

BOCC 9/14/99

PROJECT INFORMATION AND STAFF COMMENTS

REQUEST:

PUD and Preliminary Plan Review

APPLICANT:

Coryell Ranch Company, LLC

PLANNER:

Rock Creek Studio

ENGINEERS:

Water: Resource Engineering
Civil: Schmueser Gordon Meyer
Geotechnical: CTL/Thompson
Wetlands: Professional Wetland Consulting
Traffic: Felsbburg Holt & Ullevig

LAWYERS:

Balcomb & Green

LOCATION:

A tract of land located one mile northwest of Carbondale, south and east of Hwy 82 and the Roaring Fork and south of the Aspen Glen PUD.

SITE DATA:

259.44 Acres

WATER:

Augmented Coryell Well #13, Central system

IRRIGATION WATER:

Kaiser-Sievers & Southhard-Cavanaugh Ditches

SEWER:

Roaring Fork Water & Sanitation District

ACCESS:

Two Access Points on CR 109

I. DESCRIPTION OF THE PROPOSAL

- A. **Site Description:** The site is located one mile northwest of the Town of Carbondale, west of the Roaring Fork River and State Highway 82, and is 260 +/- acres in size. The confluence of the Roaring Fork and Crystal rivers is located east of the property with portions adjoining both the Crystal and the Roaring Fork. These areas are primarily located within the 100 year flood plain and contain significant wetland riparian areas. From the 100 year flood plain boundary line, west to County Road 109, the property is gently sloping to the east. This area has traditionally been used for agricultural purposes. From County Road 109, west, the property is steeply sloping. (See location map pg. 2 & Illustrative Site Plan map pg. 3)
- B. **Project Description:** The project anticipates the creation of 72 residential units as indicated in the following development summary:

<u>Proposed Land Use</u>	<u># parcels</u>	<u>Lot size range</u>	<u>Acreage</u>
Rural Residential Lots	29	2.001 - 5.348	76.548
Medium Density Lots	36	13,939 - 37,940	16.377
Affordable Housing	3 Duplex 1 SFR	11,000 - 14,800	1.167
Right of Way	n/a	n/a	17.372
Open Space	7	.622 - 69.04	138.491
Conservation Easement	1	6.294	6.294
Utility Zone District	4	.027 - .503	0.622
Conveyances	2	1.468 - 1.099	2.567
Total			259.438

Land coverage is anticipated at the following rates:

<u>USE</u>	<u>ACRES</u>	<u>%</u>
Rural Residential Lots	76.548	29.51%
Medium Density Lots	16.377	6.31%
Affordable Housing	1.167	0.45%
Open Space	144.785	55.81%
Roads	17.372	6.70%
Expansion Parcels	2.567	0.99%
Utilities	0.622	0.02%
Total	259.438	100.00%

II. REVIEW AGENCY AND OTHER COMMENTS

- a. **The Carbondale & Rural Fire Protection District** - states in a letter dated 5-11-99 that, Emergency response would come from Station 1 in Carbondale and Station 4

located on CR 154. The District believes the road layout adequate for fire apparatus.

The District would like to see uniform and sequential addressing for the entire PUD and that the developer submit an addressing plan to County for review by the appropriate emergency response agencies.

The District finds that the proposed 200,000 gallon storage tank will deliver fire flows of 1,000 gpm. The Uniform Fire Code (UFC) requires a minimum fire flow of 1,000 gallons for a 3,600 square foot one and two family dwelling. If structures in excess of this size are to be developed, additional capacity will be required at the rates set forth in the UFC Appendix III-A: Fire Flow Requirements for Buildings and with fire hydrant locations in accordance with UFC Appendix III-A: Fire Hydrant Location & Spacing (See pgs. 39-40).

- b. **The State of Colorado Department of Natural Resources Division of Wildlife:** reports in a letter dated 5-2-99 that the proposed site lies within mule deer winter range with use increasing in the fall. Elk use is primarily contained in the wetland areas as well as various treed areas throughout the site. Bald Eagles have been noted to use wetland/river areas from mid-late November extending through March/early April. The DOW further note the wetland/pond areas are the most valuable and sensitive habitat areas.

The applicant and the DOW have met and determined the best mitigation measures as indicated in Appendix H of the application. DOW has filed an additional letter dated 6-9-99 noting the following concerns:

The timing of the Roaring Fork River sewer line crossing should be timed to protect the Brown Trout egg population. DOW recommends that the construction take place ideally on April 1, but if flows are too great a second alternative is the last week in November through the first week in December. All precautions should be undertaken to minimize silting of the river.

The DOW also identified that the equestrian easement coincide with the existing trail access rather than create a new trail. DOW notes that the fishermen access points are acceptable.

Setbacks in the Midland Point portion of the PUD appear acceptable. DOW recommends that no deck hangovers be permitted. (See letters pgs. 41-43)

- c. **The Colorado Geological Survey:** The survey has made the following observations and recommendations:

The development has evidently been well thought out with regards to geologic hazards.

Of the three ponds proposed for the site, two lie within mapped subsidence depression areas while the third does not. CGS is concerned that standing water may exacerbate water introduction into the evaporitic bedrock and increase rates of dissolution and subsidence. Also noted was if the ponds were to be lined. If they are to be will the CGS questions if the liner design will accommodate minor settlement.

The survey is in general agreement about the defined locations of subsidence areas as indicated by the application. Lot 26 is specifically noted to contain potential sinkhole features and due to the proximity of sinkholes off of the lot, additional geologic investigation should be conducted to determine if this is a viable lot. It is further noted that site-specific building siting and subsurface investigation for all lots adjacent to subsidence areas.

CGS stresses the importance of potential lot buyers being informed about the risks associated with subsidence in this development and further notes that except for a short note in a letter dated 3-2-99 concerning roads and utilities, no mention has been made for recommendations in foundation design to mitigate this hazard.

Concerns were noted about deflection berm height. The CGS recommends a berm no less than 8 feet high. Additionally, the berm as placed in the "A" position may cause debris flow to be deposited into the adjacent pond. If this were to occur it could potentially lead to pond water displacement and flooding of adjoining areas. (See letter pgs. 44 - 47)

c. **The County Engineer:** has noted the following conditions:

The traffic generation figures as indicated in Appendix C, Table 1, Trip generation appear low. The table indicates AM Peak to have 39 exits, and a PM Peak of 45 enters for 72 units. The County Engineer would like to see the basis and justification that assumes the lower peak numbers.

The Water Quality Test Results as indicated in Appendix E, shows several concentration levels in excess of recommended levels. An Engineers Certification that these values are suitable for a potable drinking water supply and pose no threat to human health.

The Roaring Fork River sewer line crossing should be encased in a steel reinforced system (concrete or steel) to prevent any possible separation of sewage lines in the event of flooding, channel changes, or unforeseen erosion.

A more definitive description should be added to the typical cross sections to assure that subgrade compaction or fill will be accomplished at 95% per ASHTO-180 and include the depth of this compactive effort.

A debris flow similar to that which occurred in 1998 may occur again. The deflection berm system should be certified by an engineer to assure that in the event of debris flows the velocity of the debris slurry will not compromise the berm. (See comments pgs. 48-49)

- d. The Roaring Fork School District RE-1: has noted that the District has developed a formula for determining school site land dedication or fees-in-lieu-of dedication for residential development with the RE-1 District. The District feels that their formula more accurately reflects the actual cost of land acquisition than the \$200 per lot fee the County currently collects. Should the County adopt the formula prior to final approval of the PUD, the District requests that it be applied. (See letter pgs. 50-53)
- e. The Roaring Fork Railroad Holding Authority: sees no impact to the rail corridor. RFRHA would like to point out that the corridor was obtained for public transportation and recreational uses and that the current draft plan for the right of way shows a public trail alignment connecting the tracks to that portion of the river. The applicant may wish to consider a future connection of the PUD to the proposed trail. (See letter pgs. 54)
- f. The Roaring Fork Transit Agency: has estimated that the proposal will create the need for 10 park and ride spaces and generate 7,991 one-way passenger trips annually at full build out. RFTA estimates the park and ride spaces to cost \$50,000 with an annual maintenance fee of \$2,438. The transit costs to RFTA are estimated at \$4,375 annually. Fare box generation is estimated to be \$14,819 RFTA requests that the developer dedicate \$750 per unit for a total of \$54,000 to construct the park and ride spaces. (See letter pgs. 55-62)
- g. Office of the State Engineer, Division of Water Resources: reviewed the proposed water supply and determined that Coryell Well No. 13, which was issued pursuant to a contract with the West Divide Water Conservancy District, is physically adequate and will not cause material injury to decreed water rights provided the well is operated according to the terms and conditions of the well permit. The applicants will have to submit a statement of Beneficial Use by March 9, 2000, to maintain a valid well permit. (See letter pg. 63)
- h. Peter Nichols: is an adjoining property owner and believes that the proposed development is a responsible proposal for the development of the property. He supports the designation of building envelopes as being mandatory and included as a condition of approval. (See letter pg. 64)

