no. 2-9 (see drawing 2-9 set out at the end of DCC Title 17 and by this reference incorporated herein.). D. Asphaltic Concrete Pavement. Where asphaltic concrete pavement is required, it shall be placed in accordance with section 403 of the General Specifications. The asphalt cement shall be as required by the Road Department Director. The class of asphaltic concrete shall be Class C. A mix design shall be submitted to the Road Department Director at least one week prior to paving.

E. Tack Coat. When a tack coat is required by the Road Department Director, the tack coat

shall be applied in conformance with section 407 of the General Specifications.

- F. **Portland Cement Concrete Pavement.** When portland cement concrete pavement is used, it shall be designed and constructed in accordance with the publications of the Portland Cement Association.

(Ord. 2001-016 § 1, 2001; Ord. 93-012 § 53(B), 1993; Ord. 81-043 § 1, Exhibit A, § 8.200(10)-(15), 1981)

17.48.430. Construction-Concrete curb.

Where required, portland cement concrete curbs shall be constructed in accordance with drawing No. 2-2 (See drawing 2-2 set out at the end of DCC Title 17 and by this reference incorporated herein.) and section 609 of the General Specifications. The concrete shall be class 3300 as specified in section 504 of the General Specifications.

(Ord. 2001-016 § 1, 2001; Ord. 81-043 § 1, Exhibit A, § 8.200(16), 1981)

17.48.440. Construction-Sidewalks.

Sidewalks shall be constructed with Class 3300 concrete as specified in section 504 of the General Specifications. The concrete shall be in accordance with drawing No. 2-6. (See drawing 2-6 set out at the end of DCC Title 17 and by this reference incorporated herein.) Sidewalks shall not be less than five feet wide.

(Ord. 2001-016 § 1, 2001; Ord. 81-043 § 1, Exhibit A, § 8.200(17), 1981)

17.48.450. Construction-Slopes and backfill.

Curb and sidewalk backfill material shall be good quality topsoil. The material shall be spread accurately and smoothly within the public right of way. Topsoil shall be suitable silty sand from an approved source, containing no rock or gravel larger than three-fourths inch and at least 70 percent of material passing a No. 4 U.S. Standard sieve size. It shall be free of roots, sticks, seeds and other noxious vegetation.

(Ord. 2001-016 § 2, 2001; Ord. 81-043 § 1, Exhibit A, § 8.200(18), 1981)

17.48.460. Construction-Catchbasins.

Catchbasins shall be constructed of class 3300 portland cement concrete and in accordance with drawing Nos. 3-3, 3-4 and 3-5. (See drawings 3-3, 3-4 and 3-5 set out at the end of DCC 17. and by this reference incorporated herein.)

(Ord. 2001-016 § 1, 2001; Ord. 81-043 § 1, Exhibit A, § 8.200(19), 1981)

17.48.470. Construction-Permanent traffic control.

Signs shall comply with Appendix B. (See Appendix B set out at the end of DCC Title 17.) Signing at intersections shall be procured and installed at the expense of the developer. All traffic control devices required by the Road Department Director shall be procured and installed by the developer.

(Ord. 2001-016 § 1, 2001; Ord. 81-043 § 1, Exhibit A, § 8.200(20), 1981)

17.48.480. Construction-Final cleanup.

- A. Final cleanup shall consist of pulling the shoulders and dressing of the earthwork side slopes.

- B. Any material pulled onto the pavement is to be broomed off. The roadway side slopes are to be raked to remove all equipment tracks and berms.

(Ord. 2001-016 § 2, 2001; Ord. 81-043 § 1, Exhibit A, § 8.200(21), 1981)

17.48.490. Road and street project.

- A. Subdivision Standards Applicable. Design and construction standards set forth in DCC 17.48 are applicable to all road and street projects.

- B. Land Use Permit Required. A land use permit shall be required for any Class I or Class II road and street project. No land use permit shall be required for a Class III road and street project. The road project shall be reviewed against the applicable comprehensive plan Transportation Plan element and the following standards:

1. Compatibility with existing land use and social patterns, including noise

generation, safety hazards (e.g. children in a residential area), and zoning.

2. Environmental impacts, including hazards imposed to and by wildlife (e.g. migration or water use patterns).
3. Retention of scenic quality, including tree preservation.
4. Means to improve the safety and function of the facility, including surrounding zoning, access control and terrain modifications.
5. In the case of roadways where modification results in a change of traffic types or density, impacts on route safety, route land use patterns, and route nonmotorized/pedestrian traffic.
6. Consideration of the potential developmental impact created by the facility.
7. Cost-effectiveness.

C. Bicycle Facilities. Bicycle facilities consisting of a portion of the paved roadway and designated by striping, signing and pavement markings for the preferential or exclusive use of bicyclists, shall be constructed in conjunction with a road and street project if the project involves the new construction, modernization, reconstruction or major alteration of an arterial or collector to the adopted County road standards.

D. Sidewalks. Sidewalks shall be required in conjunction with a road and street project in accordance with DCC 12.35.100, Developed Area Sidewalks.

(Ord. 2001-016 § 1, 2001; Ord. 93-012 § 54, 1993; Ord. 88-015 § 5, 1988)

TABLE "A"

Deschutes County
Minimum Road Design Standards for:

RURAL COUNTY ROADS

(Outside of the La Pine, Tumalo and Terrebonne Unincorporated Communities)

Road Type/Class	ROW	Paved Width (3, 5)	Travel Lane Width	Paved Shoulder Width	Gravel Shoulder Width	Turn Lane Width	Swale (12, 13)	Sidewalk Required (11)	Surface Type	Base Depth (4)	Max. Grade (6)	Design Speed/ Min. Tang./ Min. Curve
State Highway												
	80'-100'	36'-70'	12'	6'	-	14'	n/a	-	(1)	(1)	6%	(1)
Minor Arterial												
	80'	28'-46''(9)	11'	3'-5'	2'	14'	n/a	-	3" AC	10"	6%	(2)
Collector												
	60'	28'-46''(9)	11'	3'-5'	2'	14'	n/a	-	3" AC	8"	8%	(2)
Local												
	60'	20', 24' (10)	-	-	2'	-	Yes	-	0-9 or 2" AC	6"	10%	(2)
Partition												
< 10 acre avg. lot size	60'	20'	-	-	2'	-	Yes	-	0-9 or 2" AC	6"	10%	(2)
> 10 acre avg. lot size	60'	20'	-	-	-	-	-	-	Aggregate	5"	10%	(2)
Other												
Industrial	60'	32'	-	-	-	-	-	-	3" AC	10"	6%	(2)
Private	-	20', 28' (8)	-	-	-	-	-	-	0-9 or 2" AC	6"	12%	(2)
Frontage	40'-60'	28'	-	-	-	-	-	-	3" AC	8"	10%	(2)

TABLE "A"

Deschutes County
Minimum Road Design Standards for: LA PINE Urban Unincorporated Community, La Pine Planning Area

Road Type/Class	ROW	Paved Width (3,5)	Travel Lane Width	Paved Shoulder Width	Gravel Shoulder Width	Turn Lane Width	Swale (12, 13)	Sidewalk Required	Surface Type	Base Depth (4)	Max. Grade (6)	Design Speed/Min. Tang./Min. Curve
<i>US Highway 97</i>												
<i>Minor Arterial</i>												
	100'	74'	12'	6'	6'	14'	No	Yes (21)	(1)		6%	(1)
<i>Collector</i>												
	80'	36-50'	12'	6'	2'	14'	Yes	Yes	3" AC	10"	6%	(2)
<i>Local</i>												
	60'	36'	12'	6'	2'	14'	Yes	Yes	3" AC	8"	8%	(2)
<i>Commercial</i>												
	60'	32'	11'	5'	2'	—	Yes	Yes	3" AC	8"	10%	(2)
<i>Residential (>250 projected ADT)</i>												
	60'	28'	10'	4'	2'	—	Yes	No (11)	2" AC	6"	10%	(2)
<i>Residential (<250 projected ADT)</i>												
	60'	24'	10'	2'	2'	—	Yes	No (11)	2" AC	6"	10%	(2)
<i>Other</i>												
	20'	15'-20'	—	—	—	—	No	No	2" AC	4"	10%	(2)
	20'	8'(23)	—	—	2.5'	—	No	—	Variable	4"	10%	—

TABLE "A"

Deschutes County
Minimum Road Design Standards for:

LA PINE Urban Unincorporated Community, Wickiup Junction Planning Area

Road Type/ Class	ROW	Paved Width (3, 5)	Travel Lane Width	Paved Shoulder Width	Gravel Shoulder Width	Turn Lane Width	Swale (12, 13)	Sidewalk Required	Surface Type	Base Depth (4)	Max. Grade (6)	Design Speed/ Min. Tang./ Min. Curve
<i>US Highway 97</i>												
	80-100'	50'+	12'	6'	6'	14'	No	No	(1)	(1)	6%	(1)
<i>Minor Arterial</i>												
	80'	36-50'	12'	6'	2'	14'	Yes	No	3" AC	10"	6%	(2)
<i>Collector</i>												
	60'	36'	12'	6'	2'	—	Yes	No	3" AC	8"	8%	(2)
<i>Local</i>												
Commercial	60'	32'	12'	4'	2'	—	Yes	No	3" AC	8"	10%	(2)
Residential	50'-60'	24'	10'	2'	2'	—	Yes	No	2" AC	6"	10%	(2)
<i>Other</i>												
Alley	20'	15'-20'	—	—	—	—	No	No	2" AC	4"	10%	(2)
Pathway	20'	8'(23)	—	—	2.5'	—	No	—	Variable	4"	10%	—

TABLE "A"

Minimum Road Design Standards for: LA PINE Urban Unincorporated Community, Neighborhood Planning Area

Road Type/Class	ROW	Paved Width (3, 5)	Travel Lane Width	Paved Shoulder Width (22)	Gravel Shoulder Width	Turn Lane Width	Swale (12, 13)	Sidewalk Required	Surface Type	Base Depth (4)	Max. Grade (6)	Design Speed/ Min. Tang./ Min. Curve
Central Collector												
	90'	24'	12'	--	2'	--	Yes	No (20)	3" AC	10"	6%	(2)
Neighborhood Collector												
	80'	22'	11'	--	2'	--	Yes	No (20)	3" AC	8"	8%	(2)
Perimeter Collector												
	60'	24'	12'	--	2'	--	Yes	No (20)	3" AC	8"	8%	(2)
Local												
Commercial	60'	24'	12'	--	2'	--	Yes	Yes	3" AC	8"	10%	(2)
Residential	60'	20'	10'	--	2'	--	Yes	No (20)	2" AC	6"	10%	(2)
Other												
Alley	20'	15'	--	--	--	--	No	No	2" AC	4"	10%	(2)
Pathway	15'	8'(23)	--	--	2.5'	--	No	--	Variable	4"	10%	--

TABLE "A"

Deschutes County
Minimum Road Design Standards for:

TUMALO Unincorporated Community

Road Type/Class	ROW	Paved Width (3, 5)	Travel Lane Width	Paved Shoulder Width	Gravel Shoulder Width	Turn Lane Width	Swale (12, 13)	Sidewalk Required	Surface Type	Base Depth (4)	Max. Grade (6)	Design Speed/ Min. Tang./ Min. Curve
<i>US Highway 20</i>												
	80'-100'	60'	12'	4'	6'	14'	No	No	(1)	(1)	6%	(1)
<i>Collector</i>												
<i>Commercial</i>	60'	30'	11'	4'	2'	14'	Yes	Yes	3" AC	8"	8%	(2)
<i>Residential</i>	60'	36'	12'	6'	2'	14'	Yes	No	3" AC	8"	8%	(2)
<i>Local</i>												
<i>Commercial</i>	60'	20'	10'	-	2'	-	Yes	No (15, 16)	3" AC	8"	8%	(2)
<i>Residential</i>	60'	20'	10'	-	2'	-	Yes	No	0-9 or 2" AC	6"	10%	(2)
<i>Other</i>												
Alley (Commercial)	20'	20'	-	-	-	-	No	No	2" AC	6"	10%	(2)
Path/Trail	15'	6' unpaved 8' paved(23)	-	-	2.5' (if paved)	-	-	-	2" AC	4"	5%	--

