

May 8, 2025

Mr. Dave Reynolds, Town Administrator
Town of New Castle
P.O. Box 90
New Castle, Colorado 81647

**RE: Lot 1 Highway PUD, 7051 County Road 335
Preliminary Plat, Final Plat, Preliminary PUD, Final PUD Review**

Dear Dave,

The purpose of this letter serves to provide comments, concerns and questions regarding the proposed development of 7051 County Road 335, Lot 1 Riverside Subdivision. To conduct this review, we are in receipt of the Coal Seam Compiled Land Use Application, (354 pages) and have reviewed the following engineering submittal information from the application:

- Exhibit A - Legal Description
- Exhibit C - Geotechnical Subsoil Study (HP Geotech)
- Exhibit D - Traffic Impact Study (Kellar Engineering)
- Exhibit E - Water + Sewer Report
- Exhibit H - Rockfall Mitigation Report
- Exhibit M - Will Serve Letters
- Exhibit N - Drawing Package
 - Plat (Pinnacle Design Consulting Group)
 - Survey (Tuttle Surveying Services, Inc.)
 - Floodplain Maps (Schmueser Gordon Meyer Engineers & Surveyors)
 - Civil Plans (Pinnacle Design Consulting Group)
 - Civil Drainage Report (Pinnacle Design Consulting Group)
 - Landscape + Irrigation Plan (The Stevens Group, Inc.)
 - Rockfall Mitigation Plan (CTL Thompson)

The general engineering comments provided for the initial review in June 2024 were responded to by the Applicant in a letter dated January 17, 2025 and provided in the submittal package. The Applicant has submitted general information requested in the SGM email to the town dated 6/25/24 which has provided the ability to perform a more complete and specific final plat and construction review of the project.

Exhibit A – Legal Description
See attached survey review comments

Exhibit C - Geotechnical Subsoil Study (HP Geotech)
The subsoil study provided is for *Riverside Park Townhome Development* dated August 1999 completed on the previously developed property immediately east. The scope for the study does not include the Lot 1 Highway PUD project area.

Updated, RE: **Exhibit C - Geotechnical Subsoil Study**

RE: Comment Responses from CTL compiled at the end of this document.

Exhibit D - Traffic Impact Study (Kellar Engineering)

1. Since the development is immediately adjacent to the I-70 interchange and increases the design hourly volume on the “access” to I 70, the study should be prepared in accordance with section 2.3(5) of the State Highway Access Code for a Level Two analysis and coordinated with CDOT.
2. March 21, 2024, AM traffic data collected by ATD is missing from the appendix.
3. The project trip generation calculation appears to overestimate trip generation as it does not include the residential component and substitutes higher generating retail and restaurant uses in place of the planned 11 residential units. Pasted below is a comparison spreadsheet below based on interpretation of the submittal.

Trip Generation														
ITE Trip Generation, 11th Edition														
KELLAR TIS Land Use	Number of Units	ITE Code	Weekday Rate	Design Hour Rates						Weekday Traffic	Weekday Design Hour Traffic			
				AM Rate	AM Entering	AM Exiting	PM Rate	PM Entering	PM Exiting		AM IN	AM OUT	PM IN	PM OUT
Hotel	71	310	7.99	0.46	0.27	0.19	0.59	0.32	0.27	375	19	13	23	19
Strip Plaza (<40k)	16.47	822	54.45	2.36	1.42	0.94	6.59	3.30	3.30	925	23	16	54	54
Restaurant	8.85	932	107.20	9.57	5.26	4.31	9.05	5.52	3.53	949	47	38	49	31
TOTAL TRIPS:										2,249	89	67	126	104
per access										45		63		

