



**ENTECH**  
ENGINEERING, INC.

505 ELKTON DRIVE  
COLORADO SPRINGS, CO 80907  
PHONE (719) 531-5599

August 20, 2024

Mark McDonald  
12425 Meridian Road  
Elbert, Colorado 80106

Re: Wastewater Study  
Misfit Crew Estates  
5775 Mountain Shadow View  
El Paso County, Colorado  
Entech Job No. 240944

Dear Mr. McDonald:

The project consists of subdividing approximately 36 acres. Three rural residential lots are proposed. Existing houses and structures on Lot 1 will remain, with two new lots proposed. The site is located southeast of the intersection of northwest of Hodgen Road and Thompson Road, in northern El Paso County, Colorado.

### **GENERAL SITE CONDITIONS AND PROJECT DESCRIPTION**

The site is located in a portion of the SE¼ of Section 24, Township 11 South, Range 66 West of the 6<sup>th</sup> Principal Meridian in El Paso County, Colorado. The location of the site is as shown on the Vicinity Map, Figure 1.

The topography of the site is gradually to moderately sloping to the southwest and northeast along a ridge through the central portion of the site. A drainage is located in the southern portion of the site within proposed Lots 2 and 3, and several minor drainage swales and a pond are located on Lot 1. The pond seasonally contains water. Water was not observed flowing in any of the drainages the time of this investigation. The site boundaries are indicated on the USGS Map, Figure 2. Previous land uses have included agricultural and rural residential. The site contains primarily field grasses, and weeds with landscaped areas, pine trees and aspens around the existing residence on Lot 1. Site photographs, taken July 11, 2024, are included in Appendix A.

Total acreage involved in the proposed subdivision is approximately 36 acres. Three rural residential lots are proposed as part of the replat. The proposed lot sizes range from approximately 5 to 25 acres. The existing residence and outbuildings will remain on Lot 1. The two new lots will be serviced by individual wells and on-site wastewater treatment systems. Existing septic records for the residence on Lot 1 are included with this report. The Site and Exploration Plan with the proposed replat is presented in Figure 3.

### **LAND USE AND ENGINEERING GEOLOGY**

This site was found to be suitable for the proposed development. Areas were encountered where the geologic conditions will impose some constraints on development and land use. These include artificial fill, potentially expansive soils, ponded water, and potential seasonally shallow groundwater areas. Based on the proposed development plan, it appears that these areas will have some minor impacts on the development. The drainage in the southern portion of the site within Lots 2 and 3 is within a drainage easement where development will be avoided. These conditions will be discussed in greater detail in the report.

In general, it is our opinion that the development can be achieved if the observed geologic conditions on site are either avoided or properly mitigated. All recommendations are subject to the limitations discussed in the report.

## SCOPE OF THE REPORT

The scope of the report will include a general geologic analysis utilizing published geologic data. Detailed site-specific mapping was conducted to obtain general information with respect to major geographic and geologic features, geologic descriptions and their effects on the development of the property.

## FIELD INVESTIGATION

Our field investigation consisted of the preparation of a geologic map of any bedrock features and significant surficial deposits. The Natural Resource Conservation Service (NRCS), previously the Soil Conservation Service (SCS) survey was also reviewed to evaluate the site. The position of mappable units within the subject property are shown on the Geologic Map. Our mapping procedures involved both field reconnaissance and measurements, and aerial photo reconnaissance and interpretation. The same mapping procedures have also been utilized to produce the Geology/Engineering Geology Map which identified pertinent geologic conditions affecting development. The field mapping was performed by personnel of Entech Engineering, Inc. on July 11, 2024.

Two test pits were excavated to determine the general suitability for the use of on-site wastewater treatment systems and general soil characteristics and two test borings were drilled on the site to determine soil conditions. The location of the test borings and test pits are indicated on the Site Plan/Test Pit Location Map, Figure 3. The Test Boring and Test Pit Logs are presented in Appendix B. Results of this testing will be discussed later in this report.

Laboratory testing was also performed on some of the soils to classify and determine the soils engineering characteristics. Laboratory tests included grain-size analysis, ASTM D-422, and Atterberg Limits, ASTM D-4318. Results of the laboratory testing are included in Appendix C.

## SOIL AND GEOLOGIC CONDITIONS

### Soil Survey

The Natural Resource Conservation Service (NRCS) (Reference 1, Figure 4), previously the Soil Conservation Service (Reference 2) has mapped two soil types on the site. Complete descriptions of the soil types are presented in Appendix D. In general, the soils consist of sandy loam to gravelly loamy sand. The soils are described as follows:

Soil Type	Description
40	Kettle gravelly loamy sand, 3 – 8% Slopes
41	Kettle gravelly loamy sand, 8 – 40% Slopes



The soils have been described to have moderate to rapid permeabilities. The soils are described as well suited for use as homesites. Possible hazards with soils erosion are present on the site. The erosion potential can be controlled with vegetation. The soils have been described to have moderate erosion hazards (Reference 2).

### Soils

The soils encountered in the test borings and test pits consisted of a layer of silty to clayey sand overlying weathered sandy claystone and silty sandstone. Bedrock was encountered at depths ranging from 7 to 12 feet in the test borings, and at approximately 5 feet in the test pits. The upper sands were encountered at loose to medium dense states and moist conditions. Swell/Collapse Testing on a sample of the claystone resulted in a consolidation of 1.3%. Expansive claystone and siltstone are commonly interbedded within the sandstone of the Dawson Formation. Test Boring and Test Pit Logs are included in Appendix B and Laboratory testing results are included in Appendix C.

### Groundwater

Groundwater was not encountered in the test borings which were drilled to depths of 20 feet. Redoximorphic features were observed in Test Pit No. 1 at 7.5 feet. It is anticipated groundwater will not affect shallow foundations on the site. Fluctuations in groundwater conditions may occur due to variations in rainfall or other factors not readily apparent at this time. Isolated sand layers within the soil profile can carry water in the subsurface. Contractors should be cognizant of the potential for the occurrence of subsurface water features during construction.

### Geology

Approximately 12 miles west of the site is a major structural feature known as the Rampart Range Fault. This fault marks the boundary between the Great Plains Physiographic Province and the Southern Rocky Mountain Province. The site exists within a large structural feature known as the Denver Basin. Bedrock in the area is typically gently dipping in a northerly direction (Reference 3). The bedrock underlying the site consists of the Dawson Formation of Cretaceous Age. The Dawson Formation typically consists of fine to coarse-grained arkosic sandstone with interbedded claystone or siltstone. Overlying the Dawson Formation are alluvial deposits of Holocene to late Pleistocene Age.

The geology of the site was evaluated using the *Geologic Map of the Black Forest Quadrangle*, by Thorson in 2003, (Reference 4, Figure 5). The Geology Map for the site is presented in Figure 6. Two mappable units were identified on this site which is described as follows:

**Qaf Artificial Fill of Holocene Age:** These man-placed fill associated with the existing erosion berms across the property and the earthen embankment located south of the existing residence on Lot 1.

**Tkd Dawson Formation of Tertiary to Cretaceous Age:** The materials consist of colluvial or residual soils overlying the bedrock materials on-site. The colluvial soils were deposited by the action of sheetwash and gravity. The residual soils were derived from the in-situ weathering of the bedrock on site. These materials typically consist of silty to clayey sand with potential areas of sandy clays. The bedrock consists of the Dawson Formation. The Dawson Formation typically consists of coarse-grained, arkosic sandstone with interbedded lenses of fine-grained sandstone, siltstone and claystone.



The soils listed above were mapped from site-specific mapping, the *Geologic Map of the Black Forest Quadrangle* distributed by the Colorado Geologic Survey in 2003 (Reference 4, Figure 5), The *Geologic Map of the Colorado Springs-Castle Rock Area*, distributed by the US Geological Survey in 1979 (Reference 5), and the *Geologic Map of the Pueblo 1° x 2° Quadrangle*, distributed by the US Geological Survey in 1978 (Reference 6). The test borings and test pits were used in evaluating the site and is included in Appendix B. The Geology Map prepared for the site is presented in Figure 6.

### Drainage Areas

A drainage is located in the southern portion of the site within proposed Lots 2 and 3, and several minor drainage swales and a pond are located on Lot 1. The pond seasonally contains water. Water was not observed flowing in any of the drainages the time of this investigation. This area is indicated in the Geology/Engineering Geology Map (Figure 6) and are discussed below. The drainage on Lots 2 and 3 is within a drainage easement no-build area. The site does not lie within any floodplain zones according to the FEMA Map No. 08041CO305G dated December 7, 2018 (Figure 7, Reference 7). Exact locations of floodplain and specific drainage studies are beyond the scope of this report.

The pond located on Lot 1 has been identified in the National Wetland Inventory as Freshwater Emergent Wetland habitats classified as PUSCh (Palustrine – P, Unconsolidated Shore – US, Persistent – 1, Seasonally Flooded – C, Diked/Impounded – H), (Figure 8, Reference 8). No construction or development is proposed in this area.

- Potentially Seasonal Shallow Groundwater Area - Constraint

Portions of the drainage and minor drainage swales on the site have been identified as a potentially seasonal shallow groundwater area. In these areas we would anticipate the potential for periodically high subsurface moisture conditions, frost heave potential and highly organic soils. The upslope sides of the erosion berms also have the potential to become saturated after periods of increased precipitation. These area lies within defined minor drainages which can be avoided by the future development of Lots 2 and 3.

### **ON-SITE WASTEWATER TREATMENT**

The Natural Resource Conservation Service (Reference 1), previously the Soil Conservation Service (Reference 2) has been mapped with two soil descriptions. The Soil Survey Map (Reference 1) is presented in Figure 4, and the Soil Survey Descriptions (Reference 2) are presented in Appendix D. The soils are described as having moderate to rapid percolation rates. Records for the existing septic system located on Lot 1 are included in Appendix E.

