

**REVISED PROPOSED REGULATION OF
THE DEPARTMENT OF TRANSPORTATION**

LCB File No. R118-08

September 5, 2008

EXPLANATION – Matter in *italics* is new; matter in brackets ~~[omitted material]~~ is material to be omitted.

AUTHORITY: §§1 and 2, NRS 408.215.

A REGULATION relating to roadways; revising provisions relating to the placement of utilities under state highways; revising provisions requiring casing for certain pipes and utilities; establishing certain standards, terms and conditions for the installation of a utility; and providing other matters properly relating thereto.

Section 1. NAC 408.447 is hereby amended to read as follows:

408.447 1. Utilities or pipes placed under a state highway must:

(a) Be jacked , *bored* or otherwise forced underneath the pavement without disturbing the pavement.

(b) ~~[Not]~~ *Be designed to support the load of the highway and loads imposed thereon.*

(c) *Be composed of material sufficient to withstand the conditions to which they may be exposed.*

(d) *Except as otherwise provided in this paragraph, not* be placed inside culverts used for drainage. *Temporary service pipes may be placed inside culverts used for drainage if such pipes:*

(1) Are removed not longer than 6 months after placement; and

(2) Do not cause any significant drainage problems.

2. Pavement or roadway must not be cut unless prior approval from the Department is obtained.

3. The district engineer shall authorize trenching across a paved highway if:

(a) The roadway is scheduled for overlay or reconstruction within 2 years after the trenching is scheduled to begin;

(b) The roadway is in such poor condition that a permanent patch of the pavement will not adversely affect the condition of the surface of the roadway;

(c) The area is so congested with other underground facilities that boring is impractical; or

(d) The installation has been attempted by jacking or boring and is impractical because of the conditions below the ground.

4. Except as otherwise authorized by the Department:

(a) No excavation within the right-of-way of a highway may be made which is less than 6 feet (1.8 meters) from the edge of the pavement.

(b) There must be, within the right-of-way of a highway, at least 36 inches (915 millimeters) of cover over all underground utilities, pipes or conduits, including at ditch or wash flow lines.

~~[(c) Underground]~~

5. *Except as otherwise provided in this subsection or otherwise authorized by the Department, underground* pipes and cables must be placed at least 12 inches (300 millimeters) below culverts or drainage boxes. *The district engineer may:*

(a) Authorize installation of underground utilities above culverts or drainage boxes if the utility is cased or encased with a minimum of 36 inches (915 millimeters) of coverage from the top of the utility structure to the finish grade and 12 inches (300 millimeters) of separation between the utility structure and the drainage box is attainable.

(b) Determine the length of casing or encasing required on a case-by-case basis.

(c) At his discretion, require an engineering analysis to be performed by a licensed professional engineer.

~~15.1~~ 6. Each trench must be filled with granular backfill or any other material approved by the district engineer to the elevation of the bottom of the existing base and surfacing or subgrade in accordance with the requirements set forth in the occupancy permit.

~~16.1~~ 7. *All underground utilities must meet the minimum design and installation requirements pursuant to federal safety standards.*

8. *The owner of a utility facility shall provide adequate protection of the utility facility during any activity relating to the construction or maintenance of the highway.*

9. As used in this section:

(a) “Base” means the layer of material of a designated type and thickness which is placed on a subbase or subgrade to support a surface.

(b) “Culvert” means any structure which is not a bridge which provides an opening under a roadway.

Sec. 2. NAC 408.453 is hereby amended to read as follows:

408.453 1. Except as otherwise provided in subsection 2, casing must be:

(a) ~~Used for~~ *Utilized and extended beyond* the width of the roadway *prism* for ~~fall~~ :

(1) All pipes carrying fluid or gaseous substances which cross ~~the highway.~~ an interstate highway or United States route;

(2) At the discretion of the district engineer, all pipes carrying fluid or gaseous substances which cross a state route; and

(3) At the discretion of the district engineer, any other utility that crosses an interstate highway, United States route or state route.

- (b) Designed to support the load of the highway and loads imposed thereon.
- (c) At least equal to the structural requirements for facilities for the drainage of highways.
- (d) Composed of material sufficient to withstand the conditions to which they may be exposed.

2. The district engineer may waive the requirements of this section if an engineering analysis ~~indicates~~ *is performed by a licensed professional engineer who determines* that casing is not necessary. *The engineering analysis must include, without limitation, information relating to:*

- (a) Priority of the highway;*
- (b) Risk of placement of the utility;*
- (c) Potential impacts of the utility to the infrastructure of the highway; and*
- (d) Site conditions.*

3. *If an engineering analysis is performed pursuant to subsection 2, the utility must specify appropriate provisions for responding to any risk factors indicated in the engineering analysis.*

4. *The applicable standards, terms and conditions of the Department:*

(a) Are the default guidelines for the installation of the utility. The utility may propose alternative installation parameters and methods if the engineering analysis supports such alternatives.

(b) Must contain provisions:

(1) For the installation of a utility which ensure the integrity of the roadway will be maintained in a manner at least sufficient to support the load of the roadway and loads imposed thereon.

(2) To protect the roadway and any facilities from any damage that may occur as a result of the malfunction or failure of the utility.

(3) To anticipate potential effects on site conditions from the maintenance or expansion of the utility, roadway or facilities.

(c) May be waived, lessened or enhanced if the engineering analysis supports such modification.

5. As used in this section:

(a) “Interstate highway” has the meaning ascribed to it in NRS 410.060.

(b) “Roadway prism” means the roadway surface and side slopes, including, without limitation, drainage areas, which integrate the roadway with the existing, surrounding topography.

(c) “State route” means paved roadways which are designated and maintained by the State, including secondary state routes, primary county routes and other roadways, and which provide access to a primary system of highways.

(d) “United States route” means one part of a primary system of roadways crossing through or connecting two or more states which link together major cities of the United States and which are comprised of roadways that may or may not have fully controlled access.