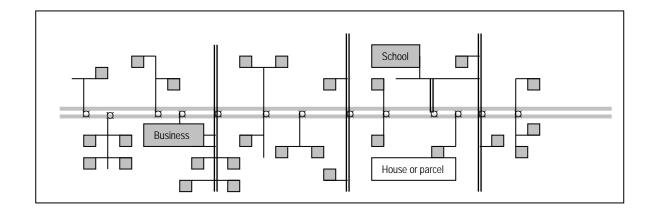
# Mesa County

# Road Access Policy



This Policy supersedes all road access related materials within the *Mesa County Standard Specifications for Road and Bridge Construction* and the *Mesa County Land Development Code.* 

September 29, 2015



RECEPTION #: 2738932, BK 5778 PG 72 10/01/2015 at 08:28:49 AM, 1 OF 43, R \$0.00 S \$0.00 Sheila Reiner, Mesa County, CO CLERK AND RECORDER

RECEPTION #: 2738853, BK 5777 PG 810 09/30/2015 at 12:30:40 PM, 1 OF 1, R \$0.00 S \$0.00 Sheila Reiner, Mesa County, CO CLERK AND RECORDER

#### RESOLUTION NO. <u>BOCC 2015-103</u> Planning Department No. 2015-0163 POL

# A RESOLUTION OF THE COUNTY OF MESA CONCERNING THE REVISIONS TO THE MESA COUNTY ROAD ACCESS POLICY

WHEREAS, it is in the public interest to preserve and protect the serviceability of and public investment in Mesa County public roads; and

WHEREAS, it is necessary and desirable that any improvements or construction within Mesa County rights-of-way be performed in accordance with uniform standards, specifications and procedures, to protect the health, safety and welfare of the public; and

WHEREAS, it is in the interest of the public health, safety and welfare that access to Mesa County public roads be regulated and controlled; and

WHEREAS, Mesa County is authorized pursuant to Section 43-2-147, C.R.S, to regulate vehicular access to or from any public road under its jurisdiction from or to property adjoining a public road; and

**WHEREAS**, the Board of County Commissioners conducted a public hearing, after notice, to discuss the proposed *Road Access Policy* and to receive public comment thereon, and public comments were considered in the adoption process.

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF COUNTY COMMISSIONERS OF THE COUNTY OF MESA, COLORADO

**THAT** the revisions to the *Mesa County Road Access Policy* hereunto attached, are adopted by the Board of County Commissioners of the County of Mesa, Colorado;

AND FURTHER, directs staff and the County Attorney to correct all scrivener's errors and formatting errors necessary to provide internal consistency to the document;

AND FURTHER, eliminates the Access Appeals Board;

AND FURTHER, states that it shall be reviewed on a regular basis;

AND FURTHER, authorizes the Chair to take all action necessary and appropriate to effectuate the provisions of this resolution in accordance with Colorado Law.

PASSED AND ADOPTED THIS 29TH DAY OF SEPTEMBER, 2015.

ATTEST:

Sheila Reiner Clerk and Recorder 1883 SEAL COLORADO

Rose Pugliese, Chair Board of Mesa County Commissioners Recorded Note: le-heronderts add the Road Means P.

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#### **Preface**

Mesa County's continued growth and the associated increase in traffic on County roads has made access permitting an ongoing challenge for policy makers, staff and those developing property. The Mesa County Board of County Commissioners directed the Department of Public Works to revise the Mesa County Road Access Policy, adopted in 2006. The revision will reflect updated design criteria and eliminate or modify unnecessary policy standards, and will help promote economic development in Mesa County.

It is the responsibility of Mesa County to respond to continuing growth by planning for the future transportation needs of Mesa County. The *Mesa County Road Access Policy* has been crafted as a detailed plan for access management on our existing and planned road system.



#### 1. Introduction

#### 1.1 Authority

Pursuant to Section 43-2-147(1), C.R.S., local governments are authorized to regulate vehicular access to and from any public highway hereinafter referred to as "road," through required permitting from that appropriate jurisdiction.

#### 1.2 Purpose

For County roads, the *Mesa County Road Access Policy* (*Policy*) provides the procedures and standards necessary to:

- protect the public health, safety, and welfare;
- maintain smooth traffic flow;
- maintain road right-of-way drainage, both present and future;
- balance the interests of private property owners with the public safety and public investment; and
- protect the capacity of the public roads and the public investment while meeting state, regional, local and private transportation needs and interests.

Access is defined as any point of ingress/egress to a road such as a driveway, alley, street, road or highway that connects to the public road system. Access management is a means to promote safety, traffic operations, and the assigned functional classification of the road system while considering public and private property access needs.

The road system serves two distinct purposes. The first is to provide safe mobility to the traveling public. The second is to provide access to properties. These two purposes may conflict. Poorly designed and spaced access points along a road restrict both speed and capacity of the road and decrease the safety of the road by increasing potential conflict points. A properly designed system provides a balance such that certain roads, such as principal arterial highways, have a greater emphasis on providing mobility while other roads, such as local roads, serve to provide direct access to properties.

Proper access management will reduce the number of vehicle and pedestrian conflict points, reducing both the number and severity of crashes. When traffic on the road system can travel safely and efficiently, capacity is preserved. Access management recognizes the interests of both landowners and roadway users in providing a transportation system that better meets the needs of all interests.

Sound access management is essential to the economic health of Mesa County. Shoppers will avoid stores and businesses that are located on congested roads or that have unsafe access points. Proper access management reduces congestion, increases travel speed, maintains traffic flow, reduces travel time, and provides safe access to businesses. Market area for a business increases when travel time is reduced and may result in increased business activity.



The road classifications referenced in this *Policy* are as shown on any *Circulation Plans* adopted by the Mesa County Board of County Commissioners. The following are currently adopted Circulation Plans:

- Grand Valley Circulation Plan
- Loma Circulation Plan
- Mesa County Transportation Plan, Rural Element (Northwest Grand Valley)
- Whitewater & Kannah Creek Circulation Plan

These maps are available on Mesa County's website (www.mesacounty.us).

#### 1.3 Roles and Responsibilities

- A. Mesa County shall determine the number, placement, and surface treatment of all accesses consistent with the intent of the *Policy*.
- B. Mesa County Planning is responsible for review and processing of land development applications for compliance with the *Mesa County Land Development Code*. Prior to a land use application being submitted to Planning, proposed access points to the property will be reviewed by Mesa County using the process outlined in Section 2.
- C. The Public Works Director may assign roles and responsibilities to accommodate workloads and efficiencies.
- D. The Colorado Department of Transportation (CDOT) is responsible for access permitting on state and federal highways in Colorado. However, Mesa County requirements, policies or codes may affect such access.
- E. Within the City of Grand Junction Urban Development Boundary and the Mesa County Rural Communities, the access standards detailed in the Grand Junction *Transportation Engineering Design Standards (TEDS)* will apply. The boundaries of the Rural Communities are as shown on the Mesa County Future Land Use map.
- F. Projects financed wholly or in part with state or federal funds are subject to the standards prescribed by agencies other than Mesa County. When access is to a roadway controlled by a different jurisdiction, that jurisdiction's standards shall apply. However, Mesa County requirements, policies or codes may affect such access.
- G. The applicant is responsible for ensuring that proposals and applications comply with the *Policy*, or that Design Exception Requests are submitted according to this *Policy*.
- H. Construction in the County right-of-way and of proposed accesses must comply with the Mesa County Standard Specifications for Road and Bridge Construction (*Specifications*).



#### 1.4 Implementation

- A. After June 1, 2006 (the original effective date of this *Policy*), no person shall construct or use any new access (driveway or road), public or private, providing vehicular movement to or from any Mesa County-maintained road without an *Access Permit* issued by Mesa County. Applicants must follow the procedures prescribed for the driveway or access proposal detailed in Chapter 2.
- B. If the policy conflicts with State or Federal regulations or standards, the more restrictive will control.
- C. If the policy conflicts with other County regulations or standards, the more restrictive will control.
- D. It is not the intent of the policy to interfere with, abrogate, or annul any easement, covenant, deed restriction or other agreements between private parties. If the provisions of private agreement impose a greater restriction than the *Policy*, then the private agreement will control. Mesa County will not be responsible for monitoring and enforcing private agreements.
- E. Any Notice of Intent (NOI) or Notice to Proceed (NTP) issued prior to the effective date of this *Policy* shall expire one (1) year after the effective date of this *Policy*, unless construction is commenced prior to that date. If construction does not commence within that period, a new *Preliminary Access Location* and *Access Permit* shall be required, as detailed in Chapter 2.

#### 1.5 Amendments

A. Technical standards within this policy pertaining to dimensional requirements, materials, access spacing, etc. may be amended by the County Traffic Division Director after a fourteen (14) day public notice period.



#### 2. Road Access Process

Mesa County Public Works administers the *Road Access Policy* (see Section 1.3 for Roles and Responsibilities).