Soils encountered in the tactile test pits consisted of sandy loam and sandy clay loam overlying weathered to clayey sandstone. The limiting layers encountered in the test pits is the clayey sandstone, which corresponds with USDA Soil Types 4A with a LTAR values of 0.20 gallons per day per square foot. Weathered bedrock was encountered at approximately 5 feet in the test pits, and redoximorphic features were observed at 7.5 feet in Test Pit No. 1. Absorption fields must be maintained a minimum of 4 feet above groundwater, bedrock, or confining layer. Should groundwater or bedrock be encountered within 6 feet of the surface, designed systems will be



required. Designed systems are anticipated for the lots, however, areas may be encountered on the lots where conventional systems would be suitable.

In summary, it is our opinion the new lots will be suitable for individual on-site wastewater treatment systems (OWTS) and that contamination of surface and subsurface water resources should not occur provided the OWTS sites are evaluated and installed according to El Paso County and State Guidelines and properly maintained. Based on the testing performed designed systems will be required for the new lots. The Septic Suitability Map is presented in Figure 9. A possible house location, water well, and two septic sites for the new lots are indicated on Figure 9. Areas that should be avoided by septic systems are indicated on the septic suitability map.

**Individual soil testing is required for proposed construction on each lot prior to construction.** Absorption fields must be located a minimum of 100 feet from any well, including those on adjacent properties. Absorption fields must also be located a minimum of 50 feet from any drainages, floodplains or ponded areas and 25 feet from dry gulches.

## CLOSURE

This report has been prepared for Mark McDonald, for application to the proposed project in accordance with generally accepted geologic soil and engineering practices. No other warranty expressed or implied is made.

We trust that this report has provided you with all the information that you required. Should you require additional information, please do not hesitate to contact Entech Engineering, Inc.

Respectfully Submitted,

ENTECH ENGINEERING, INC.

Reviewed by:

A handwritten signature in blue ink, appearing to read "Logan L. Langford".

Logan L. Langford, P.G.  
Sr. Geologist



Joseph C. Goode, Jr., P.E.  
President

LLL/JG

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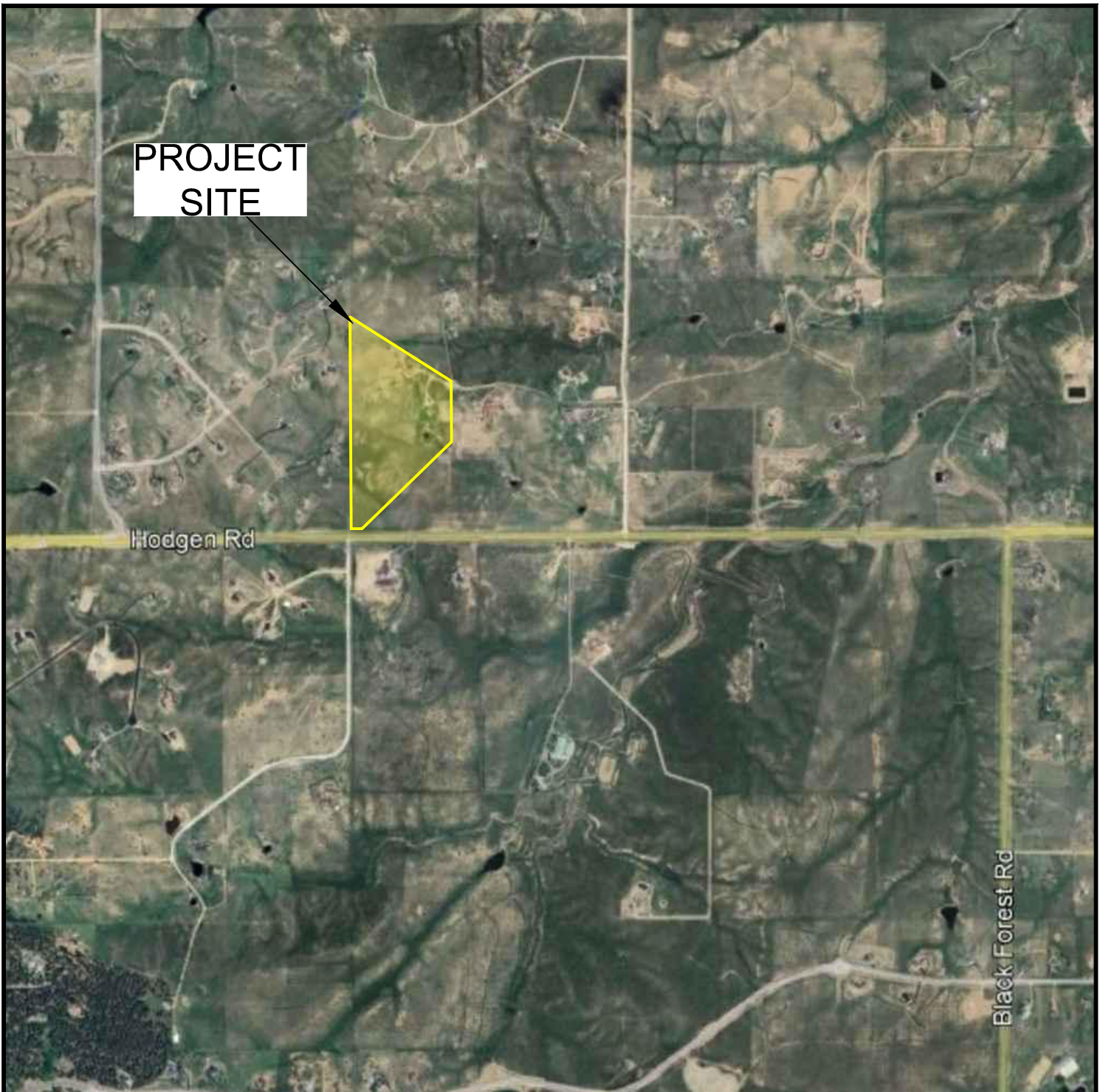


## REFERENCES

1. Natural Resource Conservation Service, February 16, 2023. *Web Soil Survey*. United States Department Agriculture, <http://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm>.
2. United States Department of Agriculture Soil Conservation Service. June 1981. *Soil Survey of El Paso County Area, Colorado*.
3. Scott, Glen R.; Taylor Richard B.; Epis, Rudy C; and Wobus, Reinhard A. 1978. *Geologic Structure Map of the Pueblo 1° x 2° Quadrangle, South-Central Colorado*. Sheet 2. U.S. Geologic Survey. Map I-1022, Sheet 2.
4. Thorson, Jon P., 2003. *Geologic Map of the Black Forest Quadrangle, El Paso County, Colorado*. Colorado Geological Survey. Open-File Report 03-6.
5. Trimble, Donald E. and Machette, Michael N. 1979. *Geologic Map of the Colorado Springs-Castle Rock Area, Front Range Urban Corridor, Colorado*. USGS, Map I-857-F.
6. Scott, Glen R.; Taylor Richard B.; Epis, Rudy C; and Wobus, Reinhard A. 1978. *Geologic Structure Map of the Pueblo 1° x 2° Quadrangle, South-Central Colorado*. Sheet 2. U.S. Geologic Survey. Map I-1022.
7. Federal Emergency Management Agency. December 7, 2018. *Flood Insurance Rate Maps for the El Paso County, Colorado*. Map Number 08041CO305G.
8. U.S. Fish & Wildlife Service, May 1, 2020. *National Wetlands Inventory*. Department of the Interior, [fws.gov/wetlands/data/Mapper.html](https://fws.gov/wetlands/data/Mapper.html).

