Severfarm Ark1 Site A

CLARKSVILLE, ARKANSAS

December 19, 2025

REPORT OF GEOTECHNICAL EXPLORATION - DRAFT

Prepared By

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GMC PROJECT NUMBER: GBHM250047

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December 19, 2025

Mr. Ikenna Muoneke
VP of Land Development
Serverfarm

RE: REPORT OF GEOTECHNICAL EXPLORATION – DRAFT
SERVERFARM ARK1 SITE A
CLARKSVILLE, ARKANSAS
GMC PROJECT NO. GBHM250047

Dear Mr. Muoneke,

Goodwyn Mills Cawood, LLC (Geotechnical & Construction Services Division) is pleased to provide this draft report of geotechnical exploration performed for the above referenced project. This report includes the results of field and laboratory testing and general recommendations for foundation design and site recommendations.

We appreciate the opportunity to perform this study during this phase of the project for you. If you have any questions pertaining to this report, or if we may be of further service, please do not hesitate to call.

Sincerely,
GOODWYN MILLS CAWOOD, LLC

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1.0 EXECUTIVE SUMMARY

The summary of conclusions and recommendations contained in this section of the report are provided for your convenience. A geotechnical exploration has been conducted for the proposed property located southeast of Clarksville, Arkansas. The proposed site A measures approximately 130 acres. GMC has been provided a layout and grading plan showing 4 separate building pads, a substation, and a retention basin. The Finished Subgrade Elevations (FSG) for the building pads are approximately EL 494 feet, 520 feet, 524 feet, and 527 feet. Once the site plans have been finalized, we request the opportunity to review the plans.

The site was explored by drilling 70 soil test borings. Auger refusal was encountered in all the borings prior to their planned termination depths. The residual soils consisted of mostly of lean clay (CL) and clayey sand (SC). Standard Penetration Test (SPT) N-values in these soils ranged from 2 to 50+ blows per foot (bpf). The N-values generally increased with depth. The residual soils transitioned into weathered rock at relatively shallow depths, generally around 10 to 15 feet. The SPT N-values for these materials were greater than 50 bpf. Auger refusal was encountered after the weathered rock. Rock was cored at select locations. Groundwater was noted in several borings at the time of boring.

In order to reach the proposed grade in the building areas, cuts as deep as 25± feet will be required and fills up to 35± feet will be required.

The primary geotechnical concerns at this site relative to the site preparation are:

- Low consistency materials (N<6 to 8 bpf) encountered in many borings in the upper 1.5 to 3 feet that may be present across the site and in drainage swales. These soils are of particular concern in areas that will receive fill material to raise the grade. Undercutting and/or recompaction of these soils may be required to facilitate fill placement and benching fill material into the existing slopes.
- In some areas, particularly on the south end of the site, weathered rock will be exposed at final subgrade within the building pads. The soils transition from overburden residual soil to partially weathered rock (PWR) to intact bedrock, and the transition can be gradual. Ripping the PWR is generally able to be performed with large equipment equipped with ripping teeth.
- Differential settlement between transitions of resistant bearing materials and deep fills.
- Settlement of the deep fill masses due to compression of the fill mass self-weight.
- Settlement monitoring of the deep fills.
- Liquification is not a concern at this site.

Based on the anticipated loads and if the site is developed as recommended, the structures can be supported by a drilled pier deep foundation system bearing in shale. Rather than deep foundations, the structures could be supported shallow foundations after installation of a rammed aggregate pier system.

2.0 PROJECT INFORMATION AND SCOPE OF WORK

2.1 Project Information

The subject property is located in southeast Clarksville, Johnson County, Arkansas. The property is bordered on the west by Palmer Road, the north by East Popular Street (CR-123), the west by Big Danger Road, and the south by Tower Road. The property is approximately 130 acres and is heavily wooded. The planned development is still under design; however, we understand that the development will include four building pads, a substation pad, a detention pond, and drives and parking throughout the development. In order to reach the proposed grade in the proposed building areas, cuts as deep as 35± feet will be required and fills up to 55± will be required.

The structural design team has provided maximum column loads of 1,300 kips and maximum wall loads of 1 kips per foot. We have been provided with equipment slab loads of up to 1000 pounds per square foot. The settlement tolerance between adjacent columns is approximately 1 inch. Traffic information has not been provided at this time; we have assumed box truck and automobile traffic with occasional semi tractor trailers.

2.2 Scope of Work

The purpose of this exploration was to perform a general evaluation of the subsurface soil conditions at the site and to provide general sitework recommendations and foundation recommendations. The scope of the exploration and evaluation included drilling a total of seventy (70) soil test borings across the site and an engineering evaluation of the materials encountered.

The scope of services for the geotechnical study did not include any environmental assessment for the presence or absence of wetlands. A limited Toxicity Characteristic Leaching Procedure (TCLP) was performed on a soil sample from the upper 5 feet at the site. Any statements in this report or on the boring records regarding odors, colors, or unusual or suspicious items or conditions are strictly for the information of the client.

3.0 SITE AND SUBSURFACE CONDITIONS

3.1 General

At the time of this study, the site consisted of heavily wooded areas with multiple access roads throughout the property. The topography is generally rolling with some very steep areas, with approximate elevations at the boring locations ranging from about EL 470 feet to EL 300 feet. Below are pictures of the site at the time of our field exploration.

3.2 Site Geology

Published geologic information indicates that the site is underlain by the Savanna Formation over the McAlester Formation. The Savanna formation consists of dark gray shale and silty shale, with minor amounts of light gray siltstone and gray very fine to fine sandstone and coal beds. Overburden depths are typically less than 15 feet and weathered rock decreases in weathering with an increase in depth, which finally yields to competent bedrock.

The McAlester formation consists of dark gray shale and thin sandstone and coal layers. Overburden soils consist of silts and clays.

The shales are more susceptible to weathering and advanced weathering which results in the formation of silt and clay strata. In many instances, competent layers of sandstone can be found to be underlain by clay seams derived from weathered shale beds. The advanced weathering is often accelerated by localized folding of the rock beds which can create an easier path for surface water to follow.

3.3 Field Exploration

The boring locations and depths were selected by GMC. The approximate boring locations can be seen on the Boring Location Plan in the Appendix. The boring locations were selected based on the original test fit provided by Serverfarm and Kimley-Horn. The Boring Location Plan in the Appendix shows a proposed test fit layout at the time this report was developed. Therefore, some borings were performed in undeveloped areas. Field testing employed by GMC was performed in general accordance with ASTM standards or generally accepted methods. The borings were located by in the field by GMC personnel.

The borings were performed between November 5, 2025 and December 5, 2025, using ATV mounted drill rig equipped with a rotary head and hollow stem augers (HSA) or with a tricone drilling bit using air to remove the cuttings (air rotary). Soils were sampled using a two-inch OD split barrel sampler in accordance with ASTM D1586 driven with an automatic hammer. Select borings were extended into the refusal material using rock coring techniques.

3.4 Subsurface Conditions

The subsurface descriptions contained herein are of a generalized nature to highlight the major soil features and soil characteristics. The boring records included in the Appendix should be reviewed for specific information as to individual boring locations. The stratification shown on the boring records represents conditions only at the actual boring locations. Variations may occur and should be expected between boring locations. The stratifications represent the approximate boundary between subsurface materials, and the transition may be gradual.

The site was explored by drilling seventy (70) soil test borings. Auger refusal was encountered in all the borings prior to their planned termination depths. The following summarizes the subsurface conditions encountered:

Surficial Material

Borings typically encountered 0 to 8 inches of organic laden material (OLM) at the boring locations. Deeper deposits may be encountered away from our borings, particularly in low lying areas or drainage swales.

Residual Soils

Below the surficial material, the borings generally encountered residual soils, transitioning to weathered rock. The residual soils consist mostly of lean clay (CL) and clayey sand (SC) but also encountered some fat clay (CH) and silt (ML). Standard Penetration Test (SPT) N-values in these soils ranged from 2 to 50+ blows per foot (bpf). The N-values generally increased with depth.

Cap Rock

Most borings encountered a thin (less than 1 foot) layer of highly weathered sandstone at relatively shallow depths, generally about 3 to 6 feet below existing grade. The SPT N-values for these materials were greater than 50 bpf. Weathered rock is typically excavatable using standard earthwork equipment.

Weathered Rock

The residual soils transitioned into weathered rock, classified as hard clay and very dense sand, weathered shale, and highly weathered sandstone. The SPT N-values for these materials were greater than 50 bpf. Auger refusal was encountered after the weathered rock. Weathered rock is typically excavatable using standard earthwork equipment.

Bedrock

Rock coring was performed at boring locations A-06, A-11, A-12, A-21, A-22, A-23, A-34, A-36, A-45, AS-10, and AS-12A. The bedrock consisted of mostly weathered to intact shale with alternating layers of sandstone. The quality and consistency of the rock was very poor at the auger refusal depth but improved with depth. Photographs of the rock cores are provided in the Appendix.

3.5 Groundwater Information

Groundwater was encountered in multiple borings at the time of drilling and a few days after drilling in some borings. No long-term groundwater levels were recorded. It is important to note that the groundwater levels may not have stabilized in the borings. Furthermore, groundwater levels may vary due to seasonal conditions, proximity to bodies of water, and recent rainfall. The Table below show the boring locations, depth, ad elevation of encountered groundwater.

Boring Number	Approximate Depth to Groundwater (feet)	Approximate Groundwater Elevation (feet)
A-01	10	450
A-02	12	448
A-04	10	452
A-05	15	459
A-10	14	468
A-12	12	476
A-14	29	470
A-17	15	498
A-20	8	501
A-26	23	479
A-28	26	480
A-32	5.5	511.5
A-37	21	485
A-38	23	483
A-39	21	488
A-41	6	516
A-48	8	533
A-49	10	451
A-51	6	484
AB-03	5.5	432.5
AB-04	15	434
AB-05	15	427
AR-02	15	471
AS-03	25	435
AS-04	12	449
AS-07	15	460
AS-08	30.5	447.5
AS-11	24	466
AS-12	15	477

3.6 Laboratory Analyses

The laboratory testing program included visual classification of all soil samples and laboratory tests consisting of corrosion testing, thermal resistivity, permeability, natural moisture contents, grain size analysis, and Atterberg limits tests were performed on selected samples. The laboratory testing program was conducted in general accordance with applicable ASTM standards and the results are indicated on the Boring Records and summarized in the Appendix.

Samples were submitted for geothermal analysis and TCLP testing. Once the results are received, they will be included in the final report.

3.7 Chemical and Resistivity Tests

GMC performed field electrical resistivity tests in general accordance with ASTM G57-20, using the Wenner four-pin method. Soil resistivity testing was performed in the field at borings A-05, A-19, A-31, A-41 and AS-06. The field resistivity results are located in the Appendix. Chemical tests were performed on four samples. Chemical results for pH less than 5.5; resistivity less than 2,000 Ω-cm; chloride concentrations greater than 500 PPM; and sulfate concentrations greater than 1500 PPM are typically considered corrosive to steel and concrete. The laboratory resistivity, pH, chloride, and sulfate content results are as follows:

Sample Location	Sample Depth (ft)	Chemical Tests			Resistivity (Ω-cm)
		pH	Sulfates (mg/KG, PPM) [1]	Chlorides (mg/KG, PPM) [1]	
A-20	1 – 4	4.6	617	227	25,700
A-32	1 – 4	4.6	853	183	95,500
A-40	1 – 4	4.6	337	120	83,600
A-50	1 – 4	4.5	690	232	86,700

3.8 Permeability Testing

An undisturbed sample from boring AB-02 from 1 to 3 feet was submitted for permeability testing. The results indicate a permeability rate (k) of 1.4 x 10^{-8} m/sec which is considered very low.

4.0 SITEWORK RECOMMENDATIONS

4.1 General

Based on provided grading plans, we understand Site A will consists of four building pads with proposed FFE of 494 ft, 520 ft, 524 ft, and 527 feet. In order to reach the proposed grade in the building areas, cuts as deep as 25± feet will be required and fills up to 35± will be required.

The primary geotechnical concerns at this site relative to the site preparation are:

- Low consistency clays and silts (N‹8 bpf) were encountered in some borings in the upper few feet, generally 1.5 to 3 feet. These softer materials could be present across the site, and likely deeper in low lying areas. These soils are of particular concern in areas that will receive fill material to raise the grade. Undercutting and/or recompaction of these soils may be required to facilitate fill placement and benching fill material into the existing slopes.
- Relatively unweathered rock could be exposed at final subgrade within the building pads as well as portions of other areas where cuts in excess of 10 feet are required to reach the planned subgrade elevation. The soils transition from overburden residual soil to partially weathered rock (PWR) to intact shale bedrock. The transition zone between bedrock and deeper fills can be gradual or immediate. Ripping the PWR and intact shale can likely be accomplished with large equipment equipped with ripping teeth. Opening confined excavations for foundation and utility (storm drain, sewer, electrical, etc.) and foundation trenches could entail resistant trench rock excavation. However, we recommend that the grading contractor perform their own exploration of the materials to determine the rippability of the PWR.
- Material management of the soils will be critical at this site due to the transitioning of the material. Since residual soils are on top, generally upper 10 to 15 feet, they are excavated first. It is key that this material is not used initially in deep fills, whereas a shortage of the soil material to be used would occur. The PWR can generally be broken down to use as compacted soil fill, and the bedrock can be crushed and used as rock fill in deep fill areas. Rock fills should be capped with a soil cap in the upper 5 to 10 feet. We

recommend that the rock fills be used in non-building areas due to the longterm settlement issues that may occur with the breakdown of the weathered shale rock fill.

- Differential settlement between transitions of resistant bearing materials and deep fills may exceed tolerable limits.
- Settlement of the deep fill masses may occur due to compression of the fill mass self weight.
- Settlement monitoring of the deep fills should be performed.

The following sections discuss in detail the site preparation recommendations.

