



*Town of Carbondale
511 Colorado Avenue
Carbondale, CO 81623*

**AGENDA
PLANNING & ZONING COMMISSION
THURSDAY, DECEMBER 6, 2018
7:00 P.M. TOWN HALL**

1. CALL TO ORDER
2. ROLL CALL
3. 7:00 p.m. – 7:05 p.m.
Minutes of the November 15, 2018 meeting.....Attachment A
4. 7:05 p.m. – 7:10 p.m.
Public Comment – Persons present not on the agenda
5. 7:10 p.m. – 7:15 p.m.
Resolution 7, Series of 2018, approving Amended Site Plan for 1st Bank on Lot 5B,
Carbondale Marketplace.....Attachment B
6. 7:15 p.m. – 7:30 p.m.
PUBLIC HEARING –Minor Site Plan Review.....Attachment C
Applicant: Jordan Architecture Inc.
Location: 17 Maroon Place
7. 7:30 p.m. – 8:20 p.m.
UDC Modeling Discussion.....Attachment D
8. 8:20 p.m. – 8:30 p.m.
Pitkin County Referral – Well Storage.....Attachment E
9. 8:30 p.m. – 8:35 p.m.
Staff Update
10. 8:35 p.m. – 8:40 p.m.
Commissioner Comments
11. 8:40 p.m. – ADJOURN

*** Please note all times are approx.**

Upcoming P & Z Meetings:
January 10, 2019 - TBD

MINUTES
CARBONDALE PLANNING AND ZONING COMMISSION
Thursday November 15, 2018

Commissioners Present:

Michael Durant, Chair
Jeff Davlyn
Jay Engstrom
Marina Skiles
Tristan Francis (2nd Alternate)
Nicholas DiFrank (1st Alternate)
Jade Wimberley
Nick Miscione

Staff Present:

Janet Buck, Planning Director
John Leybourne, Planner

Commissioners Absent:

Ken Harrington
Marina Skiles

Other Persons Present

None

The meeting was called to order at 7:00 p.m. by Michael Durant.

October 25, 2018 Minutes:

Tristan made a motion to approve the October 25, 2018 minutes. Nicholas seconded the motion and they were approved with Nick & Jeff abstaining.

Public Comment – Persons Present Not on the Agenda

There were no persons present to speak on a non-agenda item.

Public Hearing – 1st Bank Revised Minor Site Plan Review

Janet presented the staff report noting the following items:

The Planning Commission approved a Minor Site Plan Review for 1st Bank in February of 2017.

After a building permit was submitted, Staff noted that there were some changes related to the building design. The changes were deemed substantial enough to bring back before the Commission at a public hearing.

Janet noted the main changes that included:

- Ø Exterior material on façade facing Highway 133 changed from stucco panels to weathered zinc

- Ø Roofline changed from a flat roof to an angled roof (weathered zinc) to accommodate solar panels
- Ø Changes in materials and design on north facade
- Ø Removing stone veneer from roof parapet walls and adding weathered zinc panel
- Ø Changes to window placement

Michael Hassig of A4 Architects presented the design of the proposed building noting the design of the original building was finished about two years ago. He noted that the changes to the design of the building were driven by a change in management at the bank. He stated that the bank wanted the structure to have more design features as it is to serve as the Roaring Fork Valley Headquarters for 1st Bank.

The Commission commented on the quality of the materials used, the better design features and that the drive through was not the focal point of the building and was situated away from the Highway 133 frontage.

Michael opened the public hearing, there was no public comment.

Jeff moved to close the public hearing with Jay seconding the motion. The motion was unanimous.

Jeff made a motion to approve the amended Site Plan for 1st Bank with the following conditions and findings:

Conditions

1. All development shall comply with the plans submitted on October 30, 2018.
2. All representations made by the applicant in the application and at the public hearing shall be considered conditions of approval.
3. All other conditions from the previous Planning Commission and Board approvals remain in effect.

Findings

1. The site plan is consistent with the Comprehensive Plan as the building is the focal point by being located closer to Highway 133, and there is and pedestrian/bike friendly feel while accommodating automobile access. The parking lot will be screened from Highway 133 by enhanced landscaping;
2. The site plan is consistent with the approved Carbondale Marketplace Subdivision Plat;

3. The site plan complies with all applicable development and design standards set forth in this Code; and
4. Traffic generated by the proposed development is adequately served by existing streets within Carbondale.

The motion was seconded by Nick and passed unanimously.

Review of Draft UDC Amendments

Janet noted that the amendments were a culmination of comments from the Board of Trustees, Town Staff, Boards and Commissions and the Public and that seven meetings had been held before the Planning Commission.

Janet presented the tracked redlines to the Commission and discussed the following changes:

- Page 140, 4.3.2 G #5, that the cap on density may not be needed. Also, should the common open space be included in this section?
- Page 184, 5.4.3 Verify that these are single stem trees.
- Page 205 5.6.7 C provide a list of standards or guidelines for the Old Town Residential District.
 1. Color and material
 2. Wall step back
 3. Setbacks for the upper floor
 4. Variations in roofline
 5. Transparent materials

Have language that allows the Commission to review and approve an application if the P&Z finds that the applicant has utilized the standards /guidelines.

Staff Update

Janet gave an update on the Main Street Market place application as it progresses through the review process at the Board level.

Commissioner Comments

Jade inquired if the lights at the teacher housing project were subject to our regulations.

John explained that technically the School district is exempt from out lighting codes but that in the past they have worked with the Town on lighting issues.

Nick noted that on April 9th Downtown Colorado Inc. would be in Aspen for a conference but would be touring the valley. They are planning on stopping at the teacher housing project.

Motion to Adjourn

A motion was made by Jeff to adjourn. Jay seconded the motion and the meeting was adjourned at 9:45 p.m.

DRAFT

RESOLUTION NO. 7
SERIES OF 2018

A RESOLUTION OF THE PLANNING AND ZONING COMMISSION OF THE TOWN
OF CARBONDALE, COLORADO, APPROVING A REVISED MINOR SITE PLAN
REVIEW FOR PROPERTY LOCATED IN THE TOWN OF CARBONDALE,
COLORADO

WHEREAS, a Minor Site Plan Review for a drive-through bank to be located on Lot 5B of the Carbondale Marketplace Subdivision, Carbondale Colorado, was approved by the Planning Commission at a public hearing on February 23, 2017; and

WHEREAS, after said public hearing, the applicant, A4 Architects on behalf of FirstBank Corporation, submitted revised building elevations for the bank; and

WHEREAS, the Planning Commission of the Town of Carbondale reviewed the revised elevations during a Public Hearing on November 15, 2018 and approved said changes on the terms and conditions set forth below;

NOW, THEREFORE BE IT RESOLVED BY THE PLANNING AND ZONING COMMISSION OF THE TOWN OF CARBONDALE, COLORADO, that the Revised Minor Site Plan Review are hereby approved, subject to the following conditions and findings:

Conditions of Approval

1. All development shall comply with the plans submitted on October 30, 2018.
2. All representations made by the applicant in the application and at the public hearing shall be considered conditions of approval.
3. All other conditions as set forth in Ordinance No. 7, Series of 2017, remain in effect.

Findings for Approval

1. The site plan is consistent with the Comprehensive Plan as the revised elevations add interest to the building and will incorporate the solar panels into the building's roofline. The proposed design appears to be in compliance with the building design standards in UDC Section 5.7.4. and 5.7.5.
2. The site plan is consistent with the approved First Amended Plat of Lot 5, Carbondale Marketplace Subdivision;

3. The site plan complies with all applicable development and design standards set forth in this Code; and
4. Traffic generated by the proposed development is adequately served by existing streets within Carbondale.

INTRODUCED, READ, AND PASSED THIS ____ day of _____, 2018.

PLANNING AND ZONING COMMISSION OF
TOWN OF CARBONDALE

By: _____
Michael Durant
Chair



TOWN OF CARBONDALE
511 COLORADO AVENUE
CARBONDALE, CO 81623

Planning and Zoning Commission Agenda Memorandum

Meeting Date: 12-6-18

TITLE: 17 Maroon Drive Minor Site Plan Review

SUBMITTING DEPARTMENT: Planning Department

Owner: David Jones, D. Richmond Jones

Applicant: Brad Jordan/Jordan Architecture LLC

Property Location: 17 Maroon Place

Zone District: Residential Low Density

Lot Size: 7830 square feet

Present Land Use: Single Family Residence

Proposed Land Use: Single Family Residence with attached ADU

ATTACHMENTS: Land Use Application

BACKGROUND

This is an application for a Minor Site Plan Review. The Commission is required to hold a public hearing and approve the application, deny the application or continue the public hearing.

The applicant is proposing to renovate the space above the garage into an accessory dwelling unit. This renovation will only require internal changes to the structure with no external changes to the existing home.

DISCUSSION

Under the UDC, a proposed ADU in the R/LD zone district must go through a minor site plan review before the Planning and Zoning Commission who will then issue a decision and findings on the application.

Comprehensive Plan

The property is designated as Developed Neighborhoods in the Future Land Use Plan.

Covenants

The covenants recorded with this phase of the Sopris Meadows Subdivision states:

“No building shall be erected, altered, placed or permitted to remain on any lot other than a one detached family dwelling not to exceed twenty-six (26) feet in height...”

Historically, Town staff has discouraged property owners in this neighborhood from pursuing approvals for ADUs because Staff didn’t want to go against the covenants.

Covenants are usually private agreements between the property owners in a subdivision. Recent developments have had covenants approved which allow the Town to enforce certain items but the covenants for Sopris Meadows do not include this clause. Staff concluded that the R/LD zoning, which allows ADUs as a conditional use, should be applied to this and future applications.

The covenants also discuss “detached” family dwelling. The intent is unclear. The proposed ADU is an attached ADU contained within the existing single-family dwelling. No exterior alterations or additions are proposed.

Zoning

17 Maroon Place is entirely within the R/LD zone district where an ADU is allowed by conditional use permit and a minor site plan review.

Square footage of ADUs shall be allowed as follows:

- a. Primary dwelling units that are 1,500 square feet or less shall have a minimum unit size of 300 square feet and a maximum unit size of 500 square feet.
- b. Primary dwelling units that are larger than 1,500 square feet-minimum unit size shall have a minimum unit size of 300 square feet and a maximum unit size of 33 percent of the total floor area of the primary dwelling unit, up to a maximum unit size of 850 square feet.

Based upon the above standards the ADU may be up to a maximum of 850 square feet. The proposed ADU is 595 square feet in size.

Setbacks

The required setbacks in the R/LD zone district have been met.

Maximum Impervious Surface

The allowed maximum impervious surface has been met at 29.93%.

Building Height

No changes in building height are proposed.

Parking

Section 5.8.3. of the UDC requires 2.5 parking spaces for the main dwelling, and 2 spaces for a ADU.

Two spaces are provided in the garage with an additional three spaces in front of the garage for a total of 5 parking spaces.

Landscaping

The landscaping is existing and will be improved once the main structure is complete.

Building Design

The proposed changes are internal and do not affect the building exterior.

Solar Access

Section 5.12 Solar Access discusses the provision of adequate light to allow solar access on adjacent properties.

The renovations to the structure do not affect solar access.

Site Plan Review Criteria

A site plan may be approved upon a finding that the application meets all of the following criteria:

1. The site plan is consistent with the Comprehensive Plan.
2. The site plan is consistent with any previously approved subdivision plat, planned unit development, or any other precedent plan or land use approval as applicable;
3. The site plan complies with all applicable development and design standards set forth in this code;

4. Traffic generated by the proposed development will be adequately served by existing streets within Carbondale, or the decision-making body finds that such traffic impacts will be sufficiently mitigated.

Findings for Approval - Site Plan Review Criteria

1. The site plan is consistent with the Comprehensive Plan.
2. The site plan is consistent with any previously approved subdivision plat, planned unit development, or any other precedent plan or land use approval as applicable;
3. The site plan complies with all applicable development and design standards set forth in this Code
4. Traffic generated by the proposed development will be adequately served by existing streets within Carbondale.

RECOMMENDATION:

Staff recommends that the following motion be approved: **Move to approve a Minor Site Plan Review for an Accessory Dwelling Unit to be located at 17 Maroon Place, Carbondale, Colorado, with the following conditions:**

1. The Accessory Dwelling Unit shall not have separate water or sewer service.
2. All other representations of the Applicant in written submittals to the Town or in public hearings concerning this project shall also be binding as conditions of approval.
3. The Applicant shall also pay and reimburse the town for all other applicable professional and Staff fees pursuant to the Carbondale Municipal Code.
4. The applicant shall apply for and receive a building permit as required.

Prepared By: John Leybourne



Town of Carbondale
511 Colorado Ave
Carbondale, CO 81623
(970)963-2733

Pre-Application Meeting Date 10/29/18
Fees 600.00 Date Pd 11/1/18

Land Use Application

PART 1 - APPLICANT INFORMATION

Applicant Name: BRAD JORDAN / JORDAN ARCHITECTURE Phone: 970 618 6690

Applicant Address: PO BOX 1031 GLENWOOD SPRINGS CO 81602

E-mail: BRADJORDANARCHITECT@GMAIL.COM

Owner Name: DAVID JONES / D. RICHMOND JONES & ASSOC. LLC Phone: 970 987 9027

Address: 6809 CR 21A NEW CASTLE CO 81647

E-mail: DRICHMONDJONES@GMAIL.COM

Location of Property: provide street address and either 1) subdivision lot and block; or 2) metes and bounds:

17 MAROON PLACE SOPRIS MEADOWS #2

PART 2 - PROJECT DESCRIPTION

General project description:

CREATION OF AN ACCESSORY DWELLING UNIT WITHIN
A SINGLE FAMILY RESIDENCE

Size of Parcel: 6413 SF # Dwelling Units: PROPOSED - 2 Sq Ftg Comm: _____

Type of Application(s): MINOR SITE PLAN REVIEW

Existing Zoning: R/LD Proposed Zoning: NO CHANGE

PART 3 - SIGNATURES

I declare that I have read the excerpt from the Town of Carbondale Municipal Code Article 8 Land Use Fees. I acknowledge that it is my responsibility to reimburse the Town for all fees incurred as a result of this application.

I declare that the above information is true and correct to the best of my knowledge.

[Signature]
Applicant Signature

10.22.18
Date

Signature of all owners of the property must appear before the application is accepted.

[Signature] 11/1/18
Owner Signature Date

Owner Signature

Date

STATE OF COLORADO

COUNTY OF GARFIELD

)
) ss.
)

Date

State of Colorado

County of Garfield

The foregoing instrument was acknowledged before me on this day of November 2018

by David Jones

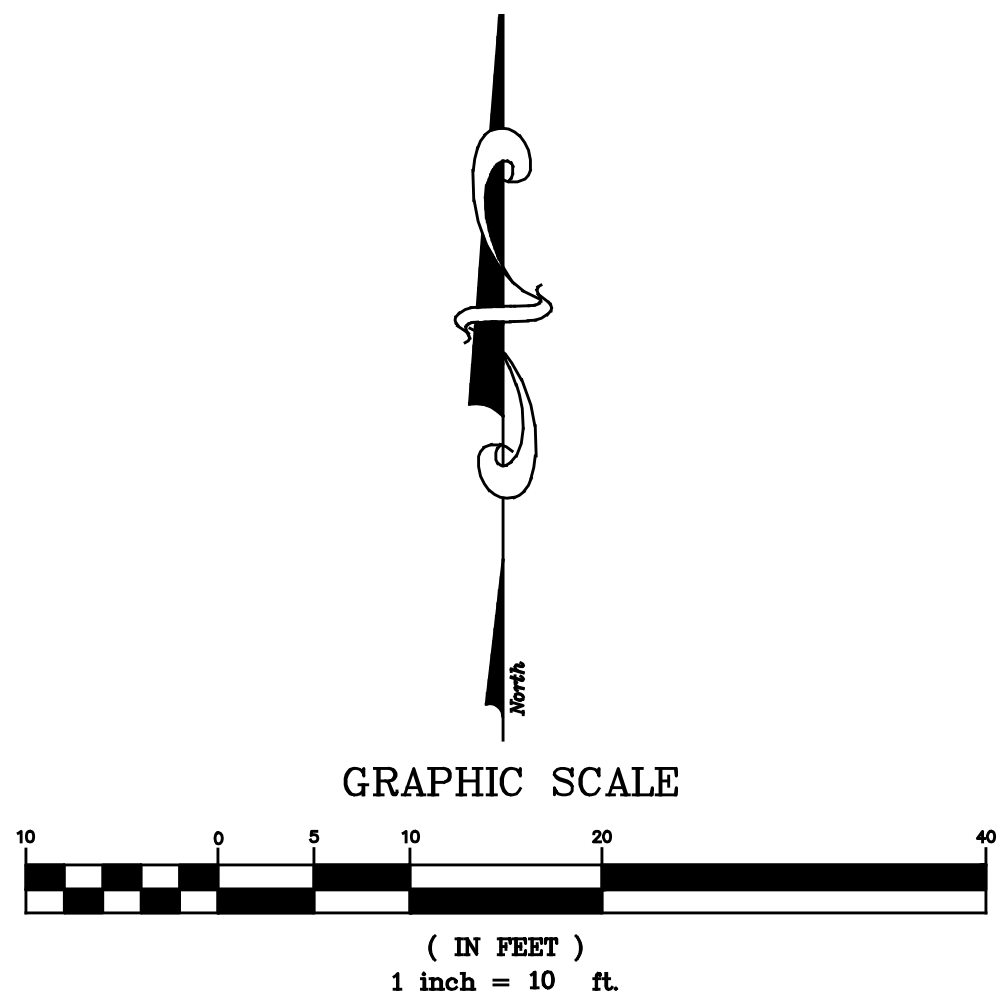
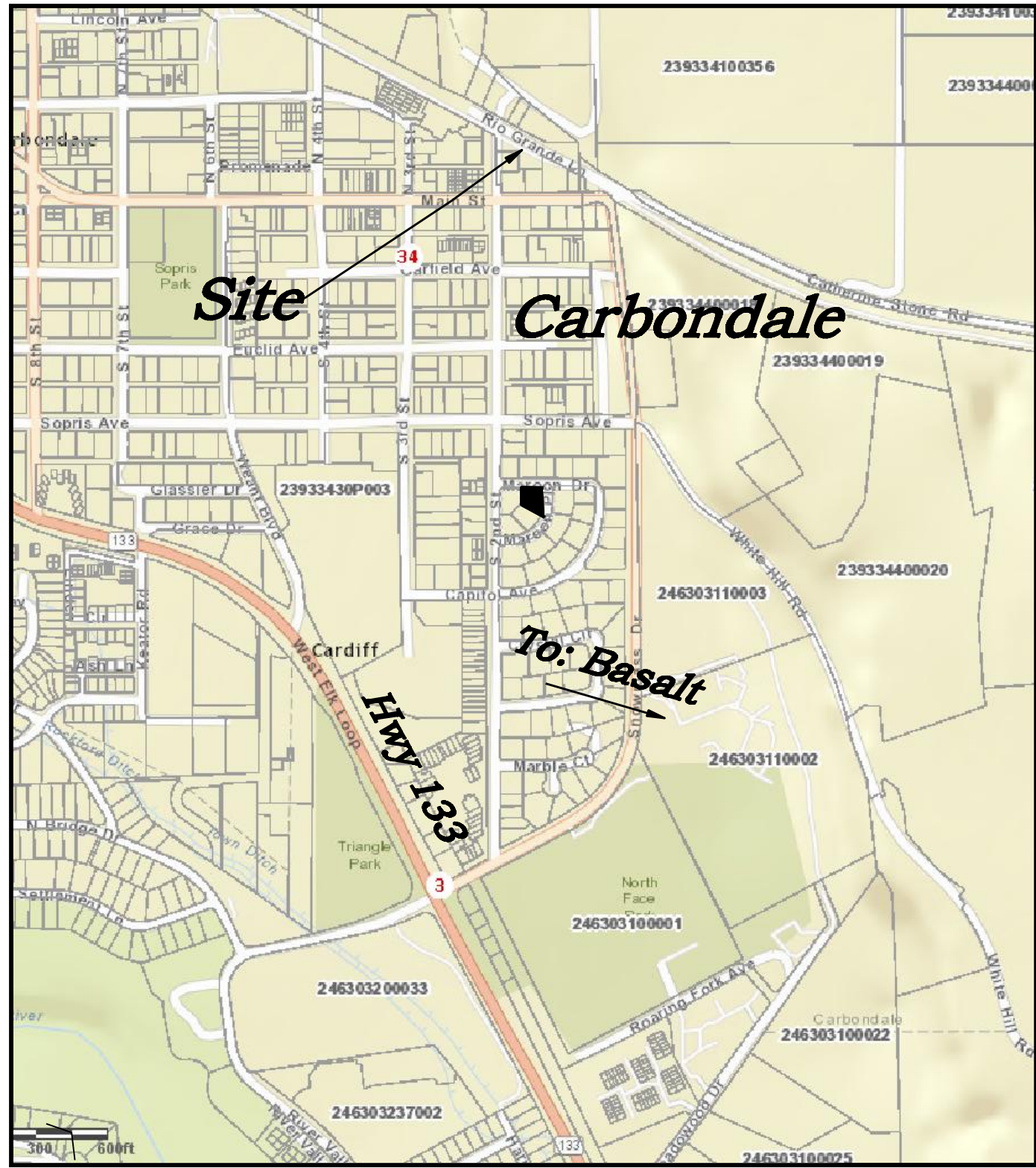
who is personally known to me or has produced as identification

Viridiana A Salais

Notary's Signature

The above and foregoing document was acknowledged before me this

day of



- Legend
- Contour Interval = 1.0'
- GM = Gas Meter
 - EM = Electric Meter
 - = Wooden Stockade Fence
 - = Landscaping Railroad tie
 - = Elm
 - = Viburnum
 - ☼ = Locust

Note: This topography map complies with National Map Accuracy Standards for topographic maps. Where checked 90% of points should be within 1/2 the contour interval and well defined points should be plotted within 1/50" of their true position. Critical design should be based upon spot elevations, please contact Tuttle Surveying Services for this spot elevation information.

Notice:
According to Colorado law, you must commence any legal action based upon any defect in this survey within three years after you first discover such defect. In no event may any legal action based upon any defect in this survey be commenced more than ten years from the date of the certification shown hereon.

TUTTLE SURVEYING SERVICES
923 Cooper Avenue
Glenwood Springs, Colorado 81601
(970) 928-9708 (FAX 947-9007)
Email- jeff@tss-us.com



IMPROVEMENT SURVEY PLAT

IMPROVEMENT SURVEY PLAT

Lot 2, Block 3, Sopris Meadows Subdivision NO. 2,
according to the Plat thereof filed January 19,
1966 at Reception No. 233177.
County of Garfield, State of Colorado.