The access process consists of two distinct approval processes:

- 1. Preliminary Access Location (formerly known as Notice of Intent or NOI)
- 2. Access Permit (formerly known as Notice to Proceed or NTP)

The County approves a Preliminary Access Location based on maps and data provided by the Applicant. Obtaining this approval is the first step to obtaining an Access Permit. Determining the Preliminary Access Location early in the development process allows the Applicant to proceed with detailed designs with a reasonable presumption that access will be granted, notwithstanding any issues or obstacles encountered during the development of the detailed design.

An Access Permit is issued after the Applicant has signed and agreed to all the terms and conditions of the Preliminary Access Location, and Construction Drawings and Details for the proposed access are approved by Mesa County. The Applicant may not start access construction without a valid Access Permit.

An Access Permit grants the permittee (usually the property owner) the right to access the Mesa County Road System. If the access needs to cross other property, then an easement agreement giving the Applicant permission to cross the property must be provided to the County prior to approval of the Permit.

#### 2.1 When an Access Permit is required

- A. When there is a change to an existing land use that would increase traffic volume (average daily traffic ADT) from the access point by twenty percent (20%) or more; or
- B. When there is a change of use that constitutes property subdivision or land development that is under the purview of the Mesa County Land Development Code;
- C. When modifications or improvements to an existing access are proposed, such as widening, modifying curvature or radii, or modifying grades; or,
- D. When a new or additional access point is proposed.

#### 2.2 Obtaining a Preliminary Access Location

A. Applicants must contact Mesa County Planning to apply for a Preliminary Access Location. The Applicant may be asked to attend a meeting with County Staff.



- B. The application for Preliminary Access Location must include enough information for Staff to properly interpret the Applicant's access request and determine how it does or does not meet Mesa County requirements. It is the responsibility of the Applicant to provide adequate, detailed information for an effective analysis to occur. For the Preliminary Access Location application, the Applicant may find it helpful to enlist the services of a professional skilled in traffic analysis or plan preparation, but is not required to do so at this stage. Plans will be accepted as sufficient to begin review when they include required information presented in a clear and legible form. The following items shall be included with a completed Preliminary Access Location application form.
  - 1) A written narrative describing the proposed development, type of access proposed, proposed use of access, changes to existing access, etc.
  - 2) A Traffic Impact Study, if required for the project, as further defined in part 3 and Appendix B of this Policy. For proposed accesses with an estimated trip generation (peak hour) of ten (10) or greater, the Traffic Impact Study must be prepared by a Professional Engineer licensed in the State of Colorado who is proficient in transportation analysis.
  - 3) A site plan showing the existing public road and initial conceptual access proposal showing:
    - a. Width and surface of the existing roadway;
    - b. Width of dedicated right-of-way;
    - c. Number and location of proposed access points;
    - d. Existing or proposed easements that affect access;
    - e. Existing or proposed buildings;
    - f. Distance from proposed access to the limits of the subject property frontage;
    - g. Distance from the proposed access to the nearest existing accesses on both sides of the Mesa County roadway. If Mesa County has issued a Preliminary Access Location or Access Permit for any nearby properties, the location of proposed accesses shown must be considered in new applications, even if the nearby access has not yet been constructed; and
    - h. Any major topographical features on the property that may affect access location (e.g. major drainages, slopes, etc.).
  - 4) An aerial map of the property and surrounding area showing the proposed access location(s).
  - 5) Additional relevant items may be included with the application at the Applicant's option. Such items may include photos that provide a view of the public road in both directions from the proposed access point.
- C. Within five (5) working days after receiving an application for a Preliminary Access Location, Mesa County will check the application and supporting



documents for sufficiency and notify Applicant of deficiencies if any exist. If the Applicant does not provide all required documents within sixty (60) calendar days of receiving notification of deficiency, the application will be considered withdrawn. Once all required documents are received the review period will begin.

- D. Upon receiving the complete application for Preliminary Access Location, Mesa County will use this *Policy* for evaluation of the request. Mesa County will work with the applicant and attempt to resolve all issues prior to taking action on the Preliminary Access Location. Mesa County shall act upon the application within twenty (20) working days. In some cases, additional review time may be required. Mesa County will notify the Applicant if additional review time is needed. No later than the last day of the review period, Mesa County will issue (by e-mail or other means) the Preliminary Access Location for signature by the property owner and Applicant, or will notify the Applicant that the application as submitted will be denied.
- E. If safety concerns arise at any point in the process of reviewing the application, Mesa County will document the safety concerns and will require that the Applicant address them.
- F. The Preliminary Access Location is not considered approved until it is signed by the property owner and the Applicant and returned to Mesa County. The Preliminary Access Location shall be deemed denied if the Applicant does not agree to all the terms and conditions and/or if the signed Preliminary Access Location is not received within twenty (20) working days of issuance by Mesa County.
- G. The Preliminary Access Location shall be considered expired if the applicant does not submit for and receive an approved Access Permit within one (1) year of issuance date. If the applicant does not receive approval of an Access Permit within one (1) year, the applicant may request a one-year extension from Mesa County. No more than one (1) one-year extension may be granted under any circumstances. Any request for an extension must be in writing and submitted to Mesa County before the Preliminary Access Location expires. The request should state the reasons for the extension, when the project is anticipated to move forward, and include a copy of the approved Preliminary Access Location. Extension approvals or denials will be issued by Mesa County in writing within ten (10) working days of receipt of the request for extension.



#### 2.3 Denial of the Application

- A. If Mesa County notifies the Applicant that the Preliminary Access Location request as submitted has been denied, the Applicant has three options to continue pursuing approval of access:
  - 1) The Applicant may revise the application within sixty (60) calendar days so that the requested access conforms to the requirements of this *Policy*. The County will determine if the revised application sufficiently addresses the reasons for denial, and if the Preliminary Access Location can be granted.
  - 2) The Applicant may submit a request for a Design Exception in accordance with this *Policy* within sixty (60) calendar days.
  - 3) The Applicant may appeal the denial in accordance with the appeal procedures identified in this *Policy*.
- B. If the applicant does not act within the time frames noted, the application process will be closed and any future request for access will need to start with a new Preliminary Access Location request.

#### 2.4 Design Exceptions

This *Policy* establishes standards for the construction of access improvements in Mesa County. There may be circumstances where those standards do not adequately meet the public's needs. For example, the standards may conflict with physical constraints on the property. Each design exception request shall be taken individually and is not intended to set precedence for future exception requests. See Figure 2-1. Mesa County will provide a decision on Design Exception requests within twenty (20) working days of receiving a request.

The Applicant is responsible for demonstrating that the access will function efficiently and safely. The Applicant will provide an analysis to support their request for a *Design Exception*. No exception shall be allowed if the resulting design is dangerous or otherwise fails to meet the fundamental needs of the community, as determined by Mesa County. Primary considerations are the provision of a safe, efficient and effective transportation system. A *Design Exception* proposal for an access with an estimated trip generation of one hundred (100) trips (ADT) or more shall be signed and stamped by a Professional Engineer licensed in the State of Colorado. Mesa County staff may also require, at their discretion, that a Design Exception for access with estimated trip generation less than one hundred (100) trips (ADT) be signed and stamped by a Professional Engineer licensed in the State of Colorado.



**Figure 2-1 Design Exception Process** 

#### **Design Exception Process:**

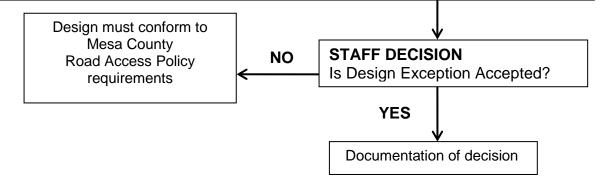
Proposed Exception to the Mesa County Road Access Policy

#### **Staff Notified in Writing by Applicant:**

- Proposed exception
- Alternatives considered
- Proposed design
- Effects of change

#### Staff Review:

- If granted, will the exception compromise safety and operations issues?
- Have other alternatives been considered that would meet current standards?
- Has the proposed design been used in other areas locally, state or nationally?
- Have examples, including data, been provided?
- Will the exception require CDOT or FHWA coordination?
- Other criteria, as appropriate.





#### 2.5 Process to Appeal

#### 2.5.1 First Appeal to Public Works Director

The applicant may appeal denial of the Preliminary Access Location, the terms and conditions of the Preliminary Access Location, and/or design exception determinations to the Public Works Director by filing an appeal with Mesa County Planning. Any appeal must be submitted within thirty (30) calendar days of the date of issuance of the Preliminary Access Location or denial. A meeting will be held with the Applicant, Public Works Director, Planning Director, and Traffic Division Director. A written decision will be made by the Public Works Director within ten (10) working days of this meeting. This will be considered Mesa County's final internal staff decision regarding the appeal.

#### 2.5.2 Appeals to the Board of County Commissioners

Following a decision by the Public Works Director, the Applicant may appeal to the Board of County Commissioners. Appeals of the Public Works Director's decision shall be submitted to Mesa County Planning. Any application for an appeal of the Public Works Director's decision must be submitted within thirty (30) calendar days of the date of the Public Works Director's decision. An appeal must be accompanied by a fee as established by the Board of County Commissioners for Appeals of Administrative Decisions. Appeal fees are nonrefundable.