## FIGURES





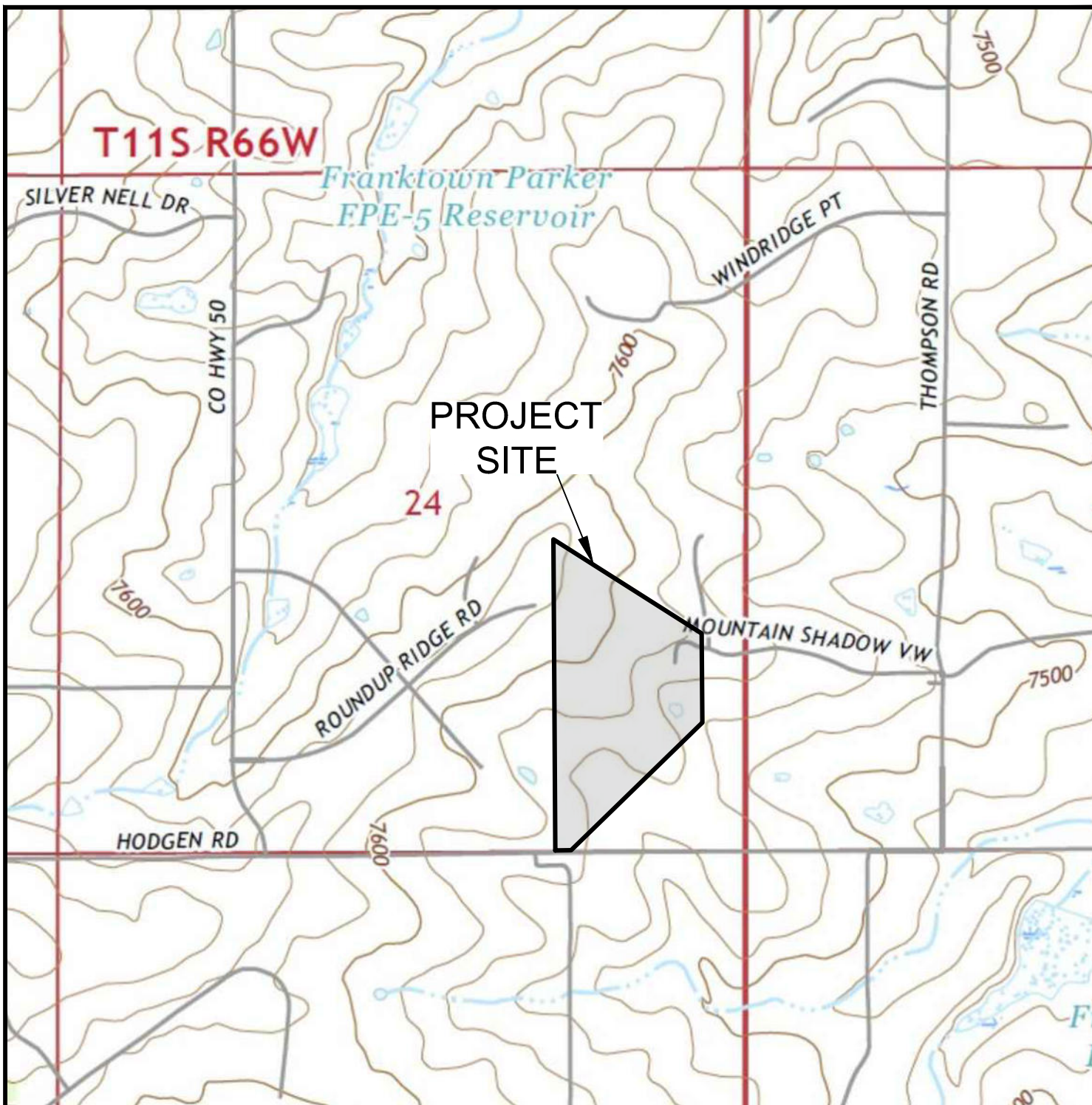
## VICINITY MAP

5775 MOUNTAIN SHADOW VIEW  
MARK MCDONALD

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240944

**FIG. 1**



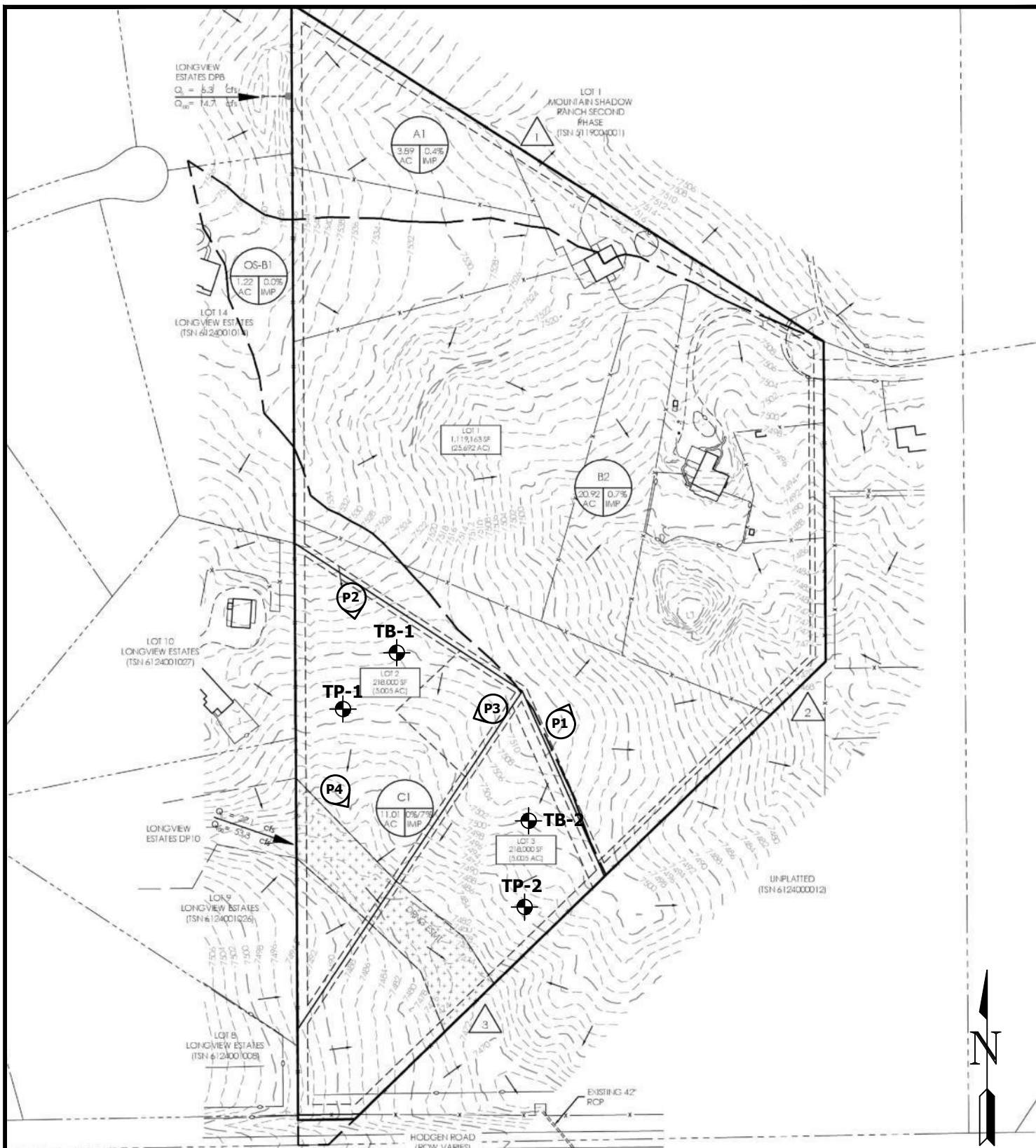


## USGS TOPOGRAPHY MAP

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**FIG. 2**



**TB- APPROXIMATE TEST BORING LOCATION AND NUMBER**



**- APPROXIMATE PHOTOGRAPH LOCATION AND