

# **Madison County Road and Bridge Standards**



**ADOPTED VIA ORDINANCE 3-2025**

**EFFECTIVE JANUARY 9, 2025**

# TABLE OF CONTENTS

<b>CHAPTER 1: GENERAL PROVISIONS</b> .....	<b>1</b>
<b>SECTION 1.1   TITLE</b> .....	<b>1</b>
<b>SECTION 1.2   AUTHORITY AND INTENT</b> .....	<b>1</b>
<b>SECTION 1.3   APPLICABILITY</b> .....	<b>1</b>
<b>SECTION 1.4   ROLES AND RESPONSIBILITIES</b> .....	<b>2</b>
1.4.1 <i>Delegation of Authority</i> .....	<b>2</b>
1.4.2 <i>Madison County Road Department</i> .....	<b>2</b>
1.4.3 <i>Madison County Planning Department</i> .....	<b>2</b>
1.4.4 <i>Madison County Commission</i> .....	<b>2</b>
1.4.5 <i>Other Madison County Departments</i> .....	<b>2</b>
1.4.6 <i>Montana Department of Transportation</i> .....	<b>2</b>
1.4.7 <i>Applicants and Developers</i> .....	<b>2</b>
<b>SECTION 1.5   ROAD NAMES</b> .....	<b>2</b>
<b>SECTION 1.6   PERMITTING AND FEES</b> .....	<b>3</b>
<b>SECTION 1.7   MODIFICATION OF THESE STANDARDS</b> .....	<b>3</b>
<b>SECTION 1.8   SEVERABILITY</b> .....	<b>3</b>
<b>SECTION 1.9   CONTRADICTIONS</b> .....	<b>4</b>
<b>SECTION 1.10   STANDARD SPECIFICATIONS, REGULATIONS, AND GUIDELINES</b> .....	<b>4</b>
<b>SECTION 1.11   DEFINITIONS</b> .....	<b>4</b>
<b>CHAPTER 2: ADMINISTRATION</b> .....	<b>13</b>
<b>SECTION 2.1   TRANSPORTATION SYSTEMS</b> .....	<b>13</b>
2.1.1 <i>State Highway System</i> .....	<b>13</b>
2.1.2 <i>County Road System</i> .....	<b>13</b>
2.1.3 <i>Non-Motorized Transportation System</i> .....	<b>13</b>
2.1.4 <i>Municipal Road System</i> .....	<b>13</b>
2.1.5 <i>Compliance with Adopted Plans</i> .....	<b>13</b>
2.1.6 <i>Compliance with Adopted Addressing Standards</i> .....	<b>13</b>
<b>SECTION 2.2   CHANGES TO THE COUNTY ROAD SYSTEM</b> .....	<b>13</b>
<b>SECTION 2.3   VARIANCES</b> .....	<b>15</b>
<b>SECTION 2.4   APPEALS</b> .....	<b>15</b>
<b>CHAPTER 3: ACCESS STANDARDS</b> .....	<b>17</b>
<b>SECTION 3.1   PURPOSE</b> .....	<b>17</b>
<b>SECTION 3.2   ROLES AND RESPONSIBILITIES</b> .....	<b>17</b>
3.2.1 <i>Madison County Road Department</i> .....	<b>17</b>
3.2.2 <i>Madison County Planning Department</i> .....	<b>17</b>
3.2.3 <i>Municipalities</i> .....	<b>17</b>
3.2.4 <i>Montana Department of Transportation</i> .....	<b>17</b>
<b>SECTION 3.3   REQUIRED PERMITS</b> .....	<b>17</b>
3.3.1 <i>Encroachment Permits</i> .....	<b>18</b>
<b>SECTION 3.4   WORK WITHIN COUNTY ROAD SYSTEM</b> .....	<b>19</b>
<b>SECTION 3.5   APPROACHES WITHIN COUNTY ROAD SYSTEMS</b> .....	<b>22</b>
3.5.1 <i>Number and Arrangement of Approaches</i> .....	<b>22</b>
3.5.2 <i>Construction and Maintenance</i> .....	<b>22</b>
3.5.3 <i>Design of Approaches</i> .....	<b>22</b>
3.5.4 <i>Driveway Design</i> .....	<b>22</b>
3.5.5 <i>Penalties</i> .....	<b>23</b>

**CHAPTER 4: ROAD STANDARDS..... 24**

**SECTION 4.1 | PURPOSE AND APPLICABILITY.....24**

**SECTION 4.2 | DESIGN CONTROLS.....24**

    4.2.1 Context.....24

    4.2.2 Functional Classification.....24

    4.2.3 Terrain Classification.....25

    4.2.4 Design Traffic Volume .....25

**SECTION 4.3 | ROADWAY DESIGN STANDARDS .....25**

**SECTION 4.4 | INTERSECTION DESIGN STANDARDS.....27**

**SECTION 4.5 | PARKING.....27**

**SECTION 4.6 | ROADSIDE DESIGN .....27**

**SECTION 4.7 | SURFACE AND MATERIALS.....28**

    4.7.1 Subgrade Excavation and Embankment.....28

    4.7.2 Geotextile Fabric.....28

    4.7.3 Sub-Base Gravel (Pit run selected surfacing) .....28

    4.7.4 Crushed Base Course .....28

    4.7.5 Asphalt Surfacing.....28

**SECTION 4.8 | SPEED LIMITS.....28**

**SECTION 4.9 | RURAL IMPROVEMENT DISTRICTS .....29**

**CHAPTER 5: DRAINAGE, SNOW STORAGE, AND WATER CROSSINGS ..... 30**

**SECTION 5.1 | DRAINAGE .....30**

**SECTION 5.2 | SNOW STORAGE .....30**

**SECTION 5.3 | BRIDGES AND CULVERTS .....30**

    5.3.1 Bridge Width .....30

    5.3.2 Design Flood and Bridge Freeboard .....31

    5.3.3 Culvert Design .....31

**CHAPTER 6: SNOW REMOVAL AND SANDING ..... 32**

**CHAPTER 7: SEASONAL LOAD RESTRICTIONS and SEASONAL CLOSURES ..... 33**

**CHAPTER 8: CATTLEGUARD INSTALLATION AND MAINTENANCE..... 34**

**CHAPTER 9: SUBDIVISION ROAD DESIGN STANDARDS..... 35**

**SECTION 9.1 | STANDARDS AND SPECIFICATIONS.....35**

**SECTION 9.2 | GENERAL SUBDIVISION ROADWAY STANDARDS .....35**

**SECTION 9.3 | SUBDIVISION ROADWAY DESIGN, MATERIAL, AND DRAINAGE STANDARDS.....40**

**SECTION 9.4 | SUBDIVISION BRIDGES.....42**

**SECTION 9.5 | SUBDIVISION EASEMENTS .....45**

**SECTION 9.6 | SUBDIVISION ROADWAY GRADING AND DRAINAGE.....46**

---

## **TABLES AND FIGURES**

---

***TABLE 1: ROADWAY DESIGN CRITERIA - RURAL***

***TABLE 2: ROADWAY DESIGN CRITERIA - URBAN***

***TABLE 3: CULVERT HEADWATER DESIGN***

***TABLE 4: SUBDIVISION ROAD STANDARDS***

***TABLE 5: EMERGENCY (OR SECONDARY) ACCESS ROAD STANDARDS***

***FIGURE 1: TYPICAL SECTION, SUBDIVISION ROAD***

---

## **APPENDICES**

---

***APPENDIX A: ACCESS ENCROACHMENT PERMIT APPLICATION***

***APPENDIX B: UTILITY ENCROACHMENT PERMIT APPLICATION***

***APPENDIX C: VARIANCE PERMIT APPLICATION***

***APPENDIX D: OVERWEIGHT PERMIT APPLICATION (WEIGHT EXEMPTION REQUEST***

***APPENDIX E: NEW OR REPLACEMENT CATTLEGUARD APPLICATIO***

# CHAPTER 1: GENERAL PROVISIONS

---

## SECTION 1.1 | TITLE

These regulations shall be known as the “Madison County Road and Bridge Standards” and are referred to throughout the document as the “Standards”.

---

## SECTION 1.2 | AUTHORITY AND INTENT

Madison County (the County), specifically the Madison County Commission, may lay out, maintain, control, and manage County roads and bridges under the limitations and restrictions that are prescribed by law (Section 7-14-2101, Montana Code Annotated [MCA]).

The intent of these Standards is to establish policies and procedures and define standards for transportation design and construction within the County that will contribute to orderly development and public health, safety, and general welfare of County residents by:

- A. Providing for a safe and efficient transportation system;
- B. Providing for the appropriate dedication of land for the transportation system; and
- C. Providing for adequate improvement of the transportation system where impacts directly attributable to development can be mitigated.

---

## SECTION 1.3 | APPLICABILITY

These Standards shall be applicable to all unincorporated areas of the County except where such areas or Rights-of-Way are under other governmental jurisdiction. These Standards shall apply to the following:

- A. New construction of transportation rights-of-way as defined in these standards (including but not limited to roads, trails, bridges, and culverts), appurtenant structures, and utility facilities built within rights-of-way.
- B. New construction of all new approaches, improvement of existing approaches, or where property improvements or development require approval of the County.
- C. The erection or placement of all new traffic control devices, mailboxes, and appurtenant structures within rights-of-way.
- D. The construction of all new roads, trails, approaches, and appurtenant structures that are built as a result of these standards.

Nothing in these Standards shall be construed to:

- E. Require that the County construct, reconstruct, widen, maintain, or improve a road or other transportation rights-of-way to these Standards;
- F. Require that those portions of new or existing private roads or approaches outside rights-of-way be constructed, reconstructed, widened, or improved to the Standards, unless subject to County approval;
- G. Obligate the County to accept any new or existing public or private rights-of-way for maintenance.
- H. Apply to ongoing maintenance within County road rights-of-way.

---

## **SECTION 1.4 | ROLES AND RESPONSIBILITIES**

---

### **1.4.1. Delegation of Authority**

Whenever a provision appears requiring the head of a department or another officer or employee of the County to perform an act or duty, that provision shall be construed as authorizing that person to delegate that responsibility to others over whom they have authority as an "authorized representative".

### **1.4.2. Madison County Road Department**

The role of the Madison County Road Department (County Road Department) is to protect, preserve, and maintain the transportation system. The County Road Supervisor and Road District Foremen are hereby authorized to act on behalf of Madison County, as set forth in these Standards. The Madison County Road Department may require the involvement of a Professional Engineer for resurfacing, reconstruction, or other complex projects.

### **1.4.3. Madison County Planning Department**

The Madison County Planning Department's (County Planning Department) role is to provide guidance for planning and development services in Madison County. The County Planning Department is responsible for the review and processing of development applications, and development plans may be reviewed by the County Road Department.

### **1.4.4. Madison County Commission**

The Madison County Commission (County Commission) is responsible for general supervision and control of County Roads and Rights-of-Way per Section 7-14-2101, MCA, *et seq.*, including the establishment, acquisition, alteration, abandonment, and maintenance of those Rights-of-Way under its jurisdiction. The County Commission may, in its discretion, do whatever may be necessary for the best interest of the County roads.

### **1.4.5. Other Madison County Departments**

Review and approvals may be required from other Madison County departments, districts, and offices. The primary point of contact regarding the administration of these Standards is the County Road Department.

### **1.4.6. Montana Department of Transportation**

Pursuant to Section 60-2-201, MCA, the Montana Department of Transportation (MDT) has the authority to plan, lay out, alter, construct, reconstruct, improve, repair, and maintain highways on the commission-designated highway systems and state highways. MDT may coordinate with the County and other local jurisdictions to review and approve projects impacting state highway Rights-of-Way. MDT also may enter into agreements with the County and other local jurisdictions, pursuant to Section 60-2-204, MCA, by which the local jurisdiction maintains portions of the public highways.

### **1.4.7. Applicants and Developers**

Applicants and Developers are responsible for ensuring that proposals, applications, and development comply with these Standards.

---

## **SECTION 1.5 | ROAD NAMES**

---

All new road names shall be assigned in accordance with adopted road naming ordinances and policies.

---

## **SECTION 1.6 | PERMITTING AND FEES**

---

- A. Fees are established by resolution of the Commission and are collected for the following permits or services (current fee schedules are available on the Madison County website):
  - i. Encroachment Permit
  - ii. Utility/ROW Work Permit
  - iii. Variance Permit Request
  - iv. Overweight Permit Application (Weight Exemption Request)
  
- B. Any proposed project that occurs in or near an intermittent or perennial natural water body is subject to review and approval by various local, state, and federal agencies. To ease the permitting process, many agencies use the “Joint Application for Proposed Work in Montana’s Streams, Wetlands, Floodplains and Other Water Bodies,” which is available from Montana Fish, Wildlife & Parks.
  - i. The County Road Department does not review this application, nor does it issue any permit for working in or near water bodies. Any individual performing work in the vicinity of a natural water body should contact the agencies listed on the joint application to determine which permits are applicable to their project.
  
- C. Any construction activity that results in the disturbance of equal to or greater than one (1) acre of total land area will need to obtain permit coverage from the Montana Department of Environmental Quality (Montana DEQ) with the “General Permit for Storm Water Discharge Associated with Construction Activity.”
  
- D. The County Commission shall ensure that all permits granted are recorded with the Madison County Clerk and Recorder after issuance.
  
- E. Additional regulations apply and additional permitting is required if the disturbed area falls within an incorporated town or community. Applicants shall supply a copy of any applicable permitting to the County.

---

## **SECTION 1.7 | MODIFICATION OF THESE STANDARDS**

---

For the purposes of providing for the public health, safety, and general welfare, and as policies, procedures and standards change within the County, this document will change accordingly. Modification to these Standards will not become effective until after a public hearing has been held before the Commission, legal notice of which shall have been given in compliance with Section 7-1-2121 MCA.

---

## **SECTION 1.8 | SEVERABILITY**

---

If any word, phrase, clause, sentence, paragraph, section, or other part of these Standards is held or made to be invalid or unenforceable, the remainder of these Standards will be considered valid and enforceable to the fullest extent permitted by law.

---

## SECTION 1.9 | CONTRADICTIONS

---

If the requirements of these Regulations conflict with the requirements of any other lawfully adopted laws, rules, or regulations, the most restrictive (or higher standard) shall govern.

---

## SECTION 1.10 | STANDARD SPECIFICATIONS, REGULATIONS, AND GUIDELINES

---

Except where these Standards provide otherwise, design detail, workmanship and materials shall be in accordance with the current edition of the following specifications, regulations and guidelines. These standards apply to new construction and modifications of County roadways.

- A. American Association of State Highway and Transportation Officials (AASHTO), A Policy on the Geometric Design of Highways and Streets (Greenbook)
- B. AASHTO LRFD Bridge Design Specifications
- C. AASHTO Roadside Design Guide
- D. AASHTO Guidelines for Geometric Design of Very Low-Volume Local Roads (VLVLR)
- E. AASHTO Guide for Design of Pavement Structures
- F. AASHTO Guide for the Planning, Design and Operation of Pedestrian Facilities
- G. AASHTO Guide for the Development of Bicycle Facilities
- H. Institute of Traffic Engineers (ITE), Trip Generation Manual
- I. Montana Department of Transportation (MDT), Bridge Design Standards
- J. MDT Roadway Design Manual
- K. Montana Contractors' Association, Montana Public Works Standard Specifications (MPWSS)
- L. US Department of Transportation - Federal Highway Administration, Manual on Uniform Traffic Control Devices (MUTCD)
- M. United States Access Board, Public Right-of-Way Accessibility Guidelines (PROWAG)
- N. Any other applicable road design standard manuals.