TABLE "A"

Deschutes County
Minimum Road Design Standards for:

TERREBONNE Unincorporated Community

Road Type/Class	ROW	Paved Width (3,5)	Travel Lane Width	Paved Shoulder Width	Gravel Shoulder Width	Turn Lane Width	Swale (12,13)	Surface Type	Sidewalk Required	Base Depth (4)	Max. Grade (6)	Design Speed/Min. Tang./Min. Curve
<i>US Highway 97</i>												
	80'-100'	60'	12'	6'	6'	14'	No	(1)	No (14)	(1)	6%	(1)
<i>Minor Arterial</i>												
TeC	60'	34'	12'	5'	2'	14'	Yes	3" AC	Yes (15)	10"	6%	(2)
TeR	60'	34'	12'	5'	2'	' 14'	No	3" AC	No	10"	6%	(2)
	60'	34'	12'	5'	2'	14'	No	3" AC	No	10"	6%	(2)
<i>Collector</i>												
TeC	60'	24'	12'	—	2'	—	Yes	3" AC	Yes	8"	8%	(2)
TeR	60'	24'	12'	—	2'	—	No	3" AC	No	8"	8%	(2)
TeR	60'	24'	12'	—	2'	—	No (16)	3" AC	No (16)	8"	8%	(2)
<i>Local</i>												
TeC	60'	24'	12'	—	2'	—	Yes	3" AC	Yes (15)	8"	8%	(2)
TeR	60'	24'	12'	—	2'	—	No	3" AC	No	8"	8%	(2)
TeR	60'	20'	12'	—	2'	—	No (17)	0-9 or 2" AC	No (17)	6"	10%	(2)
<i>Other</i>												
Alley (Commercial)	20'	20'	10'	—	—	—	No	2" AC	No	6"	10%	(2)
Path/Trail	15'	6' unpaved 8' paved(23)	—	—	2.5 (if paved)	—	—	2' AC	—	4"	5%	—

TABLE "A"

Notes:

- (1) Design shall be in accordance with Oregon Department of Transportation Design Standards.
- (2) Design shall be in accordance with AASHTO standards.
- (3) Pavement widths are variable, depending on such factors as anticipated traffic volumes, and whether the road section involves turn lanes, bike lanes, and whether frontage roads border an arterial or collector, etc.
- (4) The required base depth may be increased when a C.B.R., or R-value is required by the Road Department.
- (5) Cul-de-sac bulb to be constructed with a 45-foot minimum radius.
- (6) Increase in grade of 2 percent may be allowed in unusually steep areas.
- (7) No curb for rural frontage roads.
- (8) 20' allowed for cul-de-sac's and roads with low anticipated traffic volumes as long as separate multiple use paths are provided. 28' width required (including the required 4' striped shoulder bikeway in each direction) for circulator and primary subdivision access roads and other roads when separate multiple use paths are not provided.
- (9) The larger of the two widths is necessary if a shoulder bikeway is required (4' for collector and 5' for arterial).
- (10) 20' allowed for cul-de-sac's and roads with low anticipated traffic volumes. 24' width required for circulator and primary subdivision access roads.
- (11) Sidewalks required for new subdivisions and partitions, within Unincorporated Communities, that result in an average lot size of 11,000 square feet or less.
- (12) Widths are variable, but in no case shall a swale be less than 6 feet in width. Swales shall conform as much as practicable to DEQ best management practices for non-underground injection control (UIC) systems such as grassy or vegetated bioswales designed (sized) to mitigate anticipated storm water runoff.
- (13) Where drainage swales are not required, the standards for drainage in Title 17, Chapter 17.48 shall still apply.
- (14) 6-foot sidewalks required on both sides of Highway 97 between South 11th Avenue and Central Avenue intersections. Includes pedestrian crossing improvement at B Avenue and C Avenue intersection (see Terrebonne Comprehensive Plan Map D-3).
- (15) 5-foot curbless sidewalks with a drainage swale required on both sides of the road.
- (16) 5-foot curbless sidewalks with drainage swales required in Terrebonne from West 19th Street to 15th Street on the south side of C Avenue (see Terrebonne Comprehensive Plan Map D-3), or those roads in Tumalo designated for sidewalks (see Tumalo Comprehensive Plan Map D2).
- (17) 5-foot curbless sidewalks with drainage swales required along school frontage on B Avenue and 5th Street (see Terrebonne Comprehensive Plan Map D-3).
- (18) Where allowed, parking must be off pavement.
- (19) 40 feet immediately adjacent to arterial road, or 60 feet when frontage road is separated from arterial by private land.
- (20) In the Neighborhood Commercial, Community Facility, Community Facility Limited and Residential Center Districts, where a paved multi-use path is not required in Figure 16 (Non-Motorized Plan) of Title 23, sidewalks at least five feet wide shall be installed at the time of development. The sidewalks shall be property line tight and meet ADA accessibility requirements. The sidewalks shall be connected to the required paths identified on Figure 16, the Non-Motorized Plan.
- (21) 10-foot sidewalks required on both sides of US Highway 97 between First/Reed and 6th Street intersections.
- (22) Rather than a continuous paved parking shoulder, parking in designated pullout areas can be provided along the collectors for access to open space, parks and residential lots.
- (23) The minimum width is 8 ft. However, 8 ft. wide multiuse paths are not recommended in most situations because they may become over-crowded. They should only be constructed as short connectors, or where long term usage is expected to be low, and with proper horizontal and vertical alignment to assure good sight distances. 10 ft is the standard width for a two-way multi-use path but they should be 12 ft wide in areas with high mixed-use. Optimum width should be based on the relative use by cyclists and pedestrians. High use by skaters may also require greater width.

TABLE "B"

**Deschutes County
Minimum Bikeway Design Standards**

Type	Stripe	On/Off Road	Width ¹			Vertical Clearance		Lateral Clearance (each side)		Cross-slope Grade	Grade		Pavement Structure		Multi-use	ROW
			Min.	Stand.	High Use	Min.	Stand.	Min.	Stand.		Stand.	Max.	Aggregate Base	A.C.		
Multiuse Path		Off	8'	10'	12'	8'	10'	2'	3'	2%	5%	>5% up to distance of 500'	4"	2"	Yes	15'
Mt. Bike Trail		Off		2'		7'	10'								Yes	
Bike Lane	8" with painted stencil	On	4' w/open shoulder 5' w/curb or parking	6'							Use on urban arterial or major collector, or rural roads near urban areas with high anticipated bike use		Same as parent roadway		No	
Shoulder Bikeway	4"	On	4'	4' w/open shoulder 5' w/curb or other barrier	6'						Recommended on higher speed, and traffic volume rural roads		Same as parent roadway		No	
Shared Roadway		On									Recommended only on local roads with speeds of 25 mph or less, and <3,000 ADT		Same as parent roadway		Yes	

Note: A.C. is asphalt-concrete

¹ 10 ft is the standard width for a two-way multi-use path; they should be 12 ft wide in areas with high mixed-use. Faster moving bicyclists require greater width than pedestrians; optimum width should be based on the relative use by these two modes. High use by skaters may also require greater width. The minimum width is 8 ft. However, 8-ft. wide multi-use paths are not recommended in most situations because they may become over-crowded. They should only be constructed as short connectors, or where long-term usage is expected to be low, and with proper horizontal and vertical alignment to assure good sight distances.

APPENDIX B
Sections 17.48.420, 17.48.470

SIGN STANDARDS

1. GENERAL

All signs shall be manufactured from 0.080 inch thick aluminum stock and shall be mounted onto four inch (4") by four inch (4") by twelve foot (12') pressure treated wooden posts of Standard lumber grade or better. Every sign shall be mounted at approximately a right angle to the direction of, and facing, the traffic it is intended to serve, unless mirror reflection reduces legibility, in which case the sign shall be turned slightly away from the road. Sign posts shall be located not less than six feet (6') nor more than twelve feet (12') from the edge of the road. The top of the post shall be nominally eight feet (8') above the elevation of the near edge of the road. The posts shall be painted white. All reflective material shall be "3M Engineer Grade" or approved equal.

Signing for subdivisions shall be procured and erected at the expense of the developer. The County will not manufacture, sell, or install any signs, until roads are accepted into the County Maintained System.

2. ROAD NAME SIGNS

Road name signs for Public Roads shall have a reflectorized green background and reflectorized white letters. These signs shall be six inches (6") high and of sufficient length to allow the necessary letters to be mounted and to allow for a one and a half inch (1 1/2") margin at each end, but shall not be less eighteen inches (18"), and the corners shall be rounded to a one half inch (1/2") radius. Lettering shall be four inches (4") high. The signs shall not have contrasting borders. Conventional abbreviations for the road type prefixes and suffixes (e.g. NW, Ave., Rd., Ct., etc.) are acceptable but shall not be used for the road names. Road name signs shall be mounted, through the use of four inch (4") by four inch (4") metal brackets, onto the top of the sign posts. Brackets shall be #827F 4"x4" Post Brackets from Traffic Safety Supply Company or an approved equal. At least one road name sign shall be provided at each intersection for each road.

3. "STOP SIGNS"

Stop signs shall have reflectorized red backgrounds and reflectorized white letters and borders, and shall be octagonal in shape. Stop signs shall be mounted so that the bottom edge is a minimum of five feet (5') and a maximum of seven feet (7') above the elevation of the near edge of the road or curb. Stop sign mounted next to a walkway or bikeway shall be mounted at the maximum height. Stop signs, located at an intersection of two or more roads, one or more of which is an arterial, shall be thirty inches (30") by thirty inches (30") and shall have a one inch (1") border which extends to the edge of the sign. All other stop signs shall be twenty four inches (24") by twenty four inches (24") and shall have a three quarter inch (3/4") border which extends to the edge of the sign.

4. "END COUNTY ROAD MAINTENANCE" SIGNS

A sign having a legend of "END COUNTY ROAD MAINTENANCE", formed by black letters on a white background, and conforming to the standard drawing, herewith shall be erected on all roads, or at all access points to subdivisions, that are not

to be maintained by the County. The signs shall not be mounted on the same post on which a stop sign is mounted.

5. STRIPING

A cash deposit shall be assigned to the County for the costs of striping, of an amount approved by the County Engineer.

6. ADDITIONAL TRAFFIC CONTROL DEVICES

Any traffic control devices deemed necessary by the Director of Public Works shall be procured and installed by the developer and the developer shall supply construction signing in accordance with the MUTCD (Current Manual of Uniform Traffic Control Devices, Federal Highway Administration).

7. All traffic control devices required on a project shall be installed by the developer and approved by Deschutes County prior to final acceptance of the subdivision.
-

LICENSE (IMPROVEMENT AGREEMENT)

This License and Improvement Agreement (Agreement), relating to the installation of required improvements to be constructed in _____, hereafter referred to as "Subdivision", as required in the conditions of approval of the approval in File # _____ made and entered into this _____ day of _____, 2000, by and between DESCHUTES COUNTY, OREGON, a political subdivision of the State of Oregon, herein after referred to as "County"; and _____, hereinafter referred to as "Developer,"

WITNESSETH:

WHEREAS, Developer is the subdivider of the Subdivision in the approval granted under _____ and

WHEREAS, the improvements required for the Subdivision have not been completed; and

WHEREAS, Developer intends to file a final plat for the Subdivision prior to the completion of the required improvements; and

WHEREAS, Deschutes County Code Section 17.24.120 provides that Developer may, in lieu of completing required improvements prior to filing the final plat, enter into an agreement with the County for the completion of the required improvements and provide a good and sufficient form of security, consistent with Deschutes County Code Section 17.24.130, to provide for the completion of the required improvements; now, therefore,

IT IS HEREBY AGREED BY AND BETWEEN THE PARTIES above mentioned, for and in consideration of the mutual promises hereinafter stated, as follows:

1. The real property subject to this Agreement, hereinafter the "Subdivision real property" is described in Exhibit "A," attached hereto and by this reference incorporated herein.