4.2 Time of Year Site Preparation Considerations

The time of the year that the sitework begins can affect the project considerably. The time of the year that the geotechnical borings were performed can provide a false sense of actual near surface conditions depending on the time of year and weather conditions. Below are considerations that should be addressed based on the time of the year earthwork is started.

“Wet” Season

During the “wet” season, the amount of undercutting may be greater, therefore resulting in greater excavation costs. The soils are typically proofrolled to determine their suitability for the placement of new fill or subgrade support. During the wet season, the surface soils have a higher moisture content and will tend to pump, therefore, hindering the placement of new fill. In addition, the drying time, time between rain events, and temperature is not conducive to scarify soils, allow to dry, and recompact. At this time, the decision should be made by the owner to try either scarify/dry/compact the in-place soils, which could take time, or undercut and replace with suitable material, which could increase the sitework costs. Based on our experience, the amount of undercut could be an additional 1 to 2 feet (or greater in localized areas), whereas in drier weather, lesser amounts of undercutting may be necessary, if recompaction or stabilization of soils left in place can be achieved.

Some undercut soils are not always “unsuitable” soil and can be moisture conditioned and reused as fill in the deep areas if drying conditions are favorable.

“Dry” Season

During the “dry” season, the surface soils have a lower moisture content and will tend to “bridge” or “crust” softer underlying soils. They will generally allow the placement of new fill, but the crust can break down if repeated passes with heavily loaded equipment is persistent. In addition, new fill from cuts or other sources may need to be moisture conditioned prior to compaction. The soils can dry significantly, requiring the addition of water for proper compaction. Water trucks should be used, as necessary, by the contractor to condition the soils within the required specifications.

Contractor Responsibility

The grading contractors have the option of performing their own evaluation of the site conditions to assess the excavation considerations based on the time of year a project is bid. We strongly suggest that the grading contractors conduct their own exploration and evaluation of the site conditions and material management requirements to cost effectively develop the site.

Typically, due to the movement of heavy equipment and weather conditions, the subgrade becomes disturbed during construction. As a result, fine grained clayey soils have a tendency to lose shear strength and support capability. Therefore, additional effort on the Contractor's part will be required to reduce traffic and limit disturbance of soils. It is essential that the subgrade be restored to a properly compacted condition based on optimum moisture and density requirements. Restoration of the subgrade should be addressed in the project specifications.

4.3 Clearing and Stripping

Sitework should begin with clearing and grubbing of the site and should include the removal of the organic laden material, grass, and imbedded grass roots. Although only about 8-inches of organic laden material/topsoil or less was encountered in the borings, it should be noted that the depths and thicknesses reported are for the specific boring locations, and the estimations of expected removal quantities are based on these select locations. ***Deeper areas of organic material may be present in unexplored portions of the site, especially in lower lying areas and drainage swales.*** We recommend that an allowance of up to 12 inches of OLM be budgeted for removal.

4.4 Proofrolling

After the site has been cut to finished grade and before the placement of any fill material, the area should be thoroughly proofrolled. Proofrolling consists of repeated passes with a loaded dump truck or other approved equipment to locate isolated areas of loose or soft soil. Areas that rut or pump excessively will indicate those soils that will need remediation. Attempts can first be made to compact the problem soils. If dry weather conditions exist prior to and at the time of construction, recompaction and densification may prove successful. The soils should be scarified and the soil moisture should be adjusted to within 3 percent of optimum moisture. Once these items have been accomplished, then re-compacting the soils may be attempted. We recommend a GMC geotechnical engineer or qualified soils' technician observe the proofrolling operations.

The amount of undercutting will heavily depend on the season, prevailing weather conditions, and/or rainfall at or just before sitework takes place. During the wet season, the amount of undercutting may be greater, whereas in drier weather, lesser amounts of undercutting may be necessary, if recompaction or stabilization of soils left in place can be achieved. Stabilization using geotextile or geogrid with stone and/or bridging of marginally suitable soils can be a more flexible option in pavement areas. Undercut soils can likely be moisture conditioned and reused as fill if drying conditions are favorable.

4.5 Drainage Swale Stabilization

There are several drainage swales located in the across the site, many of which will require substantial depths of fill to reach proposed grades. We do expect some softer upper soils, N-values ‹8 bpf, to be present in the upper 1.5 to 3 feet across the site. We expect that the swales are likely to contain a substantial amount of water during and following periods of wet weather. Also, the soils encountered in the valley bottoms are typical of those that tend to lose strength when wet. If water is allowed to pond on the soils, they may become soft to a depth of three feet or more. There is a wet weather spring shown on the USGS Site Map, Figure 3, in the Appendix. We anticipate that an underdrain consisting of filter fabric and an open graded stone may be required to aid in drainage prior to fill placement above this zone. **We recommend an allowance for stone (#57 or #67 stone) and filter fabric (Mirafi 140N or approved equivalent) be included in the specifications.**

Soft or wet soils should be completely undercut from structural areas and replaced with properly compacted, engineered fill. Undercutting to a depth of at least 2 to 3 feet should be expected in low (valley) areas of the site, particularly after rainfall levels normalize. Treatment of topographic lows containing soft or wet soil beneath planned development areas will vary depending on the required fill thickness and location. Bearing capacity, support of surface loading, settlement and global stability are all issues that must be considered when determining the appropriate way to support area fills.

In paved areas that receive fills in excess of 10 feet, and where slope stability is not an issue, it may be possible to stabilize soft or wet material in drainage swales or valleys by building a “bridge lift”. Low consistency material in the valleys may be stabilized, where appropriate, by the initial placement of cobble to boulder-sized rock (size 6-inches to 24-inches, largest dimension). Such material may be available as a result of the required excavation on-site.

The rock should be worked into the soft soils by heavy, track-mounted equipment. Placement of stone should continue until the surface is non-yielding under loaded dump trucks or heavy compaction equipment (815 compactor or similar). When a stable base has been achieved, the exposed rock should be choked with finer rock, or the surface material broken down to produce fines that completely fill any surface voids. Normal filling operations may be used after stabilization is completed.

Soft soil beneath the crests of tall fill embankment will likely not meet the required bearing capacity requirements and must be undercut and replaced.

4.6 Excavation Considerations

We anticipate that the upper soils and weathered sandstone can likely be removed with conventional earthmoving equipment. The soils with SPT N-values greater than 50 bpf will likely need to be removed with the use of a large dozer (D8 or larger) equipped with a single-shank ripper or a hydraulic ram.

It is our opinion that it would be reasonable to have the contractors bid the project on the basis of unclassified excavation. Unclassified excavation is commonly used for bidding excavation work in rock units where there is gradual change from soil to partially weathered rock to intact bedrock.

We strongly suggest that the grading contractors conduct their own exploration and evaluation of the excavation conditions and material management requirements to reach the subgrade level.

4.7 Rock Excavation

Competent rock could be exposed at final subgrade within substantial areas of the proposed structures, specifically on the southern end of the site. Consequently, opening confined excavations for foundation and utility (storm drain, sewer, electrical, etc.) and foundation trenches would entail resistant trench rock excavation.

For portions of structures where the subgrade consists of rock, we suggest over-excavating (during mass grading) below the planned subgrade level a minimum of 5 feet and subsequently backfilling to final subgrade elevation with compacted soil fill. If deeper utility excavations are required, it may be easier to overexcavate these areas during mass grading. Such a procedure would help reduce the likelihood of a "trench rock" condition during the excavation of foundations and utility trenches. In addition, the soil fill would provide a smooth transition over the soil fill areas and the cut rock areas and reduce differential settlement.

Paved areas with rock subgrades are often over-excavated to provide for uniform pavement support and additional drainage provisions. Pavements underlain by rock subgrades tend to have more seepage problems at joints and cracks and in areas of steep grades. In addition, pavement base course underlain by rock often becomes wet during the construction period because the water cannot drain rapidly and it becomes trapped above the rock and can cause premature pavement failures.

4.8 Material Shrinkage and Swell

The shrinkage/swell factor is the value (expressed as a percentage) which compensates for variation in density of in-situ (in-place) material from cut (or borrow pit) to compacted embankment. When soil is excavated, hauled, and compacted into an embankment, the final volume of the compacted soil is usually less than when it was in-situ (its natural state). This difference in volume is usually defined as "shrinkage". In estimating earthwork quantities, it is necessary to make allowances for this factor. The amount of shrinkage varies with the soil type. Shrinkage factors of 15 to 20 percent are typical. Rock will “swell” when excavated and broken and will occupy more space than rock in solid form due to the increase in void spaces. Increases up to 25 percent of the original volume are common. The table below shows ranges of shrink/swell factors that have commonly been used for the materials encountered:

Material	% Shrinkage	% Swell
Massive, hard, durable Sandstone	--	25 – 35%
Unweathered Shale	--	15 – 20%
Weathered Shale (rippable)	--	5 – 15%
Friable Sandstone (breaks up under construction equipment)	--	0 – 10%
Soil	15 – 25%	--

4.9 Structural Fill

The soil test borings encountered various mixtures of silts, clays, and sands overlying weathered rock. Based on the results of our laboratory testing, the on-site residual soils are suitable for reuse in engineered fill, provided they are properly moisture conditioned. The clayey, shale/siltstone derived soils at the site may become very soft, especially when wet of optimum and subjected to heavy construction equipment traffic. Additional effort on the contractor’s part may be required in order to maintain an acceptable subgrade.

4.9.1 *Soil Fill*

Proper placement of structural fill is a very important aspect of development at the subject site due to the great thickness of fill and slope heights required. Deep fill embankments and engineered fill slopes on the project will undergo settlement (due to self-weight) both during and after fill placement. The amount of post-construction settlement will be dependent on the degree of compaction obtained as the fill is being placed, as well as the level of care taken during fill placement to assure that the material is uniformly placed, compacted and moisture conditioned.

We recommend that the maximum dry density as determined by the Modified Proctor test (ASTM D 1557) should be used as the structural fill compaction criteria. The specified compaction requirements for soil fill are as follows:

Location	Method	Minimum Compaction Requirement	Range of Optimum Moisture Content
All Soil Fill	ASTM D1557[2]	96%	± 2%
Aggregate Base (beneath slabs)	ASTM D698[1]	95%	± 3%
Aggregate Base (beneath pavements)	ASTM D1557[2]	98%	±2%

[1] Standard Proctor
[2] Modified Proctor

In addition to the compaction criteria, is will be very important to maintain the moisture content of the fill material within the specified range of optimum moisture. It will be necessary to maintain a high level of quality control during fill placement to verify that the project requirements of moisture and density are being met. Some deviation from the recommended moisture requirement may be allowed based on the soil/rock mixture during placement. Modification from the recommended moisture requirement should be left to the discretion of the geotechnical engineer after observation of the material being placed.

We recommend that the project specifications indicate that both fill compaction and acceptable fill moisture content will be required for the acceptance of structural fills. It will be particularly important to have a water truck available if filling takes place during hot and dry periods. A sufficient number of field density tests should be performed to evaluate the grading contractor's performance during filling. Lift thickness of structural fills should be limited to eight (8) inches loose measure. Backfilling in limited access areas such as utility trenches should have a lift thickness limited to four (4) inches loose measure if manually guided equipment is used. It will be permissible to use crushed stone backfill in trenches, but even crushed stone must be systematically compacted with appropriate equipment to preclude future settlement.

Soil fill to be used in building and pavement areas should have the following properties:

Property	Requirement
Organic Material	≤ 5%
Liquid Limit (LL) Plasticity Index (PI)	< 50% ≤ 25%
Maximum Dry Density	≥ 100 lb/ft^3
Maximum Particle Size	4 inches or less

Although the on-site soil does not appear to be potentially expansive, we emphasize that the residual soils at the site contain silt and clay that can deteriorate upon wetting. As a result, such soils become very muddy and slippery after rains. The grading contractor should anticipate difficulty moving over previously filled areas following wet weather.

In addition, if the on-site soils are several percent above optimum moisture content, they will pump and rut when exposed to repeated heavy traffic.

On-site material meeting the noted requirements for compacted fill should be suitable for reuse as fill; however, the moisture content of the soil may need to be adjusted to achieve the specified moisture and compaction requirements. Samples of the proposed fill materials should be provided to the geotechnical engineer for Proctor testing and evaluation prior to placement. Density tests should be performed to document compaction and moisture content of any earthwork involving soils and other applicable materials. Density tests should be performed frequently, with a recommended minimum of 3 tests per each lift of fill placed or one test per 5,000 square feet/lift in building areas and one test per 10,000 square feet/lift in pavement areas, whichever is more.

A qualified soils technician working under direction of the Geotechnical Engineer should document that the recommended compaction and moisture criteria have been achieved by monitoring fill placement and performing field density tests.

4.9.2 *Rock Fill*

Due to the depth of cut required to reach final grades at the site, rock excavation will be required and excavated earth containing an abundance of rock fragments of varying size will be produced. It is common for excavated rock to be integrated into structural fills; however, for the subject project, a rock fill will not be permissible, but a fill containing rock of controlled percentage and size would be acceptable. The proper placement of fill containing abundant rock is often a point of contention on many projects. ***The rock placed in non-building areas, in general, must have a maximum particle size no greater than 12 inches and adequate soil fines must be mixed with the rock to fill all voids.***

It may be permissible to include some isolated boulder sized rock in fills; however, this should be done only after review by the geotechnical engineer. The thickness of rocky fill lifts in non-building areas will be dependent on the gradation of the material placed. Careful lift thickness control must be exercised when working with rock fills.

Rock fragments under building areas should be less than 8 inches in greatest dimension (post-compaction) and, in general, make up no more than 50 percent of the fill mass. **The upper four feet of fill under buildings should be primarily soil, with rock fragments limited to 4 inches in size.** The maximum fill lift thickness should be left to the discretion of the geotechnical engineer, based on the actual gradation of the fill being placed; however, in no case should the fill lift thickness exceed 18 inches. Depending upon the amount of soil incorporated into the rocky fill, thinner lifts ranging from 8 to 12 inches will likely be required during the great majority of fill placement.