THE LAND REFERRED TO IN THIS TITLE COMPANY OF THE ROCKIES COMMITMENT DATED SEPTEMBER 19, 2017 IS LOCATED IN THE COUNTY OF GARFIELD, STATE OF COLORADO, AND IS MORE PARTICULARLY DESCRIBED AS FOLLOWS:

Lot 2, Block 3, SOPRIS MEADOWS SUBDIVISION NO. 2, according to the Plat thereof filed January 19, 1966 at Reception No. 233177.

THIS PROPERTY IS SUBJECT TO THE FOLLOWING EXCEPTIONS PER SAID TITLE COMMITMENT NO. 0601041-C

7. Right of the Proprietor of a Vein or Lode to extract and remove his ore therefrom, should the same be found to penetrate or intersect the premises hereby granted, as reserved in United States Patent recorded October 26, 1897, in Book 12 at Page 465. (Could affect subject property - nothing to show)
8. Right of way for ditches or canals constructed by the authority of the United States, as reserved in United States Patent recorded October 26, 1897, in Book 12 at Page 465. (Could affect subject property - nothing to show)
9. Restrictions, which do not contain a forfeiture or revert clause, as contained in instrument recorded January 13, 1966, in Book 372 at Page 378. (Could affect subject property - nothing to show)
10. Easements, rights of way and all other matters as shown on the Plat of Sopris Meadows Subdivision No. 2, filed January 19, 1966 at Reception No. 233177. (As shown hereon)

LEGEND AND NOTES:

- INDICATES FOUND #5 REBAR WITH NO CAP
- DATE OF SURVEY: SEPTEMBER 28, 2017.
- UNIT OF MEASUREMENT: US SURVEY FOOT
- BEARINGS ARE BASED UPON FOUND A #5 REBAR NO CAP ON THE SOUTHEAST CORNER AND FOUND A #5 REBAR NO CAP AT THE P.I. ON THE NORTHEAST CORNER OF SAID LOT Lot 2, BLOCK 3, SOPRIS MEADOWS SUBDIVISION NO. 2, HAVING A BEARING OF N 02°49'08" E, BETWEEN THE DESCRIBED MONUMENTS
- CURVE DATA CALCULATED FROM ARC LENGTH AND DELTA INFORMATION PROVIDED BY RECORDED PLAT OF SOPRIS MEADOWS SUBDIVISION.
- THIS SURVEY DOES NOT REPRESENT A TITLE SEARCH BY THIS SURVEYOR TO DETERMINE OWNERSHIP OR TO DISCOVER EASEMENTS OR OTHER ENCUMBRANCES OF RECORD. ALL INFORMATION PERTAINING TO OWNERSHIP, EASEMENTS OR OTHER ENCUMBRANCES OF RECORD HAS BEEN TAKEN FROM A TITLE COMMITMENT ISSUED BY TITLE COMPANY OF THE ROCKIES DATED SEPTEMBER 19, 2017 AS ORDER NO. 0601041-C

IMPROVEMENT LOCATION CERTIFICATE

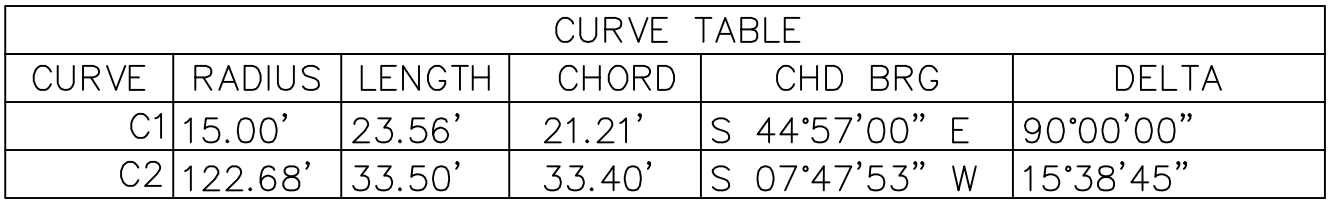
I HEREBY CERTIFY TO ROARING FORK LAND & HOME, INC. TITLE COMPANY OF THE ROCKIES THAT THIS IMPROVEMENT LOCATION CERTIFICATE IS NOT A LAND PLAT AND THAT IT IS NOT TO BE RELIED UPON FOR THE ESTABLISHMENT OF FENCE, BUILDING, OR OTHER FUTURE IMPROVEMENT LINES. I FURTHER CERTIFY THAT THE IMPROVEMENTS ON THE ABOVE DESCRIBED PARCEL ON THIS DATE SEPTEMBER 29, 2017 EXCEPT UTILITY CONNECTIONS, ARE ENTIRELY WITHIN THE BOUNDARIES OF THE PARCEL, EXCEPT AS SHOWN, THAT THERE ARE NO ENCROACHMENTS UPON THE DESCRIBED PREMISES, EXCEPT AS INDICATED, AND THAT THERE IS NO APPARENT EVIDENCE OR SIGN OF ANY EASEMENT CROSSING OR BURDENING ANY PART OF SAID PARCEL, EXCEPT AS NOTED.

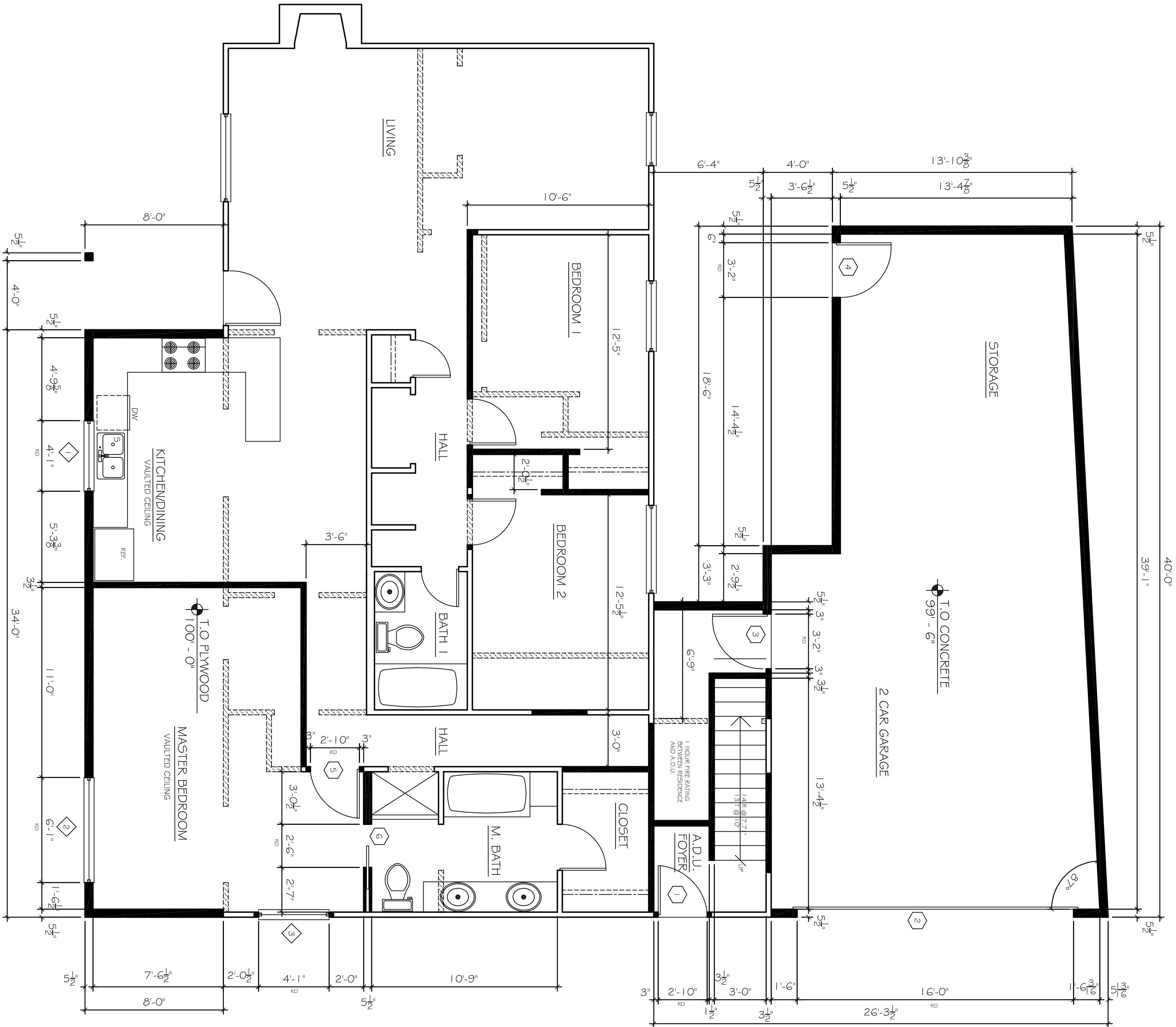
JEFFREY ALLEN TUTTLE L.S. 33638 DATE

17 Maroon Place
Carbondale, CO 81623

Drawn by: DMC
Date: 09/28/2017
Z: \\2017\\lot2b\\3 sopris
meadows_19 maroon
pl.dwg

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OF 1


$$1/8'' = 1'-0''$$

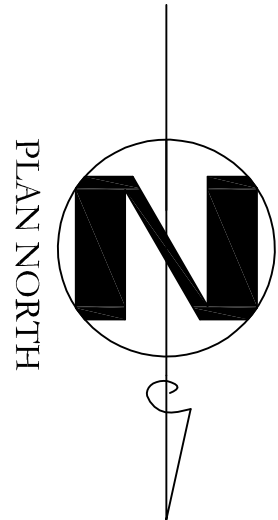


- EXISTING WALL TO BE REMOVED
- PROPOSED 2x STUD WALL
- EXISTING WALL TO REMAIN

Main Level Floor Plan

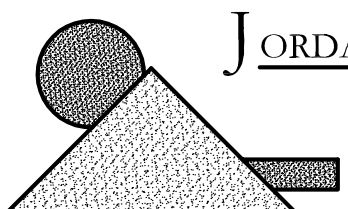
1/4" = 1'-0"

EXISTING: 1350 SF LIVABLE/PROPOSED 317 SF LIVABLE/677 SF GARAGE



A Residence Addition/Remodel for:

D. Richmond Jones & Assoc. LLC
17 Maroon Place, Carbondale , CO
Parcel # 239334409002

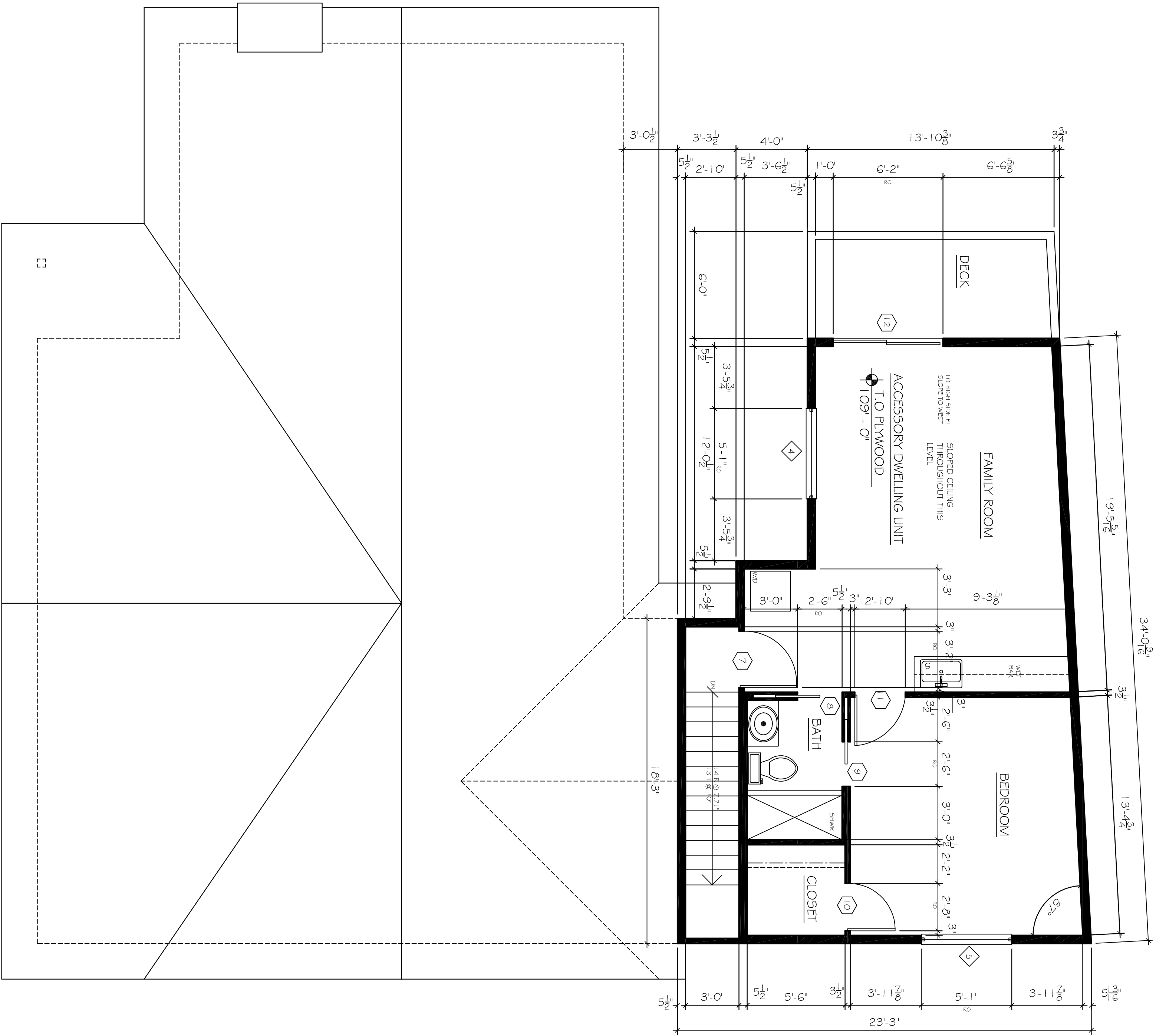


JORDAN ARCHITECTURE, INC.

P.O. Box 1031
Glenwood Springs, Colorado 81602
Phone: 970.618.6690
email: bradjordanarchitect@gmail.com
website: www.jordanarchitecture.com

Date	Revisions
10-30-17	Permit
10-29-18	ADU Appl

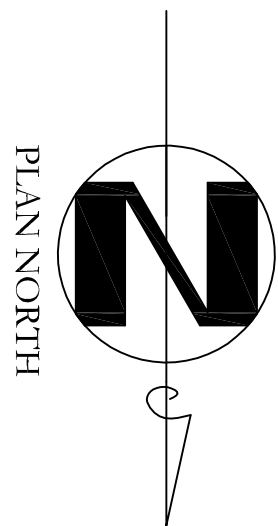
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Upper Level Floor Plan

595 SF LIVABLE/84 SF DECK

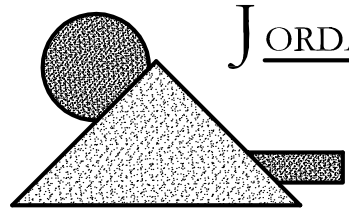
1/4" = 1'-0"



A Residence Addition/Remodel for:

D. Richmond Jones & Assoc. LLC

17 Maroon Place, Carbondale , CO
Parcel # 239334409002



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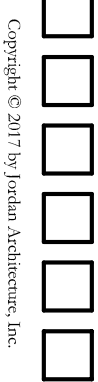
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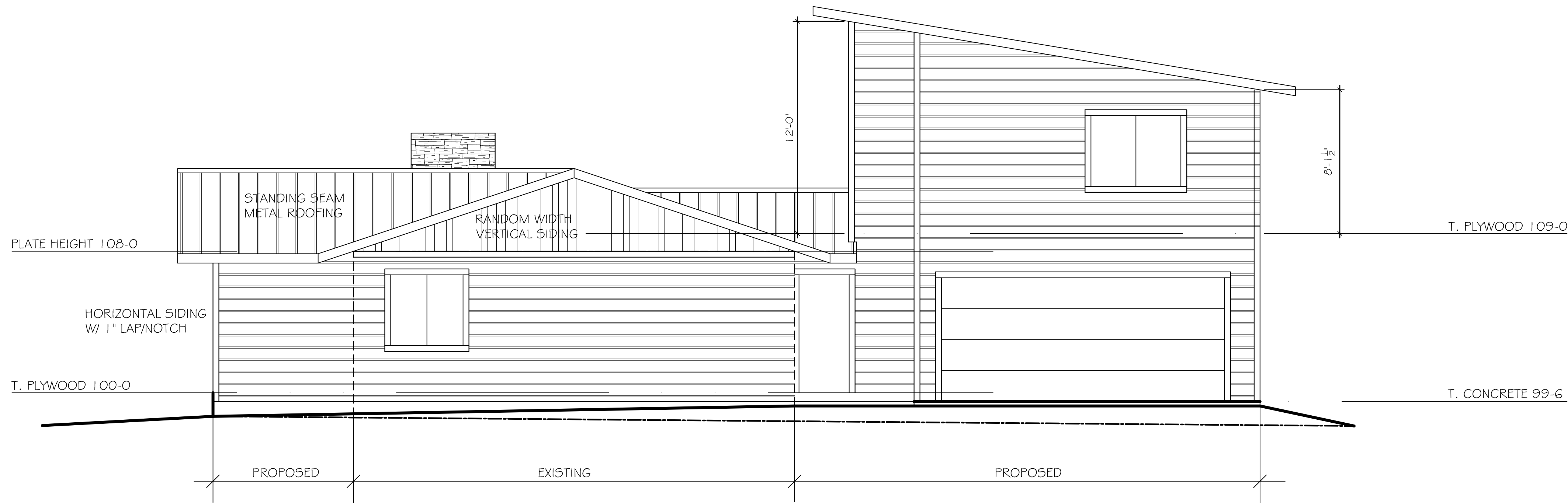
Revisions:

10-29-18 ADU Appl

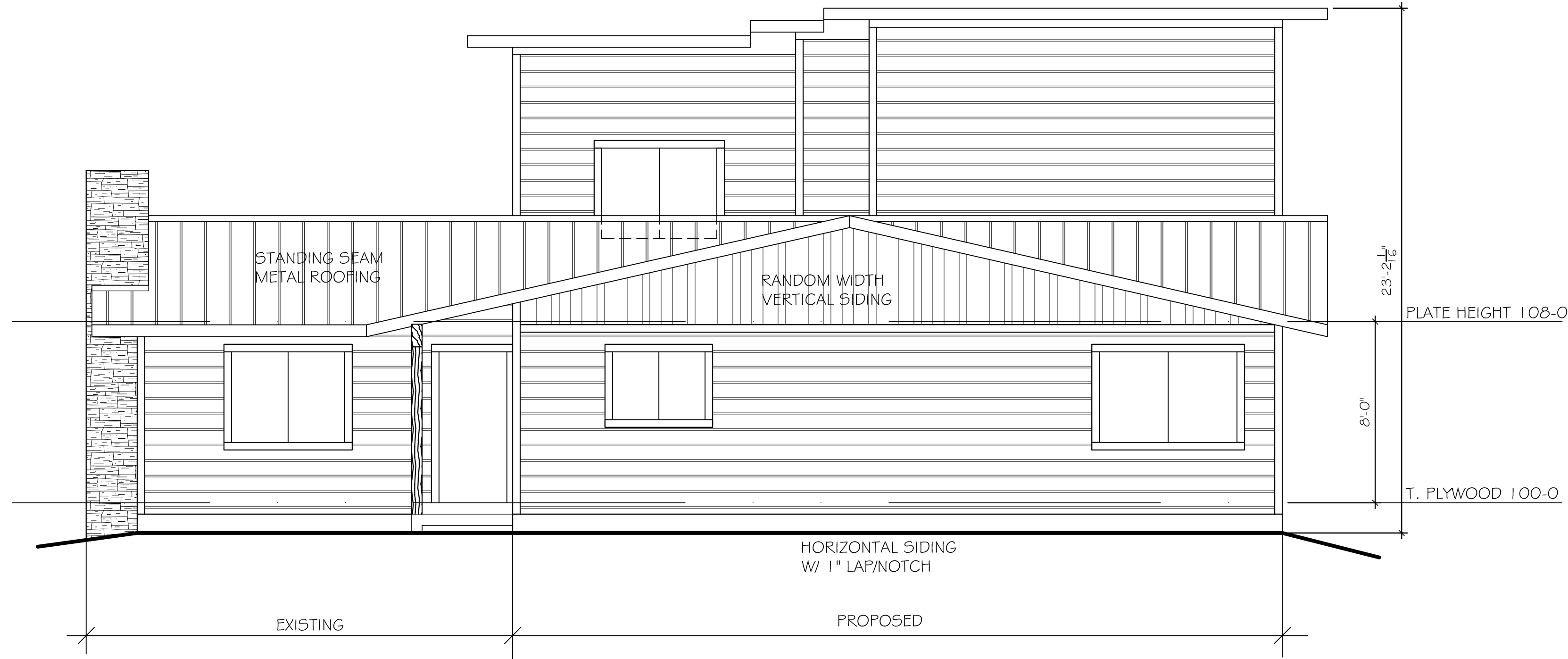
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A3.2





North



East

Exterior Elevations

1/4" = 1'-0"

JORDAN ARCHITECTURE, INC.