"PLANNED" LAND USE Land Use	Number of Units	ITE Code	Weekday Rate	Design Hour Rates						Weekday Traffic	Weekday Design Hour Traffic			
				AM Rate	AM Entering	AM Exiting	PM Rate	PM Entering	PM Exiting		AM IN	AM OUT	PM IN	PM OUT
Multi-Family (Low-rise)	11	220	13.27	2.39	0.57	1.81	2.30	1.45	0.85	146	6	20	16	9
Hotel	71	310	7.99	0.46	0.27	0.19	0.59	0.32	0.27	375	19	13	23	19
Strip Plaza (<40k)	5.666	822	54.45	2.36	1.42	0.94	6.59	3.30	3.30	469	8	5	19	19
Restaurant	4.73	932	107.20	9.57	5.26	4.31	9.05	5.52	3.53	507	25	20	26	17
TOTAL TRIPS:										1,497	58	58	84	64
per access										29		42		

4. Provide an evaluation of the need for a State highway Access Permit based on comparison of project traffic versus 2024 traffic on Bruce Road. The development appears to require a State Highway Access Permit based on the 20% threshold.
5. Provide an Auxiliary Turn Lane analysis for the project accesses at CR 335. Auxiliary turn lane requirements for access to roadways are based on the projected DHVs, the speed limit and geometry of the highway adjacent to the access, and the classification of the roadway. CDOT SHAC are typically used by local agencies where local standards do not exist. The project traffic appears to warrant an eastbound left turn lane at each project access.
6. The operational analysis appears acceptable. The study should include a brief discussion of 95th percentile queue lengths at the study intersections.
7. Address the Garfield County LUDC Standards for a Major Collector standard at volumes greater than 2501 vpd.
8. Provide a sight distance analysis at the Bruce Road / CR 335 intersection and project intersections with CR 335.

Exhibit E - Water + Sewer Report Provided, RE: Exhibit E - Water + Sewer Report

1. Provide a PE stamp on the report.
2. Provide discussion of EQR Summary and Fee spreadsheet in the body of the narrative, include total EQR's, equivalent design flows for water and sewer, and calculated fee.
3. Provide final design information for the increased total flows for the shared Sewage Lift Station. Include pumping requirements, float locations, pipe size verification / confirmation.
4. Provide basis for WSFU count to GPM flows and/or Town EQR's and include discussion in the narrative.

Exhibit H - Rockfall Mitigation Report

No comments.

Exhibit M - Will Serve Letters

Final design coordination to be completed with Xcel for electric service connections.

Xcel needs final approved plat from the TONC before they will design. RE: Exhibit M - Xcel Email

Exhibit N - Drawing Package

Plat (Pinnacle Design Consulting Group)

Survey (Tuttle Surveying Services, Inc.)

See attached survey review comments

Survey dated May 2015 – prior to paved trail

Floodplain Maps (Schmueser Gordon Meyer Engineers & Surveyors)

No comments.

Civil Plans (Pinnacle Design Consulting Group, Stamped and dated 11/27/24)

1. Overall comments below, see marked up pdf plan comments for additional detail and clarification.
Marked up pdf's were reviewed. RE:C1-C18
2. For the construction drawings, the engineer will need to provide all anticipated details for construction in the plan set to avoid any interpretation issues during construction between the contractor/engineer and Town. All work will need to be performed in accordance with the Town's Public Works Manual.
Details are shown on the plan set. RE:C1-C18
3. We anticipate that the project is going to be constructed in a single phase, however, if it becomes necessary to phase the project, it will be necessary to provide phasing plans for the improvements to assure utility service, access and emergency services can be provided with future infrastructure improvements also being secured.
Single phase.
4. Notes and Legend
 - a. Update per comments.
These were updated. RE: C1
5. Grading, Drainage, and Erosion Control Plan
 - a. Show Rockfall Berm grading and details on civil plan.
 - i. Berm as designed is not maintainable and susceptible to erosion and will require a rounded or flat top area with consistent 3-foot height.
Berm has been changed. RE:C5
 - ii. Berm currently encroaches into the existing asphalt trail.
Proposed berm does not encroach onto asphalt trail. RE:C5
 - b. Provide multiple cross sections of CR 335, Trail, and proposed Rockfall Berm and Curb & Gutter to understand surface drainage impacts in CR 335 ROW. Provide adequate drainage solutions to protect asphalt trail edges from surface drainage ponding.
3 sections have been provided and a french drain has been added. RE:C4
 - c. Provide plans and details for trail reconstruction as needed. Lack of a recent field survey results in uncertainty of trail location that needs to be resolved in the plans.
Trail is shown as surveyed with reconstruction locations. RE:C2
 - d. Provide profile for each access to CR 335, with construction level detail for tie-in to the existing road and trail crossing.
Construction level detail complete with spot elevations. RE:C3
 - e. Provide detailed spot elevation grading in areas between and adjacent to buildings to ensure adequate surface drainage away from buildings per geotechnical

recommendations.