III. RELATIONSHIP TO THE COMPREHENSIVE PLAN

Section 4.04 requires that a PUD cannot be approved unless it is found by the County Commissioners to be in general conformity with the County's Comprehensive Plan. **Staff Comments are highlighted in bold. Some sections have not been included as they have no bearing on the application.** The application's general conformity to the Comprehensive Plan is described below:

DENSITY: The Coryell Ranch property has two land use district designations shown on the Garfield County Comprehensive Plan, Proposed Land Use Districts, Study Area 1 map. The majority of the property appears to be designated High Density Residential (Less than 2ac/du). The remainder is designated Low Density Residential (10 and greater ac/du). The applicant has provided an argument that the actual area that does not have development constraints due to riparian areas, environmentally sensitive areas and geologically constrained is 116.9 ac.. Based upon that acreage and using 72 dwellings, the overall density for a property is 1.61 acres per dwelling. This would be in compliance with the proposed Land Use Districts density requirements of the Comprehensive Plan. (See application pgs. 24-26)

HOUSING GOAL: To provide all types of housing that ensures current and future residents equitable housing opportunities which are designed to provide safe, efficient residential structures that are compatible with and that protect the natural environment.

POLICIES:

- 2.1 The County, through the development of regulations, shall provide for low and moderate income housing types by allowing for mixed multi-family and single-family housing in appropriate areas throughout the County.

The County has adopted affordable housing regulation and incorporated them into the Zoning Resolution. Per the adopted regulations, the proposed development includes the 10 percent affordable requirement.

- 2.2 To include an assessment of the impact of present and future subdivisions in both incorporated and unincorporated portions of the County during the subdivision review process.

The application has provided an assessment of traffic, water quality, determination and preservation of critical habitat and environmental features which could preclude development.

- 2.3 Major accessways, topographic features, open space and other undeveloped land will be used to separate residential uses from industrial and commercial centers.

There are no proposed or adjoining industrial or commercial uses within the proposal.

- 2.4 Solar orientation that allows for both passive and active design will be strongly encouraged in the design review process and will not be restricted by protective covenants.

The large size of the estate lots allow for solar orientation of houses. The Midland Point units are oriented 19 of the 36 lots in a true north south orientation. Solar power generation units are permissive under the proposed Covenants.

TRANSPORTATION GOAL: Ensure that the County transportation system is safe, functional, appropriately designed to handle existing and future traffic levels and includes options for the use of modes other than the single-occupant automobile.

OBJECTIVES:

- 3.1 To encourage the development of a regional public transit system that respects the interaction between emerging land use patterns and travel behavior in the Valley.

No transit improvements have been proposed by the applicant. RFTA, in their comments concerning the project, have included a cost estimate for transit improvements based on the projected impacts to the only regional public transit system, the bus system.

- 3.2 To encourage the use of modes other than the automobile.

The proposal calls for placement of a bike path along CR 109. A future link to Carbondale's path system is envisioned off-site and may be developed in the future.

- 3.3 Proposed developments will be evaluated in terms of the ability of County roads to adequately handle the traffic generated by the proposal.

The development includes a traffic study which estimates 670 vehicle trips per day (VTD) with a peak average of 55 VT expected in the morning and 70 VT in the evening. Staff had concerns that these projected counts are low, especially for the higher density Midland Point portion of the PUD.

The study further indicates that the long term impacts to CR 109 and 108 are relatively minor. By 2001, the intersection at CR 108/108 and the two CR 109 access points as proposed will operate at a LOS B or better in both the AM and PM peak hours. Traffic along CR 108 from the west along SH 133 is expected to rise to 11%. Again, staff had concerns that these projected counts are low, especially for the higher density Midland Point portion of the PUD.

In a supplement to the application, the traffic engineers provided documentation that satisfied the County Engineer, that the projections were correct for the method of projection.

- 3.4 Proposed developments will include street designs that will reduce adverse impacts on adjacent land uses, respect natural topography and minimize driving hazards.

The access points to CR 109 as indicated in the application appear sufficient for sight line distances. The overall densities in the subdivision and the relatively subtle street angles respect the natural topography and mimic adjacent subdivision street layout and design.

- 3.5 Proposed developments will provide a minimum number of access points on through streets and highway corridors.

Two access points are planned for CR 109, that provide safe sight lines for vehicles entering the road.

POLICIES:

- 3.1 Staff will foster a cooperative relationship with cities, counties and transit providers in addressing regional transportation issues.

Staff has referred this application to both RFTA and RFRHA. RFTA has requested that the developer provide cash for impact mitigation, RFRHA is not affected by the proposal but requests that a potential trail connection on the Roaring Fork river be given consideration.

- 3.2 Developments are encouraged to integrate bikeways, pedestrian circulation patterns and transit amenities into project design.

The applicant is proposing fishermen's easements / accesses and a bike path. There are no internal sidewalks proposed along the internal road system. There are no transit amenities, bus stop or park and ride areas proposed.

- 3.3 The project review process will include a preliminary assessment of the projected traffic impact associated with all commercial and industrial projects and residential projects greater than 50 dwelling units.

The application provides a preliminary assessment of the projected traffic impacts.

- 3.6 Development proposals will be required to mitigate traffic impacts on County roads proportional to the development's contribution to those impacts. Mitigation may include, but not be limited to the following:

- A. Physical roadway improvements;

The applicant is proposing widening and regrading for portions of CR 109.

- B. Intersection improvements;

Both access points will require intersection improvements to the standards set forth by the County.

- C. Transit amenities;

Although RFTA does not contemplate future service along CR 109, the applicant could provide a future transit amenity, if they were to agree to the proposed contribution to a park and ride for RFTA.

- D. Signage requirements;

No signage has been proposed by the applicant. It is assumed that all signage will conform to the Model Traffic Control Device Manual.

- E. Alternative traffic flow designs;

No alternative plans or scenarios were submitted by the applicant.

- F. Funding mechanism to implement necessary mitigation.

Engineers cost estimates will be required prior to approval of any subdivision improvements agreement.

RECREATION & OPEN SPACE GOAL: Garfield County should provide adequate recreational opportunities for County residents, ensure access to public lands consistent with BLM/USFS policies and preserve existing recreational opportunities and important visual corridors.

OBJECTIVES:

- 5.1 Encourage the location of active recreational opportunities that are accessible to County residents.

The proposal is granting a 10 foot fisherman's easement along the entire river frontage of the PUD. A 6.2 acre parcel along the Crystal river is proposed for a conservation easement. The project also includes a bike path along County Road 109, that would connect with other paths along the road.

- 5.2 The County will support and encourage the creation of open space, through the development and implementation of zoning, subdivision and PUD regulations designed to retain and enhance existing open space uses.

The project has in excess of 140 acres of public and private open spaces.

- 5.4 Rafting and fishing access will be strongly encouraged during the development review process.

Two public access points at each end of the PUD connecting to the fisherman's easement are proposed.

- 5.5 Visual corridors are considered an important physical attribute of the County and policies will reflect the need to carefully plan these areas.

The entire proposal lies within the Hwy. 82 View Corridor as identified in the 1984 Comprehensive Plan. The proposed layout utilizes larger lots and the 100 floodplain boundary to minimize visual impacts.

POLICIES:

- 5.1 Developments that propose densities above one (1) dwelling unit per acre and exceed 50 dwelling units will be required to provide adequate recreational opportunities to serve the residents of the project. Alternatives for meeting this requirement will be defined in the Subdivision Regulations.

The proposal calls for over 140 acres of open space for use by the residents of the PUD. Additionally river access and a bike Path meet this policy.

- 5.2 Important visual corridors will be identified and appropriate policies developed to address the retainment of open space areas that link communities in the County.