2. Developer shall install and complete, or cause to be installed and completed, those improvements required by Conditions _____ of the approval in _____, that remain to be completed as set forth in _____, attached hereto and by this reference incorporated herein. All such improvements (hereinafter referred to as "required improvements") shall be installed and completed to county specifications and be inspected and receive approval from the County Road Department no later than one (1) year from the date the final plat for the Subdivision is recorded with the County Clerk. Developer shall also repair all existing and constructed facilities, within and without the Subdivision, damaged during any such installation, on or before such date.

3. County shall have the right to come onto the property to make inspections of the required improvements. If the County determines that the required improvements have not been completed as specified by the completion date established in Section 2 herein, County or its agents may enter onto the subdivision real property and cause the required improvements to be installed and completed to required specifications and call upon Developer's security and any assets of Developer to recover from Developer the full cost and expense of completing the

required improvements, together with court costs and attorney's fees necessary to collect said amounts.

4. This Agreement is made for the benefit of the County and not the Developers.

5. Developer shall restore any monument erected or used for the purpose of designating a survey marker or boundary of any town, tract, plat or parcel of land which monument is broken, damaged, removed or destroyed, during the course of work provided for or anticipated by this Agreement, whether intentional or otherwise, by the Developer or Developer's agents, employees or independent contractors.

6. Developer shall pay to County the actual costs incurred in the inspection of the completed improvements.

7. The Developer's security shall consist of: a bond _____ issued in favor of the County by _____, organized and existing under the laws of the State of _____, deposited with the County Treasurer in the amount of _____ with a date of expiration of no less than 6 months past the completion date established by Section 2 herein. The amount of the bond represents 120% of the estimated costs, as set forth in Exhibit B hereto, of completing the required improvements to county standards.

Release of the security will require authorization by the Deschutes County Community Development Department, once improvements have been inspected and approved by County. Improvements required to be completed under this Agreement and covered by Developer's security are shown in Exhibit "B" attached hereto and by this reference incorporated herein.

8. This Agreement is contingent upon the recording of the final plat.

9. County may draw upon Developer's security upon default of this Agreement for any and all costs and expenses anticipated to be incurred by County, as determined by the County, in the completion of the required improvements of Subdivision. If the amount available to be drawn from Developer's security is less than the costs and expenses anticipated to be incurred, or actually incurred, by the County, County may apply the proceeds of the security to the costs of completion of the required improvements and then hold Developer liable for the difference. For the purposes of this Agreement and access to any security offered and accepted to secure Developer's performance, a default shall include failure to install or have installed any portion of the improvements to County specifications and failure to complete any required inspections by 1 year's time from the date of the recording of the plat.

10. The security shall be released by County upon request by Developer within ninety (90) days after the completion, inspection and approval of the required improvements.

11. In accordance with Deschutes County Code Section 17.24.120(B), no building permit may be issued for any lot or parcel of the Subdivision until all required improvements are completed, inspected and approved by County.

12. The existence of this Agreement shall be noted upon the final plat by reference to the recording book and page numbers.

13. By signature of this Agreement, any mortgagee or other holder of a security interest in the property (hereinafter referred to as Mortgagee) agrees to subordinate its security interest in the Subdivision real property to this Agreement. In particular, Mortgagee agrees that this Agreement would survive any foreclosure by Mortgagee on the Subdivision real property.

14. The original of this Agreement shall be recorded with the Deschutes County Clerk and shall be a condition and covenant that shall run with the land and be binding upon the Subdivision real property. It is the intent of the parties that the provisions of this Agreement shall be binding upon the parties, their successors, heirs, executors, administrators, and assigns, or any other party deriving any right, title or interest in or to the Subdivision real property, including any person who holds such interest as security for the payment of any obligation, including the Mortgagee or other secured party in actual possession of said real property by foreclosure or otherwise or any person taking title from such security holder.

15. By their signatures, all signatories to this Agreement signing in a representative capacity certify that they are authorized to sign on behalf of and to bind their respective principals.

16. This Agreement shall expire 6 months after the completion date established by Section 2 herein or upon expiration of the land use permit for the Subdivision, whichever is sooner, or by the explicit release by County from this Agreement granted as part of an approval for a change of use of the Subdivision real property.

17. County's rights under this Agreement, including County's right to draw upon Developer's security in whole or in part and any other assets of Developer to pay the full costs and expenses of completing the improvements and repairs required herein (including costs of enforcement), shall survive the expiration of this Agreement.

18. It is agreed by and between the parties that Developer is not carrying out a function on behalf of the County, and County does not have the right of direction or control of the manner in which Developer completes performance under this Agreement or exercise any control over the activities of the Developer.

19. County is not, by virtue of this Agreement, a partner or joint venturer with Developer in connection with Developer's subdivision, and shall have no obligation with respect to Developer's debts or any other liabilities of each and every nature.

20. Developer shall be responsible for any and all injury to any and all persons or property caused directly or indirectly by reason of any and all activities by Developer in the performance of this Agreement; and further agrees to indemnify, save harmless and defend the County, its officers, agents and employees from and against all claims, suits, actions, damages, costs, losses and expenses in any manner resulting from, arising out of, or connected with any such injury.

21. In the event an action or suit or proceeding, including appeal therefrom, is brought for failure to observe any of the terms of this Agreement, County shall be entitled to recover, in addition to other sums or performances due under this Agreement, reasonable attorney's fees and costs as the court may adjudge in said action, suit, proceeding or appeal.

22. Waiver of the strict performance of any provision of this Agreement shall not constitute the waiver of any other provision or of the Agreement.

23. Upon request of Developer, County may release any of Developer's obligations under the terms and conditions of this Agreement in writing upon completion and County inspection and approval of any portion of the required improvements.

24. County, by virtue of this instrument, is entitled to enter upon the real property described herein to enforce, as necessary or convenient, the terms of this instrument.

DATED this ____ day of _____, 200__.

COUNTY:

DESCHUTES COUNTY, OREGON

GEORGE J. READ, Director
Community Development Department

STATE OF OREGON, County of Deschutes) ss.

I certify that I know or have satisfactory evidence that **GEORGE J. READ** is the person who appeared before me, and said person acknowledged that he signed this instrument as the Director of Deschutes County Community Development Department, Deschutes County, Oregon, and acknowledged it to be his free and voluntary act for the uses and purposes mentioned in this instrument.

Notary Public for Oregon
My Commission Expires: _____

DATED this ____ day of _____, 200__.

DEVELOPER:

By:

STATE OF OREGON, Deschutes County) ss.

I certify that I know or have satisfactory evidence that _____ is the person who appeared before me, and said person acknowledged that he signed this instrument, on oath stated that he was authorized to execute the instrument and acknowledged it as the _____ of _____ to be the free and voluntary act of such parties, in his representative capacity, for the uses and purposes mentioned in this instrument.

DATED this ____ day of _____, 200__.

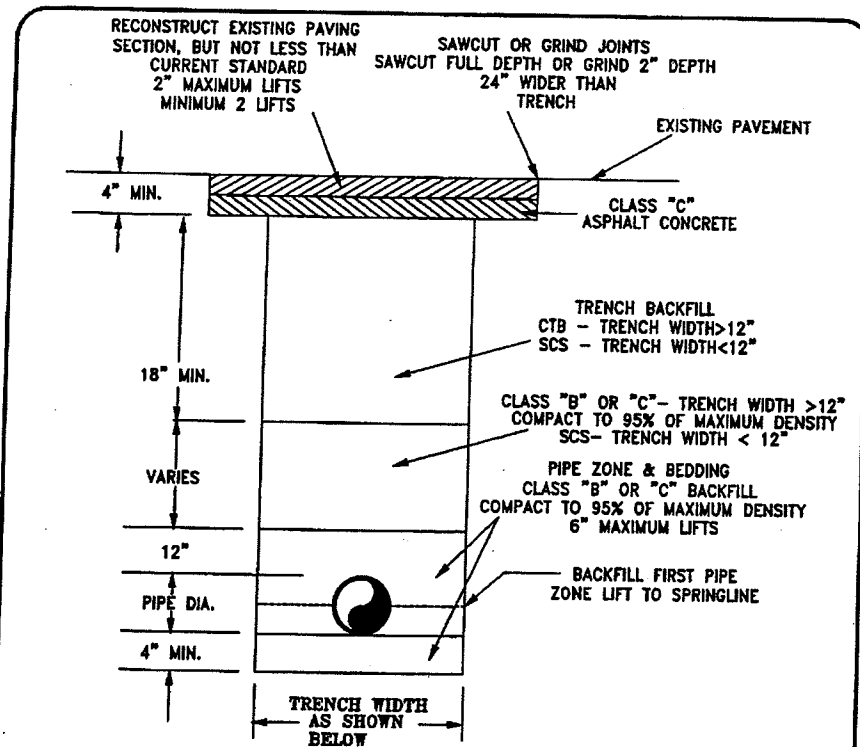
Notary Public for Oregon
My Commission Expires: _____

DESCHUTES COUNTY ROAD DEPARTMENT

STANDARD DRAWINGS JANUARY 2000

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1-3	STANDARD UTILITY TRENCH DETAIL - ALL WEATHER SURFACE ROAD
STREETS	
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3-5	STANDARD CATCH BASIN GRATE



Class "B" Backfill: 3/4"-0 aggregate base. Reject base material may be used on approval by the Engineer.

Class "C" Backfill: Clean sand with no particles size larger than 1/4" and no more than 10% by weight of material passing a 200 sieve.

Cement Treated Base (CTB): shall conform to the requirements of ODOT. It shall contain 4.5% to 5.5% cement by weight (1 to 2 sacks cement/ton)

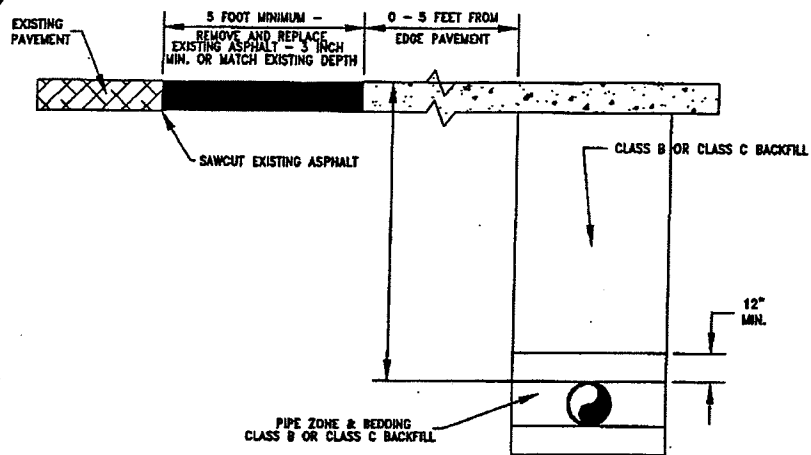
Sand Cement Slurry (SCS): Shall conform to the requirements of ODOT specification for Class B bedding. It shall consist of at least 3/4 sack of portland cement/cubic yard of sand plus water, with a 7-inch slump plus or minus 1-1/2 inches.

