

DEVIATION REQUEST (Attach diagrams, figures, and other documentation to clarify request)

A deviation from the standards of or in Section **2.3.7 Intersections** of the Engineering Criteria Manual (ECM) is requested.

Identify the specific ECM standard which a deviation is requested:

Section 2.3.7.D.1 Exclusive Left Turn Lane:
Snaffle Bit Left Turn Lane

Section 2.3.7.E Turn Lane Design
Left Lane Length – Northbound Snaffle Bit Rd and Southbound Motley Rd

State the reason for the requested deviation:

Section 2.3.7.E Turn Lane Design: Left Lane Length Northbound Snaffle Bit Rd and Southbound Motley Rd
The Eastonville Rd segment between Snaffle Bit Rd and Motley Road is 410 feet in length, which is insufficient to accommodate the left turn lane design standards presented ECM. The Eastonville Rd northbound left turn volume at Snaffle Bit Rd does not require a turn lane, however, to minimize impedance on Eastonville Rd one is proposed.

Explain the proposed alternative and compare to the ECM standards (May provide applicable regional or national standards used as basis):

Section 2.3.7.E Turn Lane Design: Left Lane Length Northbound Snaffle Bit Rd and Southbound Motley Rd
To allow flexibility in the school site circulation plan southbound the left turn lane geometry is assumed to consists of a total of 375 feet (140 ft taper, 85 ft lane and 150 ft storage). The standards require at total length of 425 feet (140 ft taper, 135 ft lane and 150 ft storage). On minor arterials FHWA an CDOT standards allow for some deceleration in the through traffic lane.

Left Turn Lane Design: Snaffle Bit Left Turn Lane: The left turn lane geometry consists of a total of 175 feet (140 ft taper, and 35 ft storage). The standards require at total length of 325 ft (140 ft taper, 135 ft land, and 50 ft storage). On minor arterials FHWA an CDOT standards allow for some deceleration in the through traffic lane.

LIMITS OF CONSIDERATION

(At least one of the conditions listed below must be met for this deviation request to be considered.)

The ECM standard is inapplicable to the particular situation.

- Topography, right-of-way, or other geographical conditions or impediments impose an undue hardship and an equivalent alternative that can accomplish the same design objective is available and does not compromise public safety or accessibility.
- A change to a standard is required to address a specific design or construction problem, and if not modified, the standard will impose an undue hardship on the applicant with little or no material benefit to the public.

Provide justification:

Section 2.3.7.E Turn Lane Design: Left Lane Length Northbound Snaffle Bit Rd and Southbound Motley Rd
Since the existing intersection creates limitations the left turn geometry should be modified to favor the site specific conditions.

CRITERIA FOR APPROVAL

Per ECM section 5.8.7 the request for a deviation may be considered if the request is **not based exclusively on financial considerations**. The deviation must not be detrimental to public safety or surrounding property. The applicant must include supporting information demonstrating compliance with **all of the following criteria**:

The deviation will achieve the intended result with a comparable or superior design and quality of improvement.

Section 2.3.7.E Turn Lane Design: Left Lane Length Northbound Snaffle Bit Rd and Southbound Motley Rd
The proposed design is intended to take full advantage of the existing condition and add flexibility in serving traffic entering the school site. The proposed deviation will result in deceleration of approximately 5 mph in the through lane. The proposed design meets the intent of the ECM criteria.

Exclusive Left Turn Lane: Snaffle Bit Left Turn Lane

The proposed left turn is discretionary, and its implementation is to support the operation of the Eastonville Rd corridor. The proposed design meets the general intent of the ECM and supports traffic operations

The deviation will not adversely affect safety or operations.

Section 2.3.7.E Turn Lane Design: Left Lane Length Northbound Snaffle Bit Rd and Southbound Motley Rd
The proposed left turn lane geometry will result in some decelerate in the through lane which is not uncommon on a minor arterial corridor. This condition is not a safety concern and is an operational circumstance which does not adversely impact the corridor.

The deviation will not adversely affect maintenance and its associated cost.

Section 2.3.7.E Turn Lane Design: Left Lane Length Northbound Snaffle Bit Rd and Southbound Motley Rd
Not additional maintenance is anticipated. The proposed improvements will be funded by the school development.

The deviation will not adversely affect aesthetic appearance.