#### A. Effect of Filing

Once an application for appeal has been received, no other permits or approvals, including, but not limited to development approvals will be issued for the subject property, unless the official whose decision is being appealed determines that such a hold on permits and approvals would cause immediate peril to life or property. If such a determination is made, permits or approvals may be issued for the subject property, unless a stop work order is issued by the Board of County Commissioners, Board of Adjustment, or the Floodplain Board of Appeals, or a restraining order is issued by a court.

#### B. **Public Hearing Notice**

Notice of the appeal hearing before the Board of County Commissioners shall be made by posting the agenda of the public hearing at least twenty-four (24) hours in advance, as required by C.R.S. 24-6-402(2)(c).

#### C. Record of Decision

Before the public hearing on the appeal, all documents constituting the record of the decision being appealed shall be transmitted to the Board of County Commissioners.

#### D. Review and Action

The Board of County Commissioners shall hold a public hearing on the appeal within thirty (30) days of receipt of a complete application and take action on the appeal within twenty (20) days of the public hearing.



#### 1) Appeal Powers

In exercising the appeal power, the Board of County Commissioners shall consider the appeal as a new matter, and act to approve, approve with conditions, or deny the application. If the Board of County Commissioners determines that there is additional evidence that should be obtained or has come to light since the decision of the Public Works Director, it may remand the matter with directions to obtain such evidence and to reconsider the decision in light of such evidence.

#### 2) Consideration of Evidence

At the public hearing, the Board of County Commissioners shall consider the submitted record.

#### 3) Burden of Persuasion of Error

In acting on the appeal, the Board of County Commissioners shall grant to the Public Works Director's decision a presumption of correctness; the burden of persuasion of error shall be on the appellant.

#### E. Findings of Fact

The decision of the Board of County Commissioners shall be accompanied by written findings of fact specifying the reason for the decision. Those written findings shall be filed with Mesa County Planning and with the Clerk and Recorder of Mesa County. Notice of the decision shall be mailed to the appellant and all other parties who have made a written request for notification.

#### F. Further Appeals

Appeals of decisions of the Board of County Commissioners shall be made to the courts, as provided by law.

#### 2.6 Obtaining an Access Permit

- A. Once the Preliminary Access Location is granted, applicants must obtain an Access Permit from Mesa County Planning before an access can be constructed.
- B. The applicant must submit Construction Drawings and Details in accordance with this *Policy* and the *Specifications*. As a general rule, for accesses requiring a Level 2 or Level 3 Traffic Impact Study, the Construction Drawings and Details must be prepared by a Professional Engineer licensed in the State of Colorado. Mesa County reserves the right to require a design by a licensed Professional Engineer for *any* access. The Construction Drawings must include enough information for Staff to properly evaluate the design of the access and shall include, at a minimum, the following information:
  - 1) existing public road width and surface;
  - 2) width of dedicated right-of-way;
  - 3) proposed access width;



- 4) proposed access surface type and thicknesses;
- 5) proposed access pavement radii;
- 6) proposed curbing (if required);
- 7) proposed access slopes and associated grading;
- 8) proposed culverts (if needed) and drainage improvements;
- 9) proposed signage (if required); and
- 10) additional relevant design information or construction details as may be deemed necessary by the applicant or Mesa County.
- C. Mesa County Staff will review the Traffic Impact Study, Construction Drawings, and Details. If they comply with the requirements of this *Policy* and the *Specifications*, Mesa County will issue an Access Permit.
- D. If the access must cross other property, the Applicant must provide to the County a recorded easement agreement giving the Applicant permission to cross the property prior to approval of the Access Permit. If access is shared between two or more properties, the easement agreement must include provisions describing maintenance responsibilities for the access and must be executed by all property owners utilizing the shared access.
- E. The Access Permit will expire and be invalid if the access is not under construction within one (1) year from the date of issuance. If construction does not begin within one (1) year, the permittee may request a one-year extension from Mesa County. No more than one (1) one-year extension may be granted under any circumstances. Any request for an extension must be in writing and submitted to Mesa County before the permit expires. The request should state the reasons for the extension, when the construction is anticipated to begin, and include a copy of the approved Access Permit. Extension approvals or denials will be issued by Mesa County in writing within ten (10) working days of receipt of the request for extension.

#### 2.7 Construction of Access

- A. Prior to construction, the Permittee or the Permittee's Contractor must obtain a Surface Alteration Permit and an Underground and Utility Permit (as applicable) from Mesa County Public Works. The Permittee must also notify Mesa County Planning at least forty-eight (48) hours prior to any construction in right-of-way.
- B. Mesa County and the Permittee or Permittee's representative or engineer of record on the project shall inspect the access during construction and upon completion of the access, to ensure that the access is constructed in accordance with the approved Construction Drawings and Details and that all terms and conditions of the Access Permit are met.
- C. It is the responsibility of the Permittee to complete the construction of the access in accordance with the approved Construction Drawings and Details and according to the terms and conditions of the Access Permit. Mesa County may order a halt to any unauthorized construction or use.



- D. The construction of the access and its appurtenances shall be completed at the sole expense of the Permittee.
- E. The Permittee must provide adequate construction signing, in conformance with the latest edition of the *Manual on Uniform Traffic Control Devices for Streets and Highways* (MUTCD), prepared by the U.S. Department of Transportation, Federal Highway Administration, at all times during access construction. This may include, but is not limited to, the use of signs, flashers, barricades and flaggers.
- F. If construction of the access will obstruct traffic on any public roadway, the Permittee must submit a Traffic Control Plan to Mesa County Traffic, and this plan must be approved prior to construction. All detours, lane closures, signs, barricades, and other traffic control devices must comply with the MUTCD. All Traffic Control Supervisors (TCS) and flag persons must be certified by the American Traffic Safety Services Association (ATSSA). The setup and removal of detours, lane closures, and other traffic control devices must be supervised by a TCS.
- G. The hours of work on or immediately adjacent to the roadway may be restricted by Mesa County due to peak hour traffic demands and other pertinent roadway operating restrictions.
- H. A copy of the Access Permit shall be available for review at the construction site. If necessary, minor changes and additions may be required by Mesa County to meet unanticipated site conditions. Such changes and additions shall not constitute a departure from the conditions required in the Preliminary Access Location or Access Permit. It is the Permittee's responsibility to notify Mesa County of any unforeseen conditions that would prevent the construction of the access according to the approved Access Permit.

#### 2.8 Use of Access

It is the responsibility of the property owner to ensure that the use of the access to the property is not in violation of the *Policy* or the Preliminary Access Location or Access Permit terms and conditions. The terms and conditions of the Preliminary Access Location and Access Permit are binding upon all assigns, successors-in-interest and heirs.

#### 2.9 Illegal Access

A. If any access is constructed to a Mesa County Road after June 2006 that does not have a valid Access Permit (formerly known as NOI/NTP), Mesa County will send written notice to the property owner notifying of the illegal access location. The owner will have ten (10) days to notify Mesa County Planning of pending actions or remedies. Mesa County will determine if remedies are acceptable.



- 1) If the remedies are acceptable, the property may apply for a Preliminary Access Location and Access Permit.
- 2) If remedies are not acceptable, the property owner shall remove the access and restore Mesa County right-of-way.
- B. If in the opinion of Mesa County, the health, safety, and welfare of the public is endangered, Mesa County may act immediately and without notice to eliminate the safety hazards including closing the access.

#### 2.10 Legal Non-Conforming Access

Any access constructed prior to June 2006 that does not meet current standards will be considered legal non-conforming access. These accesses shall be brought into compliance with current standards when the property owner applies for a Preliminary Access Location and Access Permit.

#### 2.11 Permit Fees

The Mesa County Board of Commissioners (BOCC) may establish a schedule of fees for Preliminary Access Locations and Access Permits issued pursuant to the *Policy*. Fees may be changed from time to time by the BOCC; the Applicant should contact Mesa County Planning to obtain the latest fee schedule.



#### 3. Evaluation of Traffic Impact

To properly assess the effect of the proposal on the existing and future road system a traffic evaluation must be performed. Three levels of assessment are used to evaluate transportation effects. The first two levels are "assessments" while the third level requires a Traffic Impact Study (TIS). Further information about assessment procedures may be found in Appendix B.

The primary responsibility for preparing the assessment of the transportation effects associated with a proposed development rests with the developer. Mesa County will determine the level of analysis required to properly evaluate the project's impact.

A Colorado-licensed professional engineer with experience in the area of traffic engineering and transportation planning shall prepare the *TIS* or assessment for developments generating 10 or more additional peak hour trips. Certification as a Professional Traffic Operations Engineer (PTOE) by the Institute of Transportation Engineers is preferred. A statement of qualifications must be included with the submitted study.

#### 3.1 Procedure

The *Traffic Impact Study (TIS)* or assessment will determine the effects of proposed development on the existing and planned road system. The application of sound design principles for new roads, preserving road capacities in existing areas, ensuring smooth traffic flow, accommodating all transportation modes, and preserving or increasing safety are part of the TIS.