P.O. Box 1031

Glenwood Springs, Colorado 81602

Phone: 970.618.6690

email: brad@jordanarchitect.com

website: www.jordanarchitect.com

A Residence Addition/Remodel for:

D. Richmond Jones & Assoc. LLC

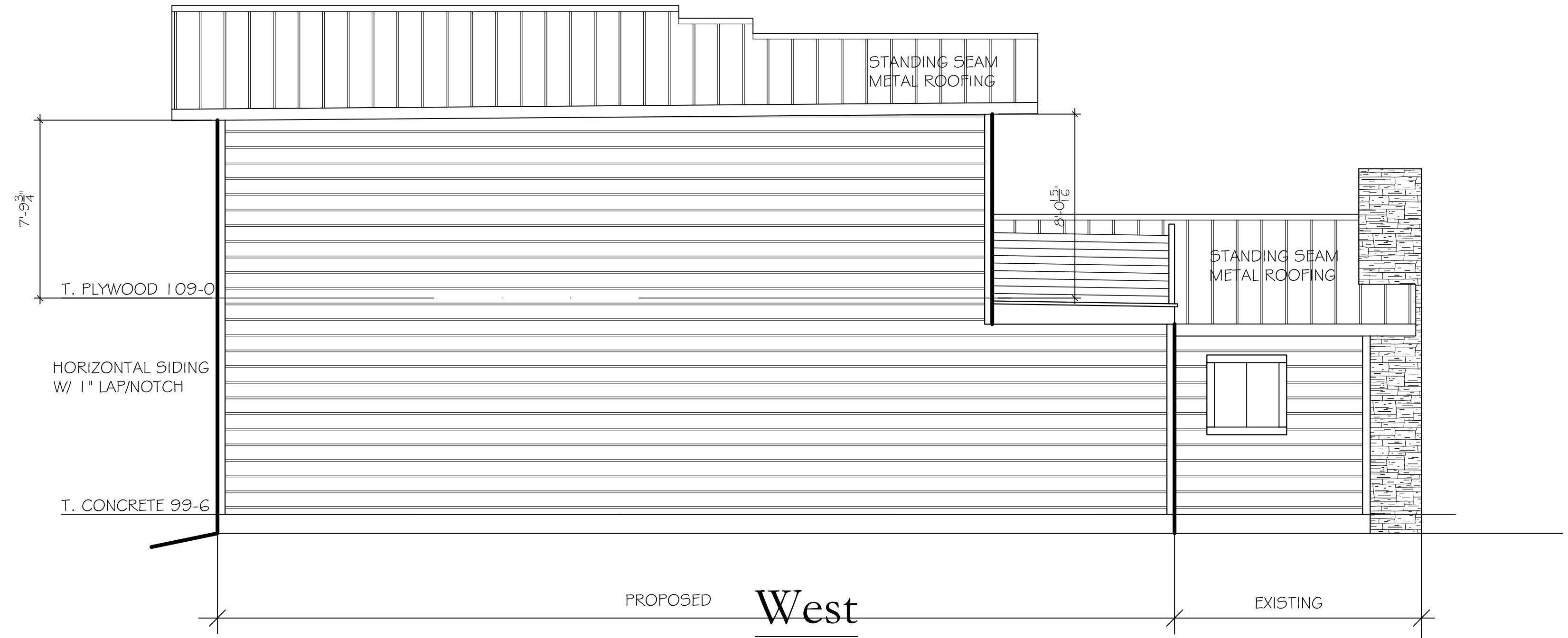
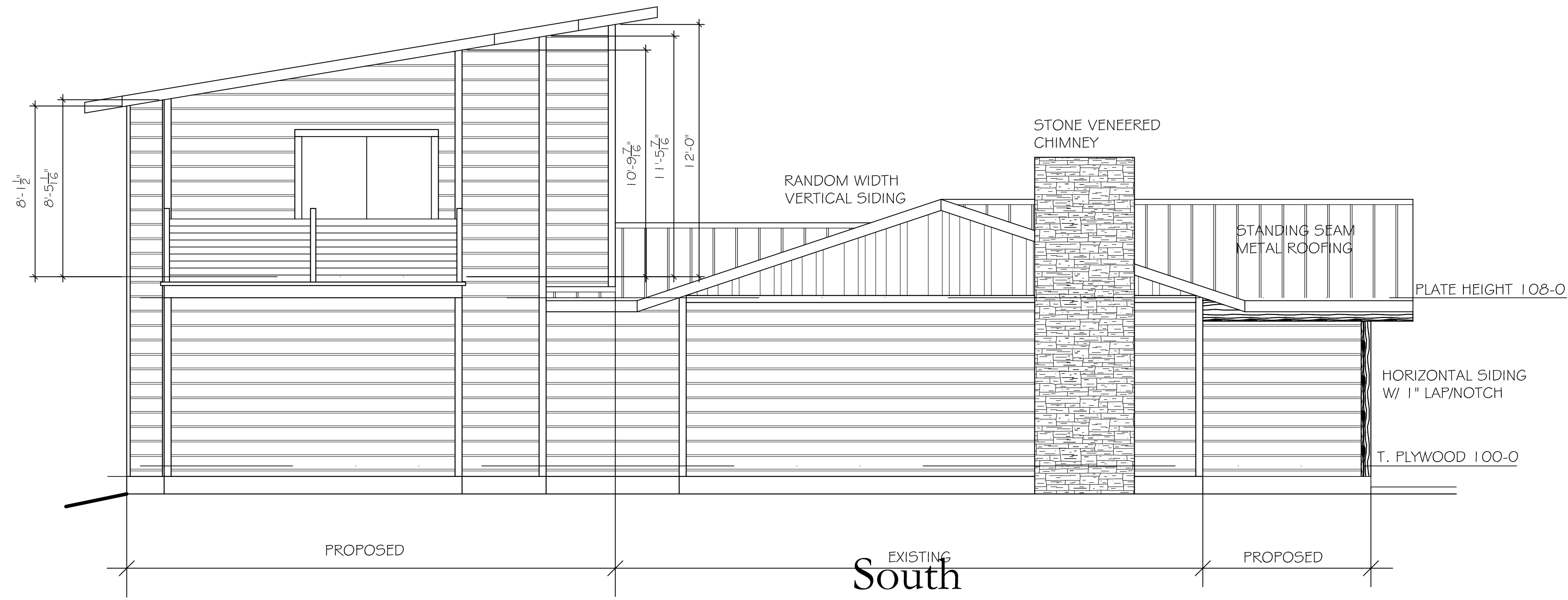
17 Maroon Place, Carbondale , CO

Parcel # 239334409002

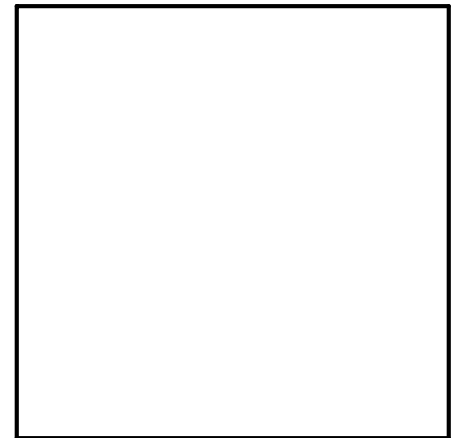
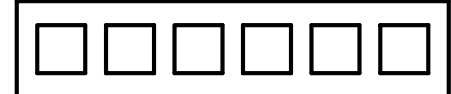
Date	
10-30-17	Permit
Revisions	
10-29-18	ADU Appl.

Sheet

A4.1



Exterior Elevations
1/4" = 1'-0"



JORDAN ARCHITECTURE, INC.
P.O. Box 1031
Glenwood Springs, Colorado 81602
Phone: 970.618.6690
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website: www.jordanarchitecture.com

D. Richmond Jones & Assoc. LLC
17 Maroon Place, Carbondale , CO
Parcel # 239334409002

A Residence Addition/Remodel for:

Date	10-30-17	Permit
Revisions	10-29-18	ADU Appl.

Sheet
A4.2



**TOWN OF CARBONDALE
511 COLORADO AVENUE
CARBONDALE, CO 81623**

Planning Commission Agenda Memorandum

Meeting Date: 12-6-2018

TITLE: UDC Amendments – Clarion Scenario Modeling and Analysis

SUBMITTING DEPARTMENT: Planning Department

ATTACHMENTS: Memo from Clarion dated November 28, 2018

BACKGROUND

The Town asked Clarion to review the various open space elements in the UDC to see how they work together and whether they overlap. Clarion was also asked to develop models in the R/HD zone district to help inform potential UDC revisions. Specifically, Clarion was charged with the following:

- Ø Develop baseline models for three properties within the R/HD Zoning District to show site development that complies with the UDC as it relates to minimum lot area per dwelling unit, impervious/pervious coverage requirements, and other elements.
- Ø Assess overlapping site development standards overall, i.e., pervious/impervious coverage, common open space, landscaping, public park dedication, etc.
- Ø Provide recommendations to improve the UDC.

Attached please find a memo from Clarion providing the modeling and analysis of standards. Clarion will be presenting this information at the December 6, 2018 meeting in a *GoTo Meeting* format.

FISCAL IMPACTS

The recommendations to improve the UDC do not appear to present any fiscal impacts on the Town.

RECOMMENDATION

Clarion will present the issues and recommendation. I would recommend that the Commission then discuss the information provided by Clarion and give feedback to Staff and Clarion to move forward with any amendments to the UDC.

Prepared By: Janet Buck, Planning Director

MEMORANDUM

TO: Janet Buck, Town of Carbondale
FROM: Matt Goebel, Tareq Wafaie, and Eric Wencel, Clarion Associates
DATE: November 30, 2018
RE: UDC Modeling and Analysis of Standards

Introduction and Summary of Recommendations

In August 2018, the Town hired Clarion Associates to model development scenarios in the Residential/High-Density (R/HD) district, to analyze their performance under the Unified Development Code (UDC), and to make recommendations on potential amendments to the UDC to accommodate such development within the R/HD. The recommendations can be summarized as follows, with greater detail provided later in this memo:

Minimum lot area per dwelling unit	<ul style="list-style-type: none">• Replace the scalable lot area per dwelling unit requirement with a standard lot area requirement in the R/HD district of 3,000 sq. ft.• Allow multifamily by right in the R/HD district.• For the R/MD district, include a lot area per dwelling unit requirement of 3,000 sq. ft.
Impervious coverage	<ul style="list-style-type: none">• Minimum landscaping percentage requirement could be removed, since it is redundant with the required pervious percentage.• Consider future updates to clarify eligible areas for alternative paving materials, and under what criteria the Director would review such materials.
Open space	<ul style="list-style-type: none">• Public open space: Expand the applicability provision to require a dedication of public open space or a fee-in-lieu for applications with 10 or more residential dwelling units that require not just a preliminary plat, but also final plat or condominiumization plat.• Private common open space: Clarify that residential units only trigger the requirement as part of mixed-use, multi-family, or PUDs, and only when public dedication is not required.• For the general residential development standards (Section 5.6.3.A): Clarify that this provision only applies when public open space dedication is not required.• Clarify in Section 5.3 that the Town's policy is not to "double-dip," or require both dedicated public open space and common open space set-asides.
Site area landscaping	<ul style="list-style-type: none">• Relocate the standards for multifamily parking lot landscaping design to the parking lot landscaping section.• Consider expanding the definition of "landscaping" to clarify non-live materials, and the percentage of such materials allowed.
Pedestrian circulation	<ul style="list-style-type: none">• Clarify the pedestrian walkway width requirements for consistency (three feet, unless otherwise required by the Town's building code).• Clarify that the internal pedestrian connections also apply to multifamily – not just commercial.



Analysis and Modeling Development Scenarios

To perform the analysis, Clarion developed a site calculator sheet (excel spreadsheet) that establishes baseline parameters for development of multifamily dwelling units in the R/HD, and then created 3-D models of three multifamily development scenarios to demonstrate the build-out potential under the current UDC requirements.

Site Calculator Sheet

The site calculator sheet was developed to answer the fundamental question – *Does the proposed development meet the UDC requirements?* The site calculator tests the feasibility of proposed development sites in the R/HD district, based on regulations in the UDC and assumptions taken from industry standards and development in and around Carbondale.

Key Assumptions

The calculator sheet also provides base numbers and assumptions, including the figures used to estimate the size of different types of units, parking stall requirements based on the unit types, and the amount of private outdoor space required.

- **Dwelling unit sizes** were established based on Category 1 and 2 housing from the Town of Carbondale *Community Housing Guidelines, 2018* as follows:

Dwelling unit type	Size (sq. ft.)
Efficiency	415
One bedroom	580
Two bedroom	750
Three bedroom	1,000

- **Gross floor area** of buildings includes the dwelling unit space (livable space), plus an additional 22 percent to account for wall thickness, common areas, and bulk storage.
- **Parking spaces required** were based on the UDC requirements ranging from 1.25 spaces per unit for efficiency units to 2.5 spaces per unit for three-bedroom units. The **parking lot area** was assumed to be 325 square feet per parking space, which includes the space itself and drive aisles and circulation.
- **Internal pedestrian circulation** (sidewalks) were assumed to be 10 percent of the sum of the total building footprint and parking areas.
- The **private outdoor space** per ground floor unit was assumed to be 80 square feet for efficiency and one-bedroom units; 90 square feet for two-bedroom units, and 120 square feet for three-bedroom units.

Each of these assumptions are static standards that informed the site calculator sheet tests.

Tests

Three different tests were conducted:

1. **Impervious Coverage:** Will the proposed development require more impervious surface coverage (building footprints, parking areas, and internal pedestrian walkways) than is allowed in the R/HD district (maximum 60 percent)?
2. **Space Used by Proposed Development:** Is the site (lot) physically large enough to accommodate the proposed development, based on the various UDC requirements?
3. **Required Lot Area for Dwelling Units:** Based on the current per-dwelling-unit lot area requirement in the R/HD district, is there enough lot area for the proposed development?

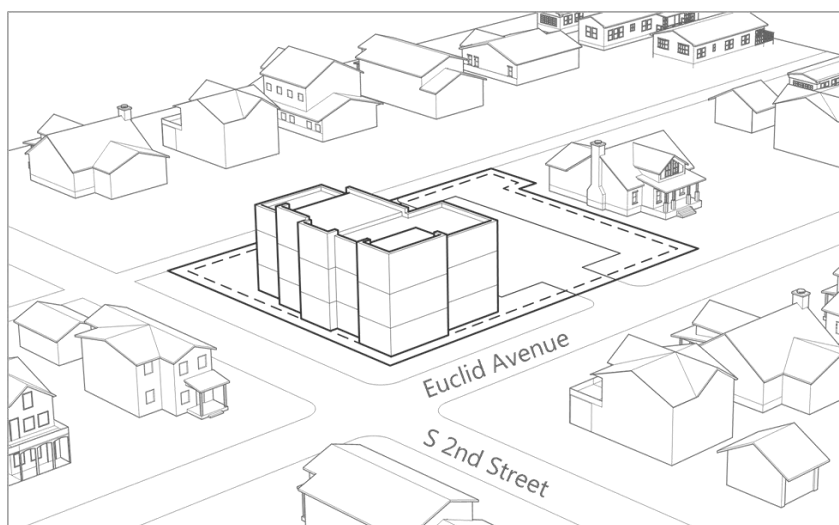
Development Scenarios

Clarion worked with staff to select the following three sites in the R/HD district. For each site, Clarion used the site calculator sheet to determine potential multifamily scenarios possible under the UDC. Then, the team developed graphics depicting the overall bulk, mass, and scale for each scenario. Each scenario passed the three “tests” mentioned above; however, these are not the only possible build-out scenarios. Different mixes of dwelling unit types could also meet the three tests.

1. **Second Street and Euclid Avenue.** The current condition includes two single-family attached structures. The proposed development includes a three-story, all efficiency unit multifamily building with required parking to demonstrate the maximum build-out of this property.

By the numbers:

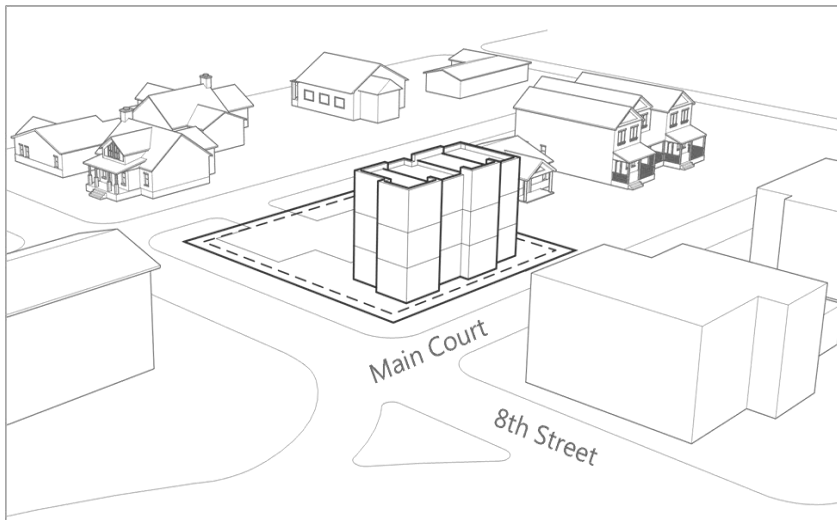
Lot size	17,490 sq. ft.
Dwelling units	14 efficiency
Livable space	5,810 sq. ft.
Parking area	5,687 sq. ft.
Impervious coverage	50.6 percent
Total area used by proposed development	16,620 sq. ft.



2. **8th Street and Main Court.** This site is the smallest of the three test sites. It is situated on a transition block between the Main Street area and surrounding neighborhoods, and currently contains a small single-family detached home. The proposed scenario is a three-story row home development with four, three-bedroom dwelling units, demonstrating maximum build-out with larger units.

By the numbers:

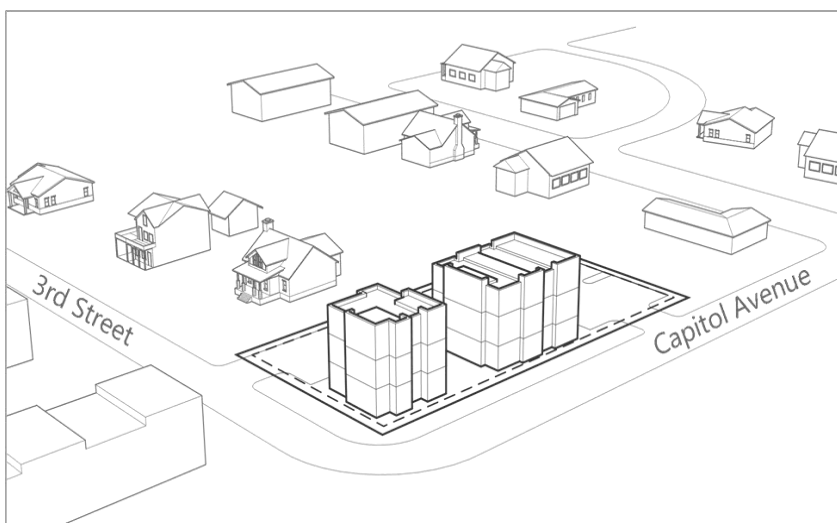
Lot size	9,700 sq. ft.
Dwelling units	4 three-bedroom
Livable space	4,000 sq. ft.
Parking area	3,250 sq. ft.
Impervious coverage	55.3 percent
Total area used by proposed development	9,629 sq. ft.



3. **3rd Street and Capitol Avenue.** Despite being the largest test site, the current condition contains a vacant lot and a single-story triplex. The proposed development simulates a mixture of unit types in multiple buildings similar to the teacher housing development across 3rd Street. This consists of an apartment building with an equal mix of one- and two-bedroom apartments, and a second building with three, three-bedroom apartments.

By the numbers:

Lot size	20,000 sq. ft.
Dwelling units	4 one-bedroom 4 two-bedroom 3 three-bedroom
Livable space	8,320 sq. ft.
Parking area	6,662 sq. ft.
Impervious coverage	55.3 percent
Total area used by proposed development	19,845 sq. ft.



UDC Recommendations and Considerations

Based on the modeling and analysis, Clarion identified some areas within the UDC where standards may overlap or need clarification. The remainder of this memorandum summarizes those potential issues and recommends UDC modifications to address them.

Minimum Lot Area per Dwelling Unit (Section 3.2.6.B; Table 3.2-9)

UDC requirement

“Lot area per dwelling unit” is the amount of lot area required for multifamily dwellings based on the number and size of each unit within the development.

The current UDC prescribes minimum lot-area-per-dwelling-unit requirements in the R/HD, C/T, and MU zoning districts. The minimum lot area requirements range from 1,050 square feet of lot area required for each efficiency unit to 2,050 square feet of lot area required for each four-bedroom unit.

Discussion

For the modeling exercise, we assumed various mixes of unit types. In the scenarios developed, the required lot area for dwelling units could be met even when the other two tests were exceeded (maximum impervious coverage and the minimum lot area used for the development). In fact, using the site calculator worksheets, we were unable to produce a scenario by which a development would not comply with the minimum lot area per dwelling unit, but *would* comply with impervious coverage requirements and the total site area used by the proposed development (including building footprint, parking area, required common open space, impervious areas, and internal pedestrian circulation).

The R/HD district is intended for greater densities than other residential zoning districts. In large part, we found that other dimensional parameters and development standards control the density in the R/HD district more effectively than the minimum lot area per dwelling unit. Additionally, the current UDC requires a conditional use permit for multifamily dwellings in the R/HD. Allowing multifamily by right in the R/HD could help the Town achieve desired densities in that district.

In the R/MD district, where density is intended to be further limited than the R/HD district, the minimum lot area should be 3,000 square feet per dwelling unit, as it was prior to adoption of the UDC. Reverting back to a per-dwelling-unit approach in the R/MD district will provide additional assurance for density controls to better transition between lower- and higher-density districts.

Recommendations

We do not think a scalable lot-area-per-dwelling-unit standard for multifamily dwellings in the R/HD zoning district is necessary. The minimum lot width and lot depth requirements are adequate in limiting the intensity. We recommend the following revisions to the UDC:

- Replace the scalable minimum lot-area-per-dwelling-unit requirement with a standard minimum lot area requirement of 3,000 square feet in the R/HD Table 3.2-9, regardless of the type of development or size of dwelling units. (*See proposed revisions below.*)

Table 3.2-9: R/HD District Dimensional Standards		
Lot Standards		
	Lot area, single-family dwelling , minimum	3,000 sf
	Lot area, multifamily dwellings, minimum per unit: [1]	Based on # of units
	Efficiency	1,050 sf
	1 bedroom	1,450 sf
	2 bedroom	1,650 sf
	3 bedroom	1,850 sf
	4 bedroom	2,050 sf
	Lot depth, minimum	50 feet [2]
	Lot width, minimum	25 feet
	Impervious lot coverage, maximum	See Table 3.7-2
Setbacks, Minimum		
A	Front	5 feet
B	Side	5 feet
	Side, street	4 feet
C	Rear	5 feet
D	Rear, adjacent to alley	5 feet
Building Standards		
E	Height, principal dwelling unit, maximum	35 feet
F	Height, accessory buildings, maximum	25 feet
Notes: [1] Minimum lot area for multifamily dwellings is calculated by summing the minimum per-unit square footage specified in this table; however, in all cases the minimum lot area shall be no smaller than 3,000 sf. For example, the minimum lot area for a three unit multifamily development with two bedroom units would be 4,950 (1,650 x 3 units = 4,950 sf). [2] Lot width, depth and side yard setbacks may vary if approved through subdivision process in order to allow townhomes to be subdivided. Zero lot line may be established at time of subdivision.		

- Multifamily dwelling units should be permitted by right in the R/HD district (instead of requiring a conditional use permit).
- In the R/MD district, include a minimum lot area per dwelling unit requirement of 3,000 square feet in Table 3.2-7. (*See proposed revisions below.*)

Table 3.2-7: R/MD District Dimensional Standards		
Lot Standards		
	Lot area, minimum	3,000 sf
	Lot area, per dwelling unit, minimum	3,000 sf
	Lot depth, minimum	50 feet [1]
	Lot width, minimum	25 feet
	Impervious lot coverage, maximum	See Table 3.7-2
Setbacks, Minimum		
A	Front	10 feet
B	Side	5 feet
	Side, street	7.5 feet
C	Rear	5 feet
D	Rear, adjacent to alley	5 feet
Building Standards		
E	Height, principal dwelling unit, maximum	27 feet
F	Height, accessory buildings, maximum	22 feet
Notes: [1] Lot width, depth and side yard setbacks may vary if approved through subdivision process in order to allow townhomes to be subdivided. Zero lot line may be established at time of subdivision.		

