DATE: December 6, 2023 TO: Ryan Howser, PCD-Project Manager FROM: Jeff Rice, PCD-Engineering 719-520-7877 SUBJECT: SF-22-025 – Eagle Rising

Third Submittal

May 21, 2024 Response to Engineering Comments

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 resubmittal in **bold italic**. 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. **No comment response to the comment memo was received with this submittal. Response: A comment matrix with all comments and responses was supplied with the 11/21/23 Final Plat Submittal. The matrix was not utilized by EPC to respond.**

View Eagle Rising SF2225 11.20.2023 Letter to EPC Planning w_ PLAT Tracker via EDARP

Eagle Rising SF2225 11.20.2023 Letter to EPC Planning w_ PLAT 11/20/2023 7:18:36 PM Tracker via EDARP

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. Response: Agreed. A meeting on May 15, 2024 with Jeff Rice, Elizabeth Nijkamp, Mikayla Hartford and the Development Team is scheduled and confirmed for May 15th.

Additional comments may be generated on items added or revised after the original comments.

Due to the complexity of the remaining issues and inconsistencies as proposed, these comments remain cursory pending Preliminary Plan document revisions and completion prior to final plat review and scheduling for hearings. Staff may provide additional, more detailed comments on updated submittals to include the additional information and details required in the plans and reports, as discussed.

Responses to each comment are shown in purple bold type throughout the memo. Since the time the last Final Plat submittal, the Eagle Rising Preliminary Plan SP 205 was reinstated 4/16/24 including approval of three deviations.

General

- 1. The Eagle Rising Preliminary Plan documents need to be resubmitted and approved per BoCC conditions of approval issued with PCD project SP-20-005. The applicant shall revise, pursuant to the current standards, and submit at a minimum the following documentation and reports for preliminary plan approval:
 - a. Natural Feature Report*
 - b. Wetland Analysis*
 - c. Clearance Letter from the US Fish and Wildlife Service
 - d. Soils and Geology Report*
 - e. Preliminary Drainage Report*
 - f. Grading and Erosion Control Plan*
 - g. Traffic Impact Study*
 - * Documents also included in the Final Plat submittal
- 2. (Deleted)
- 3. The Preliminary Drainage Report (PDR) previously submitted with SP-12-006 needs to be updated to current County criteria as noted in the PDR/FDR comments issued with PCD project SP-20-005, copied below. Drainage criteria have been updated since the time of original preliminary plan approval, and regulatory oversight of projects to ensure compliance with all criteria associated with the County's MS4 permit has become a priority. (Under review with the preliminary plan see those comments.)
- 4. The proposed private road requires a waiver in accordance with LDC Section 8.4.4.E. Certain design standards may be relaxed for private roads, subject to approval by the County. Standards subject to deviation under the waiver request may only include the following:
 - a. reduction of right-of-way width where suitable alternative provisions are made for pedestrian walkways and utilities;
 - b. reduction of design speed where it is unlikely the road will be needed for use by the general public;
 - c. reduction in standard section thickness minimums and pavement type where suitable and perpetual maintenance provisions are made;
 - d. variation in maximum and minimum block lengths.
 - e. Maximum grade.

Identify all deviations proposed (also see TIS redlines). Any deviations from criteria not allowed under the waiver require a deviation request. The maintenance entity and funding mechanism needs to be addressed in the private road waiver request.

Partially resolved; The cul-de-sac length deviation request **requires** "an express written endorsement from the Fire District in which the proposed cul-de-sac is located" (ECM 2.3.8). **Staff have no objection to the deviations as submitted, conditioned on approval of the CDs and completion of road construction per approved CDs. The approval of plans and** *completion of construction per the approved plans are issues that need to be resolved specifically since the fire district has stated that "full compliance and conformance" with the LDC and ECM shall be demonstrated and deviations affecting safety with access/egress are not supported.*

Response: There are no safety issues with access/egress. See Private Road Waiver Request pending Board of County Commissioners approval.

Private Road Waiver

Waiver of Design Standards For Private9/6/2023Roads4:56:46 PM

Also, two Deviation Requests regarding the Cul-De-Sac Length & Road Section were accepted and approved by the ECM Administrator on 4/16/2024.