---

## SECTION 1.11 | DEFINITIONS

---

Whenever the following words or phrases appear in this text, they shall have the meaning assigned to them by this Section. When not inconsistent with the context, words used in the present tense shall include the future; the singular shall include the plural, and the plural the singular; the word "shall" is always mandatory, the word "should" is considered recommended but not mandatory, and the word "may" indicates use of discretion in making decisions.

### Access:

- **Legal Access:** A roadway dedicated to the public or town, County, State, or other government entity which has been affirmed to obtain adequate and appropriate easements across all necessary properties. Within subdivision, Legal Access means that each lot in a subdivision either abuts a public (dedicated to the public or city, county, state, or federal) street or road, or that the subdivider has obtained adequate and appropriate easements across all necessary properties, from a public road to each lot in the subdivision, whether a road has been constructed on that property and has dedicated the easement or private road for public use or for the use of the subdivision.
- **Physical Access:** A roadway providing vehicular access from one point to another in which the design is

in compliance with adopted standards. Within subdivision, Physical Access means that a street or road conforming to the subdivision design standards provides vehicular access to each lot in the subdivision, either from a public street or road, from a road constructed to local road standards in the obtained easements which is dedicated to public use, or from a private road improved to local road standards which has been dedicated to public use or for the use of the subdivision. Gated subdivisions are prohibited.

**Access Road:** All roads used for access. An access road may be an Arterial, Collector, or Local road.

**Appeal:** A means for requesting a formal review of the final written decision made by the County Road Department as authorized by these Standards.

**Approach:** An access point that connects any private land use such as a residential, commercial, or industrial property to either an interior development road or Access Road.

**Approach, Driveway:** An approach that connects to no more than three (3) dwelling units or an agricultural land use.

**Approach, Residential Driveway:** A driveway that serves no more than one (1) dwelling unit and connects to an interior development road.

**Arterial Road:** A road having the primary function of moving traffic with emphasis on a high level of mobility for through movement and the secondary function of providing access to adjacent land. Arterials generally carry relatively large volumes of traffic and connect communities to major state and interstate highways. Includes two classifications: Principal and Minor.

**Average Daily Traffic (ADT):** The average 24-hour traffic volume at a given location for a typical weekday. Expressed as annual average daily traffic when that period is one (1) year.

**Background Traffic Projections:** Future buildout conditions without traffic attributable to the proposed development. The projection should include the anticipated increase in background traffic volumes in addition to the generation of other related projects that are not present in the existing condition but would likely be completed and generating trips by the time of full build out. Trip generation for the proposed development should not be included.

**Bicycle Facilities:** Infrastructure designed to accommodate or encourage bicycling, including formal, striped/signed bike lanes, widened roadway shoulders, and shared roadways specifically designated for bicycle use.

**Block:** A group of lots, tracts, or parcels within well-defined and fixed boundaries. Such boundaries may include streets, railroads, irrigation ditches, streams, platted lands, or a combination thereof.

**Collector Road:** A road that gives equal priority to the movement of traffic and access to abutting properties. A principal route to promote the free flow of traffic within residential or commercial areas that carries relatively high traffic volumes and conveys traffic from Arterial Roads to lower- order roads.

**Concrete:** Unless otherwise specified within, concrete shall refer to Portland cement concrete.

**Conservation Easement:** A voluntary legal agreement between a landowner and a land trust or government agency that permanently restricts certain land uses and activities in order to protect the conservation values associated with the property's natural resources, natural topography, or wildlife habitat.

**County Road:** Any road Right-of-Way under the jurisdiction of Madison County pursuant to Montana Code Annotated Section 7-14-2101(4)(b), including those dedicated for public use and approved as county roads by the County Commission.

**County Road in Subdivision:** A road on a final subdivision plat that is dedicated to public use is not considered a County road until the Board of County Commissioners approves by resolution the adoption of the road as a County road pursuant to Montana Code Annotated Section 7-14-2101(2)(d).

**Covenant:** A limitation contained in a deed or other document that restricts or regulates the use of the real property.

**Cul-de-sac:** A local road with physical motorized access on one end only, and with special provisions for turning around on the closed end (bulb, hammerhead, "T", etc.).

**Curb Radius:** The radius available for the design vehicle to make the vehicle turn, accounting for the presence of parking, bike lanes, medians, or other features.

**Curb Return:** The curved section of a curb located at a corner of an intersection, connecting a curb on one street to another curb on the intersecting street.

**Dead-End Road:** A road having only one point of vehicular access. (See also cul-de-sac)

**Dedication:** The deliberate appropriation of land by an owner for any general and public use, reserving no rights which are incompatible with the full exercise and enjoyment of the public use to which the property has been devoted (76-3-103(3), MCA).

**Design Exception:** A documented decision to design roadway element(s) in a manner that deviates from the design criteria established by these Standards.

**Design Speed:** A selected speed used to determine the various geometric design features of the roadway. In selecting an appropriate design speed, topography, anticipated operating speed, adjacent land use, and functional classification should be considered.

**Developer:** Any person or entity that causes land to be developed through division, subdivision, construction, or other land development process requiring County approval.

**Driveway:** A vehicular access that typically serves up to two residences.

**Easement:** A nonpossessory interest in land that gives a person or entity the right to use the land of another for a specific purpose or purposes including but not limited to irrigation, roadway, ingress/egress, recreation, utilities, or emergency vehicle access.

**Emergency Services:** Community services such as fire protection, law enforcement, ambulance service, quick response, search and rescue, flood and disaster relief.

**Engineer:** A person licensed in conformance with the Montana Professional Engineers Registration Act (Title 37, Chapter 67, MCA) to practice engineering in the state of Montana.

**Erosion:** The process by which the soil and rock components of the earth's crust are worn away and removed from one place to another by natural forces such as water, wind, ice, and gravity.

**Eyebrow:** A bulb or semi-circular extension of a curb on one side of a street to provide more street frontage for adjacent lots.

**Flood Hazard Area:** The area at and below the base flood elevation.

**Floodplain:** The area adjoining the watercourse or drain way that would be covered by the floodwater of a flood of 100-year frequency.

**Foreslope:** A parallel slope that falls away from the roadway. Where a roadside ditch exists, a foreslope connects the edge of the shoulder to the bottom of the ditch.

**Geographic Information System (GIS):** A computer system for capturing, sorting, checking, and displaying data related to positions on Earth's surface, used to better understand spatial patterns and relationships.

**Grade:** The rate of change of the vertical alignment. Also known as slope.

**Hazard:** Any condition, either natural or man-made, which presents danger to the public health, safety, and welfare.

**Homeowners Association (HOA):** A corporation organized under the provision of Title 35, Chapter 2 (MCA) that is responsible for the operation of a community or a mobile home subdivision.

**Improvement Agreement:** A contractual agreement that may be required by the governing body to ensure the construction of such improvements as required by local subdivision regulations. The improvement agreement may require collateral to secure the construction of such improvements, such as the deposit of certified funds, irrevocable letters of credit, performance, or property bonds, private or public escrow agreements, or similar financial guarantees.

**Infrastructure:** The set of interconnected structural elements that provide a framework supporting an entire structure of development.

**Interior Development Road:** A road contained within the exterior boundaries of a development.

**Knuckle:** A bulb or semi-circular extension of a curb on one side of a street at an elbow or “L” intersection to provide more street frontage for adjacent lots.

**Landowner:** All individuals, groups, or parties with a title interest in the property. For purposes of Section 76-3-207, MCA, when a parcel of land for which an exemption from subdivision review is claimed is being conveyed under a contract-for-deed, the terms “property owner,” “landowner,” and “owner” mean the seller of the parcel under the contract-for-deed (24.183.1104 ARM). For all other purposes of these regulations, the terms “property owner,” “landowner,” and “owner” mean both the seller and the purchaser under a contract for deed.

**Lands, Partially Developed:** Lots or parcels of land upon which a Structure, utilities, or infrastructure is currently located, and which is of sufficient area so as to be capable of accommodating additional development or which may be subdivided in accordance with County- adopted Plans and Regulations.

**Lands, Undeveloped:** Vacant lots or parcels of land upon which no Structure, utilities, and infrastructure are currently collectively located, but which could be subdivided or otherwise developed in accordance with County-adopted Plans and Regulations.

**Level of Service (LOS):** A term used to qualitatively describe the operating conditions of a roadway based on factors such as speed, travel time, maneuverability, delay, and safety.

**Local Fire Authority:** A local fire district, fire service area, or the county fire marshal.

**Local Services:** Any and all services or facilities that local government entities are authorized to provide.

**Lot:** A parcel, plot, or other land area created by subdivision.

**Lot Measurement:**

- Lot Depth: The length of a line drawn perpendicularly to the front lot line and extending to the rear lot line.
- Lot Width: The average width of the lot.
- Lot Frontage: The width of the front lot line.
- Net Lot Area: The gross lot area less the area within any existing or proposed public or private street, road or easement for ingress and egress, and less the area within any existing or proposed easement wherein the owner of the lot is prohibited from using the surface of the land. Included in the net area is the area lying within public utility easements, sanitary sewer easements, landscaping easements, and other such easements wherein the owner of the lot is not prohibited from using the surface of the land.
- Gross Lot Area: The total area, measured in a horizontal plane, within the boundary lines of a lot.

**Lot Types:**

- Corner Lot: A lot located at the intersection of two streets.
- Interior Lot: A lot with frontage on only one street.
- Through or Double-Frontage Lot: A lot whose front and rear lines both abut on streets.
- Flag Lot: A lot of irregular shape, the bulk of which is normally situated to the rear of other lots, having as its frontage and access a drive connecting it to a street.

**Major Subdivision:** A subdivision that creates six or more lots.

**MCA:** Montana Code Annotated.

**Minor Subdivision:** A subdivision that creates five or fewer lots from a tract of record.

**MWPSS:** Montana Public Works Standard Specifications.

**Mountainous Terrain:** Longitudinal and transverse changes in the elevation of the ground are abrupt and extensive grading is frequently needed to obtain acceptable alignments. Ridges and drainages are steep and well defined, and the average slope of the terrain greater than 15 percent.

**Municipality:** An incorporated city or town.

**Net Density:** The number of residential dwelling units per unit of land, excluding any land used or to be used as road Rights-of-Way and dedicated parkland/Open Space.

**No Build Zone:** An area in which no structure may be constructed or otherwise placed, including buildings, culverts, irrigation facilities, earthen dams or berms, storage facilities, or any structures that may impede stormwater drainage areas, etc. A No Build Zone is generally intended to mitigate potentially adverse impacts.

**Noxious Weed:** Any exotic plant species established or that may be introduced in the state that may render land unfit for agriculture, forestry, livestock, wildlife, or other beneficial uses or that may harm native plant communities and that is designated as a statewide noxious weed by rule of the department or as a district noxious weed by a board, following public notice of intent and a public hearing.

**Ordinary (Level or Rolling) Terrain:** The terrain has limited restriction to normal horizontal and vertical roadway alignment. Ridges and drainages are not well defined.

**Plat:** A graphical representation of a subdivision showing the division of land into lots, parcels, blocks, streets, alleys, and other divisions and dedications. [Section 76-3-103 (12), MCA].

- Preliminary Plat: A neat and scaled drawing of a proposed subdivision showing the layout of streets, alleys, lots, blocks, and other elements of a subdivision that furnish a basis for review by a governing body as more specifically set forth in these regulations and the MSPA. [Section 76-3-103(13)].
- Final Plat: The final drawing of the subdivision and dedication required to be prepared for filing for record with the county clerk and recorder containing all elements and requirements set forth in these regulations and the MSPA. [Section 76-3-103(6), MCA].
- Amended Plat: The final drawing of any change to a filed platted subdivision, or any lots within a filed platted subdivision.
- Vacated Plat: A plat which has been voided under the provisions of Sections 76-3-305, 7-5-2501, 7-5-2502, 7-14-2616 (1) and/or (2), 7-14-2617, 7-14-4114 (1) and/or (2), and 7-14-3115, MCA.

**Platted Covenant:** A limitation contained on the face of the plat that restricts or regulates the use of the real property.

**Private Improvement:** Private improvements are the same types of improvements as defined under PUBLIC IMPROVEMENTS, except the structure or facility has not been dedicated to the public or otherwise acquired by a government entity for public use.

**Private Road:** A road is private if its right-of-way has neither been dedicated to nor acquired for public use. A private road may either be open to use by the public or public access may be restricted at the discretion of the private road owner(s).

**Proportionate Share:** The portion of the cost for transportation facility improvements that are proportionately related to the service demands and needs of new development. Also known as pro-rata share. Determined by calculation or other methodology proposed by the Applicant's Engineer or the County (see Section 3.6).

**Public Improvement:** Any structure or facility constructed to serve more than one lot in a subdivision which is dedicated to the public, for the use of the subdivision, or otherwise acquired by a government entity for public use. Examples of typical public improvements include parks, streets or roads, sidewalks, curbs, gutters, and street lighting, utilities, and systems for water supply, sewage disposal, drainage, or fire protection.

**Public Health and Safety:** Condition of optimal well-being, free from danger, risk, or injury for a community at large, or for all people, not merely for the welfare of a specific individual or a small class of persons.

**Public Road:** A road or street is public if its right-of-way has been dedicated to or acquired for public use.

**Public Use:** Easements or rights-of-way providing vehicular or non-motorized access from one point to another by the public, excluding overnight camping and occupancy. Public use rights-of-way may be utilized by adjacent landowners or subdivisions, given that proper written permission has been granted or easements are in place; public rights-of-way owners may require monetary agreements for use agreements extending beyond properties immediately adjacent to or originally served by the easements or rights-of-way.

**Reducible Load:** A load that can be reduced to legal size or weight, or that is practically divided in a way that does not diminish value or inhibit its intended purpose.

**Right-of-Way (ROW):** A linear public way established or dedicated for public purposes by a duly recorded plat, deed, easement, grant, prescription, condemnation, governmental authority or by operation of law, intended to be occupied by a road, trail, motorized or non-motorized vehicle path, railroad, electric transmission lines, water line, sanitary sewer line, storm sewer line, or other similar uses.

**Road, Local:** The highest accessibility, lowest mobility functional classification of road characterized by their many points of direct access to adjacent properties, and with typically lower traffic volumes and speeds with short trip distances. May be gravel or paved.

**Runoff:** Precipitation that flows off the land without filtering into the soil or being absorbed by plant material.

**Rural Area:** All areas of the County that are not otherwise designated as urban areas.

**Setback:** The minimum distance structures may be located from lot lines, rights-of-ways, water courses,

waterbodies, riparian areas, or other sensitive features.

**Shared Use Paths:** Also referenced as “commuter trails” in the Triangle Trails Plan, are wide paths with durable surfaces intended for use by both pedestrians and bicyclists.

**Sidewalks:** Paved walkways for the exclusive use of pedestrians. Typically, sidewalks parallel existing motorized transportation facilities. These walkways can either be located immediately adjacent to the curb line, or offset from the roadway by a grassy boulevard.

**Slope:** The inclination of the surface of the land from the horizontal, prior to development.

**Structure:** A combination of materials to form a building, edifice or any piece of work for use, occupancy, or ornamentation whether installed on, or below the surface of land or water.

**Subdivision:** A division of land or land so divided which creates one or more parcels containing less than 160 acres that cannot be described as a one-quarter aliquot part of a United States government section, exclusive of public roadways, in order that the title to the parcels may be sold or otherwise transferred and includes any re-subdivision and a condominium.