The following describe the procedures required in the preparation and submittal of a TIS:

- Traffic analysis conference
- Determine level of study
- Determination of Base Assumptions for TIS (methodology)
- Initial TIS Submittal
- Review Agency Comments and Recommendations
- Final TIS Submittal

#### 3.2 Transportation Analysis Conference

Prior to commencing a *TIS* or Assessment, the Applicant's Traffic Engineer shall meet with appropriate County staff to discuss the requirements of the analysis.

The Applicant shall provide the following information at the transportation analysis conference:

- Project description including type of land use (single family, town homes, multifamily, office, retail, etc.) and size (number of dwelling units, square footage, etc.);
- A site plan sketch or plan showing all proposed access locations and proposed land uses in relation to the accesses;



- Anticipated project completion date and project phasing;
- Any other information necessary or required to evaluate the project.

Mesa County will provide comments regarding transportation issues including, but not necessarily limited to, accesses (locations/type), impacts on adjacent neighborhoods, the size of the study area and the study methodology.

#### 3.3 Levels of Traffic Assessments for Development

This Section of the *Mesa County Road Access Policy (Policy)* describes the three levels of traffic assessments required for land-use proposals. The appropriate level of traffic evaluation and the specific requirements for each individual application will be identified at the transportation analysis conference.

Table 3.1 provides an overview of TIS requirements. However, the reader should refer to the text following the table and to Appendix B for detailed information.

Table 3.1 – LEVELS OF ASSESSMENT AND BASIC REQUIREMENTS

LEVEL	ESTIMATED TRIP GENERATION (PEAK HOUR)	REQUIREMENTS
Level 1	1-9	<ul><li>Description of project size &amp; Location</li><li>Trip Generation Calculations per ITE</li></ul>
Level 2	10-99	<ul> <li>Description of project size &amp; Location</li> <li>Trip Generation Calculations per ITE</li> <li>Diagram or table showing existing driveways and side roads within 1,000 feet</li> <li>Detailed statement of Directional Distribution Assumptions</li> <li>A detailed statement of the 20-year background traffic growth calculation (source of existing data, growth rate, factors, etc.)</li> <li>Diagram or table showing 20-year, peak-hour, traffic volumes at the access points</li> <li>Recommendations for auxiliary turn lanes per Policy</li> <li>Entering site distance at proposed access, with relevant photos</li> <li>A Professional Engineer's seal is required</li> </ul>
Level 3	100 or greater	Traffic Impact Study - refer to Appendix B of the Policy for requirements

#### **Level One – Trip Generation Assessment**

The purpose of a Level One Assessment is to document the project trip generation and to confirm that auxiliary turn lanes are not required at the proposed access point. A Level One Assessment is required for all projects that generate less than ten (10) trips in the peak hour. For example, a single family home usually generates



approximately one trip in the peak hour so a project with nine or fewer homes would fit in this category. It is unlikely that any commercial or industrial development would fit in this category.

#### **Level Two – Auxiliary Turn Lane Assessment**

The purpose of a Level Two Assessment is to document the project trip generation and to determine auxiliary turn lane requirements at the proposed access points. The results of this assessment may reveal that no turn lanes are needed. The assessment may also reveal that a TIS is necessary (see Level Three), as determined by Mesa County. It is strongly recommended that all assumptions be confirmed with Mesa County prior to completing the assessment.

#### **Level Three – Traffic Impact Study (TIS)**

The purpose of a TIS is to understand the full traffic impact of the proposed development, and to identify traffic mitigation measures. A TIS is required when the proposed land use will generate peak hour trips of one hundred (100) vehicles or more. Appendix B of the *Policy* specifies the thresholds and general requirements of a TIS.



#### 4. Standards for Road Access

This section of the *Policy* describes access spacing standards and some design standards for access.

When geometric standards or other design criteria are not specifically addressed in the County standards or *Specifications*, then the latest editions of the following standards and criteria shall govern the design:

- AASHTO, A Policy on Geometric Design of Highways and Streets
- AASHTO, Guidelines for Geometric Design of Very Low-Volume Roads (ADT<400)</li>

#### 4.1 Access Spacing Standards

# 4.1.1 Access Spacing in the City of Grand Junction Urban Development Boundary (UDB)

Mesa County and the City of Grand Junction have adopted the Grand Valley Circulation Plan (GVCP), which shows road classifications within and adjacent to the Urban Development Boundary (UDB). This map is available on <a href="Mesa County's website">Mesa County's website</a>.

The road classifications shown on the GVCP include Principal Arterials, Minor Arterials, Major Collectors, Minor Collectors, and Local Roads. To be consistent with this adopted plan, Mesa County applies the access spacing standards found in the City of Grand Junction's Traffic Engineering Design Standards (TEDS) when reviewing access requests on roads classified on the GVCP or within the UDB. Any existing or proposed road within the UDB whose classification is not depicted on the GVCP is subject to review by staff to determine the appropriate classification.

#### 4.1.2 Access Spacing in the Mesa County Rural Communities

Within the Mesa County Rural Communities, Mesa County applies the access spacing standards found in the City of Grand Junction's Traffic Engineering Design Standards (TEDS). The boundaries of the Rural Communities are as shown on the Mesa County Future Land Use map.

#### 4.1.3 Access Spacing on All Other Mesa County Roads

For roadways not classified on the GVCP or within the Mesa County Rural Communities, Mesa County requires that access be spaced based on the speed limit of the roadway, as shown below in Table 4.1. It is the goal to meet or exceed these guidelines, recognizing that it is not always feasible to strictly adhere to the guidelines in all situations due to property limits, topographic constraints, or roadway geometry. Mesa County may allow access that does not meet spacing standards where the Applicant provides reasons that standards cannot be met and the access meets other requirements. Refer to the Design Exception process in Section 2.4 of this *Policy*.



**Table 4.1 Access Spacing Standards** 

Posted Speed Limit (mph)*	Minimum distance between Access Points (feet)**
30	200
35	250
40	305
45	360
50	425
55	495
60	570
65	645

<sup>\*</sup> Mesa County reserves the right to utilize the 85<sup>th</sup> percentile speed to restrict access spacing, if the 85<sup>th</sup> percentile speed is more than 5 mph greater than the posted speed limit. In this case, Mesa County will provide the 85<sup>th</sup> percentile speed to the applicant for use in determining the access point.

#### Notes:

- 1. On roads with posted speed limits of 25 mph or less <u>and</u> (where data is available) 85<sup>th</sup> percentile speeds of 25 mph or less, spacing between accesses is not restricted, except that the edge of proposed access must be a minimum of five (5) feet from adjacent property lines, and a minimum of 100 feet from the edge of the travelled way of an intersecting road with speeds greater than 25 mph.
- Spacing is measured between access points only on the side of the road where new access is proposed. Agricultural accesses and irrigation and drainage accesses are not counted when measuring spacing between access points.
- 3. It is desirable for access driveways and intersections to be aligned on the opposite side of the street. If accesses are not aligned, the accesses should be offset a minimum distance equal to 50% of the required access spacing, unless a design exception is approved.



<sup>\*\*</sup> Includes intersections with roadways as well as access/driveway connections.

#### 4.2 Access Location Standards

#### 4.2.1 General Provisions of Access

- A. In the development of existing residential parcels that are located on more than one roadway, access from the roadway with a lower posted speed limit is encouraged.
- B. Individual parcels/lots may be permitted a maximum of two access points from the road(s) as long as spacing requirements are met.
- C. Looped access is permitted where restricted to one-way in and one-way out. Looped access points must be a minimum of 50 feet apart measured from near edge of pavement to near edge of pavement. The spacing of looped access in relation to other access points shall be measure from the center point between one-way access points.
- D. More than one access may be granted, either where two-way accesses meet spacing requirements or where a looped one-way access is proposed, if the additional access would not knowingly cause a hardship to an adjacent property or interfere with the location, planning, and operation of the general road system, and where the applicant establishes that an additional access is necessary for the safe and efficient use of the property.
- E. An Access Permit issued for a new subdivision will permit access locations to existing county roads and generally permit future driveways within the subdivision. Any constraints on future driveway locations may be noted on the Site Plan approved for recording.
- F. Temporary access may be granted to accommodate phased development of a site. Temporary accesses are subject to removal, relocation, redesign or reconstruction after an approved permanent access is constructed. Temporary access shall conform to this Policy.
- G. Mesa County reserves the right to change the type and location of access points to bring non-conforming access into compliance and or to remedy unsafe or inefficient conditions. Existing access points serving portions of the parent tract may be allowed to remain until future subdivision or development of the specific lot in question. If allowed to remain, these access points must be recorded as "Temporary Access Points to be removed upon future subdivision or development."

#### 4.2.2 Safety Provisions

A. The type of access shall provide for safe and efficient operation of the access and the road from which access is provided. As such, some vehicle movements at access points may need to be restricted with the implementation of ¾ or ½ access configurations, based on a technical analysis. A ¾ access allows only 3 of 4 turning movements by restricting 1 left turn movement (in or out). A ½ access allows only 2 of 4 turning



movements by restricting both left turn movements, in and out (also called a right-in/right-out access).

