

**CONCEPT LEVEL GEOLOGIC HAZARDS EVALUATION
FALCON COMMERCE CENTER
SOUTHWEST OF I-25 AND BAPTIST ROAD
EL PASO COUNTY, COLORADO**

Prepared for:

CP Capital Real Estate
1650 Lake Cook Road
Deerfield, Illinois

Attention: Tom Blunk

CTL|T Project No. CS19214-100

February 26, 2020

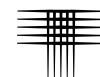
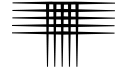


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SCOPE

This report presents the results of our Concept Level Geologic Hazards Evaluation for an approximately 213-acre parcel south of Baptist Road and west of Interstate-25 (I-25) in El Paso County, Colorado. Our purpose was to evaluate the parcel for the occurrence of potential geologic hazards that may impact development of the site and to investigate the potential impacts of the general geologic conditions for the proposed project. We understand the property is planned for commercial and light industrial with potentially some multi-family housing at the south end of the site. This report includes a summary of subsurface and groundwater conditions found in our exploratory borings performed during our 1999 study of the site, and our opinion of the potential influence of the geologic conditions on the planned structures and other site improvements. The scope of our services was described in our proposal (CS-20-008) dated January 20th, 2020.

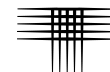
The report was prepared based on conditions interpreted from field reconnaissance of the site, review of our previous study performed at the site in 1999 including conditions found in our exploratory borings and results of laboratory tests, and our previous experience with this and surrounding properties. The conclusions made in this concept level report are applicable for preliminary site planning.

Evaluation of the property for the possible presence of potentially hazardous materials (Environmental Site Assessment) was beyond the scope of this investigation. Assessment of the site for the potential for wildfire hazards, corrosive soils, erosion problems, or flooding is also beyond the scope of this investigation.

The following section summarizes the report. A more complete description of the conditions found at the site and our interpretations are included in the report.

SUMMARY

1. We did not identify geologic hazards we believe preclude development of the site for the construction planned. Geologic conditions including expansive soil and bedrock, shallow hard bedrock and the occurrence of



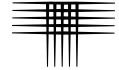
shallow groundwater will influence design. Regional geologic conditions that impact the site include seismicity and radioactivity. We believe each of these conditions can be mitigated with engineering design and construction methods commonly employed in this area.

2. Subsurface conditions encountered during our 1999 investigation at the site consisted of 2 to 29.5 feet of overburden soils consisting predominantly of slightly silty to silty and clayey to very clayey sand. Sporadic layers of sandy clay are present beneath the sand. Sandstone and claystone bedrock were encountered in all but one of the borings below the surficial soils and extended to the boring termination depths.
3. Groundwater was measured in all but three of our 1999 exploratory borings at depths ranging from 5 to 26 feet. The shallower groundwater was present in the southern half of the site. Groundwater levels will vary with seasonal precipitation and landscaping irrigation.

SITE CONDITIONS

The site covers approximately 213-acres south of Baptist Road and Interstate-25 (I-25) in El Paso County, Colorado. The site is in the eastern half of Section 35 and the southeast quarter of Section 36, both of Township 11, Range 67 West of the 6th Principal Meridian, El Paso County. The general location is shown in Fig. 1.

The parcel is relatively flat and slopes down to the southwest at grades estimated to be less than 5 percent. A perennial stream (Jackson Creek) bisects the southern portion of the site. Other ephemeral drainages bisect the middle portion of the site and also originate within the site in the northern half. The sides of these drainages slope at grades estimated to be less than 15 percent. The site is accessed from Baptist Road. An abandoned railroad bed, including remnants of an old timber bridge across Jackson Creek, is present, and unimproved dirt roads transect north/south across the eastern portion of the site. The property is bordered to the east by I-25, to the north by Baptist Road and the existing Pilot Travel Center, to the south by the Air Force Academy, and to the west by the Santa Fe regional trail. The Upper Monument Creek Regional Wastewater Treatment Plant is also located west of the site. Vegetation consists of natural grasses and occasional pine trees. The general size, shape, topography and vicinity of the site and the location of our 1999 test holes are presented on Figure 1.



PROPOSED DEVELOPMENT

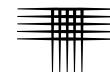
We were provided with conceptual development plans for the parcel. Based on the concept plan, the project will be a commercial development involving the design and construction of approximately 40 predominantly low-rise buildings and possibly mid-rise hotel buildings. Occupants are expected to include office, hotel, retail, restaurant, and light industrial buildings. The area south of Jackson Creek may potentially be developed with multi-family housing. We anticipate the structures will be serviced by municipal water and wastewater systems. Other improvements will include a southward extension of Terrazzo Drive and a new street to be called Squadron Drive, as well as numerous private access driveways and parking areas. As mentioned previously, the southern half of the site is bisected by Jackson Creek. Development is precluded within a 300-foot buffer zone on both sides of the creek for protection of the endangered Preble's jumping mouse.

PREVIOUS INVESTIGATION

Our firm performed a Geologic Hazards Evaluation and Preliminary Geotechnical Investigation (CTL|T Job No. CS-10,148; report dated December 17, 1999) for a larger 320-acre site that included the property covered by this investigation. The 1999 study included the drilling of 22 widely spaced exploratory borings. The locations of the borings can be found on Fig. 1. Summary logs of exploratory borings are included in Appendix A.

Surficial Deposits

The subsurface conditions encountered in our borings at the site consisted of 2 to 29.5 feet of overburden soils overlying sedimentary bedrock. The surficial and near surface soils consisted of natural silty and clayey sands. The sand exhibits relative density ranging from loose to dense and nil to low potential for expansion (measured expansion of 0.0 to 1.6 percent). A natural clay layer was encountered below sand in localized areas of the western portion of the site at depths ranging from 9 to 16 feet.



The natural clay layer was 1.5 feet to greater than 6 feet in thickness. The clays were stiff and exhibit moderate potential for expansion (measured expansion of 2.2 percent).

Bedrock

Claystone and sandstone bedrock was encountered in all but 1 of our 22 borings advanced during our 1999 exploration. Bedrock was generally below a depth of 10 feet in the northern portion of the site and frequently below 20 feet in the far north end of the site. In the southern portion of the site, bedrock is sporadically present at depths shallower than 10 feet and as shallow as 2 feet immediately west of the remnants of the old railroad bridge that once spanned Jackson Creek.

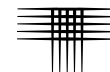
Two samples of the sandstone bedrock were subjected to swell-consolidation testing. One of the tested samples exhibited low potential for expansion (measured swell of 1.6 percent), and the other tested sample exhibited moderate potential for expansion (measured swell of 2.4 percent).

