

**BOARD OF COUNTY COMMISSIONERS
COUNTY OF KITTITAS
STATE OF WASHINGTON**

ORDINANCE

NO. 94-18

**ADOPTING KITTITAS COUNTY ROAD STANDARDS AND
AMENDING CHAPTER 12 OF THE KITTITAS COUNTY CODE**

WHEREAS: The Kittitas County Code does not adequately provide standards for road construction, and

WHEREAS: The Board of Kittitas County Commissioners did hold public hearings to hear public testimony regarding adopting new Kittitas County Road Standards and replacing Chapters 12.10, 12.20 and 12.40 of the Kittitas County Code.

NOW, THEREFORE BE IT ORDAINED That the Board of County Commissioners after due deliberation and in the best interest of the public, does hereby approve amending the Kittitas County Code as follows:

Delete Chapter 12.10 in its entirety.

NEW CHAPTER 12.10

GENERAL CONSIDERATIONS

Sections:

- 12.10.010 Shortened Designation.
- 12.10.020 Administrative Rules.
- 12.10.030 Applicability.
- 12.10.040 Responsibility to Provide Roadway Improvements.
- 12.10.050 General References.
- 12.10.060 Primary Design and Construction Reference Documents.
- 12.10.070 Other Specifications.
- 12.10.080 Road Plans.
- 12.10.090 Variances.
- 12.10.100 Penalties and Financial Guarantees.
- 12.10.110 Definitions.
- 12.10.120 Severability.

12.10.010 Shortened Designation.

These Kittitas County Road Standards (K.C.C. Chapter 12.10 through Chapter 12.90) will be cited routinely in the text as "Standards" and on the drawings as "KCRS."

12.10.020 Administrative Rules.

The Kittitas County Public Works Director is authorized to adopt and promulgate any administrative rules necessary to carry out the purpose of these Standards. These rules will be on file in the Director's office and available to the public.

12.10.030 Applicability.

These Standards shall apply to all newly constructed public and private road and right-of-way facilities required by development approvals within Kittitas County, except developments exempted under K.C.C. 16.04.020. In the event of conflict with the current subdivision code, Kittitas County Code Chapters 16 and 17, these Standards shall control. These standards do not apply to state or federal roads. If roads are required to be built to public standards and are inspected and certified as such, the County will accept these roads onto the County system for continued maintenance.

The Standards may apply to modifications of roadway features of existing facilities which are within the scope of reconstruction or capital improvement projects when so required by Kittitas County or to the extent they are expressly referred to in project plans and specifications. The Standards are not intended to apply to "resurfacing, restoration and rehabilitation (3R)" projects as those terms are defined in the Local Agency Guidelines, WSDOT, as amended; however, the Director may at his discretion consider the Standards as optional goals for 3R projects.

The Standards shall apply to every new placement and every planned, non-emergency replacement of existing utility poles and other utility structures within Kittitas County right-of-way.

12.10.040 Responsibility to Provide Roadway Improvements.

- A. Any land development which will impact the service level, safety or operational efficiency of abutting or serving roadways or is required by other County Code or ordinance to improve such roadways shall improve those roadways in accordance with these Standards. The extent of the off-site improvements to roads serving a development shall be based on an assessment by the County of the impacts of the proposed land development. The assessment will be based on factors including, but not limited to, functional classification, primitive road designation, single access to development, safety and level of service and as described in administrative rules of the Public Works Department.
- B. Any land development abutting and impacting existing roads shall improve the frontage of those roads in accordance with these standards. The extent of improvements shall be based on the assessment by the County of the impacts of the proposed land development stated in Section A. above.. Urban residential short plats creating only one additional lot to a tax lot with an existing dwelling unit are exempt from providing urban type street improvements but are subject to shoulder improvements providing these improvements are consistent with surrounding roads and do not present a safety problem.
- C. Any land development that contains internal roads shall construct or improve those roadways to these Standards.
- D. It is the County's practice that it will not allow subdivisions to be recorded unless there exists a recorded continuous public access to the subdivision except as provided for in Section 12.20.060. Nor will the County accept a road for maintenance until the road is directly connected to a County or other publicly maintained road.
- E. All road improvement and development projects shall include pedestrian access as a part of the design unless otherwise approved by the County.
- F. All road improvements planned or specified in any adopted Growth Management plan of the County shall be planned and constructed in accordance with these Standards.

12.10.050 General References.

The Standards implement and are intended to be consistent with:

- A. Kittitas County Code, as amended
- B. Kittitas County Comprehensive Plan, current edition.
- C. Kittitas County Transportation Plan, when adopted.
- D. Adopted Community Plans.
- E. Kittitas County Non-Motorized Transportation Plan, when adopted.
- F. Kittitas County Capital Improvement Program, as amended.
- G. Kittitas County Growth Management Program

12.10.060 Primary Design and Construction Reference Documents.

Except where these Standards provide otherwise, design detail, construction materials and workmanship shall be in accordance with the following publications produced separately by the Washington State Department of Transportation (WSDOT), or jointly by WSDOT and Washington State Chapter of American Public Works Association (APWA).

- A. WSDOT/APWA Standard Specifications for Road, Bridge and Municipal Construction, current edition as amended. These will be referred to as the "WSDOT Standard Specifications."
- B. The WSDOT/APWA Standard Plans for Road and Bridge Construction, to be referred to as the "WSDOT Standard Plans", Current edition as amended.
- C. WSDOT Design Manual, current edition as amended.
- D. City and County Design Standards for Construction of Urban and Rural Arterial and Collector Roads, adopted per RCW 35.78.039 and RCW 43.32.020, May 24, 1989, current edition as amended.

12.10.070 Other Specifications.

Other specifications include the following, which shall be applicable when pertinent, when specifically cited in the Standards, or when required by State or Federal funding authority:

- A. Local Agency Guidelines, WSDOT, as amended.
- B. Guidelines for Urban Arterial Program, WSDOT, as amended.
- C. Design criteria of federal agencies including the Federal Housing Administration, Department of Housing and Urban Development; and the Federal Highway Administration, Department of Transportation.

- D. A Policy on Geometric Design of Highways and Streets, American Association of State Highway and Transportation Officials (AASHTO), current edition.
- E. Standard Specifications for Highway Bridges, adopted by the American Association of State Highway and Transportation Officials (AASHTO), current edition.
- F. U. S. Department of Transportation Manual on Uniform Traffic Control Devices, as amended and approved by Washington State Department of Transportation, abbreviated as the "MUTCD" current edition.
- G. Guide for the Development of Bicycle Facilities, adopted by AASHTO, current edition.

12.10.080 Road Plans.

Plans for roads and road drainage shall be prepared and submitted consistent with these Standards and in accordance with administrative rules published by the Public Works Director. These requirements apply to all public roads and private roads required by development approvals whether constructed by private party or public agency. Subject to review, the County may waive plan requirements, wholly or in part, based on the following criteria:

- A. For improvement to existing roads if each of the following requirements are met:
 1. No more than 5,000 square feet will be cleared and graded within the right-of-way or easement, and
 2. The existing road grade does not exceed 12%, and
 3. The existing road has a uniform cross section, and
 4. The work will not intercept a stream or wetland or otherwise impact natural surface drainage as set in County Code regarding Sensitive Areas and Surface Water; and
 5. Plans do not include a retention/detention facility within the right-of-way; and
 6. The work is required of a short plat development, or right-of-way use permit and involves less than 100 lineal feet of existing public road improvement; and
 7. Kittitas County standard drawings, submitted with required permits, are sufficient to describe the improvement to be constructed.