Impervious Lot Coverage (Section 3.7.2; Table 3.7-2)

UDC requirement

Impervious lot coverage is the portion of a lot or parcel covered by buildings, parking areas, carports, driveways, accessory structures, covered porches, sidewalks, cantilevered portions of building, and other areas covered by water-impervious surfaces.

The current UDC establishes a maximum impervious lot coverage requirement for all zoning districts. However, the calculation of maximum impervious lot coverage requirement is more complex in the lower-density residential districts (OTR, R/LD) since percentages are based on the “net lot area.” For the R/MD and R/HD districts, the maximum impervious lot coverage is 60 percent.

Discussion

The maximum percentages were carried forward into the UDC from the prior code. Our understanding is that the intent of those original standards was to control the massing of structures on a lot and to further limit impervious coverage to improve water quality and manage stormwater runoff. The finer grained impervious coverage maximums in some districts were intended to govern a higher standard for lots that are typically smaller in size (“the smaller the lot – the more pervious required”).

Using the site calculator worksheet, most development scenarios would fail the other two tests (space used by the proposed development and required lot area per dwelling unit) before exceeding the 60 percent maximum impervious coverage. We also understand that developers often have the ability to use alternative porous materials (pursuant to Sec. 3.8.5.D) that would not be counted toward overall impervious lot coverage limits.

Recommendations

We recommend the following revisions to the UDC:

- Retain the current 60 percent maximum impervious coverage for the R/HD district. (No change.)
- The minimum landscaped area in the R/HD is 40 percent. With the maximum impervious lot coverage at 60 percent, and the required pervious surface area at 40 percent, the minimum landscaping percentage is redundant and could be eliminated.
- Future updates could include more specific criteria under which the Director may approve alternative paving systems (e.g., if manufacturer specifications indicate that the materials will withstand climatic conditions). Also, consider specifying how much of an area would be eligible to use alternative materials – for example, up to 40 percent of a parking area, or 100 percent of walkways.

Common Open Space (Sections 5.3.2 and 5.6.3.A)

UDC requirement

The UDC identifies two different types of open space, which are distinguished by whether they are publicly dedicated and also by the types of development for which they are required.

- Public open space (5.3.2) is “land dedicated or reserved for the use by the public, including but not limited to parks, greenbelts, recreation areas, and natural areas.” Per Section 5.3.2.B, dedicated public open space is required for any residential subdivision containing 10 or more dwelling units and that is subject to preliminary plat approval.
- In contrast, private common open space (5.3.3) is “land and/or water within or related to a residential development that is designed and intended for the common use or enjoyment of the residents, occupants, and owners of the development.” Common open space is required for any development containing an institutional or commercial use, or a mix of uses. It applies to

residential development only as part of mixed-use projects or PUDs. It is not required to be publicly dedicated, but rather “set aside” for users of the specific project.

Additionally, Section 5.6.3 sets forth development quality standards for all residential development. Subsection A is titled “Common Open Space” and requires any development containing 10 or more dwelling units to comply with the standards in Section 5.3, *Open Space*. That standard does not specifically mention whether or not the application is subject to a preliminary plat approval.

Discussion

Upon reflection and having considered this issue through the lens of the testing scenarios, we believe that the current applicability of the open space provisions is ambiguous and requires clarification.

First, the UDC should clarify whether a residential development that does not require a preliminary plat must dedicate *public open space*. Section 5.3.2.B states that public open space dedication applies to “any development that contains 10 or more residential dwelling units and is subject to preliminary plat approval...” (emphasis added). Thus, a proposed development for 12 multifamily dwelling units on a single existing lot (or on a lot consolidation) would not require a preliminary plat. Therefore, it could be interpreted that the common open space provision 5.6.3.A, which refers back to Section 5.3, would not apply. After discussions with staff, we understand that the Town’s intent is to require public open space dedication for any project with 10 or more units that requires a preliminary plat, final plat, or condominiumization plat.

Next, the UDC should clarify the applicability of the *private common open space* standards. Section 5.3.3.B states that private common open space is required for “any development containing an institutional or commercial use, or any mix of commercial, institutional, and/or residential uses.” Table 5.3-1 lists common open space as required for “institutional uses, commercial uses and mixed-use development, and PUD.” Both sections should be reconciled, and also should clarify that common open space may be required for residential development that is not subject to subdivision. Section 5.6.3.A was intended to apply common open space requirements to straight multifamily development that did not include a “mix” of uses. This standard was intended to apply to multifamily, regardless of whether or not a mix of uses was provided – but this intent is not clear in the current text.

Finally, our understanding is that the Town does not require “double dipping,” or mandating both a dedication of public open space *and* a set-aside of private common open space for the same project. This is the Town’s current policy, but it is not explicit anywhere in the UDC text.

Recommendations

We recommend the following revisions to the UDC:

- For public open space: Expand the applicability provision (Section 5.3.2.B) to require a dedication of public open space or a fee-in-lieu for any application involving 10 or more residential dwelling units that require a preliminary plat, final plat, or condominiumization plat (not just a preliminary plat). This triggers public open space requirements based on the impacts of development (the number of units) rather than the type of procedure required (preliminary plat).
- For private common open space: Revise the applicability provision to clarify that residential units only trigger the requirement as part of mixed-use or multi-family projects or PUDs, and only when public dedication is not required. Reconcile Section 5.3.3.B and Table 5.3-1 for consistency.

- For the general residential development standards (Section 5.6.3.A): Clarify that this provision only applies when public open space dedication is not required. The general reference to Section 5.3 should be changed to the more specific 5.3.3, *Private Common Open Space*.
- Clarify in Section 5.3 that the Town's policy is not to "double-dip," or require both dedicated public open space and common open space set-asides.

Site Area Landscaping (Section 5.4.3.A)

UDC requirement

Landscaped area is the minimum area of a site which must be improved with vegetative materials expressed as a percent of total lot area. In commercial, industrial, and multifamily uses, the area of landscaping required within parking areas is not included in the minimum landscape area calculation.

Section 5.4 establishes the minimum requirements for landscaping. The standards apply to nonresidential uses and to multifamily residential projects containing three or more dwelling units. In the R/MD and R/HD districts, a minimum of 40 percent of the net site area is required to be landscaped.

Discussion

The minimum percentage of 40 percent may be unnecessary. First, section 5.4.3.A.2 states that "any part of the site not used for buildings, parking, driveways, sidewalks, etc. shall be landscaped." That standard can adequately provide the minimum landscaping area provided all other code requirements are met. Additionally, the 60 percent maximum impervious lot coverage requirement ensures that the site will provide at least 40 percent pervious area, which according to 5.4.3.A.2 would have to be landscaped.

In the supplemental standards/guidelines for multifamily development, there is also a requirement for landscaping buffers between parking areas and side and rear lot lines. (See Section 5.6.5.C.7.d.) That requirement is not mentioned in Section 5.4.3.C, *Parking Lot Landscaping*.

Recommendations

We recommend the following changes be made to the UDC:

- Consider moving the standards for multifamily parking lot landscaping design from 5.6.5.C.7.d to a separate multifamily subsection within Section 5.4.3.C, *Parking Lot Landscaping*.
- Consider removing the minimum site area landscaping percentages, since the other site controls will result in the appropriate remaining pervious area (which has to be landscaped according to 5.4.3.A.2).
- Revise the definition of "site area, net" to add ", such as streets, alleys, easements, and public open space" to the end of the definition.
- Consider expanding the definition of "landscaping" to include rock, bark, mulch and other similar materials. With such amendment to the definition, the Town should also update the landscaping provisions in Section 5.4.4, *General Requirements for all Landscaping*, to limit the use of non-live materials to 50 percent.

Pedestrian Circulation (Section 5.5.3)

UDC requirement

Pedestrian circulation is the required sidewalks, trails, and pedestrian connections through, around, and between development sites.

Section 5.5.3 establishes minimum requirements for pedestrian circulation, including perimeter sidewalk requirements, on-site pedestrian connections, and consideration of permeable pavement, and design of trails.

Discussion

As mentioned in our last memo to staff, we revised the site calculator spreadsheets and added a new “internal pedestrian circulation” line to the impervious surface calculation to account for additional impervious areas (assumed 10 percent for modeling purposes).

The requirements for on-site pedestrian connections are somewhat unclear for multifamily developments. Section 5.5.3.B. states that:

“all commercial, industrial, and multifamily development shall provide a network of on-site pedestrian walkways with a minimum width of five feet to and between the following areas:

a. Entrances to each commercial building on the site, including pad site buildings.”

Although that standard refers to multifamily in the introductory statement, it only applies to commercial building entrances as written.

There is also an inconsistency among the width of on-site pedestrian circulation and walkway standards. Section 5.5.3.B.1 states that on-site pedestrian walkways shall be a minimum of five feet in width. The private outdoor space Section 5.6.5.B.2.a states that walkways from the dwelling unit entrance to the private outdoor areas shall be assumed to be three feet in width. Our understanding (from the Building Official) is that the building code may require a wider walkway depending on building occupancy.

Recommendations

We recommend the following changes be made to the UDC:

- Clarify in Section 5.5.3.B.1 that walkways from a dwelling unit entrance to a private outdoor space shall be a minimum of three feet in width, and not five feet.
- Revise Section 5.5.3.B.1.a. to “Entrances to each multifamily and/or commercial building on the site, including pad site buildings.”
- Clarify in Section 5.6.5.B.2.a that the required walkway width is three feet, “unless otherwise required by the Town’s building code.”

Off-Street Parking Requirements (Section 5.8)

UDC requirement

Off-street parking includes areas designated for the parking (and travel aisles) or temporary storage of motor vehicles located outside of a dedicated street right-of-way.

The current UDC requires a minimum number of off-street parking spaces based on the type of use (See Table 5.8-1). For multifamily dwellings (the subject of this exercise), the parking spaces required vary depending on the size of the dwelling units as follows:

Efficiency unit: 1.25

One-bedroom: 1.5

Two-bedroom: 1.5 (units 800 sf or less); 1.75 (units over 800 sf)

Three-bedroom: 1.75 (units 900 sf or less); 2.5 (units over 900 sf)

Additionally, parking lot design standards specify the location of parking on a site, the design of individual stalls, and the distance from intersections (and sight triangles).

Discussion

It can be challenging to achieve the perfect balance between “too much” parking and “too little” parking. We think the current parking standards are appropriate for Carbondale. The parking requirements for multifamily were already reduced by the recent adoption of the UDC, and therefore

should remain intact. Without enough parking, adjacent properties and/or neighborhoods can experience a higher volume in on-street parking challenges and traffic.

Recommendations

No changes necessary.

Private Outdoor Space (Section 5.6.5.B)

UDC requirement

Private outdoor space is the usable floor area of any patio, porch, or deck or enclosed yard attached to and accessible directly from a particular dwelling unit and that is for the exclusive private use by the residents of that particular dwelling unit.

The UDC requires a minimum amount of private outdoor space (Sec. 5.6.5.B) for multifamily developments and includes standards for the design of such spaces. For first-floor units, the minimum size of private outdoor space is 80 square feet or 10 percent of the gross floor area of the unit, whichever is larger. For units on upper stories, the minimum private open space provided is 60 square feet or five percent of the livable floor area of the unit, whichever is larger.

Discussion

Based on our modeling assumptions, the minimum required for first-floor units will be 80 square feet for efficiency and one-bedroom units, since 10 percent of those units would be less than 80 square feet (the modeling assumes 415 square feet for efficiency units and 500 square feet for one-bedroom units). For upper-story units, the minimum required will always be 60 square feet and not five percent, since five percent of all unit sizes in this model would be less than 60 square feet.

Additionally, a provision in the impervious lot coverage requirement states that “decks and patios up to 10 percent of floor area in residential districts shall be excluded” from the impervious lot coverage. That means that none of the required first-floor private open space (10 percent) would count as impervious lot coverage. We think these standards are serving their intended purpose, and should not be amended at this time.

Recommendations

No changes necessary.

Next Steps

Clarion will discuss the analysis and modeling with the Planning Commission at a meeting on December 6th via GoTo Meeting.



**TOWN OF CARBONDALE
511 COLORADO AVENUE
CARBONDALE, CO 81623**

Planning and Zoning Commission Agenda Memorandum

Meeting Date: 12-6-18

TITLE: Pitkin County Referral, Rocky Mountain Natural Gas; Wolf Creek Drilling Application Location & Extent Review & Review for Activities of State Interest

SUBMITTING DEPARTMENT: Planning Department

ATTACHMENTS: Pitkin County Memo dated November 30, 2018

BACKGROUND

Planning Staff have received a referral from Pitkin County. The referral concerns an application to drill two separate injection wells for gas storage in the Wolf Creek Unit storage area located on Forest Service Road 300 in Pitkin County. The wells are located to the South-West of the Town in the Thompson Divide area. The attached water hauling map gives the location of the wells.

DISCUSSION

Pitkin county has noted that the it is not clear in the application if the drilling rigs will take the indicated water haul route or a different one. Pitkin County have noted that it is anticipated that the rigs will be too heavy to navigate the 27th Street bridge in Glenwood springs. With this limitation in mind, it is anticipated that the rigs will follow a route from Highway 82 to Highway 133 to West Main Street up to Dry Park Road to Four Mile Road and then to the drilling sites. This route would be repeated in reverse once the wells were completed.

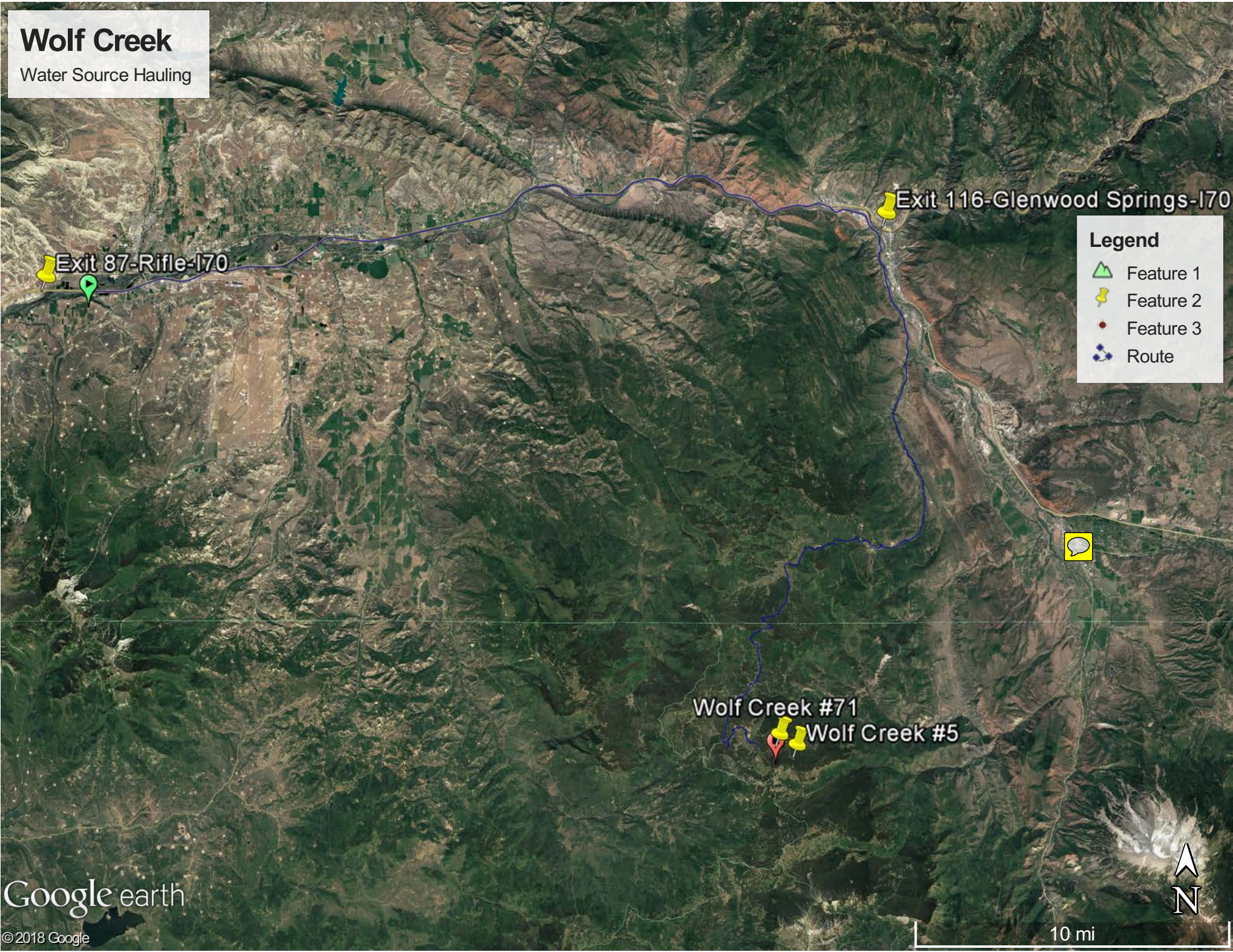
RECOMMENDATION

Staff recommends that the Planning Commission review the attached application then discuss the referral. The Commission may then direct staff to provide comments to Pitkin County. Comments are due to Pitkin County by Monday December 10, 2018.

Prepared By: John Leybourne

Wolf Creek

Water Source Hauling



**PITKIN COUNTY
COMMUNITY DEVELOPMENT DEPARTMENT
530 East Main Street, Suite #205
Aspen, Colorado 81611
Phone (970) 920-5526 FAX (970) 920-5439**

M E M O R A N D U M

TO: Kirby Wynn – Garfield County
Delia Malone – Crystal River Caucus
Valerie MacDonald – Pitkin County
Gretchen Ricehill – Glenwood Springs
Robert Burns - Rifle

FROM: Ellen Sassano, Community Development Department
Ellen.sassano@pitkincounty.com

RE: Rocky Mountain Natural Gas; Wolf Creek Drilling Application Location & Extent
Review & Review for Activities of State Interest

DATE: November 30, 2018

Attached for your review and comments are materials for an application submitted by Rocky Mountain Natural Gas. The Pitkin County Planning and Zoning Commission will review the application on December 18, 2018.

Please call me if you have any questions, and return your comments to me by Monday, December 10, 2018.

<http://pitkincounty.com/DocumentCenter/View/17767>

Thank you.

PITKIN COUNTY PRE-APPLICATION CONFERENCE SUMMARY

LOCATIONS: SWNE, Sec.1/T9S/R90W/6PM &
NWSW, Sec.36/T8S/R90W/6PM

LEASE NAME & WELL #s: Wolf Creek Unit
5-D2 & 9-D2

ZONE: RS-30

OWNER: Rocky Mountain Natural Gas LLC

APPLICANT: Rocky Mountain Natural Gas LLC

REPRESENTATIVE: Jessica Donahue

EMAIL: JessicaDonahue@summiteng.net

PHONE: 720-210-1333

PLANNER: Ellen Sassano

E-MAIL: ellen.sassano@pitkincounty.com

PHONE: (970) 920-5098

DATE: March 28, 2018

Type of Application: Location and Extent Review (Section 2-30-30 Pitkin County Land Use code,) and Review for Activities of State Interest (Chapter 12, Pitkin County Land Use Code)

Description of Project/Development: The Applicant proposes to drill two separate injection wells for natural gas storage. Directional wells will be drilled from two separate, existing, operational well pad in the Wolf Creek Storage Unit located on Forest Service 300 Rd.in Pitkin County. Said road is maintained by Pitkin County subject to a schedule "A" agreement with the U.S. Forest Service. The Applicant has represented that the storage wells will be used to address ebbs and flows in projected natural gas demand in the Roaring Fork Valley. Applicant also represented at on-site that existing transmission lines will be used.

The storage well is considered to be a "Major Facility of a Public Utility" pursuant to Sec. 12.10.90 of the Pitkin County Land Use Code (LUC), and construction of a Major Facility of a Public Utility is an "Activity of State Interest," subject to review under Chapter 12 of the LUC. As the applicant is a public utility, the proposed activity is also subject to a *Location and Extent* review pursuant to Section 2-30-30 of the LUC.

Land Use Code Sections* to be addressed in letter of request (application):

- ☐ 2-30-30(h)(10): *Location and Extent Review* – Consideration of the Local Comprehensive Plan (2016 Crystal River Master Plan) <http://www.pitkincounty.com/DocumentCenter/View/13334>
- ☐ Chapter 12, *Activities of State Interest*
 - 12.30.60 - Application Submittal Requirements
 - 12.30.80 - Add'l Submittal Requirements for Mineral Resource Areas
 - 12.30.90 (C) – Add'l Submittal Requirements Applicable to Natural Hazard Areas (Wildfire Hazard)
 - 12.30.170 - Additional Submittal Requirements Applicable to Site Selection and Construction of Major Facilities of a Public Utility
 - 12.40.10 - Basic Permit Application Approval Criteria for Matters of State Interest
 - 12.40.120 - Additional Criteria Applicable to Site Selection and Construction of Major Facilities of a Public Utility.

**Links to Specific Land Use Code Sections referenced in this pre-application summary can be found here:*

- *Location and Extent Review:* <http://www.pitkincounty.com/DocumentCenter/View/15538>
- *Activities of State Interest:* <http://www.pitkincounty.com/DocumentCenter/View/15540>

Review by:

Upon receipt of submittal documents from applicant, a determination will be made regarding the level of review required to address Land Use Code provisions for:

Activities of State Interest:

- *Activities of State Interest* are subject to a two-step review; one-step to the Planning and Zoning Commission (recommending body,) and one-step to the Board of County Commissioners, (final decision authority.) Alternatively, if a Finding of No Significant Impact (FONSI) is made by the Pitkin County Community Development Director, *Activities of State Interest* are subject to a one-step Administrative Review at Staff level.

Location & Extent Review:

- *Location & Extent Review* is a one-step review to the Planning & Zoning Commission, (final decision authority.)

Public Hearing Required?

Activities of State Interest:

- Yes, at Board of County Commissioners if two-step review is required. If FONSI decision is made by Community Development Director, no public hearing is required for *Activities of State Interest* review.

Location & Extent Review:

- Yes, a public hearing is required for the Planning & Zoning Commission review.

Notice Requirements for Public Hearing: Notice is required via **newspaper publication**. The Community Development Department will cause notice of the public hearing(s) to be published one time in a newspaper of general circulation in the County at least 14 days and not more than 90 days prior to the hearing(s).

