



Planning and Community
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 Colorado Springs, Colorado 80910
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**DEVIATION REQUEST
 AND DECISION FORM**

Updated: 6/26/2019

PROJECT INFORMATION

Project Name : Grandwood Ranch
 Schedule No.(s) : 6119000003
 Legal Description : S2N2, EX PT TO HIGBY RD CONV BY REC# 205092691 W/MR SEC 19-11-66

APPLICANT INFORMATION

Company : Grandwood Enterprises
 Name : Bill Herebic
 Owner Consultant Contractor
 Mailing Address : 270 Lodgepole Way, Monument, CO 80132

 Phone Number : 719-651-9152
 FAX Number :
 Email Address : Herebic5@msn.com

ENGINEER INFORMATION

Company : Matrix Design Group
 Name : Gregory Shaner Colorado P.E. Number : 36307
 Mailing Address : 2435 Research Pkwy, Suite 300, Colorado Springs, CO 80920

 Phone Number : 719.575.0100
 FAX Number :
 Email Address : Gregory.Shaner@Matrixdesigngroup.com

OWNER, APPLICANT, AND ENGINEER DECLARATION

To the best of my knowledge, the information on this application and all additional or supplemental documentation is true, factual and complete. I am fully aware that any misrepresentation of any information on this application may be grounds for denial. I have familiarized myself with the rules, regulations and procedures with respect to preparing and filing this application. I also understand that an incorrect submittal will be cause to have the project removed from the agenda of the Planning Commission, Board of County Commissioners and/or Board of Adjustment or delay review until corrections are made, and that any approval of this application is based on the representations made in the application and may be revoked on any breach of representation or condition(s) of approval.

 Signature of owner (or authorized representative) Date

 Engineer's Seal, Signature
 And Date of Signature

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 – Table 2-5 Roadway Design Standards for Rural Collectors and Locals for the Major Rural Collector design criteria

Add at the end of the first sentence
"consistent with the 2016 Major
Transportation Corridors Plan Update."

State the reason for the requested deviation:

It is proposed to extend the existing collector, Furrow Road, through the Grandwood Ranch development and connect to the existing major arterial, Higby Road. Due to existing steep and varying terrain directly south of the intersection between Furrow Road and Minglewood Trail, retaining walls are required to make the Furrow Road extension to avoid disturbance within Lot 52 and Lot 4 of the Timberview Subdivision Filing No. 2.

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

To allow room for construction of retaining walls and grading operations, a modified major rural collector section is being proposed for the extents of improvements within the existing Timberview Subdivision Filing No. 2. The proposed section replaces the typical roadside swale with curb and gutter to properly convey stormwater runoff and to allow feasible space for retaining wall construction without disturbing adjacent property owners. Curb and gutter will also serve as protection against erosion at the base of the retaining walls. Once the Furrow Road extensions reaches the Grandwood Ranch development site, the standard EPC Major Rural Collector section will be assumed for the remainder of the roadway extension.

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:

Existing steep and varying terrain results in extensive grading to tie-back to existing grade. Retaining walls must be constructed to make the Furrow Road extensions to avoid disturbance of existing and occupied lots with the Timberview Subdivision Filing No. 2. With limited right-of-way for construction of retaining walls, curb and gutter will for the extents of development within the Timberview Subdivision will provide adequate space for the Furrow Road extensions and associated construction. The proposed curb and gutter will reduce the roadway section by 10' on each side of the road, allowing sufficient room for retaining wall construction and grading. Curb and gutter will also serve as protection against erosion at the base of the retaining walls

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 use of curb and gutter adjacent to existing property owners will provide protection for said property owners while property conveying existing and future traffic volumes and properly convey stormwater runoff into the Grandwood Ranch development.

The deviation will not adversely affect safety or operations.

The requested deviation will have no adverse affects on safety and/or operations. The proposed curb and gutter will provide a safety barrier between vehicles traveling through Furrow Road and the required retaining walls.

Elaborate. Urban collector sections have a clear zone of 14'. The proposed alternative shall maintain the clear zone. How will the clear zone transition to the major collector clear zone of 20'.

Typical cross section should include guard rails.

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

The requested deviation will have no adverse affects on maintenance and its associated costs.

Elaborate. Who is expected to maintain the retaining wall?

The deviation will not adversely affect aesthetic appearance.

The requested deviation will have no adverse affects on aesthetic appearance.

Explain how it does not affect aesthetic.

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

The requested deviation meets the design intent and purpose listed within the ECM standards.

Elaborate. Explain how the proposed alternative meets the design intent.

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.

The requested deviation meets control measure requirements of the MS4 Permit.

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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Γ

L

J

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.