The Hwy. 82 View Corridor as identified in the 1984 Comprehensive Plan has been respected in terms of lot layout and design. The fisherman's easement allows additional access to river bottom open space that has been created as a part of the downstream developments.

- 5.3 If physically possible, subdivisions and PUDs will be encouraged to design open space areas to become contiguous with existing and proposed open spaces adjacent to the project.

See above comment.

- 5.5 With the cooperation of the Division of Wildlife, developments proposed in areas next to streams or rivers with rafting or fishing potential should dedicate easements for public access to these areas.

The fisherman's easement as proposed is consistent in size with other similar easements and was developed in cooperation with the Division of Wildlife.

- 5.6 In order to encourage public access to rivers, streams and public lands, the County will be receptive to incentives, consistent with an overall program approved by the Board of County Commissioners, for developments that propose public access to these amenities.

Two public access points at each end of the PUD connecting to the fisherman's easement are proposed.

5.0(A) OPEN SPACE AND TRAILS

GOAL: Garfield County shall develop, adopt and implement policies that preserve the rural landscape of the Roaring Fork Valley, existing agricultural uses, wildlife habitat and recreational opportunities in a mutually beneficial manner that respects the balance between private property rights and the needs of the community.

OBJECTIVES:

- 5.1(A) To ensure that existing agricultural uses are not adversely impacted by development approved by Garfield County;

The property to the west, the Crystal Springs Ranch, should not be adversely impacted. Restrictions should be placed on the creation of potential access to

private ranch property from the open space indicated on the site plan west of CR 109.

- 5.2(A) To ensure that wildlife habitat is a component of the review process and reasonable mitigation measures are imposed on projects that negatively impact critical habitat;**

The Colorado Division of Wildlife (DOW) Wildlife Resource Inventory System and the Garfield County Geographic Information System (GCGIS) was utilized by the applicant to determine the potential impacts to wildlife by the proposed development. No Blue Heron or Bald Eagle habitat was identified along river corridor. The proposal calls for preservation, through dedicated open space, of the entire river frontage areas affected by the development. DOW and the applicant have created the following conditions which have been integrated into the PUD.

- 1. Coryell Ranch Lots 1- 6 will have a 50 foot setback from the top of the slope above the Roaring Fork river. Landscaping will be permitted to the top of the slope.**
- 2. Coryell Ranch Lots 7 - 12 will a 75 foot setback from the back of each lot line. Landscaping will be permitted to the lot line.**
- 3. River access will be year round, with access restricted to designated areas December through March. The 2 designated points of accessing the fisherman's easement are indicated on the Public Access Plan (Exhibit 7) and are located at the southeast and southwest corners of the site.**
- 4. The river park area will be closed to snowshoes, cross county skiers, etc, from December through March.**
- 5. Fencing shall comply with all DOW requirements.**
- 6. No livestock shall be permitted in the subdivision.**
- 7. There will be allowed only one dog per dwelling unit with kennel restrictions. Homeowners will be encouraged to keep cats inside.**
- 8. No development on the north side of CR 109 with the exception of a water tank and an access road.**
- 9. Every effort will be made to minimize damage to vegetation when water and sewer lines are installed across the river.**
- 10. The bike path shall be placed on the south side of CR 109**

11. **Wildlife brochures shall be given to all property owners at closing.**
12. **The DOW will not be held liable for wildlife damage to landscaping or plants.**
13. **Homeowners shall be responsible for disposal of wildlife carcasses which may happen on their property.**
14. **Proper permitting and licensing shall occur in habitat enhancement and trout stocking within private ponds.**
15. **The timing of the Roaring Fork River sewer line crossing should be timed to protect the Brown Trout egg population. DOW recommends that the construction take place ideally on April 1, but if flows are too great a second alternative is the last week in November through the first week in December. All precautions should be undertaken to minimize silting of the river.**
16. **The equestrian easement shall coincide with the existing trail access rather than create a new trail.**

5.3(A) That the development of passive and active trails in the County should be developed in a comprehensive fashion, consistent with efforts by adjacent jurisdictions;

The Development of the bike trail and any other trail should coincide with Carbondale's comprehensive bike path plan.

POLICIES:

5.1(A) All projects approved adjacent to existing agricultural uses shall be required to mitigate any adverse impacts. These mitigational measures shall include some or all of the following:

- a) **Appropriate buffering of building envelopes from common property boundaries;**
- b) **The use of open space to provide additional buffering;**
- c) **Dog restrictions, including limiting the number of dogs and requiring kenneling, prior to issuance of a Certificate of Occupancy.**

The application complies with all above-named mitigational measures.

5.2(A) Developers proposing projects located in areas defined as critical habitat by the Colorado Division of Wildlife Resource Information System (WRIS) will be required to propose mitigational measures during the submittal of proposed projects. Mitigational measures shall include the following:

- a) Fencing and dog restrictions consistent with DOW recommendations;
- b) Avoidance of critical portions of the property, through the use of building envelope restrictions or cluster development concepts;
- c) conservation easements.

The application complies with all above-named mitigational measures.

6.0 AGRICULTURE

GOAL: To ensure that existing agricultural uses are allowed to continue in operation and compatibility issues are addressed during project review.

OBJECTIVES:

- 6.1 Ensure the compatibility of development proposals with existing farms and ranches.

The Crystal River Ranch is located adjacent to the property west of County Road 109. The applicant has indicated that this area, due to slope will be open space. Given the distance between each use, the proposal appears to be compatible.

- 6.2 Ensure that active agricultural uses are buffered from higher-intensity adjacent uses.

See previous comments.

- 6.3 Developments adjacent to agricultural uses should be reviewed in a manner that allows for flexibility in resolving compatibility conflicts with adjacent uses.

The potential exists for a conflict between open space users and the Crystal River Ranch. The access way to the water storage area could provide a trail. The remaining slopes are too steep for access. The storage tank easement should not be a public access way.

7.0 WATER AND SEWER SERVICES

GOAL: To ensure the provision of legal, adequate, dependable, cost effective and environmentally sound sewer and water services for new development.

OBJECTIVES:

- 7.1 Development in areas without existing central water and sewer service will be required to provide adequate and safe provisions for these services before project approval.

Domestic Water: The applicant is proposing to utilize the Coryell Ranch Well No. 13, serving a centralized water system. The application indicates that the maximum daily requirement will be 53 gpm. The pump test conducted on the well indicates that yield in excess of 1,000 gpm are possible. Staff had concerns that the current water storage at 200,000 gallons will not be sufficient for fire protection or for caretaker units as anticipated in the application. The caretaker units were removed from the application prior to the Planning Commission hearing.

Wastewater Treatment: A pre-inclusion agreement exists between the applicant and the Roaring Fork Water and Sanitation District for sanitation service. The District has the ability to serve the needs of the development.

- 7.4 Development will be required to mitigate the impact of the proposed project on existing water and sewer system.

Please Refer to the Preliminary Plan water and wastewater section of the staff report.

8.0 NATURAL ENVIRONMENT

GOAL: Garfield County will encourage a land use pattern that recognizes the environmental sensitivity of the land, does not overburden the physical capacity of the land and is in the best interests of the health, safety and welfare of Garfield County.

OBJECTIVES:

- 8.1 The County of Garfield reserves the right to deny a project based on severe environmental constraints that endanger public health, safety or welfare.

The applicant appears to have mitigated, to the greatest extent possible, the majority of environmental constraints through logical site planning and engineering. Portions of the lots are located on areas with moderate soil hazards.

- 8.2 Proposed projects will be required to recognize the physical features of the land and design projects in a manner that is compatible with the physical environment.

The site design identifies all physical features, including topography, geology, vegetation, view sheds, adjacent development and wildlife.

- 8.3 Garfield County will ensure that natural drainages are protected from alteration.

The design proposes surface diversion into existing ditches and into three storage ponds. Care has been taken to minimize potential sedimentation impacts to the river. It appears that the drainage system as proposed is adequate.

- 8.4 River-fronts and riparian areas are fragile components of the ecosystem and these areas require careful review in the planning process.

The applicant has developed a series of open space and a conservation easement to protect fragile river areas. No permanent structures are proposed besides the sewer line river crossing.

- 8.5 Development proposals will be required to address soil constraints unique to the proposed site.

The application indicates development areas with mild to moderate soil constraints. Building envelopes defined by setbacks have been included to mitigate these conditions.

