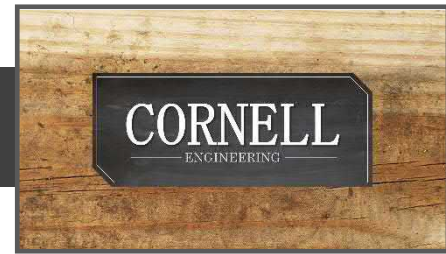


June 15, 2020



Project 200606

Kevin Bristow & Ty Klikus
102 S Tejon Street, Suite 100
Colorado Springs, CO 80903

Re: Geology and Surface Soils Evaluation Update
Eagle Forest Subdivision
El Paso County, CO 80908

Reference 1: The Original *Preliminary Geology and Surface Soils Evaluation* for Eagle Heights Subdivision, El Paso County, Colorado, by John Himmelreich & Associates, Project No. 05-100, dated January 24, 2005.

Gentlemen:

As requested, personnel of Cornell Engineering, LLC have visited the site and reviewed the original geology and subsurface soils report referenced above. Our site visit was conducted on June 1, 2020.

Purpose

The purpose of our visit was to observe the current site conditions and verify any changes to the native grades, topography, and vegetation.

Background

The original geology and subsurface report referenced above was conducted prior to the June 2013, Black Forest wildfire. The 2013 wildfire originated near State Highway 83 and Shoup Road approximately five miles west of the subject property. Over the course of approximately nine days the fire burned more than 14,280 acres and destroyed over 500 homes. The subject site was heavily treed prior to 2013 with native ponderosa pines. Following the 2013 wildfire however, all the vegetation and pine trees north of Burgess creek were consumed in the fire.

Observations

The general topography and underlying subsurface soils/geology were unaffected by the 2013 wildfire. Whereas the site drainage was affected by the loss of the trees north of Burgess Creek. At the time of our site visit, the affected trees had been completely removed from the site and native grasses had been reestablished. Grasses were patchy and provided moderate surface coverage for the underlying subgrade. Removal of burned trees on the adjacent lots to the east had not yet occurred.

Analysis/Discussion

The change in tree coverage across much of the subject site and neighboring lots has dramatically changed the overall drainage of the site and neighboring lots. Fewer obstructions generally correspond to increased surface flows. However, native grasses had been established

across the site which were not as prevalent or thick prior to 2013 because the pine needles would have limited their growth and abundance. The well-established native grasses will help to decrease the overall net change in surface drainage for the site between 2005 and 2020. Increased surface flows, particularly along the north rim of the Burgess Creek drainage basin flowing into the channel below where slopes are much steeper, can be expected. Surface vegetation was also less in this area because of the steeper slopes and increased surface erosion. Consequently, flooding and erosion hazards presented in the original *Preliminary Geology and Surface Soils Evaluation* report referenced above are of greater concern. The recommendations presented in the original report are still valid and must be strictly followed. Specifically, avoidance of areas of increased erosion potential (i.e. along steep slopes or below steep slopes) is highly recommended. An erosion control plan for the site and re-vegetation of disturbed areas are also highly recommended.

Conclusions

Based on visual observations made of the subject site on the date referenced above, review of the original *Preliminary Geology and Surface Soils* report by John Himmelreich & Associates, and a review of the site using pre 2013 satellite imagery, the following conclusions have been drawn.

- The Original *Preliminary Geology and Surface Soils Evaluation* for Eagle Heights Subdivision, El Paso County, Colorado, by John Himmelreich & Associates, Project No. 05-100, dated January 24, 2005, coupled with any recommendations herein is still valid and should be strictly followed for the development of the Eagle Forest Subdivision in Black Forest (El Paso County), Colorado.

Closing

The opinions expressed in this letter are based on observable conditions present at the time of our site visit and a previous subsurface investigation completed by others. Material and construction defects, errors and/or omissions in the original *Preliminary Geology and Surface Soils Evaluation*, and other adverse conditions may exist which were not discoverable while performing the specified scope of work. Therefore, this report is only valid for the information and assumptions presented herein. All reviewed information above indicates items that were not observed but presented in the referenced report. If any of the referenced information is found incorrect it is the responsibility of the developer to notify personnel of Cornell Engineering, LLC immediately for possible revisions to this geological and subsurface soils report update. Cornell Engineering, LLC does not accept liability for incorrectly reported information if the errors are not brought to the attention of Cornell Engineering, LLC personnel.

Subsequent owners including homeowners of each individual lot of the proposed subdivision should be apprised of the information and findings reported in this letter and the *Preliminary Geology and Surface Soils Evaluation* report.

We trust this letter has provided you with the information you required. If you have any questions or need additional information, please do not hesitate to contact us.

Respectfully submitted,
CORNELL ENGINEERING, LLC



Duncan Cornell,
PE #52416



6/15/2020

Appendices

- Appendix A: Original *Preliminary Geology and Surface Soils Evaluation*
- Appendix B: Proposed PUD for Eagle Forest Subdivision (4/10/2020)
- Appendix C: 2005 and 2020 Google Earth Imagery of Subject Site

Appendix A

Original Preliminary Geology and Surface Soils Evaluation

January 24, 2005

Edward Alan Homes
7360 Shoup Road
Colorado Springs, Colorado 80908

Subject: Preliminary Geology and Surface Soils Evaluation
Eagle Heights Subdivision
El Paso County, Colorado
Project No. 05-100

Dear Mr. Edwards:

The following report presents the results of a Preliminary Geologic and Surface Soils Evaluation for the proposed Eagle Heights subdivision in El Paso County, Colorado. The report presents discussions of site geology and surface soils and our opinions of the potential effect of these conditions on development. The information included in this report has been compiled from analysis of aerial photographs, a field reconnaissance and mapping of the site, geologic research and analysis, and our experience in the area. Geologic conditions were mapped and evaluated by John Himmelreich & Associates. Front Range Geotechnical, Inc. (Front Range) performed 3 percolation tests (and drilled one additional profile hole) on the site. The sewage disposal evaluation for the site has been prepared by Front Range and is issued as a separate report. Drill logs, percolation test data, and laboratory test data by Front Range are contained in Appendix A. Conditions disclosed by additional surface, subsurface investigations and/or laboratory analysis might make revisions of the conclusions of this report appropriate.

PROPOSED DEVELOPMENT

The site is proposed for development of a residential subdivision, with 10 residential lots with sizes ranging from 2.85 to 5.1 acres (see Figure 2). Additionally, a recreation building is planned on a 6.8-acre Open Space tract. The residential lots and recreation building will be served by individual sewage disposal systems and individual wells.

SITE DESCRIPTION

The proposed Eagle Heights subdivision is located north of Shoup Road between Black Forest and Herring Roads (see Figure 1). The site is located in the SE1/4 of Section 8, Township 12 South, Range 65 West of the Sixth Principal Meridian, and contains 50 acres. Surrounding properties are rural residential.