NUMBER**



## SITE AND EXPLORATION PLAN

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**FIG. 3**



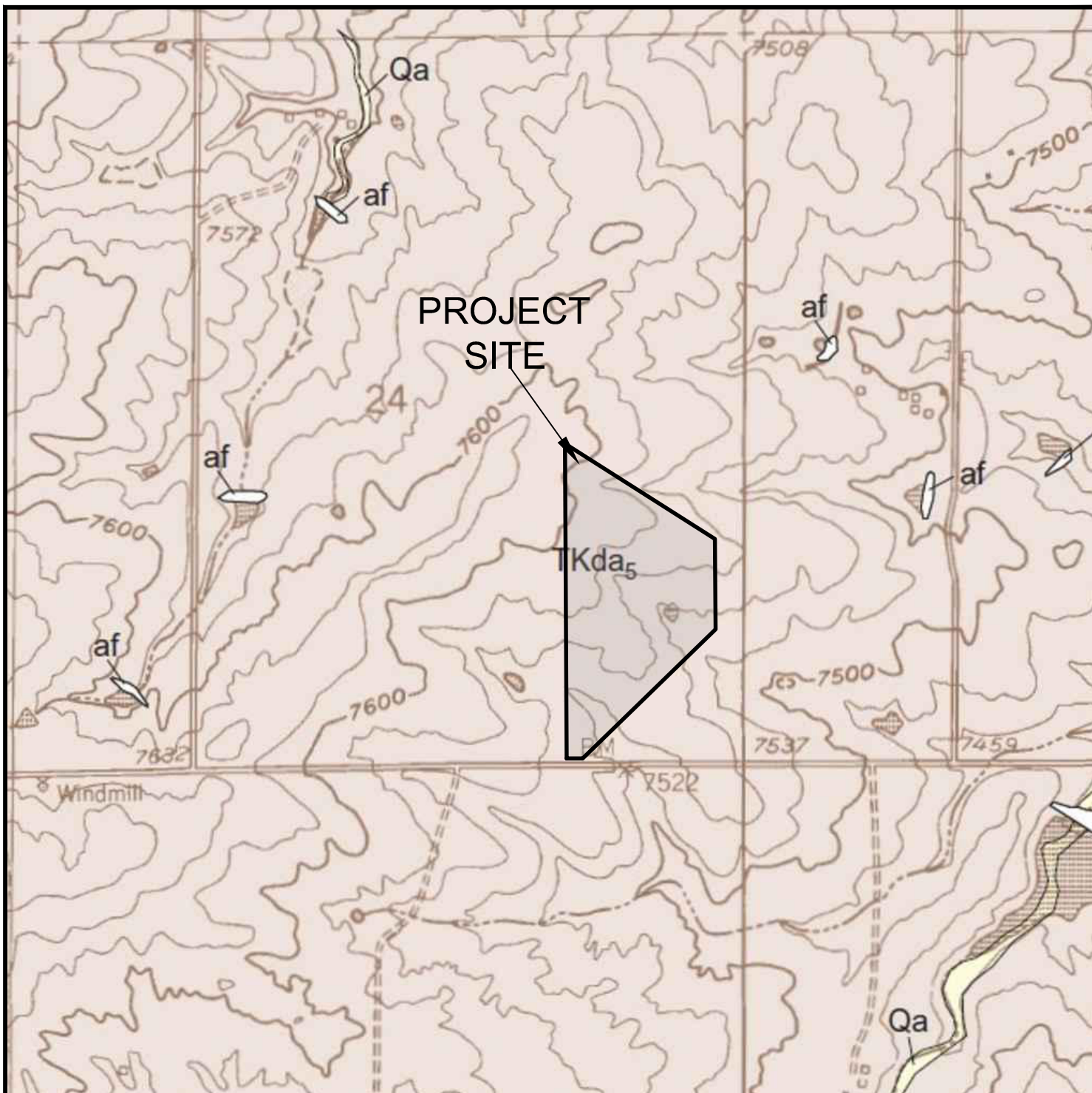


## SOIL SURVEY MAP

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**FIG. 4**

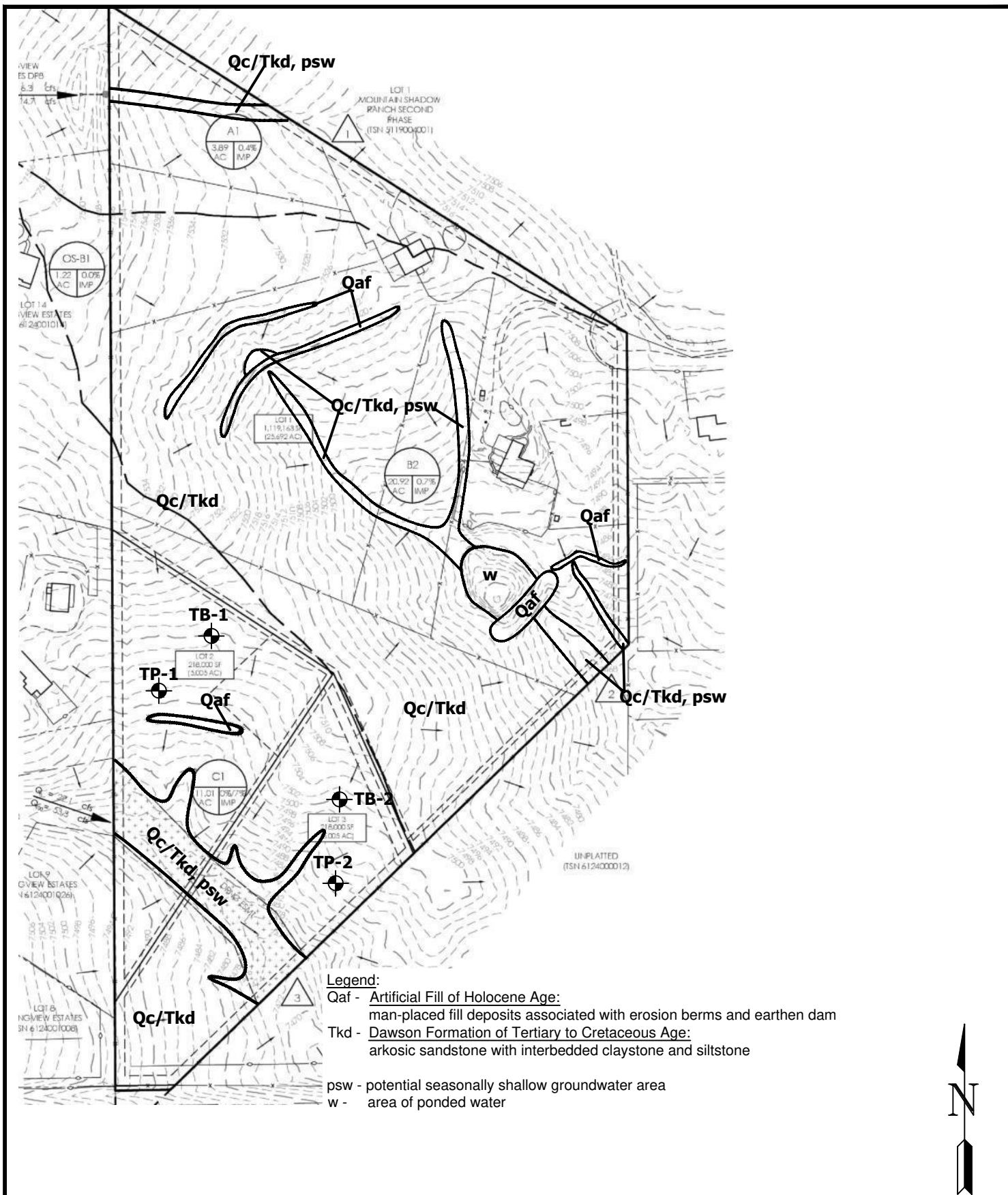


**GEOLOGIC MAP OF THE  
BLACK FOREST QUADRANGLE**  
5775 MOUNTAIN SHADOW VIEW  
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**FIG. 5**