Staff will refer the application to the following agencies: Pitkin County Planning Engineer (Catherine Christoff), County Engineer (G.R. Fielding), Pitkin County Attorney (Laura Maker), County Environmental Health (Kurt Dahl,) Crystal River Caucus, Garfield County Oil & Gas Liason (Kirby Wynn,) Pitkin County Emergency Manager, (Valerie Macdonald,) Carbondale Fire Marshall, Town of Carbondale (Jay Harrington, Town Manager,) Town of Rifle, Pitkin County Assessor

FEES: \$7,281 (make check payable to “Pitkin County Treasurer”)

- ☐ **\$5,850** Planning Office flat fee (non-refundable; based on 18 hours of staff time; if staff review time exceeds 21.5 hours, the Applicant will be charged for additional time above 21.5 hours at a rate of \$325/hour)
- ☐ **\$108** Public Notice Fee
- ☐ **\$624** Planning Engineer Fee
- ☐ **\$324** Environmental Health Fee
- ☐ **\$375** County Clerk
- ☐ **To apply, submit 1 hard copy (unbound) of the following information. *Also provide all documents in PDF format as one combined file on a flash drive or email to planningapps@pitkincounty.com.**
- 1. Summary letter explaining the request, providing brief background/history on Wolf Creek Storage Unit and permitting for existing wells, and addressing compliance with the Pitkin County Land Use Code sections listed above. Also, please specifically address the following topics:
 - a. Provide a map identifying the Haul route(s) for water (coming to and/or from the sites,) and waste during well drilling/completion, and for all aspects of maintenance and operation, at a scale that clearly identifies roads and road names, numbers;
 - b. Provide estimated number of truck trips per day and weight of loads during completion of wells, and for continuing access for ongoing operations and maintenance; Also provide estimated dates and hours of operation for use of roads to facilitate drilling and ongoing operations;
 - c. Provide a letter from Garfield County confirming their approval of the proposed haul route(s) on Garfield County roads;

- d. Confirm that existing transmission lines to and from the sites will be used, as opposed to construction of new or modifications to existing transmission lines, (if this is the case;) Also clarify whether natural gas injected during off-peak periods will be transmitted to the storage wells via existing pipeline(s), or by other means, such as hauling.
 - e. Provide information regarding location for temporary or other housing of employees, during well completion and for ongoing operations;
 - f. Confirm whether hydraulic fracturing will or will not be used in well completion;
 - g. Provide detail regarding monitoring of any surface or groundwater in the vicinity of the wells to detect contamination from leaks related to storage or processing of drill cuttings, chemicals, mud, produced water, natural gas or any other by-product of operations;
 - h. Provide detail regarding on-site monitoring for, and applicant response to leaks from any aspect of operations that could result in diminished air quality or explosions/fires; Also specifically address mechanisms used to address air quality issues associated with on-site flaring/venting;
 - i. Provide an emergency response plan for the potential emergencies that may be associated with the operation of the facilities on each site. This may include any or all of the following: explosions, fires, gas or water pipeline leaks or ruptures, hydrogen sulfide or other toxic gas emissions, or hazardous material vehicle accidents or spills; Also coordinate with Pitkin County's Emergency Management Staff for details regarding submittal of an as-built facilities map for each site, and any other details to address emergency response considerations;
 - j. Provide equipment list and number of days equipment will be on-site for well completion. Specify whether wells will be a new wells or work-over of existing wells, and name of drilling rig operator(s) under either circumstance. Information will be used for equipment tax determination by Pitkin County Assessor's Office.
2. In addition to Haul Route map requested above, submit one Vicinity Map, one 11" by 17" Well Location Plat and one site improvement/layout map for each site, showing existing improvements and proposed well(s);
 3. Total fee for review of the application;
 4. Signed fee agreement (1 copy);
 5. Consent from owner(s) to process application and authorizing the representative (1 copy);
 6. Copy of this pre-app form.

** Pursuant to Chapter 12 of the Land Use Code, Staff has the right to request additional information, as more is learned about the proposed activity.*

NOTES:

- *This pre-application summary has been prepared based on information submitted by the applicant in their Application for a Permit to Drill (APD) submitted to Federal Agencies on March 14, 2018. The summary is advisory in nature and not binding on the County. The information provided in this summary is based on current Land Use Code standards and staff's interpretations based upon representations of the applicant. The content of the pre-application summary may be modified as we learn more about the project, and additional information may be required upon a complete review of the application materials submitted by the applicant.*
- *The Pitkin County Land Use Code in its entirety is available on-line at:*

<http://www.pitkincounty.com/196/Land-Use>

**PITKIN COUNTY COMMUNITY DEVELOPMENT DEPARTMENT
AGREEMENT FOR PAYMENT OF LAND USE APPLICATION FEES**

PITKIN COUNTY (hereinafter "COUNTY") and _____
_____ (hereinafter "APPLICANT") AGREE AS FOLLOWS:

1. APPLICANT has submitted to COUNTY an application for _____
_____(hereinafter, the "PROJECT").
2. APPLICANT understands and agrees that Pitkin County Ordinance No. 012-2016 establishes a fee structure for land use applications and the payment of all processing fees is a condition precedent to a determination of application completeness. The fee structure is based on the COUNTY'S policy that development shall pay, in full, the cost of development review in the COUNTY. Fees have been set to be consistent and fair to the public and to reflect the expense incurred in providing such services to the public.
3. APPLICANT and COUNTY agree that because of the size, nature or scope of the proposed PROJECT, it may not be possible at the time of application to ascertain the full extent of the costs involved in processing the application.
4. APPLICANT and COUNTY agree that fees charged for the processing of land use applications shall accumulate if an application includes more than one type of land use review.
5. COUNTY and APPLICANT further agree that it is impracticable for COUNTY staff to complete processing or present sufficient information to the Planning Commission and/or Board of County Commissioners to enable the Planning Commission and/or Board of County Commissioners to make legally required findings for project approval, unless current billings are paid in full prior to decision.
6. Therefore, APPLICANT agrees that in consideration of the COUNTY'S waiver of its right to collect full fees prior to a determination of application completeness, APPLICANT shall pay a base fee in the amount of \$ _____ which is based on _____ hours of staff time, and if actual time spent by staff to process the application exceeds the average number of hours by more than 20%, then the COUNTY will bill the APPLICANT quarterly for the additional time spent. Such periodic payments shall be made within 30 days of the billing date. APPLICANT further agrees that failure to pay such accrued costs shall be grounds for suspension of processing.

PITKIN COUNTY

APPLICANT

Cindy Houben
Community Development Director

Print Name

Signature

Date: _____

Mailing Address:

PITKIN COUNTY COMMUNITY DEVELOPMENT DEPARTMENT
AGREEMENT FOR PAYMENT OF LAND USE APPLICATION FEES

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_____ (hereinafter "APPLICANT") AGREE AS FOLLOWS:

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PITKIN COUNTY

APPLICANT

Cindy Houben
Community Development Director

Print Name

Signature

Date: _____

Mailing Address:



7001 Mount Rushmore Road
Rapid City, South Dakota 57702

Jessica Donahue
Director of Regulatory Compliance
Summit Engineering Services on behalf of RMNG

400 Inverness Parkway, #200
Englewood, CO 80112
Office: (720) 464-7752

11/21/2018

Pitkin County
Planning and Zoning
130 S. Galena St.
3rd Floor
Aspen, CO 81611

RE: Wolf Creek Drilling Applications

Dear Pitkin County:

Rocky Mountain Natural Gas, LLC (RMNG), has proposed to drill and complete two new wells in the gas storage unit Wolf Creek Unit.

History and Background

The Wolf Creek Gas Storage Unit is located in Pitkin County, Colorado, spanning Township 8 South and 9 South in Ranges 90 West and 89 West. The unit consists of approximately 9,524 acres located entirely within the White River National Forest. The unit was converted in 1973. There are ten active wells in the unit, 7 injection/withdraw wells and 3 monitoring wells. Six of the wells were drilled in the 1960s; one was drilled in 1974; two were drilled in the 1980s; and the most recent well was drilled in 1992.

Due to the vintage of some of the wells in the unit, Rocky Mountain Natural Gas is proposing to drill two wells in the Wolf Creek Gas Storage Unit. One well will replace the Wolf Creek Unit-Govt 5; the other well will replace the Wolf Creek #9. Both wells are proposed to be drilled from existing well pads. The proposed Wolf Creek Unit 5-D2 will replace the Wolf Creek Unit-Govt 5 on its existing pad and Wolf Creek Unity 9-D2 will replace Wolf Creek #9 on its existing pad. No additional disturbance will be required.

Haul Routes

RMNG plans to acquire water from Rifle, Colorado, for all drilling and completion operations. The proposed haul route will be along I-70 to Glenwood Springs, via exit 114. This will bring trucks onto Midland Avenue. The trucks will head south on Midland Avenue until they reach the fork where they will turn right onto County Road 117 (also known as 4 Mile Road). The trucks will follow this road in a southwesterly direction into the White River National Forest. Trucks will continue along County Road 117 for approximately 11 miles until they turn left onto Forest Service Road 321, a gravel service road. After about a half mile, the gravel road will bring them to the Wolf Creek Unit 71 pad. If the trucks continue past this pad for about a mile, the road will dead—end at the Wolf Creek Unit-Govt 5 pad.

This route will skirt Glenwood Springs and avoid going through the heart of the town. The proposed route also avoids Highway 133 through Carbondale.

Please see Exhibit 1 – Water Haul Route Map.

Truck Traffic

Truck traffic currently consists of one pick-up truck per day accessing the locations. The proposed Project would briefly increase the traffic during rig-up, drilling and completion operations. During drilling, it is estimated 15 vehicles will access the site daily. During completion operations, it is estimated up to 18 vehicles may access the site daily. Once the wells are completed and in use, traffic will resume its normal pattern, averaging one truck trip per day.

Transmission Lines

RMNG intends to utilize the existing transmission pipe lines and does not anticipate the need for installing additional lines. All natural gas, whether it is to be injected or withdrawn from the wells, will be transported via the existing pipelines. No trucks will be delivering gas to the site for injection or removing gas during peak times.

Employee Housing

Rig employees will work in 12-hour shifts and will stay in town during their time off.

Hydraulic Fracturing

Hydraulic fracturing is not anticipated to take place in these wells.

Water Monitoring

The existing well pads are subject to Colorado Spill Prevention Control and Countermeasure (SPCC) regulations. RMNG currently inspects the storage vessels and containment at each site to ensure oil and hydrocarbon containing liquids do not leave the site. Additional inspections will occur when during the drilling and completion activities.

Leak Monitoring (air and explosion)

Each building on site is equipped with gas, flame, and heat detection equipment. Alarms and shutdowns will be designed in accordance with BHE O&M, industry best practices, API RP 500, and NEC Fire Code.

Emergency Response Plan

RMNG maintains a site specific emergency response and blowout plan and conducts annual training.

Equipment List

The drilling rig contractor has not been selected yet. The selection will not occur until all permits are approved.

Likewise, the completion procedure and company has not been finalized yet. A typical completion operation will include the following:

- 3 trailers
- 1 wireline (workover) rig
- 1 wireline truck
- 1 company man trailer
- 1 crane

Due to the short length of the proposed wells, the majority of the equipment is anticipated to be on location for 1 week. Once the completion phase is complete, the data van, sand chasers, blender, and mountain movers will all be removed.

Other Exhibits

Please see these other included exhibits.

Exhibit 2 – Vicinity Map of the Project Area.

Exhibits 3 and 4 are well plats for the two proposed wells in this Project.

Exhibits 5 and 6 are layout maps for each site.

Land Use Code Sections that were considered for this project:

2-30-30(h)(10) Location and extent review

- 2-30-30(h)(10)(a) The purpose of the location and extent review is to determine whether any proposed road, park, or other public way, ground, or space, or public building or structure or public utility, whether publicly or privately owned is in conformance with the applicable County Comprehensive Plan or Master Plan.
 - All disturbance is existing and should conform to the current County Comprehensive Plan or Master Plan.
- 2-30-30(h)(10)(b) The acceptance, widening, removal, extension, relocation, narrowing, vacation, abandonment, change of use, or sale or lease of or acquisition of land for any road, park, or other public way, ground, place, property, or structure, shall be subject to similar submission and approval.
 - No additional disturbance is proposed for this project.
- 2-30-30(h)(10)(c) A location and extent review may be undertaken concurrently with any other applicable County review process.
- 2-30-30(h)(10)(d) In the case of disapproval by the Planning and Zoning Commission of a location and extent review the Commission shall communicate its reasons to the governing body or official having jurisdiction for the proposed project.

12.30.60 Application Submittal Requirements

The Director may waive one or more of the submittal requirements when the submittal information would not be relevant to whether the Project complies with the approval criteria. Additional materials may be required under Sections 12.30.70 for a particular type of Project.

12.30.60(1) Information describing the applicant.

- 12.30.60(1)(a) The names, addresses, including email address and fax number, organizational form, and business of the applicant and, if different, the owner of the Project.
 - Rocky Mountain Natural Gas, LLC
0096 CR 160
Glenwood Springs, CO 81601
970-928-0401
- 12.30.60(1)(b) The names, addresses and qualifications, including those areas of expertise and experience with projects directly related or similar to that proposed in the application package, of individuals who are or will be responsible for constructing and operating the Project.
 - Mark Arnold, Senior Operations Manager, will be the primary contact for the operation of this project. His phone number is 970-928-0409 and his email is Mark.Arnold@blackhillscorp.com.
 - Thomas Warnes, Operations Supervisor, will be the secondary contact for the operation of this project. His phone number is 970-928-0401 ext. 3344 and his email is Thomas.Warnes@blackhillscorp.com.
 - Jessica Donahue will be the main contact for the permitting and regulatory compliance for this well. Her phone number is 720-464-7752, and her email is JessicaDonahue@summiteng.net.
- 12.30.60(1)(c) Authorization of the application package by the Project owner, if different than the applicant.
 - Project owner and applicant are the same entity.
- 12.30.60(1)(d) Documentation of the applicant's financial and technical capability to develop and operate the Project, including a description of the applicant's experience developing and operating similar projects.
 - Rocky Mountain Natural Gas, LLC (or its parent companies), has operated the Wolf Creek Gas Storage Unit since 1973.
 - RMNG has all requisite operational bonds on file with the Colorado Oil and Gas Conservation Commission.
- 12.30.60(1)(e) Written qualifications of report preparers.
 - Jessica Donahue has worked on behalf of Black Hills Corporation (the parent company of RMNG) in Colorado for 12 years. She has experience with oil and gas regulatory compliance and permitting projects in Mesa and Garfield Counties.
 - Mark Arnold has been in the natural gas industry for 6 years.
 - Tom Warnes has been overseeing field operations in the Wolf Creek Unit for 3 years. He has been in the natural gas industry for 13 years.

12.30.60(2) Information describing the Project.

- 12.30.60(2)(a) Plans and specifications of the Project in sufficient detail to evaluate the application against the Permit Application Approval Criteria in Section 12.40.
 - RMNG proposes to drill and complete two wells in 2019 in the Wolf Creek Unit. The two wells are replacements of existing wells.
- 12.30.60(2)(b) Descriptions of alternatives to the Project considered by the applicant.
 - RMNG considered drilling wells in other locations, however other locations would require new surface disturbance and infrastructure.
- 12.30.60(2)(c) Schedules for designing, permitting, constructing and operating the Project, including the estimated life of the Project.
 - RMNG intends to complete the permitting process for the Project in early 2019 with the intent to drill and complete the wells in third quarter 2019.
 - The wells are estimated to have a beneficial life of 30 years.
- 12.30.60(2)(d) The need for the Project, including a discussion of alternatives to the Project that were considered and rejected; existing/proposed facilities that perform the same or related function; and population projections or growth trends that form the basis of demand projections justifying the Project.
 - The Wolf Creek Unit-Govt 5 has reached the end of its beneficial lifespan. The well will soon require plugging and abandonment. The proposed Wolf Creek Unit 5-D2 will be drilled to replace this vintage well to maintain the gas storage capacity as it is.
 - The Wolf Creek Unit #9 has been plugged and abandoned. The proposed Wolf Creek Unit #9-D2 will replace the storage capacity of this well.
- 12.30.60(2)(e) Description of all conservation techniques to be used in the construction and operation of the Project.
 - This project will utilize 100% existing disturbance.
- 12.30.60(2)(f) List of Adjacent property owners and their mailing addresses.
 - United States Forest Service
Aspen-Sopris Ranger District
620 Main Street
Carbondale, CO 81623

12.30.60(3) Property rights, other permits and approvals.

- 12.30.60(3)(a) A list of all other federal, state and local permits and approvals that will be required for the Project, together with any proposal for coordinating these approvals with the County permitting process. Copies of any permits or approvals that have been granted.
 - The two proposed wells are within the boundaries of the White River National Forest, in Pitkin County, Colorado. Permits from the following agencies:
 - Bureau of Land Management/United States Forest Service:
Application for a Permit to Drill (Form 3160-3)

- Colorado Oil and Gas Conservation Commission: Application for a Permit to Drill (Form 2)
- 12.30.60(3)(b) Copies of all official federal and state consultation correspondence prepared for the Project; a description of all mitigation required by federal, state and local authorities; and copies of any draft or final environmental assessments or impact statements required for the Project.
 - This application is being submitted prior to approval from the other agencies. Therefore no mitigation has been required as of yet by the federal, state or local authorities.
 - Copies of approved permits will be submitted once approval is acquired.
- 12.30.60(3)(c) Description of the water to be used by the Project and alternatives, including: the source, amount, the quality of such water; the applicant's right to use the water, including adjudicated decrees, applications for decrees; proposed points of diversion and changes in the points of diversion; qualitative and quantitative description of the impact to the source water supply; and the existing uses of the water. If an augmentation plan for the Project has been decreed or an application for such plan has been filed in the court, the applicant must submit a copy of that plan.
 - RMNG is planning to purchase freshwater from the City of Rifle for the drilling and completion operations for the two wells.
- 12.30.60(3)(d) Description of property rights that are necessary for or that will be affected by the Project
 - RMNG maintains an agreement for the subsurface storage of gas and current gas storage leases with the Bureau of Land Management below the property. These federal leases grant access and usage of the United States Forest Service surface above the leases.
- 12.30.60(3)(e) Describe the relationship, if any, of the Project to formally adopted regulations and policies of federal, state, regional or county governments, which regulations or policies would govern the use of land or water resources impacted by the Project.
 - The Mineral Leasing Act of 1920 is the main regulatory law that oversees this Project.
 - The National Environmental Policy Act of 2005 will also govern how the surface impacts are analyzed for the Project.

12.30.60(4) Description of the technical and financial feasibility of the Project.

- 12.30.60(4)(a) The estimated construction costs and period of construction for each development component and the total mitigation costs for the Project.
 - Total project cost for the new wells is \$12,000,000. Construction start date of June 2019 and completion date of December 2019.

- 12.30.60(4)(b) Revenues and operating expenses for the Project.
 - Revenues for the Project are subject to regulation by the Colorado Public Utilities Commission (“Commission”). RMNG will submit a proposed revenue requirement to the Commission based on Commission approved rate-making principles. The current estimated annual revenue requirement for the capital investment is approximately \$1.4M per year and is subject to change based on final actual costs and Commission approval of regulatory filings. The estimated annual operating expenses of this project are currently estimated at \$140,000 per year.
- 12.30.60(4)(c) The amount of any proposed debt and the method and estimated cost of debt service.
 - RMNG is estimating a weighted-average cost of debt of 2.2% for this project that is based on Commission-approved principles from its last rate case. The current weighted-average cost of debt forecast of 2.2% was calculated using these Commission-approved principles based on a forecasted 4.79% interest rate multiplied by an RMNG capital structure that includes 45.9% of the Company currently being financed by long-term debt.
- 12.30.60(4)(d) Details of any contract or agreement for revenues or services in connection with the Project.
 - Revenues will be collected from all RMNG On-System Shippers subscribed for service under the Company’s Firm Transportation Service Rate Schedule at rates subject to approval by the Commission.
- 12.30.60(4)(e) Description of the persons or entity(ies) who will pay for or use the Project and/or services produced by the development and those who will benefit from any and all revenues generated by it.
 - All On-System Shippers taking service under RMNG’s Firm Transportation Service Rate Schedule will pay for the Project and services produced by the development. These Shippers will benefit from the resulting storage services and will pay rates subject to approval by the Commission. RMNG will benefit from the revenues generated by the project at the Commission allowed return on investment rate.
- 12.30.60(4)(f) Provide a description and detailed engineering plans and specifications of the proposed construction of structures, buildings, and improvements associated with the project and the financial and environmental impacts thereof.
 - Building and structures required will be pre-engineered structures and design plans will be in accordance with regional and national building code. Plans and specifications will be of sufficient clarity to meet requirements.

- 12.30.60(4)(g) Increased domestic and/or municipal water treatment costs and/or wastewater treatment costs:

The applicant shall submit a plan to offset increased domestic and/or municipal water treatment and/or wastewater treatment necessary to meet water quality standards and determined to be a direct result of flow modification through changes in the transport of nutrients, total dissolved solids, hardness, minerals or other pollutants due to the operation or reoperation of any Project facilities proposed by the applicant. This may be accomplished either by construction and operation of additional domestic and/or municipal water treatment facilities made necessary by the reduction in flow, or the applicant may elect to pay a fee in lieu of those mitigation measures. This fee will be based upon the additional costs of domestic and/or municipal treatment and/or wastewater treatment (capital, operation and maintenance); and it will be used exclusively for meeting the costs of such additional domestic and/or municipal treatment and/or wastewater treatment.

- There will be no increased cost to domestic and municipal water, or waste treatments. The Project will not have an impact on those items.

12.30.60(5) Socioeconomic impacts

A comprehensive socioeconomic impact analysis that addresses the manner in which the applicant will comply with the relevant Permit Application Approval Criteria in Sections 12.40.10, 12.40.20, and 12.40.30. The impact analysis shall be limited to the impact area and shall include the following information:

- 12.30.60(5)(a) Land Use
 - 12.30.60(5)(a)(i) Description of existing land uses within and adjacent to the impact area.
 - The current land usage within the impact area is existing gas storage well pads. Adjacent to the impact area are other gas storage wells in the Wolf Creek Unit, as well as roads and natural gas pipelines.
 - The Project Area is contained within the White River National Forest. Adjacent to the existing energy infrastructure. The National Forest offers recreational opportunities such as hiking, picnicking, and OHV Trail Riding.
 - 12.30.60(5)(a)(ii) Description of provisions from local land use plans that are applicable to the Project and an assessment of whether the Project will comply with those provisions.
 - This Project will comply with existing local land use plan provisions. The Project will replace two existing wells within existing

disturbance and infrastructure; no changes to existing land usage will occur.

- 12.30.60(5)(a)(iii) Description of impacts and net effect that the Project would have on land use patterns.
 - Net impacts should be neutral. By adding new wells to existing well pads, no new disturbance or long-term increased activity will take place. Traffic frequency will remain the same since current trips to site will serve both the existing and proposed wells.
- 12.30.60(5)(b) Local Government Services
 - 12.30.60(5)(b)(i) Description of existing capacity of and demand for local government services including but not limited to roads, schools, water and wastewater treatment, water supply, emergency services, transportation, infrastructure, and other services necessary to accommodate development within Pitkin County.
 - The Project will not require additional accommodation from local government services.
 - 12.30.60(5)(b)(ii) Description of the impacts and net effect of the Project to the capability of local governments that are affected by the Project to provide services.
 - The Project will have a net effect of zero upon the local government. Any services provided by the local government will not see an increase in demand from the two proposed wells.
- 12.30.60(5)(c) Housing
 - 12.30.60(5)(c)(i) Description of existing seasonal and permanent housing including number, condition and cost of dwelling units.
 - With the numerous hotels in Glenwood Springs and Carbondale, the seasonal housing should be sufficient to accommodate any workers that do not live in the area.
 - 12.30.60(5)(c)(ii) Description of the impact and net effect of the Project on housing during construction and operation stages of the Project.
 - During drilling, there may be a small increase in temporary housing demand in Glenwood Springs or Carbondale. The numerous hotels in the area should be sufficient to accommodate the visiting workers.
- 12.30.60(5)(d) Financial Burden on County Residents
 - 12.30.60(5)(d)(i) Description of the existing tax burden and fee structure for government services including but not limited to assessed valuation, mill levy, rates for water and wastewater treatment, and costs of water supply.
 - Not applicable -The Project will not impact residents.
 - 12.30.60(5)(d)(ii) Description of impacts and net effect of the Project on financial burdens of residents.
 - No financial burdens will impact residents.