Topographically the site is divided by Burgess Creek, located in the southern part of the site. South of Burgess Creek, the site consists of relatively gently sloping terrain. A prominent ridge dominates the central part of the site with slopes south of the ridge moderately steep (up to about 25%) and slopes north of the ridge relatively gentle (typically less than 10%), see Figure 2. Small areas of 30% slope or greater are located along Burgess Creek in the slopes descending to the drainage (see Figure 2). These steeper slope areas along Burgess Creek are mostly within the Open Space tract, and not proposed for development. One small 'pond' was located in the Burgess Creek drainage; however, the 'dam' has been breached and is no longer functional (see Figure 2). Surface drainage from the central and south part of the site is tributary to Burgess Creek, and the north part of the site is tributary to Kettle Creek.

The site was characterized by grassland and mostly scattered ponderosa pine south of Burgess Creek and ponderosa pine forest north of Burgess Creek.

Existing residences were located on Lots 1 and 2 (proposed to remain). An existing masonry structure (proposed for the recreation building) was located on the proposed Open Space tract.

SITE GEOLOGY

The site is underlain by bedrock consisting of the upper unit of the Dawson Formation, commonly called the Dawson Arkose (Tda on Figure 2). This formation consists primarily of discontinuous and lenticular beds of arkosic sandstone and some claystone. No exposures of the Dawson were

observed. The four profile holes drilled by Front Range (see Figure 2 for locations) indicate the sandstone bedrock encountered is non-cemented, is typically moderately dense, becoming denser with depth. The regional dip of the strata is very gentle northerly. Our experience and observations in this area indicates the rocks are not highly fractured.

Overlying the bedrock are residual soils (weathered in-place), colluvium (slope wash), and alluvium (water transported materials). The residual and colluvial soils are mapped as Qcr on Figure 2. Recent alluvial deposits (a narrow 'ribbon'-not mapped) are located in the bottom of the of Burgess Creek drainage. Older alluvial terraces (the Piney Creek-Qp on Figure 2) are located along Burgess Creek. The alluvium, residual soils, and colluvium consist of poorly sorted silty to clayey sand with some gravel. Based on our observations and the profile hole logs, the surface soil deposits range from a few feet to about 10 feet thick on the site. Most of the area north of Burgess Creek is dominated by colluvial soils and residual soils resulting from the in-place weathering of the bedrock overlying denser bedrock.

The site is located in the Dawson Arkose (bedrock aquifer) in the Denver groundwater basin. This aquifer serves as the water supply for the wells in the immediate area. A perched water table also may be encountered in the recent alluvial deposits in the drainage of Burgess Creek, at least on a seasonal basis. The Soil Conservation Service (SCS) indicates that one soil type is present on the subject site (Mapping Units 40 and 41-Kettle gravelly loamy sand [3 to 8 percent slopes and 8 to 40 percent slopes]). The SCS map is included as Figure 3 and the SCS soil descriptions as Figures 3a- 3b.

RECOVERABLE RESOURCES

Under the provision of House Bill 1529, it was made a policy of the State of Colorado to preserve for extraction any commercial mineral resource located in a populous county. The El Paso County Aggregate Resource Evaluation (Map 1) October 1995 indicates that no commercial mineral resources are located on the site.

GEOLOGIC HAZARDS AND CONSTRAINTS

We believe that the subject site is relatively free from serious geologic hazards. The more significant geologic hazards recognized on the site are: 1) the potential for erosion, and 2) the potential for flooding. Other potential hazards include the stability of cut slopes, potential settlement of the surficial deposits, possibly expansive bedrock, and the presence of corrosive minerals. Certain regional conditions (seismicity and radiation) also affect the site. The geologic hazards identified on this site are relatively common to the region and are mitigated by employing proper planning, investigation, design, and construction practices.

Geologic characteristics and constraints that will influence the location and design of individual sewage disposal systems include percolation rate, potential shallow bedrock, and slope. These factors are discussed in the Front Range report (sewage disposal evaluation).

Flooding and Erosion

Recent alluvium is found in a narrow 'ribbon' at the bottom of Burgess Creek. Although this drainage does not appear to carry surface water most of the time, it appears that erosion and flooding from thunderstorm runoff occasionally occurs. The simplest mitigation for flooding is avoidance, and the preliminary plan for the subdivision indicates Burgess Creek is being avoided by development.

The soils on the site are susceptible to erosion by both wind and water because the sandy and silty soils commonly have low cohesion. The potential for erosion (especially in slope areas) should be addressed in an erosion control plan, which was not part of our scope of work. Disturbed areas should be re-vegetated, or erosion controlled by other methods, as soon as possible after construction.

Construction and Development Considerations

There are geotechnical conditions that will influence development and construction on this site. While none of the conditions are believed to present an unacceptable risk, they should be considered. The following sections discuss our opinions of the conditions.

Trenching/Slopes

The sandy and silty soils underlying the site generally lack cohesion and therefore are prone to caving and sloughing on steep slopes and in excavations. Permanent cut slopes should either be laid back or supported with a retaining structure. Excavations in the surficial soils or areas where seepage is encountered may expose material which is poorly consolidated and which may be wet at least on a seasonal basis. Cuts in these soils should be treated with caution, especially in utility trenches.

Soil and Geotechnical Considerations

The surficial soils that underlie the site will have variable properties with regard to foundation support. The surficial soils are commonly of low-density and prone to settlement if heavily loaded. Hence low foundation bearing pressures are typically appropriate. Comparatively low bearing pressures normally are not a major concern for relatively light residential structures. Heavy concentrated loads may need to utilize foundations placed on the underlying denser bedrock. These factors are normally addressed in site-specific soil and foundation studies for each structure.

The Dawson Arkose also contains lenses and layers of claystone. When in the presence of water, the clay minerals absorb the water and expand in volume. Pressures resulting from this expansion are commonly of a magnitude they could damage foundations or flatwork. Expansive soils are rather common in Colorado and techniques for mitigation are fairly well developed. It is therefore important that each structure be analyzed individually so the potential problem can be assessed and individual design measures taken to mitigate the hazard.

Corrosive minerals may be present in the soils, bedrock, or groundwater. Corrosive minerals can have detrimental effects on concrete and buried metals. The use of special cement in concrete mixes is the typical mitigation for the effects on concrete. This potential for corrosion is normally addressed in a soils and foundation study, or foundation design, for each structure.

Subsurface Drainage

The larger drainages in the region sometimes exhibit problems with subsurface drainage. The variable permeability characteristics of the surficial soils are such that the cleaner sands carry water,

perched on lower permeability layers. Subsurface seepage will move laterally along the top of the lower permeability layers (commonly clay layers or bedrock) and either daylight on a slope (or in a foundation excavation), or follow the buried bedrock in the swales. Swales and drainages are the areas where subsurface drainage is likely to be concentrated.