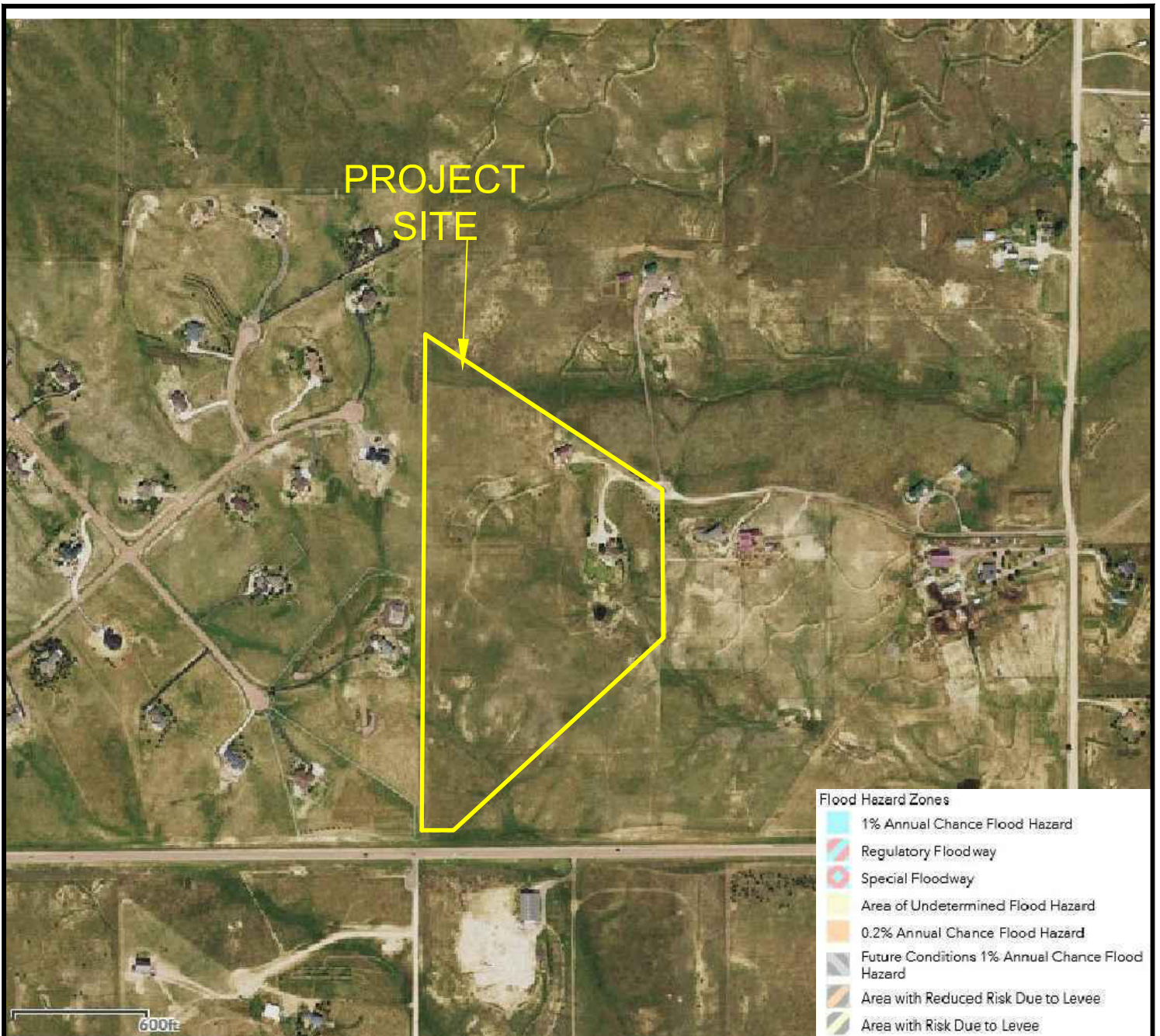
## GEOLOGY/ENGINEERING GEOLOGY MAP

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**FIG. 6**





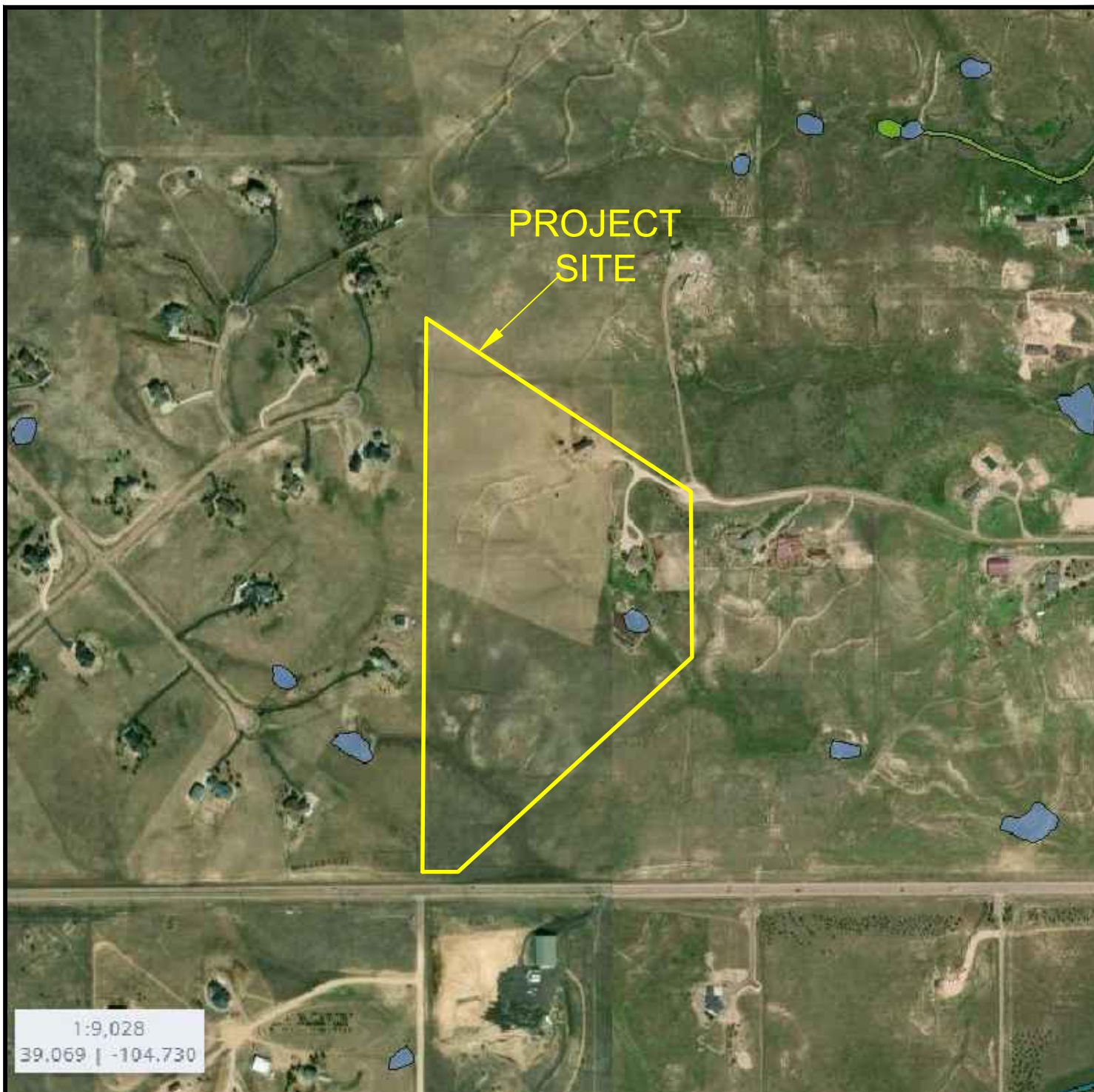
## FEMA FLOODPLAIN MAP

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**FIG. 7**





## USFWS WETLANDS MAP

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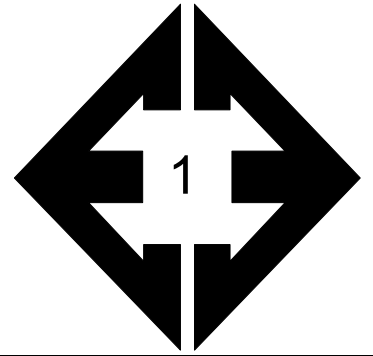
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**FIG. 8**



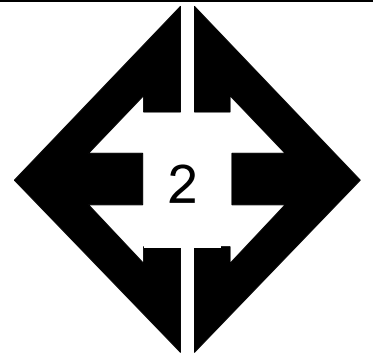
## **APPENDIX A: Site Photographs**





**Looking north from the  
eastern central portion  
of the site.**

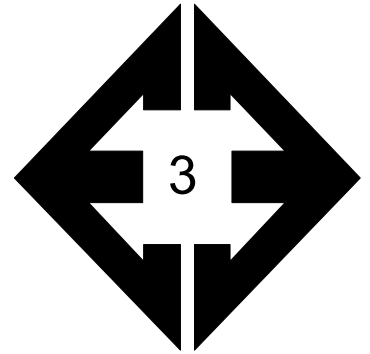
July 11, 2024



**Looking south from  
the western central  
portion of the site.**

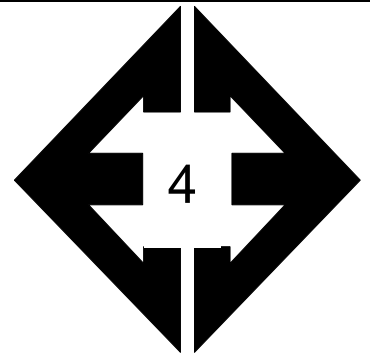
July 11, 2024





**Looking west from the  
central portion of the  
lot.**

July 11, 2024



**Looking southeast  
along drainage  
easement.**

July 11, 2024

## **APPENDIX B: Test Boring and Test Pit Logs**

TEST BORING 1  
DATE DRILLED 7/11/2024  
REMARKS

REMARKS	Depth (ft)	Symbol	Samples	Blows per foot	Watercontent %
DRY TO 20', 7/12/24					
SAND, CLAYEY, OLIVE to BROWN, LOOSE to MEDIUM DENSE, MOIST	5			14	6.5
				4	8.3
	10			24	14.9
CLAYSTONE, WEAK, OLIVE, HIGHLY WEATHERED (CLAY, SANDY, HARD, MOIST)	15			50 10"	9.7
SANDSTONE, EXTREMELY WEAK, TAN, COMPLETELY WEATHERED (SAND, SILTY, VERY DENSE, MOIST)	20			48	4.8

TEST BORING 2  
DATE DRILLED 7/11/2024  
REMARKS

REMARKS	Depth (ft)	Symbol	Samples	Blows per foot	Watercontent %
DRY TO 20', 7/12/24					
SAND, SILTY, GRAVELLY, BROWN, LOOSE, MOIST				6	3.3
SAND, CLAYEY, OLIVE, MEDIUM DENSE, MOIST	5			17	16.2
CLAYSTONE, WEAK, OLIVE, HIGHLY WEATHERED (CLAY, SANDY, HARD, MOIST)	10			50 10"	8.7
SANDSTONE, EXTREMELY WEAK, TAN, COMPLETELY WEATHERED (SAND, SILTY, VERY DENSE to DENSE, MOIST)	15			50 11"	7.9
	20			35	8.2



## TEST BORING LOGS

5775 MOUNTAIN SHADOW VIEW  
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FIG. B-1

TEST PIT 1  
DATE EXCAVATED 7/12/2024

REMARKS

redoximorphic features @ 7.5'

0-6" topsoil, sandy loam, dark brown, moist

sandy loam, fine to coarse grained, light brown, moist

sandy clay loam, fine to coarse grained, light brown, moist

sandstone (Dawson Formation), gravelly sandy clay, fine to coarse grained, light brown, moist

Depth (ft)	Symbol	Samples	Soil Structure Shape	Soil Structure Grade	Soil Type
1			gr	m	2
2					
3			gr	w	3A
4					
5					
6			ma		4A
7					
8					
9					
10					

TEST PIT 2  
DATE EXCAVATED 7/12/2024

REMARKS

0-6" topsoil, sandy loam, dark brown, moist

sandy loam, fine to coarse grained, light brown, moist

sandy clay loam, fine to coarse grained, light brown, moist

sandstone (Dawson Formation), gravelly sandy clay, fine to coarse grained, light brown, moist

Depth (ft)	Symbol	Samples	Soil Structure Shape	Soil Structure Grade	Soil Type
1					
2			gr	w	2A
3					
4			gr	w	3A
5					
6			ma		4A
7					
8					
9					
10					

Soil Structure Shape

granular - gr  
platy - pl  
blocky - bl  
prismatic - pr  
single grain - sg  
massive - ma

Soil Structure Grade

weak - w  
moderate - m  
strong - s  
loose - l  
structureless - sl



**TEST PIT LOGS**

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**FIG. B-2**

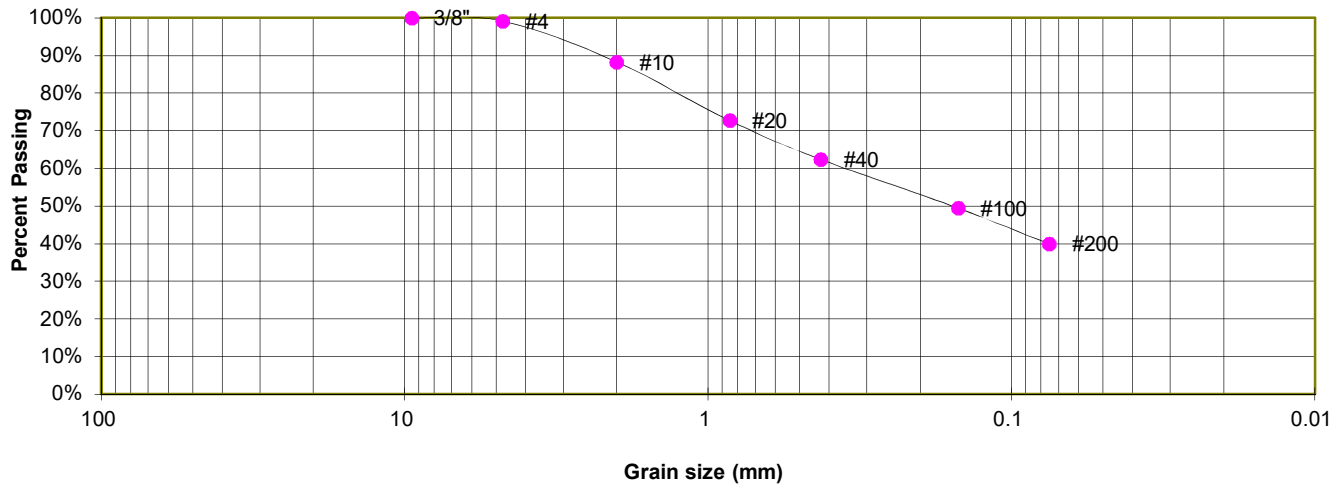
## **APPENDIX C: Laboratory Testing Results**