**Surveyor:** A person licensed in conformance with the Montana Engineers' and Land Surveyors' Act (Title 37, Chapter 67, MCA) to practice surveying in the State of Montana.

**Topography:** General term to include characteristics of the ground surface such as plains, hills, mountains, slopes, and other physiographic features.

**Trails:** Trails are intended for use by non-motorists for both transportation and recreation purposes and are typically constructed within and connecting to subdivisions. Trails are generally constructed of natural materials such as crushed aggregate.

**Transportation Right-of-Way:** Public Right-of-Way established or dedicated for the purpose of providing a facility used for transportation by vehicle, bicycle, foot, or any other motorized and non-motorized modes. Such facilities may include roads, parking facilities, pedestrian and bicycle facilities, transit facilities, and any other facilities used for transportation purposes.

**Trip:** A one-directional movement from a roadway into or out from a parcel by a single vehicle. The combined number of trips is known as trip generation.

**Unit:** An individual residential dwelling unit, accessory dwelling unit, or non-residential equivalent defined as space for rent, lease, or purchase including but not limited to a single-family home, apartment, condominium, townhouse, commercial condominium, light industrial space, or office.

**Urban Area:** Areas existing within a recognized urbanized area, as designated by the US Census Bureau and the Montana Department of Transportation. Surrounding areas where high density growth is expected to occur, are regarded as urban fringe areas.

**Variance:** A process which grants a property owner relief from a regulation standard, where strict enforcement of the standard would create a hardship upon the owner.

**Watercourse:** Any depression two feet or more below the surrounding land serving to give direction to a current of water at least nine months of the year and having a bed and well-defined banks.

**Water Conveyance Facility:** Agricultural water user facilities and other facilities that convey water for agriculture, stock, domestic, fish and wildlife, industrial, irrigation, mining, municipal, power, recreation, aquifer recharge or mitigation, and all other beneficial uses set forth in Section 85-2-101, et seq., MCA. These facilities include, but are not limited to, ditches, canals, pipelines, flumes, wells, infiltration galleries, diversion structures, headgates, pumps, blowoffs, swales, and associated infrastructure. This term is not intended to include a “watercourse” as defined in these regulations or any man-made structure the primary purpose of which is to convey stormwater.

**Wetland:** As defined by the US Army Corps of Engineers, (jurisdictional) wetlands are those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.

## CHAPTER 2: ADMINISTRATION

### SECTION 2.1 | TRANSPORTATION SYSTEMS

---

The transportation system in Madison County consists of state highways, County roads, municipal streets, other public roads, private roads, and non-motorized transportation rights-of-way.

#### 2.1.1. State Highway System

The State highway system in Madison County is managed by MDT under the direction of the Transportation Commission. MDT has responsibility for the construction and maintenance of all state highways. Maintenance responsibilities may be assumed by the County or an incorporated municipality under a maintenance agreement. Access to the state highway system is administered by MDT. Planning for state highways is conducted by MDT in cooperation with the County, local municipalities, and other agencies.

#### 2.1.2. County Road System

The County Road Department, at the direction of the County Commission, has the authority to administer the County Road System, including, but not limited to, planning, design, construction, acceptance, maintenance, and traffic regulation. The County Road System consists of those roads meeting the definition of “county road.”

#### 2.1.3. Non-Motorized Transportation System

Other planning documents, such as community plans, transportation plans, trail plans, and the Growth Policy, may provide guidance on the development of the non-motorized transportation system.

#### 2.1.4. Municipal Road System

Within town boundaries, the transportation design standards issued by the respective jurisdiction shall apply.

#### 2.1.5. Compliance with Adopted Plans

The layout of roads, streets, highways, and non-motorized facilities shall comply with adopted planning documents and plans. Where proposed development adjoins other property, the dedicated road and improvements required to connect roads and non-motorized facilities within the proposed development shall extend to the adjacent property line in conformance with any adopted plans.

#### 2.1.6. Compliance with Adopted Addressing Standards

The identification and wayfinding of individual property or structure addresses shall be determined and in compliance with current adopted addressing and road naming ordinances.

---

### SECTION 2.2 | CHANGES TO THE COUNTY ROAD SYSTEM

---

The County is authorized by Sections 7-14-2601, MCA, et seq., and 60-1-101, MCA, et seq., to establish, alter, and abandon County roads. No road or other public right-of-way encroaching upon an existing County road right-of-way shall be constructed or approved to be in the jurisdiction of the County until and unless the proposed location and extent has been reviewed by the County Commission or accepted and approved via resolution pursuant to applicable law. Where a modification or improvement to an existing County Road is proposed, such as but not limited to alteration of course or changes to type of surface, the County Commission must approve such modification or improvement.

The County Road Department, subject to County Commission approval, is responsible for planning, design, right-

of-way acquisition, construction, and inspection of all improvements to the existing County road system. County roads and other transportation rights-of-way constructed by others will ordinarily pass through the following review steps:

- A. **Planning:** The planning or layout of a new County road or other transportation right-of-way shall comply with these Standards, the Madison County Subdivision Regulations, and any other applicable development regulations.
- B. **Design:** The design of any new County road or other transportation rights-of-way shall comply with these Standards. Plans shall be prepared by a Professional Engineer in accordance with these Standards and the Subdivision Regulations and shall be approved by the County Road Department and County Commission prior to the beginning of construction.
- C. **Construction:** Construction of new County roads and other transportation rights-of-way shall conform to an approved design that follows the Standards contained herein.
- D. **Inspections and Testing:** Adequate inspections and testing ensure compliance with these Standards and the MPWSS and are the basis for release of the Performance Guarantee. Requirements for inspections and testing are the sole responsibility of the Developer.
- E. **Road Dedication/Acceptance:** Acceptance of a subdivision plat by the County Commission constitutes acceptance of rights-of-way for public use as shown, but not as County roads. A County road or right-of-way designation on a subdivision plat must be accepted and approved by Resolution of the County Commission to be a County road. The County Commission may approve road rights-of-way by Resolution only after all the following requirements are met:
  - i. The rights-of-way meet all applicable minimum design requirements described in these Standards. If a design exception or variance is approved, or if an appeal is reversed, the roads shall meet all requirements agreed to in the approved documentation.
  - ii. The rights-of-way connect to another County Road, state highway, municipal street, or non-motorized transportation facility.
  - iii. As-built drawings are to be submitted to the County Road Department. The drawings shall accurately show all construction details, utility and lateral locations, and other pertinent information.

Acceptance of public rights-of-way as County roads does not constitute acceptance of the facility for maintenance. The County commission is not obligated to approve or accept any road or right of way as a County road and may do so at its discretion.

- F. **Warranty Period and Guarantee:** There shall be a two (2) year warranty period on all work performed within the County rights-of-way with an accompanying warranty acceptable to the County.

---

## **SECTION 2.3 | VARIANCES**

---

The County Commission may grant reasonable variances from these Standards where it is found that strict compliance will result in undue hardship and such strict compliance is not essential to the public health, safety, and general welfare. Variances submitted as part of a land development application shall be considered simultaneously with the application. Other variances not associated with a land development application shall be considered during a public meeting.

The Landowner/Developer shall submit a written request to the County Commission describing the requested variance, the facts of hardship upon which the request is based, and responding to each of the criteria identified below. The County Commission shall consider each variance during a public meeting and may approve the variance only upon finding that the following criteria are satisfied:

- A. The granting of the variance will not be detrimental to the public health, safety, or general welfare, nor be injurious to other adjoining properties;
- B. Due to the physical surroundings, shape, or topographical conditions of the property involved, strict compliance with the Standards will impose an undue hardship on the owner. Undue hardship does not include personal or financial hardship, or any hardship that is self-imposed;
- C. The variance will not cause a substantial increase in public costs; and
- D. The variance will not place the development in non-conformance with other sections of these Standards or any other County-adopted Plans or Regulations.

Notice of the public meeting shall be published twice, with at least six days separating each publication, in a newspaper of general circulation in the area, consistent with the requirements of § 7-1-2121, MCA. Notice of the meeting shall also be provided notice of the meeting by first-class mail to all owners of real property adjacent to the real property that is the subject of the variance, consistent with the requirements of § 7-1-2122, MCA.

In granting variances, the County Commission may impose such conditions as will, in its judgment, substantially secure the objectives of these Standards. The Commission shall issue a written decision approving or denying a variance within 30 working days of the public meeting at which the variance was considered.

A person aggrieved by the County Commission's decision on a variance may appeal such decision to a court of competent jurisdiction within 30 days of the issuance of the Commission's written decision.

---

## **SECTION 2.4 | APPEALS**

---

An aggrieved person (Appellant) may request a formal review of a final written decision made by the County Road Department. Only the following decisions may be appealed: denial or approval of a permit, requirement for a permit, the conditions attached to a permit.

An appeal must be in writing, signed by the Appellant, and must contain, at a minimum, the following information:

- A. Name, address, and phone number of the Appellant;
- B. Description of the basis for the appeal, detailing site-specific restrictions and why they are requesting relief from the Road/Bridge/Engineering Department's decision;
- C. Location and site information; and
- D. Alternative solutions and demonstrated utility, feasibility, safety, and equivalency thereof.

The appeal must be submitted to the County Road Department within thirty (30) calendar days of the date of the written decision being appealed. The Department shall acknowledge receipt of the appeal and notify the Appellant of the date of the appeal hearing in writing. However, if an appeal is received more than 30 days after the date of the written decision, the Department shall notify the Appellant in writing that it is declining to send the appeal to the County Commission for consideration.

The Commission will consider an appeal during a public appeal hearing. The County Commission shall publish notice of the hearing twice, with at least six days separating each publication, in a newspaper of general circulation in the area, consistent with the requirements of § 7-1-2121, MCA. The Department also shall provide notice of the hearing by first-class mail to all owners of real property adjacent to the real property that is the subject of the appeal, consistent with the requirements of § 7-1-2122, MCA.

At the close of the appeal hearing, the Commission may modify or reverse the decision only if it concludes, based on the facts contained within the administrative record on which the County Road Department based its decision, that the Department erred. The Commission shall issue a written decision within thirty (30) working days following the appeal hearing.

A person aggrieved by the County Commission's decision on an appeal may appeal such decision to a court of competent jurisdiction within 30 days of the issuance of the Commission's written decision.

## CHAPTER 3: ACCESS STANDARDS

---

### SECTION 3.1 | PURPOSE

---

The purpose of these access standards is to provide a framework to achieve proper access management. The goals of proper access management are to:

- A. Reduce the number of vehicle and pedestrian conflict points, reducing both the number and severity of vehicle collisions;
- B. Safely and adequately accommodate the type and volume of traffic, including emergency vehicles, that currently uses the access, plus any increase in traffic that may be added by the permitted use;
- C. Preserve the intended capacity and functional level of roadways; and
- D. Ensure that the owner of a lot has a lawfully established right of vehicular ingress and egress to that lot.

Access and utility/ROW work designs that deviate from the Standards provided in this Chapter will be considered by the County Road Department through the Design Exception process.

---

### SECTION 3.2 | ROLES AND RESPONSIBILITIES

---

#### 3.2.1 Madison County Road Department

The County Road Department shall determine the number, location, and surface treatment of all accesses consistent with the intent of these Standards and make recommendations to the County Commission.

#### 3.2.2 Madison County Planning Department

The County Planning Department is responsible for review of development applications for compliance with County-adopted plans, regulations, and ordinances. Prior to a permit or application being submitted to Planning, proposed access points to the property may be reviewed by the County GIS Department, County Fire Warden, and County Road Department.

#### 3.2.3 Municipalities

Within incorporated areas, the access standards detailed in the respective jurisdictions' transportation design standards shall apply.

#### 3.2.4 Montana Department of Transportation

MDT has authority over any access requested to a state highway. Such accesses must adhere to the MDT Design Standards and go through the MDT Systems Impact Action Process.

#### 3.2.5 Madison County Commission

The County Commission shall grant, conditionally grant, or deny applications for encroachment and work permits based upon its review of the application, the Road Department's recommendations, and other information in the record.

---

### SECTION 3.3 | REQUIRED PERMITS

---

Any person or agency performing any work in County road rights-of-way must first obtain an Encroachment Permit from the County Commission. Any applicable permitting relating to County roads and rights-of-way may require additional review by the County's on-call engineer, at the expense of the applicant.

### **3.3.1 Encroachment Permits**

Encroachments into County road rights-of-way are prohibited unless permitted by the County. An Encroachment Permit is required prior to connecting an access road or driveway to a County road or for placing any above-ground structure or object of any kind or character within, over, or across any portion of a County road right-of-way, including, but not limited to towers, poles, structures, gates, fences, stands, and buildings. No encroachment will be allowed that will hinder the ability to maintain the County road right-of-way, that is deemed to be a threat to public safety, or that obstructs and prevents the use of the travelled way. Any encroachment that alters the surface of the County road right-of-way must return the surface to its original or improved condition (see Section 3.4.7). The County Road Department may require the removal of any non-permitted encroachment in accordance with Sections 7-14-2134 through 7-14-2138, MCA, design specifications and plans prepared by a Professional Engineer, and the following:

- A. When provided notice or upon discovery of an encroachment that does not obstruct and prevent the use of the traveled way and is not considered to be an imminent threat to public health or safety, the County Road Department may proceed with notice and removal of the encroachment upon the direction of the County Commission.
- B. When provided notice or upon discovery of an encroachment that does not obstruct and prevent the use of the traveled way but is considered to be an imminent threat to public health or safety, the County Road Department will remove the encroachment immediately.
- C. When provided notice or upon discovery of an encroachment that obstructs and prevents use of the traveled way, the County Road Department will remove the encroachment immediately. This includes locked gates, as they are not permissible across County roads.
- D. Costs incurred by the County for the removal of the encroachment will be recovered by methods allowed by law.

Residential driveways do not need to be individually permitted if included as part of an approved subdivision development.

### **3.3.2 Utility/ROW Work Permits**

Permits are required for underground and aerial utility work (excluding landscaping and associated irrigation), in, under, or over any portion of all County Road Rights-of-Way. Such work includes work on any existing tower, pole, pole line, pipe, pipeline, stand or building, or any appurtenant structure that currently exists within County Road Rights-of-Way. Utility/ROW Work Permits also are required prior to locating new underground utilities or replacing existing above-ground utilities in a County Road Right-of-Way. All new or replacement utilities require an Encroachment Permit, reviewed by the Road Department and approved by the County Commission.

All electrical utility work must be conducted pursuant to the National Electrical Safety Code (NESC) and any other state or federal standards where applicable. Work on underground pipelines or other underground utilities must be conducted pursuant to Federal and State standards and regulations where applicable.

---

## **SECTION 3.4 | WORK WITHIN THE COUNTY ROAD SYSTEM**

---

### **3.4.1 Road or Lane Closure**

If an applicant is requesting lane closures for the duration of the work to be performed pursuant to any permit, the applicant must request County Commission approval for such lane or road closures. Such requests must include a traffic control plan and may not include a closure of more than one lane at a time.

### **3.4.2 Insurance and Warranty**

Depending on the complexity of the work, the County may require the applicant obtain general liability insurance in the amount of \$ 1.5 million per occurrence and \$750,000 per claim for work in the County right of way. The County may also require a warranty guarantee or performance bond acceptable to the County.