Adequate moisture conditioning of the soil matrix in the rock fill must also be included as part of the project requirements. It is necessary that the soil matrix surrounding the rock, as a minimum, achieve the compaction criteria recommended in this report. Achieving sufficient compaction in the soil matrix sometimes is a problem because the compaction energy is absorbed by larger particles resulting in the soil matrix being insufficiently compacted. Relatively large equipment (Caterpillar 815 or heavier) is typically required to effect compaction under the conditions expected.

It has been our experience that proper planning with regard to the management and placement of rock within structural fills can have a positive impact on the grading operations. Since the proper placement and compaction of rock can become a critical item when creating rock/soil fill embankments, it would be prudent for the grading contractor to submit a plan for the management of rock created during excavation. Included in the plan should be a description of the typical placement procedure, compaction equipment, measures for water addition, etc. Such a plan should be reviewed by the project design team, and if found acceptable, be utilized as a performance guideline.

The following items should be considered for the placement of rock/soil fills and reflect what GMC considers as minimum requirements for the placement of rock in structural fill.

1. Fill containing abundant rock should be constructed of sound, durable rock. If weathered rock is integrated into structural fills, it will be important to break the rock particles down to form a dense fill arrangement.
2. It is important that a sufficient amount of compacted soil fines surround the rock fragments, particularly when shale is placed as structural fill. All voids between the larger rock fragments should be completely filled with compactable gravel-size rock and soil during the fill placement and compaction process. Fills containing rock should contain a minimum of 50 percent soil (passing a No. 4 sieve). The soil can be blended with the rock or created by the excatation or compaction process. Such a practice will aid in reducing the magnitude of future settlements of fills containing a significant percentage of rock fragments.
3. We recommend the rock be reduced to a maximum size of 6 to 12 inches (depending on the fill area) to be incorporated into a dense fill. The practice of filling in lifts must be maintained and should be conducted under the observation of the geotechnical engineer or their representative.
4. It may be permissible to place isolated large boulders (in excess of 12 inches) at the base of deep fills beneath non-building areas provided they are spaced sufficiently so that construction and compaction equipment can maneuver between them. A configuration, which results in boulder-size rocks stacked against each other, should not be permitted. Also, boulders should not be placed near the face of fill slopes.
5. The rock/soil fill should be placed in layers, sufficiently worked, and moisture conditioned to create a tight, stable fill. A well-graded fill that is sufficiently compacted will aid in reducing the migration of water through the fill mass. ***It will be necessary that the entire lift be moisture conditioned not just the surface of the lift.*** Adequate moisture conditioning of rocky fills will likely require a piece of equipment that is dedicated to blending added water with the fill to achieve uniform moisture conditioning of the entire fill lift.
6. The soil between the individual rock fragments should be compacted and moisture conditioned to the project fill requirements. The addition of water to fills containing appreciable rock is frequently not considered by contractors. ***Provisions for the addition of water to the rock/soil fill should be included in the earthwork specifications and budget since water addition is necessary to "lubricate" any edge-to-edge contacts, making it easier for the rock to assume a denser particle arrangement.*** In addition, repeated passes by large placement and compaction equipment (such as a Caterpillar 815 or

825 compactor) will probably be required to adequately work the fill and crush the rock fragments into a dense arrangement.

4.9.3 *Soil Cap*

The upper portion of rock fills should be topped with a layer of compacted soil not less than 48-inches thick beneath the proposed buildings and 18 inches (compacted depths) under roadways and parking areas.

The soil cap should be compacted to no less than 96 percent of the Modified Proctor maximum dry density (ASTM D1557). ***Careful materials management by the grading contractor will be required to ensure that sufficient material is available to construct the soil "cap" above rocky fills. Such a condition is often not met because the soil overburden is typically placed in the lowest parts of the site and only resistant rock remains to be used as fill toward the end of site grading.***

In proposed pavement areas in lieu of the required 18-inch thick soil cap, an equivalent depth of finely crushed, rock fill may be used if the rock placed in the upper layers can be broken down with a heavy-duty roller to near gravel-sized fragments. If these compaction conditions are met, pulverized rock fill may be substituted for a soil cap in roadways and parking areas.

4.10 Backfilling of Utility Trenches

Backfilling of storm drain and utility trenches must be performed in a controlled manner to reduce settlement of the fill and cracking of overlying floor slabs and pavements. Backfilling of storm drain and utility trenches is often accomplished in an uncontrolled manner leading to subsequent settlement of the fill and cracking of floor slabs or pavements that are constructed over the trenches. In addition, backfill around below-grade structures such as manholes, curb inlets, and junction boxes are frequently dumped, and not compacted systematically. All confined space backfill (even crushed stone) should be placed in 6-inch loose lifts and compacted to the project requirements by equipment suitable for use in confined areas.

In general, it is common that soil excavated from trenches may be used as backfill; provided it is virtually free of organic matter and other deleterious material and is properly moisture conditioned. Often such soil is stockpiled during trenching and becomes wet and unsuitable for direct use without significant moisture conditioning effort. Also, some large slab-like pieces of rock will probably be excavated from some utility trenches. Cobble to boulder size rock fragments should be broken down before being placed in trenches.

4.11 Site Drainage Considerations

Adequate drainage should be provided at the site to control the moisture content of the foundation soils. We recommend that the walkways, and the ground surface be sloped away from the structure on all sides. Roof drainage should be collected by gutters and downspouts and transmitted by pipe to the storm water drainage system or discharge a minimum of 10 feet away from the building. Throughout the construction process, the subgrade soils adjacent to the structures should have adequate drainage to reduce saturation of the foundation soils.

4.12 Cut and Fill Slopes

The provided grading plan indicates cut and fill slopes with maximum slopes of 3(H):1(V). Slope stability analysis indicates fill slopes at these grades are stable. Slopes constructed of compacted soil fill should be graded no steeper than 3(H):1(V). Slopes of 3(H):1(V) or flatter are preferable for mowing. The recommended fill slope orientation is dependent on the fill being placed in accordance with the fill placement section of this report. It is difficult to construct fill on the above-specified slopes without leaving a loose, poorly compacted zone on the surface of the slope face. For this reason, we recommend that the fill slopes be slightly over-built, then cut back to firm, well-compacted soils prior to applying topsoil for a vegetative cover.

Cut slopes in soil should be graded no steeper than 3(H):1(V). If steeper slopes are required, the slope should be evaluated during construction and slope protection may be required to prevent shallow slips. The cut slope face material should be evaluated by the geotechnical engineer. Cut slopes in weathered rock could be cut as steep as 1.5(H):1(V).

Slopes will experience excessive erosion if runoff is not controlled. Runoff from above must be channeled to cross the slope in paved ditch sections or flumes and not allowed to flow down the slope face. We recommend that benches be cut in the slopes at a minimum of every 30 feet in height. Maintenance should be planned for that includes removable of eroded material along the toe of slopes which may impede the drainage of water.

Material containing organics and boulder size rock fragments should not be used in engineered fill used to construct permanent slopes. The following precautions should be observed during construction of embankments and slopes that are required to maintain long-term stability.

The following precautions should be observed during construction of embankments and slopes that are required to maintain long-term stability.

- The foundation soils should be free of compressive soils that can consolidate under the added load of the embankment. The Geotechnical Engineer or his designated representative should evaluate the suitability of exposed foundation soils.
- Where a new embankment is placed against an existing slope (steeper than 5(H):1(V), the existing slope should be benched to provide good contact, remove loose soils, and reduce the potential formation of weak zones. The benching should commence at the toe of the proposed slope and proceed upwards as fill is placed at a maximum of every 4 vertical feet. Inadequate benching could result in creep and perhaps slope failures. Benches should be wide enough to accommodate excavators and compaction equipment but at least be 6 feet wide.
- It is difficult to construct fill on the above-specified slopes without leaving a loose, poorly compacted zone on the surface of the slope face. For this reason, we recommend that the fill slopes be slightly over-built, then cut back to firm, well-compacted soils prior to applying topsoil for a vegetative cover. If the slopes cannot be slightly over-built and cut back, we recommend that finished soil slopes be compacted to reduce the thickness of this loose surficial veneer. The compaction may be achieved by making several passes from top to bottom of the slopes with a track-mounted bulldozer or track-mounted front-end loader.
- To reduce erosion, both the cut and fill slopes should be promptly vegetated at the end of construction. Erosion control blankets may be required to reduce erosion and allow for vegetation. The fill soils, if

placed on steep inclination, will be very susceptible to erosion by running water across the slope face. This susceptibility can be reduced by decreasing the slope angles, providing vegetation, and providing proper maintenance. The recommended slopes should result in a stable slope from a global stability standpoint; however, relatively shallow slips may occur. These are more of a maintenance problem but should be repaired when they occur.

- Since most fill slopes experience some long-term creep caused by gravity, we suggest the curb line of roadways or parking lots and buried utilities be set back from the slope crest a distance equal to 1/3 the slope height or 5 feet, whichever is greater. Buildings should be set back a minimum distance of 20 feet behind the crest of fill slopes.
- All fill material utilized in the slopes should conform to the Soil Fill section of this report. Fill slopes should be considered as a structural area and treated as such.

4.13 Fill Embankment Settling Monitoring

Controlled fill, even when placed and compacted in a controlled manner, will settle due to compression of the fill mass by self-weight. Based on drawings provided to GMC, we understand that finish floor elevations of EL 494 feet, 520 feet, 524 feet, and 527 feet are planned for the building pads. In order to reach the proposed grades, cuts as deep as approximately 25± feet will be required and fills up to 35± feet will be required. ***Because of the significant grade change and corresponding potential for differential settlement, we recommend that a settlement monitoring program be conducted to evaluate the behavior of the deep fill embankments.***

Based on past experience with fills very similar to those that will be constructed at the site, post-construction settlements could be as high as 1 inch per 10 feet of placed fill height. Consequently, total settlement of a 35 feet thick fill section could be on the order of 3 ½ inches or more. Settlements of this magnitude would significantly impact settlement-sensitive elements. In addition to building elements, fill settlement could influence the gradients on buried pipes.

Some of the fill compression will occur during site grading, some will occur during building construction, and some will occur post-construction. The objective is to permit the majority of the settlement to occur prior to buildings (supported by the fill) being constructed.

In areas with fills greater than 15 feet thick we recommend that the contractor provide and install settlement monitoring hubs spaced every 200 to 300 feet, immediately after fill placement is completed.

The monitoring stations must be well-marked and protected against disturbance or damage. A licensed surveyor should survey the plates on a weekly basis and provide the results to GMC for review. The survey should be conducted to a high degree of accuracy, at least to 1/100 of a foot.

Based on past experience with similar fills of this magnitude, we anticipate that establishing a 2- to 3-month monitoring period would be reasonable. It has frequently been possible to shorten the monitoring period if survey data shows little fill settlement. However, for planning purposes we suggest that at least a 2-month monitoring period be considered. The actual monitoring period could be more or less. It will be advantageous to build the deepest fills and the fills under the arena building footprint first so that settlement monitoring can begin promptly while other portions of the site are being graded

It is possible to install buried utilities and/or building foundations prior to the completion of the settlement monitoring period. This decision should be made at the time of construction and should be based on the results of the weekly survey readings.

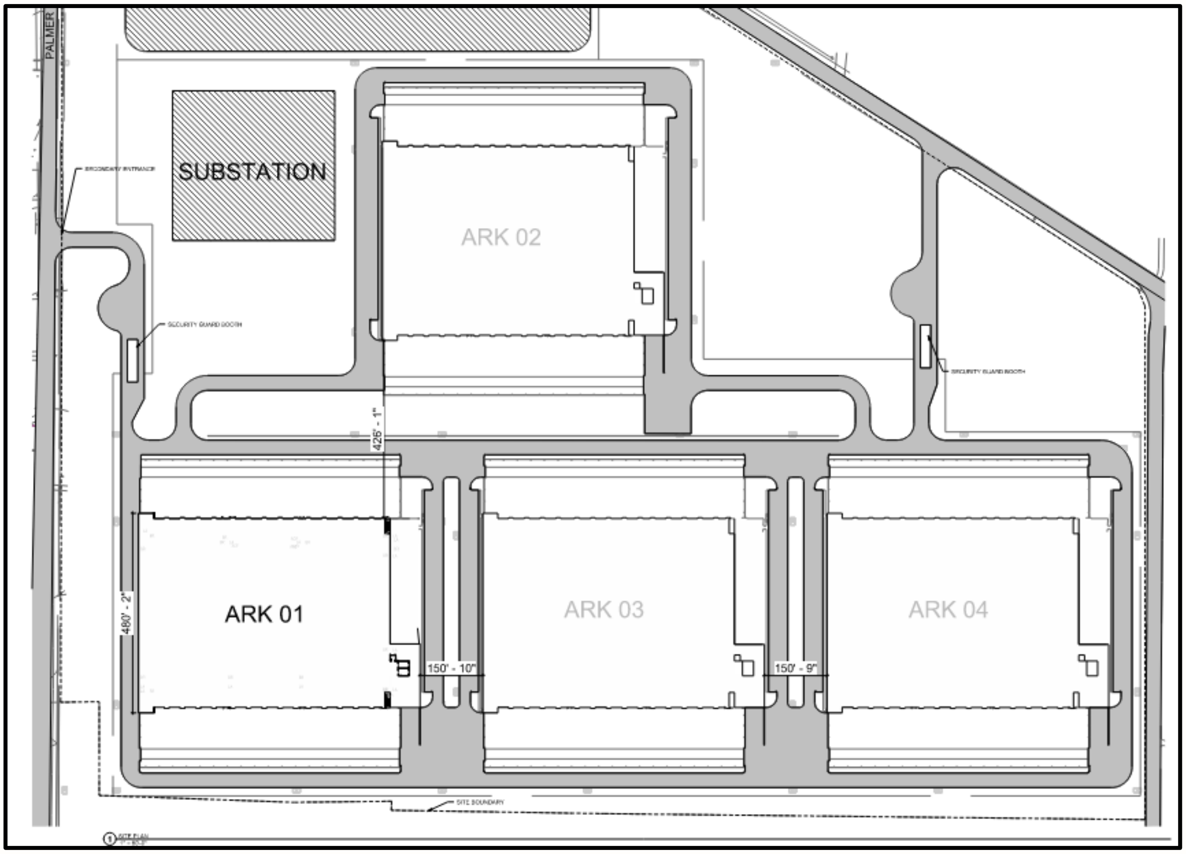
5.0 STRUCTURAL RECOMMENDATIONS

5.1 General

Based on the anticipated loads, the structures can be supported by shallow foundations bearing on a system of rammed aggregate piers. Another foundation option would be supporting columns on a system of drilled piers bearing in shale. The following sections discuss foundation recommendations for this site.