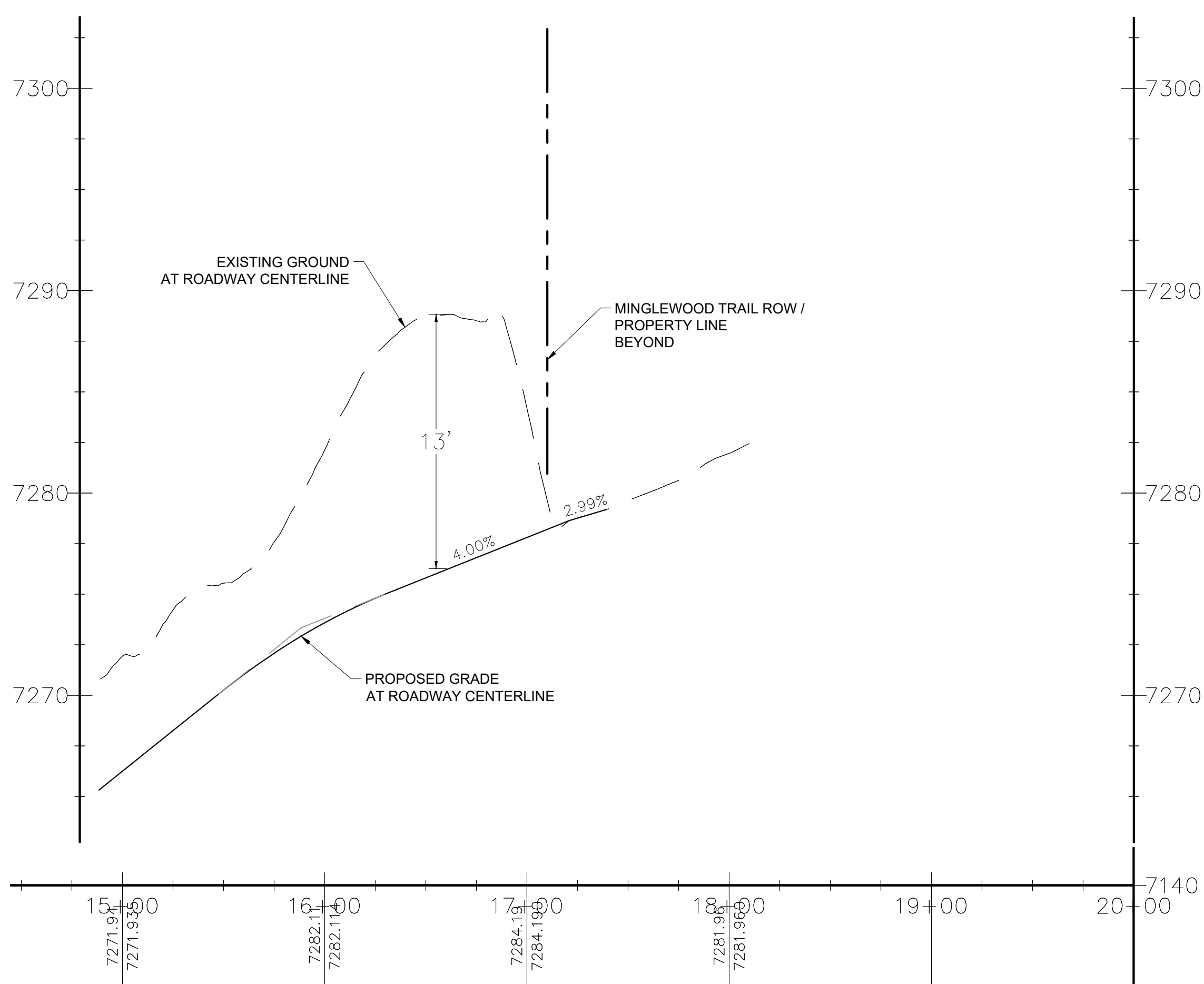
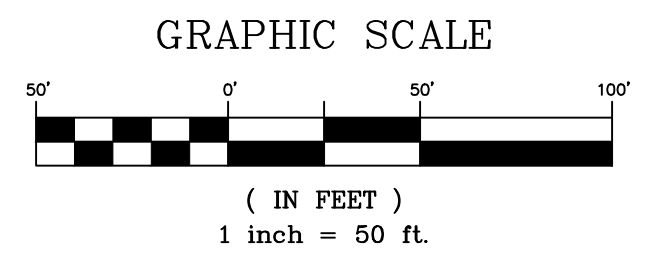
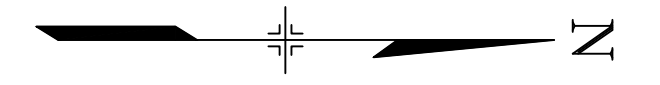
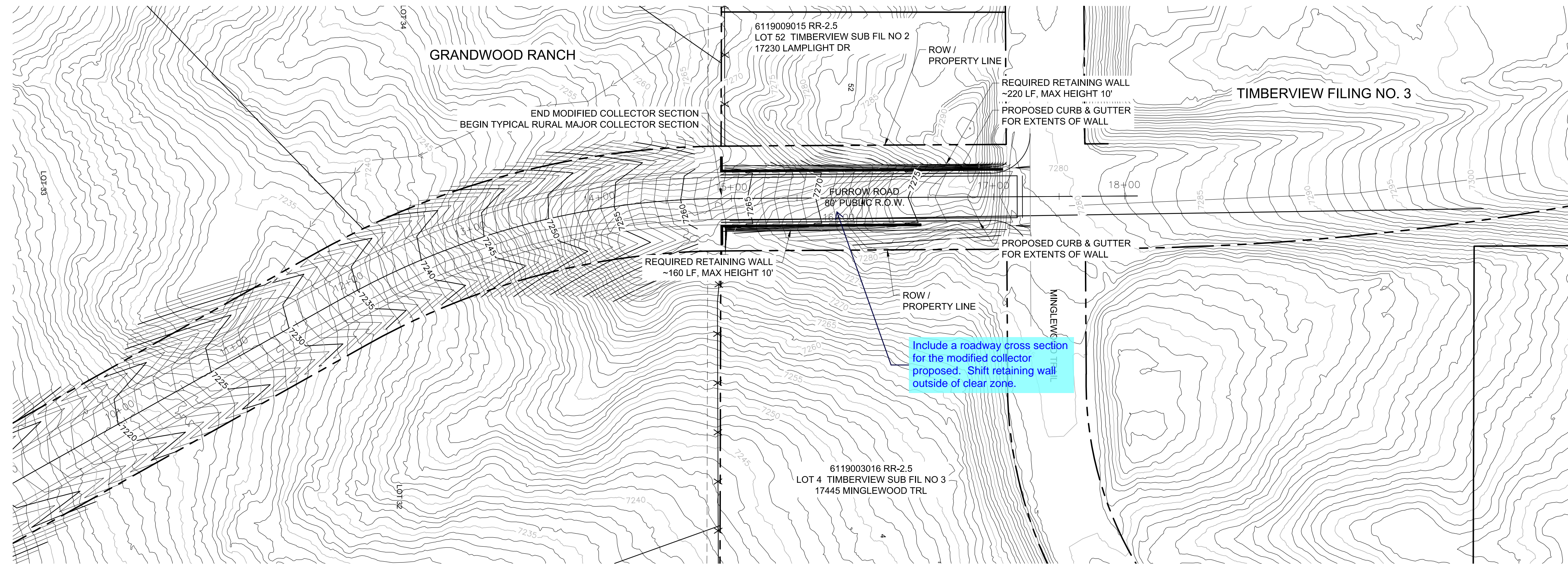
1.6. LIMITS OF APPROVAL

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.

GRANDWOOD RANCH DEVIATION REQUEST EXHIBIT





Planning and Community
Development Department
2880 International Circle
Colorado Springs, Colorado 80910

DEVIATION REQUEST AND DECISION FORM

Updated: 6/17/2019

Phone: 719.520.6300
Fax: 719.520.6695
Website www.elpasoco.com

Will be reviewed with the resubmittal.

The attached file associated with "Intersection Grade Deviation" is a duplicate of the deviation request for intersection spacing.

PROJECT INFORMATION

Project Name : Grandwood
Schedule No.(s) : 6119000003
Legal Description : S2N2, EX PT TO HIGBY RD CONV B

APPLICANT INFORMATION

Company : Grandwood Enterprises	View	Yes	Letter of Intent
Name : Bill Herebic	View	Yes	Intersection Spacing Deviation
<input checked="" type="checkbox"/> Owner <input type="checkbox"/> Consultant <input type="checkbox"/> Contractor	View	Yes	Cul-de-sac Length Deviation
Mailing Address : 270 Lodgepole Way Monument, CO 80232	View	Yes	Intersection Grade Deviation
	View	Yes	Rural Major Collector Stnd Deviation

Phone Number : 719-651-9152
FAX Number : N/A
Email Address : Herebic5@msn.com

ENGINEER INFORMATION

Company : LSC Transportation Consultants, Inc.
Name : Jeffrey C. Hodsdon
Mailing Address : 2504 E. Pikes Peak Ave., Suite 304
Colorado Springs, CO 80909
Colorado P.E. Number : 31684

Phone Number : 719-633-2868
FAX Number : 719-633-5430
Email Address : jeff@LSCtrans.com

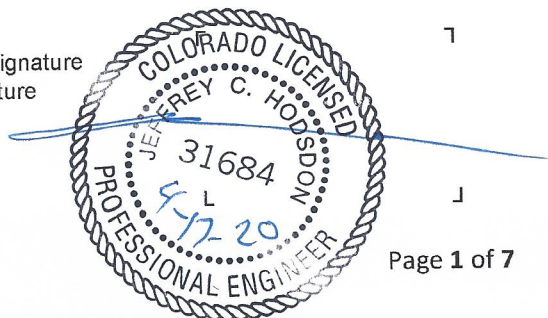
OWNER, APPLICANT, AND ENGINEER DECLARATION

To the best of my knowledge, the information on this application and all additional or supplemental documentation is true, factual and complete. I am fully aware that any misrepresentation of any information on this application may be grounds for denial. I have familiarized myself with the rules, regulations and procedures with respect to preparing and filing this application. I also understand that an incorrect submittal will be cause to have the project removed from the agenda of the Planning Commission, Board of County Commissioners and/or Board of Adjustment or delay review until corrections are made, and that any approval of this application is based on the representations made in the application and may be revoked on any breach of representation or condition(s) of approval.

Signature of owner (or authorized representative)

Date

Engineer's Seal, Signature
And Date of Signature



SP195

PCD File No. _____

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

A deviation from the standards of or in Section **2.2.5.B, 2.2.5.D, and 2.3.2** of the Engineering Criteria Manual (ECM) is requested.

Identify the specific ECM standard which a deviation is requested:

2.2.5.B and 2.2.5.D (Roadway Access Criteria – Rural Minor Arterial and Collector Access Standards),
2.3.2 (Design Standards by Function Classification)

Standard 2.2.5.B and 2.2.5.D (Roadway Access Criteria – Rural Minor Arterial and Rural Major Collector Access Standards, respectively) requires intersection spacing of 1/4-mile (1,320 feet). This standard is also reflected in the ECM Tables 2-4 and 2-5 (Roadway Design Standards for Rural Expressways and Arterials and Rural Collectors and Locals, respectively).

State the reason for the requested deviation:

Higby Road

This deviation would allow for the future Furrow Road connection to be located a reasonable distance east of Fairplay Drive and west of the proposed Grandwood Court access while taking into account challenging topographical constraints along Higby Road. It is our understanding that the intersection location of Higby/Furrow is the result of working with the property owner on the south side of Higby Road.