- 8.6 Garfield County will ensure that natural, scenic and ecological resources and critical wildlife habitats are protected.

The Division of Wildlife and the applicant worked extensively to ensure that the potentially impacted habitat and other sensitive areas have been protected.

- 8.7 Development will be encouraged in areas with the least environmental constraints.

The Midland Point portion of the PUD falls within a potential mudflow/debris hazard area. The proposed berm mitigation method may control a flow event. It should be noted that no matter how extensively engineered, a potential for slope failure and resultant property damage will always exist.

IV. MAJOR ISSUES AND CONCERNS

A. Subdivision Regulations.

Planned Unit Development: As defined and regulated under Section 10:00 Planned Unit Development, the applicant is required to comply with the requirements of both the Subdivision Regulations and the PUD Section (Section 4.00) of the Garfield

County Zoning Resolution. The applicant is requesting simultaneous review of a PUD rezoning application and a Preliminary Plan as provided for by Section 3:00 of the Zoning Resolution.

Design and improvements standards for the planned unit development are defined in Section 4:00 of the Zoning Resolution. Because the application is for both a rezoning and a preliminary plan review, the application is required to meet not only the design standards set forth in Section 4.00 of the Zoning Resolution, but also the standards found in Section 10:00 of the Subdivision Resolution.

If there is a conflict regarding *design and improvements standards* for a PUD subdivision between requirements of the Subdivision Resolution and Section 4.00 of the Zoning Resolution, the standards established by these Regulations in *the Subdivision Resolution shall control*. If there is a conflict regarding *land use or development*, the standards and specifications of the PUD section of *the Zoning Resolution shall control*.

- B. **Zoning:** The purpose of a PUD is to permit greater design flexibility and, consequently, more creative and imaginative design for development than generally possible under conventional zoning and subdivision regulations. It is intended that PUDs shall be planned to insure general conformity, both in substance and location, with the goals and objectives of the master/comprehensive plan through integrated development.

Applications for Planned Unit Development zoning may be made for land located in any zoning district. The site is located within the Agricultural/Residential/Rural Density (A/R/RD) zone district.

- C. **Vehicular Impacts:** Legal access will be provided by two access points along County Road 109. Two parking areas are proposed for the fisherman's access areas located on the northwest and south ends of the site.

Parking: Four off-street parking spaces per unit are proposed for the Coryell Ranch portion and two parking spaces are proposed for Midland Point. The proposal is consistent with County standards.

Traffic Generation: A traffic impact analysis prepared by Felsberg Holt & Ullevig FHU Reference # 99-022 and dated 2/99 has been provided by the applicant. The report outlines two traffic scenarios, long and short range future traffic impacts. The Short range analysis analyzes traffic impacts for the year 2001, while the long range forecasts projections to 2020. The study was conducted using the methods defined in the Highway Capacity Manual, Transportation Research Board, Third Edition, 1985 (Updated 1997). The result of the study is a Level of Service (LOS) Rating. The LOS rating is a qualitative assessment of traffic flow based on the total delay per

vehicle at a controlled intersection. Level of service designations are described by a letter designation ranging from A to F, with LOS A representing uninterrupted flow and LOS F representing a breakdown of traffic flow with excessive congestion and delay.

The following summary outlines the projected traffic impacts:

1. By the year 2001, the signalized intersection of SH 133/Main Street, and the unsignalized intersections at CR 108/CR 109 and the two site access/ CR 109 are expected to be at a LOS B or better during both the AM and PM peak hours.
2. By the year 2020, the signalized intersection of SH 133/Main Street is projected to operate at a LOS D or better during both the AM and PM peak hours; at the unsignalized intersections, it is expected that the critical movements will operate at a LOS A during both the AM and PM peak hours.
3. The Coryell Ranch development is expected to increase the volume of traffic traveling through the intersection of SH 133/ Main Street by less than 3 percent relative to existing traffic volumes and by less than 2 percent relative to the projected 2020 traffic volumes.
4. Relative to existing volumes, traffic along the CR 108 approach from the west to SH 133 is projected to increase by 11 percent as a result of the additional Coryell Ranch trips. This is significantly less than the 20 percent criterion stipulated in the State Highway Access Code which requires a new access to be obtained.
5. At the intersection of SH 133/Main Street in the year 2020, comparing background traffic delays (traffic through the intersection, not including site generated traffic volumes) and total traffic delays (background traffic volumes plus site generated traffic volumes) the addition of the Coryell Ranch development traffic to the intersection is expected to increase the total daily per day volume through this intersection by less than one second per vehicle during both the AM and PM peak hours comparing delays.

Road Impact Fee: The applicant has submitted an estimated fee of \$122.00 per lot, based upon the existing road impact fee structure adopted by the Board.

- D. **Water:** Section 4:91 requires that a water supply plan, be submitted. Resource Engineering has supplied a water supply plan with the application. The plan meets the technical requirements for Preliminary Plan. The following summary details the report:

Water Supply: The Coryell Ranch Well No. 13 is located on the cul-de-sac at the end of Coryell Ranch Road. A well permit, No. 51447-F has been issued for the well. The permit allows for a maximum pumping rate of 112 GPM and is limited for the service of 75 single family dwelling units and the irrigation of not more than 51,500 square feet (1.18 acres) of garden and lawn. Annual ground water depletion is limited to 38.12 AF (12,420,000 gallons).

The Augmentation is via a water allotment contract/lease with the West Divide Water Conservancy District (Contract #990220CRC(a)) activated 1/28/99. The contract indicates an augmentation of 38.12 acre feet. As indicated on page 2 of the contract, states "It is understood that any quantity allotted from the direct flow, storage or otherwise, to the Applicant by the District will be limited by the priority of the District's decrees and by the physical and legal availability of water from District's sources. Any quantity allotted will only be provided so long as the Applicant fully complies with all of the terms and conditions of this contract/lease." The zoning regulations require that a subdivision have a legal and adequate water supply in perpetuity. The previous language requires the applicant to maintain a contract in perpetuity too. The homeowners association needs to have control of the water rights immediately.

The applicant has filed a water rights plan for augmentation Case No. 98CW310 and anticipates a decree in 1999. The plan anticipates the existing senior irrigation water and West Divide Water Conservancy District for all augmentation of the Coryell Ranch Well # 13. The applicant has indicated that after the decree is entered, the contract water will be used to augment in-house domestic depletions when Avalanche Canal and Siphon is out of priority, and to augment evaporation from the Aspen Glen Lakes nos 1 through 3 during the non-irrigation season. Dry up credits from the Southard-Cavanaugh and Kaiser-Sievers are anticipated for augmentation of evaporative losses during the irrigation season. Anticipated augmentation requirements at full build-out will be 7.47 AF annually, with 5.2 AF is attributable to evaporation loss and 2.27 AF of domestic in-house use.

The County considers an adequate source of water to be an average or no less than 3.5 people per dwelling unit, using 100 gallons of water per person, per day.

Water Treatment: Section 9:51 requires that an adequate potable and irrigation water supply be available to all lots within a subdivision, taking into consideration peak demands to service total development population, irrigation uses, and adequate fire protection requirements in accordance with recognized and customary engineering standards. The Colorado Department of Public Health & Environment has determined that the only treatment required for the Coryell Well #13 is disinfection. The proposal calls for Chlorination to treat the water. A well pump station is proposed

Water Storage: The water system will be served by a 200,000 gallon above-ground storage tank located west of CR 109 in the Utility Zone District identified within the open space area. The application indicates the following usage projections:

Equalization

Use of 25 % of Maximum Day Demand

$$0.25\% \times 534 \text{ gpm} \times 1440 \text{ min/day} = 19,080 \text{ gallons}$$

Fire

Use 1000 gpm fire flow for a 2-hr. Duration

$$1000 \text{ gpm} \times 2 \text{ hrs} \times 60 \text{ min/hr} = 120,000$$

Emergency

Use 2 x Average Day Demand

$$2 \times 21 \text{ gpm} \times 1440 \text{ min/day} = 60,480 \text{ gallons}$$

Estimated Required Storage: 199,560 gallons.

The county standard for water use has been an estimation of 350 gallons per residential use per day. This assumption is based on an average of 3.5 people using 100 gallons per day. The project will generate a total of 72 dwelling units.