12.10.090 Variances.

Variances from these Standards may be granted by the Public Works Director upon evidence that such variances are in the public interest, and that requirements for safety, function, fire protection, appearance and maintainability based upon sound engineering judgment are fully met. Detailed procedures for requesting variances are contained in an administrative rule available from the Public Works Director. Variances must be approved prior to construction. Whenever the need for a variance can be identified in advance, the variance should be proposed at preliminary plat stage and included for consideration during plan review and public hearing. Any variances from these Standards which do not meet the Uniform Fire Code will require concurrence by the Kittitas County Fire Marshal. Any person(s) aggrieved by any decision of the Public Works Director may request a review of that decision by the Board of County Commissioners in accordance with the administrative rules and procedures.

12.10.100 Penalties and Financial Guarantees.

Failure to comply with these Standards may result in denial of plan or development permit approval, revocation of prior approvals, legal action for forfeiture of performance guarantee, code enforcement and/or other penalties as provided by law and Section 16.40.010 of the Kittitas County Code.

- A. **CONSTRUCTION PERFORMANCE GUARANTEES:** In lieu of the completion of any required public improvements prior to approval of a final plat, short plat or the issuance of building permits, the Director may accept a performance guarantee in an amount and with satisfactory surety and conditions providing for and securing to Kittitas County the actual construction and installation of such improvements within a period specified by the Director. The Director will enforce the guarantee through appropriate legal and equitable remedies. If a surety bond is provided, the amount of the bond shall equal one-hundred and fifteen percent (115%) of the estimated construction cost. When a letter of escrow or cash is used, the amount covered shall be for one hundred percent (100%) of the estimated construction cost. The minimum performance guarantee shall be \$1,000.00. Cash guarantees will be placed in an interest bearing account credited to the developer.

The amount of the financial guarantee may be reduced during construction, as determined by the Public Works Director. At no time will the financial guarantee amount be reduced to less than 30% of the original amount or \$1,000.00, which ever is greater.

- B. **MAINTENANCE PERFORMANCE GUARANTEES:** The successful performance of the public improvements shall be guaranteed for a period of not less than two years from the date of acceptance or Final Construction Approval (which ever is last). The amount of the guarantee shall be ten percent (10%) of the construction cost and form of the maintenance financial guarantee shall be approved by the Public Works Director. The minimum maintenance guarantee shall be \$1,000.00. Maintenance guarantees will not be required when the required performance guarantee is \$1,000.00 or less.

12.10.110 Definitions.

“Alley”: A thoroughfare or right-of-way, usually narrower than a street, which provides access to the rear boundary of two or more residential properties and is not intended for general traffic circulation; privately maintained.

“Auxiliary Lane”: The portion of the roadway adjoining the traveled way for parking, turning or other purposes supplementary to through-traffic movement.

“Bulb”: Round area for vehicle turnaround typically located at the end of a cul-de-sac street.

“Cul-de-sac”: Short street having one end open to traffic and the other temporarily or permanently terminated by a vehicle turnaround.

“Design Speed”: The Speed approved by the Public Works Director for the design of the physical features of a road equal to 10 miles per hour above the current or expected posted speed limit for arterials or as established by Sections 12.20.030 and 12.20.040 for residential and commercial access streets.

“Developer”: Any person, firm, partnership, association, joint venture or corporation or any other entity who undertakes to improve residential, commercial or industrial property or to subdivide for the purpose of resale and profit.

“Director” or “Director of Public Works”: The director of the Kittitas County Department of Public Works and County Engineer.

“Driveway”: A single, privately maintained access to residential, commercial or industrial properties.

“Engineer”: The Director of Public Works is the Kittitas County Engineer, having authorities specified in R.C.W. 36.75.050 and 36.80, or his/her authorized representative.

“Flag Lot” or “Pipe Stem Lot”: A strip of land having a width narrower than that of the lot or parcel to be served and is designed for providing access to that lot or parcel.

“Half-Street”: Street constructed along edge of development, utilizing half the regular width of right-of-way and permitted as an interim facility pending construction of the other half of the street by the adjacent owner.

“Hazard”: An object either natural or manmade, which, if impacted, would apply unacceptable impact forces on the vehicle occupants or place the occupants in a hazardous position.

“Joint Use Driveway”: A jointly owned and maintained driveway serving two residential properties.

“Landing”: A road or driveway approach area to any public or private road.

“Loop”: Road of limited length forming a loop, having no other intersecting road, and functioning mainly as direct access to abutting properties. A loop may be designated for one-way or two-way traffic.

“Lot”: For the purpose of these standards a lot shall mean one single-family residential lot. Where traffic impacts are determined by lots, the impact will be an equivalent to the impact created by a single-family residential lot.

“Off-Street Parking Space”: An area accessible to vehicles, exclusive of roadways, sidewalks and other pedestrian facilities, that is improved, maintained and used for the sole purpose of parking a motor vehicle.

“Off-System Road”: A road or right-of-way dedicated or used by the public but not maintained by the County.

“On-System Road”: A road or right-of-way dedicated or used by the public and maintained by the County.

“Pavement Width”: Paved area on shoulder-type roads or paved surface between curbs, thickened edges or gutter flow lines on all other roads.

“Private Street”: A privately owned and maintained access provided for by a tract, easement or other legal means, typically serving three or more potential dwelling units.

“Public Street”: Publicly owned facility providing access, including the roadway and all other improvements, inside the right-of-way.

“Right-of-way”: Land, property or property interest (e.g., an easement), usually in a strip, acquired for or devoted to transportation purposes.

“Road”: A facility providing public or private access including the roadway and all other improvements inside the right-of-way.

“Road” and “Street” will be considered interchangeable terms for the purpose of these Standards.

“Roadway”: Pavement width plus any non-paved shoulders.

“Resource Lands”: Areas so designated in Kittitas the County Comprehensive Plan and as implemented through community plans and area zoning; Characterized by long-term agriculture, forestry and mining.

“Rural Areas”: Areas so designated in the Kittitas County Comprehensive Plan, and as implemented through community plans and area zoning; characterized by long term low density of development

“Transitional Areas”: Areas so designated in the Kittitas County Comprehensive Plan, characterized by low density but tagged for redesignation through community planning as either a rural or urban area.

“Traveled Way”: The part of the road made for vehicle travel excluding shoulders and auxiliary lanes.

“Urban Areas”: Areas so designated in the Kittitas County Comprehensive Plan, and as implemented through community plans and area zoning; characterized by denser commercial, industrial and residential development.

“Utility”: A company providing public service such as gas, electric power, irrigation, telephone, telegraph, water, sewer or cable television, whether or not such company is privately owned or owned by a governmental entity.

12.10.120 Severability.

If any part of these Kittitas County Road Standards as established by ordinance shall be found invalid, all other parts shall remain in effect.