- 12.30.60(5)(e) Local Economy
 - 12.30.60(5)(e)(i) Description of the local economy including but not limited to revenues generated by the different economic sectors, and the value or productivity of different lands.
 - Not applicable – the Project uses existing disturbance and is replacing existing wells. There will be no noticeable additions to the local economy.
 - 12.30.60(5)(e)(ii) Description of impacts and net effect of the Project on the local economy and opportunities for economic diversification.
 - The Project will have a net zero effect on the local economy. Using existing disturbance to replace two wells will not create a noticeable difference to the local economy.
- 12.30.60(5)(f) Recreational Opportunities
 - 12.30.60(5)(f)(i) Description of present and potential recreational uses, including but not limited to the number of recreational visitor days for different recreational uses and the revenue generated by types of recreational uses.
 - Present recreational uses for the overall area include hiking and picnicking. Once the Project is complete and the wells are operational, the recreational uses in the area may resume without impact.
 - Despite having some access roads closed, the overall area will still be open to recreational opportunities and should not see an impact from the Project.
 - 12.30.60(5)(f)(ii) Map depicting the location of recreational uses such as fishery stream segments, access points to recreational resources, hiking and biking trails, and wilderness areas.
 - 12.30.60(5)(f)(iii) Description of the impacts and net effect of the Project on present and potential recreational opportunities and revenues to the local economy derived from those uses.
 - The Project uses existing disturbance only; therefore, there will be no net effect on long-term recreational opportunities. Once the wells are operational, there will be no noticeable change from existing operations.
 - 12.30.60(5)(f)(iv) If a Water and Sewer Project, description of the net effect of the Project on downstream present and potential recreational opportunities and revenues to the local economy derived from those uses, if any.
 - Not applicable – not a water and sewer project.
- 12.30.60(5)(g) Areas of Paleontological, Historic or Archaeological Importance
 - 12.30.60(5)(g)(i) Map and/or description of all sites of paleontological, historic or archaeological interest
 - Not applicable both sites will be using existing disturbance areas.

- 12.30.60(5)(g)(ii) Description of the impacts and net effect of the Project on sites of paleontological, historic or archaeological interest.
 - By using all existing disturbance for roads and well pads, the Project will not have any impact upon any areas of paleontological, historic, or archaeological importance in the surrounding environment. The Project's activity will not bring disturbance any nearer to sites of paleontological, historic, or archaeological interest than current operations are now.
- 12.30.60(5)(h) Nuisance - Descriptions of noise, glare, dust, fumes, vibration, and odor levels caused by the Project.
 - Due to the Project being located within the White River National Forest, any potential noise and glare are eliminated from concern due to the distance from populated areas. Dust, fume, vibration and odor concerns are also equally minimized. All activities will take place within the Colorado Oil and Gas Conservation Commission's requirements and thresholds.

12.30.60(6) Environmental impacts

Description of the existing natural environment and an analysis of the impacts of the Project to the natural environment. Descriptions in this Section shall be limited to the impact area, and shall include an analysis of existing conditions, supported with data, and a projection of the impacts of the Project in comparison to existing conditions. The analysis shall include a description of how the applicant will comply with the applicable Permit Application Approval Criteria in Sections 12.40.10, 12.40.20 and 12.40.30.

- 12.30.60(6)(a) Air Quality
 - 12.30.60(6)(i) Description of the airsheds to be affected by the Project, including the seasonal pattern of air circulation and microclimates.
 - Pitkin County air quality meets all state and federal ambient air quality standards. There are no additional control or mitigation requirements for air pollution in this air shed.
 - 12.30.60(6)(ii) Map and/or description of the ambient air quality and state air quality standards of the airsheds to be affected by the Project, including particulate matter and aerosols, oxides, hydrocarbons, oxidants, and other chemicals, temperature effects and atmospheric interactions.

○ Pollutant		EPA Primary/Secondary	Averaging Time	Level
Carbon Monoxide (CO)		primary	8 hours	9 ppm
			1 hour	35 ppm
Lead (Pb)		primary and secondary	Rolling 3 month average	0.15 µg/m ³
Nitrogen Dioxide (NO ₂)		primary	1 hour	100 ppb
		primary and secondary	1 year	53 ppb
Ozone (O ₃)		primary and secondary	8 hours	0.070 ppm
Particle Pollution (PM)	PM _{2.5}	primary	1 year	12.0 µg/m ³
		secondary	1 year	15.0 µg/m ³
		primary and secondary	24 hours	35 µg/m ³
	PM ₁₀	primary and secondary	24 hours	150 µg/m ³
Sulfur Dioxide (SO ₂)		primary	1 hour	75 ppb
		secondary	3 hours	0.5 ppm

- 12.30.60(6)(iii) Descriptions of the impacts and net effect that the Project would have on air quality during both construction and operation, and under both average and worst case conditions.
 - Emissions associated with the project are temporary and not anticipated to degrade the existing air quality or affect the airshed's ability to maintain compliance with existing state and federal ambient air quality standards.
- 12.30.60(6)(b) Visual Quality
 - 12.30.60(6)(b)(i) Map and/or description of ground cover and vegetation, forest canopies, waterfalls and streams or other natural features.
 - 12.30.60(6)(b)(ii) Description of viewsheds, scenic vistas, unique landscapes or land formations.
 - The Project Area is located within the White River National Forest. The well sites are encapsulated by dense tree cover, keeping visual impacts to a minimum. The Project will not change the overall visual landscape once it is completed.
 - 12.30.60(6)(b)(iii) Map and/or description of buildings and structure design and materials to be used for the Project.

- Surface production equipment and wellhead are housed in steel buildings. Each site will have three different buildings.
- 12.30.60(6)(b)(iv) Descriptions of the impacts and net effect that the Project would have on visual quality
 - With the Project being proposed upon existing disturbance, there will be no change to the overall visual quality of the area. The nearest occupied structures are all between 7 and 10 miles away via direct line. There is also an elevation change of approximately 2,000 feet between the well pads and the structures. At that distance, and the higher elevation of the well pad, the duration of drilling and completion operations should be unnoticed by the inhabitants.
- 12.30.60(6)(c) Surface Water Quality
 - 12.30.60(6)(c)(i) Map and/or description of all surface waters to be affected by the Project, including:
 - 12.30.60(6)(c)(i)a. Description of provisions of the applicable regional water quality management plan that applies to the Project and assessment of whether the Project would comply with those provisions.
 - 12.30.60(6)(c)(i)b. Description of applicable state water quality standards for water bodies that will be affected by the Project.
 - The Project uses existing disturbance only – no water bodies will be affected.
 - 12.30.60(6)(c)(i)c. Map and description of existing points at diversion for municipal, agricultural, industrial and recreational uses of water within the County that may be impacted by the Project.
 - Not applicable: No diversions will be affected by the Project. No surface water impacts are planned to be affected by the Project.
 - 12.30.60(6)(c)(ii) Descriptions of the immediate and long-term impact and net effects that the Project would have on the quantity and quality of surface water under both average and worst case conditions.
 - The Project uses existing disturbance only and there is no surface water near the pads that would be potentially affected.
 - 12.30.60(6)(c)(iii) Provide assurance that the proposed Water and Sewer Project is capable of supplying water of a quality acceptable to the Colorado Department of Public Health & Environment.
 - Not applicable – this is not a water and sewer project.
 - 12.30.60(6)(c)(iv) Describe and indicate on an appropriate Map surface water bodies (streams, lakes, reservoirs (existing or proposed), etc.) in the source development area and their uses. Describe the effects of the diversion of water for the Water and Sewer Project on the above-described water feature(s) including the effects on present water quality,

current and foreseeable uses. Include a detailed statement of the impacts of the proposed project upon water quality standards including, but not limited to antidegradation standards, and all applicable basic or numeric standards for physical, biological, organic, inorganic, and metals pollutants.

- Not applicable
- 12.30.60(6)(d) Groundwater Quality
 - 12.30.60(6)(d)(i) Map and/or description of all groundwater, including any aquifers. At a minimum, the description should include:
 - 12.30.60(6)(d)a. Seasonal water levels in each subdivision of the aquifer affected by the Project.
 - 12.30.60(6)(d)b. Artesian pressure in aquifers.
 - 12.30.60(6)(d)c. Groundwater flow directions and levels.
 - 12.30.60(6)(d)d. Existing aquifer recharge rates and methodology used to calculate recharge to the aquifer from any recharge sources.
 - 12.30.60(6)(d)e. For aquifers to be used as part of a water storage system, methodology and results of tests used to determine the ability of aquifer to impound groundwater and aquifer storage capacity.
 - 12.30.60(6)(d)f. Seepage losses expected at any subsurface dam and at stream-aquifer interfaces and methodology used to calculate seepage losses in the affected streams, including description and location of measuring devices.
 - 12.30.60(6)(d)g. Existing groundwater quality and classification.
 - 12.30.60(6)(d)h. Location of all water wells and their uses.
 - 12.30.60(6)(d)(ii) Description of the impacts and net effect of the Project on groundwater.
 - 12.30.60(6)(d)(iii) Describe and indicate on an appropriate Map groundwater aquifers in the source development area and their uses. Describe the effects of the diversion of water for the Water and Sewer Project on the above-described water feature(s) including the effects on present water quality, current and foreseeable uses. Include a detailed statement of the impacts of the proposed project upon water quality standards including, but not limited to antidegradation standards, and all applicable basic or numeric standards for physical, biological, organic, inorganic, and metals pollutants.
 - RMNG will conduct groundwater testing in compliance with COGCC Rule 318.A.f
- 12.30.60(6)(e) Water Quantity
 - 12.30.60(6)(e)(i) Map and/or description of existing and historical stream flows and reservoir levels.

- 12.30.60(6)(e)(ii) Map and/or description of existing Colorado Water Conservation Board held minimum instream flows.
- 12.30.60(6)(e)(iii) Descriptions of the impacts and net effect that the Project would have on water quantity, including but not limited to, a description of the impact and net effect that the Project would have on seasonal stream flows under both average and worst case conditions.
- 12.30.60(6)(e)(iv) Statement of methods for efficient utilization of water.
- 12.30.60(6)(e)(v) Description of demands that the Project expects to meet and basis for projection of that demand.
- 12.30.60(6)(e)(vi) Existing water utilization, including historic yields from rights and use by category; supply obligations to other systems.
 - All well pads in this project are existing with no new disturbance proposed. There will be no effects on water quality.
- 12.30.60(6)(f) Floodplains, Wetlands, and Riparian Areas
 - 12.30.60(6)(f)(i) Map and/or description of all floodplains, wetlands, and riparian areas to be affected by the Project, including a description of the types of wetlands, species composition, and biomass.
 - 12.30.60(6)(f)(ii) Description of the source of water interacting with the surface systems to create each wetland (i.e., side-slope runoff, over-bank flooding, groundwater seepage, etc.).
 - 12.30.60(6)(f)(iii) Description of the impacts (including seasonal impacts) and net effect that the Project would have on the floodplains, wetlands and riparian areas.
 - Not applicable – the Project uses existing disturbance only and will not have effects on floodplains, wetlands, or riparian areas.
- 12.30.60(6)(g) Terrestrial and Aquatic Animals and Habitat
 - 12.30.60(6)(g)(i) Map and/or description of terrestrial and aquatic animals including the status and relative importance of game and non-game wildlife, livestock and other animals; a description of streamflows and lake levels needed to protect the aquatic environment; description of threatened or endangered animal species and their habitat.
 - The area does not contain endangered species or their habitats.
 - 12.30.60(6)(g)(ii) Map and description of critical wildlife habitat and livestock range to be affected by the Project including migration routes, calving areas, summer and winter range, and spawning beds.
 - The well pads are not located in critical wildlife habitat. The access road does cross through Elk Production Area. Timing limitations for Elk Production areas, as per Colorado Parks and Wildlife, is May 15 through June 15. RMNG is not anticipating beginning work until June 16, after the timing stipulation for the Production Area.
 - The area also qualifies as Black Bear Habitat. Consequently, RMNG will use bear-proof trash receptacles on site during all active operations.

- 12.30.60(6)(g)(iii) Description of the impacts (including seasonal impacts) and net effect that the Project would have on terrestrial and aquatic animals, habitat and food chain.
 - The Project is proposed on existing disturbance, which will leave no impact on physical habitat for the area's terrestrial animals. The timing of the project will take place in the third quarter, to avoid traffic impacts to the Elk Production Areas as established by Colorado Parks and Wildlife.
 - Once the Project is complete, there will be no long-term effects to local animals. Traffic will resume its normal pattern.
- 12.30.60(6)(g)(iv) Describe the potential adverse effects of the diversions of water, if any, upon plant and animal life dependent upon the water resources in question.
 - No diversions are being proposed, therefore there will be no potential adverse effects.
- 12.30.60(6)(h) Terrestrial and Aquatic Plant Life
 - 12.30.60(6)(h)(i) Map and/or description of terrestrial and aquatic plant life including the type and density, and threatened or endangered plant species and habitat.
 - The area does not contain endangered species or their habitats.
 - 12.30.60(6)(h)(ii) Descriptions of the impacts (including seasonal impacts) and net effect that the Project would have on terrestrial and aquatic plant life.
 - Impacts to surrounding terrestrial plant life will be minimized. There will be no new disturbance. The roads will be watered with fresh water only to mitigate dust from traffic.
 - 12.30.60(6)(h)(iii) Describe the potential adverse effects of the diversions of water, if any, upon plant and animal life dependent upon the water resources in question.
 - No diversions are being proposed, therefore there will be no potential adverse effects.
- 12.30.60(6)(i) Soils, Geologic Conditions and Natural Hazards
 - 12.30.60(6)(i)(i) Map and/or description of soils, geologic conditions, and natural hazards including but not limited to soil types, drainage areas, slopes, avalanche areas, debris fans, mud flows, rock slide areas, faults and fissures, seismic history, and wildfire hazard areas.
 - 12.30.60(6)(i)(ii) Descriptions of the risks to the Project from natural hazards.
 - 12.30.60(6)(i)(iii) Descriptions of the impact and net effect of the Project on soil and geologic conditions.
 - Not applicable – the Project uses existing disturbance only and will have no impacts

12.30.60(7) Hazardous materials description

- 12.30.60(7) (a) Description of all hazardous, toxic, and explosive substances to be used, stored, transported, disturbed or produced in connection with the Project, including the type and amount of such substances, their location, and the practices and procedures to be implemented to avoid accidental release and exposure.
 - RMNG is not anticipating generating any waste classified as hazardous waste under the Resource Conservation and Recovery Act (RCRA).
 - Waste management will follow RMNG's current non-hazardous and universal waste management practices.
 - RMNG will follow the applicable requirements COGCC's E&P waste management regulations (Series 900).
- 12.30.60(7) (b) Location of storage areas designated for equipment, fuel, lubricants, and chemical and waste storage with an explanation of spill containment structures.
 - Any fluids stored on location will have secondary containment as required by the Environmental Protection Agency's Spill Containment and Countermeasure Plan Rule, as well as the requirements of COGCC.

12.30.60(8) Monitoring and Mitigation Plans

- 12.30.60(8)(a) Description of all mitigation that is proposed to avoid, minimize or compensate for adverse impacts of the Project and to maximize positive impacts of the Project.
 - 12.30.60(8)(a)(i) Describe how and when mitigation will be implemented and financed.
 - If mitigation is required, it will be determined with COGCC, BLM, and Forest Service. Any mitigation required will be implemented as per the approving agencies.
 - Mitigation costs will be handled by the operator.
 - 12.30.60(8)(a)(ii) Describe impacts that are unavoidable that cannot be mitigated.
 - The Project uses existing disturbance only – no measureable impacts will occur from this project.
- 12.30.60(8)(b) Description of methodology used to measure impacts of the Project and effectiveness of proposed mitigation measures.
 - If mitigation is required, it will be determined with COGCC, BLM, and Forest Service. Any mitigation required will be implemented as per the approving agencies.
 - Measurement of effectiveness of any proposed mitigation will comply with the metrics set forth by approving agencies.
- 12.30.60(8)(c) Description, location and intervals of proposed monitoring to ensure that mitigation will be effective.

- If mitigation is required, it will be determined with COGCC, BLM, and Forest Service. Any mitigation required will be implemented as per the approving agencies.
 - Any monitoring will take place as per requirements from the approving agencies.
- 12.30.60(8)(d) Description of the applicant's plan to comply with the County's Scientific/Social Framework for Managing Impacts of Trans-Basin Water Diversions to Protect Stream Health in Pitkin County, Colorado, in accordance with the guidelines described therein.
 - RMNG plans to purchase water from the City of Rifle for all operations. This will pull water downstream of Pitkin County, thereby eliminating potential impacts on stream health in Pitkin County.
- 12.30.60(8)(e) Description of the applicant's detailed revegetation plan for all land areas in which vegetation will be impacted. Describe all revegetation plans or efforts proposed as part of the development, including any such plans required as a condition of any Water Court decree pertaining to the development. Such plan shall include, at a minimum:
 - 12.30.60(8)(e) (i) Description of all lands included.
 - The Wolf Creek 5 well pad is located in the Southwest Northeast Quarter of Section 1, Township 9 South Range 90 West.
 - The Wolf Creek 9 well pad is located in the Northeast Southwest Quarter of Section 36, Township 8S Range 90 West.
 - 12.30.60(8)(e) (ii) Plant and seed material to be used and the method and timing of their application.
 - If deemed necessary by surface owner, USFS, locations will be seeded with an approved US Forest Service mix during either spring or fall planting season.
 - 12.30.60(8)(e) (iii) Source, amount, timing and seasonal duration of irrigation water to be applied to establish the intended revegetation, for a period no less than two (2) growing seasons, or such longer or shorter period as the Permit Authority shall require.
 - No irrigation water will be used for reclamation.
 - 12.30.60(8)(e) (iv) Whether the plan is required as a part of any Water Court transfer decree, and if so, whether the plan has been approved by the Water Court (include a copy of the decree and plan as so approved).
 - This Project is not part of any Water Court transfer decree.
 - 12.30.60(8)(e) (v) As a part of the require security to guarantee implementation of the revegetation plan, including the costs of preparing the soil, seeding and planting vegetation and irrigating the same, costs of removal of noxious weeds, and revising and repeating the revegetation plan in the event the plan fails in whole or in part.
 - RMNG will conduct reclamation as per COGCC and USFS standards and requirements.

- 12.30.60(8)(e) (vi) If the applicant believes that revegetation is not necessary, the applicant must present evidence from an appropriate source that revegetation is not necessary and that all other appropriate considerations as set forth herein will be satisfied. The Permit Authority shall make the final decision whether revegetation is necessary under these circumstances.
 - Revegetation will occur when the wells are plugged and abandoned.
- 12.30.60(8)(e) (vii) The Permit Authority may, but is not required to consider a Water Court approved revegetation plan as partial or full satisfaction of the requirements of this Section 12.30.60(8)(e).
- 12.30.60(8) (f) Description of how the applicant will meet the applicable habitat needs listed below by the identified wildlife species and will avoid conflict with these needs. Where conflicts are unavoidable, the applicant shall present proposals to minimize the extent and degree of the conflict, including revegetation and/or compensation through replacement or enhancement of habitat on an alternative site.
 - 12.30.60(8) (f) (i) Production Areas. These include areas necessary for pre-nuptial activities, breeding, young-bearing and rearing, i.e., spawning beds, nursery streams, and protected shoal areas for fish; permanent shallow water for amphibians; strutting, booming and dancing grounds and calling perches, nesting places, and protective young-rearing cover for birds; breeding grounds, calving and fawning areas, den trees, burrows, and young-rearing cover for mammals.
 - The access road to the Project Area crosses through designated Elk Production Area. RMNG proposes to mitigate its impacts on this area by not beginning any work in the area until after June 15, the end of the timing limitation set by Colorado Parks and Wildlife.
 - 12.30.60(8) (f) (ii) Principal Feeding Areas. These include areas containing the natural foods of a wildlife species of sufficient quantity and quality and readily available to sustain a normal population.
 - The Project Area does not include Principal Feeding Areas.
 - 12.30.60(8) (f) (iii) Summer Ranges. Summer ranges relatively free of human disturbance are highly important to the survival of some species, especially those requiring extended periods of time for young-rearing.
 - The Project Area does not include Summer Range.
 - 12.30.60(8) (f) (iv) Winter Ranges. Winter ranges of sufficient quality and quantity are critical for two reasons: (1) they are frequently so restricted in area that they limit the size of an animal population over its entire range; and (2) these ranges are often in proximity to human populations and human activities so that the species involved are adversely affected, or the species may adversely affect real and personal property.
 - The Project Area does not include Winter Range.

- 12.30.60(8) (f) (v) Concentration Areas. Areas where high density of wildlife species at certain times of the year makes them highly susceptible to developments and activities of man. Examples of concentration areas include staging areas for waterfowl, sandhill cranes and deer; roosting areas for a number of birds; colonies of such colonial species as swallows, herons and beaver; and mass dens of snakes.
 - The Project Area does not include Concentration Areas.
- 12.30.60(8) (f) (vi) Shelter Areas. Those physical or natural features in their habitats which provide escapement from their enemies and adverse weather conditions. Included here are such things as rough terrain for many species of wildlife; rocky bottoms and shorelines and aquatic vegetation in and adjacent to water for protection of fish, amphibians, and aquatic oriented species of terrestrial wildlife.
 - The Project Area does not include Shelter Areas.
- 12.30.60(8) (f) (vii) Water and Minerals. A permanent water supply in sufficient quantity and quality is necessary to support most wildlife species. In addition, some species have special mineral needs. Continuous stream flows and conservation pools in reservoirs are essential to the survival of fish. Stable water levels in lakes and reservoirs are highly desirable for fish, amphibians and many forms of terrestrial wildlife. High quality water, free of pollutants, is essential to the survival of fish, amphibians and many birds, as well as to the food organisms upon which they depend.
 - The Project will have no impact on water levels in lakes and reservoirs.
- 12.30.60(8) (f) (viii) Movement Corridors. Many species of wildlife have daily and seasonal movement patterns along more or less established corridors. These may be between seasonal ranges; to reach spawning areas; or between nesting, resting, roosting, feeding and watering areas. Concentrations of animals along such corridors increase the likelihood of conflict between wildlife and humans. Many of these corridors offer the only means for wildlife movements, or their uses become so traditional that disruption or interference could be disastrous for the species involved.
 - The Project Area does not include Movement Corridors.
- 12.30.60(8) (f) (ix) Buffer Zones. Some species of wildlife are intolerant to disturbance from human activities during portions of the year. In order to protect these species, buffer zones with no, or limited, human related disturbances are necessary during those seasons when these species occupy specific areas.
 - The Project Area does not include Buffer Zones.
- 12.30.60(8) (f) (x) Special Habitat Needs. Some wildlife species have very specific habitat needs, without which they cannot survive. Therefore, reduction of such needs beyond certain limits, or a complete destruction of

these habitat features could cause a species to be reduced in number or perish. For example, sagebrush is essential to the survival of sage grouse; wild turkeys need roost trees meeting certain requirements; catfish will only spawn when water temperatures are within certain limits; and black footed ferrets are limited to ranges occupied by prairie dogs.