County Estimation

Use 350 gal per house hold per day

$$350 \text{ gal} \times 72 = 25,200 \text{ gallons}$$

$$\text{Emergency Flows } 2 \times 25,200 = 50,400$$

This estimation is much cruder than the equalization method. The discrepancy is a matter of accuracy. It has been noted that the proposed storage capacity will limit the average square foot per dwelling unit to 3,600 square feet due to a lack of emergency pressure for larger units.

Distribution System: The delivery system is proposed to consist of a 200,000 gallon storage tank with a 10" transmission line connecting to a network of 8" distribution lines with 1" service lines. The system is designed to provide 1,000 gpm at 20 psi throughout the system. Normal system pressures will range from 35 to a maximum of 75 psi, depending on water tank surface levels.

Raw Water Irrigation: The Coryell Ranch portion of the PUD will be served by existing raw water in the Southard-Cavanaugh and Kaiser-Sievers ditches. It is assumed individual pump stations will be placed for each lot. Flow restriction meters should be installed to ensure proper draw.

The Midland Point portion of the PUD is to be served by a pressurized raw water delivery system. A pump house located near the intersection of Midland Point Road

and CR 109 will deliver a maximum flow of 220 gpm at a total dynamic head of 60 feet. A variable frequency drive will be installed to meet actual demand at any given time. A looped delivery system consisting of a 6" main flowing to a network of 4" secondary lines and 3" lines serving individual units. Each house tap will have an electronic valve for service and check valves will be installed on the secondary lines for maintenance and purge as may be required.

Ownership & Financing: The system as proposed is intended to operate as an independent system. The system has been designed to the standards of the Roaring Fork Water & Sanitation District and an easement will be provided for a potential future connection. The applicant intends to construct and bear the total costs for installation of the system. All facilities are intended to be conveyed to the homeowners associations. The Roaring Fork Water & Sanitation District has been approached by the applicant as a potential future service provider who could take over operations of the proposed system if desired by the homeowners associations. A service plan amendment to the Roaring Fork Water & Sanitation District would be required and to date, no such request has been received.

- E. **Wastewater:** The application has provided a sanitary sewage disposal plan summarized as follows:

Wastewater Collection: The applicant is proposing to centrally collect wastewater and transfer the effluent via a lift station across the Roaring Fork River to the Roaring Fork Water and Sanitation District's wastewater treatment facility located in the Aspen Glen PUD. Wastewater will be collected through a series of 8" sanitary sewer lines located either in the streets or in easements located along the sides or in the rear of lots. Interceptors and collection systems have been designed to flow at a maximum depth of one half full. Manhole spacing has been limited to 400 feet. Sanitary service laterals are proposed to be 4" lines entering the mains at wye connections.

Treatment: The Roaring Fork River to the Roaring Fork Water and Sanitation District's wastewater treatment facility was permitted in 1994. The service plan anticipated service to the Coryell and will allow for the 72 additional EQR proposed by the project. A pre inclusion agreement (Appendix I) has been provided by the applicant which sets forth the terms and conditions upon which all of the Coryell Ranch PUD will be annexed into the District.

Ownership & Financing: The applicant intends to bear all costs of installation of all wastewater infrastructure. Upon completion of the project, the applicant will

convey and dedicate all facilities to the Roaring Fork Water & Sanitation District.

- F. **State Health Standards.** The Colorado Department of Health regulates the Roaring Fork Water & Sanitation District wastewater facility. The plant is currently operating under Discharge Permit # CO-0044750.
- G. **Drainage:** The application addresses (Pgs. 60-65) both on and off site drainage impacts and the methods of mitigation employed. For specific drainage element specifics please see Pg. 63.

Off Site: Three major areas comprise the potential off site impact areas, the Roaring Fork and Crystal rivers, the basins southwest of CR 109 and existing irrigation ditches. Impacts to the rivers are addressed by the applicant, who has indicated that there will be no residential development in the flood plain area. The placement of the sanitary sewer force main link to the Roaring Fork Water & Sanitation District and construction of a pond are the only floodplain alterations proposed. The County Engineer has commented on the design of the force main and river crossing be encased in a reinforced system of steel or concrete to prevent any future potential for erosion or leakage. The applicant has further indicated that there will be no permanent fill in the floodplain. Construction of the force main will require a nationwide Army Corps of Engineers Permit.

Basins: The proposal calls for the placement of new culverts under CR 109 south and west of the road to allow for minor tributary flows to be diverted into the Kaiser-Sievers Ditch and conveyed northward. One exception is a proposed 36" culvert to be located near the diversion berm constructed by Garfield County following the 1998 slope failure across CR 109. The culvert would allow increased drainage flows created by re-contouring caused by the failure to be diverted directly across the proposed development rather than being diverted into the Kaiser-Sievers Ditch and conveyed northward.

Overflow controls are proposed for the Kaiser-Sievers Ditch to allow for substantial rises in the water elevation due to either blockage or increased runoff. This water would be diverted into the Coryell Ranch drainage system.

Ditches: Two major irrigation ditches currently exist on site; the Kaiser-Sievers Ditch and the Southard-Cavanaugh Ditch.

The Kaiser-Sievers Ditch is decreed for 22.4 cfs and originates at the Crystal River entering the site on the southern portion of the property. The following changes to the ditch are proposed:

The intersection of County Road 109 and the proposed Coryell Ranch Road will

require a culvert.

An overflow/turn-out structure is proposed to intercept the previously mentioned debris fan drainage and a separate overflow/turn-out structure is proposed for the intersection of CR 109 and Midland Point road. Many sections of the ditch will require culverting given the proposed CR 109 design.

The Southard-Cavanaugh Ditch also originates from the Crystal River and is decreed for 12.4 cfs. Historical flows in the ditch exceeded the current decreed flowage and will require placement of an overflow/turn-out structure to reduce flows through the southern entrance to the project. The ditch will require extensive piping and rerouting including up-sizing of pipe diameters north of the overflow/turn-out structure to carry potential increased flows created by runoff from overflow of the Kaiser-Sievers Ditch.

On-Site: The Coryell Ranch Drainage Plan primarily utilizes dual purpose drainage elements for raw water irrigation and storm water runoff flows. The application represents that due to the lower overall density of the project the proposal will produce less runoff than typical development. All elements were designed for a 25 year peak flood event and 100 year events were checked to ensure that there would be no resultant property damage due to such an event.

Quality: The application includes a Stormwater Quality Plan intended to protect wetland and riparian areas as well as water quality in the Roaring Fork and Crystal rivers. The plan calls for runoff to be routed through several large ponds where sedimentation can occur prior to further discharge. The Colorado Geological Survey has noted that two of the ponds do not lie within mapped subsidence depression areas and may be subject to hydrocompression due to compaction from wetting. Standing water may exacerbate water introduction into the evaporitic bedrock and increase rates of dissolution and subsidence. If the ponds are to be lined, their design should accommodate minor settlement. The application indicates that channel linings on steep slopes and at culvert outlets will be used to prevent scour.

Temporary erosion controls will be used during construction as required by the County in accordance to typical mitigation requirements as defined in a Subdivision Improvements Agreement.

H. **Soils & Geology:** The Subdivision Resolution requires that information be provided in the application:

Geology: The applicant has submitted a description and illustration by CTL Thompson, consulting engineers (Job No. GS-2647 Part II) which details the bedrock lithology and the stratigraphy of overlaying unconsolidated materials and indicates

potential development problems resulting from groundwater, subsidence, instability in road excavations and fills, expansive soils, drainage patterns and structural bearing strength. The report indicates the following summary conclusions:

CTL discovered no geologic or geotechnical constraint that would preclude the planned site development. The report indicates that the subsoil conditions are in general, favorable for the proposed residential development. Areas of potential geologic hazards have been identified and are discussed in Job No. GS-2647 Part I.

The applicant included the results of Part I into the site design to mitigate through the placement of open space and easement areas potential geologic hazards.

The boring and pit tests performed by CTL penetrated a surficial mantle of organic sand and clay underlain by dense to very dense, moist, silty to clayey gravels with cobble and bolder with thin to moderately thick lenses of medium dense to dense, silty to clayey sands with gravels and occasional cobbles. A 3.5 foot thick and 1 foot thick layer of silty to sandy clays were found in test hole 3 and test pit 4, below the organic soils, above native gravels. (See Appendix F, Geotechnical)

CTL determined that the natural clays are moderately compressible and that the natural gravels and sands possess a low consolidation potential.