- B. Shared accesses are encouraged wherever possible to minimize the number of access points along a road. Shared access provides for safer operation of the flow of traffic on the road.
- C. Single-family residential driveways shall be located at least 5 feet from the side property line to allow for maneuvering and maintenance to occur without trespass on adjacent property.
- D. All accesses are subject to applicable fire department codes and standards.

#### 4.2.3 Geographic Provisions

The number and location of access points may be influenced by topographic, geologic, or infrastructure constraints. It may be necessary to modify, reduce, or increase the number of access points if these constraints are prohibitive.

#### 4.2.4 Existing Access Points

Existing access shall not be modified in any way, including, but not limited to: relocation, alteration, or reconstruction without an *Access Permit*, as applicable.

All existing accesses, including field access, connecting to a property proposed for redevelopment or subdivision shall be considered closed unless continued as a part of the approval process.

#### 4.2.5 Conformance of Subdivisions

All newly created subdivision lots in a subdivision where internal subdivision roads are constructed must access internal roads and shall not access directly onto the existing County road system. This shall be noted on the subdivision site plan map.

#### 4.3 Access Design Standards General Provisions

This section defines the types of access, their locations, and geometric requirements.

- Mesa County has developed and/or adopted the following design standards to protect the health, safety, and welfare of the public. The goal is to provide for safe access, maintain smooth traffic flow, and protect the functional level of Mesa County Roads.
- Design speed shall be at the legal posted speed limit at the time of application for the permit. Mesa County reserves the right to utilize the 85<sup>th</sup> percentile speed to restrict access spacing, if the 85<sup>th</sup> percentile speed is more than 5 mph greater than the posted speed limit. In this case, Mesa County will provide the 85<sup>th</sup> percentile speed to the applicant for use in determining the access point.
- The applicant shall provide adequate clear zone, as defined by AASHTO or the *Specifications*. The Access Permit may require that roadway hazards be removed, reconstructed or shielded by a proper barrier.



#### 4.3.1 Access Angle

The horizontal axis of the access to the County Road shall be at ninety (90) degrees to the centerline of the roadway and extend a minimum of forty (40) feet from the edge of the roadway or from the right-of-way, whichever is greater. An angle between ninety (90) and seventy-five (75) degrees may be acceptable if approved by Mesa County.

#### 4.3.2 Fire Department Access

Fire department access shall be provided in accordance with the Mesa County Land Development Code.

#### 4.3.3 Design Vehicles

All accesses shall be designed to safely accommodate the turning characteristics of the largest vehicle that will typically utilize the proposed access. It is the responsibility of the Applicant to demonstrate that access design accommodates the vehicles expected to use the site.

#### 4.3.4 Curb Radii

Single-family residential driveways on curbed roadways shall be curb cut with flares. The edge of pavement for single-family residential driveways on roadways without curbs shall have a minimum twenty-foot (20') radius on each side of the driveway. The radius at the flow line of gutter shall be twenty (20) feet for multi-family residential access and twenty-five (25) feet for commercial access. Radii for industrial uses or truck delivery accesses shall be individually designed for the type of truck that will frequently use the access, with a maximum required radius of fifty (50) feet. An equivalent 3-centered compound curb or spiral curb may be designed by applicant, if warranted. No access except a curb cut shall have an equivalent radius of less than twenty (20) feet.

Public road intersections shall meet the minimum radii standards of the Mesa County *Specifications*.

#### 4.3.5 Access Width

The access surface width is measured (in feet) at the edge of pavement or road surface of the road being accessed. The minimum width for any rural-type access without curbs shall be measured excluding radii or flares. Access with curb cuts and a road style curb return entrance shall be measured behind the flared section.

Single-family residential driveway width shall be a minimum of twelve feet (12') to a maximum of thirty-three feet (33'). All other access widths shall be a minimum of twenty feet (20') to a maximum of forty feet (40').

Multi-lane access shall be required for any shared residential, commercial, or industrial use. Multi-lane access shall be designed to accommodate, at a minimum, an ingress



lane of sixteen feet (16') and egress lanes of twelve feet (12'). For large developments, the TIS shall specify the number of access lanes and access width.

One-way access shall have a width of 16 to 18 feet. If two one-way approaches are adjacent to each other they shall be divided by a non-traversable median of at least 4 feet but no more than 25 feet and will be treated as one access. The access median must be signed or otherwise be made clearly visible. Plantings or amenities in the median must not block required sight distance.

The driveway widths noted above shall be maintained for a minimum distance of twenty-five (25) feet from the edge of the road, and may taper to a narrower width as may be allowed in the *Land Development Code*, the *Specifications*, or other governing codes or policies.

#### 4.3.6 Throat Lengths and Vehicle Storage

Adequate vehicle storage capacity shall be provided for both inbound and outbound vehicles, which facilitates the safe and efficient movement of vehicles between the road and the development. The minimum throat length of a non-residential access shall be forty (40) feet. Conflicts with parking spaces or internal drive aisles are not permitted in this length. Additional throat length may be required depending on the type of vehicles typically using the access, the speed of vehicles approaching the access, and expected traffic volumes generated by the access use. The access throat shall be of sufficient length to prevent vehicles from spilling onto the public road system. Inbound vehicle storage areas shall be of sufficient size to ensure that vehicles will not obstruct the adjacent road, sidewalk, or circulation within the facility. The access throat shall be of sufficient length and number of lanes to provide adequate storage of outbound vehicles without them interfering with on-site circulation. Outbound vehicle storage areas shall be provided to eliminate backup and delay of vehicles within the development. At signalized intersections adequate storage for the outbound movement must be provided to enable vehicles to exit efficiently on the green portion of a traffic signal cycle.

#### 4.3.7 Gated Access Points

An access approach that has a gate across it shall be designed so that the longest vehicle using it can completely clear the traveled way and/or roadside pedestrian features when the gate is closed. The gate must open swinging away from the County road.

#### 4.3.8 Grades, Grade Breaks, and Slopes

For all accesses, the transition from the roadway cross slope to the access slope shall be the flattest curve that can be obtained to prevent the center or overhang drag of a vehicle.

Within the right-of-way, maximum grades shall be limited to ten percent (10%) for low volume field and residential access. All other accesses shall be limited to a maximum of eight percent (8%) grade unless the applicant demonstrates that steeper grades are required due to topographic constraints. In these cases the applicant must submit a Grading and Drainage Plan showing the existing and proposed contours and providing



for control of drainage from the access. Lesser grades may be required for drainage control purposes. Use of the right-of-way for access purposes should not preclude future roadway use of the public rights-of-way. The length of the access within the right-of-way should be minimized. Any access horizontal or vertical curve should be minimized within the right-of-way so as not to interfere with the future use, widening, reconstruction, or realignment of the road within the right-of-way.

#### 4.3.9 Drainage

The roadway drainage system is for the protection of the Mesa County road right-ofway. It is not designed or intended to serve the drainage requirements of abutting properties beyond the levels that historically flowed to the County road right-of-way. Drainage to the County road right-of-way shall not exceed the undeveloped historical flow.

Each access shall be constructed in a manner that shall not cause water to enter onto the roadway, and shall not interfere with the drainage system on the right-of-way. For any access that is not a curb cut, including roads and private access using curb returns, the first twenty (20) feet beyond the edge of the closest road lane, including speed change lanes or the distance to the side drain, whichever is greater, shall slope down and away from the road at a two percent (2%) grade to ensure proper drainage control. Exceptions may be made where steep topography makes this requirement difficult to fulfill. The approved design must prevent driveway runoff from flowing onto the County roadway. Where super elevations are present due to horizontal curves, drainage and driveway grade adjustments may be necessary subject to approval by Mesa County.

For access that is a curb cut to a road where roadway drainage is carried within the road section (rather than roadside ditches), the access must be constructed so that roadway drainage will not drain off of the roadway onto private property. The access must slope up until the elevation of the driveway is at least as high as the elevation at the top of curb without a depressed section.

Drainage structures shall not restrict the existing drainage system and shall be in conformance with any adopted drainage plan. Drainage pipes under accesses shall be of acceptable materials (as defined in the Specifications) and a minimum of twelve (12) equivalent inches inside diameter unless otherwise approved or required by Mesa County. Culverts shall have prefabricated flared end sections. All cut and fill slopes shall be constructed at not steeper than 3:1 slope unless approved by Mesa County. Structures that require wing walls and headwalls shall be allowed if plans and details that are prepared, stamped, and sealed by a Professional Engineer are submitted to and approved by Mesa County.

The access owner shall provide and maintain, at his or her own expense, drainage structures for his or her access, which will become an integral part of the existing drainage system. The type, design, and condition of these structures must meet the requirements of the *Policy* and *Specifications*.



Nothing shall be placed within the roadside drainage areas that would significantly block or hinder drainage in the ditches including, but not limited to: mailboxes, bushes, railroad ties, berms, cobblestone, or other landscaping items (including ramps placed in concrete gutters). This does not apply to naturally occurring items not placed by the owner or previous owners such as existing bushes, ridges, rock outcroppings, etc. Any items blocking or hindering drainage may be removed by Mesa County at the landowner's expense with notice unless safety or health is threatened, in which case immediate action may be taken.