Furrow Road

Access is needed for the development and Furrow Road is a lower classification than Higby Road. The spacing is a function of the relatively short fixed distance between the Furrow/Minglewood intersection and Higby Road.

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

The standard requires intersection spacing of 1/4-mile (1,320 feet) back from the ROW line of an arterial street.

- The centerline of Grandwood Court/Higby Road would be 980 feet west of the Higby Road/Colonial Park Drive intersection
- The centerline of the Furrow Road/Higby Road intersection would be 1,175 feet east of the intersection of Higby Road/Fairplay Drive
- The centerline of the Furrow Road/Copper Valley Court intersection would be 707 feet north of the intersection of Furrow Road/Higby Road
- The centerline of the Furrow Road/Copper Valley Court intersection would be 879 feet south of the intersection of Furrow Road/Minglewood Trail/Lamplight Drive

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:

Grandwood Court
 This location is appropriate as, although short of the ECM 1,320-foot spacing criteria from Colonial Park Drive, this proposed eastern access location (Grandwood Court) would maximize the distance possible from Colonial Park Drive and the vertical/horizontal curve constraints to the west (with associated short sight distances, as shown in the plan and profile drawings). Also, this access would align with the planned connection from Home Place Ranch. A copy of the Home Place Ranch layout is also attached.

E/W Copper Valley Court
 Due to the existing linear distance between Higby and Minglewood Trail, it is not possible to place an intersection both ¼ mile from Higby Road and ¼ mile from Minglewood Trail. The intersection has been placed approximately halfway between the two. This selected location allows for a sufficient separation distance from Higby Road while creating the best possible scenario with respect to centerline roadway grades and intersection approach grades, given the change in elevation between the current south end of Furrow Road and Higby Road. The roadway grade shown is less than 10 percent and the intersection approach grades are not shown to exceed four percent. No auxiliary turn lanes are required at this intersection and the sight distance can be met.

Furrow Road
 A future Furrow Road intersection location at the standard ¼ mile spacing from Fairplay Drive is NOT recommended due to topography and roadway grades. The field-measured existing grade on Higby Road at the proposed Furrow Road extension is about 4.5 percent at the access centerline. West of Furrow Road, the grade is moderate to about 3.5 percent on the eastbound intersection approach (grade moderates as the distance west from the intersection increases). East of Furrow Road (on the westbound approach to the intersection), the grade is about 6.5 percent (shown in Deviation Exhibit 3).

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.

Grandwood Court
 Although short of the ECM 1,320-foot spacing criteria, the proposed eastern access location (Grandwood Court) would maximize the distance possible from Colonial Park Drive and the vertical/horizontal curve constraints to the west.

E/W Copper Valley Ct.
 Due to the existing linear distance between Higby and Minglewood Trail, it is not possible to place an intersection both 1/4 mile from Higby Road and 1/4 mile from Minglewood Trail. The intersection has been placed approximately halfway between the two.

Furrow Road
 Although short of the ECM 1,320-foot spacing criteria, the proposed Furrow/Higby intersection location would maximize the distance possible from Fairplay Drive while also taking into consideration vertical and horizontal curve sight distance constraints to the east.

The deviation will not adversely affect safety or operations.

Grandwood Court

With a 35-mph posted speed limit on Higby Road (design speed of 40 mph), the field-measured sight distances for both approaches from the proposed east site access location (Grandwood Court) exceeds the required 445-foot requirement for passenger vehicles per ECM Table 2-21. The field-measured sight distance looking to the west from Grandwood Court is 645 feet, while the field-measured sight distance looking to the east from Grandwood Court is 1,990 feet. Both measurements meet ECM standards for sight distance.

E/W Copper Valley Ct.

This selected location allows for a sufficient separation distance from Higby Road while creating the best possible scenario with respect to centerline roadway grades and intersection approach grades, given the change in elevation between the current south end of Furrow Road and Higby Road. The roadway grade shown is less than 10 percent and the intersection approach grades are not shown to exceed four percent. No auxiliary turn lanes are required at this intersection and the sight distance can be met.

Furrow Road

Based on the spot-grades along Higby Road east of the proposed west site access point (Furrow Road), the prescribed stopping sight distance is 333 feet (downgrade of approximately six percent). With a 35-mph posted speed limit on Higby Road (design speed of 40 mph), the field-measured sight distances for both approaches from the proposed Furrow Road extension exceeds the required 445-foot requirement for passenger vehicles per ECM Table 2-21. The field-measured sight distances from the proposed Furrow Road/Higby Road intersection are 1,302 feet and 650 feet while looking to the west and to the east, respectively. Both measurements meet ECM standards for sight distance.

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

The spacing will not affect the maintenance cost as the spacing will not negatively affect the ability for snowplow and maintenance vehicles to enter and exit these side streets.

The deviation will not adversely affect aesthetic appearance.

The spacing will not affect the aesthetics. The spacing is not short to the extent that affects the general appearance of the road corridor. The spacing will be consistent with other intersections in the area.

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

Grandwood Court

The proposed eastern access location (Grandwood Court), although short of the ECM 1,320-foot spacing criteria, would maximize the distance possible from Colonial Park Drive and the vertical/horizontal curve constraints to the west.

E/W Copper Valley Ct.

This selected location allows for a sufficient separation distance from Higby Road while creating the best possible scenario with respect to centerline roadway grades and intersection approach grades, given the change in elevation between the current south end of Furrow Road and Higby Road. The roadway grade shown is less than 10 percent and the intersection approach grades are not shown to exceed four percent. No auxiliary turn lanes are required at this intersection and the sight distance can be met.

Furrow Road

The proposed Furrow Road/Higby intersection, although short of the ECM 1,320-foot spacing criteria, would maximize the distance possible from Fairplay Drive and the vertical/horizontal curve sight distance constraints to the east.

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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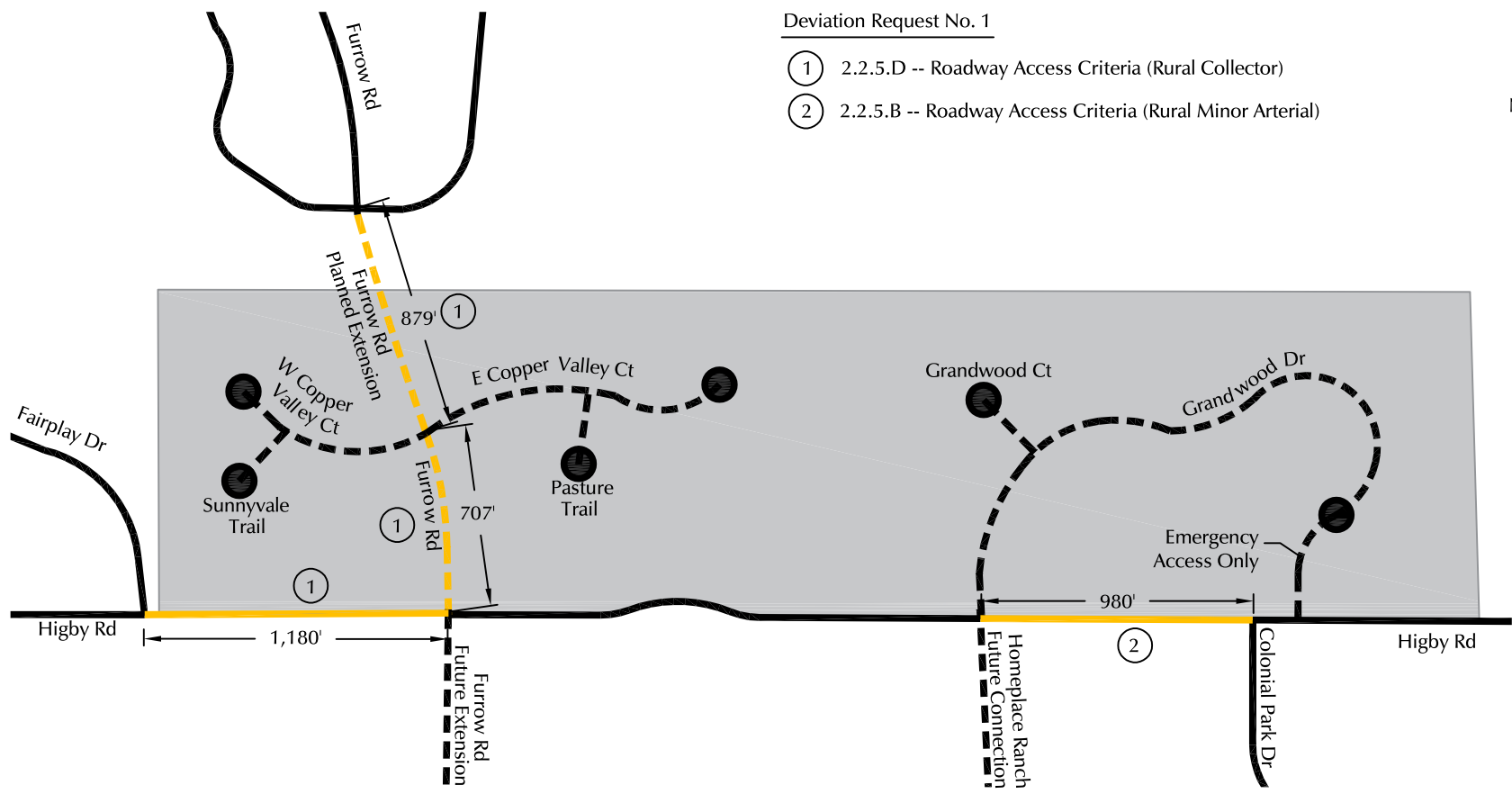
ECM ADMINISTRATOR COMMENTS/CONDITIONS:



Not to scale

Deviation Request No. 1

- ① 2.2.5.D -- Roadway Access Criteria (Rural Collector)
- ② 2.2.5.B -- Roadway Access Criteria (Rural Minor Arterial)

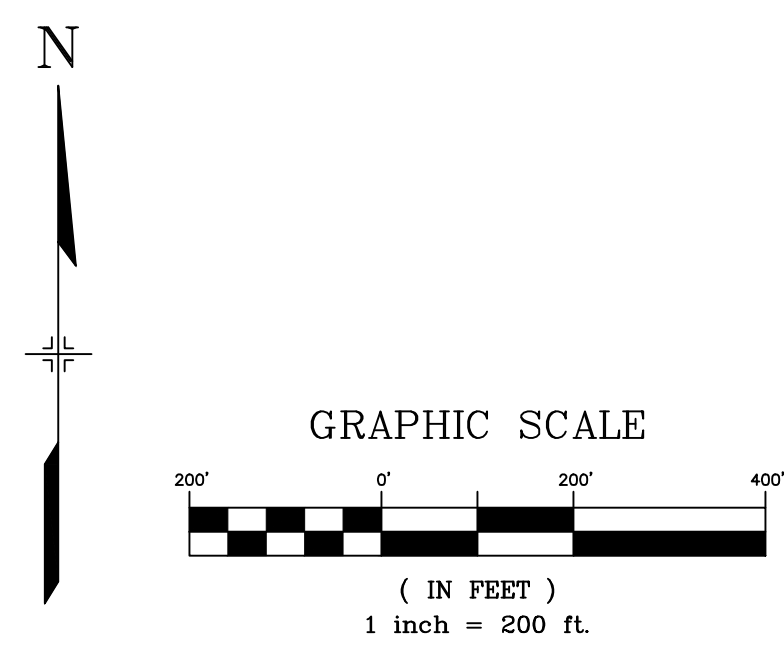
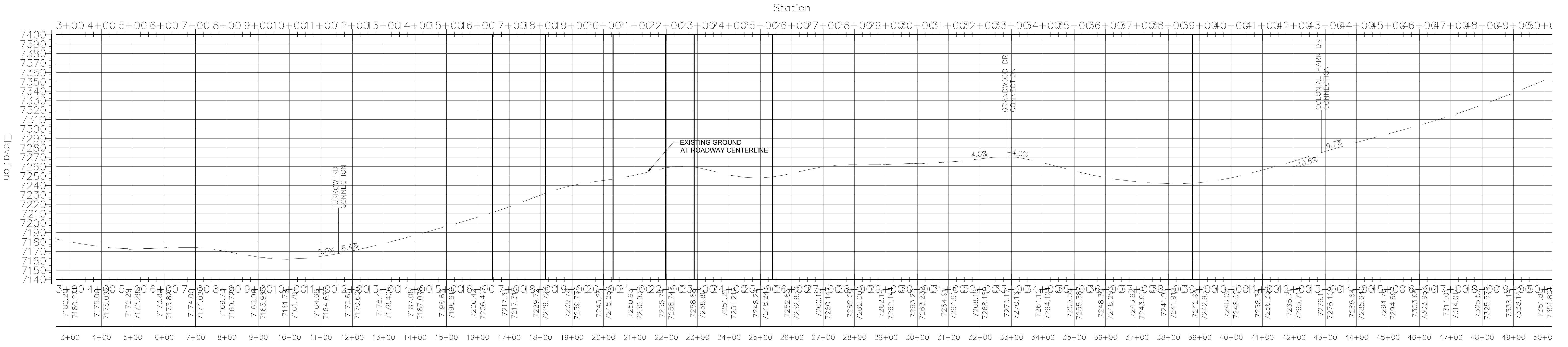
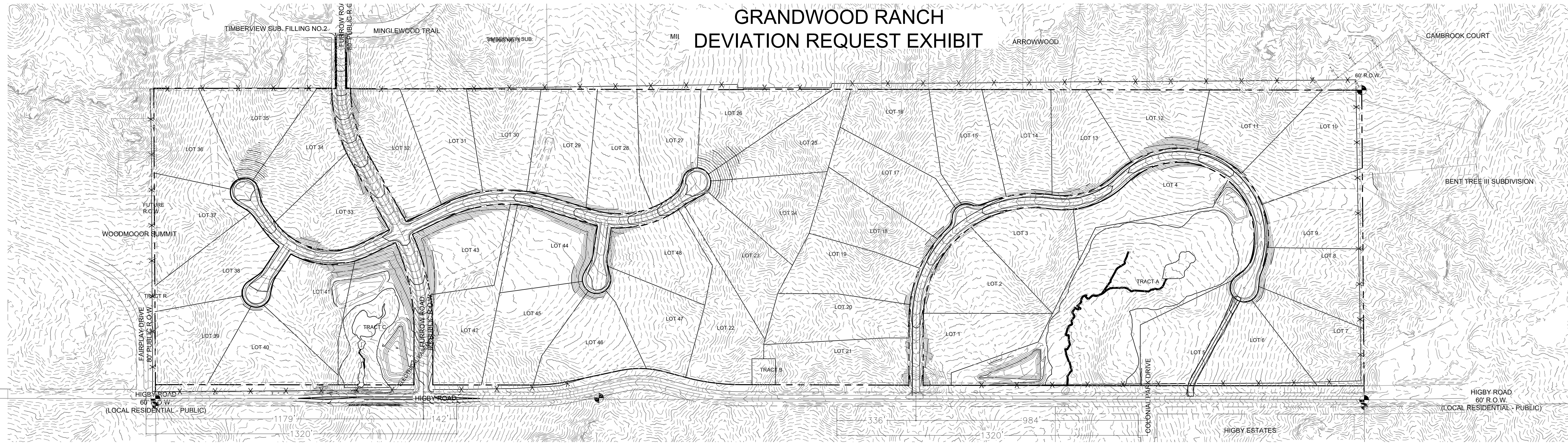


- Existing roadway
- Proposed roadway (including future roadways by others)
- Portion of roadway for which deviation is requested
- Site property boundary
- Intersection centerline spacing

Deviation Exhibit 1
Proposed Intersection Spacing
 Grandwood Ranch (LSC# 185020)



GRANDWOOD RANCH DEVIATION REQUEST EXHIBIT





Planning and Community
Development Department
2880 International Circle
Colorado Springs, Colorado 80910

DEVIATION REQUEST AND DECISION FORM

Updated: 6/17/2019

Phone: 719.520.6300
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Website www.elpasoco.com