CTL anticipates the recommended use of spread footings placed on native gravels for the majority of parcels within the PUD. Extending of footing excavation to gravels and sands and replacement with structural fill built with on site gravels or sands may be recommended where clays are found at footing elevations. CTL recommends that detailed soils and foundation investigations should be performed on a lot by lot basis to determine the appropriate foundation type and to develop design criteria.

CTL's preliminary data indicates concrete slabs-on grade floors placed on gravels or sands will perform satisfactorily if the soils below slabs are not wetted. Where clays occur at floor subgrade elevation it may be recommended to remove and replace the upper 1 to 2 feet of the clay with granular structural fill.

CTL has determined that the gravels and sands will provide good subgrade support for pavements and were found at planned subgrade elevations should result in economical, minimal thickness pavement sections. Thicker pavements or removal of 12 to 18 inches of clay and replacement with gravels and sands may be recommended in those areas where clays were found at planned subgrade elevations.

CTL has determined that control of surface drainage is important to the performance of foundations and interior and exterior slabs-on-grade. Surface drainage should be designed to provide rapid removal of surface runoff away from buildings and roads.

Soils: The applicant has included a National Cooperative Soil Survey, from the U.S.D.A. Soil Conservation Service, and has included a table of interpretations as required. Please see Exhibit 21 and Pg.57. The 6 soils types identified in the report describe the three distinct areas of the property. The steep slopes to the west comprise Almy and Tridwell-Brownsto Loams commonly found on slopes of 1-12% and 12-50%. The central portion of the site running north to south is comprised of Evenston Loam and Atencio-Azeltine Complex found on slopes of 6-25% and 3-6%. The lower river wetland and riparian areas are made up of Fluvaquents found on slopes of 0-10%. The applicant has determined through studies of far greater detail the portions of the property which are most suited for development. Please See Appendix F.

Geologic Hazards: The Subdivision Resolution requires that land subject to identified natural hazards, such as falling rock, land slides, snow slides, mud flows, radiation, flooding or high water tables, shall not be platted for any use other than open space or an uninhabitable portion of a lot over two (2) acres, unless mitigation is proposed by a Colorado registered professional engineer qualified to do such design. The applicant has provided a mitigation plan for deflection of debris flows which could potentially prevent another debris flow event from occurring across CR 109.

- I. **Fire Protection:** The property is located within the Carbondale & Rural Fire Protection District. The District has noted that emergency response would come from Station 1 in Carbondale and Station 4 located on CR 154. The District believes the road layout is adequate for fire apparatus.

The District would like to see uniform and sequential addressing for the entire PUD and that the developer submit an addressing plan to County for review by the appropriate emergency response agencies.

The District finds that the proposed 200,000 gallon storage tank will deliver fire flows of 1,00 gpm. The Uniform Fire Code (UFC) requires a minimum fire flow of 1,000 gallons for a 3,600 square foot one and two family dwelling. If structures in excess of this size are to be developed, additional capacity will be required at the rates set forth in the UFC Appendix III-A: Fire Flow Requirements for Buildings and with fire hydrant locations in accordance with UFC Appendix III-A: Fire Hydrant Location & Spacing .

- J. **Vegetation:** The application includes a map and description of plant associations and indicates that the property consists of four distinct vegetation types. The area south of CR 109 is comprised of pinon-juniper with an understory of Bunch, Indian and Winter Wheat and other native grasses. The lower slope east of CR 109 is characterized by introduced and native grasses typical of once-productive agricultural lands. The wetland and riparian areas along the Crystal and Roaring Fork rivers are

dominated by Cottonwood, Willows, Service Berry and isolated stands of Choke Cherry and Douglas Fur. Cottonwood have migrated along portion of both ditches creating isolated stands.

The application also indicates that the site plan intends to minimize disturbance of natural vegetation and to preserve the existing vegetation. Disturbance is anticipated only for the placement of the water tank and access road west of CR 109. Please see Exhibit 22, Vegetation and Pg. 58.

- K. **Wildlife:** The Colorado Division of Wildlife (CDOW) Wildlife Resource Inventory System and the Garfield County Geographic Information System (GCGIS) was utilized by the applicant to determine the potential impacts to wildlife by the proposed development. No Blue Heron or Bald Eagle habitat was identified along river corridor. The proposal calls for preservation, through dedicated open space, of the entire river frontage areas affected by the development.
- L. **Road Impact Fees:** Section 4:94 requires that off-site road impacts be evaluated for subdivisions through the completion of a traffic study identifying the volume of traffic generated from the development, based on Trip Generation Rate calculations utilizing the most current Institute of Traffic Engineers, Trip Generation Manual, to establish an Average Daily Traffic (ADT). The road impact fee is established by entering the applicable data identified in the Road Impact Fee calculation Work Sheet.
- M. **Natural Environment / Open Space:** The Subdivision Regulations require that development plans shall preserve, to the maximum extent possible, natural features such as unusual rock formations, lakes, rivers, streams and trees. Where appropriate, the subdivider may be required to dedicate lands to lot owners to preserve these features. In no case can lots be designed such that a dwelling unit will be located closer than thirty feet (30') to a live stream, lake or pond, regardless of the fact that floodplain regulations may allow dwelling units located closer in some instances. The applicant has included appropriate setbacks from all proposed ponds, and is respecting the 100 year floodplain boundary.

The Subdivision Regulations also require that public access and/or fishing easements to lakes, rivers and streams shall be provided as a part of any development proposal where it is determined to be appropriate by the Board of County Commissioners. The applicant is providing a public 10' fishermen's easement to the Roaring Fork river with two points of access and parking and also providing a 6.2 acre conservation easement along the Crystal river. A bike path, separate d from CR 109 is also proposed.

Internal private open space is also proposed for the project. The design avoids development in areas of significant wildlife and riparian habitat as well as view

corridors. Areas of significant slope and areas of severe soil hazards have also been included. Total open space dedication for the project is approximately. 144.785 representing 55.8 percent of the entire property. The Zoning Resolution requires twenty-five percent (25%) of the total area within the boundary of any PUD be devoted to Common Open Space, which this application meets.

The Board, upon consideration of county land use, circulation and public facilities, the future requirements due from impacts created by the proposed subdivision on the RE-1 school district, can require the applicant to provide sites and land areas or cash -in-lieu suitable for schools and parks when such are reasonably necessary to service the proposed subdivision. It has been the practice of the County to only require a \$200 per lot created fee. The County is considering the adoption of a new formula based on a request by the RE-1 School District.

All maintenance of open space will be the responsibility of the Homeowner's association with the exception of the conservation easement, that is the responsibility of the Roaring Fork Conservancy.

- N. **Lot Design:** The Zoning Resolution requires that lot size, width, depth and shape shall be appropriate for the type of development proposed and shall meet or exceed the minimum lot size requirements of the Garfield County Zoning Resolution or PUD regulations which the applicant has complied with. The following lot restrictions by zone are as follows:

Low Density Residential Zone District- (LDR Zone)

Minimum Lot Area: Two (2) acres

Floor Area Ratio: .25

Minimum Setback: Front 35 feet, rear 35 feet, Side Yard = 10 feet or ½ height of principal building, whichever is greater

Corner Lot Minimum Site Yard Abutting Private Street: 20 feet from roadway right-of-way

Minimum Lot Depth: 200 feet

Minimum Lot Width: 100 feet (at building setback)

Medium Density Residential Zone District- (MDR Zone)- Midland Point

Minimum Lot Area: 13,000 square feet

Maximum Floor Area Ratio: .25

Minimum Setback: Front 30 feet, Rear 20 feet, Side Yard = 10 feet or $\frac{1}{2}$ height of principal structure, whichever is greater

Corner Lot Minimum Site Yard Abutting Private Street: 20 feet from roadway right-of-way

Minimum Lot Depth: 80 feet

Minimum Lot Width: 110 feet (at building setback)

The Zoning Resolution also requires that Corner lots for residential use shall have extra width to permit the required building setback from both roads which the applicant has provided for.