### **3.4.3 Excavations**

Excavations in County road rights-of-way may be allowed at the discretion of the County with the issuance of an Encroachment Permit or Utility/ ROW Permit. The County has the sole discretion to determine the location, number and configuration of all excavations within County road rights-of-way. Excavations shall be performed in accordance with Occupational Safety and Health Administration (OSHA) standards, MPWSS, and these Standards including:

- A. No excavation shall extend over one-half of the width of the County road rights-of-way at any one time nor shall construction activities block the existing traveled way unless specific written approval has been granted.
- B. It shall be the sole responsibility of the permittee to notify all utilities of the excavation and be responsible for the location of all utility lines and their repair if damaged.
- C. The County is not responsible for costs associated with any utility installation or cost for removal/relocation.

### **3.4.4 Survey Monumentation**

Reasonable efforts shall be made to protect and avoid damage to existing survey monuments within excavation areas. Any survey monument in danger of disturbance shall be referenced by a professional land surveyor to facilitate the replacement of that monument should disturbance occur. Any survey monument which is disturbed shall be reset or replaced by a professional land surveyor, and it is the responsibility of the disturbing party to provide and pay for those services and do so in compliance with Section 70-22-115 MCA.

The following practices shall be followed when survey monuments must be found under existing hard surfaced roads:

- A. The disturbed surface area shall be patched with an applicable surface repair material (i.e. cold mix asphalt, concrete).
- B. Notification shall be given to the County Road Department in an attempt to coordinate patching work.
- C. Survey monumentation is exempt from Permit requirements, with acknowledged notification from the County Road Department.

### **3.4.5 Surface Cutting**

All County maintained roadways shall be jacked or bored. Exceptions will be on a case-by-case basis with the express permission of the County Commission. Roads within a County road right-of-way, but not County maintained, may be required to be jacked or bored depending on road surface conditions and area traffic considerations.

- A. All concrete areas to be excavated, including curb and gutter, sidewalks, driveways and slabs shall be cut with a power-driven saw to a minimum depth of twenty percent (20%) of its total thickness then broken square and removed. Cut limits will be a minimum of one (1) foot beyond the proposed excavation limits.
- B. Asphaltic concrete surface shall be cut utilizing a power saw. On a case-by-case basis in older pavements, the asphalt to be cut using a jackhammer with spade bit or with a cutting wheel mounted on power equipment. Square cutting shall produce a smooth vertical face at a minimum distance of one (1) foot beyond the area disturbed by excavation.
- C. Cuts shall be rectangular and made parallel and perpendicular to the traveled path of the road. The County Road Department reserves the right to extend the cut area to eliminate pavement "slivers" along the edge of the road or near appurtenances.

### 3.4.6 Backfilling

Backfilling within a County road right-of-way shall meet the following conditions:

- A. Native backfill material may be used if the material meets the specifications and compaction requirements of Section 02221 of MPWSS.
- B. If suitable backfill material is not available within project limits, imported backfill material may be required by the Engineer. Imported material meeting MPWSS specifications should be placed and compacted according to the applicable MPWSS backfill requirements.
- C. Flowable fill conforming to Section 02225 of MPWSS specifications is required for use on Collector and Arterial roads. Flowable fill backfill at other locations may be required by the Engineer or the County Road Department.
- D. If the County Road Department are unsatisfied with the materials, compaction techniques or efforts, work shall be stopped and an independent testing firm will verify materials and compaction at the contractor's expense.

### 3.4.7 Surface Replacement

After an excavation has been backfilled, the following conditions shall apply for surface replacement:

- A. Where excavation and construction work take place on unimproved surfaces outside of the roadway template, the area shall be returned to its original condition immediately after the work is complete. This will include topsoil replacement, reseeding to natural grass and returning drain ditches to grade.
- B. Where excavation and construction work take place on asphalt or hard surfaced roads, it is desirable to replace the pavement section to its original or better condition after excavation work. To accomplish this goal, the following conditions shall be met:
  - i. The pavement section shall match existing surfacing depths or meet the following minimum depths, whichever is greater: there shall be a minimum of twelve (12") inches of three (3") inch minus crushed subbase course and three (3") inches of one (1") inch minus or one and one-half (1.5") inch minus crushed base course gravel placed on the prepared sub-grade material with a minimum of three (3") inches of asphalt or concrete surfacing.
  - ii. All surfacing materials, placement, and compaction shall meet the minimum requirements of the applicable sections of MPWSS.
  - iii. Depending on conditions and road classification, the County Road Department may require geogrid, geotextile fabric, increased aggregate sections, or an increased asphalt section, in either single elements or any combination thereof.
  - iv. All surface replacements shall meet the patching, compaction, and finishing standards provided in Section 02510 of MPWSS.

- v. Asphaltic cold mix or a concrete slurry mix may be used as a temporary surface patch. This temporary repair shall be removed and replaced with compacted hot mix asphaltic concrete as soon as weather conditions and hot-mix asphalt availability allow.
  - vi. If the finished surface replacement does not meet reasonable expectations of the approved plans or excavation permit, the County Road/Bridge/Engineering Department retains the right to require seal coating to restore original surface conditions or replacement.
- C. Where excavation and construction work take place on gravel surfaced roads, the gravel surface replacement shall comply with surfacing standards in Sections 02234 and 02235 of MPWSS.

#### **3.4.8 Cleanup**

All materials, debris, and items relating to excavation or construction work shall be removed from the site, and if required by the County Road Department, pavement surfaces shall be swept. In all respects the site and surrounding area shall be in an equal or better condition than prior to the work being accomplished.

#### **3.4.9 Mailboxes**

Installation of up to two mailboxes are allowed within a County Road right-of-way without an Encroachment Permit. Individual residential mailboxes are allowed without a permit as an understood necessity if installed according to the standards of the United States Postal Service (USPS) Domestic Mail Manual Section 508 and all County-adopted addressing and road naming ordinances. Mailboxes installed within County road rights-of-way are subject to the following conditions:

- A. The County is not responsible for the installation, maintenance or replacement of mailboxes.
- B. Mailboxes damaged by County maintenance equipment may be repaired or replaced by the County if there is sufficient evidence that any piece of the equipment came into physical contact with the box or post. Mailboxes damaged by the force of snow being pushed off of the road will not be repaired or replaced. Mailboxes replaced by the County will be a standard sized box and post in accordance with USPS standards. No custom-made installations or repairs will be completed by the County.
- C. If a mailbox is installed that is not in substantial compliance with these standards or is determined by the County Road Department to be a hazard, the owner of the mailbox will be notified and the deficiency shall be corrected within ten (10) days. If the deficiency is not corrected within the prescribed time frame, the mailbox will be considered an encroachment and appropriate action to remedy the situation will be taken in accordance with Sections 7-14-2134 through 7-14-2138, MCA.
- D. Neighborhood, community, or clustered mailbox installations within County road rights-of-way require an Encroachment Permit.

#### **3.4.10 Signs and Signage**

Installation of signs/signage within or adjacent to a County road right-of-way shall require an Encroachment Permit. Installation of signs/signage adjacent to a County road rights-of-way shall adhere to the standards set forth by the Montana Department of Transportation (MDT).

#### **3.4.11 Noxious Weeds**

Madison County adheres to Montana Noxious Weed statute. The Madison County Weed Board complies with MCA 7-14-2132 by controlling weeds on County road rights-of-way. Any disturbance to grounds, due to encroachments, within County road rights-of-way shall comply with MCA 7-14-2131 and 7-22-2152.

## **SECTION 3.5 | APPROACHES WITHIN COUNTY ROAD SYSTEMS**

---

### **3.5.1 Number and Arrangement of Approaches**

The number of approaches shall be the minimum number needed to provide access to the property in compliance with these Standards and applicable laws and regulations.

### **3.5.2 Construction and Maintenance**

The permittee shall do all work and pay all costs associated with the construction of the approach and their appurtenances. All new approaches and any modifications to existing approaches will require an Encroachment Permit to County road rights-of-way.

Any maintenance and/or repairs deemed necessary by the County to a County road right-of-way shall be the responsibility of the permittee. The County Road Department reserves the right to make any changes within the rights-of-way that may be necessary to provide proper protection and safety for the public or maintenance of County road rights-of-way.

### **3.5.3 Design of Approaches**

Madison County shall have sole discretion in determining the most suitable design and layout of all approaches to County road rights-of-way. Approach design must meet all applicable sections of these Standards including those in Chapter 5 (Drainage, Snow Storage, and Water Crossings). The Madison County Road Department shall inspect the proposed approach site, review the application, and recommend approval, denial, or conditional approval to the County Commission. The County Commission will consider and rule upon the application at a regular public meeting.

### **3.5.4 Driveway Design**

This Section is applicable to driveways, as defined in these standards. Approaches serving more than two (2) dwelling units or any non-agricultural land shall be considered Access Roads and shall comply with all requirements for Access Roads, including those in Chapter 5 (Drainage, Snow Storage, and Water Crossings).

All driveways shall meet the following design requirements:

- A. Sight distance shall be as required by AASHTO / AASHTO-VLVLRL.
- B. The driveway grade shall be equal to or less than three (3%) percent slope for a distance of thirty (30') feet back from the public road surface unless otherwise directed by the County Road Department or approved by a local emergency service provider.
- C. The driveway shall intersect the public road at an angle of ninety (90°) degrees, plus or minus twenty (20°) degrees, to the roadway.
- D. The driveway width shall be between fourteen (14') feet and thirty (30') feet, not inclusive of any radius between the driveway and the public road. Driveways shall be no wider than necessary to serve the AASHTO design vehicles that will regularly use the driveway.
- E. Driveways shall be constructed from the edge of the traveled way to the boundary of the road Right-of-Way at a minimum.
- F. Vertical clearance of fifteen (15') feet shall be maintained for the full width of the driveway.
- G. The return radius between the driveway and the public road shall be sufficient to accommodate the largest AASHTO design vehicle anticipated to regularly access the facility. At a minimum, the radius for a driveway shall be fifteen (15') feet.
- H. Driveway spacing minimums shall be as defined below, unless it is demonstrated that no other alternative is feasible. For either adjacent new driveways or where a new driveway may be adjacent to an existing driveway, a shared approach may be required.

- i. The minimum distance from driveway centerline to the centerline of a nearby roadway shall be one hundred and fifty (150') feet.
  - ii. The minimum distance between driveway centerlines accessing Local Roads shall be one hundred and fifty (150') feet.
  - iii. The minimum distance between driveway centerlines accessing Collector Roads shall be three hundred (300') feet.
  - iv. The minimum distance between driveway centerlines accessing Arterial Roads shall be four hundred (400') feet.
- I. Existing drainage in the road right-of-way shall not be altered or impeded without specific approval from the County Road Department.
  - J. For driveways crossing an open ditch section, culverts shall be adequately sized to carry anticipated storm water flows and in no case be less than eighteen (18") inches in diameter or a diameter specified by the County. Culverts will be long enough to allow for three-to-one (3:1) beveled ends. Culverts must be corrugated metal pipe (CMP), reinforced concrete pipe (RCP), or other approved similar material. The minimum amount of cover material over the culvert shall be that recommended by the culvert manufacturer.

### **3.5.5 Penalties**

If the County Road Department determines that an approach is not in substantial compliance with these Standards, the owner of the approach will be notified and allowed to correct the deficiency. If the deficiency is not addressed within ten (10) days, either by corrective action or by notifying the County Road Department with a proposal for corrective action, the County Road Department will determine the approach to be an Encroachment and will take appropriate action to remedy the situation in accordance with Sections 7-14-2134 through 7-14-2138 MCA.

## CHAPTER 4: ROAD STANDARDS

### SECTION 4.1 | PURPOSE AND APPLICABILITY

The purpose of these transportation design standards is to provide standard specifications for the development of new transportation rights-of-way and the modification or reconstruction of existing transportation rights-of-way in the County. These Standards apply to all transportation rights-of-way within the County's jurisdiction. The design standards in this Chapter are considered minimum standards and may be superseded by more stringent standards if applicable through an adopted Transportation Plan, Trails Plan, or Capital Improvements Plan. Designs that deviate from the Standards provided in this Chapter will be considered by the County Commission through the Design Exception process.

### SECTION 4.2 | DESIGN CONTROLS

The following general classification and design parameters shall be considered when designing transportation infrastructure additions or improvements.

#### 4.2.1 Context

Transportation rights-of-way should be designed to either urban or rural standards as defined by adopted Transportation Plans or as follows:

- A. Transportation rights-of-way within a recognized urbanized area, as designated by the US Census Bureau and MDT, shall always be designed to urban standards.
- B. Transportation rights-of-way located within the urban fringe, or those areas where high density growth is expected to occur, shall be designed to urban standards.
- C. All other transportation rights-of-way may be constructed to rural design standards; provided, however, the County Commission reserves the right to amend the rural designation to accommodate increased traffic due to development.

#### 4.2.2 Functional Classification

Functional classification is the process by which roads are grouped into classes according to the character of the traffic service that they are intended to provide. There are three general functional classifications: Arterial, Collector, and Local Roads. Each of these classifications has sub-classifications with specific design requirements and typical cross-sections.

Developments within an adopted Growth Policy area of an incorporated city or town shall refer to the functional classifications contained in the local jurisdictions' guiding documents. For developments in all remaining parts of the County, the federally approved roadway classifications contained in MDT's functional classification map shall apply. The County Road Department reserves the right to amend the classification of a road to accommodate increased traffic due to development. All new roads will be classified by the County Road Department and County Commission.

Functional classification shall govern right-of-way width, road width, and road geometrics for each roadway.

### 4.2.3 Terrain Classification

The terrain in the County is divided into two groups, ordinary and mountainous, in accordance with the AASHTO Greenbook. This classification determines the maximum allowable grades in relation to design speed. Topography that introduces horizontal and/or vertical constraints along a single road segment within the development, at more than one location, will establish the appropriate type of terrain for each segment.

### 4.2.4 Design Traffic Volume

Roads should be designed for a specific traffic volume and a specified acceptable level of service. The ADT for current and future 20-year projections shall be used as a basis of design. Obtaining adequate traffic count data and establishing an appropriate 20-year growth rate is the responsibility of the Applicant.

---

## SECTION 4.3 | ROADWAY DESIGN STANDARDS

---

All new roads and improvements to existing roads in the County shall be designed responsibly in accordance with AASHTO, AASHTO-VLVLR, and PROWAG standards while also satisfying the minimum criteria provided in **TABLE 1** and **TABLE 2**. Roads must be designed to provide safe and adequate passage for vehicular and non-motorized traffic and ensure proper drainage, including surface crown, culverts, curbs and gutters, drainage swales, and storm drains.

Developments located within an adopted Growth Policy area of an incorporated town shall meet the town’s minimum road design standards and all applicable standards included in adopted Transportation Plans, Trails Plans, Growth Policies, and County Capital Improvements Plans. Developments impacting a State highway shall meet MDT’s minimum road design standards. County Roads constructed to urban design standards may deviate from the standards defined in **TABLE 2** to conform with the design standards of another jurisdiction through the Design Exception process. Curb and gutter may be required on all roads designed to an urban standard or serving a non-residential development.