TEST BORING	1
DEPTH (FT)	5

SOIL DESCRIPTION SAND, CLAYEY

### Sieve Analysis Grain Size Distribution



#### GRAIN SIZE ANALYSIS

U.S. Sieve #	Percent Finer
3"	
1 1/2"	
3/4"	
1/2"	
3/8"	100.0%
4	99.2%
10	88.3%
20	72.7%
40	62.4%
100	49.5%
200	39.9%

#### SOIL CLASSIFICATION

USCS CLASSIFICATION: SC



### LABORATORY TEST RESULTS

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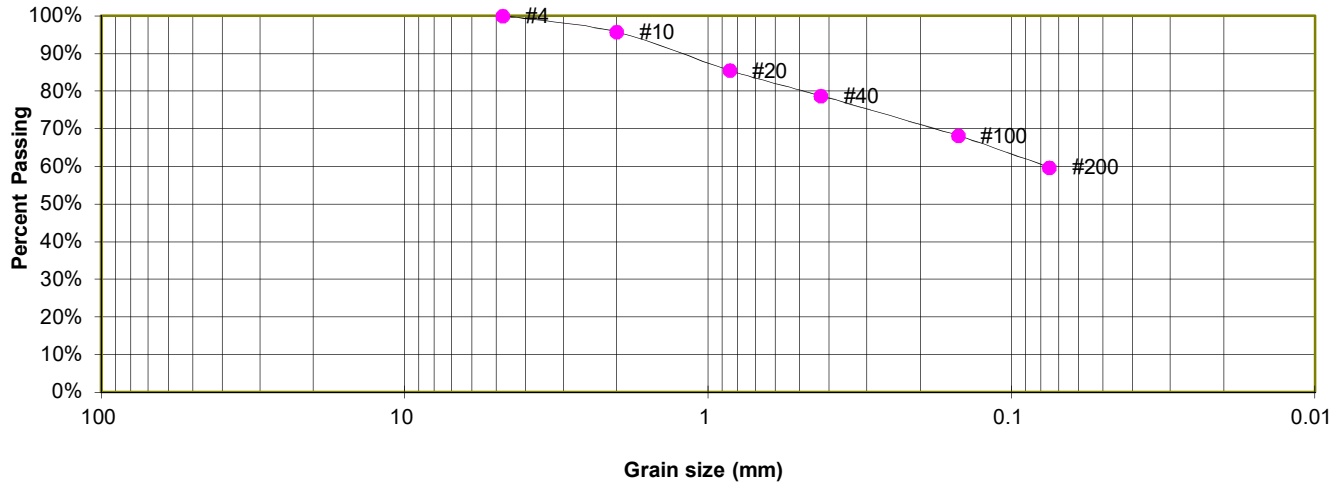
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FIG. C-1

TEST BORING	1
DEPTH (FT)	15

SOIL DESCRIPTION	CLAYSTONE (CLAY, SANDY)
------------------	-------------------------

**Sieve Analysis  
Grain Size Distribution**



**GRAIN SIZE ANALYSIS**

U.S. Sieve #	Percent Finer
3"	
1 1/2"	
3/4"	
1/2"	
3/8"	
4	100.0%
10	95.8%
20	85.5%
40	78.8%
100	68.2%
200	59.8%

**SOIL CLASSIFICATION**

USCS CLASSIFICATION: CL



**LABORATORY TEST RESULTS**

5775 MOUNTAIN SHADOW VIEW  
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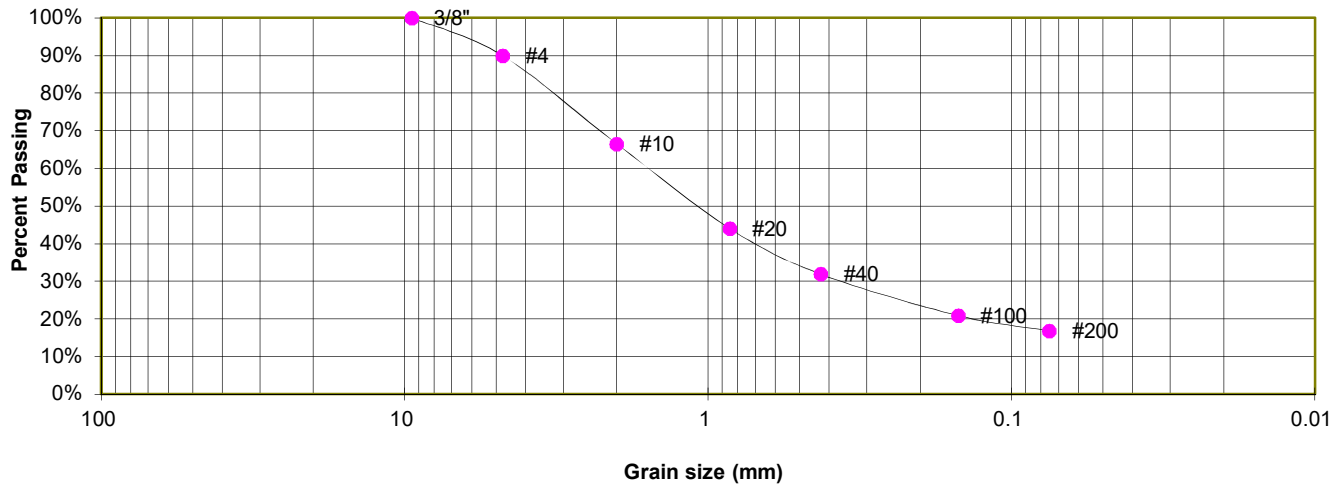
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**FIG. C=2**

TEST BORING	2
DEPTH (FT)	2-3

SOIL DESCRIPTION	SAND, SILTY, GRAVELLY
------------------	-----------------------

### Sieve Analysis Grain Size Distribution



#### GRAIN SIZE ANALYSIS

U.S. Sieve #	Percent Finer
3"	
1 1/2"	
3/4"	
1/2"	
3/8"	100.0%
4	89.9%
10	66.5%
20	44.1%
40	31.9%
100	21.0%
200	16.8%

#### SOIL CLASSIFICATION

USCS CLASSIFICATION: SM



### LABORATORY TEST RESULTS

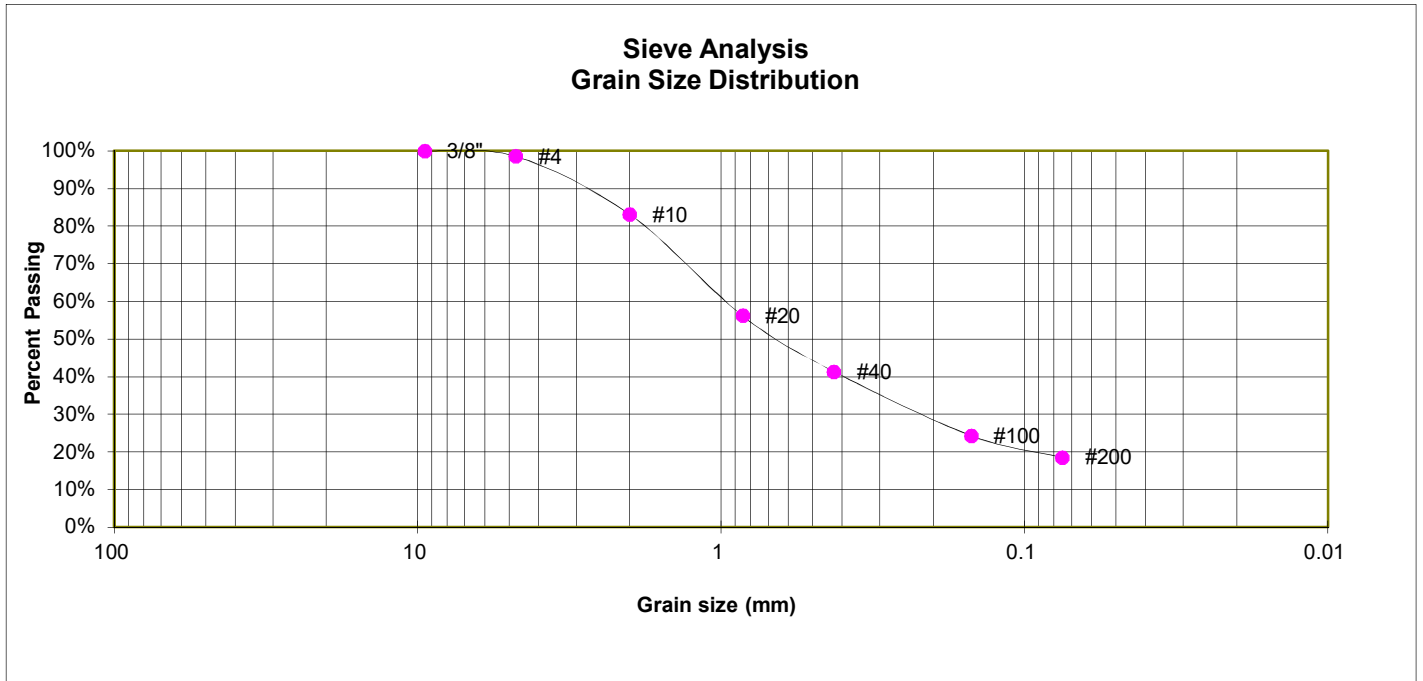
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**FIG. C-3**

TEST BORING	2
DEPTH (FT)	20

SOIL DESCRIPTION	SANDSTONE (SAND, SILTY)
------------------	-------------------------



#### **GRAIN SIZE ANALYSIS**

U.S. Sieve #	Percent Finer
3"	
1 1/2"	
3/4"	
1/2"	
3/8"	100.0%
4	98.6%
10	83.1%
20	56.2%
40	41.4%
100	24.3%
200	18.6%