PROJECT INFORMATION

Project Name : Grandwood Ranch
Schedule No.(s) : 6119000003
Legal Description : S2N2, EX PT TO HIGBY RD CONV BY REC# 205092691 W/MR SEC 19-11-66

APPLICANT INFORMATION

Company : Grandwood Enterprises
Name : Bill Herebic
 Owner Consultant Contractor
Mailing Address : 270 Lodgepole Way
Monument, CO 80232

Phone Number : 719-651-9152
FAX Number : N/A
Email Address : Herebic5@msn.com

ENGINEER INFORMATION

Company : LSC Transportation Consultants, Inc.
Name : Jeffrey C. Hodsdon
Mailing Address : 2504 E. Pikes Peak Ave
Suite 304
Colorado Springs, CO 80909
Phone Number : 719-633-2868
FAX Number : 719-633-5430
Email Address : Jeff@LSCTrans.com
Colorado P.E. Number : 31684

OWNER, APPLICANT, AND ENGINEER DECLARATION

To the best of my knowledge, the information on this application and all additional or supplemental documentation is true, factual and complete. I am fully aware that any misrepresentation of any information on this application may be grounds for denial. I have familiarized myself with the rules, regulations and procedures with respect to preparing and filing this application. I also understand that an incorrect submittal will be cause to have the project removed from the agenda of the Planning Commission, Board of County Commissioners and/or Board of Adjustment or delay review until corrections are made, and that any approval of this application is based on the representations made in the application and may be revoked on any breach of representation or condition(s) of approval.

Signature of owner (or authorized representative)

Date

Engineer's Seal, Signature
And Date of Signature



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

DEVIATION NO. 4 (Rev. 4/17/2020) - A deviation from the standards of or in Section 2.3.2 of the Engineering Criteria Manual (ECM) is requested for the proposed extension of Furrow Road from Minglewood Trail to Higby Road (a proposed Rural Major Collector per the MTCP). Please refer to Deviation Exhibit 4.

Identify the specific ECM standard which a deviation is requested:

2.3.2 Design Standards by Functional Classification

Table 2-5: Roadway Design Standards for Rural Collectors and Locals
Criteria for a Rural Major Collector Roadway

- Design speed/posted speed
- Minimum centerline horizontal curve radius
- **Outside gravel shoulder width**
- Intersection spacing criteria
- Design ADT
- **Right-of-Way**

Remove shoulder width and ROW width from the request. Per conversation with the engineering review manager, the deviation request will be denied as presented. There are no geographical or topological conditions or impediments that would impose undue hardship to maintaining the Rural Major Collector cross section.

State the reason for the requested deviation:

- Challenging topography on the site.
- The significant elevation difference south to north across the site combined with the relatively short fixed horizontal distance between Furrow/Minglewood and Higby Road and the fixed intersection location of Furrow/Minglewood.
- The goal of preserving as much as possible, the natural land features within the site.
- The need to provide access to the site. Furrow Road is a lower classification than Higby Road. The need for access creates the need to provide a section of roadway with a four-percent grade.

Remove or revise the last bullet point. Staff does not see a connection to any of the listed deviation above or proposed alternative below that corresponds to this bullet point.

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

The following alternative **exhibit** **Major Collector standards** are requested, per criteria in Table 2-5 of the ECM:

(Please refer to the LSC Exhibit No. 4 and the attached plan & profile exhibit by Matrix Design Group)

- Design speed on Furrow Road of 40 mph instead of 50 mph
- Posted speed limit on Furrow Road of 35 mph instead of 45 mph
- Minimum centerline curve radius of 600 feet instead of the prescribed 930 feet
- 2-foot outside gravel shoulders instead of a 4-foot gravel shoulders.
- A potential ADT of 5,500 vehicles/day (long-term) instead of 3,000 vehicles/day
- 80-foot right of way instead of a 90-foot right of way.

proposed alternative shoulder is not consistent with the cross section attached.

The following proposed intersection spacings are covered in Deviation #1 – Intersection Spacing

- Intersection spacing on Furrow Road of 707 feet between Copper Valley Court and Higby Road instead of 1/4-mile
- Intersection spacing on Furrow Road of 879 feet between Copper Valley Court and Minglewood instead of 1/4-mile

The ADT should be move to the reason for the request. This box needs to include an alternative design to mitigate the higher volume. None of the alternative design seems to address this particular deviation request

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:

Staff recommends you identify the posted speed of existing Furrow Rd to the north as a consideration for the reduced design speed.

- Challenging topography
- The significant elevation difference south to north across the site combined with the relatively short fixed horizontal distance between Furrow/Minglewood and Higby Road and the fixed intersection location of Furrow/Minglewood.
- The need to meet roadway and intersection grade criteria for the roadway despite the fixed distance and significant elevation difference south to north across the site. The roadway grades are covered in Deviation No. 3.
- The goal of preserving as much as possible, the natural land features within the site.
- The need to provide access to the site. Furrow Road is a lower classification than Higby Road. The need for access creates the need to provide a service road.

Revise. Text provided are the reasoning. Provide the justification for each of the proposed alternatives.
Example:

CRITERIA FOR APPROVAL

Explain how or why would the proposed alternative to reduce the design & posted speed be an equivalent alternative that accomplishes the design objective of a major collector.

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 deviation will allow an MTCP roadway connection to be built. This roadway connection has been planned for many years. The roadway will meet the County's geometric criteria for a Rural Minor Collector which will add a significant benefit to the citizens and traveling public in this area – especially long term once the connection from Gleneagle to the south is established.

Revise. The first two sentences are irrelevant to the deviation being requested. The statement provided must address the criteria.

How could designing this as a rural minor collector in lieu of the major collector be a comparable or superior design and quality of improvement?

The deviation will not adversely affect safety or operations.

- A projected long total ADT of 5,500 vehicles/day (vpd) is projected for this roadway segment. Almost all the traffic would be background traffic and the resulting background traffic will depend on many factors. One intersection with light turning volumes is proposed for this section. Access has been minimized to the extent possible. As such, there will be minimal interference to the background traffic traveling through this subdivision. The request to allow two-foot gravel shoulders instead of four-foot gravel shoulders is to minimize further grading. Also, this width is consistent with the proposed design speed. The proposed lower design speed is appropriate given the length of this roadway segment, the horizontal geometry achievable given the topography, the distance to the neighborhood to the north and the intersection with Higby Road to the south. It is also appropriate considering the given the grades.

- The proposed 80-foot right-of-way is consistent with a Rural Minor Collector. The proposed design speed and cross section that includes narrower shoulders and ROW will be denied. You still need to explain how the request for higher ADT (83% increase) will not affect safety or operations. Staff noted on page 3 to provide a design alternative that mitigates this increase.

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

- The deviation will not adversely affect maintenance cost, as the gravel shoulders are 2 feet narrower for Rural Minor Collectors than Rural Major Collectors. As such, 2 feet less of pavement would need to be maintained on each side.

For all these "criteria of approval" address all the deviation requests listed, not just one specific item. What affects does higher ADT, smaller horizontal curve, lower design speed have to the maintenance and associated cost.

The deviation will not adversely affect aesthetic appearance.

- The aesthetic appearance will not be adversely affected, as the design will be paved, with County and MUTCD standard pavement markings that would be consistent with County roads.
- The deviation would result in significantly better aesthetic appearance than a resulting road built to Major Collector standards as the amount of grading and disturbance of the topography would result in significantly higher impact. See attached plan & profile exhibit by Matrix Design Group.

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

- Proposed modifications to the above-referenced design elements of the Rural Minor Collector classifications would be more appropriate for this particular section of Furrow Road than those of a Rural Major Collector.

Explain why a Rural Minor Collector is more appropriate.

Furrow Rd is planned in the MTCP to be a Major Collector while the TIS is projecting ADT greater than a major collector's designed capacity. For these reason, a rural minor collector is not appropriate.

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.

Γ

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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.