Groundwater

Groundwater was measured during September 1999 in all but two borings at depths ranging from 5 to 26 feet below the existing ground surface. Groundwater levels will vary with seasonal precipitation, flows in Jackson Creek, landscaping irrigation and other factors. The construction process itself can alter groundwater levels particularly where grading cuts are performed in areas where more permeable natural sands overlie less permeable bedrock.

GEOLOGIC SETTING

The site lies approximately 3.5 miles east of the southern Rocky Mountains in the Colorado Piedmont section of the Great Plains physiographic province. While the Laramide Orogeny was occurring that uplifted the Rocky Mountains during the late Cretaceous and early Tertiary, energetic braided streams were delivering a mixture of coarse gravel, sand, and finer silt and clay particles, derived primarily from Precambrian Pikes Peak Granite, to the Colorado Piedmont that would become the Dawson



Formation. The upper part of the Dawson Formation shares similar characteristics with the Upper Arapahoe, Denver, and Dawson Formations mapped in the Denver area. The source area for these granitic arkosic materials of the Dawson Formation was immediately west across the mountain-front fault system called the Rampart Range Fault. The coarser materials are cross bedded, filled broad channels and generally cut into the finer grained lower portions of the Dawson Formation. Interbedded with the thick channel deposits are occasional massive structureless beds deposited by mud flows. (Thorson and Madole, 2003)

SITE GEOLOGY

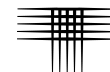
Geologic conditions were evaluated through the review of published geologic maps, field reconnaissance, and our previous investigation. Information from these sources was used to produce our interpretation of site geology, as shown in Fig. 2. A list of references is included at the end of this report.

Dawson Formation Bedrock

The bedrock in this region has been mapped by the United States Geological Survey (USGS) as the Dawson Formation (upper part) of Cretaceous age. Underlying the surficial deposits, various facies of Dawson Formation bedrock is present. The Dawson Formation bedrock is highly variable and includes sandstone, claystone, and interbedded sandstone and claystone. The depth to bedrock varies between 2 and 29.5 feet and is shown on Fig. 1 where test holes were drilled during our 1999 study. No bedrock outcrops were observed on this site. Sandstone “float” was observed in areas of shallow bedrock. Bedrock encountered during drilling included medium hard to very hard sandstone, slightly sandy to sandy claystone and interbedded sandstone and claystone. Bedrock in this region dips at very slight angles (less than 5 degrees) toward the north and northeast.

Surficial Deposits

The entire site contains variable thicknesses of Quaternary-age surficial deposits overlying the bedrock. These are terrace deposits of various ages including (from oldest



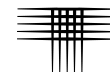
to youngest) Slocum Alluvium (Map Unit “Qs”), Louviers Alluvium (Map unit “Qlo”), Post Piney Creek and Piney Creek Alluvium (Map Unit “Qp”), and recent alluvium (Map unit “Qal”). These deposits are similar in composition and are characterized by sand, clay and silt and in places may have gravel lenses. There are several areas within the site where drainages originate, and these have been mapped as colluvial deposits (Map Unit “Qac”) of mixed origin. The colluvial deposits include recent alluvium and material weathered from underlying deposits.

A former railroad grade crosses the site from north to south and fill associated with the railroad bed is located primarily along the sites eastern side. Several abandoned roads are also found crossing the site from north to south. These areas are mapped as “Fill/da” and are areas of fill and/or areas disturbed by previous grading activity.

GEOLOGIC HAZARDS

Colorado is a challenging location to practice geotechnical engineering. The climate is relatively dry and the near-surface soils are typically dry and relatively stiff. These soils and related sedimentary bedrock formations tend to react to changes in moisture conditions. Some of the soils swell as they increase in moisture and are called expansive soils. Other soils can settle significantly upon wetting and are referred to as collapsing soils. Most of the land available for development east of the Front Range is underlain by expansive clay or claystone bedrock near the surface. The soils that exhibit collapse are more likely west of the Continental Divide; however, both types of soils occur all over the state.

Covering the ground with houses, streets, driveways, patios, etc., coupled with lawn irrigation and changing drainage patterns, leads to an increase in subsurface moisture conditions. As a result, some soil movement is inevitable. It is critical that all recommendations in this report are followed to increase the chances that the foundation and slabs-on-grade will perform satisfactorily. After construction, homeowners must assume responsibility for maintaining the structure and use appropriate practices regarding drainage and landscaping.



We did not identify geologic hazards that we believe preclude development of the project for the planned purpose. Conditions we identified that may pose hazards or constraints to development include expansive soil and bedrock. Regional geologic conditions that impact the site include seismicity and radioactivity. We believe each of these conditions can be mitigated with engineering design and construction methods commonly employed in this area. These conditions are discussed in greater detail in the sections that follow.

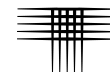
Expansive Soils and Bedrock

The presence of expansive materials at the site constitutes a geologic hazard. Moisture changes to bedrock or surficial deposits containing swelling clays can result in volumetric expansion and collapse of those units. Changes in soil moisture content can result from precipitation, irrigation, pipeline leakage, surface drainage, perched groundwater, drought, or other factors. Swelling of expansive soil and bedrock may cause excessive cracking and heaving of structures with shallow foundations, concrete slabs-on-grade, or pavements supported on these materials.

As part of our 1999 study, samples were tested in the laboratory for swell consolidation characteristics. Generally, sites are rated as low, medium, high or very high swell potential based on heave calculations utilizing swell test results. The rating of a site as low or high swell potential is not absolute. Rather, this represents a judgement. The natural clay soils found sporadically at depths greater than 9 feet and the sandstone bedrock exhibit low to moderate potential for expansion. Based on our experience, the claystone bedrock exhibits moderate to high potential for expansion.

Shallow Bedrock

Shallow bedrock conditions exist generally in the southern portion of the site. Along the southeastern portion of the site bedrock was encountered at less than 5 feet below the ground surface. The depth to bedrock in our test borings advanced during our 1999 study is shown on Figure 1. The risk of damage to structures is significantly higher where expansive soils and bedrock are exposed at the ground surface as a result of site grading.



Shallow Groundwater

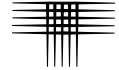
The depth to groundwater measured during our 1999 study is shown on Figure 1. Shallow groundwater is found in areas mapped as “sw”, and “Qal” on Fig.2. Depth to water will likely change due to natural environmental variations and from irrigation and modified surface drainage after development. The significant permeability differences between surficial sandy soils and the bedrock are favorable for the development of “perched” groundwater at the interface. When bedrock is naturally shallow or shallow due to grading “cuts”, conditions are favorable for the formation of a shallow perched water table. Man-induced conditions, such as lawn irrigation and changes in surface drainage, can contribute to the formation of shallow perched water tables. Potential mitigation procedures include construction of interceptor drains, subdrains below sewers, and foundation drains.