For individual structures, mitigation of subsurface drainage problems usually takes the form of perimeter drains around foundations. Gravity daylight for the perimeter drains is recommended if possible. The need for and capacity of these individual subsurface drainage systems should be based on an individual site analysis for each specific structure. The observation of the subsurface soil and moisture conditions in excavations for foundations should take seasonal variations and permeability characteristics of the subsurface materials into account.

Seismic Activity

This area, like most of central Colorado, is subject to a degree of seismic risk. The Colorado Geological Survey considers this area of Colorado to be in Seismic Risk Zone 2. We understand design for seismic forces is not required for residential structures in this zone. Wind loading may govern structural design.

Radiation Activity

There is not believed to be any unusual hazard from naturally occurring sources of radioactivity on this site. Most of Colorado is located in a geologic setting that is considered 'high' and all rocks contain some natural radioactive minerals. Small bodies of uranium-bearing rock have been found within the lower part of the Dawson Arkose in the southern portion of the Black Forest in Northgate, Kettle Creek Ranch, Briargate, and Wolf Ranch areas (Himmelreich, 1996 and 1997, and Himmelreich and Flynn, 1994). When encountered these deposits are usually small and of relatively low grade.

The principle hazard produced by soil and bedrock of the types that underlie the site are usually associated with radon gas, build-ups of which can be mitigated by providing increased ventilation of perimeter drains, basements and crawl spaces, and sealing of joints. Radon hazards are best mitigated

at the building design and construction phases.

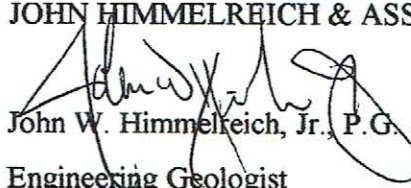
LIMITATIONS

Potential buyers and builders of lots within the subdivision should be provided with a copy of this report so that they can be apprised of site conditions, constraints and recommendations.

The opinions presented in this report were developed from review of aerial photographs, topographic and geologic maps, site reconnaissance, profile holes and percolation tests by others, and research of published and unpublished information. Should additional surface or subsurface data become available, the conclusions and recommendations contained in this report shall not be considered valid unless the data are reviewed and the conclusions of this report are modified or approved in writing. If you have questions or require additional information, please contact us.

Respectfully,

JOHN HIMMELREICH & ASSOCIATES


John W. Himmelreich, Jr., P.G.