#### 4.3.10 Sight Distance

The required site distances for various speeds are shown below in Table 4.2 and are required to enable vehicles to anticipate gaps in traffic to turn left, right, or cross the intersecting street or road from a stopped condition. These distances are based on the Design Intersection Sight Distance guidance found in the AASHTO *A Policy on Geometric Design of Highways and Streets*, 6<sup>th</sup> edition.

required sight distance The is measured between a point in the center of the approach lane of the proposed access, set back from the travel lane of the existing County roadway (the "decision point"), and a point in the center of the oncoming travel lane the existing roadway. along "decision point" is fifteen (15) feet from the road travel lane for new roadways (public or private) or for access points where the estimated trip generation is equal to or greater than ten (10) peak hour trips. For accesses with estimated trip generation of nine (9) or fewer peak hour trips, the "decision point" is measured ten (10) feet from the travel lane.

For accesses typically used only by passenger cars or pickup trucks, the line of sight is measured 3.5 feet above the surface of both the roadway and the access approach.

The area bounded by the access, the roadway, and the sight line between vehicles stopped at the access and approaching vehicles at the required sight distance is known as the Sight Triangle. Within the Sight Triangle there shall be no sign, wall, fence, berm, or

**Table 4.2 Intersection Sight Distances** 

Design Speed (mph)	Intersection Sight Distance (feet)
20	225
25	280
30	335
35	390
40	445
45	500
50	555
55	610
60	665
65	720

The distances noted above are to allow a stopped passenger car to turn left onto a two-lane highway with no median and approach grades at the stopped vehicle location of 3 percent or less. For other conditions or vehicle types the sight distance requirements shall be adjusted based on the guidance provided in the AASHTO A Policy on Geometric Design of Highways and Streets.



other object that obscures sight between a height of three (3) feet and eleven (11) feet.

If the required intersection site distance cannot be met for a site, then the County may require that the access be restricted to prohibit left turns onto the roadway or other countermeasures proposed by the applicant and designed by a Professional Engineer licensed in the State of Colorado.

#### 4.3.11 Channelization Islands

Channelizing islands may be incorporated into the access design for purposes of limiting movements into or out of accesses. Use of medians to control turning movements is preferred and will be required where physical conditions allow. Channelizing islands are traffic control devices and as such shall not be used solely for ornamental purposes

#### 4.3.12 Exclusive Turn Lanes

The purpose of an exclusive turn lane is to expedite the movement of through traffic, increase intersection capacity, permit the controlled movement of turning traffic, and promote traffic safety. The provision of left-turn lanes is essential from both capacity and safety standpoints where left turns would otherwise share the use of a through lane. Right-turn lanes remove the speed differences in the main travel lanes, reducing the frequency and severity of rear end collisions. Exclusive turn lanes shall be required in accordance with the warrants found in the *Specifications* and as indicated by the *TIS*.

#### 4.3.13 Pedestrians and Bicycles

Pedestrians and bicyclists are especially vulnerable to turning vehicles at access drives. The consolidation of access points benefits pedestrians and bicyclists by reducing the number of conflict points along the roadway. Access designs for pedestrian and bicycle facilities shall consider AASHTO's *Guide for the Development of Bicycle Facilities*, 4th Edition (2012) and as amended.

Access design shall provide for the safe movement of all road right-of-way users, including, but not limited to, pedestrians and bicyclists.

#### **4.3.14 Transit**

Where applicable, accesses shall be designed to accommodate buses or other transit vehicles in accordance with the *Transit Design Standards and Guidelines* as found in the City of Grand Junction's *TEDS* manual. These accommodations shall occur at shopping centers, malls, or other mixed-use developments that may be served by transit.

#### 4.3.15 Emergency Vehicles

All accesses shall be designed to readily accommodate emergency vehicles that would ordinarily respond at the particular establishment.



#### 4.3.16 Utilities and Lighting

Accesses shall be located to ensure that utility poles, electric boxes, and signs do not interfere with the visibility of the access or available sight distances. The design of site lighting, if required, shall maximize the visibility and location of the access.

#### 4.3.17 Access Surfacing

On roads where curb and gutter are present, all accesses shall be paved or hard surfaced within the right-of-way.

For access to paved roads where curb and gutter are not present, and that are within the Urbanized Area of the Mesa County Municipal Separate Storm Sewer Systems (MS4s) Authorization (Stormwater Urbanized Area), a portion of the access must be hard surfaced with hot mixed asphalt or concrete per Table 4.3. Any access with greater than five (5) ADT must have a hard surface pavement for a minimum of four (4) feet from the traveled way. Any access with greater than twenty (20) ADT shall have a hard surface pavement for a minimum distance of twenty (20) feet from the traveled way or to the right-of-way line, whichever is less. On roads where curb and gutter are not present, all accesses shall be surfaced using the same surfacing materials present on the road from the edge of the existing road to the right-of-way line.

For access to paved roads where curb and gutter are not present, and that are outside of the Stormwater Urbanized area, access may be surfaced with gravel per Table 4.3.

Surfacing material shall be specified according to the Department of Public Work's standard design *Specifications* and the conditions and future use of the access and the road. Refer to Table 4.3 below.

**Table 4.3 Access Surfacing Materials** 

Access Material	Minimum Section Depths
Concrete	6 inches class B concrete with 6 inches aggregate base compacted to 90% T-180 placed level with the road surface
CDOT HMA	3 inches with 6 inches Class 6 aggregate base course
Grade SX	
Gravel	6 inches Class 6 aggregate base course

- Oil and gas well accesses shall meet all criteria contained herein in addition to other requirements as determined by special review and/or other local and state requirements.
- Section dimensions are minimums. Thicker sections may be required to meet the requirements of the *Specifications*, the International Fire Code, or other applicable codes or regulations.



#### **APPENDIX A**

#### Policy Relationship to Specifications and Code

The Road Access Policy (Policy) supersedes the following sections of the Mesa County Standard Specifications for Road and Bridge Construction (Specifications):

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3.1.1

3.3. B

4.2.2

4.2.3

4.6

4.7.2

If there is a conflict between the *Policy* and the *Specifications*, the *Policy* shall apply.

The Road Access *Policy* (*Policy*) supersedes all sections of the *Mesa County Land Development Code* (*Code*) pertaining to access. All references to NOI and/or NTP in any other document shall be considered to mean Preliminary Access Location and Access Permit (respectively), as established in this *Policy*.



#### **APPENDIX B**

#### **Traffic Impact Study**

There are three levels of traffic evaluation used to assess impacts of development in Mesa County. See Chapter 3 for a description of these levels and guidance on the appropriate level of study based on estimated trip generation. This appendix provides more detailed information about the third level of assessment – the Traffic Impact Study.

It is the responsibility of the Applicant proposing a land use action to provide the necessary level of traffic impact study in support of their application process. Traffic Impact Studies must be prepared and signed by a qualified engineer licensed by the State of Colorado.

#### **Traffic Impact Study (TIS) Report Contents**

Each TIS shall address the following items:

- Project Description
- Existing Conditions
- Project Traffic
- Total Traffic Projections
- Future Total Traffic Projections (20 year)
- Future Background Traffic Projections (20 year)
- Site Circulation and Design Evaluation

- Traffic Operations Analysis
- Mitigation Measures
- Neighborhood Traffic Impact Analysis, if required
- Conclusions
- Recommendations
- Any other information necessary or required to evaluate the project

#### A. Project Description

A description of the proposed project shall include the type of land use and size of the proposed project, generally known as density and intensity. Intensity may be described in terms of floor area ratio or square footage of proposed development. Phasing plans shall be proposed, including the anticipated completion dates. The proposed site plan shall be provided and the site plan shall describe all proposed vehicular access locations, dimensions, movements and phasing. The project description shall include a description of how pedestrian and bicycle travel shall be accommodated. This shall include a discussion of types of sidewalks (attached/detached), pathways, and connections to local and perimeter destinations.

#### **B.** Existing Conditions

The *TIS* shall identify the existing transportation system conditions, including a description of the surrounding roadway network, bicycle facilities, and pedestrian facilities; an evaluation of the peak hour capacity and quality of service at the study intersections; and traffic accident history.

#### C. Description of Existing Transportation System Conditions

The description of the existing roadway network shall include, but not necessarily be limited to, the number of travel lanes, presence or lack of pedestrian and bicycle facilities, posted speed limits, and adjacent land use(s). Traffic and intersection data compiled by Mesa County may be available. All recent (within one year) average daily traffic data that is



available for the roadway network shall be shown on a figure in the study. Intersection peak hour traffic data shall be no older than one year. It is the sole responsibility of the Applicant to obtain current traffic data. The Applicant may, at the direction of Mesa County, be required to collect additional data. All traffic count data shall be included in an appendix to the TIS.

The *TIS* shall describe the existing bicycle and pedestrian facilities and shall include any facilities directly adjacent to the project site and within one-quarter mile. Special attention shall be given to the bicycle and pedestrian connections to specific uses including but not limited to: schools, parks, employment centers, commercial areas, shopping, and adjacent land uses.