Flooding

There is a flooding hazard associated with Jackson Creek and the other drainages that originate off-site. The Federal Emergency Management Agency (FEMA) has identified the majority of the site as lying in unshaded Zone X, or outside the limits of a 500-year flood plain. The Jackson Creek stream channel and adjacent areas are mapped as lying in shaded Zone A. Areas within Zone A are subject to inundation by the 1-percent-annual-chance flood event. Because detailed hydraulic analyses have not been performed, no Base Flood Elevations (BFEs) or flood depths are shown. It is noted that the 300-foot buffer zone extending from both sides of Jackson Creek for protection of the endangered Preble’s jumping mouse precludes development within the area mapped as Zone A. The project Civil Engineer should determine the flood potential for Jackson Creek and other drainages that originate off-site and design the surface drainage accordingly.

Seismicity

This area, like most of central Colorado, is subject to a degree of seismic activity. Geologic evidence indicates that movement along some Front Range faults has occurred during the last two million years (Quaternary). This includes the Rampart



Range Fault, which is located about 3.5 miles west of the site. Based on current International Building Code (IBC) criteria, we judge the property is Seismic Site Class D where thick deposits of soils or fill exists.

Underground Mines

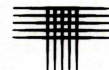
No underground mining is known to have taken place at the site and we did not observe any evidence of subsurface mining at the site. We believe, the project site is not underlain by abandoned mine workings and should not be subject to future ground surface movements due to mine subsidence.

Radon and Radioactivity

We do not believe there are any unusual hazards from naturally occurring sources of radioactivity on this site. The principal radioactive hazard produced by soil deposits commonly found in the Colorado Springs area is radon gas. Higher concentrations of radon gas normally occur in residential structures that have been sealed to prevent exchange of outside air. Commercial buildings are normally well ventilated. Radon tends to collect in below-grade areas due to limited outside air exchange and interior ventilation. Passive and active mitigation systems are commonly employed in this region to effectively reduce the buildup of radon gas. Measures that can be taken after a structure is enclosed during construction include installing a negative pressure system below the floor and sealing the joints and cracks in concrete slabs and foundation walls. If the occurrence of radon is a concern, we recommend the structures be tested after they are enclosed and mitigation systems can be installed to reduce the risk.

LIMITATIONS

The recommendations and conclusions presented in this report were prepared based on conditions disclosed by our exploratory borings, geologic reconnaissance, engineering analyses, and our experience. Variations in the subsurface conditions not indicated by the borings are possible and should be expected. Geotechnical



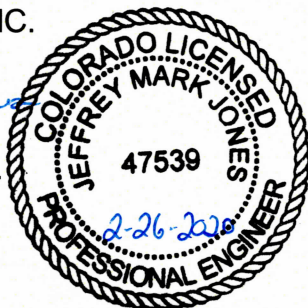
investigations are recommended to develop site specific geotechnical design and construction criteria recommendations.

We believe this report was prepared with that level of skill and care ordinarily used by geologists and geotechnical engineers practicing under similar conditions. No warranty, express or implied, is made.

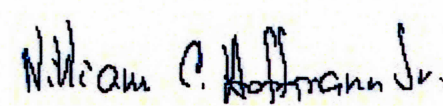
Should you have any questions regarding the contents of this report or the project from a geological point-of-view, please call.

CTL | THOMPSON, INC.


Jeffrey M. Jones, P.E.
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JMJ:WCH:cw
(2 copies sent)


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Senior Principal Engineer

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REFERENCES

Colorado Geological Survey, 1991, Results of the 1987-88 EPA Supported Radon Study in Colorado, with a Discussion on Geology. Colorado Geological Survey Open File Report 91-4.

CTL Thompson, Inc., Geotechnical Investigation, Pilot Travel Center #1110-01 Southwest of Baptist Road and Interstate 25, Monument, Colorado (CTL|T Job No. CS18708-125; dated February 24, 2017).

CTL Thompson, Inc., Geologic Hazards Evaluation and Preliminary Geotechnical Investigation, SW Corner I-25 and Baptist Road, Colorado Springs, Colorado (CTL|T Job No. CS10,148; dated December 17, 1999).

Federal Emergency Management Agency, Flood Insurance Rate Map, Map Number 08041C0286G, effective date December 7, 2018.

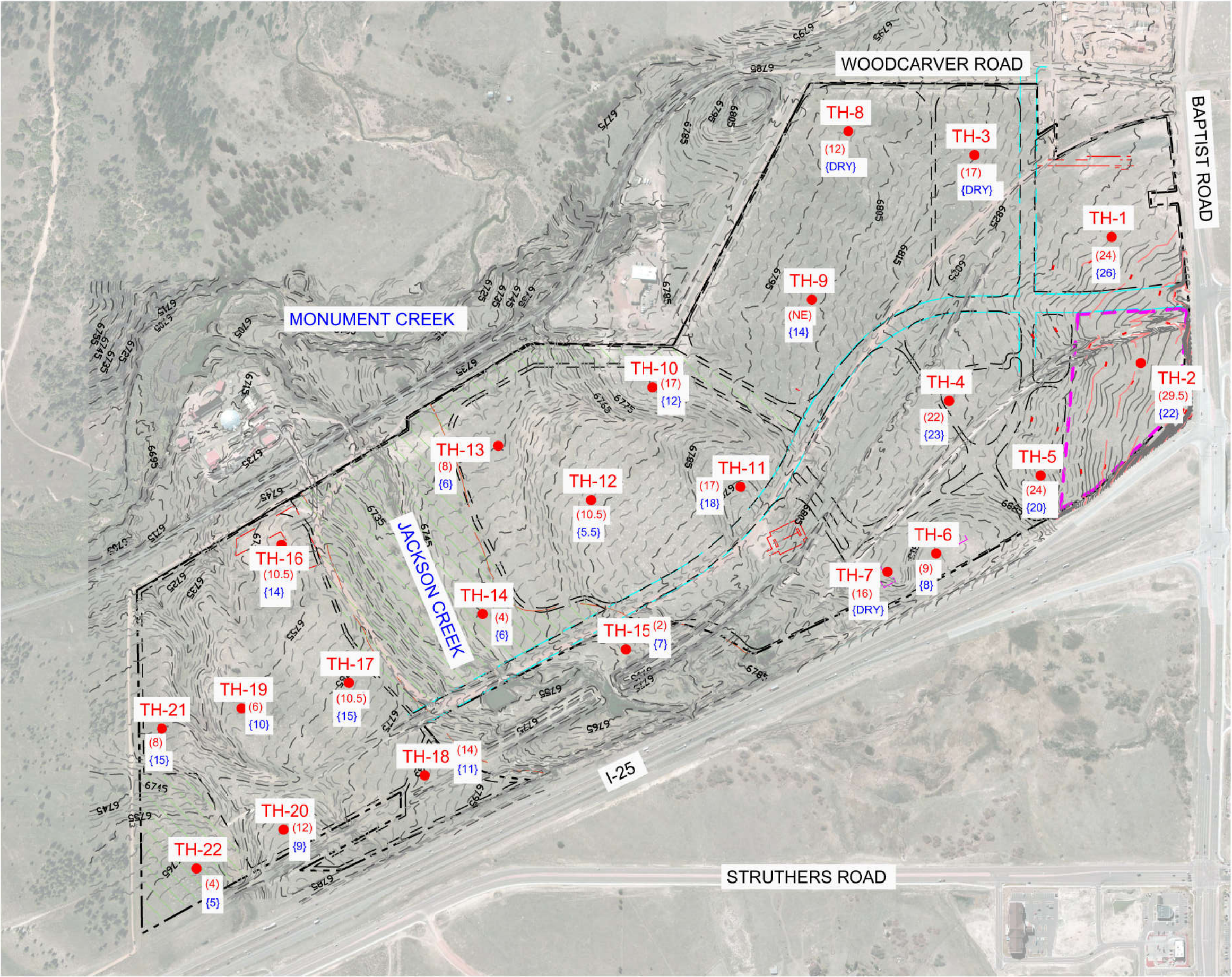
International Building Code (2015 IBC).