- P. **Streets & Roadway Design:** The roadways within the PUD are designed as two separate systems with The primary access to both Midland Point and to the Coryell Ranch having separate entrances on CR 109. The roadways in the Coryell portion serving the larger estate lots will have gravel shoulders with drainage swales while the Midland Point portion will have sidewalks, curb and gutter. Typical road profiles indicate 3" asphalt cap over 6" Class 6 aggregate base course. In areas of moderate subsidence risk, a 3 foot sub excavation and placement of compacted granular structural fill will be utilized to mitigate this potential hazard.

All roads in the subdivision have been designed in accordance with Garfield County Roadway Design Standards contained in Section 9:35 of the Subdivision Regulations. Typical turn radii are 25 feet at intersections and cul-de-sacs. Due to the lack of slope on the property, no significant cut and fill will be required.

Section 9:32.4 requires that Cul-de-sacs and dead end streets may be designed under the following circumstances:

- A. Cul-de-sacs may be permitted provided they are not more than six hundred feet (600') in length and have a turnaround radius of not less than forty-five feet (45') from the center of the cul-de-sac to rad edge and fifty foot (50') right-of-way for residential development and not less than seventy-five foot (75') right-of-way for commercial/industrial development where tractor trailer trucks will enter the property or by providing a T-shaped turnaround with a minimum turning radius of fifty feet (50') for residential development and seventy-five feet (75') for commercial/industrial development where tractor trailer trucks will enter the property. **The Board may approve longer cul-de-sacs for topographical reasons** and it can be proved that fire protection and emergency egress and access is provided as a part of the longer design.

The PUD regulations allow for an applicant to request a variance from design standards required by code. The applicant is requesting a variance to this standard. Stonefly Road, which extends from Coryell Ranch Road to the western reaches of the property, exceed the 600 foot limitation. The applicant has provided an emergency access easement from the western edge of Stonefly Drive cul-de-sac to an existing road which is located on the western edge of the property that connects CR 109 with near the bus turn around.

The request can only be allowed if emergency access and egress are provided and for topographical reasons. The applicant has provided a proposed 25' wide emergency between the Midland Point and Coryell Ranch portions of the development.

The applicant is proposing that all streets within the PUD be private in nature, subject to appropriate easements for access by emergency service vehicles and personnel. No gates are planned for either portion of the PUD. All maintenance of the roadways will be the responsibility of the Homeowner's Association.

- O. **Preliminary Plan:** The Preliminary Plan meets the minimum requirements of the regulations as indicated in Section 4:41.
- P. **Expansion Parcels:** Two parcels identified as the Kennedy and Tomcat Expansion Parcel, are to be transferred to the Respective Adjoining property owners. Transfer of these lands do not adversely affect the overall scope of the proposal.
- Q. **PUD Zoning:** The purpose of a PUD is to permit greater design flexibility and, consequently, more creative and imaginative design for development than generally possible under conventional zoning and subdivision regulations. The regulations require Zoning text to guide the development of the PUD and to ensure that the high quality of design which the process creates, will be enforceable by the County and will be maintained in all stages of the development's life.

The proposal details six criteria by which the site design was guided. The criteria are as follows:

1. The development scenario should be sensitive to the 100 year flood plain and associated riparian areas and avoid these areas to the maximum extent possible;
2. All building envelopes and road alignments should avoid site-specific geotechnical constraints to the maximum extent possible;
3. The Division of Wildlife guidelines and recommendations regarding wildlife constraints be included in the design process to ensure the protection of existing wildlife habitat;

4. Steep slopes should be avoided to minimize disturbance to natural vegetation and drainage patterns;
5. The project should include a mix of housing types, and integrate the necessary affordable housing mitigation requirements on-site if possible;
6. The lot design should incorporate a sensitivity to adjacent land uses and the goals of adjacent communities.

The Illustrative Site Plan (Exhibit B) has identified and mitigated the potential negative impacts to view-sheds, wetland and riparian areas, potential geohazard conflicts, comprehensive plan compliance and severe slope areas through placement of building envelopes, creation of open space and the siting of roads. The applicant is proposing five zone districts within the PUD. The Preliminary Plan submitted will also regulate the placement of houses but, all setbacks need to be included in the zone text

The following summary identifies the five districts:

1. Low Density Residential Zone District- (LDR Zone) - Coryell Ranch

Uses by right: Single Family residential uses plus accessory uses, including detached guest and/or caretaker's quarters; home occupation.

Uses, Conditional: None

Uses, Special: None

Minimum Lot Area: Two (2) acres

Floor Area Ratio: .25

Minimum Setback: Front 35 feet, rear 35 feet, Side Yard = 10 feet or $\frac{1}{2}$ height of principal building, whichever is greater

Corner Lot Minimum Site Yard Abutting Private Street: 20 feet from roadway right-of-way

Minimum Lot Depth: 200 feet

Minimum Lot Width: 100 feet (at building setback)

Maximum Height: Thirty Two (32) Feet

Minimum Off-Street Parking: = 4 spaces

2. **Medium Density Residential Zone District- (MDR Zone)- Midland Point**

Uses by right: Single Family residential uses plus accessory uses, except guest and/or caretaker's quarters; home occupation.

Uses, Conditional: None

Uses, Special: None

Minimum Lot Area: 13,000 square feet

Maximum Floor Area Ratio: .25

Minimum Setback: Front 30 feet, Rear 20 feet, Side Yard = 10 feet or $\frac{1}{2}$ height of principal structure, whichever is greater

Corner Lot Minimum Site Yard Abutting Private Street: 20 feet from roadway right-of-way

Minimum Lot Depth: 80 feet

Minimum Lot Width: 110 feet (at building setback)

Maximum Height: Twenty Five (25) Feet

Minimum Off-Street Parking: = 4 spaces

3. **Affordable Housing Zone District- (AH Zone)**

Uses by right: Deed Restricted, Appreciation-Capped Duplex and Single-family dwelling and customary accessory uses; home occupations

Uses, Conditional: None

Uses, Special: None

Minimum Lot Area: .25 Acres

Maximum Floor Area Ratio: .35

Minimum Setback: Front 25 feet, Rear 25 feet, Side Yard = 0 feet (Common Wall) or 10 feet for Single Family Lots.

Minimum Lot Depth: 125 feet

Minimum Lot Width: 85 feet

Maximum Height: Twenty Five (25) Feet

Minimum Off-Street Parking: = 2 spaces

4. **OPEN SPACE ZONE DISTRICT**

Uses by right: Open Space, Passive and Active Recreation, and typical open space accessory uses including but not limited to barbecues, shelters, gazebos and other uses not intended for residency

Uses, Conditional: None

Uses, Special: None

Minimum Lot Area: .10 Acres

Minimum Setback: None

Maximum Height: Twenty Five (25) Feet

5. **UTILITY ZONE DISTRICT**

Uses by right: Utilities, including but not limited to pump houses, lift stations, water tanks and access roads.

Uses, Conditional: None

Uses, Special: None

Minimum Lot Area: .10 Acres

Minimum Setback: None

Maximum Height: Thirty (30) Feet

Internal Compatibility: The Zoning Resolution recognizes that certain individual land uses, regardless of their adherence to all the design elements provided for in the code, might not exist compatibly with one another. During review, a proposed PUD is considered from the point of view of the relationship and compatibility of the individual elements of the Plan, and

no PUD should be approved which contains incompatible elements. The project contains a mix of residential lot sizes and housing types which appear to be compatible infernally and with adjacent uses.

Building Height: The Zoning Resolution provides for an increase above the maximum permitted for like buildings in other zone districts in relation to the following characteristics of the proposed building:

- (1) Its geographical location;
- (2) The probable effect on surrounding slopes and mountainous terrain;
- (3) Unreasonable adverse visual effect on adjacent sites or other areas in the immediate vicinity;
- (4) Potential problems for adjacent sites caused by shadows, loss of air circulation or loss of view;
- (5) Influence on the general vicinity, with regard to extreme contrast, vistas and open space; and
- (6) Uses within the proposed building.

The Building height in the Coryell Ranch portion of the PUD proposes a height of 32 feet, which is the same as the adjacent portions of the Aspen Glen PUD. The Midland Point portion of the PUD proposes a height of 25 feet the same as the adjacent A/R/RD zone district. The applicant has requested a variance to these requirements in the supplemental documentation submitted to the Planning Commission. The Planning Commission accepted the supplemental information, as being adequate to address the PUD requirements.