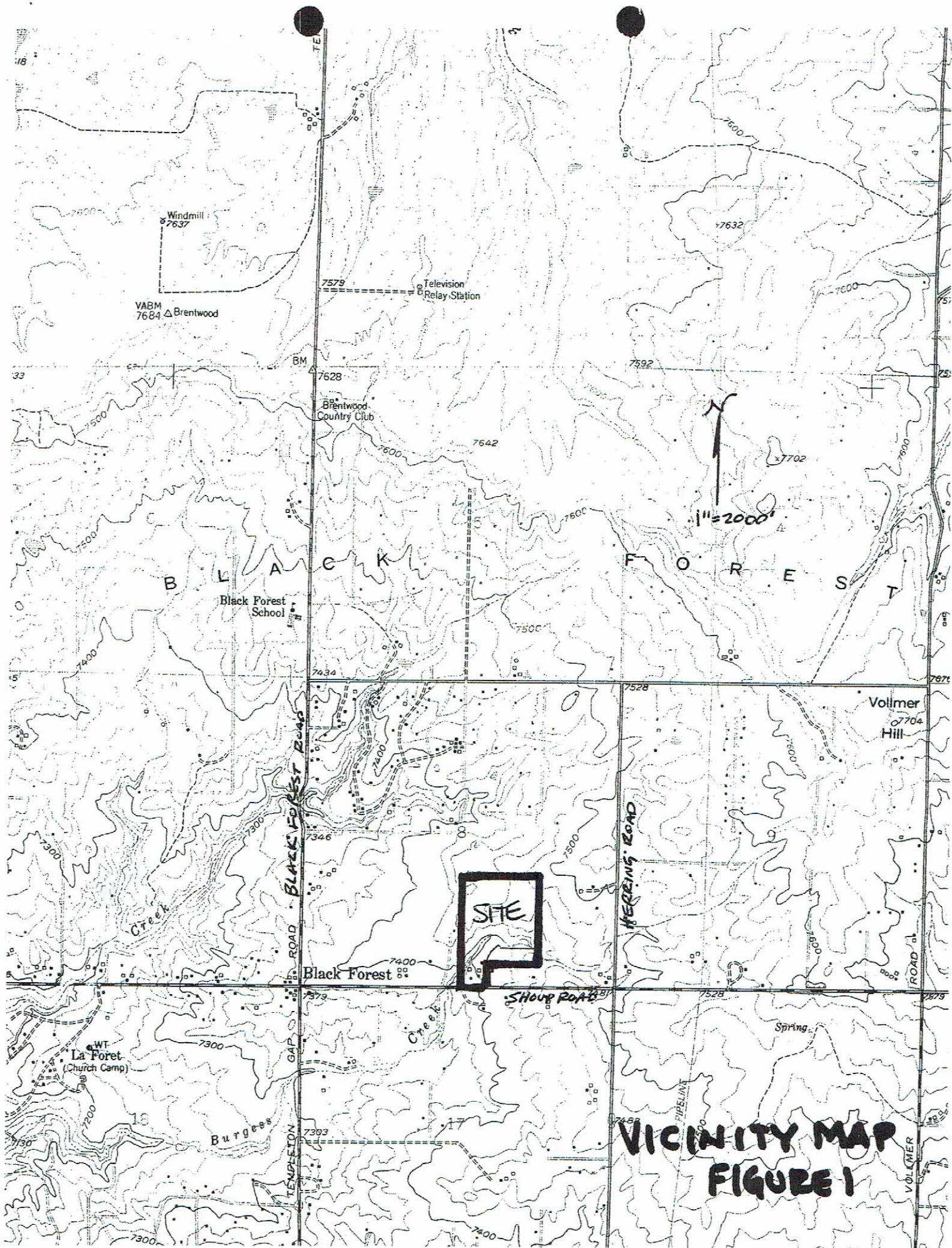
Engineering Geologist

PARTIAL LIST OF REFERENCES

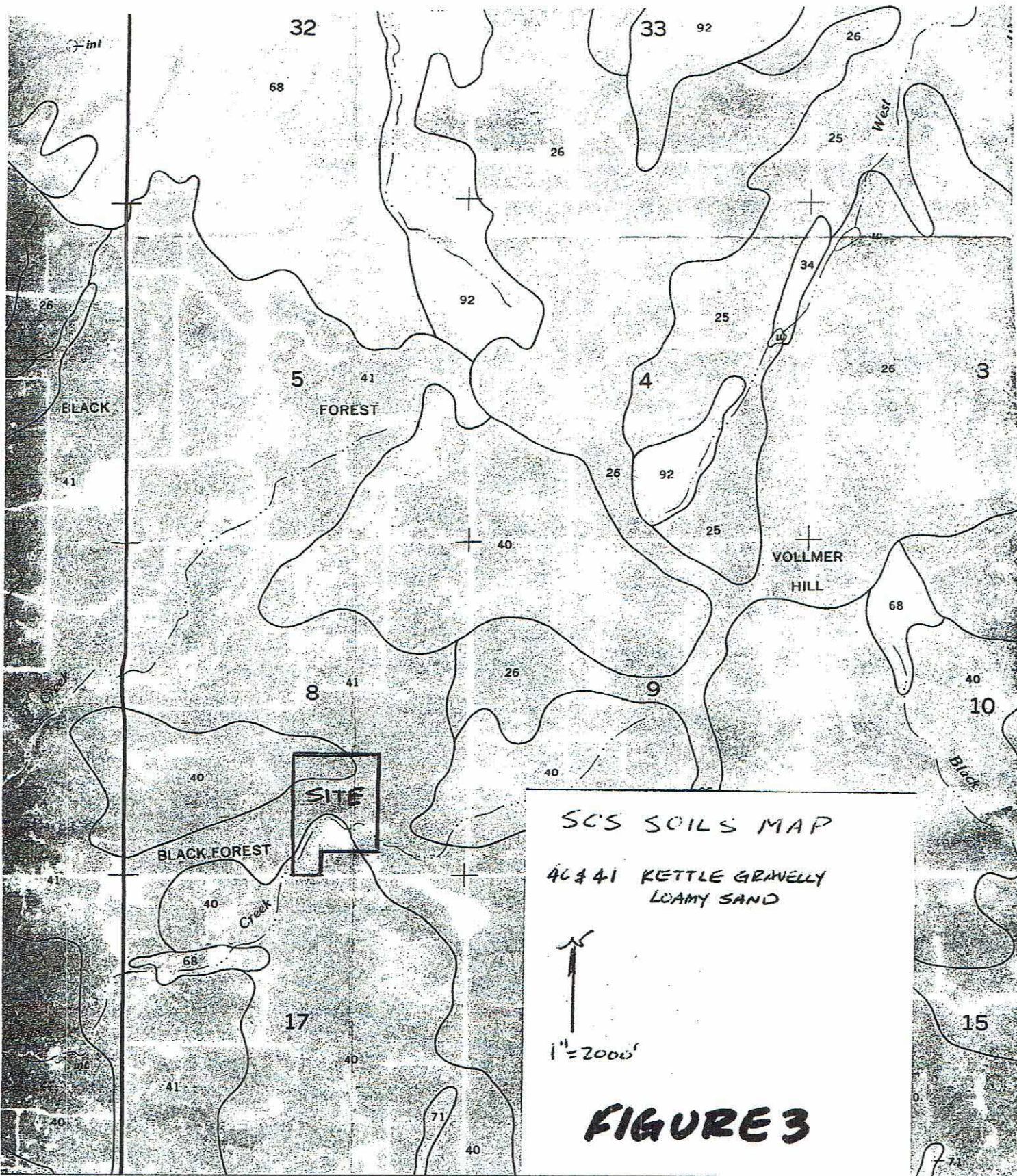
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VICINITY MAP
FIGURE 1



(Joins sheet 9)

2 240 000 FEET

40—Kettle gravelly loamy sand, 3 to 8 percent slopes.

This deep, well drained soil formed in sandy arkosic deposits on uplands. Elevation ranges from 7,000 to 7,700 feet. The average annual precipitation is about 18 inches, the average annual air temperature is about 43 degrees F, and the average frost-free period is about 120 days.

Typically, the surface layer is gray gravelly loamy sand about 3 inches thick. The subsurface layer is light gray gravelly loamy sand about 13 inches thick. The subsoil is very pale brown gravelly sandy loam about 24 inches thick. It consists of a matrix of loamy, coarse sand that has thin bands of coarse sandy loam or sandy clay loam. The substratum to a depth of 60 inches or more is light yellowish brown extremely gravelly loamy sand.

Included with this soil in mapping are small areas of Alamosa loam, 1 to 3 percent slopes; Elbeth sandy loam, 3 to 8 percent slopes; Pring coarse sandy loam, 3 to 8 percent slopes; Tomah-Crowfoot loamy sands, 3 to 8 percent slopes; and a few rock outcrops.

Permeability of this Kettle soil is rapid. Effective rooting depth is 60 inches or more. Available water capacity is low to moderate. Surface runoff is slow, and the hazard of erosion is slight to moderate. A few gullies have formed in drainageways.

This soil is used for woodland, livestock grazing, wildlife habitat, recreation, and homesites.

This soil is suited to the production of ponderosa pine. It is capable of producing about 2,240 cubic feet or 4,900 board feet (International rule), of merchantable timber per acre from a fully stocked, even-aged stand of 80-year-old trees. The main limitation for the production or harvesting of timber is the low available water capacity. The low available water capacity also influences seedling survival, especially in areas where understory plants are plentiful. Erosion must be kept to a minimum when harvesting timber.

This soil has good potential for mule deer, tree squirrels, cottontail rabbit, and wild turkey. These animals obtain their food and shelter from pine trees, shrubs, and ground cover, which provide browse, forbs, fruit, and seeds. The presence of ponderosa pine and Gambel oak should encourage wild turkey populations; however, where water is not naturally present, wildlife watering facilities must be provided to attract and maintain wild turkey and other wildlife species. Livestock grazing management is vital on this soil if wildlife populations are to be maintained.

This soil has good potential for use as homesites. Plans for homesite development on this soil should provide for the preservation of as many trees as possible in order to maintain the esthetic value of the sites. During seasons of low precipitation, fire may become a hazard to homesites. This hazard can be minimized by installing firebreaks and reducing the amount of litter on the forest floor. Capability subclass VIe.

41—Kettle gravelly loamy sand, 8 to 40 percent slopes. This deep, well drained soil formed in sandy arkosic deposits on uplands. Elevation ranges from 7,000 to 7,700 feet. The average annual precipitation is about 18 inches, the average annual air temperature is about 43 degrees F, and the average frost-free period is about 120 days.

Typically, the surface layer is gray gravelly loamy sand about 3 inches thick. The subsurface layer is light gray gravelly loamy sand about 13 inches thick. The subsoil is very pale brown gravelly sandy loam about 24 inches thick. It consists of a matrix of loamy coarse sand that has thin bands of coarse sandy loam or sandy clay loam. The substratum to a depth of 60 inches or more is light yellowish brown extremely gravelly loamy sand.