**TABLE 1: ROADWAY DESIGN CRITERIA – RURAL**

STANDARD	TERRAIN	LOCAL ROAD	COLLECTOR	MINOR ARTERIAL	PRINCIPAL ARTERIAL
<b>TYPICAL SECTION</b>					
Right-of-Way Width (feet)		60'	90'	100'	120'
Paved Road Width <sup>a</sup> (feet)	Ordinary	24'	32'	40'	44'
	Mountainous	24'	30'	34'	40'
Gravel Road Width (feet)		26'	N/A	N/A	N/A
Travel/Turn Lane Width (feet)		12'	12'	12'	12'
Shoulder Width <sup>b</sup> (feet)	Ordinary	N/A	4'	8'	10'
	Mountainous	N/A	3'	5'	8'
Median/TWLTL <sup>c</sup> (feet)		N/A	N/A	14'	16'
Foreslope H:V (Width – feet)	Ordinary	4:1 (6')	6:1 (14')	6:1 (20')	6:1 (30')
	Mountainous	3:1 (8')	6:1 (10')	6:1 (16')	6:1 (22')

STANDARD	TERRAIN	LOCAL ROAD	COLLECTOR	MINOR ARTERIAL	PRINCIPAL ARTERIAL
<b>ALIGNMENT</b>					
Design Speed (mph)	Ordinary	25	40	55	70
	Mountainous	20	30	45	55
Min. Curve Radius (feet)		150 <sup>d</sup>	AASHTO	AASHTO	AASHTO
Min. Sight Distance (feet)		AASHTO <sup>d</sup>	AASHTO	AASHTO	AASHTO
Angle of Intersection		≥70°	≥80°	≥80°	≥85°
Min. Intersection Return Radius <sup>e</sup>		15'	30'	40'	50'
Max. Grade <sup>f</sup>	Ordinary	10%	7%	7%	7%
	Mountainous	12% <sup>f</sup>	10%	10%	10%
Min. Grade		0.5%	0.5%	0.5%	0.5%
Max. Intersection Landing Grade		3%, 75' from centerline	3%, 150' from centerline	3%, 150' from centerline	3%, 150' from centerline

a: Increase to include turn lanes or median where warranted.

b: Widen shoulder width to accommodate on-street bicycle facilities where applicable. The minimum useable shoulder width (outside rumble strips) should be 4 feet where widened shoulders are recommended, although 5-foot useable shoulders are desirable.

c: TWLTL = Two-Way Left Turn Lane, if needed

d: An AASHTO-VLVR compliant design may be used where appropriate as certified by the designing Engineer and approved by the County Road/Bridge/Engineering Department concurrent with submittal of the first application required by applicable review process.

e: At intersections, the design criteria for the intersecting roadway with the highest functional classification shall apply.

f: Grades over ten (10%) percent shall not exceed one hundred (100') feet.

**TABLE 2: ROADWAY DESIGN CRITERIA – URBAN**

STANDARD	TERRAIN	LOCAL ROAD	COLLECTOR	MINOR ARTERIAL	PRINCIPAL ARTERIAL
<b>TYPICAL SECTION</b>					
Right-of-Way Width (feet)		60'	90'	100'	120'
Paved Road Width <sup>a</sup> (feet)		31'	48'	50'	82'
Travel/Turn Lane Width (feet)		9'	10'	11'	12'
Parking Width <sup>b</sup> (feet)		7'	8'	8'	8'
Median/TWLTL <sup>c</sup> (feet)		N/A	14'	15'	20'
<b>ALIGNMENT</b>					
Design Speed (mph)		30	45	45	50
Min. Curve Radius (feet)		150'	300'	AASHTO	AASHTO
Min. Sight Distance (feet)		AASHTO	AASHTO	AASHTO	AASHTO
Angle of Intersection		≥75°	≥85°	AASHTO	AASHTO
Min. Curb Return Radius <sup>d</sup>		15'	25'	30'	40'
Max. Grade		10%	7%	AASHTO	AASHTO
Min. Grade		0.5%	0.5%	0.5%	0.5%
Max. Intersection Landing Grade		3%, 150' from centerline	3%, 150' from centerline	AASHTO	AASHTO

a: Measured from back of curb to back of curb. Increase to include turn lanes, median, bike lanes, or parking where warranted.

b: Where parking is provided.

c: TWLTL = Two-Way Left Turn Lane, if needed

d: At intersections, the design criteria for the intersecting roadway with the highest functional classification shall apply.

---

## SECTION 4.4 | INTERSECTION DESIGN STANDARDS

---

New intersections shall be designed and constructed according to AASHTO / AASHTO-VLVLR standards and shall meet the following requirements:

- A. The intersection of more than two roads at one point shall be prohibited.
- B. Accessing roads on opposite sides of a through road shall meet at the same point, or their centerline shall be offset.
- C. Any road, which intersects a hard-surfaced Arterial, Collector, or roadway with more than eight hundred (800) ADT, must be built with hard surfacing one hundred (100') feet from the existing edge of pavement.
- D. Traffic control devices, including signs and pavement markings, shall be placed where warranted, consistent with the most recent version of the MUTCD. Roundabouts or traffic circles installed on Interior Development Roads shall ensure appropriate lane widths and turning radii design criteria are satisfied within the intersection.

---

## SECTION 4.5 | PARKING

---

Adequate parking capacity shall be provided for all developments. The provided parking capacity shall be in proportion to the demand generated by the land use(s) of the development, consistent with the provisions of Section 801 of the International Zoning Code or, if adopted, County regulation. Provision of adequate parking capacity must be achieved with off-street parking facilities but may also be supplemented with on-street parking if appropriate. On-street parking may only be provided on Interior Development or Access Road(s) and shall provide enough space to ensure that parked vehicles will not obstruct adjacent roads, accesses, non-motorized facilities, or circulation within the development.

Pursuant to Section 61-8-355(3), MCA, the County may, by ordinance, permit angle parking on roadways. Angle parking shall not be permitted on Commission-designated highways or State highways unless MDT determines that the roadway is wide enough to permit angle parking without interfering with the free movement of traffic.

As provided in Section 61-8-355(4), MCA, the County has the authority to place official traffic control devices prohibiting or restricting the stopping, standing, or parking of vehicles on a highway where in its judgment this stopping, standing, or parking is dangerous to those using the highway or where stopping, standing, or parking unduly interferes with the free movement of traffic.

---

## SECTION 4.6 | ROADSIDE DESIGN

---

Roadsides shall be designed and reviewed in accordance with guidance included in the AASHTO Roadside Design Guide and the requirements in **Table 1** for rural areas. Roads with insufficient right-of-way widths, or mountainous terrain, may propose an alternate design for consideration through the Design Exception process.

The location of road signs shall be designated on road signage plans, which shall be submitted for review and approval by the County Road Department, GIS Department, and Office of Emergency Management. All road signage plans shall be MUTCD compliant.

---

## **SECTION 4.7 | SURFACE AND MATERIALS**

---

All road construction shall meet the standards set forth in the most current edition of the MPWSS or these Standards, unless a Design Exception has been granted.

Surfacing depths and materials for individual projects will be approved by the County according to a Pavement Design Report based upon site-specific soil data and design-year traffic loading conditions prepared by an Engineer or other qualified professional approved by the Road Supervisor.

### **4.7.1 Subgrade Excavation and Embankment**

The subgrade preparation and compaction shall comply with Section 02230 of MPWSS. When required by the Engineer, subexcavation and backfill material shall also comply with MPWSS. Any embankment material necessary for the project shall be placed and compacted per MPWSS.

### **4.7.2 Geotextile Fabric**

Geotextile fabric (specified by Design Engineer or the County Road/Bridge/Engineering Department) may be required on the subgrade.

### **4.7.3 Sub-Base Gravel (Pit run selected surfacing)**

Sub-base gravel shall have materials, testing, and installation per MPWSS requirements and approved by the Engineer. The minimum thickness for sub-base gravel shall be twelve (12") inches.

### **4.7.4 Crushed Base Course**

Crushed base course shall be as specified in MPWSS, with a minimum depth of three (3) inches in rural areas and a minimum of six (6) inches in urban areas. The crushed base course shall have materials, testing, and installation per MPWSS requirements and approved by the Engineer. A soil sterilant product approved by the County Weed Department used at the recommended concentration shall be applied prior to the placement of crushed base course on gravel roads, or prior to the placement of asphalt on paved roads.

### **4.7.5 Asphalt Surfacing**

Asphalt surfacing shall consist of hot mix asphaltic concrete per project geotechnical requirements with a mix design meeting Section 02510 of MPWSS. The materials, placement, and testing methods employed shall also comply with the requirements of MPWSS. The minimum asphalt surfacing shall be three (3) inches post-compaction in rural areas and four (4) inches post-compaction in urban areas. Lift thicknesses should be determined by the project pavement mix design.

The Engineer shall take asphalt core samples after rolling is complete. Four (4) random core samples shall be required for every 1,000 tons of mixture placed. A minimum of two (2) samples per project is required, regardless of project size. The Engineer shall provide a certified laboratory report from the samples taken as to thickness and density. All core holes shall be patched with hot plant mix asphalt.

The acceptance and correction of deficient asphalt surfacing, based on the density and core thickness, shall be subject to a monetary deduction or full replacement as determined by the Engineer and defined in the project special provisions.

---

## **SECTION 4.8 | SPEED LIMITS**

---

Nothing in these standards modifies or alters existing speed limits on Madison County roads. Speed limits on County roads shall be set by Madison County ordinance.

---

## **SECTION 4.9 | RURAL IMPROVEMENT DISTRICTS**

---

For information about Rural Improvement Districts (RIDs), contact the County Commission.

## CHAPTER 5: DRAINAGE, SNOW STORAGE, AND WATER CROSSINGS

### SECTION 5.1 | DRAINAGE

All roads, approaches, and other transportation rights-of-way shall be designed to ensure proper drainage and prevention of erosion. Storm drainage systems shall be designed, constructed and tested in accordance with the current Montana DEQ regulations, local districts requirements, MPWSS and these Standards.

The Developer/permittee shall provide suitable drainage facilities for any surface runoff affecting the development. These facilities shall be installed prior to or concurrent with any other improvements and be located in rights-of-way of appropriate width. All drainage facilities shall be designed to accommodate existing runoff from upstream drainage areas. Facilities for the collection of stormwater runoff shall be designed to divert surface water away from cut faces or sloping surfaces of a fill. All storm water facilities shall be protected from erosion or silt deposition during construction of all improvements. Drainage features shall not discharge into any sanitary sewer facility or any identified hazardous materials.

### SECTION 5.2 | SNOW STORAGE

All developments, excluding single family residential lots, with areas to be plowed for vehicle access, including parking lots and driveways, shall provide snow storage areas. A portion of the site equal to a minimum of fifteen (15%) percent of the surface areas to be plowed shall be available for snow storage areas. Snow storage areas are designated or specified areas within a development that are reserved for the storage or stockpiling of accumulated snowfall and must be located adjacent to the surface area to be plowed. Snow storage areas must not jeopardize pedestrian or vehicle access or visibility.

### SECTION 5.3 | BRIDGES AND CULVERTS

A landowner or developer may be required to install a bridge or culvert where a road or other transportation right-of-way intersects a watercourse or a water conveyance facility. All transportation rights-of-way that intersect water conveyance facilities shall be agreed to in writing by the water users or water conveyance facilities' authorized representatives. Within proposed subdivision development, the provisions associated with ditch and irrigation crossings outlined in the Madison County Subdivision Regulations and Chapter 9 of these Standards should be followed.

Bridges and culverts larger than thirty-six (36") inches in diameter shall be designed and constructed in accordance with AASHTO LRFD Bridge Design Specifications, MDT Bridge Design Standards, and these Standards. The Madison County minimum culvert size is 18". This allows proper cleaning and maintenance.

Comprehensive geotechnical investigations and/or hydraulic analyses may be requested by the County Road Department or designing Engineer.

Any project that occurs in or near an intermittent or perennial natural water body is subject to review and approval by various local, state and federal agencies. See the Montana Department of Natural Resources and Conservation *Guide to Stream Permitting in Montana* to determine which permits are required for various types of work.

#### 5.3.1 Bridge Width

The minimum usable bridge width shall be 26 feet. Bridge width shall equal the total required road width per Table 1 and Table 2 in Section 4.3. Bridge width should be equal to the road width defined within Tables 1 and

2 but may exclude shoulder width.

### 5.3.2 Design Flood and Bridge Freeboard

The minimum design flood event shall be a one hundred (100) year design event and the required design freeboard shall be twenty-four (24") inches. Additional freeboard may be required by the County Floodplain Administrator, in projects located within the designated Regulated Special Flood Hazard Area (floodplain).

### 5.3.3 Culvert Design

- A. Culvert headwater design shall be maintained to prevent flooding of adjacent property and shall not exceed six (6") inches above the base flood elevation in accordance with federal, state and County regulations. Headwater depths at design flow will generally follow the MDT design criteria in **TABLE 4**.

**TABLE 3: CULVERT HEADWATER DESIGN**

PIPE SIZE	HEADWATER AT DESIGN FLOW
≤ 42"	< 3D or 3R
48" to 108"	< 1.5D or 1.5R
≥ 120"	< D+2' or R+2'

Note: D is diameter of a circular pipe, and R is the rise of an arch pipe.

- B. The minimum culvert size shall be a circular eighteen (18") inch diameter culvert or equivalent.
- C. Culverts will be long enough to allow for three-to-one (3:1) beveled ends and generally designed to extend beyond the clear zone in order to improve safety and eliminate the need for guardrail.
- D. Culvert alignment will match the horizontal and vertical configuration of the existing channel as closely as possible to minimize sedimentation.
- E. Culverts are to be adequately sized to accommodate debris or ice that may occur in the channel.
- F. Open bottom culverts, such as aluminum, steel, or concrete boxes, are to be considered where feasible to minimize the impact on the streambed. Open bottom culverts will be set on either a metal or concrete footing per the manufacturer's recommendation.
- G. Culverts over forty-eight (48") inches in diameter will have cutoff walls on both the upstream and downstream ends to prevent erosion below the pipe.
- H. The upstream fill slope is to be adequately protected against erosion. Slopes of three-to- one (3:1) or flatter may only require reseeding whereas more severe slopes will either have rock riprap or a concrete headwall. Culverts with upstream fill slopes exceeding two- to-one (2:1) are to have concrete headwalls.
- I. Culverts will have appropriate end treatments in order to conform to site conditions, maximize hydraulic efficiency, and enhance public safety.
- J. There may be federal or state permitting implications that affect culvert design. The designer shall consult with permitting agencies for additional design considerations such as fish passage.

## CHAPTER 6: SNOW REMOVAL AND SANDING

The Madison County Road Department removes snow and provides ice control on County-maintained roads.

- Normal working hours are Monday through Thursday from 7:00 a.m. to 5:30 p.m. with exceptions at the discretion of the County Road Supervisor.
- Higher traffic roads and school bus routes are prioritized.
- Snow removal starts after two (2) inches has accumulated on paved roads, and six (6) inches on gravel roads.
- Sanding is provided at critical intersections, hills, curves, and other hazardous areas as needed and available
- Mailboxes damaged by the force of snow being pushed off of the road will not be repaired or replaced.
- No custom-made installations or repairs to mailboxes will be completed by the County.
- PLEASE DO NOT plow snow across county roads. Piles of snow left on or near the road can freeze, causing accidents and damage. It can create a serious hazard not only to motorists but to snow removal equipment as well.
- Remember, we all live here because we love the lifestyle that Montana offers. Give plow drivers a hand. They are your neighbors and are a very important public service component that allow us to commute to work and play.

## CHAPTER 7: SEASONAL LOAD RESTRICTIONS and SEASONAL CLOSURES

The Madison County Road Department imposes 16-ton weight limit restrictions on various roads during the spring and early summer months to preserve the integrity of roads that are at risk of serious damage or destruction. If you are considering a construction project, please plan accordingly. The Road Department shall document such restrictions and forward the restrictions in writing to the Commission for notice and record-keeping purposes.

