

| Lincoln County | | | DESIGN STANDARDS | | | | | |
|---|---------------------------------------|---------------------|--|---|-----------|------------|-----------|--|
| Functional Classification | | | Minor Arterial | Major and Minor Collector | | | Access | |
| Average Daily Traffic (Current) | | | DHV below 100 | Under 150 | 150 - 400 | Above 400 | All | |
| MINIMUM DESIGN SPEED (MPH) | | Level | 50 | 40 | 50 | 50 | 40 | |
| | | Rolling | 40 | 30 | 40 | 40 | 30 | |
| | | Mountainous | 30 | 20 | 30 | 30 | 20 | |
| MAXIMUM GRADE (%) (a) | | Level | 6 | 7 | 6 | 6 | 7 | |
| | | Rolling | 8 | 9 | 8 | 8 | 10 | |
| | | Mountainous | 10 | 10 | 10 | 10 | 12 | |
| R o a d w a y | SURFACED WIDTH (Traveled Lanes) | Two Lane | 24 | 20 | 22 | 24 | 20 | |
| | | Surfacing Depth (b) | 0.50' | 0.50' | 0.50' | 0.50' | 0.25' | |
| | | Base Depth (b) | 1.25 | 0.75' | 1.00' | 1.25' | 0.50' | |
| | SURFACE TYPE | Type of Surface | ACP or BST | BST or Aggregate | BST | ACP or BST | Aggregate | |
| | SHOULDER | Each Side (c) | 4 | 2 | 3 | 4 | 1 | |
| | WIDTH BETWEEN CURBS | Two Lane | 34 | 26 | 30 | 34 | 22 | |
| | | Surfacing Depth (b) | 0.50' | 0.50' | 0.50' | 0.50' | 0.50' | |
| | | Base Depth (b) | 1.50' | 1.00' | 1.25' | 1.50' | 0.75' | |
| | NEW BRIDGES | | Vertical Clearance | 16.5 foot minimum | | | | |
| | | | Roadway Width | Width of traveled way (Surfaced width) Plus 2' each side under 400 ADT 3' each side over 400 ADT | | | | |
| Design Loading | | | AASHTO HS 25 -44 minimum | | | | | |
| Clear Zone/Side Slopes | | | AASHTO or TRB Special Report 214 | | | | | |
| Back Slope | | | Minimum of 2:1 except for solid rock at 1:1 | | | | | |
| Ditch Slope | | | Slopes steeper than 4:1 should only be used when achieving a 4:1 slope is impractical. | | | | | |
| Right of Way | | minimum width | 60 feet | 60 feet | 60 feet | 60 feet | 60 feet | |
| NOTES: | | | | | | | | |
| (a) May be 2% steeper for short distances (less than 500 ft.) on one way down grades and low volume rural collectors. (AASHTO Guidelines) | | | | | | | | |
| (b) The depths listed are guidelines. Depths of material shall be evaluated on a case by case basis, final determination shall be made by the County Engineer. | | | | | | | | |
| (c) Shoulders shall be widened 2 feet where guardrail or barrier is planned. | | | | | | | | |
| (d) Utilities shall comply with the requirements of the County policy on the Accommodation of Utilities in County Right-of-ways and Public Works Department requirements for placement of facilities and appurtenances. | | | | | | | | |
| (e) Approaches to County Roads shall comply with the minimum requirements as established by the Lincoln County Department of Public Works. | | | | | | | | |

Accommodation of Utilities Standards: Resolution No. 2157, Adopted 3/15/93
(Permit Required for Location and installation of all utilities. Franchises may also be required.)

A. UNDERGROUND UTILITIES - LOCATION AND ALIGNMENT

- (1) For all crossings, the angle of crossing should be as near a right angle to the road centerline as practicable. However, lesser angles may be permitted based upon economic considerations of practical alternatives.
- (2) Where practicable, crossings should avoid deep cuts, footings of bridges and retaining walls, or locations where highway drainage would be affected.
- (3) Longitudinal installations should run parallel to the roadway and lie as near as practicable to the right-of-way line. Installations which cannot be so installed will be allowed within the right of way, provided that:
 - a. The installation will not adversely affect the design, construction, stability, structural integrity, traffic safety, or operation of the road facility; or
 - b. Special considerations for rerouting are requested and subsequent evaluations determine that the accommodations can be made for the installation within the right-of-way.
- (4) Where irregularly shaped portions of the right of way extend beyond the normal right of way limits, a uniform alignment of facilities shall be allowed.
- (5) For all underground utilities crossing transversely to the county road centerline the minimum depth of the installation shall be 2.0 feet below the bottom of the ditch or the toe of the fill.
- (6) For all underground utilities installed in the vicinity of culverts, the installation shall be placed at least five feet below the bottom of the culvert or a minimum of five feet horizontally beyond the end of the culvert and 2.0 feet below the bottom elevation of the culvert. Placement of the installation over the top of culverts will only be allowed on a case by case basis by the County Engineer or his designee.
- (7) Fiber Optics installations shall be made in accordance with the established procedures of the Lincoln County Department of Public Works Fiber Optics Permitting Procedures.