5. The final plat needs to match the preliminary plan; revise one or the other, or both, as appropriate. (revise as applicable based on redline comments) Response: The Preliminary Plan shows the complete development of two parcels, 5229000034 and 5229000035. Eagle Rising Filing No. 1 is the Final Plat for only the western parcel, 5229000034. The

final plat for Filing No. 1 contains the necessary elements to serve the single-family residential lots as depicted on the Filing No. 1 plat.

Final Plat

- The areas/parcel to the east of the proposed subdivision need to be included in the plat as tracts and rights-of-way to allow for adequate channel maintenance provisions. (This is because the channel crosses between the lots and the area to the east.) Also address all other drainage and maintenance access easements as appropriate in that tract or tracts. Ensure that all drainage and access easements proposed in the drainage plan are shown on the plat. Unresolved. As discussed at the meeting on November 28th, a channel maintenance easement agreement will be required based on the current proposal, regardless of platting the parcel to the east. A plat note referencing the agreement is needed; see plat redlines. Response: The Owner's attorney is addressing the agreement for the creek drainage with the County Attorney. A plat note referencing the agreement can be added to the plat when agreement is reached.
- 2. Floodplain elevations at each lot need to be addressed in accordance with LDC Section 8.4.2(B) and DCM Section 1.4.2. Based on the HEC-RAS modeling, provide the maximum calculated 100-year floodplain elevation at each applicable lot corner either on the plat or on a plan (GEC, FDR, etc.) that can be referenced with a plat note.
 - a. Provide a plat note stating that structures are to be constructed a minimum of one foot above the highest calculated floodplain elevation. Resolved.
- 3. Add the following plat notes:
 - a. "An engineered site plan prepared by a Colorado Professional Engineer and conforming to EPC Land Development Code and Engineering Criteria Manual standards, and consistent with the plans and recommendations in the Final Drainage Report and the Soil, Geology, Geologic Hazard Study on file, shall be provided to EPC PCD and approved prior to the issuance of a building permit for each lot. If an additional drainage easement is necessary it shall be submitted for review with the engineered site plan and shall be recorded with the Clerk and Recorder prior to the issuance of a building permit." Unresolved; see modified version of the note (as discussed at the 11/28 meeting) on plat redlines. Response: A blanket requirement for engineered site plans on these 2.5+ acre lots is not needed. A more acceptable note was added and approved on the Preliminary Plan: "Downslope Creep Portions of lots 16 & 17 with DSC areas require an Engineered Site Plan if the DSC areas are disturbed". However, there are no Downslope Creep (DSC) areas that apply to lots contained with Eagle Rising Filing No. 1. The note is not needed on the plat.
 - b. "Tract [provide] including the area of the Cottonwood Creek drainage channel shall be public drainage easements in their entirety with maintenance access granted to El Paso County. Maintenance of these areas will be the responsibility of the Homeowners Association, Park Forest Water District, or other entity acceptable to the Board of County Commissioners." Unresolved (this applies if the proposed lots are not removed from the calculated floodplain per preliminary plan comments). (This will be resolved with the channel maintenance agreement.) Response: Drainage Easements are shown and labeled on the Final Plat for any area affected by the creek. Easements will not be granted on adjacent parcels that are not a part of the Eagle Rising Filing No. 1 plat. Additional easements will be provided when the adjacent parcel is platted.
 "Lot imperviousness shall be limited to 10 percent to meet water quality requirements." Unresolved; see modified version of the note on plat redlines. Response: See Final Plat Note 26
- 4. The plat must dedicate right of way for a cul-de-sac at the south end of Kurie Road. Cul-de-sac dimensions need to match dimensions shown in the standard drawing for cul-de-sac details in the Engineering Criteria Manual so that County vehicles attempting to maintain the roadway and Page 3 of 8

emergency service vehicles may turn around in the public cul-de-sac. Revise Lot 8 as appropriate. *Unresolved; the portion of the necessary ROW within the final plat area shall be provided in conformance with the preliminary plan.* Response: The Preliminary Plan shows the complete development of two parcels, 5229000034 and 5229000035. Eagle Rising Filing No. 1 is the final plat for only the western parcel (5229000034). The final plat for Filing No. 1 contains the necessary elements to serve the single-family residential lots as depicted on the Filing No. 1 plat.