Spot elevations have been updated. RE:C2

- f. Provide construction detailing (spot elevation and layout) for ADA Ramps at parking Interface.

Spot Elevations have been added. RE:C2

- g. Provide Storm Drain system profile of 15" piping and include invert elevations for area and trench drains (add details) and 6" piping connection to storm drain manholes and inlets.

Plans include profiles. 6" piping has been eliminated. RE:C2, C5

- h. For storm drain utility crossings, confirm adequate frost protection will exist or provide Insulation.

There is adequate frost protection based upon separation. RE:C2, C3

- i. Provide construction details for Stormtech Chambers, including detailed plan, cross section, inlet, outlet, volumes and design storm. Also noting the maintenance and access Route.
Storm Chambers have been deleted.
 - j. Provide detail for French Drain, including minimum separation from building foundation.
French drain near building has been deleted.
 - k. Retaining Wall types, materials, construction details are required to understand the impacts to existing and proposed utility easements and facilities.
The retaining wall in question has been eliminated.
 - l. Provide typical section, profile, and easement of Emergency Access connection from River Park condos to CR 335.
We are no longer changing the access location it will remain as is.
 - m. Provide clarity to Erosion Control Blanket locations with hatching.
Hatching has been added. RE:C2
 - n. Provide clarity of use of SCL/SCF on plan and details.
This has been clarified. RE:C2
 - o. Provide retaining wall profile that includes, top of wall, bottom of wall, footing, existing and finished grade.
This retaining wall has been eliminated.
6. Parking Plot Centerline Profile
- a. Add Access and Storm Profiles
Storm profiles are shown the parking lot profile. Access profiles have been added. RE:C3
7. Drainage Basins
- a. Provide a summary of Drainage Report notes on the Plan sheet as noted.
These have been added. RE: C5, Exhibit N - Drainage Report
 - b. Construction drawings will need to identify the specific grades for storm drain (plan and profile) as well as all of the detailed design of WQVC, detention ponds and outfalls. **These are shown on the profile. We are providing 100% detention so the WQCV is not necessary. RE: C2, C5**
8. Intersection Signage and Striping
- a. Provide construction detailing (spot elevation and layout) for ADA Ramp at trail crossings at each access crossing.
This has been provided. RE: C5, C8
 - b. Provide detail of crosswalk striping.
This has been provided. RE: C6
 - c. Clarify the use of Bike/Pedestrian signs and Vehicular signage using MUTCD sign Designations.
Signage has been added per the MUTCD. RE: C6
 - c. Parking and ADA parking striping.
This is shown on the Striping and Signage Plan. RE:C6
9. Master Utility Plan
- a. Provide construction detailed notes for all water, sewer, and shallow utility connections. Provide clear direction for all utility removals, resets, and protection in place. Several items not addressed in Plans, shown in other comments and on Plans.
These have been added to the plan. RE: C2
 - b. All water and sanitary sewer line alignments, including service locations to the buildings, will need access available for maintenance and repair with a minimum of 15' easements Provided.
Access has been provided. The easement is larger than 15 feet. RE:C2

- c. Provide clarity depicting the existing and proposed utilities with text style, symbols, and Linetypes.
This has been clarified. RE: C2
- d. For dry utilities, when preparing the final plan for construction and prior to construction, the drawings will need to be updated to ensure that the proposed dry utility designs (prepared by the utility provider) continue to integrate with all of the improvements and planning proposed by the developer's team. Providers will require easements for the electric and gas utility installations. These will be reflected on the plat and the representative signature blocks need to be provided.
Understood. Plat will accommodate accordingly.
- e. Provide final construction details for the shared Sewage Lift Station. Include pumping requirements, float locations, pipe size verification / confirmation.
These details have been provided. RE: C18
- f. Include profile views of the water line alignments, avoiding low and high points, if necessary, provide blow offs, air release/vacuum vaults or hydrants at high points or drains

at low points in the lines. Profiles should show the crossing of other utilities (existing and proposed) and storm drain; the proposed retaining wall should also be shown.