5.2 Seismic Site Classification

Subsurface information (SPT and soil classification) from the borings, published geologic information, and our experience was used to estimate the seismic site classification according to methods in the 2021 International Building Code. The site is in the Arkansas Seismic Zone 1 and Soil Profile Type B. The site in general currently is Seismic Class C. Based on the anticipated grading plan, we anticipate that some of the structures would classify as a Seismic Class D due to the depth of the proposed fill material. Using the nomenclature below for the building numbers, we recommend Buildings ARK 01, ARK 03, and ARK 04 be designed using a **Seismic Class C.** We recommend Building ARK 02 be designed using a **Seismic Class D**. **As an alternative, once the grading has been performed in the area of building ARK 02, a site specific survey can be performed to determine if the design can be upgraded to a Seismic Class C.**



The design responses for the short 0.2-sec (S_{DS}) and 1-second period (S_{D1}) are included in the following tables. The responses are modeled on the ASCE Hazard Tool (https://ascehazardtool.org) for the site location. Based on our understanding of the project, we have assumed a Risk Category of IV. If the Risk Category is different, the values below may need to be revised.

Use the following design parameters for buildings **ARK 01, ARK 03, and ARK 04** for a **Seismic Class of C**:

Period (sec)	Mapped Spectral Response Accelerations (g)		Values of Site Coefficient for Site Class		Maximum Spectral Response Acceleration Adjusted for Site Class (g)		Design Spectral Response Acceleration (g)	
0.2	**S_S**	0.23	**F_a**	1.3	**S_{MS}**	0.299	**S_{DS}**	0.199
1.0	**S_1**	0.111	**F_v**	1.5	**S_{M1}**	0.167	**S_{D1}**	0.111

Use the following design parameters for building **ARK 02** for a **Seismic Class of D**:

Period (sec)	Mapped Spectral Response Accelerations (g)		Values of Site Coefficient for Site Class		Maximum Spectral Response Acceleration Adjusted for Site Class (g)		Design Spectral Response Acceleration (g)	
0.2	**S_S**	0.23	**F_a**	1.6	**S_{MS}**	0.368	**S_{DS}**	0.245
1.0	**S_1**	0.111	**F_v**	2.378	**S_{M1}**	0.264	**S_{D1}**	0.176

5.3 Shallow Foundations

Based on the large column loads, shallow foundations are only suitable if designed to bear on a system of rammed aggregate piers. Aggregate piers can generally provide an allowable bearing pressure of up to 5,000 psf. The bearing pressure increase due transient wind loads would need to be verified by the aggregate pier designer. The design incorporates the required settlement tolerances. The piers would need to be designed and installed by a specialty contractor.

Once the aggregate piers have been installed, conventional shallow foundations can be constructed bearing on the aggregate piers. Typical total settlements of foundations due to anticipated building loads are expected to be approximately 1-inch, with differential settlements of approximately ½-inch. Even though computed footing dimensions may be less, column footings and continuous footings should have minimum dimensions of 24 inches and 18 inches, respectively, which allows for hand cleaning of materials disturbed during the excavation process and reduces the potential for punching shear failure.

Foundation concrete should be placed the same day as footings are excavated so that the foundation bearing soils can remain near the existing moisture content. Foundation bearing surfaces should not be disturbed or left exposed during inclement weather. Saturation of the on-site soils can cause a loss of strength and increased compressibility. If bearing soils dry excessively, the can later well and heave foundations. Excavations for footings should be hand cleaned to remove loose soil or mud and the bearing surface should be thoroughly compacted. If compaction of foundation surfaces is not possible immediately after excavation, we recommend that a thin layer (approximately 2 inches) of lean concrete or CLSM be placed on the bearing surface for protection after we have observed and evaluated the exposed bearing surfaces.

All foundation excavations should be observed by the geotechnical engineer or his representative. The engineer can provide geotechnical guidance to the owner's design team should any unforeseen foundation problems develop during construction. If areas of foundation surfaces prove to be unsuitable, the foundation may need to be over-excavated. The over-excavated area can be backfilled with "lean" concrete, controlled low strength material (CLSM), or well-compacted dense graded crushed stone (ALDOT 825B) up to the planned foundation bearing depth.

5.4 Drilled Shafts

Another foundation option would be to support the high column loads on a system of drilled piers. Drilled piers can be designed using the design parameters below. Wall and column loads should be supported by grade beams supported by the drilled shafts. Straight sided drilled shafts should be designed based on the recommendations presented below:

Design Item	Design Information
Shaft type	Auger-excavated and straight-sided
Bearing Stratum Description	Shale
Approximate Bearing Stratum Depth	Varies, approximately 5 to 15 feet below existing grades (with increase in depth due to proposed grades)
Minimum Penetration	5 feet into bearing stratum
Maximum Allowable Bearing Pressure	15,000 psf
Maximum Allowable Side Shear Within Bearing Stratum [1]	2,000 psf (for axial downward) 2,000 psf (for axial uplift)
Maximum Allowable Side Shear Above Bearing Statum [2]	250 psf from 5 feet to EL 207 feet
Minimum Shaft Diameter	30 inches
Minimum Shaft Spacing	3.5 times the diameter, center-to-center

[1] The bottom one (1) shaft diameter should be neglected with respect to skin friction.

[2] The top 5 feet of the shaft should be neglected with respect to skin friction.

Due to variances of drilling equipment and techniques, using a skin friction of 2,000 psf in the socket to gain additional capacity should be limited to about 20 percent of the total design load. If additional capacity is required, we recommend increasing the size or number of shafts. Some downward forces will be generated against the upper portions of the drilled shafts due to consolidation of the fill material. Most of these uplift forces should generally be limited to the upper 15 feet of the drilled pier. The maximum value of uplift along the shaft can be taken as the perimeter area of the shaft times 250 psf times the depth, from a depth of 5 feet to the top of the bearing stratum. In addition, to resist the uplift forces caused by wind, the uplift capacity is the allowable skin friction times the perimeter area of the shaft times the depth plus the weight of the pier. A factor of safety of 3 was used to calculate the allowable skin friction.

We recommend that concrete for the shafts be placed within two hours after excavation of the shaft is completed. Shaft holes should be protected from inflow of surface and groundwater. Should water inadvertently enter a shaft, the shaft should be cleaned out and, if necessary, deepened to undisturbed material. We believe that shafts can be mechanically cleaned and inspected from the ground surface, eliminating the need for personnel entry. The concrete should be a dense, low permeability mix with a slump ranging from 6 to 8 inches.

5.5 Drilled Shaft Construction

We recommend that GMC monitor the drilled shaft construction to observe the installation and verify the proper bearing material, penetration into the bearing layer, and cleanliness of the base and sides of the shaft excavation. The following criteria should be followed when designing and constructing drilled shafts:

- A minimum shaft diameter - 18 inches
- Maximum eccentricity – 3 inches
- Plumbness (max deviation from vertical) – 2% of height
- Bearing surface should be judged suitable by the geotechnical engineer.
- If bells are used, the angle between the sides of the bell and the horizontal bottom should not be less than 60 degrees.
- Bottom of the shafts should be free of mud and other extraneous matter.
- Groundwater should be kept to a depth of two inches or less in the bottom of the shaft excavation prior to concrete placement and during any interruptions in concrete placement.
- Concrete for shafts should be designed for a slump of 6 to 8 inches.
- Minimum clearance between shafts: Straight shaft – 24 inches, belled shafts – 12 inches
- Drilled shafts within 10 feet of each other should not be opened until previously placed concrete is at least 8 hours old.

5.6 Lateral Resistance

Lateral loads created by wind may be resisted by the passive pressure of the soil acting against the side of the drilled shafts and grade beams and/or the friction developed between the base of the footing and the underlying soil. For compacted backfill or in-situ residual soil, the passive pressure can be taken as an equivalent to the pressure exerted by a fluid weighing 110 pcf (Ø = 0°, moist unit weight of soil = 110 pcf). A coefficient of friction of 0.4 may be used for calculating the frictional resistance at the base of the shallow footings. An effective soil adhesion value (uplift condition) of 150 psf and an effective soil cohesion value (horizontal loading condition) of 250 psf can be used.

The resistance values discussed are based on assumption that the foundations can withstand horizontal movements of up to ¼-inch. Lateral resistance determined in accordance with these recommendations should be considered the total available resistance. The design should include a minimum factor of safety of 1.5.

5.7 Below Grade Walls

Below grade walls must be designed to resist the lateral earth pressures that will be induced by the weight of the backfill materials, hydrostatic pressures on the walls, and any adjacent slab or foundation surcharge loads exerted on the walls. It is recommended that the walls be supported as outlined above and backfilled with a free draining material such as crushed stone/gravel or clean sand (less than 10% passing a No. 200 sieve). Positive drainage should be provided at the base of the walls to remove groundwater or seepage and to prevent an increase in hydrostatic pressures. A drainage system should be provided near or at the base of the walls to collect and remove groundwater and to prevent buildup of hydrostatic pressures unless the structures are designed to resist the hydrostatic pressures for the full structure depth that is below ground.

Walls that need to restrict horizontal movement at the top should be designed for "at rest" earth pressure conditions. Walls that are free to deflect should be designed for "active" earth pressure conditions. The "passive" earth pressure state should be used for soils supporting the retaining structure, such as toe backfill. Fine-grained materials should not be used as backfill directly behind walls. Free-draining crushed stone or gravel or sand should be used as backfill. The table below presents recommended values of earth pressure coefficients for these backfill materials:

Soil Parameter	Backfill Type		
	SM, SC	SP, SW	GW, GP
Soil Unit Weight (pcf)	115	120	95
Buoyant unit Weight (pcf)	53	58	33
Angle of Internal Friction, Φ, deg	32	34	38
At rest Pressure Coefficient, K_o	0.47	0.44	0.38
Active Pressure Coefficient, K_a	0.31	0.28	0.24
Passive Pressure Coefficient, K_p	3.25	3.54	4.20
At-rest Equivalent Fluid Pressure, pcf (Above GWT, below GWT)	54	53	37
	87	88	75
Active Equivalent Fluid Pressure, pcf (Above GWT, below GWT)	35	34	23
	78	78	70
Passive Equivalent Fluid Pressure, pcf (Above GWT, below GWT)	374	424	399
	234	267	201

GWT - Groundwater Table

Samples of all backfill material should be evaluated for its use as such. The design values and recommendations presented above assume that the backfill behind the wall will be horizontal with no surcharge loads and that a permanent drainage system will be installed behind the retaining wall to prevent the increase of hydrostatic pressures. The noted backfill should extend from the wall and upward from the top of the mat foundations on a line 30 degrees from the vertical. If the structure is designed to resist hydrostatic pressures, we recommend that the backfill as noted in that design be utilized. If there are adjacent structures that are to be located above the backfill zone, we recommend that the compaction follow the recommendations in Section 4.

The on-site clays (CL) and silts (ML) are not acceptable as backfill behind the walls. Using a select material can significantly reduce the horizontal loads on the wall as well as improve the effectiveness of the drainage system. Compaction of backfill behind walls should be performed by lighter manual equipment. The wall should be properly braced and heavy equipment should not be used for compaction of the wall backfill material. No equipment or construction loads should be allowed within 10 feet of retaining walls or half the distance of the freestanding wall-height. This will prevent any surcharge loads from adding lateral earth pressures to the retaining wall. Below grade walls should be braced during any backfilling operations and monitored for movement.

5.8 Floor Slabs

It is our opinion that floor slabs can be built on-grade achieving support from properly compacted fills or stable subgrades. Ground supported slabs should be placed on a minimum of 4 inches of compacted, granular material such as crushed stone with less than 10% passing the #200 sieve. This layer should provide uniform and immediate support for the slab and act as a capillary break. A vapor retarder should be used on top of the granular layer, as required by the building use. For select soil fill subgrade soils compacted as previously recommended, we recommend a modulus of subgrade reaction of 175 psi/in (pci).

Care should be taken so that fines from the subgrade are not allowed to contaminate the granular layer. If fines do contaminate this layer, capillary rise and subsequent damage to moisture sensitive floor coverings could occur. On most projects, there is some time lag between initial grading and the time when the contractor is ready to place concrete for the slab-on-grade. Inclement weather just prior to placement of concrete for the slab-on-grade can result in trapped water in the granular layer.

Prior to the construction of concrete floors, a geotechnical engineer should evaluate the subgrade. This evaluation may include proofrolling with a pneumatic tired vehicle, such as a fully loaded dump truck. We suggest that provisions be included in the project specifications for the contractor to restore the subgrade soils to an acceptable condition (as outlined in this report) prior to the construction of floor slab. Such restoration may include moisture conditioning of the surficial soils and re-compaction to the project requirements.

6.0 PAVEMENTS

6.1 Subgrade

Subgrade preparation beneath the pavements can begin at grade provided surface foundations are compacted to the requirements from the structural fill section of this report.