Kirkham, R.M. & Rogers, W.P. (1981). Earthquake Potential in Colorado. Colorado Geological Survey, Bulletin 43.

Robinson and Associates, Inc. (1977). El Paso County, Colorado Potential Geologic Hazards and Surficial Deposits, Environmental and Engineering Geologic Maps and Tables for Land Use.

Trimble, D.E., and Machette, M.N., 1979, Geologic Map of the Colorado Springs-Castle Rock Area, Front Range Urban Corridor, Colorado, U.S. Geological Survey, Miscellaneous Investigation Series, Map I-857-F

Thorson, Jon P., and Madole, Richard F., 2003, Colorado Geological Survey, Open-File Report 02-4, Geologic Map of the Monument Quadrangle, El Paso County, Colorado.

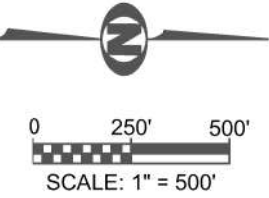


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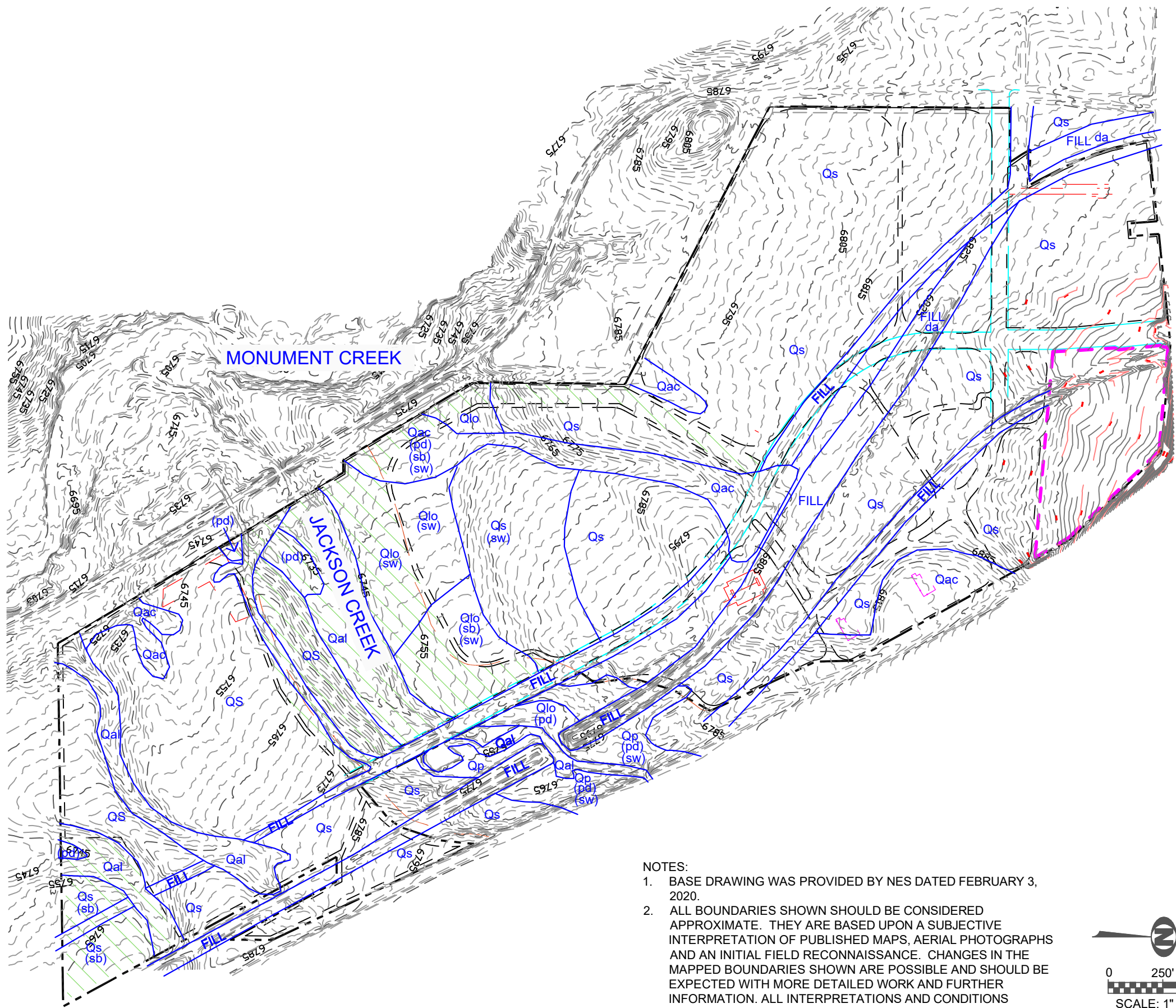
- LEGEND:
- TH-1 (red dot) APPROXIMATE LOCATION OF 1999 EXPLORATORY BORINGS DRILLED FOR CS-10,148 DATED SEPTEMBER, 1999.
 - (24) (red text) DEPTH TO BEDROCK
 - {26} (blue text) DEPTH TO GROUNDWATER
 - ≡≡≡ (black lines) EXISTING TOPOGRAPHY

