



**WOODBURY COUNTY BOARD OF SUPERVISORS AGENDA ITEM(S) RE**

Date: October 29, 2015

Weekly Agenda Date: November 3, 2015

DEPARTMENT HEAD / CITIZEN: Mark J. Nahra P.E. Secondary Roads Dept Head

SUBJECT: **Review of Proposed Ordinance for Road and Bridge Standards**

**ACTION REQUIRED:**

Approve Ordinance                       Approve Resolution                       Approve Motion

Give Direction                       Other: Informational                       Attachments

**Information only**

**WORDING FOR AGENDA ITEM:** Preliminary review of County Policy for Construction and Reconstruction of Roadways and Bridges on the Woodbury County Road system.

**EXECUTIVE SUMMARY:** During storm events, existing roads, pavements, culverts, and bridges are sometimes destroyed and replacement of the damaged infrastructure is required. In the case of bridges and culverts in particular, it makes little sense to replace a hydraulically undersized bridge with another bridge of the same size and configuration. It also is not cost effective to build a replacement structure that does not meet current standards for deck width or load carrying capacity.

FEMA standards only restore destroyed secondary road assets to pre-flood conditions. FEMA will allow bridges and culverts to be built to current design standards if the county has a written policy, approved by the Board of Supervisors, on record prior to a disaster event. In 1994, the county passed a resolution to replace all bridges with a new bridge that has a minimum 30' deck width. This resolution has been our governing policy since that date. Following the 2014 flood, FEMA has informed our office that for future upgraded replacement structures to be built, this policy must be in the form of an ordinance. A proposed ordinance is attached to this information sheet.

**BACKGROUND:** The secondary road department is reviewing all operating policies in cooperation with the Board of Supervisors. Prior to another disaster, the county needs to have this ordinance in place if we are to successfully be able to apply FEMA funds to replace destroyed county bridges and culverts to meet current design standards.

**FINANCIAL IMPACT:** These policies will affect future county construction work post disaster. County bridge, culvert, pavement, and road replacements are already built to this standard, but this ordinance assures that we will be able to use disaster aid to construct structures to the standards to which we otherwise build or replace county infrastructure. The county pays a minimum of 15% of the cost of repair/recovery costs of FEMA eligible disasters. Structures built to current standards tend to be more costly to construct than the smaller, obsolete structures they replace.

**RECOMMENDATION:** No recommendation at this time. The policy is presented for discussion and questions only.

**ACTION REQUIRED/PROPOSED MOTION:** Information and discussion only.

**WOODBURY COUNTY**

**ORDINANCE NO. \_\_\_\_\_**

**AN ORDINANCE TO ESTABLISH A POLICY FOR THE CONSTRUCTION AND RECONSTRUCTION OF ROADWAYS AND BRIDGES ON THE WOODBURY COUNTY SECONDARY ROAD SYSTEM.**

**BE IT ORDAINED BY THE BOARD OF SUPERVISORS WOODBURY COUNTY:**

**SECTION 1 -- PURPOSE**

The purpose of this ordinance is to establish Woodbury County's policy for the construction of roads, reconstruction of roads, construction of bridges, reconstruction of bridges and other roadway and drainage features associated with road and bridge construction.

**SECTION 2 -- LEVEL OF SERVICE**

The level of service shall be based on traffic counts, pavement type, roadway geometrics and other data used in accepted engineering design as established by the County Engineer, Iowa Department of Transportation and the Federal Highway Administration.

**SECTION 3 -- DESIGN CRITERIA**

In implementation, this policy shall set the minimum design standards that Woodbury County will follow in the construction or reconstruction of roads and bridges. These criteria shall be based on accepted engineering practices and standards established by the Iowa Department of Transportation and the Federal Highway Administration.

The County Engineer shall assure the minimum design standards established herein are adhered to in a uniform manner unless, in his or her professional judgment, a deviation from standards is warranted. Minimum design standards are not subject to discretionary enforcement. Any deviations must be documented as unreasonable and or impossible to implement by the County Engineer and/or the County Board of Supervisors.

**PAVED ROUTES**

**A) New Pavement**

- 1) New pavement shall be constructed with a minimum 22' wide pavement and granular shoulders. Intersections with non-paved roads shall have pavement extended back onto the intersecting road 50' beyond

the end of the intersection radius. New pavements in designated commercial areas may be paved at 26' wide determined by the County Engineer and Board of Supervisors.