Included with this soil in mapping are small areas of Elbeth sandy loam, 8 to 15 percent slopes; Pring coarse sandy loam, 8 to 15 percent slopes; Tomah-Crowfoot loamy sands, 8 to 15 percent slopes; and a few rock outcrops.

Permeability of this Kettle soil is rapid. Effective rooting depth is 60 inches or more. Available water capacity is low to moderate. Surface runoff is medium, and the hazard of erosion is moderate. Some gullies have formed in drainageways.

The soil is used for woodland, livestock grazing, wildlife habitat, recreation, and homesites.

This soil is suited to the production of ponderosa pine. It is capable of producing 2,240 cubic feet, or 4,900 board feet (International rule), of merchantable timber per acre from a fully stocked, even-aged stand of 80-year-old trees. The main limitation for this use is the moderate hazard of erosion. Measures must be taken to reduce erosion when harvesting timber, especially on the steeper slopes. The low to moderate available water capacity also influences seedling survival, especially in areas where understory plants are plentiful.

This soil has good potential for mule deer, tree squirrel, cottontail, and wild turkey. These animals obtain their food and shelter from pine trees, shrubs, and ground cover, which provide browse, forbs, fruit, and seeds. The presence of ponderosa pine and Gambel oak should encourage wild turkey populations; however, where water is not naturally present, wildlife watering facilities must be provided to attract and maintain wild turkey and other wildlife species. Livestock grazing management is vital on this soil if wildlife populations are to be maintained.

The moderately sloping to steep slopes limit the suitability of this soil for homesites. Special practices must be provided to minimize surface runoff and thus keep erosion to a minimum. This soil requires special site or building designs because of the slope. Deep cuts, to provide essentially level building sites, may expose bedrock. Access roads must be designed to provide adequate cut-slope grade, and drains must be used to control surface runoff and keep soil losses to a minimum. During seasons of low precipitation, fire may become a hazard to homesites. This hazard can be minimized by installing firebreaks and reducing the amount of litter on the forest floor. Capability subclass VIe.



**FRONT RANGE
GEOTECHNICAL
INC.**

DRILL LOGS

JOB#: 13470

**TEST BORING
NO.: P-1**

DATE: 1/11/2005

	DEPTH (in ft.)	SYMBOL	SAMPLES	BLOW COUNT	WATER %	SOIL TYPE
0-2" TOPSOIL	0-2					
2"-30" SAND	2-30					
fine-medium grained						
high density						
moderate moisture content						
moderate clay content						
moderate plasticity						
buff color						
30"-15' SANDSTONE	30-15					
fine-medium grained						
high density						
low-mod. moisture content						
low clay content						
low plasticity						
buff color						
INTERMITTENT ZONES OF OXIDIZED CLAY						
percolation rate at the depth of 30" is 1" in 32 minutes						

JOB#: 13470

**TEST BORING
NO.: P-2**

DATE: 1/11/2005

	DEPTH (in ft.)	SYMBOL	SAMPLES	BLOW COUNT	WATER %	SOIL TYPE
0-2" TOPSOIL	0-2					
2"-8' SAND	2-8					
fine-coarse grained						
moderate density						
low-mod. moisture content						
low clay content						
non-plastic						
buff color						
8'-12' SANDSTONE	8-12					
fine-coarse grained						
high density						
moderate moisture content						
low clay content						
low plasticity						
buff color						

APPENDIX A1



**FRONT RANGE
GEOTECHNICAL
INC.**

DRILL LOGS

JOB#: 13470

**TEST BORING
NO.: P-3**

DATE: 1/11/2005

0-2" TOPSOIL
2"-8' SANDSTONE
fine-medium grained
mod.-high density
low moisture content
low clay content
non-plastic
buff color
8'-15' SANDSTONE
fine-medium grained
very-high density
moderate moisture content
moderate clay content
moderate plasticity
buff color
percolation rate
at the depth of 30"
is 1" in 12.3 minutes

DEPTH (1m ft.)

SYMBOL

SAMPLES

BLOW COUNT

WATER %

SOIL TYPE



$\frac{29}{12}$

3.6

SM

$\frac{42}{6}$

JOB#: 13470

**TEST BORING
NO.: P-4**

DATE: 1/11/2005

0-2" TOPSOIL
2"-12" SAND
fine grained
low density
moderate moisture content
moderate clay content
moderate plasticity
buff color
12"-15' SANDSTONE
fine-medium grained
very-high density
moderate moisture content
moderate clay content
moderate plasticity
buff color
percolation rate
at the depth of 30"
is 1" in 23.2 minutes

DEPTH (1m ft.)