NOTE:
GROUNDWATER MEASUREMENTS TAKEN SEPTEMBER, 1999



Location of
Exploratory
Borings

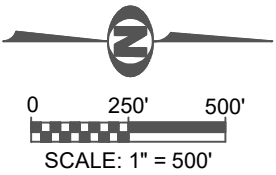
FIG. 1

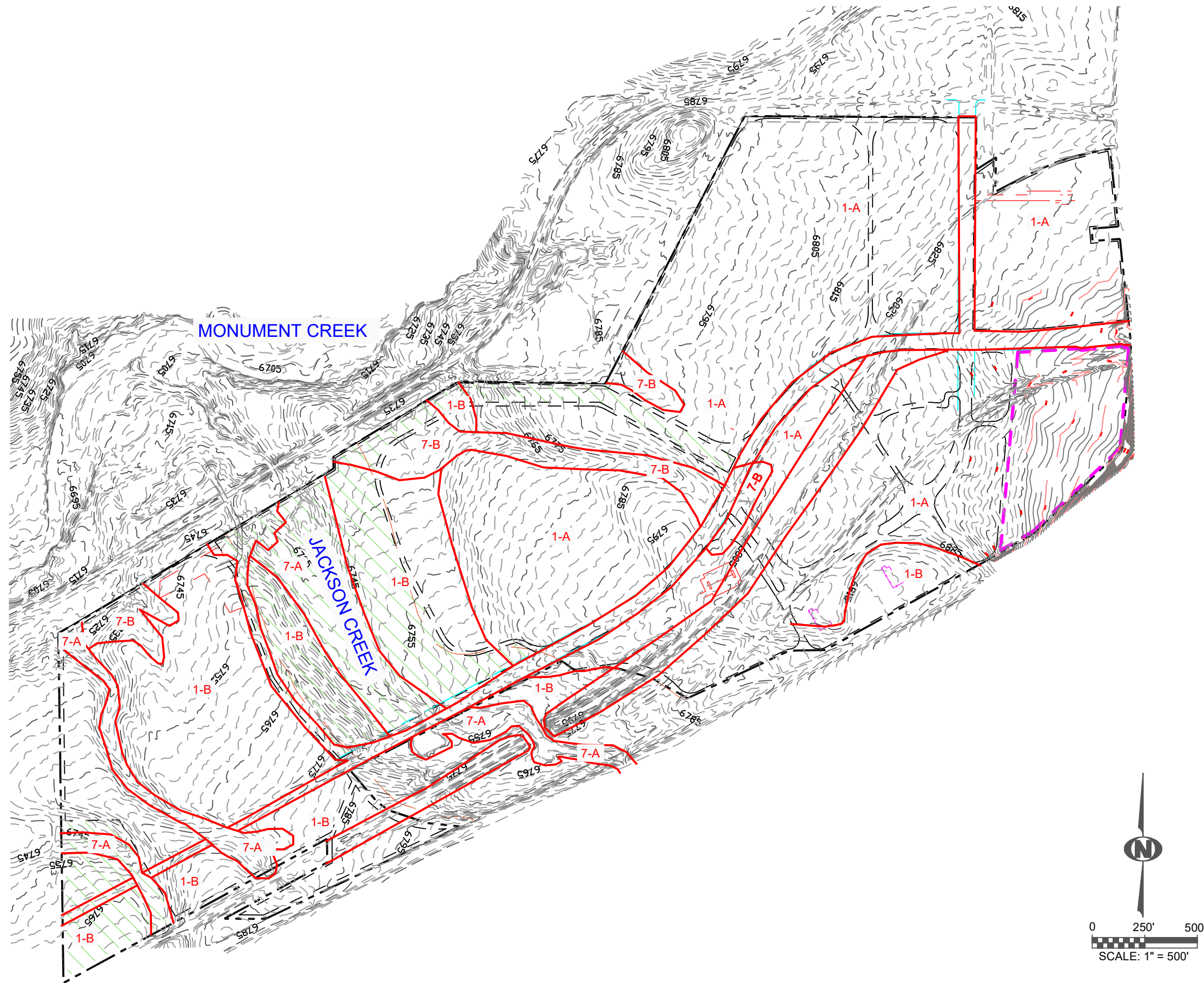


- LEGEND:
- EXISTING TOPOGRAPHY
 - PROJECT BOUNDARY
 - EXISTING PILOT TRAVEL CENTER (NOT A PART OF PROJECT)

- GEOLOGIC UNITS AND (MODIFIERS)
- SURFICIAL GEOLOGIC CONTACTS
 - FILL** ARTIFICIAL FILL. THE FILL OBSERVED ON THE SITE IS ASSOCIATED WITH ABANDONED ROADS AND RAILROAD BEDS.
 - Qac** COLLUVIAL DEPOSITS. THIS MAP UNIT CONSISTS OF ALLUVIUM IN PART AS WELL AS WEATHERED REMNANTS OF BEDROCK. THE MAP UNIT INCLUDES AREAS OF DEPOSITION AND/OR EROSION.
 - Qal** ALLUVIUM. UNIT INCLUDES STREAM DEPOSITS OF SAND, SILT AND CLAY THAT MAY HAVE GRAVEL IN PLACES. UNIT INCLUDES AREAS PRONE TO EROSION AND/OR DEPOSITION DURING FLOOD STAGE. THIS UNIT INCLUDES THE STREAM CHANNEL WITH AREAS OF SURFACE WATER FLOW AND AREAS OF HIGH GROUNDWATER.
 - Qp** POST-PINEY CREEK AND PINEY CREEK ALLUVIUM (UPPER HOLOCENE). LOWER TERRACES OF SAND, SILT, AND CLAY THAT MAY HAVE GRAVEL IN PLACES.
 - Qlo** LOUVIERS ALLUVIUM (UPPER PLEISTOCENE) TERRACES OF STRATIFIED SAND, SILT AND CLAY, THAT MAY HAVE GRAVEL IN PLACES.
 - Qs** SLOCUM ALLUVIUM (PLEISTOCENE). TERRACES OF STRATIFIED SAND, SILT, AND CLAY THAT MAY HAVE GRAVEL IN PLACES.
 - (da)** DISTURBED AREAS. AREAS MODIFIED BY GRADING ASSOCIATED WITH BOTH ABANDONED AND CURRENTLY USED ROADWAYS AND AN ABANDONED RAILROAD.
 - (sw)** SEASONALLY WET. AREAS THAT MAY SEASONALLY HAVE HIGH GROUNDWATER.
 - (pd)** POORLY DRAINED. AREAS THAT MAY SEASONALLY POND WITH SURFACE RUNOFF.
 - (sb)** SHALLOW BEDROCK. (LESS THAN 5 FEET)

- NOTES:
- BASE DRAWING WAS PROVIDED BY NES DATED FEBRUARY 3, 2020.
 - ALL BOUNDARIES SHOWN SHOULD BE CONSIDERED APPROXIMATE. THEY ARE BASED UPON A SUBJECTIVE INTERPRETATION OF PUBLISHED MAPS, AERIAL PHOTOGRAPHS AND AN INITIAL FIELD RECONNAISSANCE. CHANGES IN THE MAPPED BOUNDARIES SHOWN ARE POSSIBLE AND SHOULD BE EXPECTED WITH MORE DETAILED WORK AND FURTHER INFORMATION. ALL INTERPRETATIONS AND CONDITIONS SHOWN ARE PRELIMINARY AND FOR LAND-USE PLANNING ONLY.