Re-number Chapter 12.20 to Chapter 12.80

Sections:

- I. Provisions Generally
 - 12.80.010 Ownership responsibility.
 - 12.80.020 Acquiring permits.
 - 12.80.030 Cost of restoration and repair.
 - 12.80.040 Adoption.
- II. Accommodation of Utilities on County Road Right-of-Way
 - 12.80.100 Purpose.
 - 12.80.110 Application.
 - 12.80.120 Definition of terms.
 - 12.80.130 General conditions and requirements - Location.
 - 12.80.140 General conditions and requirements - Design - General.
 - 12.80.150 General conditions and requirements - Standards and codes.
 - 12.80.160 General conditions and requirements - Adjustment and relocation of existing facilities.
 - 12.80.170 Permits - General requirements.
 - 12.80.180 Permits - Specific requirements.
 - 12.80.190 Underground utilities - Location and alignment.
 - 12.80.200 Underground utilities - Cover.
 - 12.80.210 Underground utilities - Encasement.
 - 12.80.220 Underground utilities - Uncased carriers.
 - 12.80.230 Underground utilities - Appurtenances.
 - 12.80.240 Underground utilities - Installation.
 - 12.80.250 Underground utilities - One call system.
 - 12.80.260 Overhead utilities - Power and communication lines.
 - 12.80.270 Aesthetic/scenic considerations.
 - 12.80.280 Installations on roadway bridges and structures.
 - 12.80.290 Preservation, restoration and cleanup.
 - 12.80.300 Traffic control and public safety.
 - 12.80.310 Emergency repairs.

NEW CHAPTER 12.20

ROADWAY CLASSIFICATION AND DESIGN CRITERIA

Sections:

- 12.20.010 Road Classifications.
- 12.20.020 Classification Definitions.
- 12.20.030 Roadways by Classification.
- 12.20.040 Design Criteria For Arterial And Collector Roads.
- 12.20.050 Design Criteria For Rural Local Access And Private Streets And Roads.
- 12.20.060 Design Criteria For Urban Local Access Roads.
- 12.20.070 Horizontal Curvature and Sight Distance Design Values.
- 12.20.080 Private Roads.
- 12.20.090 Half Streets.
- 12.20.100 Cul-de-sacs.

- 12.20.110 Alleys.
- 12.20.120 Intersections and Low Speed Curves.
- 12.20.130 Maximum Grade and Grade Transitions.
- 12.20.140 Stopping Sight Distance (SSD).
- 12.20.150 Entering Sight Distance (ESD).

12.20.010 Road Classifications.

- A. County roads are classified functionally as indicated in the following Sections 12.20.020 and 12.20.030. Function is the controlling element for classification and shall govern right-of-way, road width and road geometrics. Other given elements such as access, arterial spacing, and average daily traffic count, (ADT) are typical.
- B. Within each functional classification, roads are further characterized as urban or rural. An urban or "curb" type road typically requires curb and gutter with inlets and underground pipe drainage. A rural or "shoulder" type road typically requires a shoulder and open ditch drainage.
 - 1. Land developments in urban areas, as defined by the current Kittitas County Comprehensive Plan Map, shall provide road improvements in accordance with joint development standards developed in urban growth areas. Exceptions to this may be applied by the County on residential access streets which are located in long-term, low density neighborhoods as designated by adopted community plans and where a pattern of "shoulder" type roads is firmly established
 - 2. Land developments in rural areas as defined by the current Kittitas County Comprehensive Plan Map shall provide "shoulder" type road improvements unless otherwise approved by the County. Certain exceptions to the shoulder-type standard may apply within clustered housing developments and rural activity centers (urban growth nodes such as Easton, Ronald, Thorp and Vantage) where urban densities and uses may make a curb-type road appropriate. Within these developments, the specifically authorized land uses, adopted community plans or business district design guidelines may provide for either a curb or shoulder type road section.
 - 3. Land developments in transitional areas as defined by the current Kittitas County Comprehensive Plan Map may provide "curb" type road improvements unless otherwise specified by the County.
 - 4. Guidelines applicable to Rural Areas shall apply also to Resource Lands.

12.20.020 Classification Definitions.

- A. Rural Major Collector (Class 07).
 - 1. Serves county seat that is not on an arterial route, larger towns not directly served by the higher systems, and other traffic generators of equivalent intracounty importance, such as consolidated schools, shipping points, county parks, and important mining and agricultural areas;
 - 2. Link these places with nearby larger towns or cities, or with routes of higher classification; and
 - 3. Serve the more important intracounty travel corridors.
- B. Rural Minor Collector (Class 08).
 - 1. Should be spaced at intervals consistent with population density to accumulate traffic from local roads and bring all developed areas within reasonable distances of collector roads;
 - 2. Should provide service to the remaining smaller communities; and
 - 3. Should link the locally important traffic generators with rural users.

C. Rural Local Access (Class 09).

Road which provides direct access to adjoining properties within a neighborhood.

These constitute all rural mileage not classified as principal arterial, minor arterial, major collector, or minor collector mileage, excepting therefrom rural local roads that are further classified as primitive roads.

D. Rural Primitive Roads (Class 00).

- 1. Roads which are not classified as part of the county primary system,
- 2. Roads which have a gravel or earth driving surface, and
- 3. Roads which have an average annual daily traffic volume of one hundred or fewer vehicles.

County roads listed in Section 12.20.030 as primitive roads will be marked with signs at all places where the primitive road section begins or connects with a highway or other than a primitive road. No county design or signing or maintenance standards or requirements, other than the placement of primitive road signs, will apply.

Any developments which significantly utilize primitive roads must improve the road from the beginning of the primitive road to and through the development in accordance with K.C.C. 16.16.015.

E. Urban Principal Arterial (Class 14).

Route serving the major centers of activity of urbanized areas, the highest traffic volume corridors, and the longest trip desires and carries a high proportion of the total urban area travel on a minimum of mileage.

F. Urban Minor Arterial (Class 16).

Route interconnects with and augments the urban principal arterial system. It accommodates trips of moderate length at a somewhat lower level of travel mobility than principal arterials do. More emphasis is placed on land access. It provides intracommunity continuity but ideally does not penetrate identifiable neighborhoods.

G. Urban Collector (Class 17).

Route providing both land access and traffic circulation within residential neighborhoods and commercial and industrial areas. It may penetrate residential neighborhoods, distributing trips from the arterials through the area to their ultimate destination.

H. Urban Local Access (Class 19).

Route providing primarily direct access to abutting lands and connects to the higher level systems. It offers the lowest level of mobility. Service to through-traffic movement usually is deliberately discouraged.