The improvement meets the neighborhood character and does not have an adverse impact on aesthetic appearance.

The deviation meets the design intent and purpose of the ECM standards.

The design is in general accordance with County design guidelines intent and purpose. The northbound left turn is minimal at approximately less than 10 vehicles is both the am and pm peak hour. Synchro result indicate a queue length of 0 feet in the 2040 condition.

The deviation meets the control measure requirements of Part I.E.3 and Part I.E.4 of the County's MS4 permit, as applicable.

Section 2.3.7.E Turn Lane Design: Left Lane Length Northbound Snaffle Bit Rd and Southbound Motley Rd:

Internal to the project the stormwater drainage is collected in a local detention pond and meets the MS4 permit and water quality requirements. The site grading construction activities are protected with erosion control per County guidelines. The construction activities within Eastonville Rd consist of restriping and a curb cut associated with the new access. In general, the Eastonville Rd drainage remains the same as highlighted in the Drainage Report.

REVIEW AND RECOMMENDATION:

Approved by the ECM Administrator

This request has been determined to have met the criteria for approval. A deviation from Section _____ of the ECM is hereby granted based on the justification provided.

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Denied by the ECM Administrator

This request has been determined not to have met criteria for approval. A deviation from Section _____ of the ECM is hereby denied.

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ECM ADMINISTRATOR COMMENTS/CONDITIONS:

1.1. PURPOSE

The purpose of this resource is to provide a form for documenting the findings and decision by the ECM Administrator concerning a deviation request. The form is used to document the review and decision concerning a requested deviation. The request and decision concerning each deviation from a specific section of the ECM shall be recorded on a separate form.

1.2. BACKGROUND

A deviation is a critical aspect of the review process and needs to be documented to ensure that the deviations granted are applied to a specific development application in conformance with the criteria for approval and that the action is documented as such requests can point to potential needed revisions to the ECM.

1.3. APPLICABLE STATUTES AND REGULATIONS

Section 5.8 of the ECM establishes a mechanism whereby an engineering design standard can be modified when if strictly adhered to, would cause unnecessary hardship or unsafe design because of topographical or other conditions particular to the site, and that a departure may be made without destroying the intent of such provision.

1.4. APPLICABILITY

All provisions of the ECM are subject to deviation by the ECM Administrator provided that one of the following conditions is met:

- The ECM standard is inapplicable to a particular situation.
- Topography, right-of-way, or other geographical conditions or impediments impose an undue hardship on the applicant, and an equivalent alternative that can accomplish the same design objective is available and does not compromise public safety or accessibility.
- A change to a standard is required to address a specific design or construction problem, and if not modified, the standard will impose an undue hardship on the applicant with little or no material benefit to the public.

1.5. TECHNICAL GUIDANCE

The review shall ensure all criteria for approval are adequately considered and that justification for the deviation is properly documented.

1.6. LIMITS OF APPROVAL

Whether a request for deviation is approved as proposed or with conditions, the approval is for project-specific use and shall not constitute a precedent or general deviation from these Standards.

1.7. REVIEW FEES

A Deviation Review Fee shall be paid in full at the time of submission of a request for deviation. The fee for Deviation Review shall be as determined by resolution of the BoCC.

DEVIATION REQUEST (Attach diagrams, figures, and other documentation to clarify request)

A deviation from the standards of or in Section **2.3.2** of the Engineering Criteria Manual (ECM) is requested.

Identify the specific ECM standard which a deviation is requested:

Section 2.3.2 Design Standards by Functional Classification. Per criteria access is not permitted on a minor arterial roadway.

Minor arterial roadway spacing for access spacing is 455 feet for a two lane and 525 feet for a four-lane facility per based on a 35 mph posted speed, Tables 2-6 and Table 2-35. The proposed school access driveway is located opposite the existing Eastonville Rd/ Snaffle Bit intersection resulting in a symmetric 4-leg intersection.

State the reason for the requested deviation:

The reason for the new access is to serve an auxiliary parking lot and to manage exiting traffic queues internal to the site. The site access is proposed to be a full movement intersection at Eastonville Rd. and Snaffle Bit Rd, which is located northerly from the Motley Rd. intersection.

The triangular shape of the parcel has three sides offer few alternative access locations. One side is encumbered by a drainage channel and adjacent private property. One side is next to a residential property. The only remaining side is adjacent to Eastonville Road. Due to the lot configuration, the proposed access aligns with an existing local roadway. The proposed four leg intersection is stop controlled on the side street/access drive, prioritizing the corridor operation at Eastonville Road.

