

MEMORANDUM

DATE: April 3, 2019
TO: Kari Parsons, PCD-Project Manager
FROM: Jeff Rice, PCD-Engineering

SUBJECT: SF-18-021 – Redtail Ranch
Fourth Submittal

CCES Responses

Engineering Division

Planning and Community Development (PCD)-Engineering reviews plans and reports to ensure general conformance with El Paso County standards and criteria. The project engineer is responsible for compliance with all applicable criteria, including other governmental regulations. Notwithstanding anything depicted in the plans in words or graphic representation, all design and construction related to roads, storm drainage and erosion control shall conform to the standards and requirements of the most recent version of the relevant adopted El Paso County standards, including the Land Development Code (LDC), the Engineering Criteria Manual (ECM), the Drainage Criteria Manual (DCM), and the Drainage Criteria Manual Volume 2 (DCM2). Any deviations from regulations and standards must be requested, and approved by the ECM Administrator, in writing. Any modifications necessary to meet overlooked criteria after-the-fact will be entirely the developer's responsibility to rectify.

The comments include unresolved previous comments and new comments resulting from the re-submittal in **blue bold**. All previous comments that have been resolved have been noted or deleted. A written response to all comments and redlines is required for review of the re-submittal. Please arrange a meeting between the developer's team and County staff to review and discuss these comments and prepared revisions/responses prior to the next submittal.

Final Plat – Resolved.

Transportation / Traffic Impact Study – Resolved.

Final Drainage Report / Drainage Plans

1. See SP-18-004 comments and redlines. *See updated comments and redlines. See **updated/remaining comments and redlines**. Comments already addressed in 4-2-19 submittal*
2. Verify that the roadside ditch capacity calculations account for the proposed permanent check dams. **Resolved – addressed in response letter.**
3. **Resolved.**

Construction Plans / Geotechnical Issues

1. **through 4 – Resolved.**
5. Ensure that the following issues are adequately addressed in regard to roadside ditches and FSD BMP outfalls:
 - a. Downstream emergency overflow paths. Partially resolved; see redlines. *Partially resolved; see redlines. The location of spillways over outlet pipes will result in potential constructability, maintenance, and aesthetic issues.*
 - b. **Resolved.**
 - c. **Resolved.**
6. **Resolved.**
7. **Resolved.**

8. See CD redlines for additional comments and clarification of these comments. Partially resolved; see remaining/updated redlines. **See remaining/updated redlines. Addressed comments on sheets 2, 3 and 6 per redlines**

Grading and Erosion Control Plan / SWMP

1. Provide sediment basins (temporary and permanent) at all necessary locations. Partially resolved; permanent sediment control is required for the proposed road area (Sanctuary Pine Drive) draining to Vollmer Road without going through Pond 2. Provide BMPs upstream of the proposed Vollmer Road ROW. *Resolved; a license agreement allowing the HOA to maintain the permanent rock check dams within the proposed ROW will be required.*
2. **Resolved.**
3. Ensure that all GEC Plan and SWMP checklist items (attached) are provided. GEC and SWMP checklists will be reviewed in detail with the next submittal. Unresolved; some items not found or needing revision/clarification have been highlighted. *Partially resolved; see updated checklists. **See updated checklists. Added additional info. to SWMP per item 24 on checklist***
4. See redlines for additional comments and clarification of these comments. *Partially resolved;*
 - a. See remaining/updated redlines. *See remaining/updated redlines. **See remaining/updated SWMP redlines. Per Jeff, replaced inlet protection with culvert protection detail***
 - b. Note: the GEC Plan does not need to be submitted separately if it is included in the CDs.
 - c. Some SWMP checklist items may be deferred to the contractor. If certain items are deferred, provide a note on the GEC Plan specifying items that will be required on the contractor's SWMP at the time construction begins. **See remaining checklist items. All docs. now provided with signatures.**

SIA/Financial Assurances Estimate Form / BMP/Pond Maintenance Agreement

1. **Resolved.**
2. Provide an O&M manual and PDB/BMP Maintenance Agreement and Easement for HOA maintenance of PBMPs. The latest template for the Agreement can be e-mailed upon request. Unresolved. *Unresolved. **Partially resolved;***
 - a. **Add descriptions, procedures, etc. for the permanent rock check dams to the O&M manual. Added description info. to IM Plan**
 - b. **Add map(s) and plans for all permanent BMPs to the O&M manual. Added Grading Plan to IM Plan**
 - c. **The PDB/BMP Maintenance Agreement and Easement will be provided when available. The license agreement will be written into the PDB/BMP agreement. Noted**
3. Resolved.
4. FAE: ~~Unresolved/resubmittal not found.~~
 - a. *Resolved.*
 - b. *Resolved.*
 - c. Include utility relocation and MVEA electric costs in the FAE. *Unresolved. **Provide proof of payment to MVEA if relocation costs are not included in the FAE. Relocation cost estimates now included in FAE***
5. Note: FAE minimum costs may be revised in the near future requiring update of this FAE.
6. *Provide line items for overall site re-stabilization and removal of the existing driveways specifically in the FAE (per GEC comment #2 above). **Resolved.***