Γ

⌋

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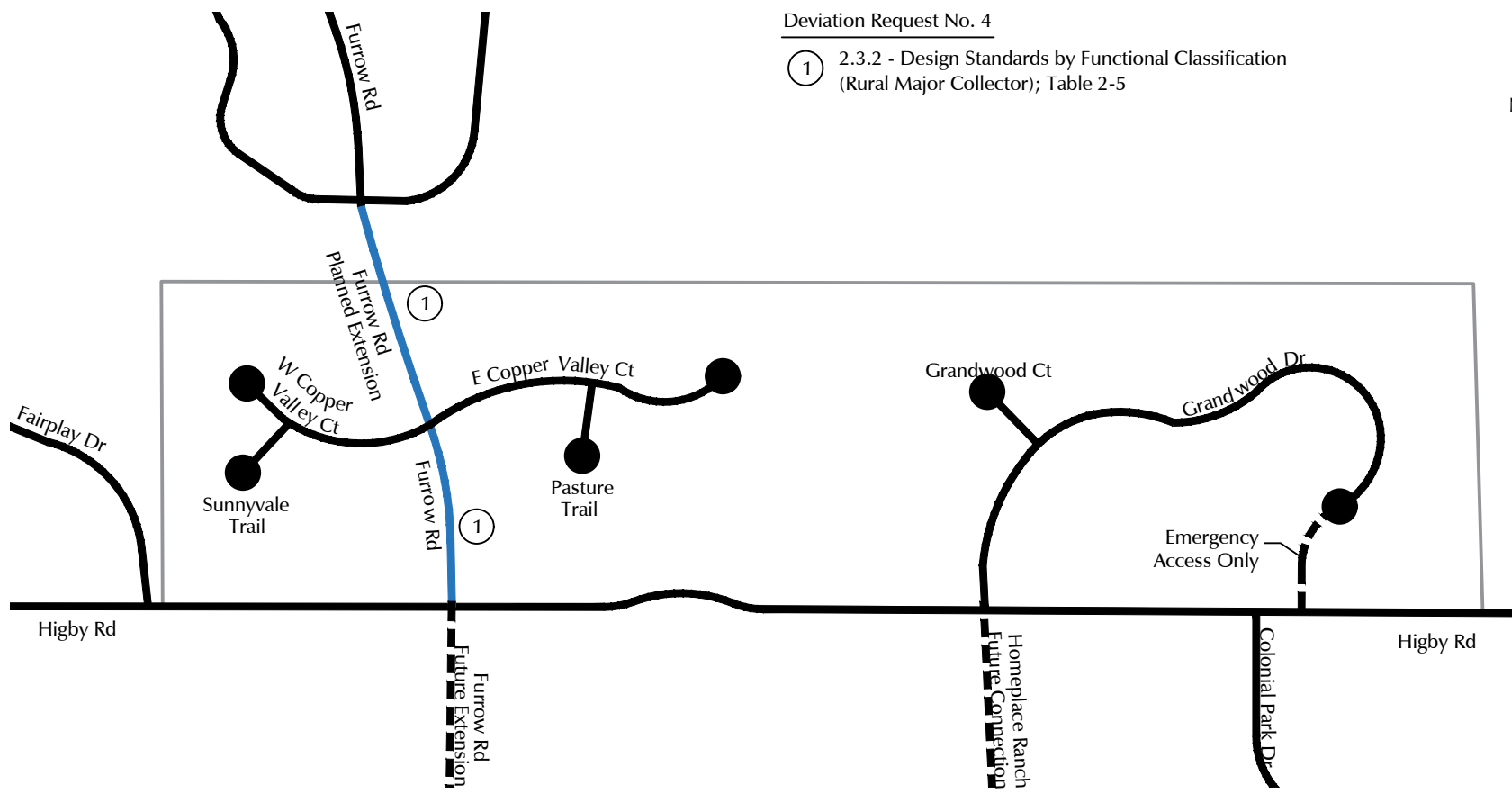
ECM ADMINISTRATOR COMMENTS/CONDITIONS:







Not to scale

Deviation Request No. 4

① 2.3.2 - Design Standards by Functional Classification (Rural Major Collector); Table 2-5



-  Existing roadway
-  Proposed roadway (including future roadways by others)
-  Portion of roadway for which deviation is requested
-  Site property boundary

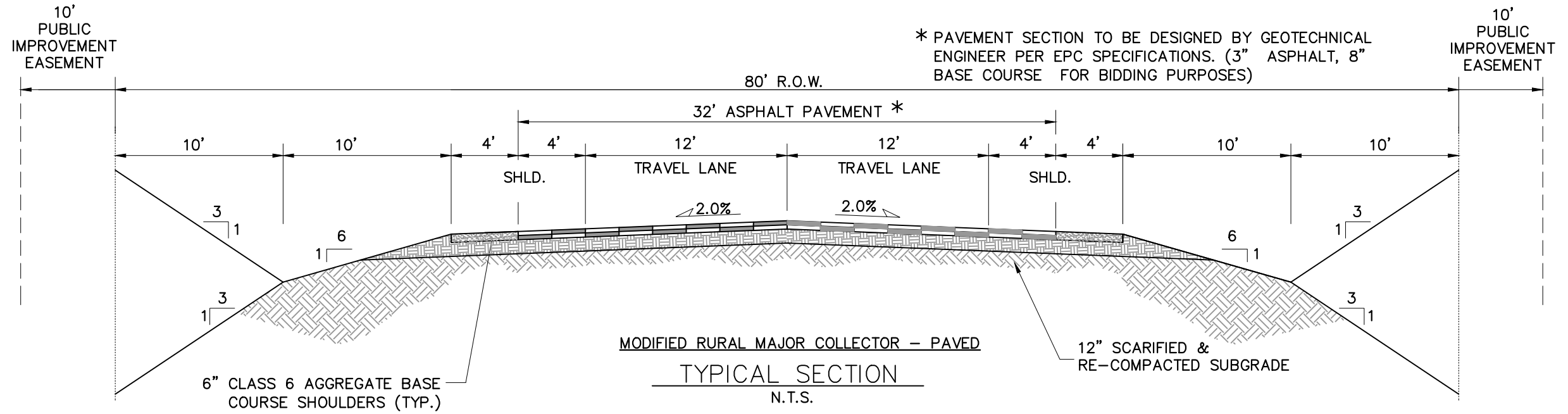
Deviation Exhibit 4

Rural Major Collector Design Standards

Grandwood Ranch (LSC# 185020)



GRANDWOOD RANCH DEVIATION REQUEST EXHIBIT





Planning and Community
Development Department
2880 International Circle
Colorado Springs, Colorado 80910

DEVIATION REQUEST AND DECISION FORM

Updated: 6/17/2019

Phone: 719.520.6300
Fax: 719.520.6695
Website www.elpasoco.com

PROJECT INFORMATION

Project Name : Grandwood
Schedule No.(s) : 6119000003
Legal Description : S2N2, EX PT TO HIGBY RD CONV BY REC# 205092691 W/MR SEC 19-11-66

APPLICANT INFORMATION

Company : Grandwood Enterprises
Name : Bill Herebic
 Owner Consultant Contractor
Mailing Address : 270 Lodgepole Way
Monument, CO 80232
Phone Number : 719-651-9152
FAX Number : N/A
Email Address : Herebic5@msn.com

ENGINEER INFORMATION

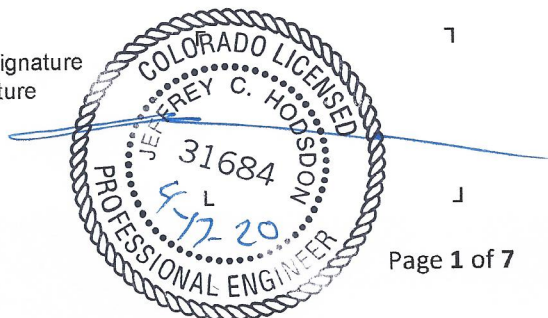
Company : LSC Transportation Consultants, Inc.
Name : Jeffrey C. Hodsdon Colorado P.E. Number : 31684
Mailing Address : 2504 E. Pikes Peak Ave., Suite 304
Colorado Springs, CO 80909
Phone Number : 719-633-2868
FAX Number : 719-633-5430
Email Address : jeff@LSCtrans.com

OWNER, APPLICANT, AND ENGINEER DECLARATION

To the best of my knowledge, the information on this application and all additional or supplemental documentation is true, factual and complete. I am fully aware that any misrepresentation of any information on this application may be grounds for denial. I have familiarized myself with the rules, regulations and procedures with respect to preparing and filing this application. I also understand that an incorrect submittal will be cause to have the project removed from the agenda of the Planning Commission, Board of County Commissioners and/or Board of Adjustment or delay review until corrections are made, and that any approval of this application is based on the representations made in the application and may be revoked on any breach of representation or condition(s) of approval.