Bicycle facilities are defined by AASHTO Guide for Bicycle Facilities as:

- **Bicycle Route:** A road that is officially designated and marked [by signage] as a bicycle route, but which is open to motor vehicle travel and upon which no bicycle lane is designated.
- **Bike Lane:** A portion of a road that has been designated (by paint stripe, pavement markings, and signage) for use by bicyclists.
- **Bike Path:** A separate trail or path, from which motor vehicles are prohibited, for the exclusive use of bicycles or the shared use of bicycles and pedestrians.

#### D. Traffic Operations Analysis and Quality of Service

The procedures set forth in the latest edition of the *Highway Capacity Manual* (HCM) shall be used in analyzing the capacity and operational characteristics of vehicular, pedestrian and bicycle facilities. All worksheets and evaluation summaries shall be included in the appendices of the *TIS* report.

#### E. Future Traffic Projections

The future traffic projections shall be determined for a minimum horizon year of 20 years and shall consider the following:

- Existing and Committed (funded) Capital Improvement Projects
- Existing and Permitted Land Development Projects
- Background Traffic Growth

A description of project-specific planned transportation system improvements identified in municipal, County, or CDOT capital improvement plans, including those identified in the current Regional Transportation Plan (RTP) prepared by the Grand Valley MPO/RTPO shall be provided. This shall include, but not be limited to: signalization, intersection improvements, roadway widening, bicycle/ pedestrian projects, and transit capital and operating/service improvements.

The future traffic analysis shall include permitted development projects that are within the study area and would affect the study area. Projects outside the study area currently being developed shall also be considered. Every project(s) and the cumulative effect shall be listed in the *TIS* and include location, size and proposed land use. When determining future traffic projections, the background traffic growth within the study area shall also be accounted for. Growth factors suggested by the consultant in the Base Assumptions form



will be reviewed by the appropriate agency prior to use in the *TIS*. Horizon year traffic projections may be available from the RTPO. The County and RTPO will determine the applicability of this data and determine the suitability of its use by the Applicant.

The TIS shall include a figure showing future peak hour traffic projections for roads in the study area.

#### F. Project Traffic

The traffic impacts of the project shall be determined based upon the following:

#### 1. Trip Generation

The trips generated by the project shall be determined and provided in tabular form. The trip generation shall be determined for total build-out conditions and for any development phases. The trip generation table shall indicate the number and direction of average daily trips and peak hour trips.

The development of trip generation estimates for the project shall be based upon data from the latest edition of the Institute of Transportation Engineers (ITE) - *Trip Generation Manual*. However, other data sources or trip generation rate studies may be utilized if the manual does not contain data for the type of project or other reliable data exists that better reflects the trip generation characteristics of the project. Mesa County must approve the use of other trip generation sources.

Total trip generation of the proposed project shall be factored to determine the number of new trips (accounts for internal site trips, pass-by trips, or other site specific/project specific characteristics of the proposed project). Mesa County must approve the use of trip reduction factors. In most cases, the TIS shall conform to guidelines set forth in documents such as the ITE *Trip Generation Manual*. The adjusted trip generation for the proposed project shall be provided in tabular form or illustrated on figures.

#### 2. Trip Distribution

The trip distribution for the proposed project shall be identified in the *TIS*. The distribution pattern shall be based upon: the project's location within the urban area, the traffic model maintained by the MPO, existing traffic volume data, project marketing data, and engineering judgment. A figure showing the percentage of site traffic on each road shall be provided as part of the traffic study graphic material.

#### 3. Trip Assignment

The project traffic shall be assigned to the roadway system according to the established trip distribution. The resulting project site generated traffic shall be depicted on figures for build-out conditions and any project phases. Specifically, daily and peak hour traffic volume information shall be included.

#### G. Total Traffic Projections

The total traffic projections shall be determined for each of the study years identified in the base assumptions. The project-related traffic shall be added to the existing peak hour traffic and the future base peak-hour traffic. The resulting total traffic projections shall be depicted on a figure in the *TIS*.



#### H. Site Design and Traffic Circulation Evaluation

The project site plan shall be evaluated to determine if the proposed design and traffic circulation serves pedestrians, bicyclists, and vehicles in a safe and efficient manner. The site design and facilities shall comply with Mesa County codes, policies, standards, and planning documents.

The project shall be evaluated to determine that traffic circulation paths are properly designed. Proper design shall minimize areas where motorists would tend to speed, minimize potential conflict areas between vehicles and pedestrians/bicyclists, and establish circulation patterns that avoid unnecessary traffic congestion, cut-through traffic and conflict points. The site design shall provide adequate throat lengths for on-site vehicle queuing at access points. At signalized driveways, the HCM "90th percentile worst lane queue" model shall determine the necessary vehicle storage.

#### I. Traffic Operations Analysis

The *TIS* shall determine if the project creates any significant effects at study intersections and/or corridors within the study area boundaries. The peak hour capacity and quality of service at each of the study intersections and/or corridors shall be evaluated for:

- Future Background Traffic Conditions for each study year,
- Total Existing Traffic Conditions, and
- Future Total Traffic Conditions for each study year.

The capacity and quality of service analysis for each traffic scenario and each study year needs to include mode split assumptions, if any. The findings shall be shown in the TIS in tabular form or illustrated on figures.

#### J. Calculations for Capacity and Quality of Service

Delays and queues shall be calculated for signalized intersections using the latest version of the Highway Capacity Manual (HCM). An appropriate 15-minute peak hour factor shall be used. The performance evaluation of signalized intersections shall include the following:

- Critical movements shall be identified and must meet the threshold requirement of 35 seconds of delay or less;
- No movements shall have an adverse effect on the coordinated progression of the road system as determined by an approved coordination model consistent with the methods of HCM;
- HCM 95th-percentile worst lane queues shall be calculated and shall not obstruct upstream intersections or major driveways;
- The analysis of a signalized corridor must show a reasonable progression band, identified as a usable (unblocked) band for major traffic movements.

Unsignalized intersections shall be analyzed using the latest HCM methods. In the performance evaluation of stop-controlled intersections, measures of effectiveness to consider include the delay, volume/capacity ratios for individual movements, average queue lengths and 95th-percentile queue lengths to make appropriate traffic control recommendations. The HCM recognizes that the delay equation used in the capacity analysis procedure will predict Level of Service F for many urban intersections that allow



minor-road left-turn movements, regardless of the volume of minor-road left-turning traffic. In recognition of this, the TIS should evaluate the results of the intersection capacity analysis in terms of all of the measures of effectiveness.

The highest directional peak hour volume shall be used to calculate the road segment quality of service.



#### **APPENDIX C**

#### **Adopted Circulation Plans**

Existing and future roads, as well as functional classifications, are shown on a map or series of maps, known as "Circulation Plans," which are to be considered a part of this Road Access Policy as if they were set out here in detail. Original copies of adopted Circulation Plans are maintained in the Planning Department. Adopted Circulation Plans are also available on-line at http://www.mesacounty.us/planning/transportation-maps.aspx.

Circulation Plans may be amended from time to time. The most current map for the subject property's location shall apply.

#### **Adopted Circulation Plans:**

- Grand Valley Circulation Plan Grand Junction/Mesa County Urban Area
- Loma Circulation Plan Loma Community Plan Area
- Northwest Grand Valley Mesa County Transportation Plan Rural Element
- Whitewater/Kannah Creek Circulation Plan Mesa County Urban Area



#### **Companion Documents**

## The following documents are recommended for use with the Mesa County Road Access Policy

#### Local:

- Mesa County Land Development Code (Code)
- Mesa County Standard Specifications for Road and Bridge Construction (Specifications)
- Mesa County Storm Water Management Manual (SWMM)
- Grand Valley Circulation Plan
- Northwest Grand Valley Circulation Plan Rural Element
- Mesa County Master Plan
- Grand Junction Transportation Engineering Design Standards (TEDS)
- Grand Valley 2040 Regional Transportation Plan
- Loma Circulation Plan
- Whitewater/Kannah Creek Circulation Plan
- Any other adopted circulation plan
- Any applicable land use or transportation study

#### State:

- Colorado Department of Transportation (CDOT) Roadway Design Manual
- CDOT State Highway Access Code
- *I-70B Corridor Optimization Study*
- U.S. 50 Access Control Plan
- U.S. 6 Access Control Plan
- U.S. 6 West Access Control Plan

#### Federal:

- Transportation Research Board Highway Capacity Manual
- Federal Highway Administration Roundabouts: An Informational Guide
- Federal Highway Administration Manual on Uniform Traffic Control Devices

#### **Professional Organization Publications:**

- Institute of Transportation Engineers (ITE) Trip Generation Manual
- American Association of State Highway Transportation Officials (AASHTO) A Policy on Geometric Design of Highways and Streets
- AASHTO Guide for the Development of Bicycle Facilities
- AASHTO Roadside Design Guide
- APA Bicycle Facility Planning
- Colorado Asphalt Pavement Association Guideline for the Design and Use of Asphalt Pavements for Colorado
- National Fire Code

The latest edition of each document shall be used unless a specific edition is listed.