Attachments

1. CD/GEC redlines
2. GEC Checklist
3. SWMP Checklist
4. Engineering Final Submittal Checklist

El Paso County Grading and Erosion Control Plan Submittal Checklist

- | | |
|---|-----|
| 1) Vicinity map..... | ☒ |
| 2) North arrow and acceptable scale (1"=20' to 1"=100')..... | ☒ |
| 3) Existing and proposed Contours 2 feet or less (except for hillside)..... | ☒ |
| 4) Standard EPC Grading and Erosion Control Notes included..... | ☒ |
| 5) Delineate mapped FEMA 100-yr floodplain..... | N/A |
| 6) Construction site boundaries clearly delineated..... | ☒ |
| 7) Areas of soil disturbance shown..... | ☒ |
| 8) All proposed construction BMPs and Construction BMP details shown..... | ☐ |
| <div style="color: red; font-weight: bold;">At this stage in the review of the project, we have added a note to Grading Plan for contractor to reference DCM Vol. 2 for all BMP Details</div> | |
| 9) Show existing vegetation..... | ☒ |
| 10) Existing and proposed water courses including springs, streams, wetlands, Detention ponds, roadside ditches, irrigation ditches and other water surfaces..... | ☒ |
| 11) Show all existing structures..... | ☒ |
| 12) Show all existing utilities..... | ☒ |
| 13) Submit geotechnical investigation from soils engineer..... | ☒ |
| 14) Conclusions from soils report and geologic hazards report incorporated in grading design..... | ☒ |
| 15) Show existing and proposed property lines and site boundary..... | ☒ |
| 16) All existing and proposed easements (permanent and construction).including required off site easements..... | N/A |
| 17) Any offsite grading clearly shown and called out..... | ☒ |
| 18) Existing and proposed storm drainage facilities as necessary to show all BMPs..... | ☒ |
| 19) Temporary sediment ponds provided for disturbed drainage areas greater than one acre..... | ☒ |
| 20) Proposed slopes steeper than 3:1 with top and toe of slope delineated..... | N/A |
| 21) Erosion control blanketing shown on slopes steeper than 3:1..... | N/A |
| 22) Retaining walls greater than or equal to 4ft in height require design by P.E. and building permit from Regional Building Department. Locations to be shown on the plan (not located in County ROW)..... | N/A |
| 23) Vehicle tracking shown at all construction entrances..... | ☒ |
| 24) The erosion control plan is to be certified by a Colorado Registered P.E. with appropriate signature blocks for EPC and the Engineer and the statement "The Owner will comply with the requirements of the Erosion Control Plan" signed by the owner..... | ☒ |
| 25) Required Signature blocks:..... | ☒ |