Any areas that are at final subgrade elevation (currently or as a result of cut), or areas that are to receive fill, should be observed and evaluated by the Geotechnical Engineer. After stripping and excavation to the proposed subgrade level and prior to any fill placement, the exposed soils present in the pavement areas should be proofrolled with a loaded tandem axle dump truck or similar heavy rubber-tired vehicle. Soils that are observed to rut or deflect excessively under the moving load should be undercut and replaced with properly compacted structural fill. The proofrolling, undercutting, and filling activities should be witnessed by a qualified representative of the geotechnical engineer and should be performed during a period of dry weather. Typically, during construction, the pavement subgrade becomes disturbed because of traffic and environmental conditions.

Prior to construction of pavements, it is essential that the subgrade be restored to a properly compacted condition. The specifications should include notes pertaining to subgrade restoration immediately prior to pavement construction. The on-site soils will have a tendency to lose shear strength (and consequently pavement support capability) if they are exposed to excessive moisture. Thus, proper moisture conditioning of the subgrade prior to placement of the pavement base course will result in better pavement performance.

6.2 Pavements

Traffic information was not available at the time of this report therefore, we are providing minimum pavement sections based on anticipated use. Actual traffic information will be required to determine a suitable section.

6.2.1 *Rigid Pavements*

Pavement joints, reinforcing, and details should be designed in accordance with the applicable American Concrete Institute (ACI) and Portland Concrete Association (PCA) standards. All Portland cement concrete pavements should contain 4 to 8 percent entrained air assuming the mix will contain ¾ -inch to 1-inch nominal maximum size aggregate. Concrete slump should be no more than 2 inches when placed by slip forming and no more than 4 inches for non-slip formed concrete. Minimum 28-day concrete compressive strength should be 4,000 psi.

Pavement Area	Minimum Section Thickness	Pavement Materials
Heavy-Duty Pavements	8.0 inches	Portland Cement Concrete Pavement
	6.0 inches	Aggregate Base Course (100% Modified Proctor)

6.2.2 *Flexible Pavements*

We recommend the following pavement sections for light-duty traffic classification (passenger vehicles only) and heavy-duty traffic classification (delivery trucks, semi-trucks, garbage trucks), the minimum pavements should include the following:

Pavement Area	Minimum Section Thickness	Pavement Materials
Light-Duty Pavements	1.0 inches	Asphaltic Concrete (ACHM Surface Course)
	2.0 inches	Asphaltic Concrete (ACHM Binder Course)
	6.0 inches	Aggregate Base Course (100% Modified Proctor)
Heavy-Duty Pavements	2.0 inches	Asphaltic Concrete (ACHM Surface Course)
	3.0 inches	Asphaltic Concrete (ACHM Binder Course)
	6.0 inches	Aggregate Base Course (100% Modified Proctor)

A tack coat should be placed between bituminous pavement layers. The pavement sections represent minimum recommended thickness for a pavement section designed for a 15-year life. However, periodic maintenance should be anticipated over the pavement design life. All pavement materials and construction procedures should conform to *Arkansas State Highway and Transportation Department Standard Specifications for Highway Construction, latest edition.*

7.0 REPORT LIMITATIONS

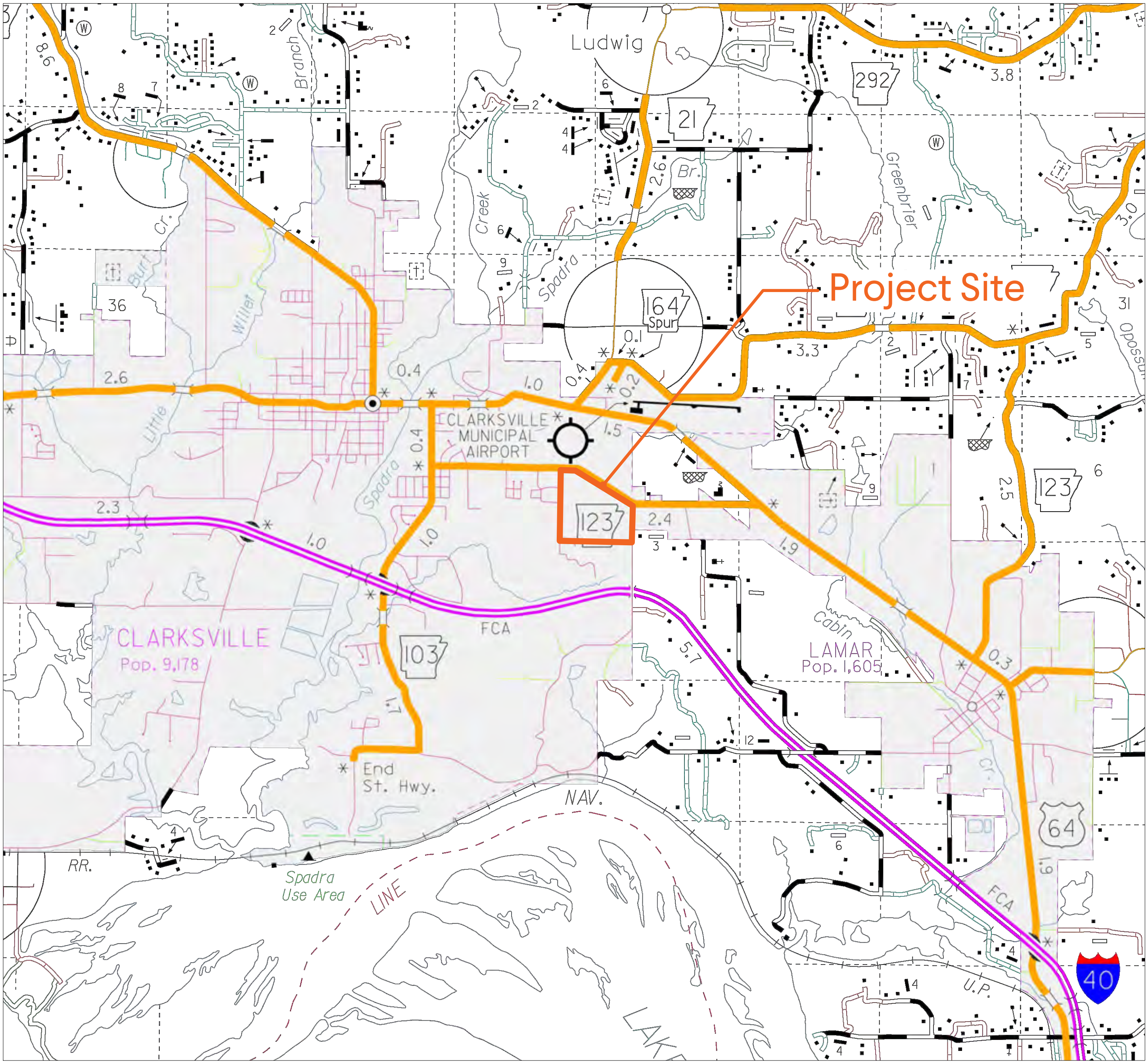
The recommendations submitted are based on the preliminary soil information obtained by GMC and preliminary design details for the proposed project. Additional borings should be drilled at the site to help characterize the subsurface conditions.

The findings, recommendations, specifications, or professional advice contained herein have been made in accordance with generally accepted professional geotechnical engineering practices in the local area. No other warranties are implied or expressed.

We emphasize that this report was prepared for preliminary design and informational purposes only and may not be sufficient to prepare an accurate construction budget. Contractors reviewing this report should acknowledge that the recommendations contained herein are for design and informational purposes only. In no case should this report be utilized as a substitute for development of specific earthwork specifications.

The information contained in this report is not intended, nor is sufficient, to aid in the design of segmental or mechanically stabilized earth (MSE) retaining walls. Segmental or MSE wall designers and builders should not rely on this report and should perform independent analysis to determine all necessary soil characteristics for use in their wall design, including but not limited to, soil shear strengths, bearing capacities, global stability, etc.

APPENDIX



Reference: General Highway Map of Johnson County, Arkansas, ARDOT, 2012

SERVERFARM ARK1 SITE A
Clarksville, Arkansas

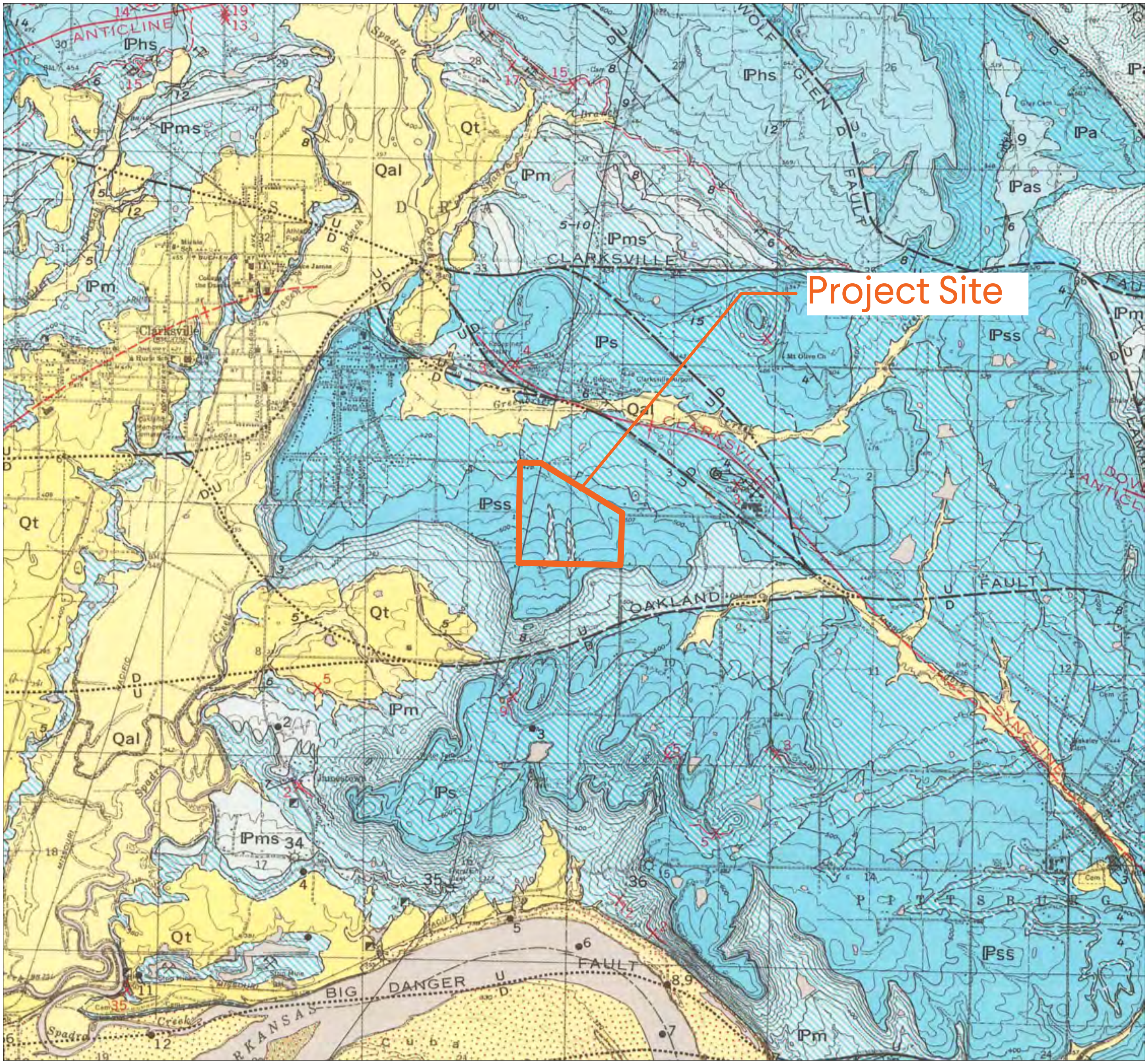
Site Location Map

Figure 1

SUPPLEMENTAL DRAWING

GMC # GBHM250047
12/16/2025
DRAWN BY: SWW

2400 5th Avenue S, Suite 200
Birmingham, AL 35233
T 205.879.4462
GMCNETWORK.COM



ℙss	**Savanna Formation**
ℙm	**McAlester Formation**

Reference: Merewether, E.A. and Haley, B.R., 1969, Geology of the Coal Hill, Hartman, and Clarksville quadrangles, Johnson County and vicinity, Arkansas, U.S. Geological Survey, Professional Paper 536-C, 1:48,000