- High point in water line is one of the fire hydrants. RE: C3
- g. Service lines will need to be shown for each building/unit complete with the locations of the curb stops and meter locations
These are shown on the plans. RE: C2
- h. Proposed 8" water main tie-in to existing main will be completed by cutting in new tee and (3) 8" gate valves.
Given that the existing line is HDPE it is not possible to cut in a tee and 3 gate valves. We have proposed a saddle tap as is customary in this case. RE: C2
- i. Valves on each side of each tee (including hydrants) will be required.
Valves have been added as requested. RE: C2
- d. Show Concrete Reaction Block locations on the plans.
These have been added. RE: C2
- k. Note that all water line fittings are to be polywrapped ductile iron pipe fittings and not PVC.
This note has been added. RE: C1
- l. Assure that all water/sewer crossings can be provided with a minimum separation of 18", including all water/storm drain crossings. Assure that water/storm drain crossings provide adequate freeze protection at each crossing.
There is more than 18" of separation. Adequate freeze protection is provided. RE: C3
- m. If water and sewer mains are constructed in areas of fill; a note shall be included on the profile stating the Contractor shall provide a minimum of 95% compaction 10 feet either side of the Sewer / Water main with compaction testing at 200 foot increments in fill areas under pipe, minimum two test locations required per area.
The water and sewer lines are not in fill.
- n. Where water and sewer connections are to be provided to existing facilities, provide details as to the work required for the connection; existing conditions (size, material, depth), removals, fittings, thrust blocks, testing procedures, etc.
This has been provided. RE: C2, C13
- o. Provide information on how pressure testing, sanitizing, flushing, air release and subsequent operation of the water, sanitary sewer, and storm sewer utilities are Performed.
Testing specifications have been added. RE: C17
- p. Note that due to SB 18-167, all utilities will need to be installed to be electronically locatable. Details will need to be revised to provide instruction to the contractor that provide tracer wire, magnetic tape, etc... on all subsurface utilities including service lines. A note has been added to the plans and appropriate details have tracer wire shown. RE: C1
- q. Pothole all existing utility crossings prior to construction of new facilities.
This will be facilitated during construction. RE: C1
- r. Proposed Retaining Wall generally paralleling east property line crosses and is in the impact area (construction and future maintenance) of several existing and proposed utilities. Provide retaining wall profile that includes, top of wall, bottom of wall, footing, existing and finished grade, and all utility crossings.
This retaining wall has been removed.

- s.
- 10. Details
 - a. Provide construction details for maintainable, non-erodible berm. Contractor should be able to reference civil plan and construct berm without reference to CTL report.
See CTL Plans for berm. RE: C2 Exhibit N - Landscape Berm Plan and Profile
 - e. Provide asphalt trail reconstruction typical section.
This has been added to the plan set. RE: C15
 - ii. Provide Lift Station detail.
This has been added. RE: C18
 - iii. Provide Bollard detail.
A bollard detail is in the plan set. RE: C8

Civil Drainage Report (Pinnacle Design Consulting Group)

1. Provide a Professional Engineer stamp on the cover of the report.
This has been added. RE: Exhibit N - Drainage Report
2. Provide discussion of WQCC design storm and sand filter material, including the on-site soil materials compatibility with the sand filter design.
Since we are providing 100% detention the WQCC is not required. Sand filter material is in the plan set. RE: C8
3. Provide construction detail for the stormtech chambers and sand filter design.
These have been eliminated.