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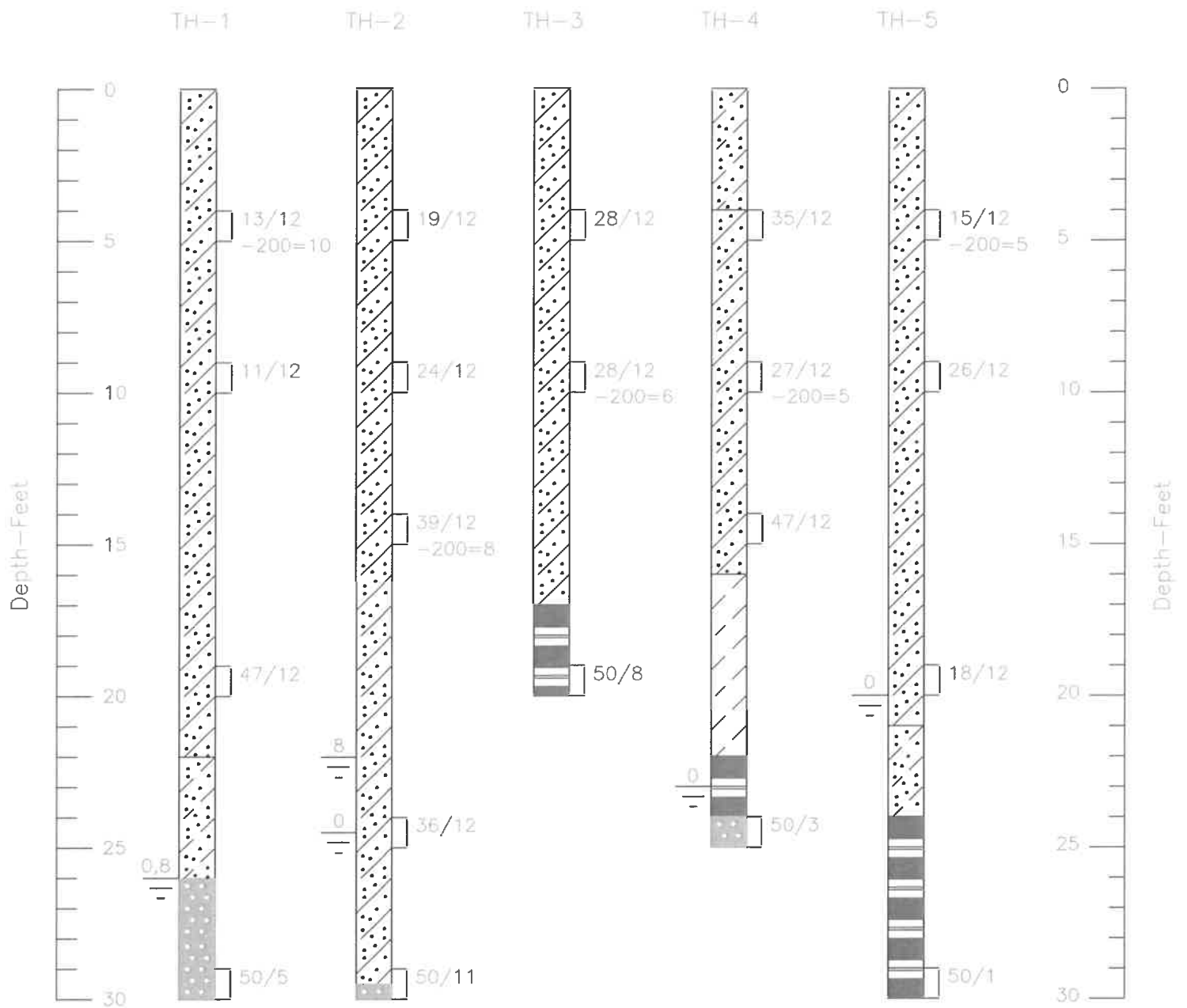
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- PROJECT BOUNDARY
- EXISTING PILOT TRAVEL CENTER (NOT A PART OF PROJECT)

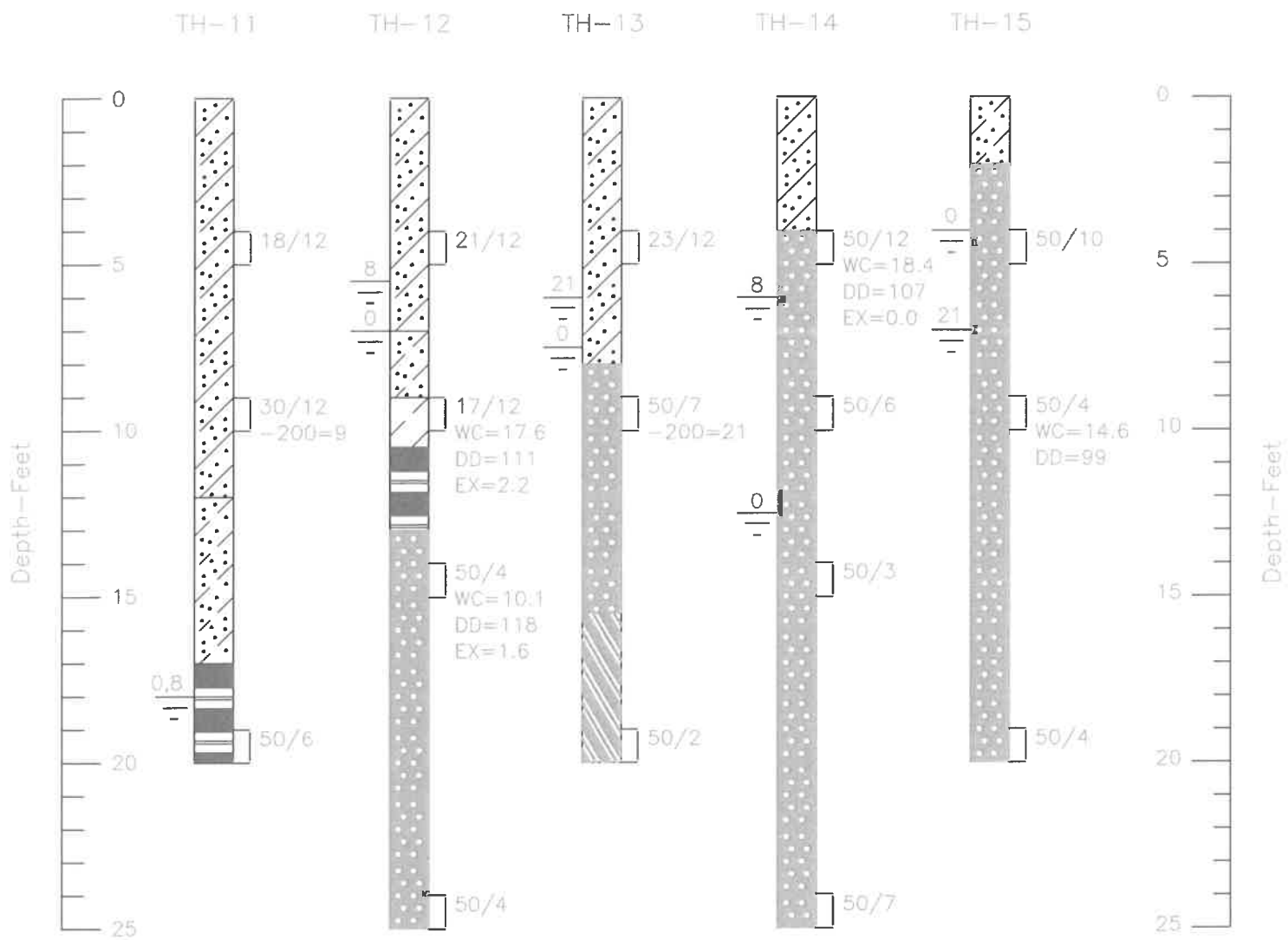
ENGINEERING UNITS AND (MODIFIERS)