Explain the proposed alternative and compare to the ECM standards (May provide applicable regional or national standards used as basis):

The access is designed in accordance with ECM design guidelines. The access will have a driveway pan with curb returns to support vehicle tracking. The intersection geometry and control will be similar to that at the Eastonville Rd. and Motley Rd intersection. Eastonville Rd left turn lanes are proposed and the details presented in a separate Deviation Request (See attached)

LIMITS OF CONSIDERATION

(At least one of the conditions listed below must be met for this deviation request to be considered.)

- The ECM standard is inapplicable to the particular situation.
- Topography, right-of-way, or other geographical conditions or impediments impose an undue hardship and an equivalent alternative that can accomplish the same design objective is available and does not compromise public safety or accessibility.
- A change to a standard is required to address a specific design or construction problem, and if not modified, the standard will impose an undue hardship on the applicant with little or no material benefit to the public.

Provide justification:

The new access supports traffic circulation for the school site. The internal queues associated with the peak hour are long. The site internal queue and the Average Queue Length of 1,762 feet is recommended. The existing internal 20-foot wide circulatory roadway has an available queue length of 1,380 feet, plus 750 feet of loading parking for a total 2,130 feet of vehicle storage. Liberty Tree Academy Phase 2 includes an additional 450 feet of storage for an overall project queue storage of 2,590 feet.

CRITERIA FOR APPROVAL

Per ECM section 5.8.7 the request for a deviation may be considered if the request is **not based exclusively on financial considerations**. The deviation must not be detrimental to public safety or surrounding property. The applicant must include supporting information demonstrating compliance with **all of the following criteria**:

The deviation will achieve the intended result with a comparable or superior design and quality of improvement.

The County criteria for minor arterial roadway spacing for access spacing is 455 feet for a two lane and 525 feet for a four-lane facility per Tables 2-6 and Table 2-35. Access spacing indicated in Table 2-35 is based on a posted speed of 35 mph. This indicates that the access location meets the intent of the criteria.

The deviation will not adversely affect safety or operations.

The access is designed per County criteria. This include Eastonville Rd left turn lanes which meet standards in the southbound direction. The turn lanes between Motley Rd and Snaffle Bit are address in a separate Deviation request attached. This is also discussed in the attached Deviation request.

The deviation will not adversely affect maintenance and its associated cost.

The access connects to Eastonville Rd within ROW and there will be street maintenance needed. This is anticipated to be similar to existing maintenance such as Eastonville Rd street sweeping, snow removal, signing and striping. Beyond that no internal maintenance is anticipated. The proposed improvements will be funded by the school development.

The deviation will not adversely affect aesthetic appearance.

The improvement meets the neighborhood character and does not have an adverse impact on aesthetic appearance. The access is similar to the Motley Rd school access.

The deviation meets the design intent and purpose of the ECM standards.

The access location is in general accordance with County design guidelines intent and purpose and presented in Tables 2-6 and Table 2-35.

The deviation meets the control measure requirements of Part I.E.3 and Part I.E.4 of the County's MS4 permit, as applicable.

Internal to the project the stormwater drainage is collected in a local detention pond and released at a rate meeting MS4 permit and water quality requirements. The site grading construction activities are protected with erosion control per County guidelines. The construction activities within Eastonville Rd consist of restriping and a curb cut associated with the new access. In general, the Eastonville Rd drainage remains the same as highlighted in the Drainage Report.

REVIEW AND RECOMMENDATION:

Approved by the ECM Administrator

This request has been determined to have met the criteria for approval. A deviation from Section _____ of the ECM is hereby granted based on the justification provided.

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Denied by the ECM Administrator

This request has been determined not to have met criteria for approval. A deviation from Section _____ of the ECM is hereby denied.

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ECM ADMINISTRATOR COMMENTS/CONDITIONS:

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Section 5.8 of the ECM establishes a mechanism whereby an engineering design standard can be modified when if strictly adhered to, would cause unnecessary hardship or unsafe design because of topographical or other conditions particular to the site, and that a departure may be made without destroying the intent of such provision.

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The review shall ensure all criteria for approval are adequately considered and that justification for the deviation is properly documented.

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