SERVERFAMR ARK1 SITE A
Clarksville, Arkansas

Site Geology Map

Figure 2

SUPPLEMENTAL DRAWING

GMC # GBHM250047
12/16/2025
DRAWN BY: SWW

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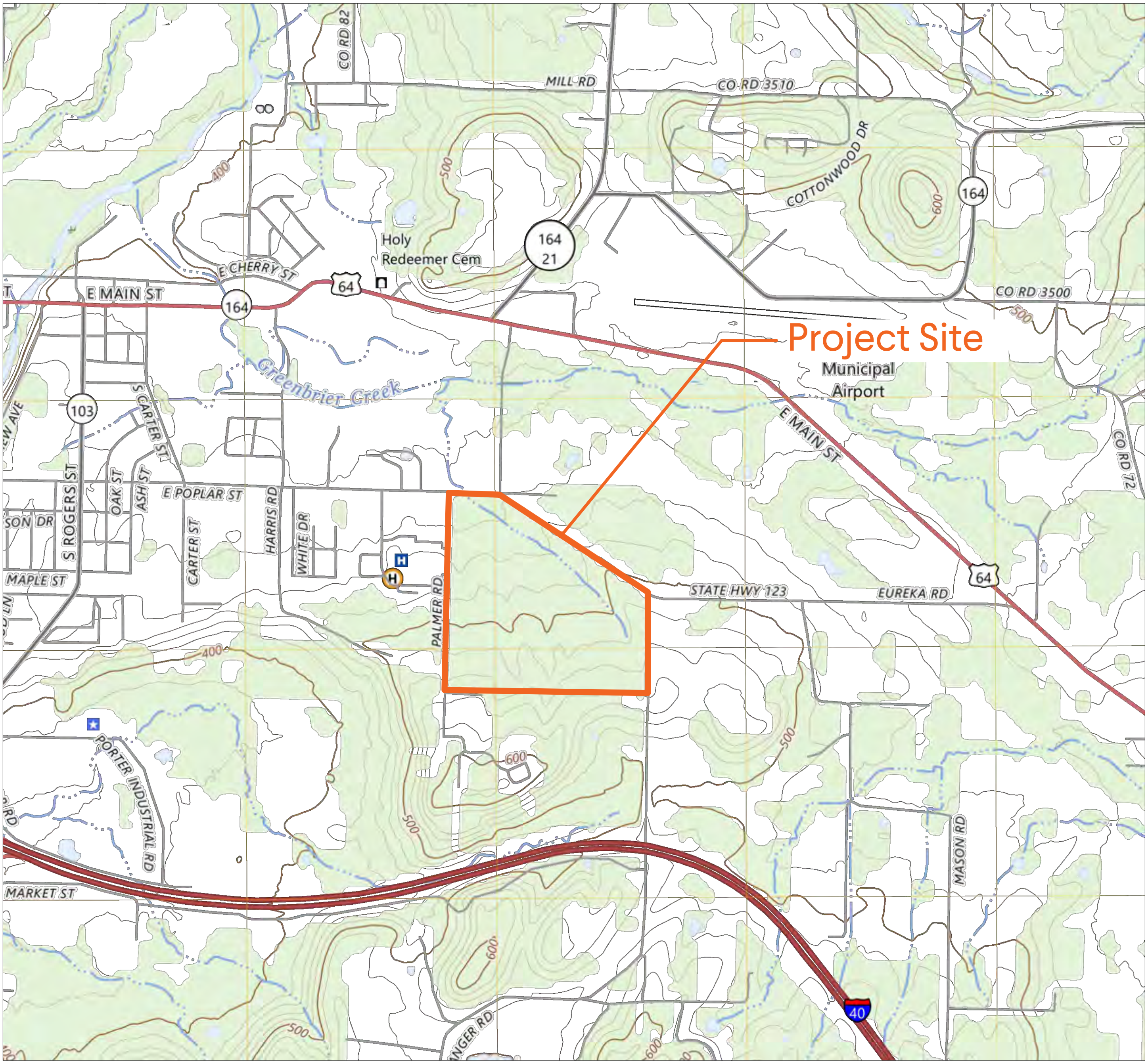

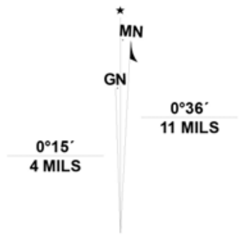

UTM GRID AND 2023 MAGNETIC NORTH
DECLINATION AT CENTER OF SHEET

QUADRANGLE LOCATION

Reference: USGS Quadrangles 7.5 Minute Series (Topographic)

SERVERFARM ARK1 SITE A
Clarksville, Arkansas

Clarksville, AK (20242)
USGS Site Map

Figure 3

SUPPLEMENTAL DRAWING

GMC # GBHM250047
12/16/2025
DRAWN BY: SWW

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Birmingham, AL 35233
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Reference: Drawing adapted from 20251204 - Site A-Mass Grading

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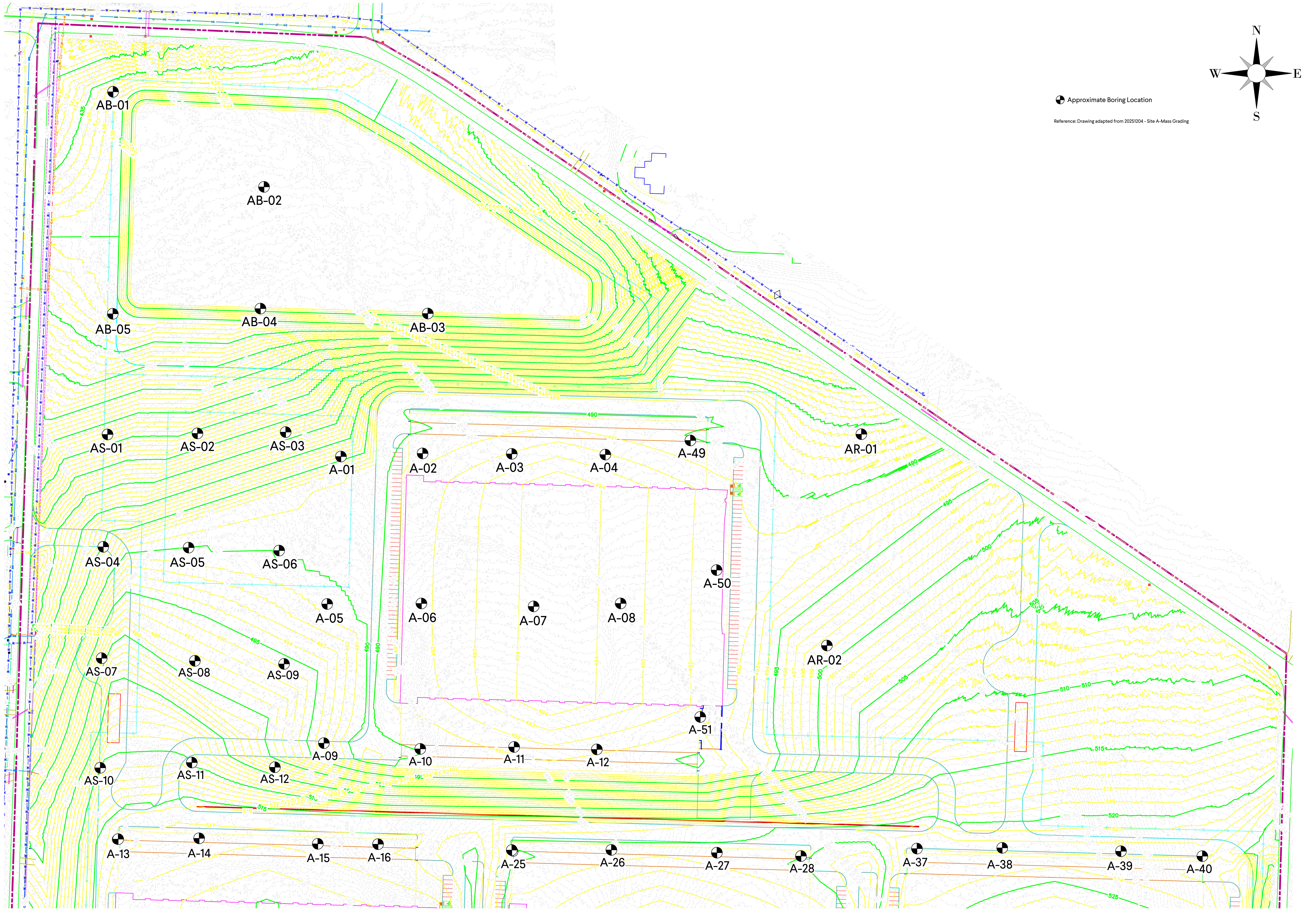
Birmingham, AL 35233
T 205.879.4462
GMCNETWORK.COM

Figure 4

SUPPLEMENTAL DRAWING
GMC # GBHM250047
12/16/2025
DRAWN BY: MJM

SERVERFARM ARK1 SITE A
Clarksville, Arkansas

Boring Location Plan



● Approximate Boring Location

Reference: Drawing adapted from 20251204 - Site A-Mass Grading

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Figure 5

SUPPLEMENTAL DRAWING
GMC # GBHM250047
12/16/2025
DRAWN BY: MJM

SERVERFARM ARK1 SITE A
Clarksville, Arkansas

Boring Location Plan

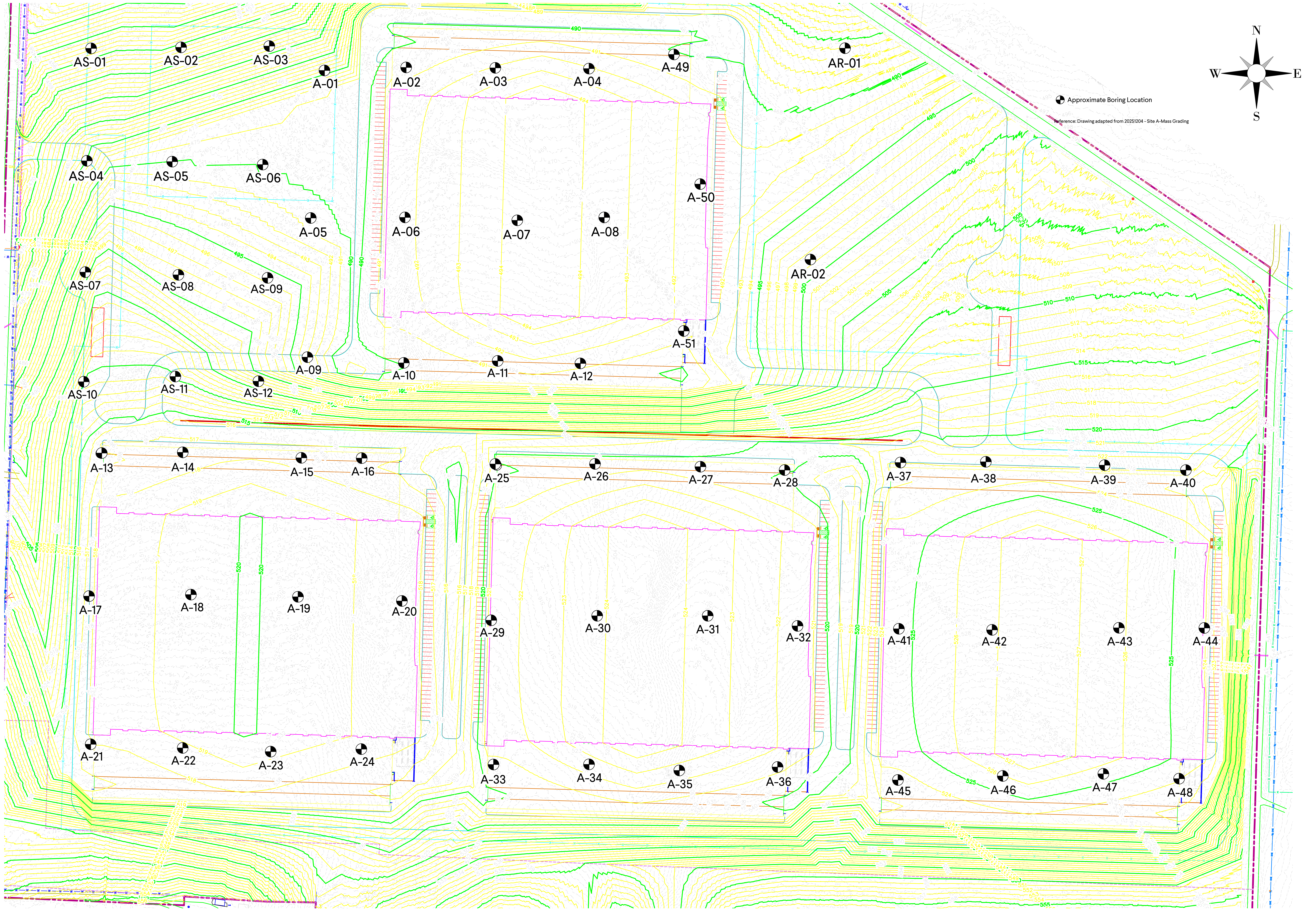

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Figure 6

SUPPLEMENTAL DRAWING

GMC # GBHM250047
12/16/2025
DRAWN BY: MJM

SERVERFARM ARK1 SITE A
Clarksville, Arkansas

Boring Location Plan

SOIL CLASSIFICATION CHART

MAJOR DIVISIONS			SYMBOLS		TYPICAL DESCRIPTIONS
			GRAPH	LETTER	
COARSE GRAINED SOILS MORE THAN 50% OF MATERIAL IS LARGER THAN NO. 200 SIEVE SIZE	GRAVEL AND GRAVELLY SOILS MORE THAN 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE	CLEAN GRAVELS (LITTLE OR NO FINES)	●	GW	WELL-GRADED GRAVELS, GRAVEL - SAND MIXTURES, LITTLE OR NO FINES
			○	GP	POORLY-GRADED GRAVELS, GRAVEL - SAND MIXTURES, LITTLE OR NO FINES
		GRAVELS WITH FINES (APPRECIABLE AMOUNT OF FINES)	○	GM	SILTY GRAVELS, GRAVEL - SAND - SILT MIXTURES
			▨	GC	CLAYEY GRAVELS, GRAVEL - SAND - CLAY MIXTURES
	SAND AND SANDY SOILS MORE THAN 50% OF COARSE FRACTION PASSING ON NO. 4 SIEVE	CLEAN SANDS (LITTLE OR NO FINES)	⁘	SW	WELL-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
			·	SP	POORLY-GRADED SANDS, GRAVELLY SAND, LITTLE OR NO FINES
		SANDS WITH FINES (APPRECIABLE AMOUNT OF FINES)	·	SM	SILTY SANDS, SAND - SILT MIXTURES
			▨	SC	CLAYEY SANDS, SAND - CLAY MIXTURES
FINE GRAINED SOILS MORE THAN 50% OF MATERIAL IS SMALLER THAN NO. 200 SIEVE SIZE	SILTS AND CLAYS	LIQUID LIMIT LESS THAN 50	▥	ML	INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS OR CLAYEY SILTS WITH SLIGHT PLASTICITY
			▨	CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
			▤	OL	ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY
	SILTS AND CLAYS	LIQUID LIMIT GREATER THAN 50	▥	MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SAND OR SILTY SOILS
			▨	CH	INORGANIC CLAYS OF HIGH PLASTICITY
			≈	OH	ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS
HIGHLY ORGANIC SOILS			⁂	PT	PEAT, HUMUS, SWAMP SOILS WITH HIGH ORGANIC CONTENTS