- ENGINEERING CONTACTS
- 1-A** STABLE ALLUVIUM WITH GENTLE SLOPES (<6%). GRADES ARE STEEPER (<15%) ADJACENT TO THE DRAINAGES. DEPTH TO BEDROCK IS GENERALLY MORE THAN 10 FEET BELOW THE GROUND SURFACE AS INDICATED BY OUR TEST HOLES. EMPHASIS ON SURFACE AND SUBSURFACE DRAINAGE DEPTH TO BEDROCK, DEPTH TO GROUNDWATER AND EXPANSION POTENTIAL.
- 1-B** STABLE ALLUVIUM WITH GENTLE SLOPES (<6%) OVERLAYING RELATIVELY SHALLOW BEDROCK (<10 FEET) AS INDICATED BY OUR TEST HOLES. GRADES ARE STEEPER (<15%) ADJACENT TO DRAINAGES. MAP UNIT INCLUDES AREAS OF RELATIVELY SHALLOW GROUNDWATER. EMPHASIS ON SURFACE AND SUBSURFACE DRAINAGE, DEPTH TO BEDROCK, DEPTH TO GROUNDWATER AND EXPANSION POTENTIAL.
- 7-A** PHYSIOGRAPHIC FLOODPLAIN WHERE EROSION AND DEPOSITION PRESENTLY OCCUR AND IS GENERALLY SUBJECT TO RECURRENT FLOODING. EMPHASIS ON FREQUENCY, DEPTH AND CONTROL. THE AREAS ARE ASSOCIATED WITH SAND CREEK, AND TYPICALLY HAVE HIGH GROUNDWATER, ARE SEASONALLY WET, AND AT TIMES HAVE ACTIVE SEEPAGE.
- 7-B** DRAINAGE AREAS THAT ORIGINATE ON-SITE SUBJECT TO INTERMITTENT SURFACE RUNOFF AND SEASONALLY HIGH GROUNDWATER.

- NOTES:
- BASE DRAWING WAS PROVIDED BY NEW DATED FEBRUARY 3, 2020..
 - ALL BOUNDARIES SHOWN SHOULD BE CONSIDERED APPROXIMATE. THEY ARE BASED UPON A SUBJECTIVE INTERPRETATION OF PUBLISHED MAPS, AERIAL PHOTOGRAPHS AND AN INITIAL FIELD RECONNAISSANCE. CHANGES IN THE MAPPED BOUNDARIES SHOWN ARE POSSIBLE AND SHOULD BE EXPECTED WITH MORE DETAILED WORK AND FURTHER INFORMATION. ALL INTERPRETATIONS AND CONDITIONS SHOWN ARE PRELIMINARY AND FOR INITIAL LAND-USE PLANNING ONLY.
 - MAP LEGEND IS MODIFIED FROM CHARLES S. ROBINSON & ASSOCIATES, INC., GOLDEN, COLORADO, DATED 1977.

APPENDIX A
LOGS OF EXPLORATORY BORINGS (SEPTEMBER 1999)