Pipe Size I.D. less than 6"	Max. Width	Min. Width
6"	30"	24"
8"	36"	28"
10"	36"	30"
12"	42"	30"
15"	48"	36"

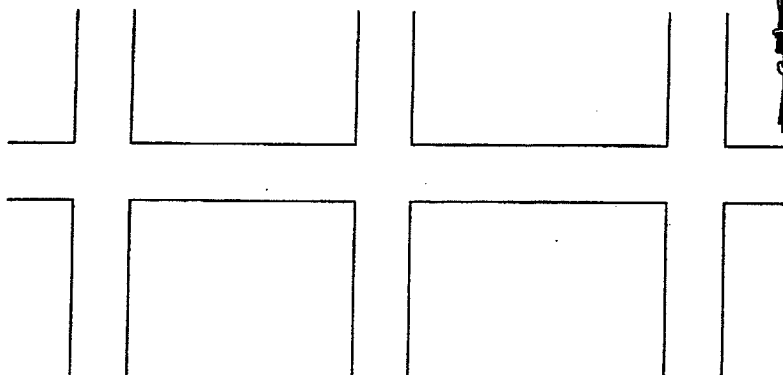
J./dwg/2-S.dwg

TRENCH IN EXISTING PAVEMENT

DES.	G.M.K.	DESCHUTES COUNTY	SCALE	NTS
DRAWN	G.M.K.	ROAD DEPARTMENT	DATE	1/27/99
APP.	REV.	DATE	SHEET	1-1



FOR LONGITUDINAL TRENCH 0 - 5 FEET FROM EDGE OF PAVEMENT

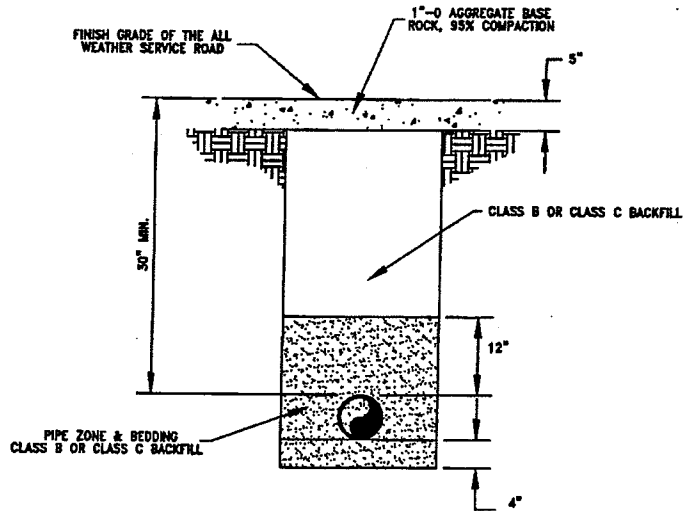


VICINITY MAP

TRENCH DEPTH AND
VICINITY MAP

DES.	G.M.K.	DESCHUTES COUNTY	SCALE	NTS
DRAWN	G.M.K.	ROAD DEPARTMENT	DATE	1/27/99
APP.	REV.	DATE	SHT.	1-2

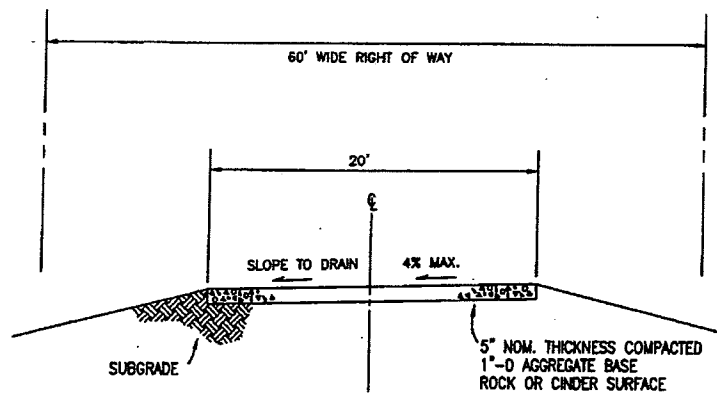
J-/dwg/2-8.dwg



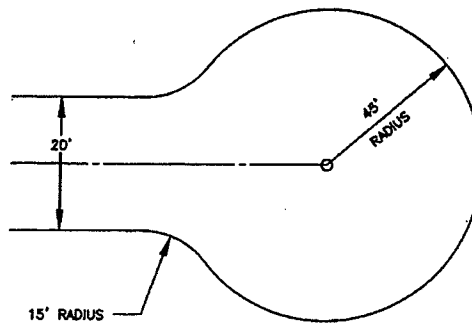
**STANDARD UTILITY TRENCH DETAIL
ALL WEATHER SURFACE ROAD**

DES.	G.M.K.	DESCHUTES COUNTY	SCALE	NTS
DWN.	G.M.K.	ROAD DEPARTMENT	DATE	5/18/99
APP.	REV.	DATE	SHT.	1-3

J:/dwg/2-8.dwg

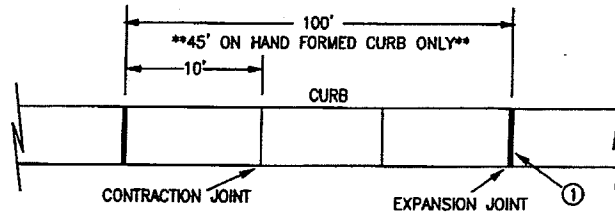


ALL WEATHER SERVICE ROAD - PARTITION STANDARD

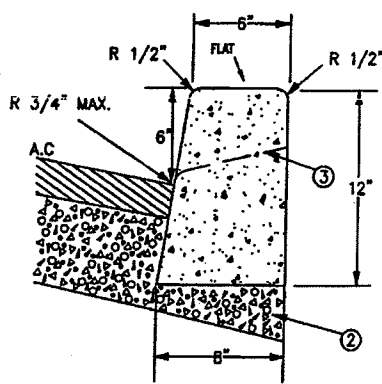


TEMPORARY TURN-AROUND

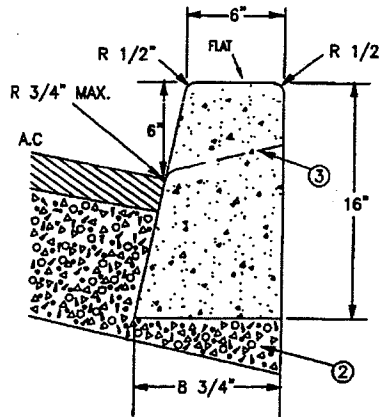
DATE :	SCALE :	ALL WEATHER SERVICE ROAD & TURN-AROUND STANDARD	DESCHUTES COUNTY ROAD DEPARTMENT	
JANUARY 2000	NONE			
DRAWING NO.	APPROVED BY :			
2-1	G. KOLB			



EXPANSION & CONTRACTION JOINTS



12" COUNTY STANDARD CURB



16" COUNTY STANDARD CURB

NOTES:

CONCRETE SHALL BE CLASS 3300 (SIX SACK MIX) AND CONTAIN NO ADDITIVES TO CAUSE RAPID SETTING, 4% - 7% AIR ENTRAINMENT REQUIRED.

1. EXPANSION JOINTS REQUIRED AT:
 - A. END OF CURB RADIUS
 - B. DRIVEWAY APRONS
 - C. POINTS OF CURVATURE
 - D. MAXIMUM SPACING OF 100'

2. BASE ROCK UNDER CURB AS REQUIRED TO MATCH STREET SECTION. 2" MINIMUM THICKNESS.

3. SLOPE DRIVEWAY TOWARD STREET. 3/4" MAXIMUM LIP AT GUTTER.

4. LIGHT BROOM FINISH REQUIRED.

DATE :
JANUARY 2000

SCALE :
NONE

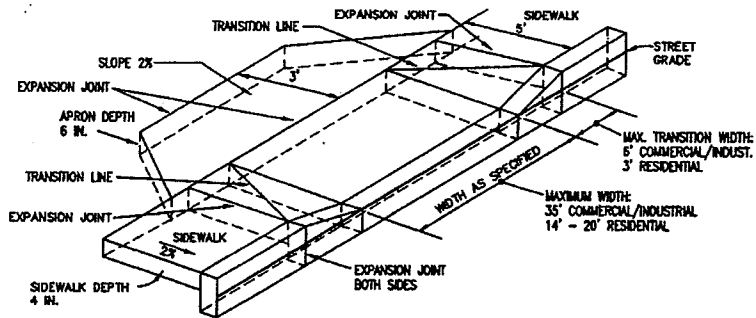
DRAWING NO.
2-2

APPROVED BY :
G. KOLB

CONCRETE
CURB

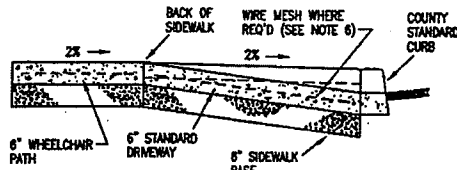
DESCHUTES COUNTY
ROAD DEPARTMENT



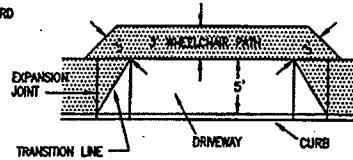


TYPICAL DRIVEWAY / DROP CURB FOR STANDARD SIDEWALK - OPTION "A"

N.E.S.

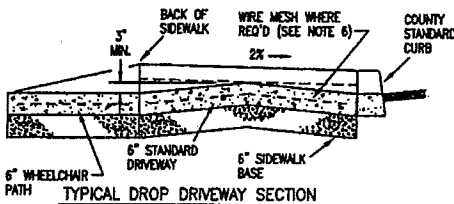


TYPICAL DRIVEWAY SECTION

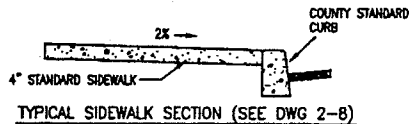


PLAN VIEW

N.E.S.



TYPICAL DROP DRIVEWAY SECTION



TYPICAL SIDEWALK SECTION (SEE DWG 2-8)

NOTES:

1. COMPACT BACKFILL UNDER SIDEWALK & DRIVEWAY TO 90% OF RELATIVE MAXIMUM DENSITY (ASTM D-1557) TO 6" THICK MIN.
2. CONCRETE SHALL BE 6.0 SACK, CLASS 3000 AND CONTAIN NO ADDITIVES TO CAUSE RAPID SETTING. 4% - 7% ENTRAINED AIR REQUIRED. PROTECT FROM ADVERSE WEATHER FOR 7 DAYS MIN.
3. LIGHT TRANSVERSE BROOM FINISH REQUIRED ON SIDEWALKS AND DRIVEWAYS.
4. FULL EXPANSION JOINTS AT ENDS OF DRIVEWAY. CONTRACTION JOINTS AT CENTER OF DRIVEWAY AND 5' CENTERS ALONG SIDEWALK.
5. MAINTAIN CONSTANT GRADE AT BACK EDGE THROUGH DRIVEWAYS WHENEVER POSSIBLE.
6. NO. 4 REBAR (2 LONGITUDINAL BARS, TRANSVERSE BARS 4'-0" O.C.) REQUIRED IN COMMERCIAL AND INDUSTRIAL DRIVEWAYS. 6" x 6", 10 GA. WIRE MESH MAY BE USED IN LIEU OF REBAR.
7. DRIVEWAY APRONS ARE REQUIRED ON ALL NEW CONSTRUCTION.