The approved Preliminary Plan indicates a turnaround will be required for more than two parcels/lots to access Kurrie Rd.

An additional Kurie Road Cul-de-Sac Right of Way is not required on Final Plat Eagle Rising Filing No. 1. Minimum frontage access meets LC 8.4.3.B.e as shown on the plat. See Access Easement Detail Sheet 3 showing the existing approved driveway 30' access easement to Kurie Road that is platted as a permanent existing turnaround. No additional ROW needed.

Half of Briargate Parkway is to be platted, 60 feet as shown on the preliminary plan. ROW reservation and easements are also shown on the preliminary plan and need to be included. (Only applicable if both parcels are being platted.)See cursory final plat redlines. Partially resolved; see updated/remaining redlines. Response: Comments on the Final Plat Redlines are addressed on the resubmitted items and the response to county comments.

Transportation / Traffic Impact Study

- 1. Resolved.
- 2. Resolved.

Final Drainage Report / Drainage Plans

- 1. See cursory PDR and FDR redlines. See comments in the preliminary plan file on the MDDP/PDR and comments on the FDR. Response: All MDDP/PDR comments have been addressed with the approval of the Deviation Requests and the MDDP/PDR. Final Drainage Report redlines have been addressed with the resubmitted items and the response to county comments and by referencing the MDDP/PDR in the Final Drainage Report. The approved Creek Drainage Deviation has been included in the appendix of the Final Drainage Report.
- 2. Regarding the 4-step process including channel stabilization (Step 2 "drainageways are required to be stabilized"), for the main channel and all tributary drainageways: Provide a complete hydraulic analysis of the channel and complete information on the proposed and ultimate channel stabilization improvements, including grade control and bank stabilization. Address all drainageways and pond spillways throughout the preliminary plan area. In accordance with DCM Section 1.4.2, some level of channel stabilization improvements will be required in areas of concern and a clearly defined maintenance agreement is necessary. Response: This comment is addressed in the MDDP/PDR along with the associated Creek Drainage Deviation Request which have been approved. The hydraulic analysis is included in the MDDP/PDR and referenced in the resubmitted Final Drainage Report.
- 3. Resolved.
- 4. Resolved.
- 5. Provide water quality provisions for the proposed Eagle Wing View in accordance with ECM Appendix I requirements. Provide water quality analysis and design in accordance with ECM Appendix I, Section I.7. See Stormwater redlines. Response: The residential lot areas are exempt from water quality treatment requirements in accordance with the DCM/ECM. There are to be no modifications or disturbance to the existing private road. Water Quality treatment requirements are being met using Runoff Reduction of adjacent grass

buffer as shown and discussed in the updated Final Drainage Report and also indicated on the updated GEC Plan.