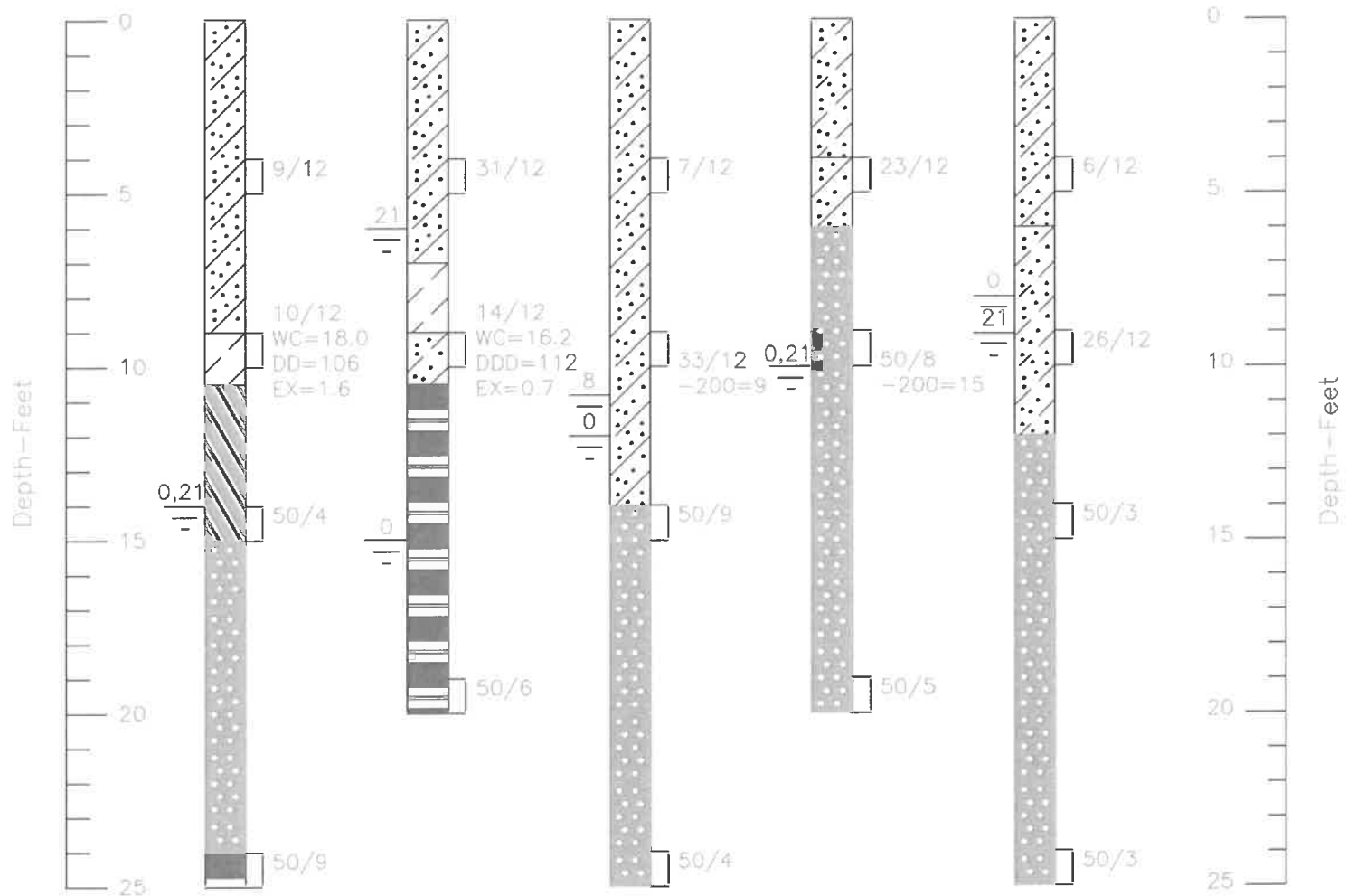
TH-16

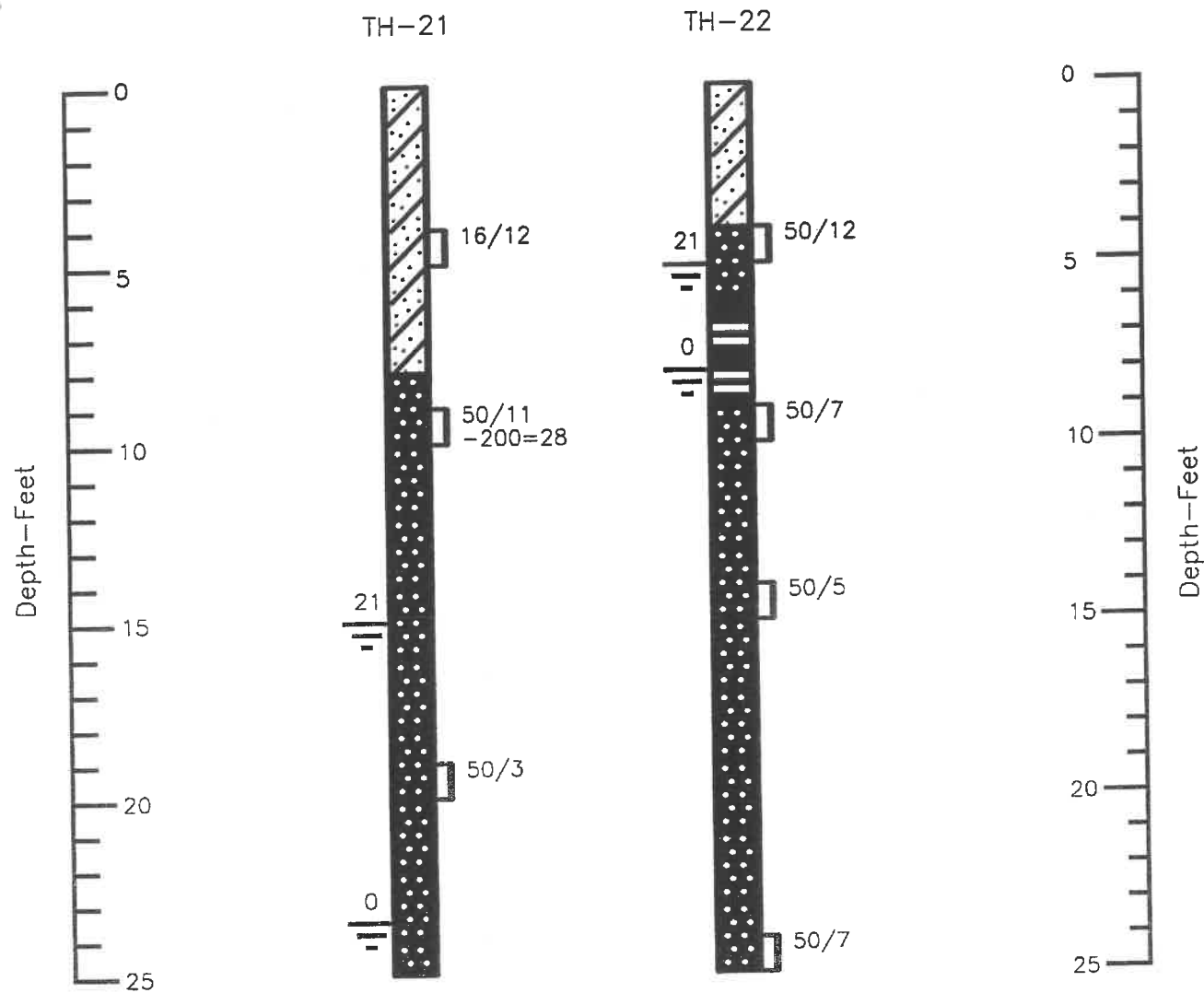
TH-17

TH-18

TH-19

TH-20





LEGEND:

- Sand, slightly silty to silty with occasional gravel, loose to dense, slightly moist to moist, tan to light brown. (SM)
- Sand, slightly clayey to very clayey, dense, slightly moist to very moist, reddish brown to gray. (SC)
- Clay, sandy, very stiff, moist to very moist, reddish brown. (CL)
- Interbedded sandstone and claystone bedrock, very hard, very moist, brown to gray.
- Sandstone bedrock, silty and clayey to very silty and clayey, hard to very hard, moist to very moist, gray to light brown.
- Claystone bedrock, slightly sandy to sandy, hard to very hard, moist, gray, red and brown.
- Drive Sample. The symbol 13/12 indicates that 13 blows of a 140-pound hammer falling 30 inches were required to drive a 2.5-inch O.D. sampler 12 inches.

0.8.21 Indicates the level of groundwater and the number of days after drilling the measurement was taken.

NOTES:

1. The borings were drilled September 2 and 15, 1999 using a 4-inch diameter, continuous-flight, truck-mounted, power auger.
2. The borings are subject to the explanations, limitations, and conclusions as contained in the report.
3. WC - Indicates natural moisture content (%)
DD - Indicates dry density (pcf)
EX - Indicates percent expansion when sample wetted under a surcharge pressure of 1000 psf
-200 - Indicates the percent passing the No. 200 sieve.

Logs of Exploratory Borings