12.20.030 Roadways by Classification.

A. Rural Major Collector (Class 07).

The Rural Major Collector Road System (Class 07) shall be comprised of the following roads:

Road Name	From	Direction Towards	To
Bender Road	Reecer Creek Road	east	Airport Road
Brick Mill Road	Wilson Creek Road	east	No. 81 Road
Brondt Road	Manastash Road	north	Brown Road
Brown Road	Umptanum Road	west and north	Hanson Road
Bullfrog Road	I-90 (exit 80)	north and east	SR 903
Canyon Road	Ellensburg C.L.	south	Thrall Road
Cleman Road	Kittitas C.L.	south	Thrall Road
Cove Road	Manastash Road	north	South Thorp Highway
Dry Creek Road	Reecer Creek Road	west	SR 97
Dry Creek Road Connection	Cascade Way	west	Faust Road
Faust Road	SR 97	north	Dry Creek Road
First Street, West	Cle Elum C.L.	west	I-90
Game Farm Road	Cascade Canal	east	Wilson Creek Road
Hanson Road	South Thorp Highway	west	Cove Road
Kittitas Highway	Ellensburg C.L.	east	Kittitas C.L.
Look Road	Sanders Road	north	Bowers Road extension
Manastash Road	Umptanum Road	west	Cove Road
No. 6 Road	Thrall Road	north	Vantage Highway
No. 81 Road	Clerf Road	north	Brick Mill Road
Reecer Creek Road	Dry Creek Road	north	Bowers Road extension
South Cle Elum Road	Cle Elum C.L.	south	South Cle Elum C.L.
Thorp Highway, North/South	I-90 (Exit 106 West E-Burg)	west and north	SR 10
Thrall Road	No. 6 Road	east	Upper Badger Pocket Road
Tjossem Road	Canyon Road	east	Cleman Road
Umptanum Road	I-90 overcrossing	west and south	Manastash Road
Vantage Highway	Fields Road	east	No. 81 Road
Wilson Creek Road	Cascade Canal	north	Brick Mill Road

B. Rural Minor Collector (Class 08).

The Rural Minor Collector Road System (Class 08) shall be comprised of the following roads:

Road Name	From	Direction Towards	To
Airport Road (Cle Elum)	SR 970	east and south	Masterson Road
Alford Road	Look Road	east	Wilson Creek Road
Badger Pocket Road	Clemans Road	east and south	Carroll Road
Boylston Road	Prater Road	east	Stevens Road
Brick Mill Road	Venture Road	west	No. 81 Road

Brick Mill Road	Look Road	east	Wilson Creek Road
Cabin Creek Road	I-90 ramps	west	end of road
Carroll Road	Badger Pocket Road	east	Prater Road
Charlton Road	Wilson Creek Road	east	Naneum Road
Denmark Road	Thrall Road	south	Fourth Parallel Road
Emerson Road	Sorenson Road	south	Thrall Road
Fairview Road	Vantage Hwy	north	Brick Mill Road
Ferguson Road, South	Tjossem Road	south	Sorenson Road
Fourth Parallel Road	Denmark Road	east	Ross Road
Fox Road	Vantage Highway	north	Lyons Road
Golf Course Road	Westside Road	north	Nelson Siding Road
Hamilton Road	Sorenson Road	south	Upper Badger Pocket Road
Hungry Junction Road	SR 97	east	Look Road
Huntzinger Road	I-90 (Exit 136 at Vantage)	south	end of road
Kachess Lake Road	I-90 ramps	north	end of road
Killmore Road	Robinson Canyon Road	north	South Thorp Highway
Liberty Road	SR 97	east	end of road
Look Road	Bowers Road extension	north	Alford Road
Lower Green Canyon Road	Smithson Road	north	Reecer Creek Road
Lower Peoh Point Road	South Cle Elum C.L.	east	Watson Cut-Off Road
Lyons Road	Wilson Creek Road	east	Fox Road
Manastash Road	Cove Road	west	end of road
Masterson Road	Airport Road (Cle Elum)	east	Red Bridge Road
Middle Fork Teanaway Road	Teanaway Road	west and north	end of road
Mohar Road	Upper Peoh Point Road	west	Westside Road
Naneum Road	Vantage Highway	north	end of road
Nelson Siding Road	Golf Course Road	west	I-90 (Exit 74)
North Fork Teanaway Road	Middle Fork Teanaway Road	north	end of road
Parke Creek Road	Kittitas C.L.	east and north	Vantage Highway
Prater Road	Parke Creek Road	south	Sorenson Road
Reecer Creek Road	Bowers Road extension	north and west	end of road
Robinson Canyon Road	South Thorp Highway	west	Killmore Road
Salmon La Sac Road	End of SR 903	north	end of road (Salmon La Sac Campground)
Smithson Road	SR 97	east	Reecer Creek Road
Stevens Road	Boylston Road	north and west	Parke Creek Road
Taneum Road, East/West	North Thorp Highway	west	end of road
Teanaway Road	SR 970	north and west	North Fork Teanaway Road
Thorp Cemetery Road	South Thorp Highway	west	West Taneum Road
Thorp Prairie Road	East Taneum Road	west and north	I-90 overpass at Indian John
Thrall Road	Upper Badger Pocket Road	east	Hamilton Road
Umptanum Road	Manastash Road	south and west	Yakima County Line
Upper Badger Pocket Road	Thrall Road	south and east	Silica Road
Upper Peoh Point Road	I-90 overpass at Indian John	west	Lower Peoh Point Road
Vantage Highway	No. 81 Road	east	I-90 (Exit 136 at Vantage)
Venture Road	Lyons Road	north	Brick Mill Road
Watson Cut-Off Road	Upper Peoh Point Road	north	Lower Peoh Point Road
West Fork Teanaway Road	Middle Fork Teanaway Road	west	end of road
Westside Road	South Cle Elum C.L.	south and west	Golf Course Road
Wilson Creek Road	Brick Mill Road	north	Charlton Road
Zrebiac Road	Westside Road	south and west	end of road

C. Rural Local Access (Class 09).

The Rural Local Access Road System (Class 09) is comprised of all rural county road system mileage not classified as principal arterial, minor arterial, major collector, minor collector, or primitive road mileage.

D. Primitive Road System (Class 00).

The Rural Primitive Road System (Class 00) shall be comprised of the following roads:

Road Name	From	Direction Towards	To
Bohannon Road, South	Upper Badger Pocket Road	south	end of road
Borland Road	Upper Badger Pocket Road	south	end of road
Boylston Road	Stevens Road	east	end of road
Camp Illahee Road	West Fork Teanaway Road	south	end of road
Colockum Road	Gage Road	north	Chelan County Line
Doris Road	Huntzinger Road	west	end of road
Durr Road	Umptanum Road	south	end of road
Emerick Road	Hidden Valley Road	south	end of road

Fowler Creek Road	Westside Road	west and south	end of road
Godawa Lane	Lower Peoh Point Road	south and west	end of road
Graham Road	Mohar Road	south	end of road
Hart Road	Taylor Road	east	end of road
Hartman Road	Swauk Prairie Road	north	end of road
Hayward Road	Bettas Road	south	Hwy 10
Hidden Valley Road	SR 970	south and east	end of road
Koffman Road	Parke Creek Road	north	end of road
Lambert Road	Taylor Road	north and east	end of road
Micheletto Road	Swauk Prairie Road	east and north	end of road
Nelson Dairy Road	Roslyn C.L.	west	Fanhouse Road
Pasco Road	Fowler Creek Road	east	end of road
Passmore Road	SR 97	west	end of road
Perry Road	Orchard Road	south	end of road
Smithson Road	Robbins Road	east and north	end of road
Strande Road	Manastash Road	south	end of road
Taylor Road	Lambert Road	south	Hwy 10
Taylor Road Connection	Taylor Road	south	Hwy 10
Thorp Depot Road	Goodwin Road	south	end of road
Upper Green Canyon Road	Reecer Creek Road	west and north	end of road
Wade Road	Gladmar Road	north	end of road
White Road	Airport Road (Cle Elum)	north	end of road
Wilson Creek Road	Charlton Road	north	end of road