NOTE: DUAL SYMBOLS ARE USED TO INDICATE BORDERLINE SOIL CLASSIFICATIONS

SUBSURFACE DIAGRAM
A-A'

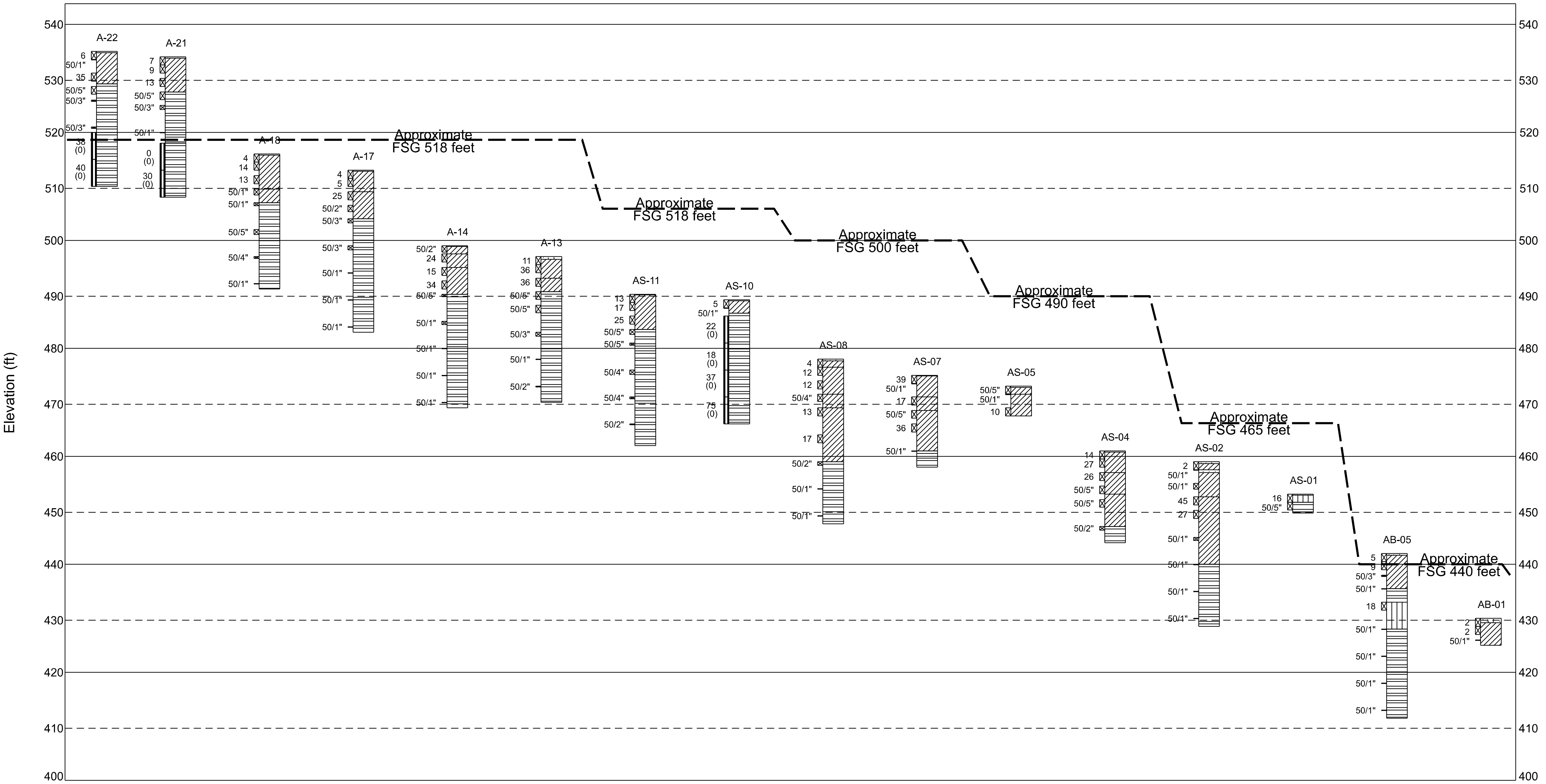
- ▨ TOPSOIL
- ▥ ML
- ▨ CL
- ░ SANDSTONE
- ▤ SHALE

CLIENT Serverfarm

PROJECT NUMBER GBHM250047

PROJECT NAME Serverfarm - AR Data Center

PROJECT LOCATION Clarksville, AR



FSG - Aproximate Finished Subgrade Elevation

The sketched FSG lines are approximate and are for illustrative purposes only.

Some borings may be omitted for clarity.

GMC

SUBSURFACE DIAGRAM
B-B'

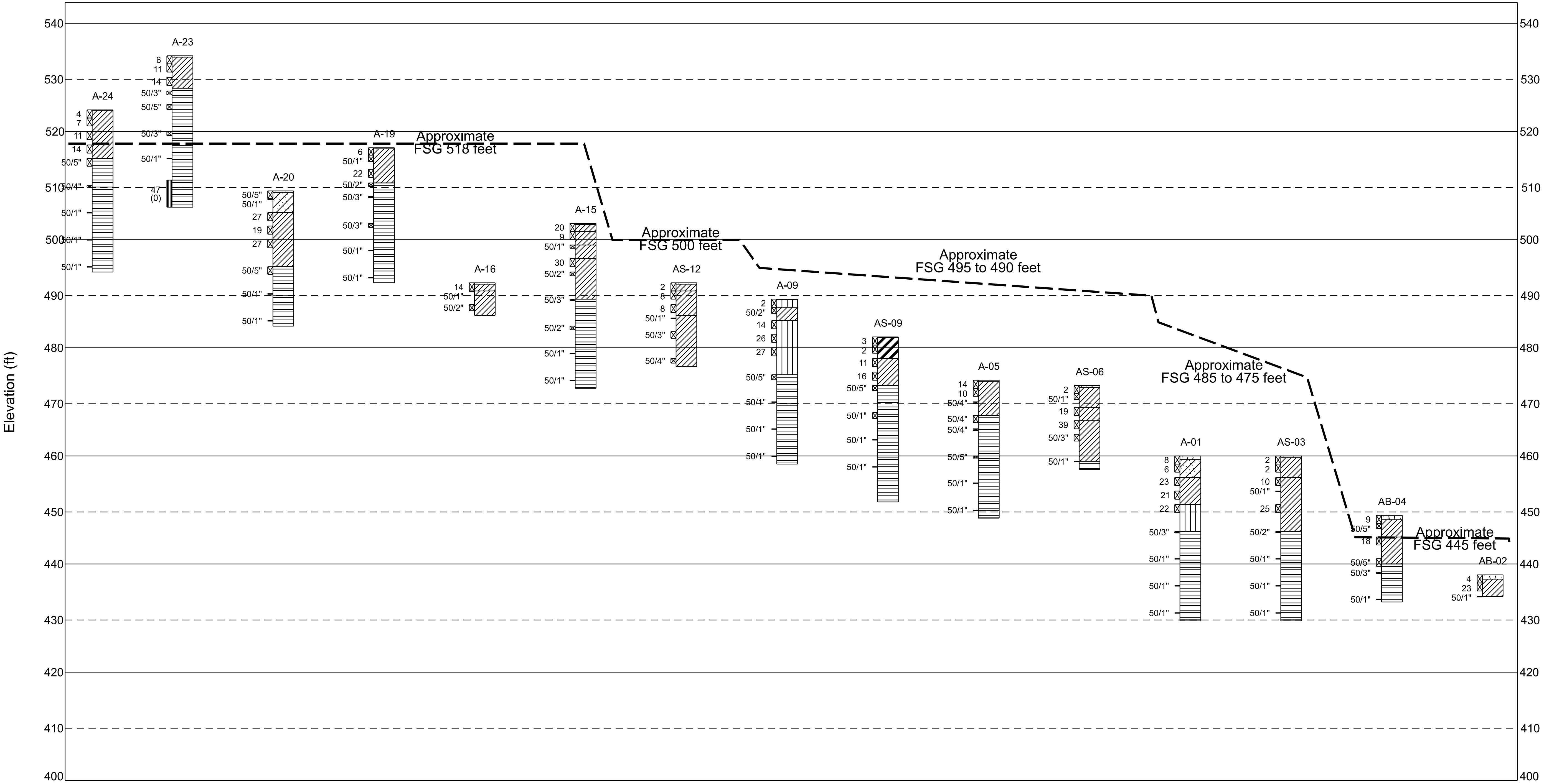
▨ TOPSOIL
▨ SC
▨ CL
▥ ML
▤ SHALE
▨ CH

CLIENT Serverfarm

PROJECT NUMBER GBHM250047

PROJECT NAME Serverfarm - AR Data Center

PROJECT LOCATION Clarksville, AR



FSG - Aproximate Finished Subgrade Elevation

The sketched FSG lines are approximate and are for illustrative purposes only.

Some borings may be omitted for clarity.

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SUBSURFACE DIAGRAM
C-C'

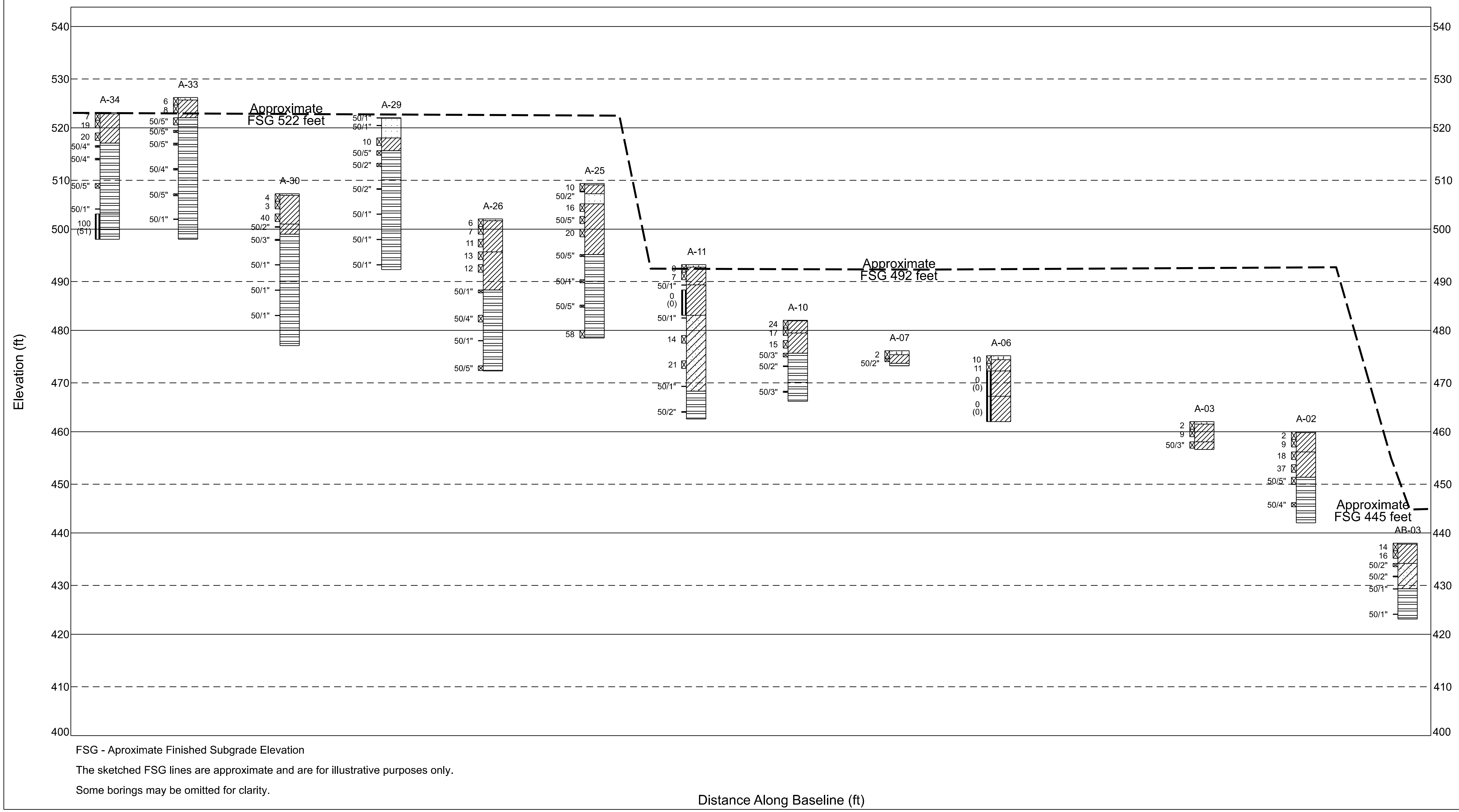
▤ TOPSOIL	▨ CL	☰ SHALE
▨ SC	░ SANDSTONE	▥ ML

CLIENT Serverfarm

PROJECT NUMBER GBHM250047

PROJECT NAME Serverfarm - AR Data Center

PROJECT LOCATION Clarksville, AR



FSG - Aproximate Finished Subgrade Elevation

The sketched FSG lines are approximate and are for illustrative purposes only.

Some borings may be omitted for clarity.