V. RECOMMENDED FINDINGS:

1. That proper posting and public notice was provided as required for the hearing before the Garfield County Board of County Commissioners.
2. That the hearing before the Garfield County Board of County Commissioners was extensive and complete, that all pertinent facts, matters and issues were submitted and that all interested parties were heard at that meeting.
3. That for the above stated and other reasons, the proposed preliminary plan is in the best interest of the health, safety, morals, convenience, order, prosperity and welfare of the citizens of Garfield County.
4. That the application is in conformance with the Garfield County Zoning Resolution of 1978, as amended, and the Garfield County Subdivision Resolution of 1984, as amended.

VII. RECOMMENDATION

The Planning Commission recommended APPROVAL of the PUD Plan and Zone District Amendment and the Preliminary Plan of the Coryell Ranch PUD, subject to the following conditions:

PUD ZONE REQUEST CONDITIONS OF APPROVAL FOR CORYELL RANCH

1. All representations made by the Applicant at the Public Hearing and in the Application shall be considered conditions of approval, unless specified otherwise by the Board including, but not limited to, the following items listed below.
2. That the development shall not occur in stages.
3. That the access road to the storage tank adhere to the revegetation and geotechnical plans (CTL Thompson report 29 January 1999) as submitted.
4. The maximum height of structures within the Coryell Ranch portion of the PUD is limited to thirty two (32) feet.
5. The maximum height of structures within the Midland Point portion of the PUD is limited to twenty five (25) feet.
6. The construction of all community facilities shall be undertaken in a single phase.
7. The PUD shall contain no fractional time ownership of any dwelling unit.
8. The PUD Plan as indicated as Exhibit 16, shall not be altered without County approval and full amendment review.
9. The maximum number of dwelling units within the PUD shall be seventy two (72) with sixty five (65) free market and seven (7) affordable units.
10. No commercial uses, other than those defined as Home Occupation, shall be permissive uses within the PUD.
11. The PUD Plan as indicated as Exhibit 16 shall prohibit, to the most reasonable extent, any access, either public or private to the islands identified north of Lots 1, 2 and 3 by covenant and signs on the islands.
12. The PUD Plan shall prohibit non-maintenance oriented access to the water tower access road south of County Road 109.

13. The applicant shall provide a more detailed single phase construction schedule, and shall file the final plats for both portions of the subdivision simultaneously.
14. The applicant shall adhere to the requirements and recommendation of the Engineering Report prepared by Schmueser Gordon Meyer, March 1999 as submitted in the application for the development of the preliminary plan.
15. The development and construction shall follow Best Management Practices and shall minimize to the extent possible, potential impacts to County Road 109 and to adjoining property owners.
16. The maintenance of open space, including public access areas shall be the responsibility of the Midland Point and Coryell Ranch Homeowners Association., but excluding the Conservation Easement which will be maintained by the Roaring Fork Conservancy,
17. The applicant shall compensate the County for retention of an independent geotechnical engineer to review and monitor all debris flow mitigation measure installations and all improvements affecting County Road 109 as identified in the CTL Thompson letter dated 3 March 1999 and as identified on the Master Drainage Plan.
18. The applicant shall place signs along the fisherman's easement north of the Lot 9 and the private open space, prohibiting open fires and littering.

PRELIMINARY PLAN CONDITIONS OF APPROVAL FOR THE CORYELL RANCH PUD

1. All representations made by the applicant at the public hearing and in the Application shall be considered conditions of approval, unless specified otherwise by the Board including, but not limited to, the following items listed below.
2. At final plat, the applicant shall make one (1) location on the northwest and one (1) location on the southeast end of the PUD available for public access for fishing, including improvement of the public parking area identified on the site plan.
3. The applicant shall adhere to the recommendations of the Division of Wildlife as indicated in the letters dated 2 May 1999 and 6 June 1999.
4. At the time of Preliminary Plan consideration by the Board of County Commissioners, the applicant shall provide proof of security for the sewer taps to be obtained from the Roaring Fork Water and Sanitation District.

5. The applicant shall pay the appropriate impact fees as determined by the Carbondale & Rural Fire Protection District prior to recording of a final plat. [Section 5:31 (H)]
6. The applicant shall pay fifty (50) percent of the appropriate road impact fees at the time of final plat approval with the remaining fifty (50) percent due at the time of issuance of a building permit. [Section 4:92]
7. The applicant shall pay the appropriate school site acquisition fee as determined by the RE-1 School District and adopted by Garfield County at the time of final plat approval. [Section 5:31 (H)]
8. All development shall conform with the water system design as set forth in the Coryell Ranch and Midland Point Water Supply Plan from Resource Engineering dated 3 March 1999. [Section 4:91 (B)] No dwelling shall exceed 3600 sq. ft., unless the water system becomes a part of the Roaring Fork Water and Sanitation District.
9. The Subdivision Improvement Agreement at the time of final plat shall compensate the County for retention of an independent geotechnical engineer to review and monitor all debris flow mitigation measure installations and all improvements affecting County Road 109 as identified in the CTL Thompson letter dated 3 March 1999 and as identified on the Master Drainage Plan.
10. The applicant shall adhere to the recommendations contained in the letters from the Colorado State Geological Survey dated 17 May 1999 and 18 May 1999.
11. At final plat, the design shall comply with the recommendations for mitigation of settlement and distress to buildings, roadways, and utilities as contained within the CTL Thompson report of 29 January 1999 and shall be adhered to during site construction. [Sections 4:60(E) and 4:70(A)]
12. The final plat, shall include a vicinity map from the U.S.G.S. quadrangle on the final plat map indicating the entire area of the PUD. [Section 4.50:E].
13. The final plat shall locate the proposed duplex structure building envelopes on the plan sheet [Section 9.20].
14. The applicant shall be responsible for the cost of developing the 10' wide bike path within the 15' wide easement on the preliminary plan.
15. The applicant shall post a letter of credit in an amount to be set by an engineers cost estimate to the satisfaction of the Board of County Commissioners prior to final plat.

16. Any proposed accessory structure as allowed by right in the Open Space Zone District, shall obtain written site approval from the Division of Wildlife, District Wildlife Manager.
17. The Roaring Fork River sewer line crossing shall be encased in a steel reinforced system (concrete or steel) to prevent any possible separation of sewage lines in the event of flooding, channel changes, or unforeseen erosion.
18. A more definitive description shall be added to the typical cross sections to assure that subgrade compaction or fill will be accomplished at 95% per ASHTO-180 and include the depth of this compactive effort.
19. At the time of final plat, the applicant shall provide evidence of the instrument through which the 6.29 acre conservation easement will be created and conveyed.
20. All covenants shall indicate that no permanent structures, including those structures physically connected to the primary building shall be permissive outside any approved building envelope within any residential zone district within the PUD.
21. The applicant shall indicate on the final plat the ten (10) foot fishermen's easement.
22. The final plat shall indicate the forty (40) foot access easement to the expansion parcels.
23. The existing access easements to the expansion parcels shall be abandoned at the time of final certification of completeness of subdivision improvements.
24. The applicant shall obtain all necessary access permits from the County Road and Bridge Department for access to County Road 109.
25. All on-site residential parking within the PUD shall be contained within the individual lots, except for the fisherman's easement parking areas.
26. All road design standards shall meet County Requirements and obtain County Engineer approval prior to final plat.
27. The final plat shall indicate all access to public rights-of-way and any proposed easements for setbacks, drainage, irrigation, access or utilities.
28. The applicant shall convey the seven (7) "affordable" units as indicated in the application to the appropriate entity at time of final plat.

29. The following Plat Notes shall be incorporated onto the final plat:

"Control of noxious weeds is the responsibility of the property owner."

"One (1) dog will be allowed for each residential unit within a subdivision and the dog shall be required to be confined within the owners property boundaries."

"No open hearth solid-fuel fireplaces will be allowed anywhere within an exemption. One (1) new solid-fuel burning stove as defined by C.R.S. 25-7-401, et. seq., and the regulations promulgated thereunder, will be allowed in any dwelling unit. All dwelling units will be allowed an unrestricted number of natural gas burning stoves and appliances".

"All exterior lighting be the minimum amount necessary and that all exterior lighting be directed inward, towards the interior of the subdivision, except that provisions may be made to allow for safety lighting that goes beyond the property boundaries".

" Site specific engineering may be required to mitigate potential hazards identified in the Preliminary Geotechnical Investigation for Coryell Ranch by CTL/Thompson, Inc. 29 January 1999, Job. No GS-2647, Part III."