E. Urban Principal Arterial (Class 14).

The Urban Principal Arterial Street System (Class 14) shall be comprised of the following streets:

Road Name	From	Direction Towards	To
Cascade Way	Reecer Creek Bridge	north	Ellensburg C.L.
Vantage Highway	Ellensburg C.L.	east	Pfenning Road

F. Urban Minor Arterial (Class 16).

The Urban Minor Arterial Street System (Class 16) shall be comprised of the following streets:

Road Name	From	Direction Towards	To
Airport Road	Ellensburg C.L.	north	Bowers Road
Anderson Road	Umptanum Road	north	Ellensburg C.L.
Dry Creek Road	Ellensburg C.L.	west	Reecer Creek Road
Game Farm Road	Brick Road	east	Cascade Canal
Pfenning Road	Game Farm Road	south	Capitol Avenue
Reecer Creek Road (proposed)	Cascade Way	north	Dry Creek Road
Umptanum Road	South Main Street	west	I-90 underpass
Vantage Highway	Pfenning Road	east	Fields Road
Willow Street	Mountain View Avenue	north	Ellensburg C.L.
Wilson Creek Road	Vantage Highway	north	Cascade Canal

G. Urban Collector (Class 17).

The Urban Collector Street System (Class 17) shall be comprised of the following streets:

Road Name	From	Direction Towards	To
Berry Road	Ellensburg C.L.	east and south	Tjossem Road
Bowers Road	Airport Road	east	end of road
Bowers Road (proposed)	Reecer Creek Road	east	Airport Road
Brick Road	Ellensburg C.L.	north	Sanders Road
Bull Road	I-90 underpass	north	Kittitas Highway
Helena Street	Ellensburg C.L.	west	end of road
Helena Street (proposed)	end of road	west	Reecer Creek Road
Idaho Street	Water Street	east	end of road
Sanders Road	Airport Road	east	Brick Road
Umptanum Road	Ellensburg C. L.	west	I-90 underpass
Water Street	Ellensburg C.L.	north	Ellensburg C.L.
Water Street	Ellensburg C. L.	north	Idaho Street

H. Urban Local Access (Class 19).

The Urban Local Access Street System (Class 19) shall be comprised of all urban area county road system mileage not classified as principal arterial, minor arterial, or collector street.

CLASSIFICATION		ARTERIALS		COLLECTORS		
		URBAN PRINCIPAL 14	URBAN MINOR 16	URBAN 17	RURAL MAJOR 07	RURAL MINOR 08
A.	Maximum Spacing (miles)	2 - 5	Under 2	Under 2	Under 2	Under 2
B.	Design Volume	Over 2,000	Over 2,000	Over 2,000	Over 2,000	Under 2,000
C.	Design Speed ⁽²⁾					
	Flat	60	55	50	50	50
	Rolling	50	45	40	50	40
	Mountainous	40	35	35	40	30
D.	Maximum Superelevation	6%	6%	6%	6%	6%
E.	Minimum Centerline Radius (ft.)					
	Flat	1145	955	575	955	575
	Rolling	715	560	440	560	440
	Mountainous	410	410	330	410	300
F.	Maximum Grade (%) ⁽³⁾					
	Flat	6	6	7	6	6
	Rolling	7	8	9	8	8
	Mountainous	9	10	10	10	10
G.	Minimum Travelled Way (ft.) ⁽⁴⁾					
	2 Lane	44	44	36	24	22
	4 Lane	44	44	44	48	--
H.	Minimum Pavement Width (ft.) ⁽⁴⁾					
	2 Lane	44	44	36	40	34
	4 Lane	44	44	44	64	--
I.	Minimum Right-of-Way Width (ft.)					
	2 Lane	100	80	60	60	60
	4 Lane	100	80	70	80	--
J.	Minimum Full Access Intersection Spacing (ft.)	600	500	275	500	275

NOTES:

1. Within the above parameters, geometric design requirements shall be determined for specific arterial roads consistent with the WSDOT Design Manual.
2. Design Speed is a basis for determining geometric elements and does not imply posted or legally permissible speed. Curves shall be designed within the parameters of C, D and E above. (See Section 12.20.070)
3. Maximum grade may be exceeded for short distances. (See Section 12.20.130)
4. Criteria for state and federal funding may require greater width. For guardrail installations, shoulder shall be two feet wider.

CLASSIFICATION	LOCAL ACCESS - RURAL					PRIVATE RURAL
	NEIGHBORHOOD	RESIDENTIAL	COMMERCIAL/ INDUSTRIAL	LOOP	CUL-DE-SAC	
	09	09	09	09	09	
A. Serving Potential Number of Single-Family Units ⁽²⁾	300	100	--	50	25	8
B. Design Speed ⁽³⁾	35	30	35	Note 6	Note 6	Note 6
C. Maximum Superelevation	6%	6%	6%	Note 6	Note 6	Note 6
D. Minimum Centerline Radius (ft.)	380	273	273	Note 6	Note 6	Note 6
E. Maximum Grade (%) ⁽⁴⁾	11	12	12	15	15	15
F. Minimum Travelled Way (ft.) ⁽⁵⁾	22	22	24	22	22	22
G. Minimum Pavement Width (ft.) ⁽⁵⁾	34	28	40	28	24	22
H. Minimum Right-of-Way Width (ft.)	60	60	60	60	50	40
I. Minimum Full Access Intersection Spacing (ft.)	275	200	275	--	--	--

NOTES:

1. Within the above parameters, geometric design requirements shall be determined for specific roads consistent with the WSDOT Design Manual.
2. For non-single-family residential development use equivalent traffic generation.
3. Design Speed is a basis for determining geometric elements and does not imply posted or legally permissible speed. Curves shall be designed within the parameters of C, D and E above. (See Section 12.20.070)
4. Maximum grade may be exceeded for short distances. (See Section 12.20.130)
5. Criteria for state and federal funding may require greater width. For guardrail installations, shoulder shall be two feet wider.
6. See Section 12.20.120 for Low Speed Curves.

CLASSIFICATION	LOCAL ACCESS - URBAN				
	NEIGHBORHOOD	RESIDENTIAL	COMMERCIAL/ INDUSTRIAL	LOOP	CUL-DE-SAC
	19	19	19	19	19
A. Serving Potential Number of Single-Family Units ⁽²⁾	300	100	--	50	25
B. Design Speed ⁽³⁾	35	30	35	Note 6	Note 6
C. Maximum Superelevation	6%	6%	6%	Note 6	Note 6
D. Minimum Centerline Radius (ft.)	380	273	273	Note 6	Note 6
E. Maximum Grade (%) ⁽⁴⁾	12	15	12	15	15
F. Minimum Travelled Way (ft.) ⁽⁵⁾	22	20	22	24	22
G. Minimum Pavement Width (ft.) ^{(5) (7)}	36	28	36	24	22
H. Minimum Right-of-Way Width (ft.)	60	60	60	50	50
I. Minimum Full Access Intersection Spacing (ft.)	275	125	275	--	--

NOTES:

1. Within the above parameters, geometric design requirements shall be determined for specific roads consistent with the WSDOT Design Manual.
2. For non-single-family residential development use equivalent traffic generation.
3. Design Speed is a basis for determining geometric elements and does not imply posted or legally permissible speed. Curves shall be designed within the parameters of C, D and E above. (See Section 12.20.070)
4. Maximum grade may be exceeded for short distances. (See Section 12.20.130)
5. Criteria for state and federal funding may require greater width. For guardrail installations, shoulder shall be two feet wider.
6. See Section 12.20.120 for Low Speed Curves.
7. When paved width is less than 28 feet, two additional (four total) off-street parking spaces shall be provided for each single-family unit served.