- 6. Discuss maintenance access provisions (for channels and BMPs), maintenance requirements and responsibility, and the Private BMP Maintenance Agreement and Easement that will be provided for the channel and any required PBMPs. Per criteria, a 15 foot wide access easement and an all-weather access road is required on each side of the main channel. *Partially resolved; see redlines.* Response: Resolved with the approval of the Creek Drainage Deviation of 4/16/2024 and the MDDP/PDR. Access is provided along the lot line Drainage Easements as indicated in the Deviation, Final Drainage Report, and Final Plat Filing #1.
- 7. Show all improvements including ditch erosion protection, culvert inlet and outlet protection details on the developed drainage plan and GEC Plan. Unresolved. Response: All necessary improvements are shown on the GEC plan.
- 8. The report states that a maximum permissible velocity of 5 fps was assumed (as per Table 10-4 of DCM 1). The 5 fps figures in that table are for reed canarygrass, tall fescue, and Kentucky bluegrass. These types of lining are essentially lawns. As stated in the footnote below the table, "Grass lined channels are dependent upon assurance of continuous growth and maintenance of grass." Without assured irrigation, these grass types may not be used for design; the designer must use 2.5 fps figure for design. Alternately, the designer may use Table 10-3, but as was stated earlier in the report, the soil types onsite are a sandy loam or loamy sand. The maximum mean velocity for sandy loam is also 2.5 fps, so the design value is 2.5 fps either way. The Soils and Geology Report states that flows of 3-4 fps may be allowable but vegetative linings may increase permissible velocities to 4-7 fps. Several lot line locations with flow velocities exceeding 5 fps are identified and it is stated that no improvements are proposed; these areas need to be addressed both in terms of long-term stabilization and maintenance by an entity other than individual property owners. The velocities discussed here apply to the main channel and roadside ditches as well. Unresolved. See redlines. Response: Resolved with the approval of the Creek Drainage Deviation of 4/16/2024.
- Address all structures that have been added to the site on the drainage plan, and which will be removed or remain. Unresolved. See FDR redlines regarding culverts and ponds. Response: The existing buildings to remain are noted on the Drainage Map. Any other items shown are not structures, but fencing which can be removed or relocated at the time of future residential construction.
- 10. See cursory FDR redlines. Partially resolved; see updated/remaining redlines. The private road needs to be shown as "proposed" for design and review purposes as it is part of the common plan of development. Response: The existing road has been in place for many years and is not to be disturbed as part of the development. The waiver permitting the existing private road is pending BOCC approval. Water Quality treatment is being provided by Runoff Reduction using adjacent grass buffer as indicated in the updated report.
- 11. Address permitting requirements for all applicable agencies. *Resolved (if no construction in the drainageway).* May 10, 2024 Response: Resolved with the approval of the Creek Drainage Deviation of 4/16/2024. No construction in the drainageway will occur with Eagle Rising Filing No. 1.

Construction Plans / Geotechnical Issues

Address specifically the CGS comments regarding groundwater depths and monitoring. (No comments on the soils and geology report itself.) **Response: Monitoring is impractical and economically infeasible. It serves academic purposes only.** See November 1, 2023 Entech letter uploaded to EDARP.

1. Note: These plans were not reviewed in detail due to the number of other issues including drainage/water quality and private road waiver/deviation clarifications. There is a proposed

public cul-de-sac on Kurie Road that is proposed to be constructed but not shown in these plans. Part of this construction is shown on property not owned by this applicant. Provide all information required for CD review. See previous and current CD redlines. At a minimum, the Kurie Road cul-de-sac ROW within this plat needs to be provided and plans provided to show that it is constructable or if additional easements will be needed in Lot 10. Response: The final plat for Filing No. 1 contains the necessary elements to serve the single-family residential lots as depicted on the Filing No. 1 plat, without additional Kurie Road R.O.W.

- Include channel and spillway improvements. If the developer desires reimbursement/fee offsets for the DBPS channel construction costs (grade control) and for the County to maintain the improvements, the process in the DCM needs to be followed (reference DCM Sections 1.7 and 3.3). Unresolved. Response: Spillway improvements will occur in a future plat filing and are not shown on Filing No. 1 plans.
- 3. Resolved.
- 4. Ensure that all proposed road signage is MUTCD-compliant, including the Private Road sign (if a deviation is approved). **Unresolved. Response: The appropriate road signage is shown** on the plan with MUTCD designations and reference to El Paso County standards.

Include plans for water lines and services, proposed or as-built. **Unresolved.** May 10, 2024 Response: All existing water lines are shown on the plans and are accepted by the water district. The acceptance letter from the water district is uploaded to EDARP as Appendix H in the Water Resource report for reference.

Grading and Erosion Control (GEC) Plan / SWMP

- 1. Note: These plans were not reviewed in detail due to the number of issues noted above and additional information required for the drainage report and plans and final plat.
- 2. Ensure that all items on the GEC checklist are provided or addressed. **Unresolved. Response:** All items on GEC checklist are provided.
- 3. See cursory GEC Plan electronic redlines (previous and current). Note that construction that has been completed is still part of the overall plan of development and needs to be reviewed and approved. Response: The existing private road has been in place for several years and is not to be being modified or disturbed and will be used by the subdivision as-is. Water quality treatment is being provided by adjacent grass buffer under the Runoff Reduction standard as shown in the updated Final Drainage Report and updated GE Plan. Brad Walters, El Paso County Inspection Supervisor Department of Public Works, inspected Eagle Wing View as constructed on April 2, 2024. See report.