#### **SOIL CLASSIFICATION**

USCS CLASSIFICATION: SM



### **LABORATORY TEST RESULTS**

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**FIG. C-4**

TEST BORING 1  
DEPTH (FT) 15

SOIL DESCRIPTION CLAYSTONE (CLAY, SANDY)



**SWELL/COLLAPSE TEST RESULTS**

NATURAL UNIT DRY WEIGHT (PCF): 119  
NATURAL MOISTURE CONTENT: 10.5%  
SWELL/COLLAPSE (%): -1.3%



**SWELL TEST RESULTS**

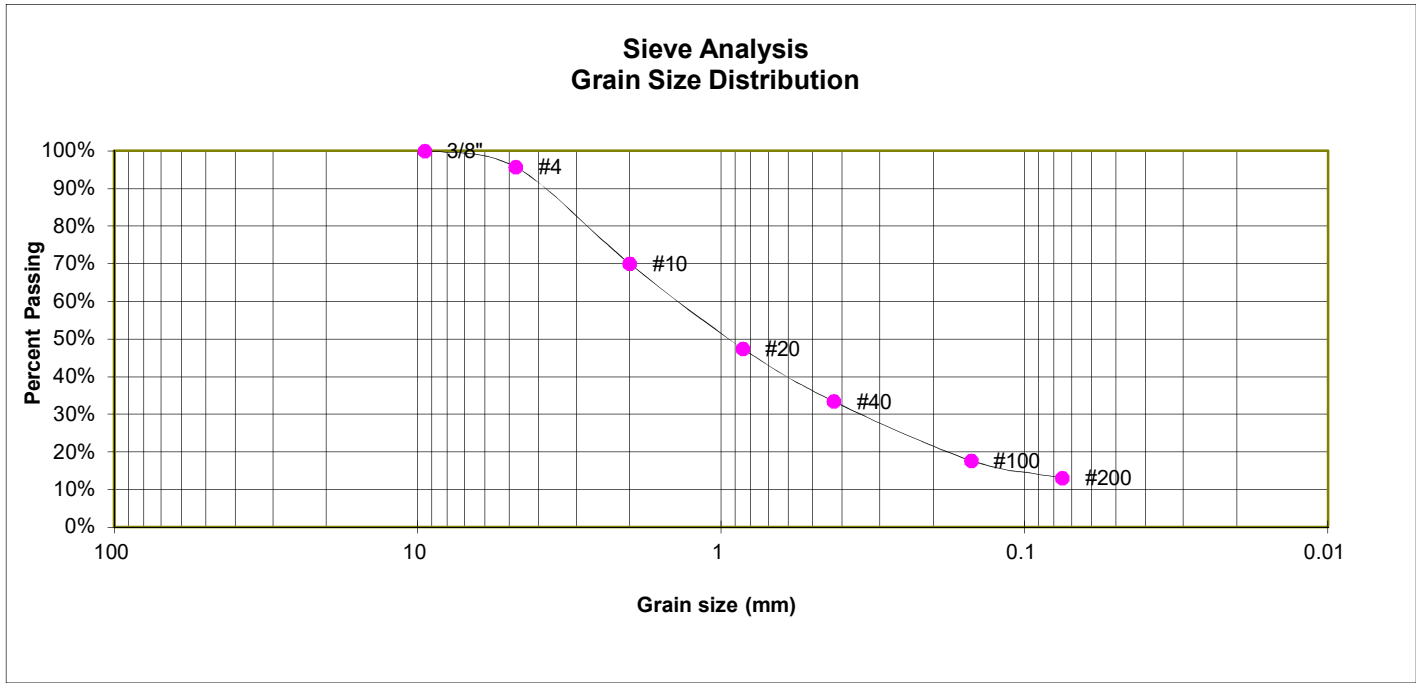
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240944

**FIG. C-5**



TEST PIT	TP-1	SOIL DESCRIPTION	SCL
DEPTH (FT)	3		



#### **GRAIN SIZE ANALYSIS**

U.S. Sieve #	Percent Finer
3"	
1 1/2"	
3/4"	
1/2"	
3/8"	100.0%
4	95.7%
10	70.0%
20	47.5%
40	33.4%
100	17.7%
200	13.1%

#### **SOIL CLASSIFICATION**

USCS CLASSIFICATION: SM



#### **LABORATORY TEST RESULTS**

TEACUP COW RANCH  
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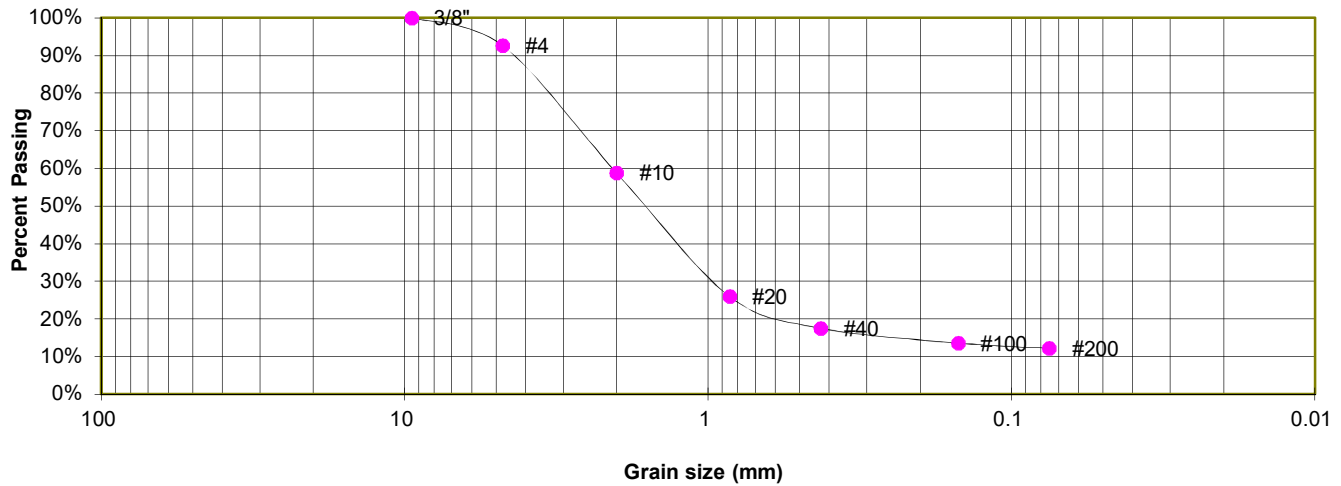
**FIG. C-6**

TEST PIT  
DEPTH (FT)

TP-2  
6

SOIL DESCRIPTION SC

**Sieve Analysis  
Grain Size Distribution**



**GRAIN SIZE ANALYSIS**

U.S. Sieve #	Percent Finer
3"	
1 1/2"	
3/4"	
1/2"	
3/8"	100.0%
4	92.6%
10	58.8%
20	26.0%
40	17.5%
100	13.6%
200	12.1%

**SOIL CLASSIFICATION**

USCS CLASSIFICATION: SC



**LABORATORY TEST RESULTS**

TEACUP COW RANCH  
MARK MCDONALD

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**FIG. C-7**

## **APPENDIX D: USDA Soil Descriptions**

## El Paso County Area, Colorado

### 21—Cruckton sandy loam, 1 to 9 percent slopes

#### Map Unit Setting

*National map unit symbol:* 367s

*Elevation:* 7,200 to 7,600 feet

*Mean annual precipitation:* 16 to 18 inches

*Mean annual air temperature:* 42 to 46 degrees F

*Frost-free period:* 110 to 120 days

*Farmland classification:* Not prime farmland

#### Map Unit Composition

*Cruckton and similar soils:* 85 percent

*Estimates are based on observations, descriptions, and transects of the mapunit.*

#### Description of Cruckton

##### Setting

*Landform:* Hills, flats

*Landform position (three-dimensional):* Side slope, tal

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Parent material:* Alluvium derived from arkose

##### Typical profile

*A - 0 to 11 inches:* sandy loam

*Bt - 11 to 28 inches:* sandy loam

*C - 28 to 60 inches:* loamy coarse sand

##### Properties and qualities

*Slope:* 1 to 9 percent

*Depth to restrictive feature:* More than 80 inches

*Drainage class:* Well drained

*Runoff class:* Medium

*Capacity of the most limiting layer to transmit water*

*(Ksat):* Moderately high to high (0.60 to 2.00 in/hr)

*Depth to water table:* More than 80 inches

*Frequency of flooding:* None

*Frequency of ponding:* None

*Available water supply, 0 to 60 inches:* Low (about 5.9 inches)

##### Interpretive groups

*Land capability classification (irrigated):* None specified

*Land capability classification (nonirrigated):* 4e

*Hydrologic Soil Group:* B

*Ecological site:* R049XY216CO - Sandy Divide

*Hydric soil rating:* No

### **Minor Components**

#### **Other soils**

*Percent of map unit:*

*Hydric soil rating:* No

## **Data Source Information**

Soil Survey Area: El Paso County Area, Colorado

Survey Area Data: Version 21, Aug 24, 2023

## El Paso County Area, Colorado

### 67—Peyton sandy loam, 5 to 9 percent slopes

#### Map Unit Setting

*National map unit symbol:* 369d

*Elevation:* 6,800 to 7,600 feet

*Mean annual air temperature:* 43 to 45 degrees F

*Frost-free period:* 115 to 125 days

*Farmland classification:* Not prime farmland

#### Map Unit Composition

*Peyton and similar soils:* 85 percent

*Estimates are based on observations, descriptions, and transects of the mapunit.*

#### Description of Peyton

##### Setting

*Landform:* Hills

*Landform position (three-dimensional):* Side slope

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Parent material:* Arkosic alluvium derived from sedimentary rock  
and/or arkosic residuum weathered from sedimentary rock