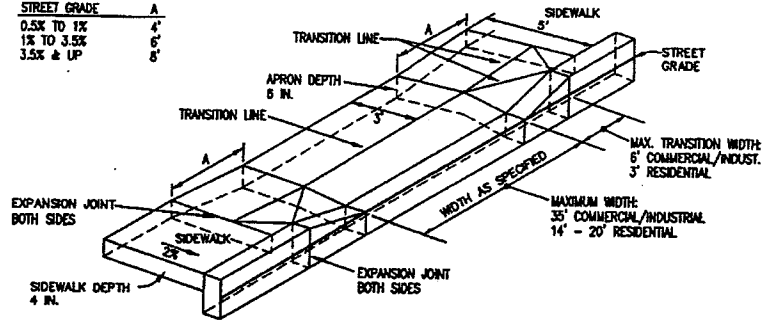
DATE:	SCALE:
JANUARY 2000	NONE
DRAWING NO.	APPROVED BY:
2-3	G. KOLB

CONC. DRIVEWAY APRONS
AND CURB CUTS
OPTION "A"

DESCHUTES COUNTY
ROAD DEPARTMENT

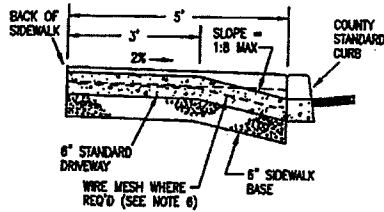


STREET GRADE	A
0.5% TO 1%	4'
1% TO 3.5%	6'
3.5% & UP	8'

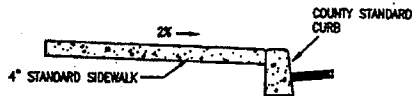


TYPICAL DRIVEWAY / DROP CURB FOR STANDARD SIDEWALK - OPTION "B"

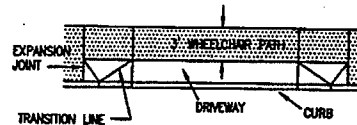
N.T.S.



TYPICAL DRIVEWAY SECTION



TYPICAL SIDEWALK SECTION (SEE DWG 2-8)



PLAN VIEW

N.T.S.

NOTES:

1. COMPACT BACKFILL UNDER SIDEWALK & DRIVEWAY TO 90% OF RELATIVE MAXIMUM DENSITY (ASTM T-99) TO 6" THICK MIN.
2. CONCRETE SHALL BE 6.0 SACK, CLASS 3000 AND CONTAIN NO ADDITIVES TO CAUSE RAPID SETTING. 4% - 7% ENTRAINED AIR REQUIRED. PROTECT FROM ADVERSE WEATHER FOR 7 DAYS MIN.
3. LIGHT TRANSVERSE BROOM FINISH REQUIRED ON SIDEWALKS AND DRIVEWAYS.
4. FULL EXPANSION JOINTS AT ENDS OF DRIVEWAY. CONTRACTION JOINTS AT CENTER OF DRIVEWAY AND 5' CENTERS ALONG SIDEWALK.
5. MAINTAIN CONSTANT GRADE AT BACK EDGE THROUGH DRIVEWAYS WHENEVER POSSIBLE.
6. NO. 4 REBAR (2 LONGITUDINAL BARS, TRANSVERSE BARS 4'-0" O.C.) REQUIRED IN COMMERCIAL AND INDUSTRIAL DRIVEWAYS. 6" 6", 10 GA. WIRE MESH MAY BE USED IN LIEU OF REBAR.
7. DRIVEWAY APRONS ARE REQUIRED ON ALL NEW CONSTRUCTION.

DATE:

JANUARY 2000

SCALE:

NONE

DRAWING NO.

2-4

APPROVED BY:

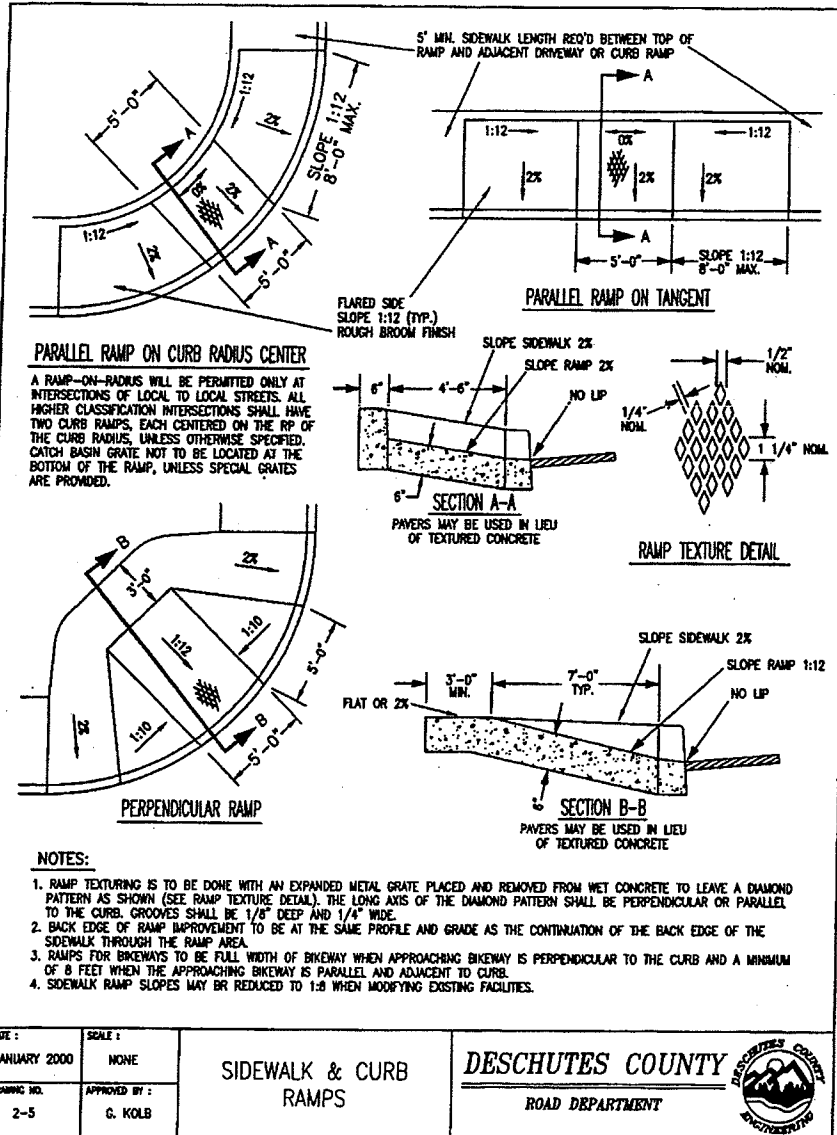
G. KOLB

CONC. DRIVEWAY APRONS
AND CURB CUTS
OPTION "B"