Signature of owner (or authorized representative) Date

Engineer's Seal, Signature
And Date of Signature



SP195
↓
PCD File No. _____

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

A deviation from the standards of or in Section **2.2.5.B, 2.2.5.D, and 2.3.2** of the Engineering Criteria Manual (ECM) is requested.

Identify the specific ECM standard which a deviation is requested:

2.2.5.B and 2.2.5.D (Roadway Access Criteria – Rural Minor Arterial and Collector Access Standards),
2.3.2 (Design Standards by Function Classification)

Standard 2.2.5.B and 2.2.5.D (Roadway Access Criteria – Rural Minor Arterial and Rural Major Collector Access Standards, respectively) requires intersection spacing of 1/4-mile (1,320 feet). This standard is also reflected in the ECM Tables 2-4 and 2-5 (Roadway Design Standards for Rural Expressways and Arterials and Rural Collectors and Locals, respectively).

State the reason for the requested deviation:

Higby Road

This deviation would allow for the future Furrow Road connection to be located a reasonable distance east of Fairplay Drive and west of the proposed Grandwood Court access while taking into account challenging topographical constraints along Higby Road. It is our understanding that the intersection location of Higby/Furrow is the result of working with the property owner on the south side of Higby Road.

Furrow Road

Access is needed for the development and Furrow Road is a lower classification than Higby Road. The spacing is a function of the relatively short fixed distance between the Furrow/Minglewood intersection and Higby Road.

Revise to Grandwood

Dr

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

The standard requires intersection spacing of 1/4-mile (1,320 feet) back from the ROW line of an arterial street.

- The centerline of Grandwood Court/Higby Road would be 980 feet west of the Higby Road/Colonial Park Drive intersection
- The centerline of the Furrow Road/Higby Road intersection would be 1,175 feet east of the intersection of Higby Road/Fairplay Drive
- The centerline of the Furrow Road/Copper Valley Court intersection would be 707 feet north of the intersection of Furrow Road/Higby Road
- The centerline of the Furrow Road/Copper Valley Court intersection would be 879 feet south of the intersection of Furrow Road/Minglewood Trail/Lamplight Drive

update to match exhibit or vise versa.

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.

Missing. Include with the resubmittal

Provide justification:

Grandwood Court
 This location is appropriate as, although short of the ECM 1,320-foot spacing criteria from Colonial Park Drive, this proposed eastern access location (Grandwood Court) would maximize the distance possible from Colonial Park Drive and the vertical/horizontal curve constraints to the west (with associated short sight distances, as shown in the plan and profile drawings). Also, this access would align with the planned connection from Home Place Ranch. A copy of the Home Place Ranch layout is also attached.

E/W Copper Valley Court
 Due to the existing linear distance between Higby and Minglewood Trail, it is not possible to place an intersection both ¼ mile from Higby Road and ¼ mile from Minglewood Trail. The intersection has been placed approximately halfway between the two. This selected location allows for a sufficient separation distance from Higby Road while creating the best possible scenario with respect to centerline roadway grades and intersection approach grades, given the change in elevation between the current south end of Furrow Road and Higby Road. The roadway grade shown is less than 10 percent and the intersection approach grades are not shown to exceed four percent. No auxiliary turn lanes are required at this intersection and the sight distance can be met.

Furrow Road
 A future Furrow Road intersection location at the standard ¼ mile spacing from Fairplay Drive is NOT recommended due to topography and roadway grades. The field-measured existing grade on Higby Road at the proposed Furrow Road extension is about 4.5 percent at the access centerline. West of Furrow Road, the grade is moderate to about 3.5 percent on the eastbound intersection approach (grade moderates as the distance west from the intersection increases). East of Furrow Road (on the westbound approach to the intersection), the grade is about 6.5 percent (shown in Deviation Exhibit 3).

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.

Grandwood Court
 Although short of the ECM 1,320-foot spacing criteria, the proposed eastern access location (Grandwood Court) would maximize the distance possible from Colonial Park Drive and the vertical/horizontal curve constraints to the west.

E/W Copper Valley Ct.
 Due to the existing linear distance between Higby and Minglewood Trail, it is not possible to place an intersection both 1/4 mile from Higby Road and 1/4 mile from Minglewood Trail. The intersection has been placed approximately halfway between the two.

Furrow Road
 Although short of the ECM 1,320-foot spacing criteria, the proposed Furrow/Higby intersection location would maximize the distance possible from Fairplay Drive while also taking into consideration vertical and horizontal curve sight distance constraints to the east.

The deviation will not adversely affect safety or operations.

Grandwood Court

With a 35-mph posted speed limit on Higby Road (design speed of 40 mph), the field-measured sight distances for both approaches from the proposed east site access location (Grandwood Court) exceeds the required 445-foot requirement for passenger vehicles per ECM Table 2-21. The field-measured sight distance looking to the west from Grandwood Court is 645 feet, while the field-measured sight distance looking to the east from Grandwood Court is 1,990 feet. Both measurements meet ECM standards for sight distance.

E/W Copper Valley Ct.

This selected location allows for a sufficient separation distance from Higby Road while creating the best possible scenario with respect to centerline roadway grades and intersection approach grades, given the change in elevation between the current south end of Furrow Road and Higby Road. The roadway grade shown is less than 10 percent and the intersection approach grades are not shown to exceed four percent. No auxiliary turn lanes are required at this intersection and the sight distance can be met.

Furrow Road

Based on the spot-grades along Higby Road east of the proposed west site access point (Furrow Road), the prescribed stopping sight distance is 333 feet (downgrade of approximately six percent). With a 35-mph posted speed limit on Higby Road (design speed of 40 mph), the field-measured sight distances for both approaches from the proposed Furrow Road extension exceeds the required 445-foot requirement for passenger vehicles per ECM Table 2-21. The field-measured sight distances from the proposed Furrow Road/Higby Road intersection are 1,302 feet and 650 feet while looking to the west and to the east, respectively. Both measurements meet ECM standards for sight distance.

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

The spacing will not affect the maintenance cost as the spacing will not negatively affect the ability for snowplow and maintenance vehicles to enter and exit these side streets.

The deviation will not adversely affect aesthetic appearance.

The spacing will not affect the aesthetics. The spacing is not short to the extent that affects the general appearance of the road corridor. The spacing will be consistent with other intersections in the area.

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

Grandwood Court

The proposed eastern access location (Grandwood Court), although short of the ECM 1,320-foot spacing criteria, would maximize the distance possible from Colonial Park Drive and the vertical/horizontal curve constraints to the west.

E/W Copper Valley Ct.

This selected location allows for a sufficient separation distance from Higby Road while creating the best possible scenario with respect to centerline roadway grades and intersection approach grades, given the change in elevation between the current south end of Furrow Road and Higby Road. The roadway grade shown is less than 10 percent and the intersection approach grades are not shown to exceed four percent. No auxiliary turn lanes are required at this intersection and the sight distance can be met.

Furrow Road

The proposed Furrow Road/Higby intersection, although short of the ECM 1,320-foot spacing criteria, would maximize the distance possible from Fairplay Drive and the vertical/horizontal curve sight distance constraints to the east.

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.

Γ _____ 7

L _____ 7

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.