4. Provide manufacturers documentation of inlet grate open area and discuss clogging factor used for site design.
A manufactures cut sheet has been provided. The open area has been calculated based upon the cut sheet. A 50% clogging factor has been taken into account. RE: Exhibit N - Drainage Report
5. Discuss and include calculations for inlet control capacity for pipes with storm inlets to confirm adequate capacity.
An inlet control calculation sheet has been added to the drainage report. RE: Exhibit N - Drainage Report

Landscape + Irrigation Plan (The Stevens Group, Inc.)

1. Provide seed mix and coordination of landscape plan and civil erosion control plan regarding erosion control blanket placement and reseeding areas.
RE: Exhibit N - Landscape and Irrigation Plan
Rockfall Mitigation Plan (CTL Thompson)
1. Incorporate CTL berm and structural wall design parameters into Civil and Structural plans sets with construction level detail.
No structural retaining in relation to the berm. RE: C2

Subdivision Improvements Agreement

Not submitted.

RE: TOWN OF NEW CASTLE

Parking Requirements

1. Parking analysis based on ITE Parking Generation Manual 6th Edition and verified 123 spaces is acceptable, without consideration of shared parking.
Parking has been updated to meet Town of New Castle standards. RE: Exhibit N - Architectural Site Plan

Upon your receipt and review, if you have any questions, please don't hesitate to call.

Respectfully,

SGM

Jefferey S. Simonson, P.E.
Principal

April 1, 2025

Town of New Castle

Re: Reviewing Surveyor Comments: **Provided, RE: Exhibit N - Survey, Exhibit N - Plat**

Land Use application for COAL SEAM Hotel, Mixed Use Development

7051 335 County Road, New Castle, Colorado 81647

Regarding Coal Seam Subdivision Plat Table of contents items VIII and XII exhibit N items Plat and Survey

I have reviewed the final subdivision plat that was submitted to me for compliance with: C.R.S. 38-51-105- Monumentation of Subdivisions C.R.S. 38-51-106 - Land Survey Plats, and have the following comments:

Regarding plat monumentation

- A. Address new monumentation per C.R.S. 38-51-105(1) (a) **To be set and annotated upon plat approval**
- B. Address existing monumentation per C.R.S. 38-51-105(1) (b) **Done**
- C. Address new monumentation per C.R.S. 38-51-105(3) (a) **TBD**
- D. Address new monumentation per C.R.S. 38-51-105(7) (a), (7)(b) (l)-(7)(c) **TBD**
- E. Address conflicting boundary evidence, if any. C.R.S. 38-51-106(1)(k) **Done**

Recommend bearing and distance ties to found monuments (such as those noted close to the westerly line) not along the boundary, show measured and record distances. Note sources of research board rule E2

Regarding boundary details

- A. Address conflicting boundary evidence, if any. C.R.S. 38-51-106(1)(b)(c)(e)(f)(i)(j)(k)(l):
 - (b) Provide complete reference of adjoining right of way (row) county road 335 stating width if known and nature of the public, private... **Done**
 - (c) recommend showing measured and record distances **Done**

(e) provide a basis of bearings statement and recommend using one of the four commonly accepted board methods (Board rule H), label basis of bearings on map view. [Done](#)

(f) provide complete description of monuments found and set to include cap type and accessories such as rebar or pipe (board rule M) [Done](#)

(i) the written description in the owner's acknowledgement does not match that of the existing conditions map nor the legal description on submittal sheet 47 Exhibit A – Legal Description [Legal description per warranty deed reception no. 983168](#)

(j) on final document please provide signature and seal and other required information for surveyor. [TBD](#)

(k) label ad joiners, suggest clarify lot names with record reference to Lot 1 and not lots 1a and 1b created by this plat. Plat name is confusing consider dropping word; [Lot 1 Highway PUD Updated to Coal Seam PUD, adjoiner parcels labeled.](#)

(l) provide a statement regarding lineal units used to produce this survey [Done](#)

Regarding Topographical Survey Map does not conform to and was likely not intended to confirm to C.R.S. 38-51-106

B. Address conflicting boundary evidence, if any. C.R.S. 38-51-106(1)(b)(c)(e)(f)(i)(j)(k)(l):

(b) Provide complete reference of adjoining right of way (row) county road 335 stating width if known and nature of the public, private... [Updated](#)