#### **Glossary of Terms**

Article VI of the *Specifications* provides many definitions related to road and bridge construction. Chapter 12 of the *Code* provides many definitions related to land planning and development review. The following definitions supplement the *Specifications* and the *Code*. These terms are unique to traffic engineering and access management.

Term	Definition	
Access	A physical travel-way connection point to a roadway.	
Access, 1/2	An access point that allows only 2 of 4 turning movements by restricting both left turn movements, in and out. (Also called a right-in/right-out access.)	
Access, 3/4	An access point that allows only 3 of 4 turning movements by restricting 1 left turn movement (in or out).	
Access, 4/4 or Full	An access point that allows all four turning movements and all through movements.	
Access, Direct	An access that connects a public County road to the adjacent property.	
Access, Existing	An access already in place as of the effective date of this <i>Policy</i> .	
Access, Fire Department	An access designed to accommodate emergency vehicles in accordance with a special set of access design standards.	
Access, Indirect	A physical travel-way connecting a public County road to the adjacent property via another property, generally on an easement.	
Access Point	The location at which any entry is made to a roadway, i.e. driveway, field access, roadway, intersection.	
Access, Shared	An access serving more than one parcel or lot.	
Access Control	A set of physical features, signs, and pavement markings intended to control traffic movements and site access.	
Access Design Standards	Standards that determine the appropriate type and location of access for each category of land use or roadway.	
Access Management	A broad set of strategies and techniques that balance the need to provide efficient, safe and timely travel with the ability to allow access to the individual destination.	
Access Offsets	The distance between two opposing access points, as measured along the road and between the nearest straight sides of the access points. A four-leg intersection has zero offset.	
Access Spacing	Access design standards for the distance between signalized intersections, median openings and unsignalized access points. The standards vary according to the characteristics of the road and the surrounding area.	
Access Surfacing	Access Design Standards for the type and thickness of material to be placed on the surface of an access.	
Access Width	The perpendicular distance across an access point.	
Access Permit	A letter authorizing construction of an approved road access.	



Board of County Commissioners (BOCC)	Elected County officials responsible for development and implementation of policies and procedures to protect the interest of Mesa County citizens.
Channelization	The process of separating roadway segments or lanes by installing visual (painted surface) or physical (pedestrian islands or medians) barriers.  These barriers limit turning movements by motorists and provide refuge for vehicles turning across traffic or pedestrians crossing the roadway.
Clear Zone	An area ('clear' of obstacles) along each intersecting roadway edge that serves to provide for better sight distance and emergency vehicle escape.
Code	Mesa County Land Development Code
Comments	Statements contained in an NOI that are not binding but provided as information for the applicant related to a project.
Conditions of Approval	Statements contained in an NOI that define requirements that must be met to legally develop an access to a County Road
Controlled Access Point	An intersection at which the right-of-way is assigned by the installation of such control measures as yield signs, stop signs or traffic signals.
Corner Clearances	The distance between an access points, public or private, and a road intersection, measured from the nearest points of the edge of each access – exclusive of flares or radii.
Cross-Access Corridors	A strip of land with improvements designed to provide common access and circulation among parcels while minimizing the number of access points on the County road.
Cross-Aisle	A corridor of travel in the interior of a development (parking lot).
CRS	Colorado Revised Statutes
Curb Radii	Turn radii measured at flow line or edge of pavement. Requirements vary accordingly to the type of design vehicle.
Curb Return	The curved portion of a street curb at intersections or driveways.
Department of Public Works	The Mesa County department responsible to plan, design, construct, and administer public works facilities, including roads.
Design Exception	Written permission to implement a design that does not meet County standards for transportation and infrastructure when there is divergence between public needs and construction constraints imposed by County standards.
Driveway	The point (direct or indirect) at which a private property (agricultural or residential) accesses a local road, as defined by the functional classifications in this <i>Policy</i> .
Easement	A portion of a parcel that is legally reserved for a specific limited use by an entity other than or in addition to the owner, i.e. irrigation, roadway, ingress/egress, utilities, emergency vehicle access corridor, etc.
Exclusive Turn Lanes	Travel lanes that are intended to be utilized only by turning vehicles.
Functional Classification	Description of the size and capacity of roads, as shown on adopted circulation plans.
Inbound	Traffic movements from the road into a property.
Infill Development	A development of parcels that are bounded or surrounded by existing zoned development.
Intersection	The location at which one roadway meets or intersects another.



Intersection Sight Distance	The sight distance necessary for a vehicle to safely depart from the stopped position, even though the approaching vehicle comes into view as the stopped vehicle begins to depart. The required sight line creates the Sight Zone at the corners of the access.
Land Development Code (Code)	The document adopted by the BOCC which regulates land development and use in Mesa County.
Letter of Denial	A letter that states the reasons that a <i>Road Access Notice to Proceed</i> is being denied and proposes remedies for those shortfalls.
Metropolitan Planning Organization (MPO)	A federally-mandated unit of regional government that is responsible for long range transportation planning and allocation of federal transportation funding. In Mesa County, the Grand Valley Regional Transportation Committee oversees the MPO.
MPO Boundary	The limit of MPO jurisdiction. In Mesa County, the MPO Boundary includes the Cities of Grand Junction and Fruita, and the Town of Palisade.
Northwest Grand Valley Circulation Plan - Rural Element	A companion map to this <i>Policy</i> that shows the functional classifications of roads outside of the Urban Development Boundary of Mesa County.
Off-Road Parking	Parking space provided in a parking lot, residential driveway or garage that is separated from the road.
Outbound	Traffic movements from the adjacent property to the road.
Parent Tract	The original parcel of land under one ownership at the time of this <i>Policy's</i> implementation and prior to subdivision into smaller parcels.
Planning Division	The Mesa County division responsible for the review and recommendations regarding land development projects.
Preliminary Access Location	A document authorizing the type and location of access to the County road system.
Policy	Mesa County Road Access Policy
Regional Transportation Planning Office (RTPO)	A Mesa County department responsible for regional transportation planning.
Right-of-Way (Public)	An area on which a roadway and its clear zone sits. It is generally dedicated to a governmental entity and is reserved for public use.
Road	A general term used to describe travel ways such as roads, streets, highways, and parkways.
Road, Arterial	A road intended to safely and efficiently move traffic while limiting the amount of direct public or private access.
Road, Collector	A road intended to safely and efficiently move traffic while providing some degree of direct public or private access.
Road, Local	A road intended to safely and efficiently provide direct private access while moving some traffic.
Road, Public	A road, maintained by Mesa County as shown on the latest <i>Mesa County Road Inventory</i> .
Road, Stub	An existing or planned road that is or will be extended to the property line(s) of a development for the purpose of future extension onto adjacent property.



Road Access Policy (Policy)	This document, as an appendix to the <i>Mesa County Road &amp; Bridge Specifications</i> .
Road Flow Line	The location on a curb and gutter where water runoff flows, serving as a measuring point for curb radii requirements.
Queue	A group of vehicles traveling or waiting together, being sequentially serviced (first in, first out).
Sight Triangle	Related to Intersection Sight Distance. The required sight line creates the Sight Zone at the corners of the access.
Signalization	An intersection controlled by an electronic traffic signal device.
Significant (as in change)	An increase in the square footage of building or a change in use type of a particular parcel that elevates its traffic volume or trip generation by 20%.
Specifications	Mesa County Standard Specifications for Road and Bridge Construction
Standard Specifications for	The adopted document used by the Department of Public Works to
Road & Bridge Construction (Specifications)	implement public works projects in the best interest of Mesa County.
Surface Alteration Permit	A permit issued by Department of Public Works that is written authorization to construct or alter any facility within public right-of-way.
TEDS	City of Grand Junction Transportation Engineering Design Standards
Throat Length	The distance of an access facility measured between the road flow line and the nearest cross-aisle, road, or parking space in a parking lot.
Traffic Impact Study (TIS)	A study that assesses the effects a particular development's traffic will have on the transportation network in the community. Also identifies improvements necessary to mitigate impacts.
Trip Generation Letter	A letter that assesses the effects a particular development's traffic will have on the transportation network in the community.
Trip	A one-directional movement from a roadway into or out from a parcel by a single vehicle.
Trip Generation	The number of one-directional vehicle movements to or from a location.
Turning Movement	The ability of a vehicle to turn in one particular direction from a roadway lane.
Urban Development	That area planned for urban land uses as depicted on the Future Land
Boundary (UDB)	use map in the Grand Junction Plan.
Urban Area	The area of Mesa County within the MPO Boundary.
Use (of building or parcel)	The purpose for which land or the building is designed, arranged or intended, or for which is or may be occupied or maintained; also any activity, occupation, business or operation which is carried on or in a structure or on a tract of land.
Use, Change in	A significant change made in the use of a building or property, including a change of more than 20% in volume, trip generation, or building size.
Vehicle Storage	The space where vehicles can safely wait in line for turns or drive-through facilities.