##### Typical profile

*A - 0 to 12 inches:* sandy loam

*Bt - 12 to 25 inches:* sandy clay loam

*BC - 25 to 35 inches:* sandy loam

*C - 35 to 60 inches:* sandy loam

##### Properties and qualities

*Slope:* 5 to 9 percent

*Depth to restrictive feature:* More than 80 inches

*Drainage class:* Well drained

*Runoff class:* Medium

*Capacity of the most limiting layer to transmit water*

*(Ksat):* Moderately high (0.20 to 0.60 in/hr)

*Depth to water table:* More than 80 inches

*Frequency of flooding:* None

*Frequency of ponding:* None

*Available water supply, 0 to 60 inches:* Moderate (about 7.3 inches)

##### Interpretive groups

*Land capability classification (irrigated):* None specified

*Land capability classification (nonirrigated):* 4e

*Hydrologic Soil Group:* B

*Ecological site:* R049XY216CO - Sandy Divide

*Hydric soil rating:* No



### **Minor Components**

#### **Other soils**

*Percent of map unit:*

*Hydric soil rating:* No

#### **Pleasant**

*Percent of map unit:*

*Landform:* Depressions

*Hydric soil rating:* Yes

## **Data Source Information**

Soil Survey Area: El Paso County Area, Colorado

Survey Area Data: Version 21, Aug 24, 2023

**APPENDIX E: El Paso County Health Department,  
Existing Septic Records**

EL PASO COUNTY DEPARTMENT OF HEALTH AND ENVIRONMENT  
INDIVIDUAL SEWAGE DISPOSAL SYSTEM INSPECTION FORM

Permit # 12476  
Date 10/15/98

APPROVED: YES ☒ NO ☐

# 6124000013

ENVIRONMENTALIST KRUEGER

Address 5775 MOUNTAIN SHADOW VIEW Owner FALCON CREST HOMES, INC

Legal Description ATTACHED

Residence ☒ # of bedrooms 5; Commercial ☐; System Installer FLETCHER

**SEPTIC TANK:**

Commercial ☒; Noncommercial ☐ L ☐ W ☐ WD ☐  
Construction Material CONCRETE, capacity 2250 gallons.

**DISPOSAL FIELD:**

**Rock Systems:**

Trench: depth ☐, width ☐, total length ☐, sq. feet ☐

Bed: depth ☐, length ☐, width ☐, sq. feet ☐

Rock type ☐, depth ☐, under PVC ☐, over PVC ☐

Seepage Pits: # of pits ☐, total # of rings ☐, working depth(s) ☐

size of pit(s) L X W ☐, lining material ☐, total sq. feet ☐

**Rockless Systems:**

Chamber: Type INFILTRATOR, number of chambers 66, bed ☐, trench ☒

sq. ft./section 15.5, reduction allowed 40 %, sq. ft. required 1688

total sq. ft. installed 1705, depth of installation 30"

Engineer Design Y or ☒, Designing Engineer ☐

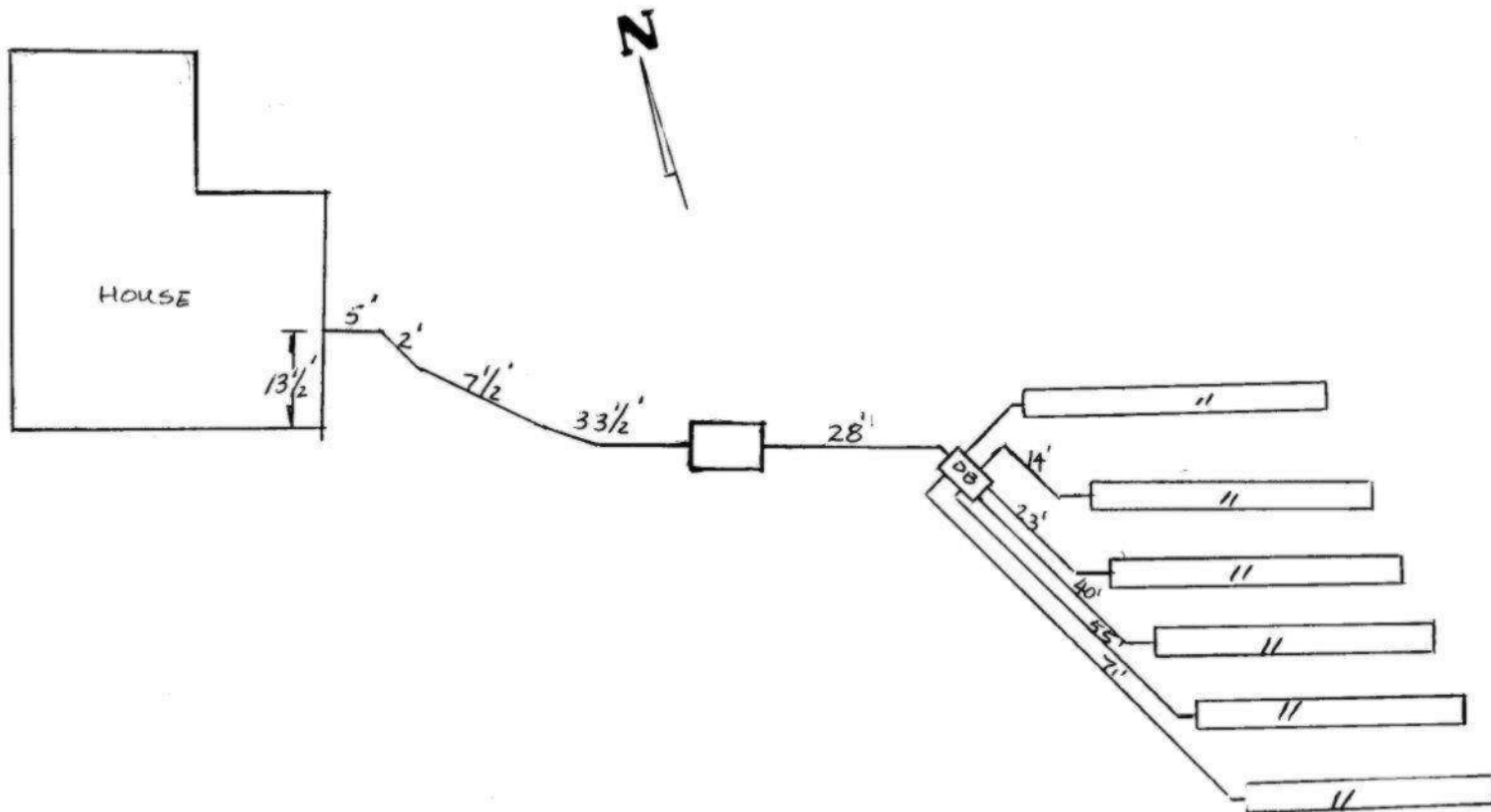
Approval letter provided? Y or N

Well 50 feet from tank ☒ or N 100 feet from leach field ☒ or N

Well installed at time of septic system inspection ☒ or N Public Water ☐

\*Approval will be revoked if in the future the well is found to be within 50 feet of the septic tank and/or 100 feet of the disposal field.

**NOTES:**



Acres 36.10 **EL PASO COUNTY • DEPARTMENT OF HEALTH AND ENVIRONMENT**  
301 South Union Blvd. • Colorado Springs, Colorado • 578-3125

Water Supply WELL

Permit 12176

**PERMIT**

**TO CONSTRUCT, ALTER, REPAIR OR MODIFY ANY INDIVIDUAL SEWAGE DISPOSAL SYSTEM**

Receipt No. 8

Issued to FALCON CREST HOMES, INC.

Date 7-9-98

Address of Property 5775 MOUNTAIN SHADOW VIEW, E2, SE4, SEC: 24-T11S-R66W

Phone 481-0614

(Permit valid at this address only)

MOUNTAIN SHADOW SUBD.

Sewage-Disposal System work to be performed by

KENNEDY DRILLING FLETCHER

Phone 683-3720

This Permit is issued in accordance with 25-10-106 Colorado Revised Statutes 1973, as amended. PERMIT EXPIRES upon completion of installation of sewage-disposal system or at the end of twelve (12) months from date of issue—whichever occurs first—(unless work is in progress). This permit is revokable if all stated requirements are not met.

**-THIS PERMIT DOES NOT DENOTE APPROVAL OF ZONING AND ACREAGE REQUIREMENTS-**

\$245.00

PERMIT FEE (NOT REFUNDABLE)

7-9-99

Steven J. Englander, M.D.  
DIRECTOR, DEPARTMENT OF HEALTH AND ENVIRONMENT

J. Murkowski  
ENVIRONMENTALIST

DATE OF EXPIRATION

**NOTE: LEAVE ENTIRE SEWAGE-DISPOSAL SYSTEM UNCOVERED FOR FINAL INSPECTION. 48 HOUR ADVANCE NOTICE REQUIRED.**

SEPTIC TANK:	TRENCH SYSTEM:	BED SYSTEM:	SEEPAGE PIT SYSTEM:
total square feet	total square feet	total square feet	total square feet
1750	1688		
gallons	ft. of trench inches wide		rings or diam.x w/d
	ft. of trench inches wide		

**NOTES:** STAY IN AREA OF PERC. TEST. LEACH FIELD TO BE AT LEAST, OR GREATER THAN, 110 FEET FROM ALL WELLS. KEEP BOTTOM OF LEACH FIELD AT APPROXIMATELY 34 INCHES.

The Health Office shall assume no responsibility in case of failure or inadequacy of a sewage-disposal system, beyond consulting in good faith with the property owner or representative. Free access to the property shall be authorized at reasonable time for the purpose of making such inspections as are necessary to determine compliance with requirements of this law.