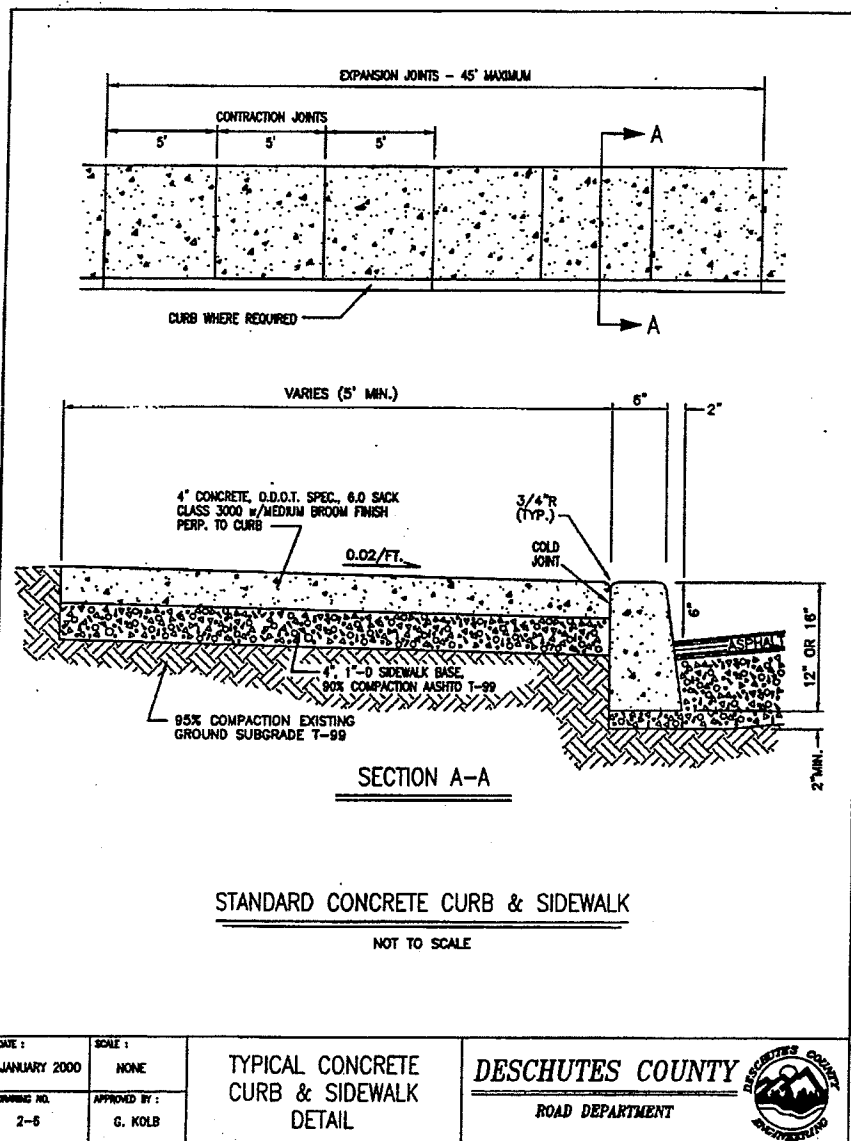
DESCHUTES COUNTY

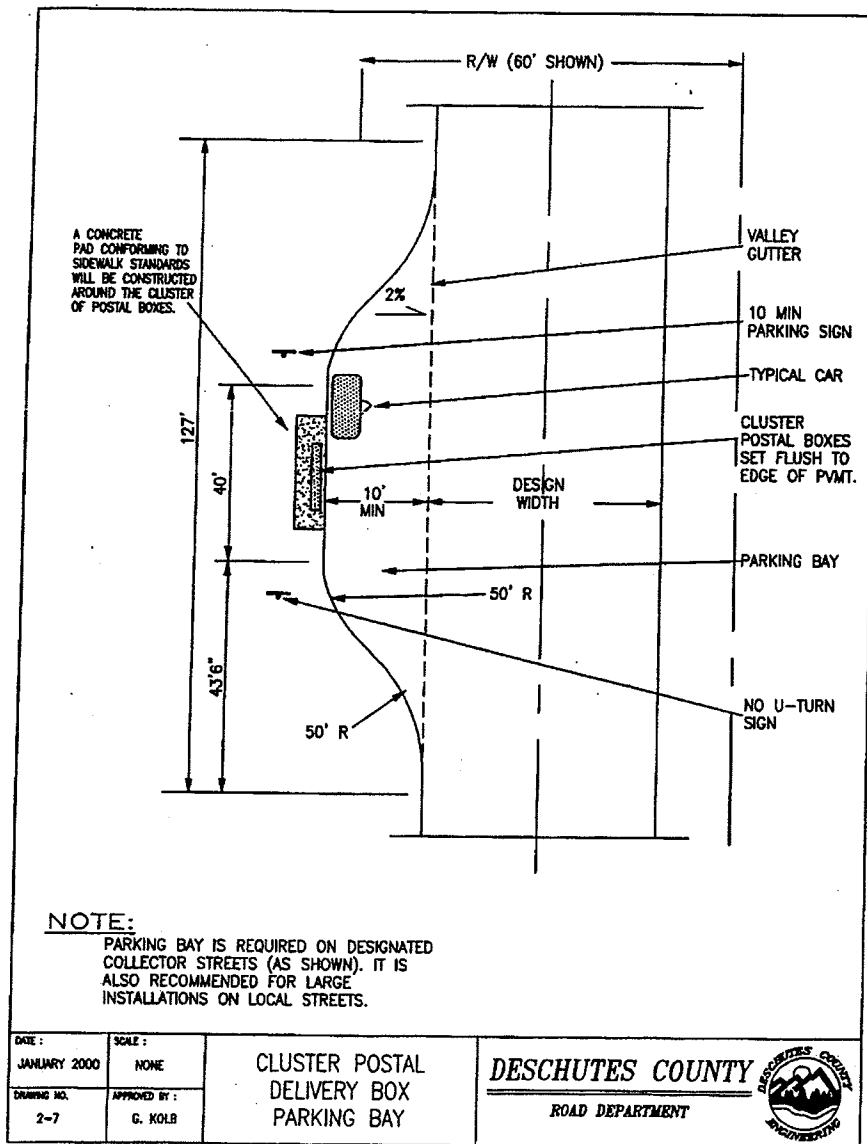
ROAD DEPARTMENT

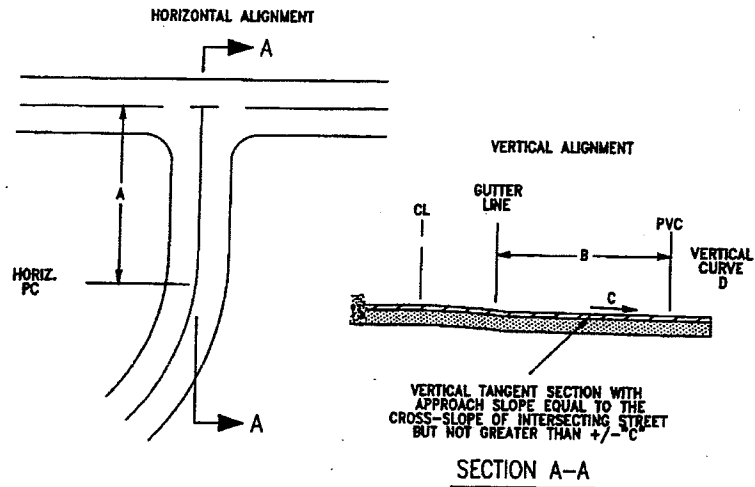




DATE :	SCALE :	SIDEWALK & CURB RAMPS	DESCHUTES COUNTY ROAD DEPARTMENT	
JANUARY 2000	NONE			
DRAWING NO. 2-5	APPROVED BY : G. KOLB			







THRU STREET	STEM STREET	A MIN.	B MIN.	C MAX. SLOPE	D MINIMUM V.C.
LOCAL/INDUSTRIAL	LOCAL/INDUSTRIAL	0'	0'	6%	50'
COLLECTOR	LOCAL/INDUSTRIAL	50'	50'	4%	50'
COLLECTOR	COLLECTOR	100'	100'	3%	100'
ARTERIAL	LOCAL	50'	50'	4%	100'
ARTERIAL	COLLECTOR	100'	100'	2%	125'
ARTERIAL	ARTERIAL	200'	200'	2%	150'

DATE :	SCALE :
JANUARY 2000	NONE
DRAWING NO.	APPROVED BY :
2-8	G. KOLB


"T" INTERSECTION
ALIGNMENT
STANDARD

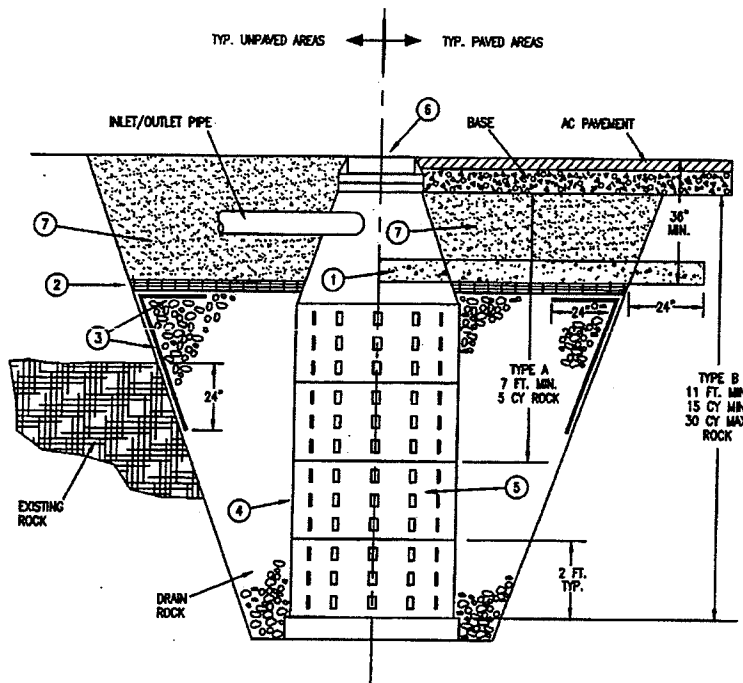
DESCHUTES COUNTY
ROAD DEPARTMENT



TYPE			0-9			0-11		
APPROX. THICK.			7/8"			1-1/4"		
			SIZE	RATES PER SQ. YD.	QUAN. PER MILE	SIZE	RATES PER SQ. YD.	QUAN. PER MILE
SPREADS	1st	ASPHALT		.50 gal.	29.21 tons		.55 gal.	37.84 tons
		AGGREGATE	3/4"-1/2"	.016 cy	225 cy	1 1/4"-3/4"	.025 cy	352 cy
	2nd	ASPHALT		.45 gal.	26.29 tons		.50 gal.	29.21 tons
		AGGREGATE	1/2"-1/4" 1/4"-#10	.006 cy .003 cy	141 cy 42 cy	3/4"-1/2" 1/2"-1/4"	.016 cy .003 cy	223 cy 42 cy
	3rd	ASPHALT					.45 gal.	26.29 tons
		AGGREGATE				1/2"-1/4" 1/4"-#10	.010 cy .003 cy	141 cy 42 cy
SEAL	EMULS. ASPHALT			.40 gal.	23.36 tons		.40 gal.	23.36 tons
	AGGREGATE		1/4"-#10	.009 cy	127 cy	1/4"-#10	.009 cy	127 cy

	ASPHALT		EMULSIFIED ASPHALT		CUTBACK ASPHALT			
TYPE OF ASPHALT	AC-20	AC15-STR	CRS-2 CRS-2P	HFRS-P1	RC-70 MC-70 SC-70	RC-250 MC-250 SC-250	RC-800 MC-800 SC-800	RC-3000 MC-3000 SC-3000
GALS/TON AT 60 DEG. F	235	238	241	241	253	249	245	241
NORMAL APPLIC. TEMP.	300	300	155	150	140	185	215	255
GALS/TON AT NORMAL APPLIC. TEMP.	258	259	244	246	261	260	259	258


DATE : JANUARY 2000	SOLE : NONE	ASPHALT PENETRATION MACADAM (OIL MAT)	DESCHUTES COUNTY ROAD DEPARTMENT	
DRAWING NO. 2-9	APPROVED BY : C. KOLB			

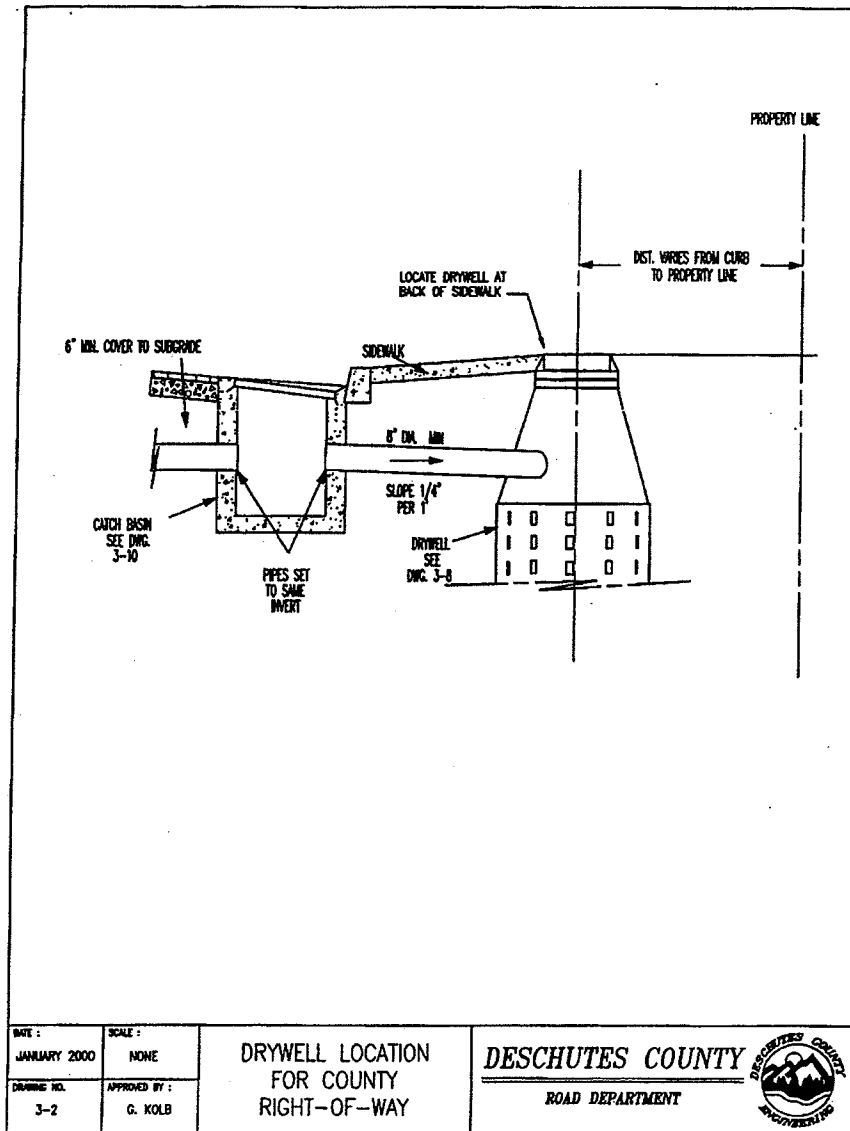



NOTES:

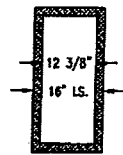
SEE ALSO THE DESCHUTES COUNTY STANDARDS AND SPECIFICATIONS FOR DESIGN CRITERIA

1. 6" CONCRETE CAP, CL 3000, REQUIRED TO 24" BEYOND EXCAVATION IN PAVED AREAS WITHIN CITY RIGHT-OF-WAY.
2. MOISTURE BARRIER- 2 LAYERS OF 4 MIL. POLYETHYLENE ON ALL INSTALLATIONS.
3. GEOTEXTILE FILTER FABRIC ON ALL EARTH OR GRAVEL EXCAVATION TO 24" INTO ROCK. LAP 24" WITH MOISTURE BARRIER.
4. LINE INSIDE OF PERF. BARREL WITH HEAVY WEIGHT VINYL SCREEN, SUCH AS "FULLFLOW VINYL SCREEN (6 0706)".
5. PRE-CAST SECTIONS SHALL CONFORM TO THE REQUIREMENTS OF ASTM C-476. CONCRETE SHALL BE CL3300, AIR ENTRAINED CONCRETE.
6. STANDARD RING & COVER REQUIRED IN RIGHT-OF-WAY AREAS. SLOTTED COVER MAY BE USED IN PARKING LOTS IN LIEU OF A CATCH BASIN.
7. CLASS "A" BACKFILL COMPACTED TO 95% OPTIMUM DENSITY (MSHTD T-99).