☐ = Not checked at this time

☒ = Provided, needs minor clarification/correction

N/A = Assumed not applicable – verify revisions

N/A = Verified – clearly not applicable

☒ = Verified – provided

☐ = Not found/missing information

Stormwater Management Plan Checklist

1	Applicant (owner/designated operator), Prepared By, SWMP Administrator, and Contractor information	<input type="checkbox"/>
2	Table of Contents	<input checked="" type="checkbox"/>
3	Site description and location to include vicinity map (not just Section, Township, Range)	<input checked="" type="checkbox"/>
4	Narrative description of construction activities proposed (e.g., may include clearing and grubbing, temporary stabilization, road grading, utility / storm installation, final grading, final stabilization, and removal of temporary control measures)	<input checked="" type="checkbox"/>
5	Phasing plan – may require separate drawings indicating initial, interim, and final site phases for larger projects. Provide “living maps” that can be revised in the field as conditions dictate.	N/A
6	Proposed sequence for major activities: Provide a construction schedule of anticipated starting and completion dates for each stage of land-disturbing activity depicting conservation measures anticipated, including the expected date by which the final stabilization will be completed.	<input checked="" type="checkbox"/>
7	Estimates of the total site area and area to undergo disturbance	<input checked="" type="checkbox"/>
8	Soil erosion potential and potential impacts upon discharge	<input checked="" type="checkbox"/>
9	A description of existing vegetation at the site and percent ground cover	<input checked="" type="checkbox"/>
10	The location and description of any other potential pollution sources such as fueling (mobile or stationary), chemical storage, etc.	<input type="checkbox"/>
11	Material handling to include spill prevention and response procedures	<input checked="" type="checkbox"/>
12	Spill prevention and pollution controls for dedicated batch plants	N/A
13	Other stormwater pollutant control measures to include waste disposal and cleanup of off-site soil tracking	<input checked="" type="checkbox"/>
14	The location and description of any anticipated non-stormwater components of discharge (springs, irrigation, etc.)	<input checked="" type="checkbox"/>
15	The name of ultimate receiving waters; size, type and location of stormwater outfall or storm sewer system discharge	<input checked="" type="checkbox"/>
16	SWMP Map to include: a) construction boundaries	<input checked="" type="checkbox"/>
	b) all areas of disturbance	<input checked="" type="checkbox"/>
	c) areas of cut and fill	<input checked="" type="checkbox"/>
	d) areas used for storage of building materials, soils or wastes (stockpiles)	<input type="checkbox"/>
	e) location of any dedicated asphalt / concrete batch plants	N/A
	f) location of all structural BMPs	<input checked="" type="checkbox"/>
	g) location of all non-structural BMPs	<input type="checkbox"/>
	h) springs, streams, wetlands and other surface waters	<input checked="" type="checkbox"/>
17	Narrative description of all structural BMPs to be used, including: silt fence, straw bales, check dams, sediment basins, diversion swales, etc. Ensure that methods are ECM/DCM-approved.	<input type="checkbox"/>
18	Description of non-structural BMPs to be used including seeding, mulching, protection of existing vegetation, site watering, sod placement, etc.	<input checked="" type="checkbox"/>
19	Technical drawing details for BMP installation and maintenance	<input type="checkbox"/>
20	Procedure for how the SWMP will be revised	<input checked="" type="checkbox"/>
21	Description of final stabilization and long-term stormwater quality measures to control stormwater pollutants after construction operations have been completed	<input checked="" type="checkbox"/>
22	Specification that vegetative cover density is to be a minimum of 70% of pre-disturbed levels to be considered stabilized	<input checked="" type="checkbox"/>
23	Outline of permit holder inspection procedures to install, maintain, and effectively operate BMPs to manage erosion and sedimentation	<input checked="" type="checkbox"/>
24	Record keeping procedures identified to include signature on inspection logs and location of SWMP records onsite Added signature and location of SWMP records to SWMP Report	<input type="checkbox"/>

Please note: all items need to be addressed. If not applicable, explain; simply identifying “not applicable” will not satisfy CDPHE requirement of explanation.

☐ = Not checked at this time

☒ = Provided, needs minor clarification/correction

N/A = Assumed not applicable – verify revisions

N/A = Verified – clearly not applicable

☒ = Verified – provided

☐ = Not found/missing information

Engineering Final Submittal Checklist for Electronic Submittals	
Check Box	Item: Report/Form
<input type="checkbox"/>	Drainage Report (signed) provided
<input checked="" type="checkbox"/>	Traffic Impact Study (signed)
<input type="checkbox"/>	Grading & Erosion Control Plan (signed) provided
<input type="checkbox"/>	Street Construction Plans (signed) provided
<input type="checkbox"/>	Deviation Request (signed)
<input checked="" type="checkbox"/>	MS4 Post Construction Form and SDI worksheets DPW POC: John Chavez
<input type="checkbox"/>	Proof of embankment/pond submittal to State Engineer provided
<input type="checkbox"/>	ESQCP (signed) provided DPW POC: John Chavez
<input type="checkbox"/>	* Financial Assurance Estimate, SIA (signed) provided
<input type="checkbox"/>	* Pond/BMP Maint. Agreement and Easement (signed) provided at Precon
<input type="checkbox"/>	* Operation & Maintenance Manual provided
<input type="checkbox"/>	Pre-Development Site Grading Acknowledgement and Right of Access Form (signed)
<input type="checkbox"/>	Other: Offsite Easements, Other Permits (FEMA LOMR, USACE, Floodplain...), Conditions of Approval, etc. None required
Pre-Construction Checklist:	
<input type="checkbox"/>	Driveway/Access Permit
<input type="checkbox"/>	Work Within the ROW Permit (DPW or CDOT)
<input type="checkbox"/>	* Stormwater Management Plan (SWMP) Submit to PCD-Inspections 2 weeks prior to precon provided
<input type="checkbox"/>	* Colorado Discharge Permit (COR: _____)
<input type="checkbox"/>	* County Construction Activity Permit
<input type="checkbox"/>	* CDPHE APEN – (if over 25 ac. or 6 mos.)
<input type="checkbox"/>	* Financial Surety (Letter of Credit/Bond/Collateral/Check)
<input type="checkbox"/>	Construction Permit Fee: <i>Major Final Plat (CO and/or PBMPs and/or offsite impvts.)</i> <u>\$ 4,437.00</u> (Verify fees with Inspections Supervisor at time of scheduling)
<input type="checkbox"/>	Other: _____

* - required items to obtain an ESQCP

** - after recordation

Permit Fee and Collateral must be separate checks

Post Construction Submittal Checklist: (ECM 5.10.6)	
<input type="checkbox"/>	As-Built Drawings
<input type="checkbox"/>	Pond Certification Letter
<input type="checkbox"/>	Acceptance Letter for wet utilities

- ☐ = Need final signed version
- ☒ = complete, in file
- ☐ = Need later