- The Project Area does not include Special Habitat Needs.
- 12.30.60(8) (f) (xi) Shoreline Vegetation. Vegetation along stream banks and the shorelines of lakes is extremely important to aquatic wildlife and aquatic related forms of terrestrial wildlife. Such vegetation controls water temperatures, provides food and shelter and protects banks from excessive erosion which damages or destroys wildlife habitats.
 - The access road to the Project Area may skirt Shoreline Vegetation. The access road is existing and can support the traffic that will be required for all drilling and completion operations. No changes should be made to the areas near Shoreline Vegetation.
- 12.30.60(9) Additional Information may be necessary. The applicant must supply any other additional information and documentation necessary for the Permit Authority to make a determination regarding whether the Project meets the applicable Approval Criteria in Section 12.40. In addition, the Director may request that the applicant supply additional information related to the Project if the Permit Authority will not be able to make a determination on one of the Permit Application Approval Criteria in Section 12.40 without the additional information.
- 12.30.60(10) For each alternative site or expansion area for which a permit is being sought by the applicant, if any, the information specified in subsections (1) through (9) of this Section. An application need not meet the identified submission requirements for other than the particular development alternative for which a permit is being sought in order for the application to be considered complete, but the description of alternative sites and expansion areas must be sufficiently detailed so as to adequately inform the Permit Authority.
 - Not applicable.

12.30.80 Additional Submittal Requirements for Mineral Resource Areas

12.30.80.A. In addition to the submittal requirements in Section 12.30.60, the following submittal requirements apply to applications proposing to develop land use in Mineral Resource Areas.

- 12.30.80(1) Aerial photographs, if available, that reasonably portray the current condition of the area affected by the permit application. The area affected by the permit shall be outlined on the aerial photograph.

- The attached files show the current condition of the Project Area.
 - Exhibit 7 is an aerial photo of the Wolf Creek 9 well pad and its current status.
 - Exhibit 8 is an aerial photo of the Wolf Creek 5 well pad and its current status.
- 12.30.80(2) List of the owners of mineral rights that will be affected.
 - Bureau of Land Management
2300 River Frontage Road
Silt, CO 81652
- 12.30.80(3) Type and location of mineral resources on and/or under the property.
 - Wolf Creek natural gas field was an operational gas field until 1973 when it was converted to a natural gas storage field.
- 12.30.80(4) Analysis of the commercial feasibility of extracting the mineral resource.
 - Wolf Creek natural gas field was first established in 1961. It produced steadily until 1973 when it was converted to a natural gas storage field. It has operated as a storage field continuously for the past 45 years.
Economics and commercial feasibility are well established for this project.
- 12.30.80(5) Map or Maps portraying the geologic conditions of the area with specific attention to the designated mineral resource deposit. If appropriate or needed, subsurface geologic cross sections shall also be utilized to portray the geologic conditions at depth. If possible, the geologic Maps shall be at the same scale and in the same format as the development plan Maps.
- 12.30.80(6) Evidence of extraction without exploration
 - This Project is not an extractive project.
 - 12.30.80(6)(a) Evidence that the proposed development will not present an obstacle to extraction of the mineral resource on or under the subject property; or
 - 12.30.80(6)(b) Evidence that the proposed development will be of greater economic value than the minerals present.
 - The Wolf Creek field has long been depleted of natural gas. RMNG is injects natural gas into the porous space in the field.

12.30.90 Additional Submittal Requirements Applicable to Natural Hazard Areas

12.30.90.C. Wildfire Hazard Area. In addition to the submittal requirements in Section 12.30.60, the following submittal requirements apply to applications proposing land use in Wildfire Hazard Areas. The required maps shall be prepared and signed by a professional forester.

- 12.30.90.C (1) Map or Maps portraying the existing wildfire hazard conditions of the area with particular attention given to the slope, aspect, topographic and vegetation (living and dead) conditions.

- 12.30.90.C (2) Map or maps and associated narrative showing:
 - 12.30.90.C (2) (a) The procedures proposed to reduce condition of wildfire hazard.
 - 12.30.90.C (2) (b) The fire protection plan for the proposed use.
 - 12.30.90.C (2) (c) All fire suppression facilities that are necessary to meet the objectives of these Regulations.
 - The existing well pads are currently cleared of vegetation to safely operate without threat of wildfire. This practice will continue during drilling operations. Any other safety requirements as required by the approving agencies will also be implemented.
- 12.30.90.C (3) A list of alternative uses for the wildfire hazard area under consideration.

12.30.170 Additional Submittal Requirements Applicable to Site Selection and Construction of Major Facilities of a Public Utility

12.30.170.A. In addition to the submittal requirements in Section 12.30.60, the following submittal requirements apply to applications proposing Major Facilities of a Public Utility.

- 12.30.170.A (1) Detailed plans for the facility including, but not limited to, the associated system capacity and proposed service area plans and Maps.
- 12.30.170.A (2) Description of existing and proposed service in the area to be served.
- 12.30.170.A (3) Description of the distribution network for the area proposed to be served.
- 12.30.170.A (4) Map and description of areas around the Project and likelihood of nearby activities disrupting utility services.
 - Not applicable
- 12.30.170.A (5) Description of how the Project will affect existing community patterns.
 - The Project will not disturb existing community patterns. The two wells will be drilled on existing disturbance. No new roads or infrastructure will be necessary to accommodate the Project.
- 12.30.170.A (6) Description of the applicable provisions of the Pitkin County Master Plan and any applicable intergovernmental agreements, and the Project's compliance with those provisions.
- 12.30.170.A (7) Description of voltages/capacities and lengths of transmission lines.
 - No transmission lines or voltage are connected to this Project.
- 12.30.170.A (8) Description of the power sources/resources and generating capacities.
 - This Project does not have any generating capacities connected to it.
- 12.30.170.A (9) Description of the functions and sizes of substations.

- This Project does not have any substations connected to it.
- 12.30.170.A (10) Description of the diameters and lengths of pipelines/transmission lines.
 - All pipelines and transmission lines are existing and do not need to be modified for this Project.
- 12.30.170.A (11) As applicable, description of the capacities of the storage tanks/storage areas and types of petroleum derivative, natural gas, hydrogen or other product to be stored.
 - Natural gas will be stored underground until demands call for withdrawal. Upon withdrawal, the natural gas will immediately be moved via the transmission pipeline and then to our distribution system for customer use.
- 12.30.170.A (12) Description of the sources of power being generated or transmitted and/or the sources of petroleum derivative being transported.
 - During off peak times, natural gas will be transported from interconnect locations via existing pipeline and injected into the wells.
- 12.30.170.A (13) Map showing all points at which power transmission lines and/or pipelines will pass within [45] feet of existing, approved, or proposed residential or commercial structures, and a projection of the exposure of inhabitants of such structures to magnetic fields.
 - There are no sites in this Project where power transmission lines or pipelines will pass within 45 feet of existing, approved or proposed structures.
- 12.30.170.A (14) Map showing each existing major facility of a public utility within the County of the type proposed for development, including a description of the design capacity of each such facility, the excess capacity of each such facility, and the percentage of capacity at which each such facility operates.
 - Not applicable – there are no other gas storage fields in the County.
- 12.30.170.A (15) Description of the predominant types of developments to be served by the Proposed Project.
 - Wolf Creek Storage Field is utilized to maintain natural gas service to the Roaring Fork Valley during the winter months.
- 12.30.170.A (16) Description of the upgrade potential of existing facilities and projected capacity to meet demand-for-services levels
 - Replacement of the two existing storage wells is required to meet system loads in the Roaring Fork Valley.
- 12.30.170.A (17) If the proposed project is a new major facility of a public utility and that system exceeds a ten year projected increase in demand, a detailed explanation of the excess service capacity and the cost of the excess capacity.
 - Project is to replace existing infrastructure.
- 12.30.170.A (18) Description of any feasible "non-structural" alternatives to meet the objectives of the proposed site selection and construction.
 - None.
- 12.30.170.A (19) Projections/forecasts of need for electricity or natural gas and the basis for the projections and forecasts.
 - None.

- 12.30.170.A (20) Description of expected effect and impact on nearby property owners and on current land uses, compared with alternate locations.
 - Alternative locations considered would have required additional surface disturbance. The two wells as proposed require no additional roads, pipelines, or well pads.
- 12.30.170.A (21) Provide a water supply plan [using an aquifer life assumption of a 100-year supply, non-tributary groundwater classification only, assuming a 50 percent recovery factor to support operations].
 - RMNG is planning to purchase water from the City of Rifle and have it hauled to location during drilling and completion operations.

12.40.10 BASIC PERMIT APPLICATION APPROVAL CRITERIA FOR MATTERS OF STATE INTEREST

A Permit to conduct a designated activity of state interest or to engage in development in a designated area of state interest shall be approved if the Project complies with the following basic general criteria and any additional applicable criteria. In making that determination, the Board may take into consideration the construction, operation, changes in use and cumulative impacts of the Project, including all phases of a Project phased over time. If the Project does not comply with any one or more of these criteria, the Permit shall be denied or approved with conditions. In determining whether the Project complies with these criteria, or if conditions should be imposed, the Permit Authority will utilize the considerations in Appendix "A."

- 12.40.10(1) Documentation that prior to site disturbance for the Project the applicant will have obtained all necessary property rights, permits and approvals. The Board may, at its discretion, defer making a final decision on the application until outstanding property rights, permits and approvals are obtained.
 - No site disturbance is necessary for this Project.
 - RMNG will have obtained all necessary regulatory authorizations prior to moving in equipment and drilling the wells.
 - Along with the County approval, RMNG will also need approval from the Bureau of Land Management, United States Forest Service, and Colorado Oil and Gas Conservation Commission prior to beginning drilling operations.
- 12.40.10(2) The Project will not impair property rights held by others.
 - All activities will take place on United State Forest Service property.
- 12.40.10(3) The Project is consistent with relevant provisions of applicable land use and water quality plans.

- Project is utilizing existing disturbance to replace existing storage wells. It is aligned with current land uses.
- 12.40.10(4) The applicant has the necessary expertise and financial capability to develop and operate the Project consistent with all requirements and conditions.
 - RMNG (or its parent company), has operated the Wolf Creek Gas Storage Unit since 2003.
 - RMNG has all requisite operational bonds on file with the Colorado Oil and Gas Conservation Commission.
- 12.40.10(5) The Project is technically and financially feasible.
 - The Project is technically and financially feasible.
- 12.40.10(6) The Project is not subject to significant risk from natural hazards.
 - The Project is using existing disturbance in an established natural gas storage field. The Project will comply with all approving agencies emergency guidance for natural hazards.
- 12.40.10(7) The Project will not have a significant adverse effect on land use patterns.
 - Once the two wells are drilled and completed, they will be part of the routine operations in the Wolf Creek field. The additional wells will be unnoticeable to the public.
- 12.40.10(8) The Project will not have a significant adverse effect on the capability of local governments affected by the Project to provide services, or exceed the capacity of service delivery systems.
 - The Project will not have a significant adverse effect on the capability of local governments affected by the Project to provide services, or exceed the capacity of service delivery systems. The new wells will utilize all disturbance and systems that are in place and will not create a noticeable change for the local government.
- 12.40.10(9) The Project will not create an undue financial burden on existing or future residents of the County.
 - There will be no undue financial burden caused by this Project.
- 12.40.10(10) The Project will not significantly degrade any current or foreseeable future sector of the local economy.
 - The Project will not significantly degrade any current or foreseeable future sector of the local economy. It will cause a brief rise in local economy to support the extra manpower required by drilling and completion operations. Once the drilling and completion operations are complete, the economy will return to the current economy with no noticeable long-term changes.
- 12.40.10(11) The Project will not have a significant adverse effect on the quality or quantity of recreational opportunities and experience.
 - Changes to existing and projected visitor days.

- RMNG, in cooperation with USFS, may temporarily close Forest Service Road 321 to avoid conflicts with the public during drilling and completions operations.
 - Changes to duration of kayaking and rafting seasons.
 - Project should have no effect.
 - Changes in quality and quantity of fisheries.
 - Project should have no effect.
 - Changes in instream flows or reservoir levels.
 - Changes in access to recreational resources.
 - Project should have no effect.
 - Changes to quality and quantity of hiking trails.
 - Project should have no effect.
 - Changes to the wilderness experience or other opportunity for solitude in the natural environment.
 - During drilling and completion operations, there will be an increase in traffic and activity. Once the wells are completed and in service, all activity should return to normal and offer the same level of wilderness experience as before the Project was approved.
 - Changes to hunting experiences.
 - Project should have no effect.
- 12.40.10(12) The planning, design and operation of the Project shall reflect principals of resource conservation, energy efficiency and recycling or reuse.
 - 12.40.10(13) The Project will not significantly degrade air quality.
 - The Project will not significantly degrade air quality. All equipment will meet all relevant air quality laws in Colorado.
 - 12.40.10(14) The Project will not significantly degrade existing visual quality.
 - Due to the Project using existing well pads and roads, there will visually be no difference than what exists now.
 - 12.40.10(15) The Project will not significantly degrade surface water quality.
 - By using existing disturbance, the Project will not cause significant degradation of surface water quality. The Project area is also covered under a Colorado Department of Public health and Environment Stormwater Permit. All requirements of the permit will be followed and Best Management Practices will be maintained as necessary.
 - 12.40.10(16) The Project will not significantly degrade groundwater quality.
 - By using a casing and cement program approved by Colorado Oil and Gas Conservation Commission engineers and Bureau of Land Management engineers, the Project will not cause significant degradation of groundwater quality.
 - 12.40.10(17) The Project will not significantly degrade wetlands, and riparian areas.
 - By using all existing disturbance for roads and well pads, the Project will not cause significant degradation of any wetlands or riparian areas in the surrounding environment.

- 12.40.10(18) The Project will not significantly degrade terrestrial or aquatic animal life or its habitats.
 - By using all existing disturbance for roads and well pads, The Project will not significantly deteriorate terrestrial or aquatic animal life or its habitat in the surrounding environment.
- 12.40.10(19) The Project will not significantly deteriorate terrestrial plant life or plant habitat.
 - By using all existing disturbance for roads and well pads, the Project will not significantly deteriorate terrestrial or aquatic plant habitat in the surrounding environment.
- 12.40.10(20) The Project will not significantly deteriorate soils and geologic conditions.
 - By using all existing disturbance for roads and well pads, the Project will not significantly deteriorate soils and geologic conditions in the surrounding environment.
- 12.40.10(21) The Project will not cause a nuisance.
 - Long-term, the Project will not cause a nuisance. The operation of the two replacement wells will not be noticeable from current operations. Traffic in the region may increase slightly during the drilling and completion operations, but once the wells are completed traffic will resume its normal pattern.
- 12.40.10(22) The Project will not significantly degrade areas of paleontological, historic, or archaeological importance.
 - By using all existing disturbance for roads and well pads, the Project will not cause significant degradation of any areas of paleontological, historic, or archaeological importance in the surrounding environment.
- 12.40.10(23) The Project will not result in unreasonable risk of releases of hazardous materials.
 - The Project will not result in an unreasonable risk of release of hazardous material.
- 12.40.10(24) The benefits accruing to the County and its citizens from the Project outweigh the losses of any natural, agricultural, recreational, grazing, commercial or industrial resources within the County, or the losses of opportunities to develop such resources.
 - Due to the Project using existing well pads and roads, there will be no noticeable differences than what exists now. No losses of any natural, agricultural, recreational, grazing, commercial or industrial resources within the County, or the losses of opportunities to develop such resources will occur due to the Project.
- 12.40.10(25) The Project will not significantly degrade such natural features as water bodies, ridgelines, streambed meander limits and steep slopes.
 - The Project will leave everything as-is in the surrounding environment by using all existing disturbance for roads and well pads.

*12.40.120 Additional Criteria Applicable to Site Selection and
Construction of Major Facilities of a Public Utility*

12.40.120.A. In addition to the general criteria in Section 12.40.10, the following criteria shall apply to applications proposing to locate and construct Major Facilities of a Public Utility.

- 12.40.120.A(1) Facilities shall be sited and constructed in areas which will result in the proper utilization of existing facilities and associated systems within or serving the County.
 - RMNG intends to utilize all existing facilities and infrastructure to support the Project by drilling both wells from existing pads.
- 12.40.120.A(2) Facilities shall be allowed in those areas in which the anticipated growth and development that may occur as a result of such facility can be accommodated within the financial and environmental capacity of the area to sustain such growth and development and are in accordance with the applicable County land use plans.
 - The Project is located in the existing natural gas storage field, on existing disturbance. It is in compliance with current land use plans.
- 12.40.120.A(3) Existing facilities and associated systems servicing the area must be at or near operational capacity.
 - This Project proposes to replace two existing wells.
 - All other facilities will remain the same, including pipelines transporting gas into and out of the storage field.
- 12.40.120.A(4) If a facility extension or replacement is proposed, the age of existing facilities and associated systems, their operational efficiency, and their state of repair or level of service are such that extension or replacement is warranted.
 - Two wells proposed in this Project are to replace existing wells.
 - One of the wells proposed in this Project is to replace the existing Wolf Creek Unit-Govt 5, which was drilled in 1965.
 - The second replacement well is replacing the recently plugged and abandoned Wolf Creek Unit #9, originally drilled in 1967.
- 12.40.120.A(5) If a new facility is proposed, existing facilities cannot be feasibly upgraded or expanded.
 - Not applicable
- 12.40.120.A(6) Where feasible, major facilities of a public utility shall be located so as to avoid direct conflict with adopted local comprehensive, State and regional master plans.
 - Project will not be in conflict with adopted local comprehensive, State and regional master plans.

- 12.40.120.A(7) Where feasible, major facilities of a public utility shall be located so as to minimize dedication of new right-of-way and construction of additional infrastructure (e.g., pipelines, roads, and transmission lines).
 - RMNG has sited both new wells on existing pads to utilize existing roads, pipelines, and surface disturbance. No new right-of-ways or construction is necessary for this project.
- 12.40.120.A(8) If applicable, the Project complies with the County's Scientific/Social Framework for Managing Impacts of Trans-Basin Water Diversions to Protect Stream Health in Pitkin County, Colorado, in accordance with the guidelines described therein.
 - Not applicable.

Wolf Creek

Water Source Hauling

Exit 87-Rifle-I70

Exit 116-Glenwood Springs-I70

Legend

- Feature 1
- Feature 2
- Feature 3
- Route

Wolf Creek #71

Wolf Creek #5

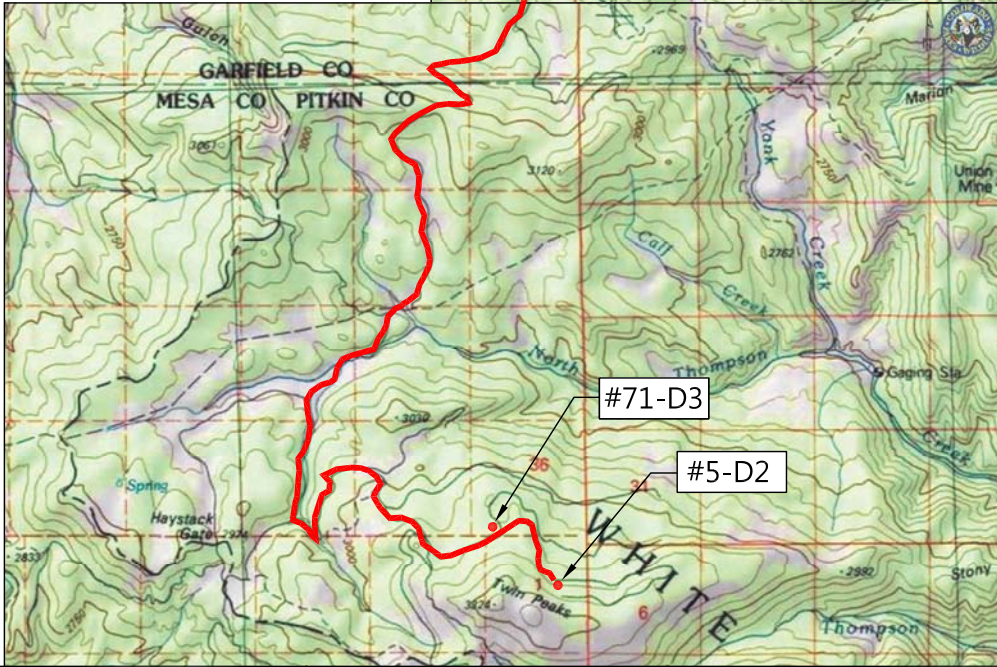
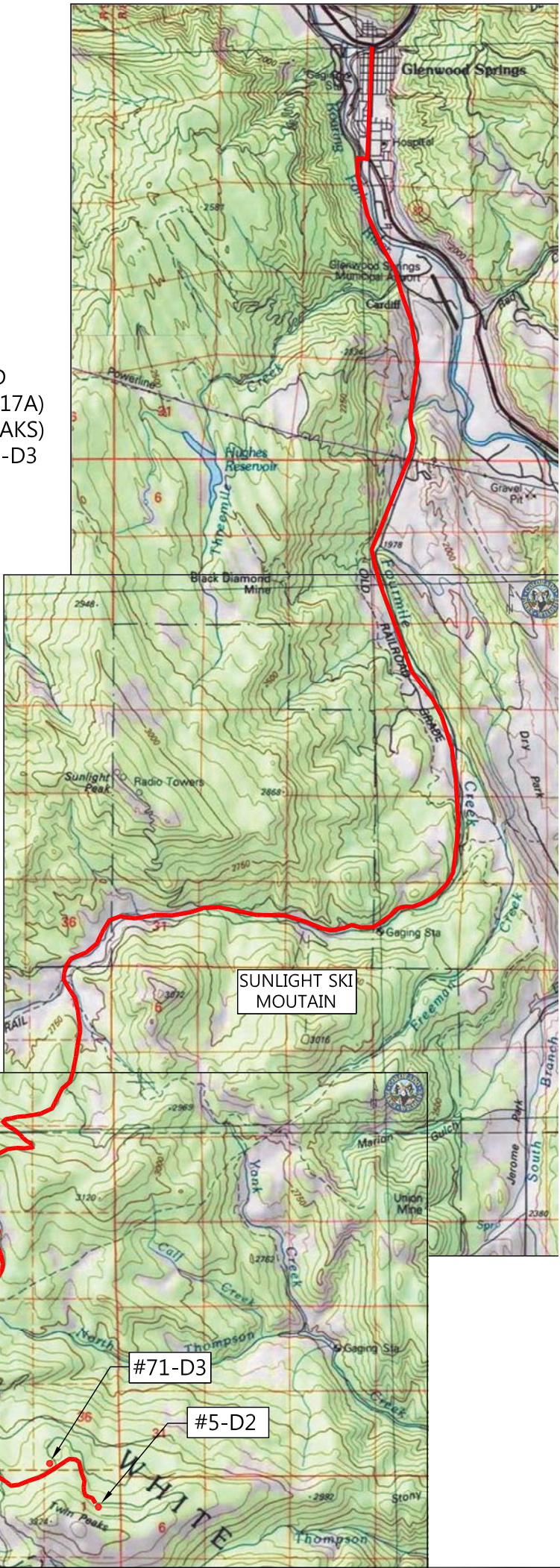