SYMBOL

SAMPLES

BLOW COUNT

WATER %

SOIL TYPE



$\frac{36}{6}$

6.2

SM

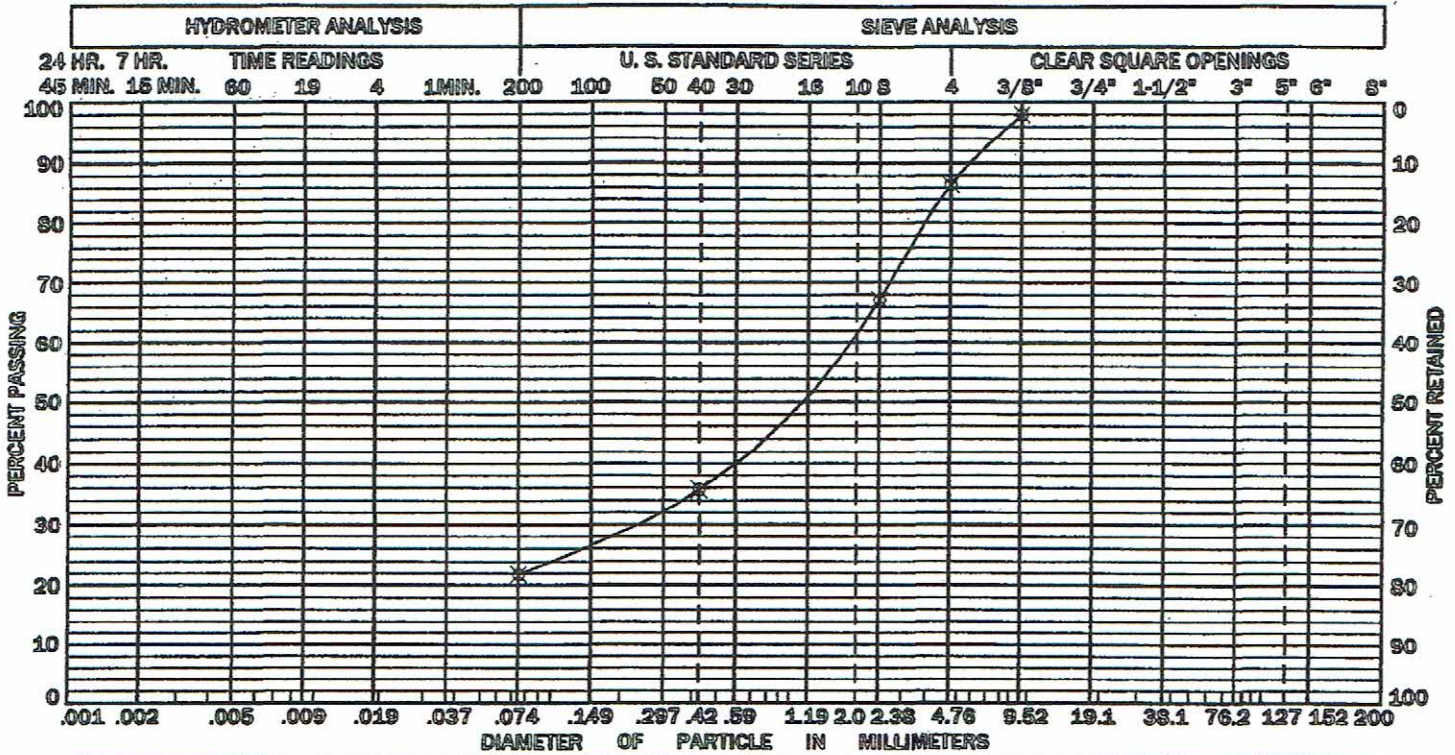
$\frac{28}{3}$

APPENDIX A2



FRONT RANGE GEOTECHNICAL INC.

GRADATION TEST RESULTS



CLAY TO SILT	SAND			GRAVEL		COBBLES
	FINE	MEDIUM	COARSE	FINE	COARSE	
CLASSIFICATION	SC					
GRAVEL	13.5 %					
SAND	64.7 %					
FINES	21.8 %					
SAMPLE#	1	HOLES	P-1	DEPTH	4	FEET

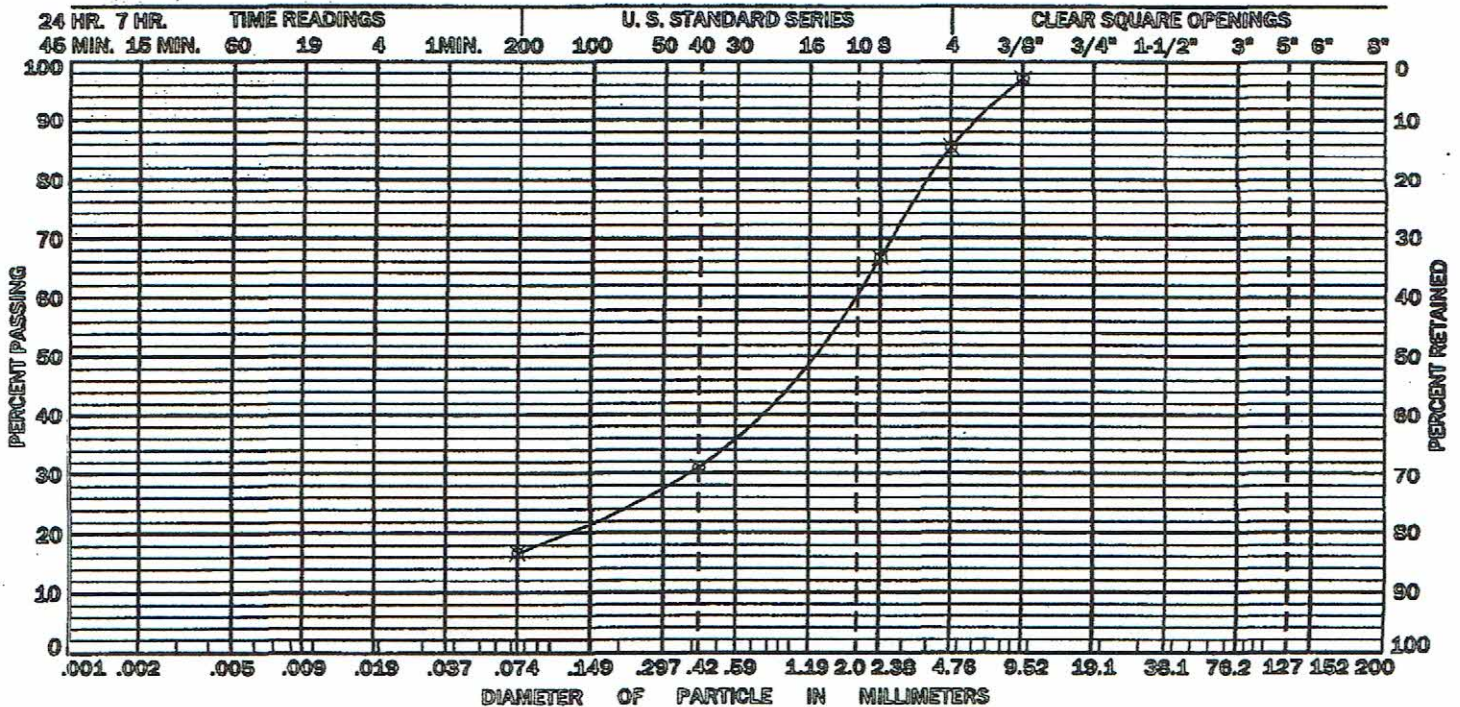
NOTES:	6.9 % Moisture content
	LL = 32.8 %
	PL = 20.0 %
	PI = 12.8 %

NOTES: 6.9 % Moisture content

LL = 32.8 %

PL = 20.0 %

PI = 12.8 %



CLAY TO SILT		SAND			GRAVEL		COBBLES		
		FINE	MEDIUM	COARSE	FINE	COARSE			
CLASSIFICATION	SM	NOTES: 4.1 % Moisture content							
GRAVEL	14.4 %	LL = could not be determined							
SAND	69.1 %	PL = non-plastic							
FINES	16.5 %								
SAMPLE#	1	MOLE#	P-2	DEPTH	4	FEET	Job #: 13470	By: KO	1/12/2005