Madison County Road Department may grant overweight exemptions on a case-by-case basis for non-reducible loads, via a Weight Exemption Request. A Weight Exemption Request will not be granted for reducible loads. Please be aware that Weight Exemption Requests may take several days to process and approval is not automatic or guaranteed. Weight Exemption requests must be sent in writing to the Road Department on the approved Weight Exemption Request form. Approvals shall be forwarded to the County Commission for record keeping purposes.

Seasonal road closures may be implemented by the County Commission via ordinance. These standards do not affect any existing seasonal road closure ordinances.

## CHAPTER 8: CATTLEGUARD INSTALLATION AND MAINTENANCE

Madison County allows the installation of cattleguards within County rights-of-way under certain conditions. The Madison County Road Department will install and maintain new or replacement cattleguards to comply with these Standards. New or replacement cattleguards, associated construction materials, and maintenance materials will be at the expense of the land owner or a mutually agreed upon group of landowners. All new and replacement cattleguards must complete a New or Replacement Cattleguard Application (Appendix E).

Cattleguard specifications are as follows:

- A. Cattleguards shall be constructed of steel and have at least a 20-ton weight capacity, by manufacturer specifications.
- B. Cattleguards should be at least equal to the width of the traveled surface of the road with a driving surface at least sixteen (16) feet wide.
- C. Cattleguards should be placed upon at least 8" by 8" treated timbers or upon a concrete foundation at least 12" thick.
- D. An excavation 18" deep shall be maintained under the cattleguard.
- E. Cattleguards shall be installed at 4" above the surrounding grade with at least an 8" by 8" wooden or concrete border on both approaches and provide smooth and gradual approaches to the guard on gravel roads and 1" above the surrounding grade on paved roads.
- F. A 16 foot gate, or a size that completely restricts access over the width of the cattleguard, shall be included with all cattleguards within County rights-of-way. Gates across cattleguards within County rights-of-way should remain open at all times, as not to restrict access, except when temporarily controlling livestock.

## CHAPTER 9: SUBDIVISION ROAD DESIGN STANDARDS

### SECTION 9.1 | STANDARDS AND SPECIFICATIONS

The standards for Madison County subdivision roads and bridges, and all other subdivision construction within publicly owned right-of-way, shall consist of:

- A. The current published edition of the Montana Public Works Standard Specifications as published and distributed by the Montana Contractors Association.
- B. For bridges: American Association of State Highway and Transportation Officials (AASHTO) Load Resistance and Factor Design (LRFD) Design Specifications

To implement the above standards, the following publications and their subsequent revisions shall apply:

- C. The current version of the Montana Roadway Design Manual published by the MDT.
- D. The current version of the Standard Specifications for Road and Bridge Construction published by the MDT.
- E. The current version of the Policy of Geometric Design of Highway and Streets published by the American Association of State Highway and Transportation Officials (AASHTO).
- F. The current version of the Manual on Uniform Traffic Control Devices (MUTCD) published by the Federal Highway Administration.
- G. In the event of conflict with any of the specifications, the County shall specify, in writing, which of the standard specifications will apply.

### SECTION 9.2 | GENERAL SUBDIVISION ROADWAY STANDARDS

All roadway improvements shall meet the standards outlined below unless more stringent standards are subsequently adopted by Madison County.

#### A. Subdivision Roadway Design

The roadway system of a proposed subdivision shall be designed after giving due consideration to existing and other planned roads, topographical and other natural conditions, public convenience and safety, and the proposed land use(s) to be served.

#### B. Roadway Improvements

- i. Subdivision roadway improvements shall be required wherever the governing body determines that current access to lots within a proposed subdivision is inadequate. "Roadway improvements" refer to: subgrade preparation; placement of base course and surface material; construction of bridge and drainage systems; and, where required, construction of sidewalks, curbs and gutters.

##### a. Substandard County-Maintained Roads

Where a proposed subdivision is accessed by a substandard County-maintained road slated to be improved by the County in the foreseeable future, and where improvement of the road is deemed necessary to protect public health and safety, the governing body may require the subdivider to pay the county an amount equal to the pro rata share of the improvements needed to bring said road up to the Madison County Road Standards. In areas where the County has no foreseeable plans to complete the necessary improvements to upgrade the road,

the subdivider may be required to pay the total cost of bringing the road up to County standards. In such a case, any other subdivisions which are approved over the subsequent ten-year period and which will benefit from the improved county-maintained road shall reimburse the original subdivider, through the County, a pro rata share of the original roadway improvement cost.

b. Other Substandard Roads

Where a proposed subdivision serving three or more lots is accessed by a substandard road not maintained by the County, the subdivider shall be required to make all roadway improvements necessary to bring the road up to the subdivision road standards outlined herein. In such a case, any other subdivisions approved over the subsequent ten-year period and which will benefit from the improved road shall reimburse the original subdivider, through the county, a pro rata share of the original roadway improvement cost.

- ii. All required roadway improvements shall be completed prior to the filing of the final plat, or shall be guaranteed by the subdivider through an approved letter of credit or performance bond or other reasonable security equaling 125% of the anticipated costs of the improvements, final platting requirements, engineering, and permitting.
- iii. All roadway improvements within a subdivision are required to be designed by and constructed under the supervision of a registered professional engineer. As-constructed drawings stamped by the engineer will be submitted to the governing body. Alternative methods of inspection and as-constructed drawings may be allowed by the Board of County Commissioners.

Upon completion of such roadway improvements, the registered professional engineer shall certify that said roadway improvements meet the standards herein. Such certification shall occur in accordance with the conditions of subdivision approval. In some instances, the engineer's certification will be required as a prerequisite to the filing of the final plat. Where the improvements are not required to be constructed and certified prior to the filing of the final plat, the engineer's certification may be a condition of the governing final plat approval and/or prevent approval of the final plat. The governing body may require a Subdivision Improvements Agreement to complete roadway improvements.

C. Off-Site Roadway Improvements

- i. The governing body shall require off-site road improvements outside the subdivision when the improvements are proportional to the direct impact of the subdivision. Necessary off-site road improvements and proportional costs of improvements shall be based on the recommendations of the traffic study required according to Subsection VI-F (d) and as agreed by the applicable agency.
- ii. The subdivider shall either complete the necessary proportional improvements or pay the County the proportional costs of the improvements prior to filing the final plat. The funds paid by the subdivider shall be held by the County to fund future improvements to the road(s) in question.

D. Road Access

Roads providing primary access to and through a proposed subdivision serving three or more lots must be dedicated and accessible to the public, via:

- i. Rights-of-way dedicated for public use;
- ii. Recorded public access easements; and/or
- iii. Recorded roads in subdivisions in existence before November 2000 that have no history of ever blocking public access, and for which a homeowners association has recorded a “plat approval” covenant that assures continued public access.
- iv. “Gated Communities” are not permitted.
- v. Subdivision roads shall be maintained by the property owners within the subdivision. Subdivisions that do not abut a public road maintained by Madison County or the State of Montana may be required to have a long-term maintenance agreement with the responsible party (e.g., Forest Service or Bureau of Land Management, or other subdivision). Madison County will not be responsible for subdivision road maintenance.
- vi. Primary roads must be maintained in passable condition on a year-round basis. If Madison County doesn’t have the resources to maintain a county road, the property owners within the proposed subdivision may be required to enter into a maintenance agreement with the county.
- vii. The final plat for the subdivision shall include a statement on the face of the plat that the property owners owning lots within the subdivision are responsible for the maintenance of roads within the subdivision.

E. Relation to Adjacent Areas

- i. When a proposed subdivision will adjoin unsubdivided land and reasonable access thereto must pass through the new subdivision, roads and right-of-way may be required so as to allow suitable access to the unsubdivided land. In such cases, proposed roads shall be extended to the boundary lines of the tract to be subdivided. Said access should be negotiated between the affected landowners. Where a prescriptive or other easement exists, it shall be required to be shown on the final plat. It is not the responsibility of the subdivider to provide unestablished legal access to adjacent tracts not included in the subdivision proposal.
- ii. When a new subdivision will adjoin subdivided land, the arrangement of roads in the new subdivision shall be required to provide for the continuation of roads from the adjacent subdivided properties, when such continuation is practical and necessary for the convenient movement of traffic, effective provision of emergency services, and efficient provision of utilities.

F. Separation of Through and Local Traffic

Where a proposed subdivision abuts or contains an existing or proposed highway or major thoroughfare, the governing body may require frontage roads or other access controls, deep lots, screen plantings, or other such measures to protect public safety, enhance the character of the subdivision, and ensure separation of through and local traffic. Minor roads shall be designed so their use by through traffic is discouraged.

G. Parallel Rights-of-Way

Where a subdivision borders on or contains a railroad, limited access highway, canal, ditch, or stream

right-of-way, the governing body may require construction of a road parallel to and on each side of such right-of-way, at a distance suitable to allow for the appropriate use of the intervening right-of-way. Such distance shall also be determined with due regard for the requirements of approach grades and future grade separation.

H. Dead-Ends

No dead-end roads shall be permitted without a cul-de-sac or, if the road serves less than five homes, a hammerhead or tee turnaround. Hammerhead or tee turnarounds, designed by a professional engineer, may be used for roads serving more than five homes, if a cul-de-sac causes excess impacts to the surrounding environment.

I. Half-Roads

Half-roads are prohibited except where essential to the development of the subdivision and where the governing body is assured that it will be possible to require the dedication of the other half of the road when the adjoining property is subdivided. Wherever an existing half-road is adjacent to a tract to be subdivided, the other half of the road shall be platted within the tract.

J. Emergency Access

To facilitate the provision of emergency services, an emergency access, in addition to the main or secondary access, may be required of any subdivision if it is determined that a single and/or secondary road may be impaired by vehicle congestion, condition of terrain, climatic conditions, or other factors that could limit emergency services access or emergency egress. Emergency access shall be year-round if the Madison County Office of Emergency Management, after consultation with local emergency service providers, recommends such. Emergency access shall be clearly defined and referenced via easement on the plat.

K. Secondary Access

To facilitate traffic, accessibility, and the placement of utility easements, a secondary access may be required of any subdivision if it is determined that a single road may be impaired by vehicle congestion, condition of terrain, climatic conditions, or other factors that could limit access or egress. All proposed major subdivisions are required to have a secondary access. Secondary access, when required, shall follow general subdivision road standards.

L. Intersections

Intersection design shall conform to accepted traffic safety and engineering standards. Intersections of local roads with major arterials or highways shall be kept to a minimum. Frontage roads may be required.

Intersections of local roads with major arterials or highways shall be kept to a minimum. Frontage roads may be required.

Intersection spacing shall be as follows:

- i. Intersection spacing for local roads with local roads shall be a minimum of 125 feet.
- ii. Intersection spacing for local roads with collector roads shall be a minimum of 250 feet.

- iii. All other intersection spacing shall conform with the recommendations of AASHTO.

An approach or encroachment permit may be required by the County Road Supervisor or MDT, and shall be installed prior to final plat.

#### M. Road Names and Addressing

- i. A new road aligning with an existing road shall have the same name as the existing road; and
- ii. A street addressing plan developed in accordance with Madison County's adopted street numbering system and approved by Madison County is required prior to final plat approval. The plan must include: a route map showing the range of addresses for each street; where specific driveway locations are known, the distance from the intersection to the center of the driveway; and for corner lots, the non-arterial street to be used for driveway access.

#### M. Traffic Studies

A traffic study completed by a professional engineer licensed in the State of Montana is required for the following subdivisions:

- For all commercial and industrial subdivisions.
- For all subdivisions whose primary access is on a major or minor collector in the jurisdiction that will generate more than 250 ADT.
- For all subdivisions whose primary access is on a local road in the jurisdiction that will generate more than 250 ADT.
- When a traffic study is required by the Montana Department of Transportation (MDT) for any access or approach onto an MDT roadway.

A traffic impact study shall be based upon the current editions of Institute of Transportation Engineers (ITE) standards and the Highway Capacity Manual and shall address the following:

- Existing traffic volumes;
- Existing traffic conditions: lanes, traffic control, access control, etc.;
- Projected traffic volumes of internal, adjacent, and off-site roads affected by vehicle traffic to be generated by the subdivision;
- Projected traffic distribution and assignment on adjacent, and off-site roads affected by vehicle traffic to be generated by the subdivision;
- Traffic analysis, including existing and projected Levels of Service (LOS) etc. of internal, adjacent, and off-site roads and intersections affected by vehicle traffic to be generated by the subdivision; and
- Conclusions and recommendations including any needed upgrades to existing roads, bridges, culverts and intersections. Conditions may be imposed on the subdivision to improve roads, bridges, culverts and intersections in accordance with the conclusions and recommendations or other factors.

#### N. Walkways and Bikeways

- i. Pedestrian walkways may be required in order to provide circulation or safe access to schools, playgrounds, shopping, transportation, and other community facilities or services.

- ii. Bikeways may be considered in the planning of a subdivision. When required or provided, bikeways should be built to the minimum standards according to AASHTO.

---

### SECTION 9.3 | SUBDIVISION ROADWAY DESIGN, MATERIAL, AND DRAINAGE STANDARDS

---

A. Subdivision roads shall meet one of two standards, either:

- i. Those summarized in Table 1 and described below; or
- ii. Those guidelines outlined in the current edition of the American Association of State Highway and Transportation Officials (AASHTO) published Policy on Geometric Design of Highways and Streets. Whenever AASHTO guidelines are used, a registered professional engineer shall provide written verification to Madison County that subdivision roads have been designed in accordance with AASHTO guidelines.

B. Emergency (or Secondary) Access

Emergency, if required, shall meet the standards summarized in Table 5 unless a higher standard is found appropriate. In some cases, only the secondary access easement will be required, which shall follow general subdivision road standards.

C. Higher Standards

After reviewing a proposed subdivision design and location, the local fire district and fire prevention specialist may recommend higher standards for primary and/or emergency access roadways which will serve the proposed subdivision.

D. Roadway Material

A subdivider may be able to use native material for roadway construction. Depending on the suitability of native materials, some crushed or screened gravel may be required by the County Road Supervisor as a top course.

E. Switchbacks

Switchbacks should be avoided wherever possible. If unavoidable, they should be designed to accommodate a fully loaded 40 foot emergency vehicle under all types of road conditions. Guardrails may be required to protect public safety.

F. Roadway Drainage

i. Roadway Surface

The road surface shall be sloped with a crown of -2% to -6%, depending on the type of soil in the subgrade. Poorly drained subgrade soil (e.g., heavy clay) will require a steeper crown than if the subgrade material is well-drained sand and gravel. Super elevations, if appropriate, shall be sloped at 2%-6%.

ii. Drainage Ditches

Drainage ditches along the sides of gravel roads may be required in order to convey runoff produced by the roadway. Where required, drainage ditches shall have a minimum grade of 0.5%, and may have grades up to 10.0% where lined with established grasses or rip rap, or where velocity control devices are provided.

iii. Culverts

Culverts are required where roads cross any ditch, watercourse, or water body. They are also required at intersections with other roads and at designed intervals underneath elevated portions of roadways to prevent ponding. It is preferable to provide drainage at frequent intervals rather than concentrate water into one large conduit. Culverts shall have a minimum diameter of 18 inches, although a larger diameter may be required, as deemed necessary by the County Road Supervisor, to assure adequate runoff conveyance. A smaller culvert of no less than 15" may be installed if approved by the County Road Supervisor prior to preliminary plat review.