(c) recommend showing measured and record distances to survey monuments [Updated](#)

(e) provide a basis of bearings statement and recommend using one of the four commonly accepted board methods (Board rule H), label basis of bearings on map view. [Updated](#)

(f) provide complete description of monuments found and set to include cap type and accessories such as rebar or pipe (board rule M) [Updated](#)

(i) provide a written descriptions of the parcel being surveyed. The map name does not reflect the record parcel name nor the proposed PUD name. [Parcel desc. top left](#)

(j) on final document please provide signature and seal and other required information for surveyor. The certification on this document appears to not conform to board rule 2 [Updated](#)

(k) label ad joiners, suggest clarify map name relative to parcel legal description.
Suggest name: *Topographical Survey Lot 1 Riverside Park Subdivision*. Updated

(l) provide a statement regarding elevation datum, site benchmark and contour intervals Updated

Regarding Coal Seam Exhibit A legal description does not match the legal description on either the plat of existing conditions map

Regards,

Scott A. Hemmen

Colorado P.L.S. #38182

For, and on behalf of SGM



May 29, 2025

Kellar Engineering response to Comments – Lot 1 Highway PUD TIS

Kellar Engineering (KE) comment responses in **blue** font.

- Since the development is immediately adjacent to the I-70 interchange and increases the design hourly volume on the “access” to I 70, the study should be prepared in accordance with section 2.3(5) of the State Highway Access Code for a Level Two analysis and coordinated with CDOT.
Response: It is the project team’s understanding based upon correspondence with the Town that the TIS will not need to be reviewed and approved by CDOT. Therefore, the TIS was done in accordance with the Town of New Castle’s requirements.
- March 21, 2024, AM traffic data collected by ATD is missing from the appendix.
Response: The appendix in the TIS will be updated accordingly.
- The project trip generation calculation appears to overestimate trip generation as it does not include the residential component and substitutes higher generating retail and restaurant uses in place of the planned 11 residential units.
Response: The trip generation in the TIS is conservative. This has been coordinated with the client and project team.
- Provide an evaluation of the need for a State highway Access Permit based on comparison of project traffic versus 2024 traffic on Bruce Road. The development appears to require a State Highway Access Permit based on the 20% threshold.
Response: It is the project team’s understanding based upon correspondence with the Town that the TIS will not need to be reviewed and approved by CDOT. Therefore, a CDOT State Highway Access Permit is not anticipated for this project.
- Provide an Auxiliary Turn Lane analysis for the project accesses at CR 335. Auxiliary turn lane requirements for access to roadways are based on the projected DHVs, the speed limit and geometry of the highway adjacent to the access, and the classification of the roadway. CDOT SHAC are typically used by local agencies where local standards do not exist. The project traffic appears to warrant an eastbound left turn lane at each project access.
Response: CDOT SHAC was not used since this is not a CDOT highway. CR 335 is a lower volume roadway with a posted speed of 35 mph. The Town’s criteria was used in the TIS to verify that an eastbound left-turn lane is not needed at the project access points. Tables 6 and 7 in the TIS verify that all approaches at the site access points operate at LOS A. This is a similar situation to the CR 335/Park Drive intersection to the east.



- The operational analysis appears acceptable. The study should include a brief discussion of 95th percentile queue lengths at the study intersections.
Response: The TIS will be updated accordingly. As shown in the Synchro outputs, the 95th percentile queues are small and the intersection levels of service (LOS) operate acceptably.
- Address the Garfield County LUDC Standards for a Major Collector standard at volumes greater than 2501 vpd.
Response: The TIS will be updated accordingly to include discussion on this criterion.
- Provide a sight distance analysis at the Bruce Road / CR 335 intersection and project intersections with CR 335.
Response: The TIS will be updated accordingly. The sight distance at the Bruce Road/CR 335 intersection will be able to meet the Town's criteria.

If you have any questions, please do not hesitate to contact me at (970) 219-1602 or skellar@kellarengineering.com.

Respectfully,

Kellar Engineering LLC

Sean K. Kellar, PE, PTOE
Colorado PE #38650