NOTES: 4.1 % Moisture content

LL = could not be determined

PL = non-plastic

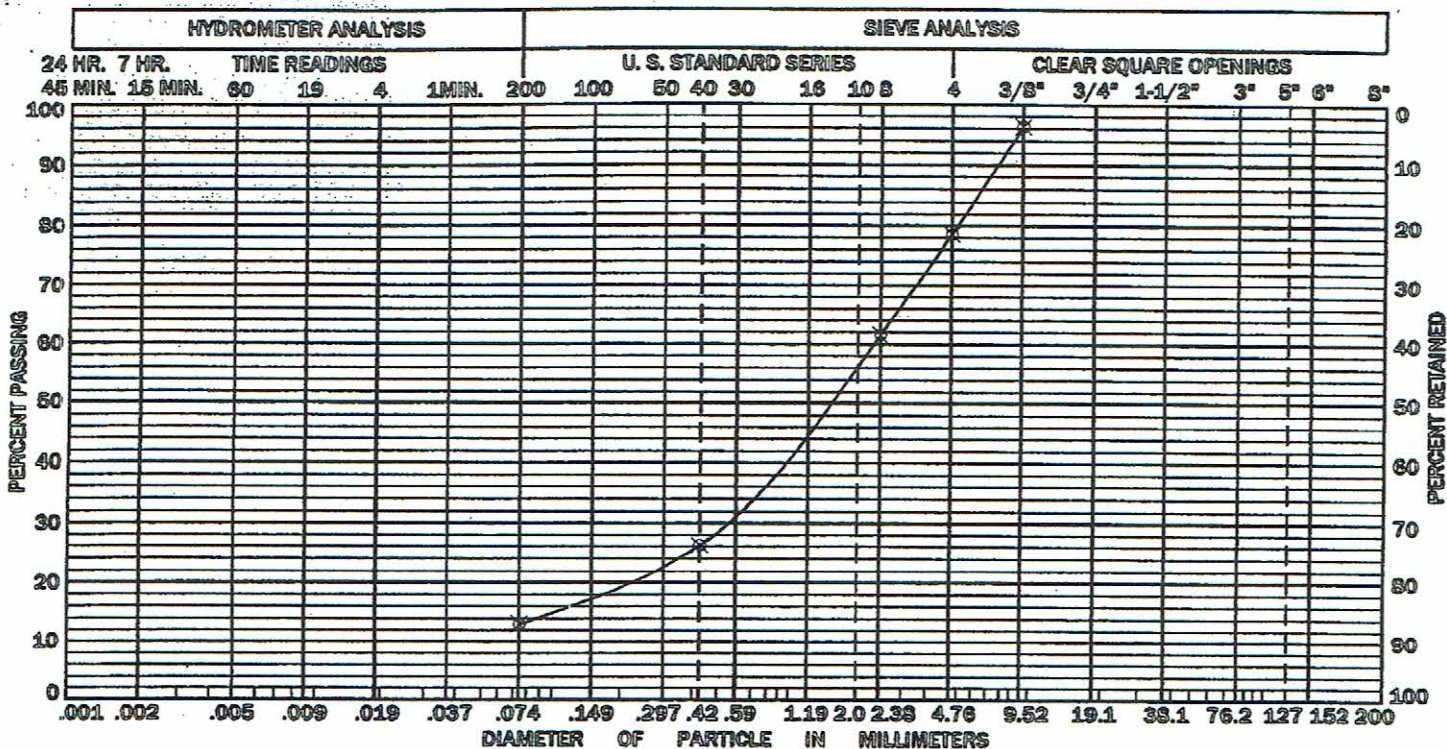
Job #: 13470 By: KO 1/12/2005

APPENDIX A3

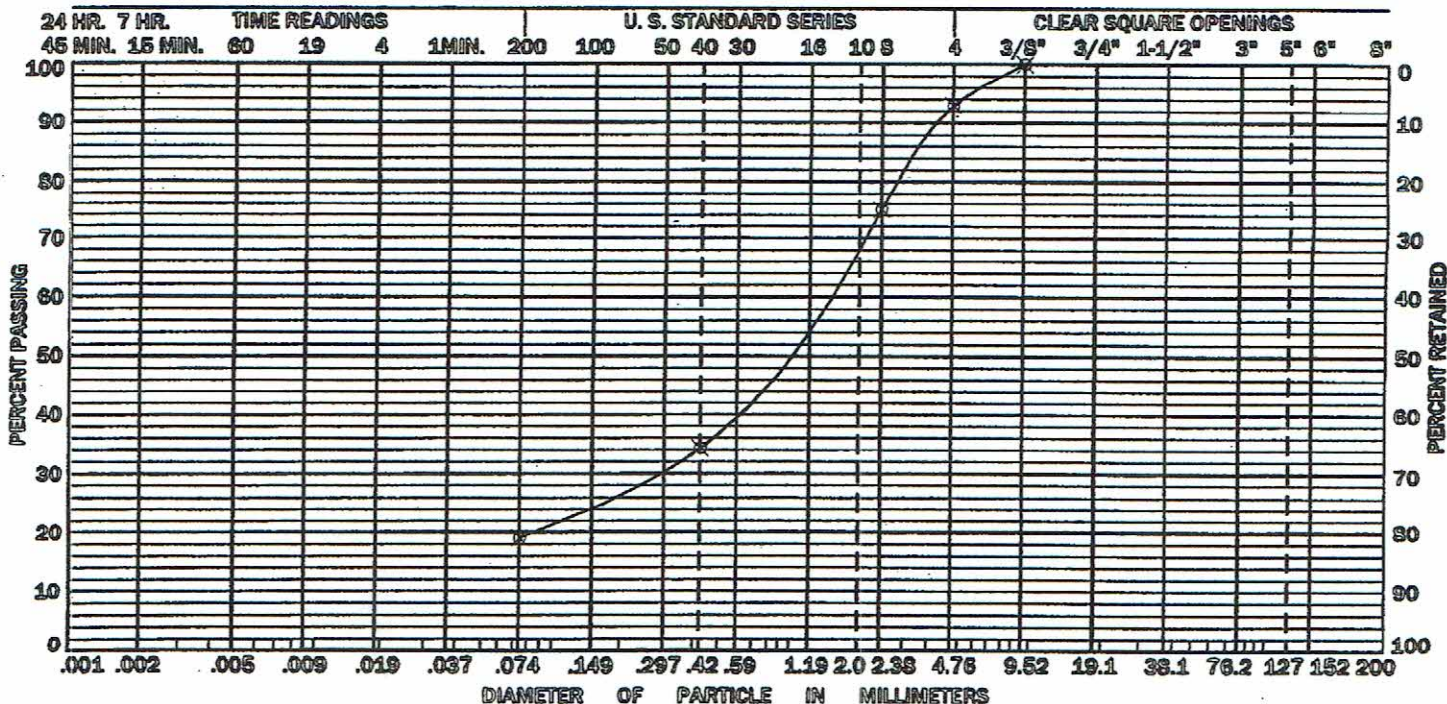


FRONT RANGE GEOTECHNICAL INC.