Culverts should be of sufficient length to allow construction of a driving surface consistent with the width of adjacent sections of the roadway, including a minimum 3(H):1(V) side slope. Installation of the culverts should be in accordance with generally accepted standards, with attention given to the details of bedding, compaction, and erosion control. Inlet and outlet protection is required for all culverts.

Bridges and large culverts (48 inches in diameter or more) shall be designed by a professional engineer licensed in the State of Montana.

iv. Effect on Adjacent Properties

Roadway drainage features shall not cause discharge which will in any way adversely affect neighboring properties.

v. Snow Area

In high-snow areas, snow removal and snow management shall be required as a part of road maintenance plans and parking areas.

G. Reclamation of Disturbed Areas

To protect the land from erosion and the spreading of noxious weeds, provide an Erosion Control Plan for reclaiming disturbed areas for cut and fill slopes and borrow areas, which may include topsoil and mulching as necessary, and planted with appropriate ground cover during the earliest suitable season. For disturbances greater than or equal to one acre, a Storm Water Pollution Prevention Plan for Construction Activity is required.

H. Preservation of Vegetation

Existing trees and other vegetation shall be preserved when possible. Plantings may be required for buffering, screening, or erosion control and are subject to approval by the governing body.

I. Signs and Traffic Control Devices

Road signs and traffic control devices of the size, shape, and height approved by the Board of County Commissioners shall be placed at all intersections and other locations required by the Board of County Commissioners by the subdivider. Where roadwork is not scheduled for completion until after the final plat is filed, any required road signs and traffic control devices shall be included as part of the Subdivision Improvements Agreement.

Traffic control devices shall be consistent with the "Manual on Uniform Traffic Control Devices," available from the Montana Department of Transportation. Other signs shall meet standards adopted by Madison County.

Street address signs shall be mounted on posts 6-8' high, with reflective lettering of white on green for public access ways and white on blue for private access (unless otherwise approved), with 4" letters, visible in both directions.

J. Street Lighting

Street lighting may be required by the governing body. Where roadwork is not scheduled for completion until after the final plat is filed, any required street lighting shall be included as part of the public improvements guarantee.

K. Paving

Paving and/or dust abatement may be required in high-traffic areas, including areas where subdivision development results in high density (401 or more vehicle trips per day), or elsewhere if deemed necessary in order to control erosion and dust, facilitate snow removal, and preserve the natural environment.

---

## **SECTION 9.4 | SUBDIVISION BRIDGES**

---

Bridges often serve as an integral part of any subdivision roadway system. The width of a bridge shall be, at a minimum, the width of the driving surface plus two feet (2') on either side of the roadway surface. All bridges shall conform to AASHTO LRFD Bridge Design, with current interims, HL-93 Live Load.

**TABLE 4: Subdivision Road Standards**

Road Classification	Local Road (gravel)	Local Road (paved)	Minor Collector	Major Collector
ADT	0-400	401-1500	varies	varies
Design Speed	25	25	35	35
ROW Width	60	60	75	75
Road Width	24	26	30	32
Turn Lane Width	12	12	12	12
Shoulder width	1	1	4	4
Foreslope (>15% mean slope) (H:V)	2:1	3:1	3:1	3:1
Foreslope (<15% mean slope) (H:V)	3:1	3:1	4:1	4:1
Minimum Curve Radius	150	150	375	375
Maximum Grade (%)	10%	10%	8%	8%
Minimum Grade (%)	0.5%	0.5%	0.5%	0.5%
Max Intersection Landing Grade	3%, 60' from centerline	3%, 60' from centerline	3%, 100' from centerline	3%, 100' from centerline
Design Stopping Distance (feet)	250	250	400	400
Design Sight Distance (feet)	250	250	400	400
Minimum Cross Slope	2%	2%	2%	2%
Minimum Clear Distance (from edge of road) (feet)	10	10	10	10
Maximum Intersection Deviation from Perpendicular (degrees)	15	15	5	5
Minimum Curb Radius (feet)	15	15	25	25
Minimum Vertical Clearance (feet)	15	15	15	15
Maximum Cul-De-Sac Length (feet)	750*	750*	N/A	N/A
Maximum Cul-De-Sac Diameter (feet)	50**	50**	N/A	N/A

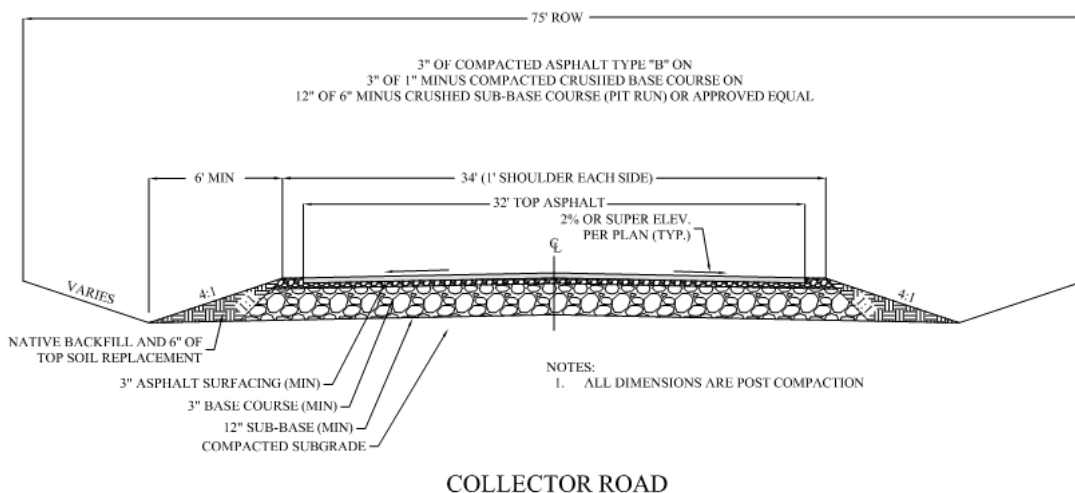
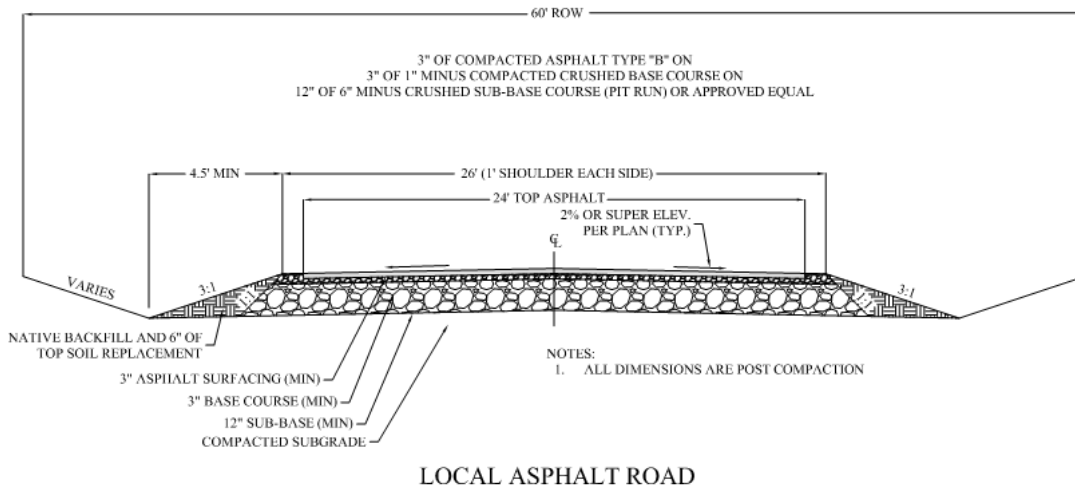
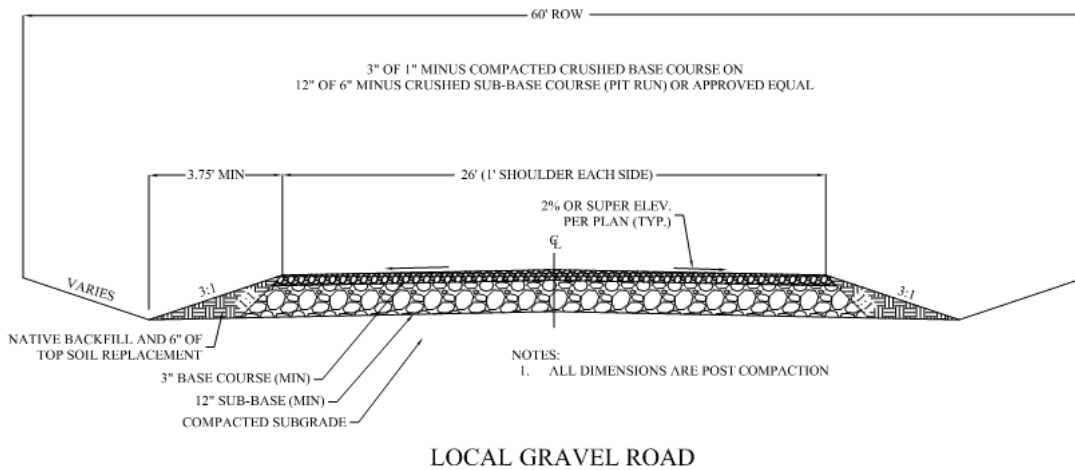
\*may be increased to 1,000 feet if 5 or less dwellings are being served

\*\*Cul-de-sacs may have a landscaped center if the driving surface around the center maintains a minimum driving surface of 24 feet in width.

These are minimum road standards. For public health and safety reasons, a road may be required to meet a higher standard. These standards may be modified if more stringent standards are subsequently adopted by

Design of cut/fill slopes must take into account not only soil types, but also revegetation potential.

**FIGURE 1: Typical Section, Subdivision Road**



**Table 5: Emergency (or Secondary) Access Road Standards**

ROW Width (feet)	30
Road Width (feet)	14
Foreslope (H:V)	2:1
Minimum Curve Radius	50
Maximum Grade (%)	10%
Minimum Grade (%)	0.5%
Max Intersection Landing Grade	3%, 40' from centerline
Design Stopping Distance (feet)	100
Minimum Cross Slope	2%
Maximum Intersection Deviation from Perpendicular (degrees)	20
Minimum Curb Radius (feet)	15
Minimum Vertical Clearance (feet)	15

---

## **SECTION 9.5 | SUBDIVISION EASEMENTS**

---

Where determined necessary in order to protect the public health, safety, and welfare, the County Commission shall require that legal easements be provided for utilities, drainage, irrigation ditches, water bodies, vehicular or pedestrian access, emergency access, emergency service facilities (such as fire stations or hydrants), screen plantings, and wellhead protection areas (for community water wells). Any such existing easements shall be shown on the preliminary plat and summary or final plat. Where easements already exist, the subdivider shall notify the easement holder(s) of the proposed subdivision, prior to submitting the subdivision application.

### **A. Utility Easements**

Utility easements shall meet the following standards:

- i. Utility easements shall be centered alongside and rear lot lines wherever possible. If placed in the roadway, they shall be located between the roadway and the right-of-way line.
- ii. Utility easements shall be twenty (20) feet wide, except the governing body may require easements for sanitary sewer, storm sewer, and water lines to be thirty (30) feet wide.
- iii. Where a utility easement is to be located in an existing, dedicated right-of-way, an encroachment permit must be obtained from the appropriate jurisdiction.

### **B. Drainage Easements**

Where a subdivision is traversed by a watercourse, drainage way, channel, ditch or canal, or stream, easements or rights-of-way may be required to parallel the lines of such watercourse at a sufficient width to allow for maintenance and protection. Before any maintenance or improvements are performed on any water course, drainage way, channel, ditch, or canal, the owner of the waterway must give written permission for the work to be done. See the Madison County Subdivision Regulations for specific standards regarding irrigation ditch easements.

### **C. Access Easements**

- i. Where legal access to a proposed subdivision will be by an easement across property not lying within the subdivision, the subdivider shall provide evidence that the necessary easement exists and

encompasses the nature and intensity of the use which will result from development of the subdivision. Evidence of said easement shall be in the form of a certificate signed by a licensed title abstractor or title company.

- ii. In unincorporated areas where access from a public road to the subdivision will cross properties not owned by the subdivider, the subdivider must obtain road easements in compliance with these design and improvement standards, from each property owner or the appropriate administrator of public lands. Each easement must allow construction and perpetual maintenance of a road accessing the property and allow vehicular travel on the road. The easement shall either be dedicated to the public, or the subdivision at the discretion of the governing body.
  - A. Easements granting full public access for vehicle use must be created by each property owner through a signed and notarized document filed with the County Clerk and Recorder. The easement shall grant access in conformance with road standards found within these regulations and fully identifies the location of the easement via a metes and bounds description or via a surveyed exhibit filed with the easement document.
  - B. The location of any road easement must be shown on the plat or on a supplemental map. The existence of easements must be noted on the face of the final plat and on any deeds or other instruments conveying lots within the subdivision.

---

## **SECTION 9.6 | SUBDIVISION ROADWAY GRADING AND DRAINAGE**

---

- A. When required, grading and drainage plans pertaining to proposed roadway improvements and drainage facilities must be designed and certified by a registered professional engineer. They shall show the proposed grades of roads and proposed drainage facilities for all lots, blocks, and other areas. The plans shall display accurate dimensions, courses, and elevations.
- B. Where proposed subdivision lots are less than twenty (20) acres in size, the drainage system and facilities required for any surface runoff affecting the proposed subdivision or adjacent properties shall meet the minimum drainage standards of the Montana Department of Environmental Quality. Where proposed subdivision lots are twenty (20) acres or larger in size, such drainage system and facilities shall have the approval of the County Sanitarian.
- C. Curbs and gutters or swales may be required by the governing body according to the character of the area, density of proposed development, and nature of adjoining properties.
- D. The subdivider shall provide suitable drainage facilities for any surface runoff affecting the proposed subdivision. Such facilities must be large enough to accommodate potential runoff from upstream drainage areas. The design of such facilities shall be based upon local soil factors, topography, natural drainages, gullies and swales, aesthetics, and capacity for proper disposal of excess water.
- E. Post-development runoff shall not exceed that of pre-development runoff at any time.
- F. Drainage systems shall not discharge into any sanitary sewer facility.

**APPENDIX A:  
ENCROACHMENT  
PERMIT APPLICATION**

# ENCROACHMENT PERMIT APPLICATION

## Madison County Road Department Application for an Encroachment Permit

---

### *When constructing an access or structure within a County road right-of-way.*

Pursuant to the Madison County Road and Bridge Standards, any person or agency desiring to place an above-ground structure or object of any kind or character over or across any portion of a County road right-of-way, including, but not limited to, towers, poles, structures, gates, fences, stands, and buildings, must first obtain a Access Encroachment Permit from the Madison County Road Department.

Depending on a project's risks and complexities, the County Road Supervisor may require the applicant and its contractor (if applicable) to comply with certain insurance requirements, as well as to obtain a performance guarantee and issue a warranty. These requirements will be identified and defined within the terms of the permit. Additionally, any applicable permitting relating to County roads and rights-of-way may require design specifications and plans prepared by a Professional Engineer and/or additional review by the County's on-call engineer, at the expense of the applicant.

An application fee of \$75 is required. No permits will be processed until the application fee is paid.

The Madison County Road Department will only consider complete and signed applications. Incomplete applications will be returned.

Encroachment permits are issued with an expiration date. All construction work must be completed prior to the expiration date unless otherwise stated on the permit. Upon written request, an extension may be granted by the Madison County Road Department.