12.20.070 **Horizontal Curvature and Sight Distance Design values.**

- A. The design values shown in Tables 2.1 and 2.2 are minimum values necessary to meet the requirements of Sections 12.20.040, 12.20.050 and 12.20.060 for a selected design speed and roadway classification. Eight percent maximum superelevation may be used, upon approval of the Engineer, in design of improvements to existing arterials as necessary to meet terrain and right-of-way conditions. Superelevation run-off lengths on arterials, rural residential and commercial access streets shall be calculated in accordance with the WSDOT Design Manual.
- B. Superelevation is not required in the design of horizontal curves on urban residential access streets; however, horizontal curves must be designed based on design speed and selected cross section as indicated in Table 2.2. Table 2.2 is based on AASHTO "Low Speed Urban Streets" design methodology, Table III-16(1990). Superelevation may be used on urban residential streets as necessary to meet terrain and right-of-way conditions.

Table 2.1
Arterial Roads, Rural Residential and Commercial Access Streets Design Values

Design Speed (mph)	30	35	40	45	50	55	60
Horizontal Curvature for 6% Superelevation, Radius (ft.)	273	380	509	656	849	1,061	1,348
Horizontal Curvature for 8% Superelevation, Radius (ft.) (Requires approval of County Engineer)	250	350	465	600	760	960	1,200
Stopping Sight Distance (SSD) (ft.)	200	250	325	400	475	550	650
Entering Sight Distance (ESD) (ft.)	430	490	555	620	685	750	810
Passing Sight Distance (PSD) (ft.) for 2-lane road	1,100	1,300	1,500	1,650	1,800	1,950	2,100

Table 2.2
Urban Residential Design Values

Design Speed (mph)	25	30	35
Horizontal Curvature for 6% Superelevation, Radius (ft.)	135	215	320
Horizontal Curvature for 4% Superelevation, Radius (ft.)	145	230	345
Horizontal Curvature for 2% Superelevation, Radius (ft.)	155	250	375
Horizontal Curvature for Normal Crown Section, Radius (ft.)	180	300	460
Stopping Sight Distance - SSD (ft.)	150	200	250
Entering Sight Distance - ESD (ft.)	365	430	490
Minimum Run-Off Length (ft.)	80	90	100

12.20.080 **Private Roads.**

- A. While community road requirements are usually best served by public roads, owned and maintained by the County, private roads may be appropriate for some rural Local Access roads.
- B. Private roads may be approved only when they are:
 - 1. Permanently established by right-of-way or easement providing legal access to each affected lot, dwelling unit, or business and sufficient to accommodate required improvements, to include provision for future use by adjacent property owners when applicable, and
 - 2. Constructed to Kittitas County Road Standards, as set forth herein, or secured under the provisions of K.C.C. 12.10.100, and
 - 3. Accessible at all times for emergency and public service vehicles use, and
 - 4. Not obstructing, or part of, the present or future public neighborhood circulation plan developed in processes such as the Kittitas County Comprehensive Plan, applicable community plan, or Capital Improvement Program, and

5. Will not result in land locking of present or future parcels, and
 6. Are not needed as public roads to meet the minimum road spacing requirements of these Standards, and
 7. Not connecting two public roads, and
 8. Designed to serve a maximum of 8 single-family dwelling units or equivalent with a maximum length of 1000 feet. The maximum potential is the number of dwelling units that can possibly be served by the road when physical barriers, zoning or other legal constraints are considered, and
 9. Maintained by the developer for a minimum period of two years then by a capable and legally responsible owner or homeowners' association or other legal entity made up of all benefited property owners, under the provisions of an acceptable and recorded "Private Road Maintenance Agreement", and
 10. Clearly described on the face of the plat, short plat, or other development authorization and clearly signed at street location as a private street, for the maintenance of which Kittitas County is not responsible and a disclosure statement of the same is filed with the County Auditor.
- C. Kittitas County will not accept private roads for maintenance as public streets until such streets are brought into conformance with current County Road Standards. This requirement will include the hard surface paving of any street surfaced originally with gravel.
 - D. Kittitas County will not accept private streets within short plats when roads providing access to the plat are private and already have the potential to serve more than the number of lots specified in Section 12.20.080 B.8. Short plats proposed on properties to which the access is over private streets that do not meet the standards of this section shall be denied.
 - E. Proposed exceptions to this rule will be considered by the director based on pertinent traffic planning factors including, but not limited to, topography, sensitive areas, existing development, zoning, and adequate circulation patterns. Alternatives must be approved by the Director through a road variance request.

12.20.090 Half Streets.

- A. A half street may be permitted as an interim facility when:
 1. Such street serves as primary access to not more than 25 dwelling units or tax lots or a maximum average daily traffic of 250 trips per day.
 2. Such alignment is consistent with or will establish a reasonable circulation pattern, and
 3. There is reasonable assurance of obtaining the prescribed additional right-of-way from the adjoining property with topography suitable for completion of a full-section roadway.
- B. A half street shall meet the following requirements:
 1. Right-of-way width of the half street shall equal at least thirty (30) feet, and
 2. If feasible, the half street shall be graded consistent with locating the centerline of the ultimate roadway section on the property line, and
 3. Traveled way shall be surfaced the same as the designated road type to a width of not less than twenty (20) feet, twenty-four (24) feet if more than 10 single-family dwelling units or equivalent are accessed. Sidewalk shall be constructed as required for the designated road type, and
 4. Property line edges of street shall be finished with temporary curbing, shoulders, ditches and/or side slopes so as to assure proper drainage, bank stability and traffic safety, and
 5. Half streets shall not intersect other half streets unless so approved by the Engineer.
 6. Half streets shall not exceed 1,000 feet in length, and
 7. No on-street parking will be allowed on half streets.
- C. When a half street is eventually completed to a whole street, the completing developer shall reconstruct the original half street as necessary to produce a proper full-width street of designated section.

- D. The developer shall be responsible for obtaining of any right-of-way or easements, signs and pavement markings needed to accomplish the above.

12.20.100

Cul-de-sacs.