Forms / SIA / Financial Assurances Estimate (FAE) Form

- 1. Note: The FAE will be reviewed upon resolution of the issues identified above. (Unresolved) Response: An updated FAE is submitted.
 - a. Resolved.
 - b. Provide line items for building and road removal and reclamation. **Unresolved. Response:** No building or road removal will occur as part of the subdivision development. Obsolete private fencing may be removed as part of future individual lot home construction.
 - c. Provide line item for channel access road construction. **Unresolved. Response:** Resolved with the approval of the Creek Drainage Deviation Request and MDDP/PDR allowing access along lot line easements.
 - d. Provide ditch and drainageway permanent stabilization items. *Partially resolved; see FDR redlines.* Response: No additional ditch or roadway stabilization is required for this project except as shown on the GEC Plan.
- 2. Provide all items required by the Engineering Final Submittal Checklist, attached.

- 3. Verify PBMP applicability form with Stormwater with revised FDR. Response: EPC Stormwater has accepted the most recently submitted PBMP Applicability Form. Runoff Reduction water quality treatment will be provided.
- 4. Note: approval of roadway deviation requests depends on revisions to and approval of construction drawings to meet minimum requirements, and guarantee of construction of the private road. Response: The three Deviation Requests regarding the Creek Drainage, Cul-De-Sac Length, & Road Section were accepted and approved by the ECM Administrator on 4/16/2024.
- 5. Note: A draft channel maintenance agreement will be provided when available. Response: The Owner's attorney is working on an agreement for the creek drainage with the County Attorney's Office.

<u>Attachments</u>

- 1. Final Plat redlines
- 2. Final Drainage Report redlines
- 3. GEC Plan redlines
- 4. CD redlines
- 5. FAE redlines
- 6. Engineering Final Submittal Checklist

Engineering Final Submittal Checklist	
Check	
Box	Item: Report/Form
	Drainage Report (signed)
	PBMP Applicability Form
	Traffic Impact Study (signed)
	Grading & Erosion Control Plan and checklist (signed)
	Street and utility Construction Plans (signed)
	Deviation Request (signed)
	MS4 Post Construction Form and SDI worksheet
	Proof of embankment/pond submittal to State Engineer
	ESQCP (signed)
	* Financial Assurance Estimate, SIA (signed)
	* Pond/BMP/Channel Maint. Agreement and Easement (signed)
	* Operation & Maintenance Manual
	AutoCAD base drawing (submitted to DPW)
	Pre-Development Site Grading Acknowledgement and Right of Access Form (signed)
	Other: Offsite Easements, Other Permits (FEMA LOMR, USACE, Floodplain),
	Conditions of Approval, Street light license agreement, etc.
Pre-Construction Checklist:	
	Driveway/Access Permit (Temporary access permits to be obtained from EPC DPW)
	Work Within the ROW Permit (DPW or CDOT)
	* Stormwater Management Plan (SWMP) and checklist Submit to PCD-Inspections 2 weeks prior to precon.
	* Colorado Discharge Permit (COR:)
	* County Construction Activity Permit
	* CDPHE APEN – (if over 25 ac. or 6 mos.)
	* Financial Surety (Letter of Credit/Bond/Collateral/Check)
_	Construction Permit Fee: Major Final Plat (CO and/or PBMPS and/or offsite
	impvts.)
	(Verify fees with Inspections Supervisor at time of scheduling)
	Other:_Dewatering Pemit,

* - required items to obtain an ESQCP

Permit Fee and Collateral must be separate checks

Post Construction Submittal Checklist: (ECM 5.10.6)	
	As-Built Drawings
	Pond Certification Letter
	Acceptance Letter for wet utilities

- = Need final / signed version
 = complete, in file
 = PCD Staff to provide

- \Box = Undetermined at this time
- 🗌 = Need later