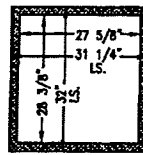
DATE :	SCALE :	STANDARD PRE-CAST DRYWELL	DESCHUTES COUNTY ROAD DEPARTMENT	
JANUARY 2000	NONE			
DRAWING NO.	APPROVED BY :			
3-1	G. KOLB			



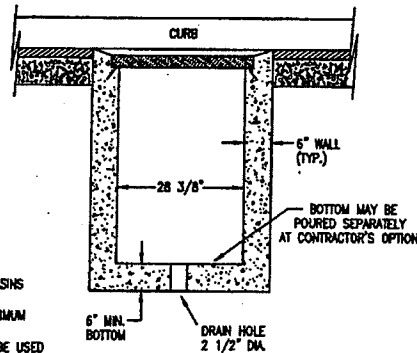
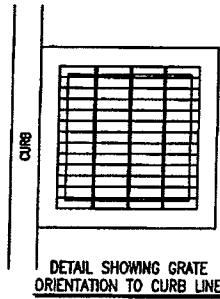
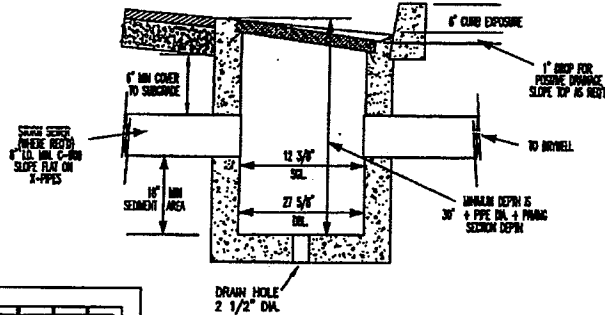
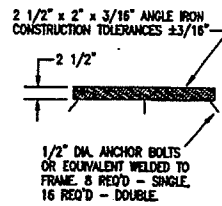
DATE : JANUARY 2000	SCALE : NONE	DRYWELL LOCATION FOR COUNTY RIGHT-OF-WAY	<div>DESCHUTES COUNTY ROAD DEPARTMENT</div> 
DRAWING NO. 3-2	APPROVED BY : G. KOLB		



SINGLE FRAME



DOUBLE FRAME



NOTES:

1. UNLESS OTHERWISE SPECIFIED, ALL CATCH BASINS TO BE DOUBLE CATCH BASINS.
2. BACKFILL TO BE COMPACTED TO 95% OF OPTIMUM AASHTO T-99.
3. DURING CONSTRUCTION, 2" PLANKING SHALL BE USED TO COVER CATCH BASIN UNTIL GRATES ARE INSTALLED.

DATE :
JANUARY 2000

SCALE :
NONE

DRAWING NO.
3-3

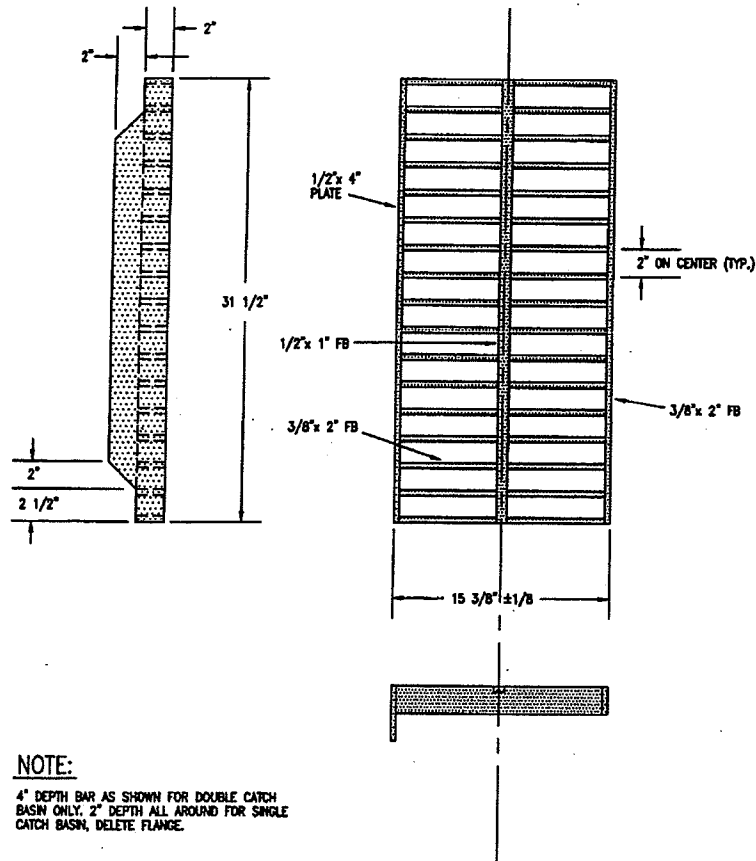
APPROVED BY :
G. KOLB

STANDARD
CATCH BASIN
DOUBLE & SINGLE

DESCHUTES COUNTY
ROAD DEPARTMENT







DATE :
JANUARY 2000

SCALE :
NONE

DRAWING NO.
3-5

APPROVED BY :
G. KOLB

STANDARD
CATCH BASIN
GRATE

DESCHUTES COUNTY
ROAD DEPARTMENT



B. BIKEWAYS

4- General (ok) However, I'd suggest we drop the number off of "General" and that we re-orient the numbers from least developed facility to most developed.

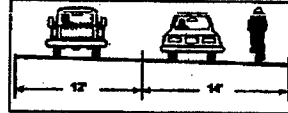
1. Shared Roadways

There are no specific bicycle standards for most shared roadways; they are simply the roads as constructed. Shared roadways function well on low-volume rural roads and highways. Shared roadways are suitable in urban areas on streets with low speeds – (25 MPH or less) - or low traffic volumes (3,000 ADT or less, depending on speed and land use). In rural areas, the suitability of a shared roadway decreases as traffic speeds and volumes increase, especially on roads with poor sight distance. Where bicycle use or demand is potentially high, roads should be widened to include shoulder bikeways where the travel speeds and volumes are high.



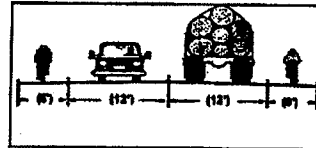
1a. Wide Curb Lanes

A wide curb lane may be provided in an urbanized area where there is inadequate width to provide the required bike lanes or shoulder bikeways. This may occur on retrofit projects where there are severe physical constraints, and all other options have been pursued, such as removing parking or narrowing travel lanes. To be effective, a wide lane must be at least 14ft wide, but less than 16ft. Usable width is normally measured from curb face to the center of the lane stripe, but adjustments need to be made for drainage grates, parking and the ridge between the pavement and gutter. Widths greater than 16ft encourage the undesirable operation of two motor vehicles in one lane. In this situation, a bike lane or shoulder bikeway should be striped.



2. Shoulder Bikeways

Paved shoulders are provided on rural roads and highways for a variety of safety, operational and maintenance reasons. On steep grades, it is desirable to maintain a 6-foot, (min. 5') shoulder, as cyclists need more space for maneuvering.



Note: many rural roads are 28ft wide, with fog lines striped at 11ft from centerline. The remaining 3ft should not be considered a shoulder bikeway (min. width 4ft); these are still considered shared roadways, as most cyclists will ride on or near the fog line.

Recommended Rural Road Shoulder Widths

	ADT under 250	ADT 250-400	ADT 400-DHV* 100	DHV 100-200	DHV 200-400	DHV >400
Rural Arterial	4ft	4ft	6ft	6ft	8ft	8ft
Rural Collector	2ft	2ft	4ft	6ft	8ft	8ft
Rural Local	2ft	2ft	4ft	6ft	6ft	8ft

**DHV (Design Hour Volume) is the expected traffic volume in the peak design hour (usually at commuter times); usually about 10% of the ADT.*

2.a. Pavement Design

Many existing gravel shoulders have sufficient width and base to support shoulder bikeways. Minor excavation and the addition of 3-4 inches of asphalt concrete is often enough to provide shoulder bikeways. It is best to widen shoulders in conjunction with pavement overlays for several reasons:

- The top lift of asphalt adds structural strength;
- The final lift provides a smooth, seamless joint;
- The cost is less, as greater quantities of materials will be purchased; and
- Traffic is disrupted only once for both operations.

When shoulders are provided as part of new road construction, the pavement structural design should be the same as that of the roadway. On shoulder widening projects, there may be some opportunities to reduce costs by building to a lesser thickness. 2-4 inches of asphalt and 2-3 inches of aggregate over existing roadway shoulders may be adequate if the following conditions are met:

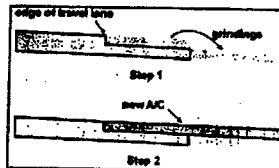
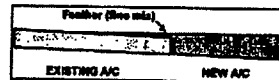
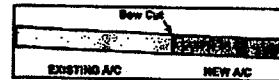
- There are no planned widening projects for the road section in the foreseeable future;
- The existing shoulder area and roadbed are stable and there is adequate drainage or adequate drainage can be provided without major excavation and grading work;
- The existing travel lanes have adequate width and are in stable condition;
- The horizontal curvature is not excessive, so that the wheels of large vehicles do not track onto the shoulder area (on roads that have generally good horizontal alignment, it may be feasible to build only the inside of curves to full depth); and
- The existing and projected ADT and heavy truck traffic is not considered excessive (e.g. under 10%).

The thickness of pavement and base material will depend upon local conditions, and engineering judgment should be used. If there are short sections where the travel lanes must be reconstructed or widened, these areas should be constructed to normal full-depth standards.

2.b. The Joint between the Shoulders and the Existing Roadway

The following techniques should be used to add paved shoulders to roadways where no overlay project is scheduled:

1. **Saw Cut:** A saw-cut 1ft inside the existing edge of pavement provides the opportunity to construct a good tight joint. This eliminates a ragged joint at the edge of the existing pavement.
2. **Feathering:** "Feathering" the new asphalt onto the existing pavement can work if a fine mix is used and the feather does not extend across the area traveled by bicyclists.
3. **Grinder:** Where there is already some shoulder width and thickness available, a pavement grinder can be used to make a clean cut at the edge of travel lane, grade the existing asphalt to the right depth and cast aside the grindings in one operation, with these advantages:

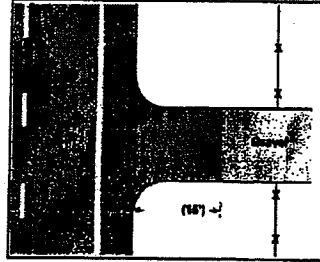


- Less of the existing pavement is wasted;
- The existing asphalt acts as a base;
- There will not be a full-depth joint between the travel lane and the shoulder; and
- The grindings can be recycled as base for the widened portion.

New asphalt can then be laid across the entire width of the shoulder bikeway with no seams.

2.c. Gravel Driveways and Approaches

Wherever a road is constructed, widened or overlaid, all gravel driveways and approaches should be paved back 15ft to prevent loose gravel from spilling onto the shoulders.

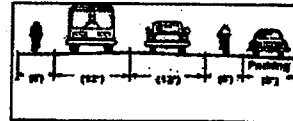


3. Bike Lanes

Bike lanes are generally only provided on urban arterial and major collector streets. Bike lanes may also be provided on rural roads near urbanized areas, where there is high potential bicycle use. Bike lanes are generally not recommended on rural roads or highways with posted speeds of 55 MPH. Shoulder bikeways, striped with a 4-inch fog line, are the appropriate facility for these roads. Bike lanes are one-way facilities that carry bicycle traffic in the same direction as adjacent motor-vehicle traffic; when used, bike lanes should always be provided on both sides of a two-way street. Bike lanes are created by using an 8-inch stripe and stencil.

3.a. Width Standards

The standard width of a bike lane is 6ft, as measured from the center of stripe to the curb or edge of pavement. This width enables cyclists to ride far enough from the curb to avoid debris and drainage grates, yet far enough from passing vehicles to avoid conflicts. By riding away from the curb, cyclists are more visible to motorists than when hugging the curb.