- A. Whenever a cul-de-sac serves more than six lots or extends more than 150 feet from the centerline of the accessing street to the farthest extent of surfaced traveled way a widened "bulb" shall be constructed as follows:
1. Minimum right-of-way diameter across bulb section: 110 feet in a permanent cul-de-sac; 90 feet in a temporary cul-de-sac, with bulb area lying outside straight-street right-of-way provided as temporary easement pending forward extension of the street.
 2. Minimum diameter of surfacing across bulb: 90 feet of paving to curb or shoulder.
 3. Where required on cul-de-sacs, sidewalks shall be constructed on both sides of the street and on the bulb.
- B. A permanent cul-de-sac shall not be longer than 600 feet measured from the centerline of intersecting street to the center of the bulb section. The cul-de-sac length may extend to 1,000 feet if 25 or fewer potential lots are to be served and there is provision for emergency turnaround near mid-length.
- C. The County may require the developer to dedicate and construct an off-street walk or an emergency vehicle access to connect a cul-de-sac at its terminus with other streets, parks, schools, bus stops or other pedestrian traffic generators.
- D. If a street temporarily terminated at a property boundary serves more than six lots or is longer than 150 feet, a temporary bulb shall be constructed near the plat boundary. The paved bulb shall be 90 feet in diameter with sidewalks terminated at the point where the bulb radius begins. Removal of the temporary cul-de-sac and extension of the sidewalk shall be the responsibility of the developer who extends the road.
- E. Proposed exceptions to this rule will be considered by the Engineer based on pertinent traffic planning factors including, but not limited to, topography, sensitive areas, existing development, zoning, legal constraints and property design. Alternatives must be approved by the Director through a road variance request.

12.20.110

Alleys.

- A. An alley is considered a private access, typically in the urban area. An Alley shall meet the following requirements:
1. Requirements of Section 12.20.040 Loop Streets, for horizontal curvature and stopping sight distance, apply.
 2. Serves a maximum of 30 lots, with a maximum length of 400 feet, no dead ends or cul-de-sacs.
 3. Minimum tract width of 20 feet with a pavement surface of 18 feet (including thickened edge), based on a six foot structure setback. For differing structure setback requirements, alley configuration shall be designated to provide for safe turning access to properties.
 4. Paved surface shall have a thickened edge, one side and cross slope in one direction.
 5. Public streets to which an alley connects or which provide access to the front boundary of the properties served by the alley shall be 28 feet minimum paved width with vertical curb. Alley entry shall be provided by driveway cut.
 6. Modifications to existing alleys serving commercial or industrial properties, in accordance with the above, will be determined on a case-by-case basis subject to approval by the County.

12.20.120

Intersections and Low Speed Curves.

A. Intersections

- | | |
|--|-----------------------------|
| 1. Angle of Intersection (measured from 10 feet beyond functional classification right-of-way | Minimum 75°
Maximum 105° |
| 2. Minimum Centerline Radius (2 Lane) | 55 feet |
| 3. Minimum Curb/Shoulder Radius * | |
| a. Urban Streets and Roadways classified Neighborhood or higher | 35 feet |
| b. Rural Streets and Roadways | 35 feet |
| c. Urban Residential Access Street Intersections where the highest classification involved is Loop | 20 feet |

4. Minimum property line radius 30 feet

* A 55 foot radius may be required where high truck traffic is anticipated

- B. On sloping approaches at an intersection, landings shall be provided with grade not to exceed one foot difference in elevation for a distance of 30 feet approaching an arterial or 20 feet approaching a local access street, measured from the future right-of-way line (extended) of intersecting street as provided in Section 12.20.040, 12.20.050 or 12.20.060.
- C. Low Speed Curves, applicable to loop and cul-de-sac streets only. See Sections 12.20.040 and 12.20.050.

Center Angle of Curve		Up to 75°	75° and Over
1.	Minimum Centerline Radius	100 feet	55 feet
2.	Minimum Curb Radius	80 feet	35 feet
3.	Minimum Property Line Radius	70 feet	25 feet

12.20.130 Maximum Grade and Grade Transitions.

- A. Maximum grade as shown in Sections 12.20.040, 12.20.050 and 12.20.060 may be exceeded for short distances (no more than 300 feet) upon showing that no practical alternative exists. Exceptions which exceed 15 percent will require verification by the Fire Marshall that additional fire requirements will be met. Grades exceeding 12 percent shall be paved with asphalt cement (AC) or portland cement concrete (PCC). Any grade over 20 percent must be paved with portland cement concrete.
- B. Grade transitions shall be constructed as smooth vertical curves except in intersections where the difference in grade is one percent or less and upon approval of the Engineer.

12.20.140 Stopping Sight Distance (SSD).

- A. Height of eye is 3.5 feet and object height is 0.5 feet.
- B. Minimum stopping sight distance (SSD) as provided in Section 12.20.070, Tables 2.1 and 2.2 shall be increased (in feet) in accordance with the following on any down grade averaging 3% or steeper (Source: AASHTO Policy on Geometric Design, Table III-2). Interpolate values for other design speeds and grades.

Design Speed (mph)	Downgrade		
	3%	6%	7%
60	50	110	--
50	30	70	--
40	20	40	70
30	10	20	30
20	0	10	20

- C. In difficult topography the Engineer may authorize a reduction in the SSD based on factors mitigating the hazard. Such factors may include an anticipated posted or average running speed less than the design speed.
- D. Intersecting Stopping Sight Distance.
- Stopping sight distance for the design speeds of proposed commercial/industrial access streets, neighborhood access streets and arterials must be met when intersecting existing arterials. Stopping sight distance on the approaches of all other proposed streets intersecting existing arterials shall be 125 feet.
 - The intersection of other local access streets with like access streets approaching a stop condition, shall have a minimum stopping sight distance of 125 feet.

12.20.150 Entering Sight Distance (ESD).

Entering sight distance applies on driveways and on streets approaching intersections. Specific ESD values for required design speeds are listed in Section 12.20.070, Tables 2.1 and 2.2.

- A. Entering vehicle eye height is 3.5 feet, measured 10 feet back from the edge of the traveled way. Approaching vehicle height is 4.25 feet.

- B. Requirements in Section 12.20.070, Tables 2.1 and 2.2 apply to an intersection or driveway approach to a typical road under average conditions. In difficult topography the Engineer may authorize a reduction in the ESD based on factors mitigating the hazard. Such factors may include an anticipated posted or average running speed less than the design speed or the provision of acceleration lanes and/or a median space allowing an intermediate stop by an approaching vehicle making a left turn.
- C. Where a significant number of trucks will be using the approach road, the Engineer may increase the entering sight distance requirements by up to 30% for single-unit trucks and 70% for semi-trailer combinations.

Re-number Chapter 12.40 to Chapter 12.50

Sections:

- 12.50.010 **Commercial Signs Prohibited.**
12.50.020 **Removal of Commercial Signs.**

NEW CHAPTER 12.40

SURFACING REQUIREMENTS

Sections:

- 12.40.010 **Residential Roads and Streets, Pedestrian and Bike.**
12.40.020 **Requirements for Residential Streets on Poor Subgrade.**
12.40.030 **Arterials and Commercial Access Streets.**
12.40.040 **Materials and Construction Procedures.**
12.40.050 **Pavement Markings and Markers.**

- 12.40.010 **Residential Roads and Streets, Pedestrian and Bike.**

The minimum paved section, with alternative combinations of materials, for residential streets, shoulders, sidewalks and bikeways shall be as indicated below. These sections are acceptable only on visually good, well drained stable compacted subgrade. Any proposed exception to these materials will be subject to soils strength tests and traffic loading analysis. All expenses for determining revised materials shall be borne by the Developer and subject to review by the Engineer as outlined in Section 12.04.020 below.