This application is not a permit. No construction may begin until an Encroachment Permit has been issued by the Madison County Road Department, on behalf of the Madison County Board of Commissioners.

Return the completed application, \$75 fee, and required documents to:

**Madison County Road Department**  
**103 West Wallace**  
**PO Box 278**  
**Virginia City 59755**  
**roads@madisoncountymt.gov**

**Applicant Information:**

Applicant/Landowner Name: \_\_\_\_\_

Applicant/Landowner Address: \_\_\_\_\_

Applicant/Landowner Contact: Phone \_\_\_\_\_ Email \_\_\_\_\_

County road(s) to be encroached: \_\_\_\_\_

**Nature of Encroachment:**

What are you constructing in the County right-of-way? (approach, driveway, building, utility, fence, other):

---

---

If requesting an approach or driveway encroachment, the purpose is:

- Residential (single unit)  Commercial  Agricultural  Road

Property Address: \_\_\_\_\_

Legal Description (include Subdivision Name/Number or COS Number and Tract/Lot Number):

---

GEO Code (available on your tax record) \_\_\_\_\_

Is the property in a Zoning District? \_\_\_\_\_

Driveway/Approach/Structure location description (*i.e. west side of X Rd approx. 300 feet south of Y Rd*):

---

Is this approach pre-existing? \_\_\_\_\_

If yes, explain the purpose of your application and provide the previous permit number:

---

---

Are there any other driveways or approaches to the property? \_\_\_\_\_

If yes, provide a written statement explaining the purpose of your request for a second access.

Date proposed location will be flagged or marked for an initial assessment: \_\_\_\_\_

Desired installation schedule: \_\_\_\_\_

Lane Closures Requested? \_\_\_\_\_

Please include Traffic Control Plan: \_\_\_\_\_

Please attach a sketch and specs of the proposed project with property boundaries and address, road names, drainage, and topographic features, etc. affecting the proposed location.

**Documents Required:**

- ✓ Payment for the application fee of \$75, checks payable to Madison County.
- ✓ Insurance (if required)
- ✓ Bond and Warranty (if required)

**Contractor (if any):**

- Name: \_\_\_\_\_ Project Manager: \_\_\_\_\_
  - Telephone number: \_\_\_\_\_ Email address: \_\_\_\_\_
  - Mailing address including City, State and Zip Code \_\_\_\_\_
- \_\_\_\_\_

**I, the undersigned applicant, affirm that the information provided in this application is truthful to the best of my knowledge. I agree to comply with all requirements of the Madison County Road and Bridge Standards and any other lawful requirements of Madison County if my requested permit is granted. I further agree for myself, my heirs, and assigns to indemnify and defend Madison County from all claims or damages related to the construction, use, and/or maintenance of the encroachment.**

\_\_\_\_\_  
**Name of Applicant**

\_\_\_\_\_  
**Signature of Applicant**

\_\_\_\_\_  
**Date**

**DEPARTMENT USE ONLY**

Date Received: \_\_\_\_\_

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

Received by: \_\_\_\_\_

Recommend Denied: \_\_\_\_\_

Fee Paid \_\_\_\_\_ Check Number: \_\_\_\_\_ Paid By: \_\_\_\_\_

**COUNTY COMMISSION USE ONLY**

Date Received: \_\_\_\_\_

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

Received by: \_\_\_\_\_

Denied: \_\_\_\_\_

Date Issued: \_\_\_\_\_

Mailed to: \_\_\_\_\_

\_\_\_\_\_  
Chairman, Madison County Board of Commissioners

Fee Paid: \_\_\_\_\_ Check Number: \_\_\_\_\_ Paid By: \_\_\_\_\_

**APPENDIX B:  
UTILITY/ ROW Work  
PERMIT APPLICATION**

# UTILITY/ ROW WORK PERMIT APPLICATION

## Madison County Road Department Application for Utility Work Within the ROW

---

### *For utility work (underground or aerial) or other construction in a County road right-of-way.*

Pursuant to the Madison County Road and Bridge Standards, any person or agency desiring to perform underground or aerial utility work on existing utility, install new underground utility, or otherwise perform work in the County right of way must first obtain a Utility/ROW Work Permit from the Madison County Road Department.

Depending on a project's risks and complexities, the County Road Supervisor may require the applicant and its contractor (if applicable) to comply with certain insurance requirements, as well as to obtain a performance guarantee and issue a warranty. These requirements will be identified and defined within the terms of the permit. Additionally, any applicable permitting relating to County roads and rights-of-way may require design specifications and plans prepared by a Professional Engineer and/or additional review by the County's on-call engineer, at the expense of the applicant.

An application fee of \$75 is required. No permits will be processed until the application fee is paid.

The Madison County Road Department will only consider complete and signed applications. Incomplete applications will be returned.

Permits are issued with an expiration date. All construction work must be completed prior to the expiration date unless otherwise stated on the permit. Upon written request, an extension may be granted by the Madison County Road Department.

This application is not a permit. No construction may begin until a Permit has been issued by the Madison County Road Department, on behalf of the Madison County Board of Commissioners.

Return the completed application, \$75 fee, and required documents to:

**Madison County Road Department**  
**103 West Wallace**  
**PO Box 278**  
**Virginia City 59755**  
**roads@madisoncountymt.gov**

**Applicant Information:**

Applicant/Landowner Name: \_\_\_\_\_

Applicant/Landowner Address: \_\_\_\_\_

Applicant/Landowner Contact: Phone \_\_\_\_\_ Email \_\_\_\_\_

County road(s) to be encroached: \_\_\_\_\_

**Work Information:**

Description of work to be performed and necessity: \_\_\_\_\_

Utility Type:  
\_\_\_\_\_

Status of utility (mark one):

- New Placement       Repair       Upgrade       Other

Property Address: \_\_\_\_\_

Legal Description (include Subdivision Name/Number or COS Number and Tract/Lot Number):  
\_\_\_\_\_

Geocode (available on your tax record)   25- \_\_\_\_\_

Is the property in a Zoning District? \_\_\_\_\_

Is the property in a RID or SID? \_\_\_\_\_

Date proposed location will be flagged or marked for an initial assessment: \_\_\_\_\_

Desired installation schedule: \_\_\_\_\_

Lane Closures Requested? \_\_\_\_\_

Please include Traffic Control Plan: \_\_\_\_\_

Attach a sketch and specs of the proposed project with property boundaries and address, road names, drainage and topographic features, etc. affecting the proposed location.

**Documents Required:**

- ✓ Payment for the application fee of \$75, checks payable to Madison County.
- ✓ Insurance (if required)
- ✓ Bond and Warranty (if required)

**Contractor (if any):**

Name: \_\_\_\_\_ Project Manager: \_\_\_\_\_

Telephone number: \_\_\_\_\_ Email address: \_\_\_\_\_

Mailing address including City, State and Zip Code \_\_\_\_\_

**I, the undersigned applicant, affirm that the information provided in this application is truthful to the best of my knowledge. I agree to comply with all requirements of the Madison County Road and Bridge Standards and any other lawful requirements of Madison County if my requested permit is granted. I further agree for myself, my heirs, and assigns to indemnify and defend Madison County from all claims or damages related to the construction, use, and/or maintenance of the subject utility.**

\_\_\_\_\_  
**Name of Applicant**

\_\_\_\_\_  
**Signature of Applicant**

\_\_\_\_\_  
**Date**

**DEPARTMENT USE ONLY**

Date Received: \_\_\_\_\_

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

Received by: \_\_\_\_\_

Recommend Denied: \_\_\_\_\_

Fee Paid \_\_\_\_\_ Check Number: \_\_\_\_\_ Paid By: \_\_\_\_\_

**COUNTY COMMISSION USE ONLY**

Date Received: \_\_\_\_\_

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

Received by: \_\_\_\_\_

Denied: \_\_\_\_\_

Date Issued: \_\_\_\_\_

Mailed to: \_\_\_\_\_

\_\_\_\_\_  
Chairman, Madison County Board of Commissioners

Fee Paid: \_\_\_\_\_ Check Number: \_\_\_\_\_ Paid By: \_\_\_\_\_

**APPENDIX C:  
VARIANCE  
APPLICATION**

# VARIANCE PERMIT APPLICATION

Madison County Road Department Application for a Variance to the Road and Bridge Standards

---

*For any construction or work that does not comply with the Madison County Road and Bridge Standards.*

An application fee of \$75 is required. No permits will be processed until the application fee is paid.

The Madison County Road Department will only consider complete and signed applications. Incomplete applications will be returned.

This application is not a permit and does not constitute approval of any variance proposed. No construction may begin until a Variance Permit has been issued by the Madison County Commission.

Return the completed application, \$75 fee, and required documents to:

**Madison County Road Department**

**103 West Wallace**

**PO Box 278**

**Virginia City 59755**

**[roads@madisoncountymt.gov](mailto:roads@madisoncountymt.gov)**

**Applicant Information:**

Applicant/Landowner Name: \_\_\_\_\_

Applicant/Landowner Address: \_\_\_\_\_

Applicant/Landowner Contact: Phone \_\_\_\_\_ Email \_\_\_\_\_

County road(s) to be encroached: \_\_\_\_\_

**Variance Information:**

Description of variance request and necessity:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Any covenants or deed restrictions on the property that are relevant to this variance request:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Property Address: \_\_\_\_\_

Legal Description (include Subdivision Name/Number or COS Number and Tract/Lot Number):

\_\_\_\_\_

Geocode (available on your tax record) 25- \_\_\_\_\_

Is the property in a Zoning District? \_\_\_\_\_

Is the property in a RID or SID? \_\_\_\_\_

Date proposed location will be flagged or marked for an initial assessment: \_\_\_\_\_

Desired installation schedule: \_\_\_\_\_

Attach a sketch and specs of the proposed project with property boundaries and address, road names, drainage and topographic features, etc. affecting the proposed location.

**Documents Required:**

- ✓ Payment for the application fee of \$75, checks payable to Madison County.
- ✓ Insurance (if required)
- ✓ Bond and Warranty (if required)

**Contractor (if any):**

Name: \_\_\_\_\_ Project Manager: \_\_\_\_\_

Telephone number: \_\_\_\_\_ Email address: \_\_\_\_\_

Mailing address including City, State and Zip Code \_\_\_\_\_

**DEPARTMENT USE ONLY**

Date Received: \_\_\_\_\_

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

Received by: \_\_\_\_\_

Recommend Denied: \_\_\_\_\_

Fee Paid \_\_\_\_\_ Check Number: \_\_\_\_\_ Paid By: \_\_\_\_\_

**COUNTY COMMISSION USE ONLY**

Date Received: \_\_\_\_\_

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

Received by: \_\_\_\_\_

Denied: \_\_\_\_\_

Date Issued: \_\_\_\_\_

Mailed to: \_\_\_\_\_

\_\_\_\_\_  
Chairman, Madison County Board of Commissioners

Fee Paid: \_\_\_\_\_ Check Number: \_\_\_\_\_ Paid By: \_\_\_\_\_

**APPENDIX D:  
OVERWEIGHT PERMIT APPLICATION  
(WEIGHT EXEMPTION REQUEST)**

# OVERWEIGHT PERMIT APPLICATION (WEIGHT EXEMPTION REQUEST)

*Madison County may grant overweight permits on a case-by-case basis for non-reducible loads. No permits will be granted for reducible loads. Same-day exemptions will not be granted.*

Return the completed application, \$75 fee, and required documents to:

**Madison County Road Department**

**103 West Wallace**

**PO Box 278**

**Virginia City 59755**

**roads@madisoncountymt.gov**

**Contact Information:**

Name \_\_\_\_\_

Phone \_\_\_\_\_

Email \_\_\_\_\_

**Hauling Company's Information (if different from above):**

Name \_\_\_\_\_

Phone \_\_\_\_\_

Email \_\_\_\_\_

**Truck Information:**

Configuration Empty \_\_\_\_\_ Weight \_\_\_\_\_

Configuration Loaded \_\_\_\_\_ Weight \_\_\_\_\_

Truck Number or License Plate \_\_\_\_\_

**Cargo Information:**

Weight Per Load and Number of Loads/Trips \_\_\_\_\_

\_\_\_\_\_

**Proposed Route (including initial and end destination addresses):**

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**Date for which the Overweight Permit is Needed:** \_\_\_\_\_

**DEPARTMENT USE ONLY**

Date Received: \_\_\_\_\_

Approved

Received By: \_\_\_\_\_

Denied

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

Date Issued: \_\_\_\_\_

Mailed To: \_\_\_\_\_

Fee Paid: \_\_\_\_\_ Check Number: \_\_\_\_\_

**APPENDIX E:  
NEW OR REPLACEMENT CATTLEGUARD  
APPLICATION**

# NEW OR REPLACEMENT CATTLEGUARD APPLICATION

## Madison County Road Department Application for Cattleguard Installation or Replacement

---

*For the installation or replacement of cattleguards within the County road right-of-way.*

An application fee of \$75 is required. Applications will not be processed until the application fee is paid.

The Madison County Road Department will only consider complete and signed applications. Incomplete applications will be returned.

This application is not a permit and does not constitute approval of an application. No construction may begin until the application has been approved by the Madison County Commission.

Please note that Madison County may deny this request if it determines that the cattleguard installation presents concerns regarding safety or road maintenance or is otherwise not in the best interests of the County or County roads. The cattleguard must comply with standards included in the Madison County Road and Bridge Standards. All landowners requesting the new or replacement cattleguard must sign this document.

Return the completed application, \$75 fee, and required documents to:

**Madison County Road Department**  
**103 West Wallace**  
**PO Box 278**  
**Virginia City 59755**  
**roads@madisoncountymt.gov**

Name(s) of Landowner(s):

---

---

---

Landowner(s) Mailing Address(es):

---

---

---

Landowner(s) Telephone Number:

---

---

---

Requested Location of Cattleguard (Name of County road, location on road/ legal land description):

---

---

Cattleguard Dimensions Requested (subject to approval by County):

---

**Agreement to Costs:**

The undersigned Landowner(s) request Madison County install and maintain a new or replacement cattleguard at the above-described location and with the above-described dimensions. The undersigned agrees, for themselves and for their heirs, successors, assigns, transferees, and devisees, to pay the present and future costs and expenses of acquiring, installing, and maintaining the requested new or replacement cattleguard.

If more than one landowner has requested this cattleguard, all such landowners agree, for themselves and for their heirs, successors, assigns, transferees, and devisees, to be jointly and severally responsible for those costs and expenses.

The undersigned agrees and understands that Madison County will install the cattleguard only after receipt of funds covering the costs of such installation and that Madison County will invoice the undersigned for all future maintenance costs and expenses as they arise, which will be payable within 30 days of the date on the invoice.

**Landowner(s)**

\_\_\_\_\_  
Print Name

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Print Name

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Print Name

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

**DEPARTMENT USE ONLY**

Date Received: \_\_\_\_\_

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

Received by: \_\_\_\_\_

Recommend Denied: \_\_\_\_\_

Fee Paid \_\_\_\_\_ Check Number: \_\_\_\_\_ Paid By: \_\_\_\_\_

**COUNTY COMMISSION USE ONLY**

Date Received: \_\_\_\_\_

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

Received by: \_\_\_\_\_

Denied: \_\_\_\_\_

Date Issued: \_\_\_\_\_

Mailed to: \_\_\_\_\_

\_\_\_\_\_  
Chairman, Madison County Board of Commissioners

Fee Paid: \_\_\_\_\_ Check Number: \_\_\_\_\_ Paid By: \_\_\_\_\_