FROM GLENWOOD SPRINGS

GRAND AVE SOUTH TO MIDLAND AVENUE
TO FOUR MILE ROAD (CR 117) TO
SUNLIGHT SKI MOUNTAIN ABOUT 12± MILES
TAKE RIGHT ONTO FOUR MILE ROAD
(CR 117A) FOR 8± MILES

TO "T" INTERSECTION WITH WEST DIVIDE ROAD
GO LEFT OR CONTINUE ON FOUR MILE ROAD (CR117A)
FOR 2± MILES TO FOREST SERVICE ROAD (TWIN PEAKS)
TAKE A LEFT FOR 1/2± MILES TO WOLF CREEK #71-D3
CONTINUE PASS WOLF CREEK #71-D3
FOR 1± MILE TO WOLF CREEK #5-D2



TRUE NORTH
COLORADO

A LAND SURVEYING AND MAPPING COMPANY



BLACK HILLS ENERGY
ROAD MAP FROM GWS TO WELL PADS #5 & #71 WOLF CREEK
COUNTIES OF GARFIELD & PITKIN, STATE OF COLORADO



TRUE NORTH COLORADO, LLC.
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PROJECT NO: 2017-216

DATE: APRIL 6, 2018

DRAWN

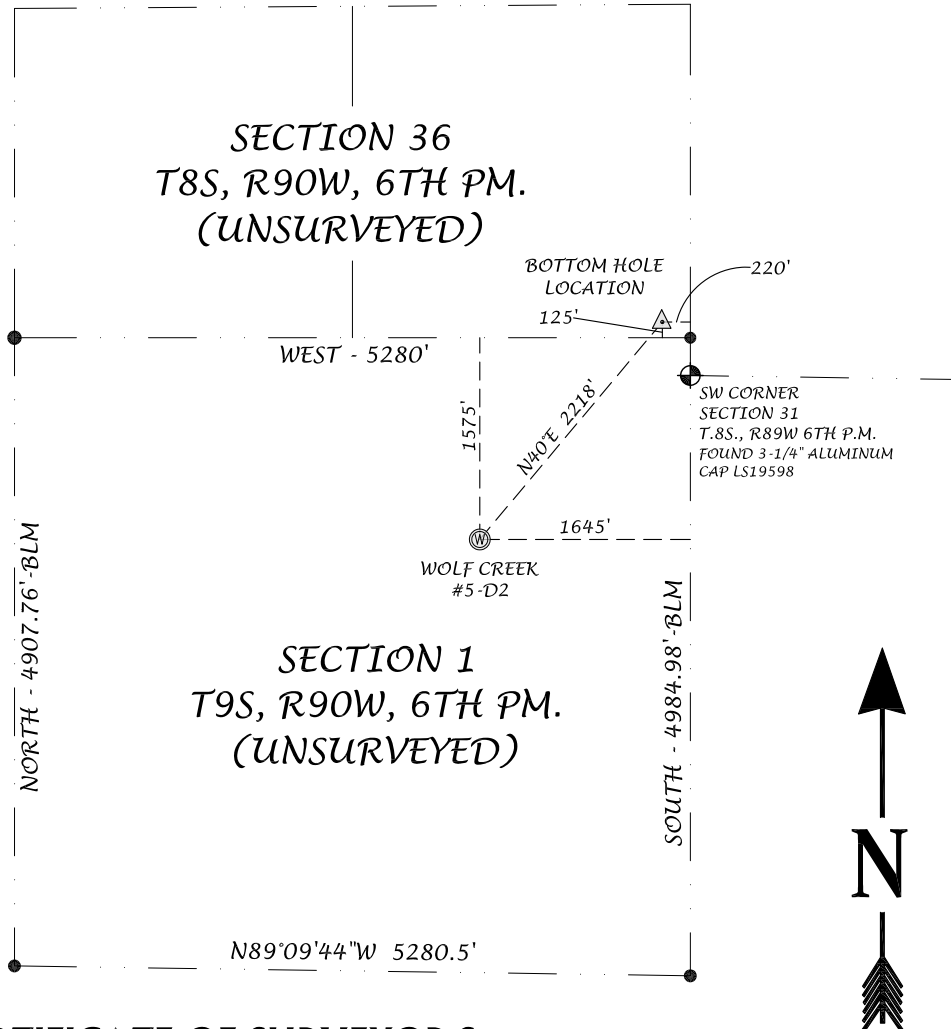
RPK

SURVEYED

SHEET
1 OF 1

WELL LOCATION PLAT

TOWNSHIP 9 SOUTH, RANGE 90 WEST OF THE 6TH P.M.



WELL NAME

WOLF CREEK #5-D2

GENERAL LOCATION

SW1/4NE1/4, SECTION 1

T. 9 S., R. 90 W., 6TH P.M.

PITKIN COUNTY

SURFACE LOCATION

1575' SOUTH OF NORTH LINE

1645' WEST OF EAST LINE

SURFACE WELL LOCATION

NAD83

LAT: 39°18'14.97"(N)

LONG: 107°23'09.74"(W)

LAT: 39.304158°(N)

LONG: 107.386039°(W)

PDOP = 1.7

GROUND ELEVATION

10294.1-NAVD88 DATUM

BOTTOM HOLE LOCATION

125' NORTH OF SOUTH LINE-SEC. 36

220' WEST OF EAST LINE-SEC. 36

BOTTOM HOLE LOCATION

NAD83

LAT: 39°18'32.05"(N)

LONG: 107°22'52.06"(W)

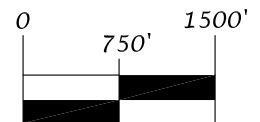
LAT: 39.308894°(N)

LONG: 107.381128° (W)

CERTIFICATE OF SURVEYOR'S

I, RODNEY P. KISER, DO HEREBY CERTIFY THAT THIS WELL LOCATION PLAT WAS PREPARED FROM AVAILABLE RECORDS, MAPS, FIELD STAKING AND LOCATION INFORMATION TAKEN DURING A FIELD SURVEY MADE UNDER MY DIRECTION AND IT CORRECTLY SHOWS THE LOCATION OF THE SURFACE WELL LOCATION AS STAKED ON THE GROUND.

- LATITUDES AND LONGITUDES ARE BASED ON NAD83, NGS CONTROL POINTS ROSEBUD, Q158 AND N158.
- WELL MEASUREMENTS ARE 90° FROM SECTION LINES.
- CURRENT SURFACE LAND USE: EXISTING WELL PAD WOLF CREEK #5, SURROUNDED BY U.S. PUBLIC LANDS.
- DATE OF FIELD WORK & SURFACE WELL LOCATION STAKING: OCTOBER 24, 2017.



SCALE: 1" = 1500'

TRUE NORTH
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A LAND SURVEYING AND MAPPING COMPANY

BLACK HILLS ENERGY

SECTION 1, TOWNSHIP 9 SOUTH, RANGE 90 WEST OF 6TH P.M.
COUNTY OF PITKIN, STATE OF COLORADO



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PROJECT NO: 2017-216

DATE: APRIL 6, 2018

DRAWN

RPK

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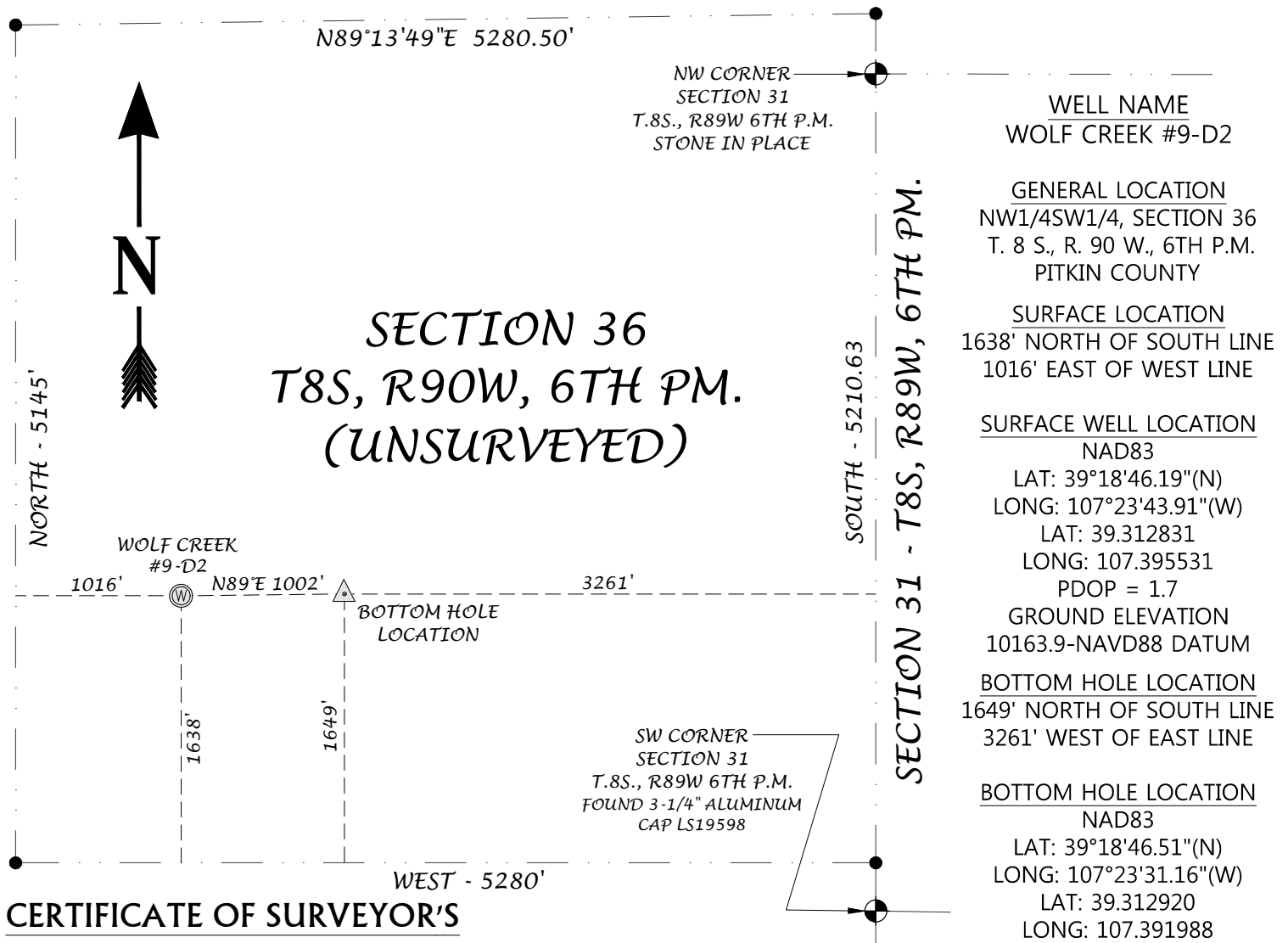
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SHEET

1 OF 1

WELL LOCATION PLAT

TOWNSHIP 8 SOUTH, RANGE 90 WEST OF THE 6TH P.M.



WELL NAME
WOLF CREEK #9-D2

GENERAL LOCATION
NW1/4SW1/4, SECTION 36
T. 8 S., R. 90 W., 6TH P.M.
PITKIN COUNTY

SURFACE LOCATION
1638' NORTH OF SOUTH LINE
1016' EAST OF WEST LINE

SURFACE WELL LOCATION
NAD83

LAT: 39°18'46.19"(N)
LONG: 107°23'43.91"(W)
LAT: 39.312831
LONG: 107.395531
PDOP = 1.7

GROUND ELEVATION
10163.9-NAVD88 DATUM

BOTTOM HOLE LOCATION
1649' NORTH OF SOUTH LINE
3261' WEST OF EAST LINE

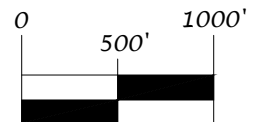
BOTTOM HOLE LOCATION
NAD83

LAT: 39°18'46.51"(N)
LONG: 107°23'31.16"(W)
LAT: 39.312920
LONG: 107.391988

CERTIFICATE OF SURVEYOR'S

I, RODNEY P. KISER, DO HEREBY CERTIFY THAT THIS WELL LOCATION PLAT WAS PREPARED FROM AVAILABLE RECORDS, MAPS, FIELD STAKING AND LOCATION INFORMATION TAKEN DURING A FIELD SURVEY MADE UNDER MY DIRECTION AND IT CORRECTLY SHOWS THE LOCATION OF THE SURFACE WELL LOCATION AS STAKED ON THE GROUND.

- LATITUDES AND LONGITUDES ARE BASED ON NAD83, NGS CONTROL POINTS ROSEBUD, Q158 AND N158.
- WELL MEASUREMENTS ARE 90° FROM SECTION LINES.
- CURRENT SURFACE LAND USE: EXISTING WELL PAD WOLF CREEK #9, SURROUNDED BY U.S. PUBLIC LANDS.
- DATE OF FIELD WORK & SURFACE WELL LOCATION STAKING: AUGUST 20, 2018.



SCALE: 1" = 1000'

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BLACK HILLS ENERGY

SECTION 36, TOWNSHIP 8 SOUTH, RANGE 90 WEST OF 6TH P.M.
COUNTY OF PITKIN, STATE OF COLORADO



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PROJECT NO: 2017-216

DATE: September 10, 2018

DRAWN

RPK

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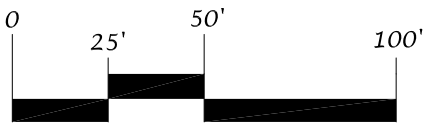
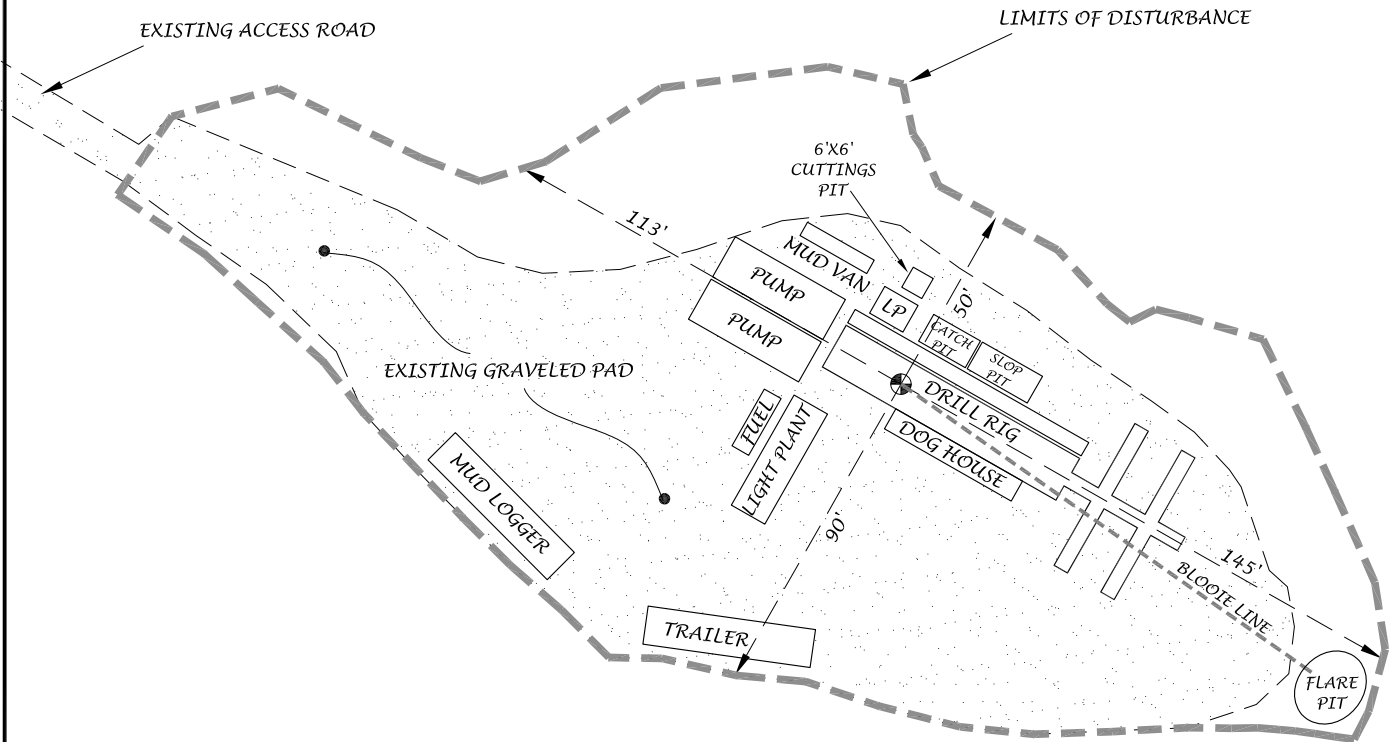
LDV

SHEET
3 OF 6

RIG LAYOUT

WOLF CREEK #5-D2

SW1/4NE1/4 SECTION 1, TOWNSHIP 9 SOUTH,
RANGE 90 WEST OF THE 6TH P.M.
COUNTY OF PITKIN, STATE OF COLORADO



SCALE: 1" = 50'



BLACK HILLS ENERGY
SECTION 1, TOWNSHIP 9 SOUTH, RANGE 90 WEST OF 6TH P.M.
COUNTY OF PITKIN, STATE OF COLORADO



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PROJECT NO: 2017-216

DATE: October 23, 2018

DRAWN

RPK

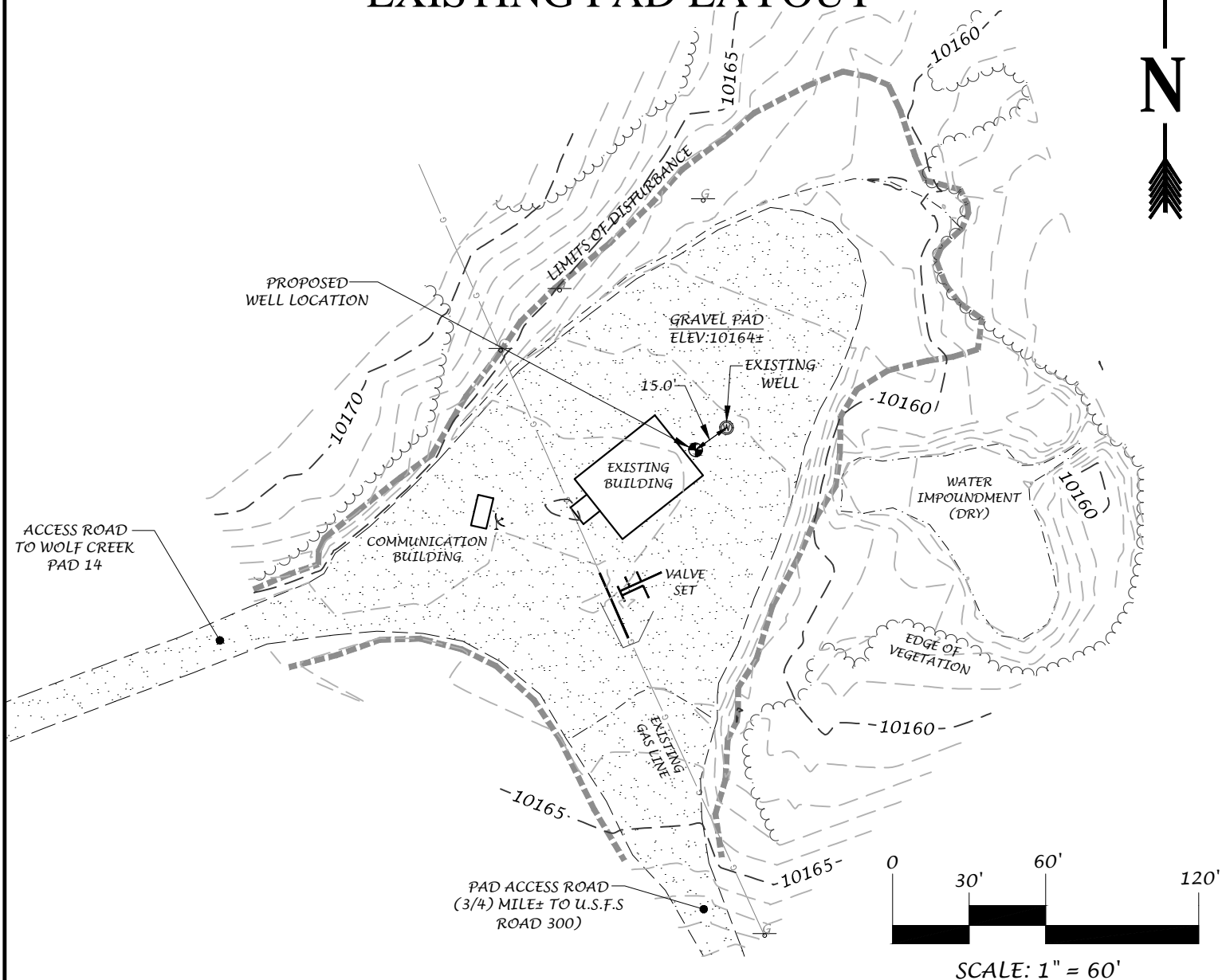
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LDV

SHEET
1 OF 1

WOLF CREEK #9-D2

NW1/4SW1/4 SECTION 36, TOWNSHIP 8 SOUTH,
RANGE 90 WEST OF THE 6TH P.M.
COUNTY OF PITKIN, STATE OF COLORADO
EXISTING PAD LAYOUT



BLACK HILLS ENERGY
SECTION 36, TOWNSHIP 8 SOUTH, RANGE 90 WEST OF 6TH P.M.
COUNTY OF PITKIN, STATE OF COLORADO



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PROJECT NO: 2017-216

DATE: September 10, 2018

DRAWN

RPK

SURVEYED

LDV

SHEET
2 OF 6

Wolf Creek #5 Pad



Google Earth

200 ft



Wolf Creek #9 Pad

Google Earth

200 ft