GRADATION TEST RESULTS



CLAY TO SILT		SAND			GRAVEL		COBBLES
		FINE	MEDIUM	COARSE	FINE	COARSE	
CLASSIFICATION	SM	NOTES: 3.6 % Moisture content					
GRAVEL	21.4 %	LL = could not be determined					
SAND	65.6 %	PL = non-plastic					
FINES	13.0 %						
SAMPLE#	1						
MOLES	P-3						
DEPTH	4						
FEET							



CLAY TO SILT		SAND			GRAVEL		COBBLES	
		FINE	MEDIUM	COARSE	FINE	COARSE		
CLASSIFICATION	SM	NOTES: 6.2 % Moisture content						
GRAVEL	7.0 %	LL = 34.1 %						
SAND	73.7 %	PL = 24.6 %						
FINES	19.3 %	PI = 9.5 %						
SAMPLE#	1	Job #: 13470 By: KO 1/12/2005						
HOLE#	P-4							
DEPTH	4							
FEET								

Appendix B

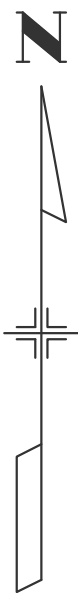
Proposed PUD for Eagle Forest Subdivision (4/10/2020)

A PORTION OF THE SOUTHEAST QUARTER OF SECTION 8,
TOWNSHIP 12 SOUTH, RANGE 65 WEST OF THE 6TH P.M.
EL PASO COUNTY, COLORADO

EAGLE FOREST SUBDIVISION
PRELIM /PUD DEVELOPMENT PLAN
EAGLE FOREST DEVELOPMENT, LLC
EL PASO COUNTY, CO

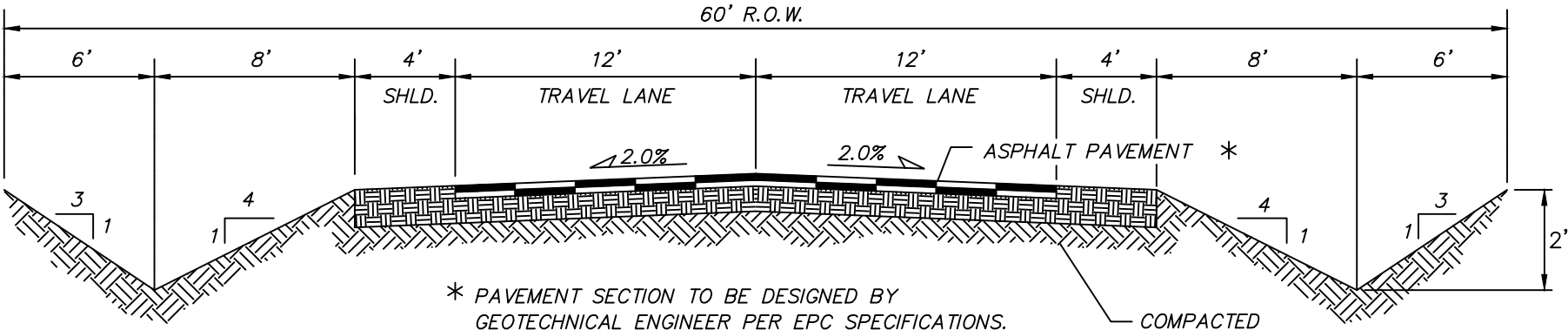
EAGLE FOREST SUBDIVISION
PRELIMINARY / P.U.D. DEVELOPMENT PLAN

A PORTION OF THE SOUTHEAST QUARTER OF SECTION 8,
TOWNSHIP 12 SOUTH, RANGE 65 WEST OF THE 6TH P.M.
EL PASO COUNTY, COLORADO

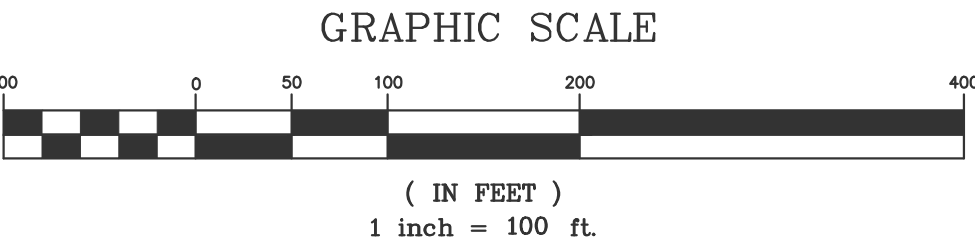


CURVE TABLE				
CURVE	DELTA	RADIUS	LENGTH	CHORD BEARING
C1	Δ=15°30'24"	395.00	106.90	N07°45'30"E
C2	Δ=34°29'36"	395.00	237.80	N32°45'30"E
C3	Δ=50°20'32"	230.00	202.09	N24°50'02"E
C4	Δ=50°20'32"	170.00	149.37	N24°50'02"E
C5	Δ=92°04'11"	170.00	273.18	N46°22'19"W
C6	Δ=92°04'11"	230.00	369.59	N46°22'19"W
C7	Δ=26°47'29"	230.00	107.55	N74°11'51"E
C8	Δ=13°45'24"	280.00	67.23	N53°55'24"E
C9	Δ=20°34'03"	100.55	36.09	N57°19'43"E
C10	Δ=98°16'20"	60.00	102.91	N18°28'35"E
C11	Δ=36°25'41"	60.00	38.15	N48°52'26"W
C12	Δ=90°17'59"	60.00	94.56	N67°45'44"E
C13	Δ=27°49'03"	100.55	48.82	N36°31'16"E
C14	Δ=10°22'19"	220.00	39.63	N55°38'57"E
C15	Δ=11°49'02"	170.00	35.06	N66°42'37"E
C16	Δ=14°58'27"	170.00	44.43	N80°06'22"E

ROAD SURFACE DESIGN / TO BE MAINTAINED BY H.O.A.



RURAL RESIDENTIAL
TYPICAL SECTION (A)
NOT TO SCALE



LWA LAND SURVEYING, INC.
953 E. FILLMORE STREET
COLORADO SPRINGS, CO 80907
TELEPHONE (719) 636-5179 FAX (719) 636-5199

EAGLE FOREST SUBDIVISION
PRELIM / PUD DEVELOPMENT PLAN
EAGLE FOREST DEVELOPMENT, LLC
EL PASO COUNTY, CO

DWG: EAGLE FOREST PUD
SCALE: 1"=100'
DATE: 4/2/20
PROJECT NO. 11065
SHEET 1 OF 2


Appendix C


2005 & 2020 Google Earth Imagery of Subject Site

7360 Shoup Rd

10/2005

Legend

 7360 Shoup Rd

 7360 Shoup Rd

Google Earth

Image USDA Farm Service Agency


900 ft



7360 Shoup Rd

06/2020

Legend

 7360 Shoup Rd

 7360 Shoup Rd

Google Earth

1000 ft