B. UNDERGROUND UTILITIES - APPURTENANCES

- (1) Vents shall be required for casings, tunnels and galleries enclosing carriers of fuel where required by federal safety standards. Vent stand pipes should be located and constructed so as neither to interfere with maintenance of the road nor to be concealed by vegetation. Preferably stand pipes should stand by a fence or on the right-of-way line.
- (2) Drains shall be required for casings, tunnels or galleries enclosing carriers of liquid, liquified gas, or heavy gas. Drains for carriers of hazardous materials shall be directed to natural or artificial holding areas to prevent the potential for surface or ground water contamination. Drains for which only water or other non-hazardous liquids may discharge may be directed into the roadway ditch or natural water course at locations approved by the county. The drain outfall shall not be used as a waste way for routine purging of the carrier unless specifically authorized by the county.
- (3) Utility pedestals, boxes or other above ground appurtenances shall be installed as near as practicable to the right-of-way line. Actual locations shall be staked prior to approval by the County Engineer or his designee.
- (4) Location/warning markers and emergency information shall be used and maintained in a safe legible condition in accordance with state and federal standards on spacing, information and size.
- (5) Manholes should be designed and located in a manner that will cause the least interference to other utilities or future road expansion. Where practicable, installations in the pavement or shoulders should be avoided.

C. SPECIFIC REQUIREMENTS - OVERHEAD UTILITIES

- (1) Single-pole construction and joint use of the pole is desirable and should be used whenever feasible.
- (2) The minimum vertical clearance for overhead power and communication lines above the road and the minimum lateral and vertical clearance from bridges shall be in compliance with the National Electrical Safety Code and Washington State Department of Labor and Industries "Electrical Construction Code".

Road Name Signs and Address markers (E-911 related)

Road Name Signs:

1. Signs will be constructed in accordance with the Manual of Uniform Traffic Control Devices (MUTCD) as amended by the Washington State Department of Transportation (WSDOT). Standard Dimensions will be used in all cases. Reference signs types D3-301 and D3-302.
 - a. Sign Type D3-302 (with chevrons) used to indicate direction of increasing addresses/mileposts.
2. Signs will be mounted on posts meeting the requirements of the MUTCD. Using an approved mounting methodology.
 - a. Mounted directly on one face of a timber 4x4 post. (Requires two signs per road)
 - b. Mounted on top of 4x4 post, either existing or new (Requires double faced signs and approved mounting hardware)
 - c. Edge mounted on existing or new 4x4 post (Requires double faced signs and approved mounting hardware)
 - d. Special modification of standard sign providing extra length on one end for attachment to a standard 4x4 post. (Requires double faced signs.)
3. Each installation shall reflect both intersecting road names with signs placed parallel to the centerline of the roads.
4. Each installation shall be placed in accordance with the MUTCD as amended by WSDOT.
5. All installations shall be subject to approval by the County Engineer, and will require application for a Permit to Perform Work on County Rights-of-Way.

Address Markers:

1. When placing address numbers at the primary access entrance in accordance with the county's addressing ordinance, placement of an address marker on county right-of-way shall be in accordance with the following criteria:
 - a. Placement of the marker shall be on the approaching traffic side of the approach parallel to the centerline of the approach, in the radius of the approach/road connection just off the shoulder.
 - b. Both marker post and numbers shall be reflectorized to some extent. The marker post shall meet the minimum requirements for spot posts as detailed in the MUTCD and the numerals shall be of reflectorized materials.

Revised 7/17/2000, Res. No. 2334

**Approaches to County Road Standards: Resolution No. 1661, Adopted 5/1/72
(Permit Required for Location and installation of all approaches.)**

Construction Requirements:

1. The approach shall cause no interruption of or interference with roadway drainage. Culverts where required shall be 12" in diameter or larger as may be required for passage of normal storm drainage. Culvert pipe shall be laid true to line and grade and minimum cover shall be 6". Size, location and elevation of culvert pipe shall be as determined by the County Engineer or his designee.
2. No approach shall be less than 20 feet in width out to a point 5 feet from the shoulder of the county road, and no culvert shall be less than 28 feet in length. Side slopes shall be at 2:1 or flatter.
3. The grade of the approach shall slope down from the shoulder of the road at a rate not less than $\frac{1}{4}$ " per foot and not more than 1" per foot for a distance of 5 feet from the roadway shoulder. The approach shall be so constructed that no water from the approach will drain onto the roadway.
4. The general grade of the approach shall be the most favorable to permit safe ingress and egress to and from the roadway consistent with local conditions of grade and terrain.
5. Approaches shall be surfaced with a material which will not spill, wash, track or otherwise come onto the roadway to an extent which will interfere with normal traffic thereon.

Maintenance Requirements:

1. The maintenance of approaches outside the roadway limits of the county road is the responsibility of the person whose property is served by the approach.
2. Clearing of snow and other debris from approaches is the responsibility of the property owner.

Adopted by Road Resolution No. 2259, January 6th, 1997.