Γ _____ 7

L _____ 7

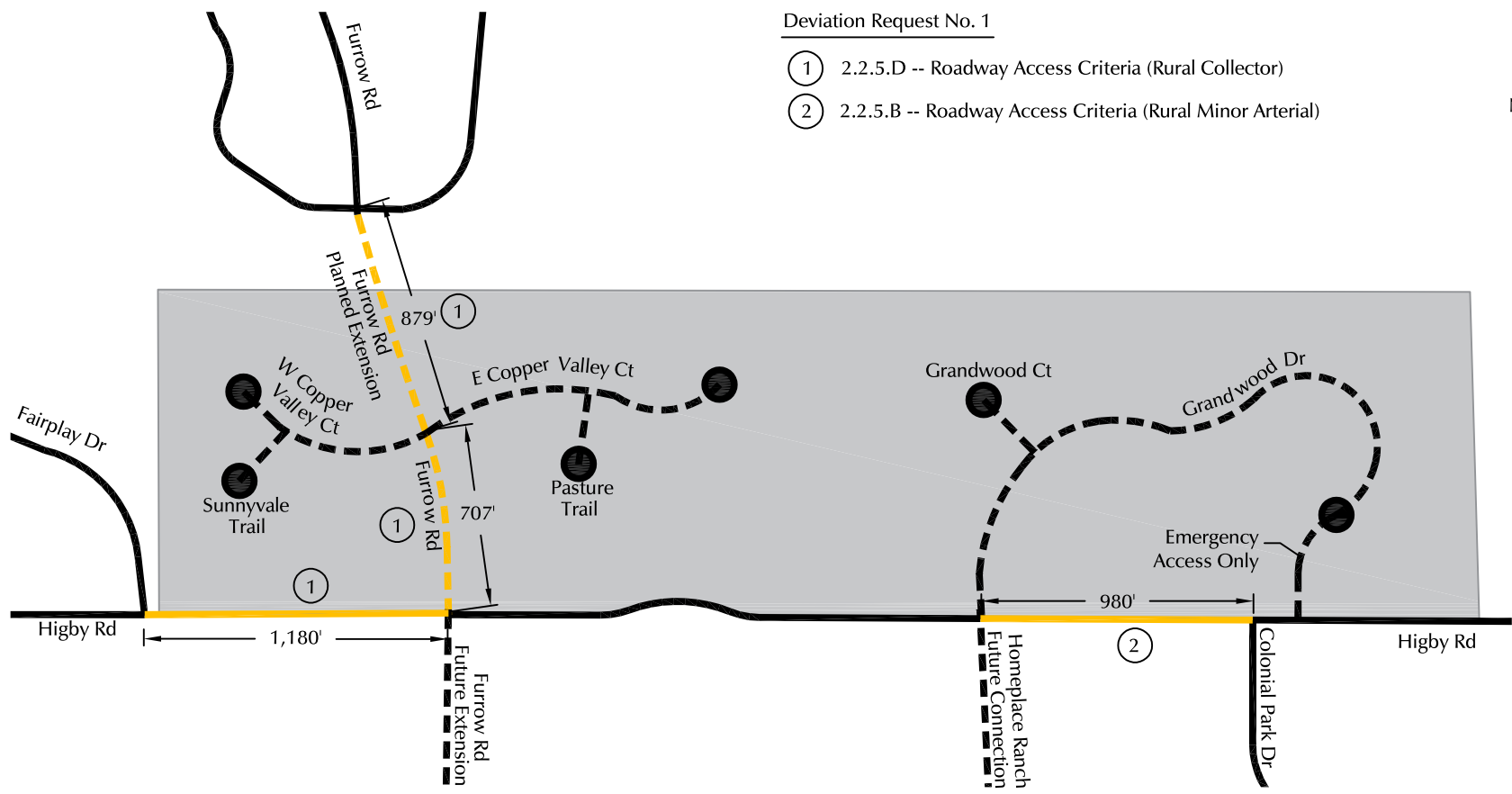
ECM ADMINISTRATOR COMMENTS/CONDITIONS:



Not to scale

Deviation Request No. 1

- ① 2.2.5.D -- Roadway Access Criteria (Rural Collector)
- ② 2.2.5.B -- Roadway Access Criteria (Rural Minor Arterial)

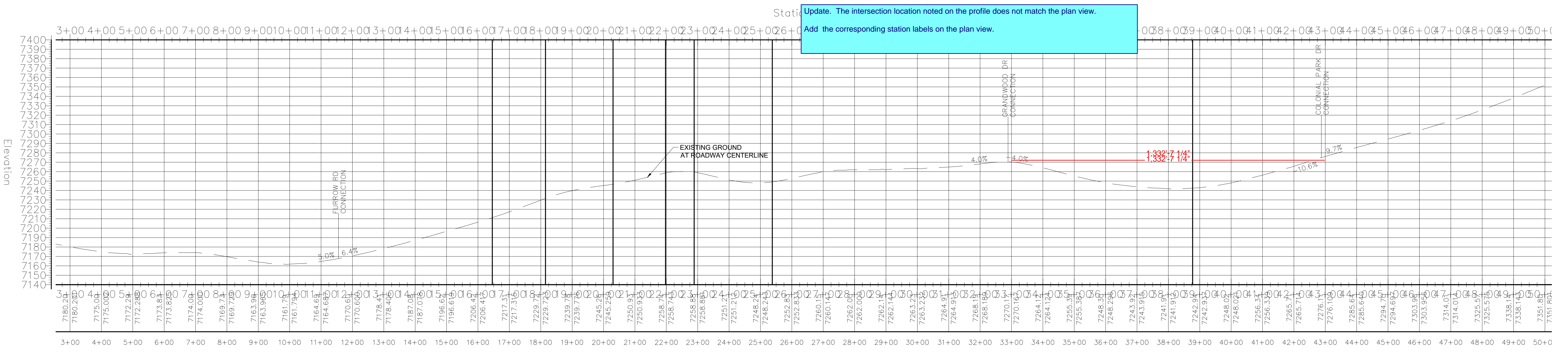
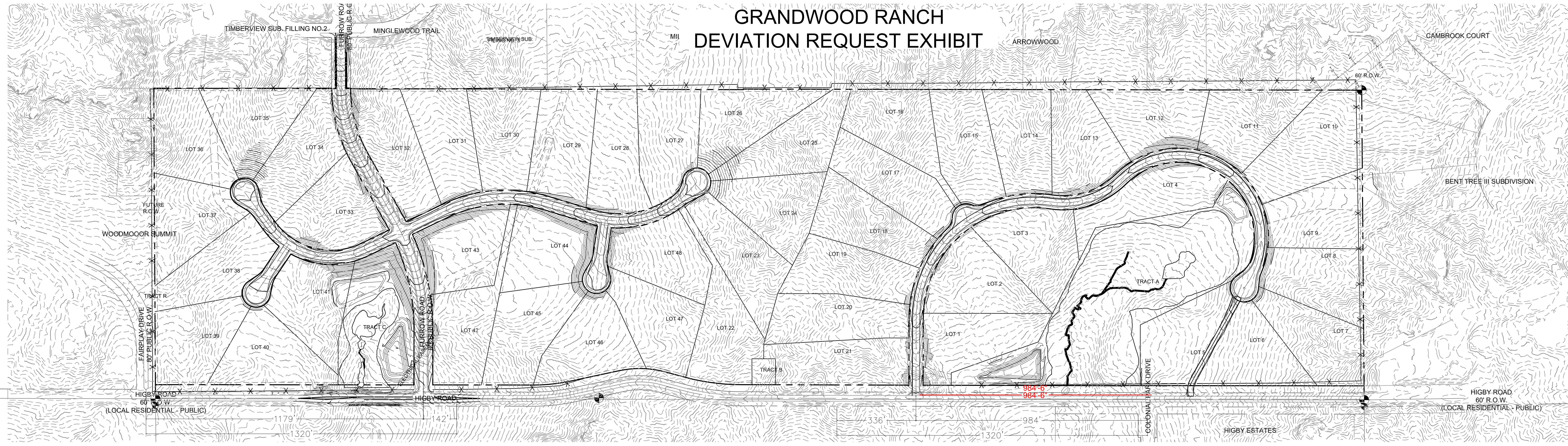


- Existing roadway
- Proposed roadway (including future roadways by others)
- Portion of roadway for which deviation is requested
- Site property boundary
- Intersection centerline spacing

Deviation Exhibit 1
Proposed Intersection Spacing
 Grandwood Ranch (LSC# 185020)



GRANDWOOD RANCH DEVIATION REQUEST EXHIBIT



Update. The intersection location noted on the profile does not match the plan view.
Add the corresponding station labels on the plan view.