TYPE OF FACILITY/ ALTERNATE	ASPHALT CONCRETE	ASPHALT TREATED BASE	BITUMINOUS SURFACE TREATMENT	CRUSHED SURFACING TOP COURSE	CRUSHED SURFACING BASE COURSE	PORTLAND CEMENT CONCRETE	COMMENTS
A. RESIDENTIAL ACCESS ROADS AND STREETS							
A1	2"	4"					Add 1" of ACP on Neighborhood Access
A2	2"			1-1/2"	5"		Add 1" of ACP on Neighborhood Access
A3			Class A	1-1/2"	5"		Acceptable for rural areas and transitional areas, on grades less than 12%
A4						7" Class 4,000	Add 1" PCC on Neighborhood Access
B. SHOULDERS							
B1	2"	4"					Add 1" of ACP on Neighborhood Access
B2	2"			1-1/2"	2-1/2"		Add 1" of ACP on Neighborhood Access
B3			Class A	1-1/2"	2-1/2"		
B4				1-1/2"	2-1/2"		
C. SIDEWALKS							
C1						4" Class 3,000	
D. WALKWAYS AND BIKEWAYS							
D1	2"			1-1/2"	2-1/2"		
D2	4"						
D3			Class A	1-1/2"	2-1/2"		

When a walkway or bikeway is incorporated into a road shoulder, the required shoulder section, if higher strength, shall govern. Equestrian trails incorporated into road shoulders shall be constructed with surfacing material as approved by the Director. Subgrade compaction for bikeways and paved walkways shall meet minimum of 90% of maximum density.

- E. DRIVEWAYS may be surfaced the same as shoulders or as desired by the owner, EXCEPT:

1. On curbed streets with sidewalks, driveway shall be paved with portland cement concrete Class 4000 from the curb to the back edge of the sidewalk;
2. On shoulder and ditch section, driveways between the paved traveled way and right-of-way line shall not be portland cement concrete.
3. On thickened edge roadways with underground utilities, portland cement concrete may be used for driveways between the thickened edge and the property line provided that a construction joint is installed at the property line.

F. STREET WIDENING/ADDING TRAVELED WAY TO EXISTING ROADS

1. When an existing asphalt paved street is to be widened, the edge of the pavement shall be saw cut to provide a clean, vertical edge for joining to the new asphalt. The minimum width for widening shall be four feet. After placement of the new asphalt section, the joint shall be sealed and the street overlaid one inch in depth, plus a pre-level course, full width throughout the widened area. The requirement for the overlay may be waived by the Engineer based on the condition of existing pavement and the extent of required changes to channelization.
2. When an existing shoulder is to become part of a proposed traveled way a pavement evaluation shall be performed. This evaluation shall analyze the structural capacity and determine any need for improvement. Designs based on these evaluations are subject to review and approval by the Engineer. The responsibility for any shoulder material thickness improvement shall be considered part of the requirement for roadway widening. The shoulder shall be replaced in width as specified in Sections 12.02.040, 12.02.050 and 12.02.060.
3. Any widening of an existing roadway, either to add traveled way or paved shoulder shall have the same surfacing material as the existing roadway, EXCEPT asphalt concrete pavement may be used to add to an existing bituminous surface treatment.

12.40.020 Requirements for Residential Streets on Poor Subgrade.

The minimum material thickness indicated in Section 12.04.010 are NOT acceptable if there is any evidence of instability in the subgrade. This includes free water, swamp conditions, fine-grained or organic soil, slides, or uneven settlement. If the Director determines there are any of these characteristics, the soil shall be sampled and tested sufficiently to establish a pavement design that will support the proposed construction. Any deficiencies, including an R value less than 55 or a CBR of less than 20, shall be fully considered in the design. Remedial measures may include, but are not limited to, a stronger paved section, a strengthening of subgrade by adding or substituting fractured aggregate, asphalt treated base, geotextile, more extensive drainage, or a combination of such measures. Both the soils test report and the resulting pavement design will be subject to review and approval by the Engineer.

12.40.030 Arterials and Commercial Access Streets.

Any pavement for arterials and commercial access streets shall be designed using currently accepted methodology that considers the load bearing capacity of the soils and traffic-carrying requirements of the roadway. Plans shall be accompanied by a pavement thickness design based on soil strength parameters reflecting actual field tests and traffic loading analysis. The analysis shall include the traffic volume and axle loading, the type and thickness of roadway materials and recommended method of placement. Pavement sections shall not be less than those required for neighborhood access.

12.40.040 Materials and Construction Procedures.

Materials and construction procedures shall be in accordance with WSDOT Standard Specifications and following requirements:

- A. Crushed surfacing top and base courses may be substituted for a structurally equivalent thickness of Asphalt Treated Base (ATB). The substitution ratio of crushed surfacing to ATB shall be 1.6:1. Where base or top courses cannot be placed without possible contamination, then these courses shall be substituted by ATB.
- B. During surfacing activities, utility covers in the roadway shall be adjusted in accordance with Section 12.08.040.
- C. ATB may be used over isolated areas of unstable subgrade, providing the final lift of asphalt shall not be placed for a minimum of six months to allow time for the observation and repair of failures in the subgrade and the ATB.
- D. Asphalt Pavers shall be self contained, power propelled units. Truck mounted type pavers are not considered self propelled. Truck mounted pavers shall only be used for paving of irregular shaped or minor areas as approved by the Engineer, or as follows:
 1. pavement widths of less than eight feet; and
 2. pavement lengths less than 150 feet.

Pavement markings, markers or striping shall be used to delineate channelization, lane endings, crosswalks and longitudinal lines to control or guide traffic. Pavement marking plans and crosswalk locations shall be in accordance with the Manual on Uniform Traffic Control Devices (MUTCD) and approved by the Director.

Pavement markings for channelization shall be reflectorized hot or cold plastic. Extruded or sprayed markings shall be dressed with glass beads for initial reflectance. All materials shall have beads throughout the material to maintain reflectance while the material wears.

Where pavement widening less than 300 feet in length is abruptly ended and edge lines do not direct traffic to through lanes, Type 2e lane markers shall be installed at 10 foot centers near the end of the paved area at a ten to one (10:1) taper.

Crosswalks shall be installed at all intersections controlled by traffic signals and other areas approved by the Director. Crosswalk shall consist of sets of longitudinal lines eight inches wide by 10 feet and with eight-inch separation. A set of these lines shall be installed between each lane, between the wheel tracks in each lane and at the traveled pavement edges.

All pavement markings shall be laid out with spray paint and approved by the Director before they are installed. Approval may require three working day advance notice to have field lay-out approved or to make arrangements to meet a County representative on site during the installation.

ADOPTED this 2 day of August, 1994.

BOARD OF COUNTY COMMISSIONERS
KITITAS COUNTY, WASHINGTON

Donald E. Sorenson
Donald E. Sorenson, Chairperson

ATTEST:

Anita J. Kazee
Anita J. Kazee, Clerk of the Board

Mary Seubert
Mary Seubert, Vice-Chairperson

Ray Owens
Ray Owens, Commissioner

Approved as to Form:

David A. Pitts
David Pitts, Prosecuting Attorney