The minimum bike lane width is 4ft on roads with open shoulders and 5ft from the face of a curb, guardrail or parked cars. A clear riding zone of 4ft is desirable if there is a longitudinal joint between asphalt pavement and the gutter section. On roadways with flat grades, it may be preferable to integrate the bike lane and gutter to avoid a longitudinal joint in the bike lane. Bike lanes wider than 6ft may be desirable in areas of very high use, on high-speed facilities where wider shoulders are warranted, or where they are shared with pedestrians. Care must be taken so they are not mistaken for a motor vehicle lane or parking area, with adequate marking or signing. A bike lane must always be marked with pavement stencils and a 8-inch wide stripe (OAR 734-20-055). This width increases the visual separation of a motor vehicle lane and a bike lane. If parking is permitted, the bike lane must be placed between parking and the travel lane, and have a minimum width of 5ft.

C. MULTI-USE PATHS

Though originally conceived to provide a facility for bicyclists separated from motor-vehicle traffic, paths often see greater use by pedestrians, joggers and skaters. The planning and design of multi-use paths must therefore take into account the various skills, experience and

characteristics of these different users. Well-planned and designed multi-use paths can provide good pedestrian and bicycle mobility.

Multi-use paths in secluded areas should be designed with personal security in mind. Illumination and clear sight distances improve visibility. Location markers, mileage posts and directional signing help users know where they are. Frequent accesses improve response time by emergency vehicles.

Multi-use paths require special trips for inspection, sweeping and repairs. They must be built to a standard high enough that allows heavy maintenance equipment to use the path without deterioration.

1. On-street Facilities

As bicyclists gain experience and realize some of the advantages of riding on the road, many stop riding on paths placed adjacent to roadways. This can be confusing to motorists, who may expect bicyclists to use the path. The presence of a nearby path should not be used as a reason to not provide adequate shoulders, bike lanes or sidewalks on the roadway.

2. Paths Next To Roadways

Multi-use paths should not be placed next to roadways; half of the bicycle traffic will ride against the normal flow of motor vehicle traffic, which is contrary to the rules of the road

2.a. Guidelines

Separated paths along roadways should be evaluated using the following guidelines:

- Bicycle and pedestrian use is anticipated to be high;
- The adjacent roadway is a heavily-traveled, high-speed thoroughfare where on-road bikeways and sidewalks may be unsafe;
- The path will generally be separated from motor vehicle traffic, with few roadway or driveway crossings:
 - There are no reasonable alternatives for bikeways and sidewalks on nearby parallel streets;
 - There is a commitment to provide path continuity throughout the corridor;
 - The path can be terminated at each end onto streets with good bicycle and pedestrian facilities, or onto another safe, well-designed path;
 - There is adequate access to local cross-streets and other facilities along the route.
- Any needed grade-separation structures do not add substantial out-of-direction travel; and
- The total cost of providing the proposed path is proportionate to the need. This evaluation should consider the costs of:
 - 1. Grading, paving, drainage, fences, retaining walls, sound walls, signs and other necessary design features;
 - 2. Structures needed to eliminate at-grade crossings; and
 - 3. Additional maintenance, including the need for specialized maintenance equipment.

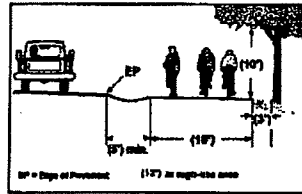
Notes: in many cases, the best choice is to improve the roadway system to accommodate cyclists and pedestrians, which may require connecting up local streets or improving nearby, parallel streets.

3. Standards

3.a. Width

10ft is the standard width for a two-way multi-use path; they should be 12ft wide in areas with high mixed-use. Faster-moving bicyclists require greater width than pedestrians; optimum width should be based on the relative use by these two modes. High use by skaters may also require greater width.

The minimum width is 8ft. However, 8ft wide multi-use paths are not recommended in most situations because they may become over-crowded. They should only be constructed as short connectors, or where long-term usage is expected to be low, and with proper horizontal and vertical alignment to assure good sight distances.



3.b. Lateral Clearance

A 3ft or greater (min. 2ft) "shy" or clear distance on both sides of a multi-use path is necessary for safe operation. This area should be graded to the same slope as the path to allow recovery by errant bicyclists.

3.c. Overhead Clearance

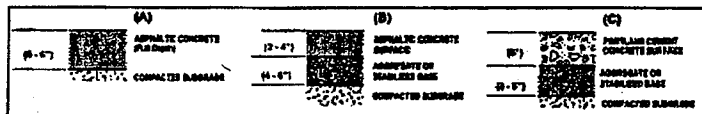
The standard clearance to overhead obstructions is 10ft, min. 8ft.

3.d. Separation from Roadway

Where a path is parallel and adjacent to a roadway, there should be a 5ft or greater width separating the path from the edge of roadway, or a physical barrier of sufficient height should be installed.

4. Typical Pavement Sections

The use of concrete surfacing for paths is best for long-term use. Concrete provides a smooth ride when placed with a slip-form paver. The surface must be cross-broomed. The crack-control joints should be saw-cut, not troweled. Concrete paths cost more to build than asphalt paths, but long-term maintenance costs are lower, since they do not become as brittle, cracked and rough with age, or deformed by roots and weeds as does asphalt. Multi-use paths should be designed with sufficient surfacing structural depth for the subgrade soil type to support maintenance and emergency vehicles. If the path must be constructed over a very poor subgrade (wet and/or poor material), treatment of the subgrade with lime, cement or geotextile fabric should be considered.



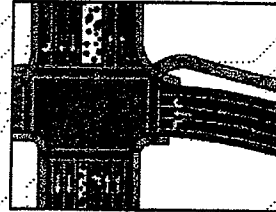
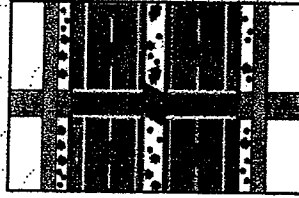
5. Grades & Cross-Slope

AASHTO recommends a maximum grade of 5% for bicycle use, with steeper grades allowable for up to 500ft, provided there is good horizontal alignment and sight distance. Extra width is also recommended. Engineering judgment and analysis of the controlling factors should be

used to determine what distance is acceptable for steep grades. If use by pedestrians is expected, ADA requirements must be met: the grade of separated pathways should not exceed 5%, to accommodate wheelchair users. Based on AASHTO recommendations and ADA requirements, 5% should be considered the maximum grade allowable for multi-use paths. The standard cross-slope grade is 2%, to meet ADA requirements and to provide drainage. Curves should be banked with the low side on the inside of the curve to help bicyclists maintain their balance.

6. At-grade Crossings of Thoroughfares

At-grade crossings introduce conflict points, and grade separation should be sought, as most path users expect continued separation from traffic. The greatest conflicts occur where paths cross freeway entrance and exit ramps. Motorists using these ramps are seeking opportunities to merge with fast moving traffic; they are not expecting bicyclists and pedestrians at these locations. When grade separation structures cannot be justified, signalization or other measures should be considered to reduce conflicts. Good sight distance must be provided so vehicle drivers can see approaching path users. One method is to provide a median island on multi-lane roadways as a refuge. Where a path must cross a roadway at an intersection, improvements to the alignment should be made to increase the visibility of approaching path users. One method is to curve the path slightly, so that it is not parallel to the adjacent roadway.



7. Structures

The width of multi-use path structures is the same as the approach paved path, plus a 2ft shy distance on both sides. For example, a 10ft wide path requires a 14ft wide structure. The standard overhead clearance of under-crossings is 10ft; an 8ft min. may be allowable with good horizontal and vertical clearance, so users approaching the structure can see through to the other end. Undercrossings should be visually open for the personal security of users. Illumination is needed in areas of poor visibility.

7.a. Under-crossings

Advantages: They provide an opportunity to reduce approach grades, as the required 10ft clearance is less than the clearance required for crossing over a roadway. If the roadway is elevated, an undercrossing can be constructed with little or no grade. They are often less expensive to build.

Disadvantages: They may present security problems, due to reduced visibility. An open, well-lighted structure may end up costing as much as an over-crossing. They may require drainage if the sag point is lower than the surrounding terrain.

7.b. Over-crossings

Advantages: They are more open and present fewer security problems.

Disadvantages: They require longer approaches to achieve the standard 17ft of clearance over most roadways. With an additional structural depth of 3ft, the total rise will be 20ft. At 5%, this

requires a 400-foot approach ramp at each end, for a total of 800ft. This can be lessened if the road is built in a cut section.

Note: 23-foot clearance is required over railroad tracks.

8. Railings, Fences & Barriers

Fences or railings along paths may be needed to prevent access to high-speed highways, or to provide protection along steep side slopes and waterways. A height of 4.5ft keeps a cyclist from falling over the railing or fence.

Openings in the railing must not exceed 6 inches in width. Where a cyclist's handlebar may come into contact with a fence or barrier, a smooth, wide rub-rail may be installed at a height of 3ft. Where concrete barriers are used, adding tube railing or chain link fencing may be necessary to achieve the required height. Fences should only be used where they are needed for safety reasons. They should be placed as far away from the path as possible. Duplication of fences should be avoided, such as fences on the right-of-way and fences to keep pedestrians off freeways. Care must be taken to avoid a "cattle chute" effect by placing a high chain-link fence on each side of a path.

9. Motor Vehicle Access

9.a. Geometric Design

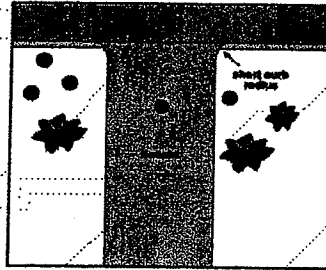
One method branches the path into two narrower one-way paths just before it reaches the roadway, making it difficult for a motor vehicle to gain access to the path:

9.b. Short Curb Radii

Short curb radii (5ft) make it difficult for motorists to enter a path from the roadway.

9.c. Bollards

Barrier posts ("bollards") may be used to limit vehicle traffic on paths. However, they are often hard to see and cyclists may not expect them. When used, they must be spaced wide enough (min. 5ft) for easy passage by cyclists and bicycle trailers as well as wheelchair users. A single bollard is preferred, as two may channelize bicyclists to the middle opening, creating conflicts. They should not be placed right at the intersection. They should be painted with bright, light colors for visibility.



10. Curb Cuts

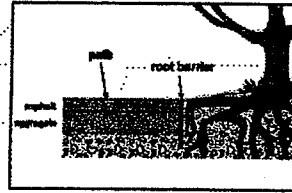
Curb cuts for bicycle access to multi-use paths should be built so they match the road grade without a lip. The width of the curb cut is the full width of the path when the approaching path is perpendicular to the curb and a minimum of 8ft wide when the approaching path is parallel and adjacent to the curb. Greater widths may be needed on downhill grades.

11. Drainage

Multi-use paths must be constructed with adequate drainage to avoid washouts and flooding, and to prevent silt from intruding onto the path.

12. Vegetation

All vegetation, including roots, must be removed in the preparation of the subgrade. Special care is needed to control new growth, such as the use of soil sterilant or lime treatment of the subgrade. Plants that can cause other problems should be controlled, such as plants with thorns that can puncture bicycle tires. Paths built in wooded areas present special problems. The roots of shrubs and trees can pierce through the surface and cause it to bubble up and break apart. Preventive methods include removal of vegetation, realignment of the path away from trees, and placement of root barriers along the edge of the path. An effective barrier is created with a 12-inch deep metal shield; greater depth is required for some trees such as cottonwoods.



13. Paths with Heavy Use

If a path must handle a high number of users, it should be wider than standard (10ft. or more). A separate soft-surface jogger or equestrian path may be constructed with bark mulch alongside the paved path.