- 2) Paved shoulders and edge line rumble stripes shall be constructed if crash data warrants based on accepted HSIP and TSIP cost/benefit analysis.
- 3) Rumble strips shall be installed on all approach stop situations.
- 4) Concrete pavement will be the first choice for pavement provided clear zone and shoulder widths can be maintained by design requirements.

**B) Reconstruction of Pavement**

1. Paved roads shall be reconstructed with a 22' wide pavement or to the previous pavement width, whichever is greater with granular shoulders.
2. Rumble strips shall be installed on all approach stop situations.

**UNPAVED ROADS**

**A) Gravel Roads**

- 1) New construction of a gravel road shall have a 28' finished top, including shoulders.
- 2) Reconstruction of a gravel road shall be to the previous width prior to reconstruction.

**B) Class B & C Roads**

- 1) Class B and C roads will be built to the minimums as outlined by Iowa Code.

**BRIDGES & Drainage Structures**

**A) Paved Routes**

- 1) Bridges on paved routes shall be built with a minimum width of 30'. Wider structures will be installed when there are issues relating to oversized vehicles, pedestrian facilities, biking usage or other issues where the additional width is felt to be warranted.
- 2) Culverts under paved roads shall be concrete.
- 3) Pipe culverts larger than 54" in diameter may be substituted with reinforced box culverts. Corrugated metal pipe culverts 54" and larger shall have concrete and sheet pile curtain walls constructed to prevent uplift failures.
- 4) Design for drainage structures will be governed by accepted hydraulic design standards. Input from IDNR, Corp of Engineers, Iowa DOT, NRCS, or USGS may impact the size and type of the structure to be placed.
- 5) Water and livestock will use separate structures whenever possible.

**B) Unpaved Routes**

- 1) Bridges will normally be a minimum of 30' on gravel roads with ADT exceeding 25 vpd. Roads with less than 25 vpd may also

have 30' wide bridges constructed if the lower traffic count can be attributed to the presence of a restricted bridge. Dead end roads may be narrower at the discretion of the County Engineer

- 2) Culverts may be metal or concrete. Pipe culverts larger than 54" in diameter may be substituted with reinforced box culverts. Corrugated metal pipe culverts 54" and larger shall have concrete and sheet pile curtain walls constructed to prevent uplift failures.
  - 3) Design for drainage structures will be governed by accepted hydraulic design standards. Input from IDNR, Corp of Engineers, Iowa DOT, NRCS, or USGS may impact the size and type of the structure to be placed.
  - 4) Water and livestock will use separate structures whenever possible.
- C) Class B & C Roads  
Class B and C roads will be built to the minimums as outlined by Iowa Code.
- D) Entrance Bridges  
Any and all bridges/drainage structures that are fully or partially in the road right-of-way that serve as entrances to private property from the public roadway shall be considered the jurisdiction and responsibility of the County. If a structure does not sit fully or partially in the road right-of-way it will be considered a private structure and not under the jurisdiction of the county.

#### **SECTION 4 -- REPEALER**

All ordinances and resolutions, or parts thereof, in conflict herewith are hereby repealed.

#### **SECTION 5 -- SEVERABILITY CLAUSE**

If any section, provision, or part of this ordinance shall be adjudged invalid or unconstitutional, such adjudication shall not affect the validity of the ordinance as a whole or any section, provision, or part thereof not adjudged invalid or unconstitutional.

#### **SECTION 6 -- WHEN EFFECTIVE**

This ordinance shall be in effect immediately after its final passage and publication as provided by law. In addition, this ordinance shall remain in effect until such time the Board of Supervisors passes a future ordinance repealing this ordinance.

Passed and approved this \_\_\_\_\_ day of Woodbury.

Woodbury County Board of Supervisors

\_\_\_\_\_  
Mark Monson - Chairman

\_\_\_\_\_  
Larry Clausen, Member.

\_\_\_\_\_  
Jackie Smith, Member.

\_\_\_\_\_  
Jeremy Taylor, Member.

\_\_\_\_\_  
Matthew Ung, Member

ATTEST:

\_\_\_\_\_  
Patrick Gill, Woodbury County Auditor

First Reading: \_\_\_\_\_

Second Reading: \_\_\_\_\_

Approved: \_\_\_\_\_

Published: \_\_\_\_\_