SUBSURFACE DIAGRAM
D-D'

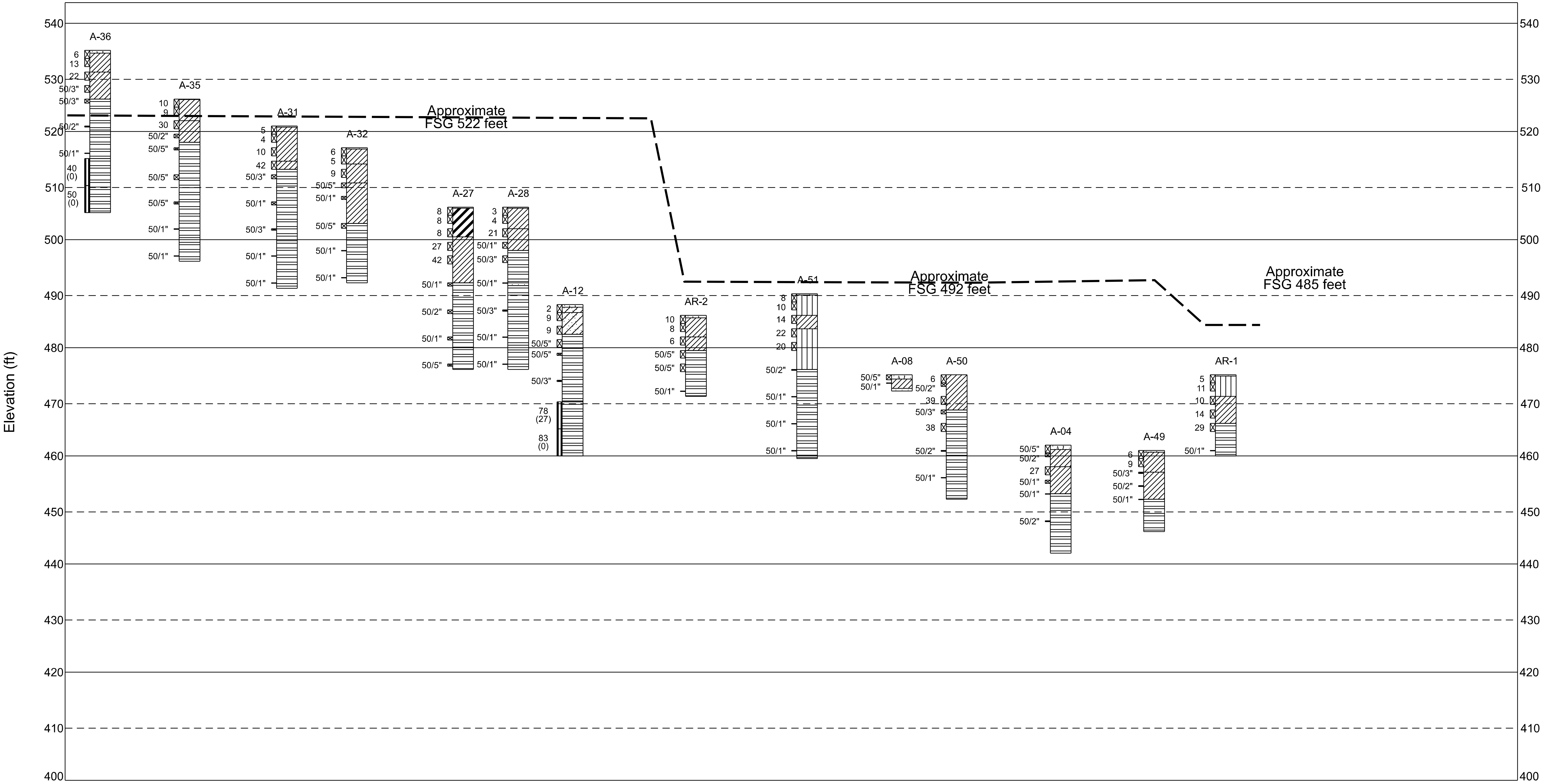
▨ TOPSOIL
▨ SANDSTONE
▨ ML
▨ CL
▨ SC
▨ SHALE
▨ CH

CLIENT Serverfarm

PROJECT NUMBER GBHM250047

PROJECT NAME Serverfarm - AR Data Center

PROJECT LOCATION Clarksville, AR



FSG - Aproximate Finished Subgrade Elevation

The sketched FSG lines are approximate and are for illustrative purposes only.

Some borings may be omitted for clarity.

SUBSURFACE DIAGRAM
E-E'

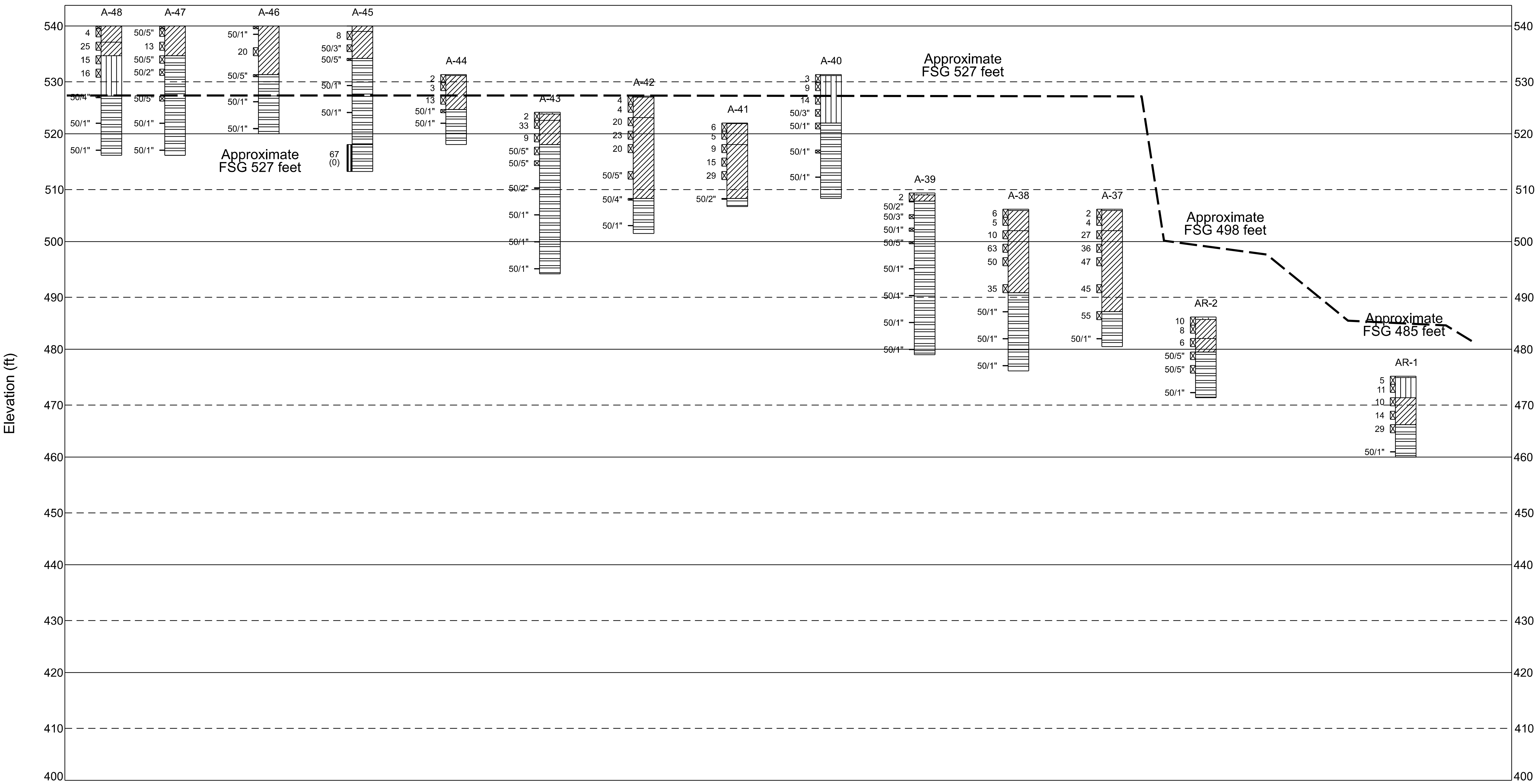
▨ TOPSOIL	▨ CL	▤ SHALE
▥ ML		

CLIENT Serverfarm

PROJECT NUMBER GBHM250047

PROJECT NAME Serverfarm - AR Data Center

PROJECT LOCATION Clarksville, AR



FSG - Aproximate Finished Subgrade Elevation

The sketched FSG lines are approximate and are for illustrative purposes only.

Some borings may be omitted for clarity.

BORING NUMBER A-01

CLIENT Serverfarm
PROJECT NAME Serverfarm - AR Data Center
PROJECT NUMBER GBHM250047
PROJECT LOCATION Clarksville, AR
DATE STARTED 12/3/25 **COMPLETED** 12/3/25
GROUND ELEVATION 460 ft **HOLE SIZE** 5"
DRILLING CONTRACTOR Earth Core, LLC
GROUND WATER LEVELS:
DRILLING METHOD AIR ROTARY
AT TIME OF DRILLING ---
LOGGED BY S. Wheeler **CHECKED BY** M. McNeill
AT END OF DRILLING ---
NOTES
AFTER DRILLING ---

ELEVATION (ft)	DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS			FINES CONTENT (%)
										LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX	
460	0		Organic Laden Material (OLM), 7" CLAYEY SAND (SC), red brown, brown, medium	SS		3-4-4 (8)			14				
				SS		2-3-3 (6)			16				
455	5		LEAN CLAY with GRAVEL (CL), brown, gray, very stiff	SS		8-10-13 (23)			17				
				SS		7-9-12 (21)							
450	10		SILT (ML), brown, gray, very stiff, with relic shale bedding	SS		10-10-12 (22)							
445	15		WEATHERED SHALE, brown, gray, hard	SS		50/3"							
440	20			SS		50/1"							
435	25			SS		50/1"							
430	30			SS		50/1"							
			Auger refusal was encountered at 30.5 feet.										
425	35												

GMC

BORING NUMBER A-02

PAGE 1 OF 1

CLIENT Serverfarm

PROJECT NAME Serverfarm - AR Data Center

PROJECT NUMBER GBHM250047

PROJECT LOCATION Clarksville, AR

DATE STARTED 11/7/25 **COMPLETED** 11/7/25

GROUND ELEVATION 460 ft **HOLE SIZE** 5"

DRILLING CONTRACTOR Earth Core, LLC

GROUND WATER LEVELS:

DRILLING METHOD AIR ROTARY

AT TIME OF DRILLING ---

LOGGED BY S. Wheeler **CHECKED BY** M. McNeill

AT END OF DRILLING ---

NOTES

▼ **AFTER DRILLING** 12.00 ft / Elev 448.00 ft

ELEVATION (ft)	DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS			FINES CONTENT (%)
										LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX	
460	0												
		▨	Organic Laden Material (OLM), 2" LEAN CLAY with SAND (CL), reddish orange, soft to stiff	☒ SS		1-1-1 (2)			16				
		▨		☒ SS		1-4-5 (9)			10				
455	5	▨	SANDY LEAN CLAY (CL), red, brown, gray, very stiff to hard	☒ SS		7-8-10 (18)			13				
		▨		☒ SS		17-16-21 (37)							
450	10	▤	SHALE, brown, gray, highly weathered	☒ SS		28-27- 50/5"							
		▤ ▼											
445	15	▤		☒ SS		16-50/4"							
			Auger refusal was encountered at 18.0 feet.										
440	20												
435	25												
430	30												
425	35												

BORING NUMBER A-03

PAGE 1 OF 1

CLIENT Serverfarm
PROJECT NAME Serverfarm - AR Data Center
PROJECT NUMBER GBHM250047
PROJECT LOCATION Clarksville, AR
DATE STARTED 11/5/25 **COMPLETED** 11/5/25
GROUND ELEVATION 462 ft **HOLE SIZE** 5"
DRILLING CONTRACTOR Earth Core, LLC
GROUND WATER LEVELS:
DRILLING METHOD AIR ROTARY
AT TIME OF DRILLING ---
LOGGED BY S. Wheeler **CHECKED BY** M. McNeill
AT END OF DRILLING ---
NOTES offset 5'
AFTER DRILLING ---

ELEVATION (ft)	DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS			FINES CONTENT (%)
										LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX	
	0		Organic Laden Material (OLM), 6"										
		▨	LEAN CLAY with SAND (CL), brown, reddish brown, soft to stiff	☒ SS		1-1-1 (2)							
460		▨		☒ SS		3-4-5 (9)			14				
	5	▨	LEAN CLAY with SAND (CL), red, brown, gray, hard, with weathered shale	☒ SS		6-6-50/3"							
			Auger refusal was encountered at 5.5 feet.										
455													
	10												
450													
	15												
445													
	20												
440													
	25												
435													
	30												
430													
	35												

BORING NUMBER A-04

PAGE 1 OF 1

CLIENT Serverfarm
PROJECT NAME Serverfarm - AR Data Center
PROJECT NUMBER GBHM250047
PROJECT LOCATION Clarksville, AR
DATE STARTED 11/5/25 **COMPLETED** 11/5/25
GROUND ELEVATION 462 ft **HOLE SIZE** 5"
DRILLING CONTRACTOR Earth Core, LLC
GROUND WATER LEVELS:
DRILLING METHOD AIR ROTARY
AT TIME OF DRILLING ---
LOGGED BY S. Wheeler **CHECKED BY** M. McNeill
AT END OF DRILLING ---
NOTES
▼ **AFTER DRILLING** 10.00 ft / Elev 452.00 ft

ELEVATION (ft)	DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS LIQUID LIMIT	ATTERBERG LIMITS PLASTIC LIMIT	ATTERBERG LIMITS PLASTICITY INDEX	FINES CONTENT (%)
	0		Organic Laden Material (OLM), 10"	SS		3-5-50/5"			20				
			SANDY LEAN CLAY (CL), red, brown, hard, w/ weathered shale	SS		13-50/2"			5				
			LEAN CLAY with SAND (CL), red, brown, gray, hard	SS		6-12-15 (27)							
				SS		13-50/1"							
		▼	WEATHERED SHALE, brown gray, hard	SS		50/1"							
				SS		50/2"							
	20		Auger refusal was encountered at 20.0 feet.										

BORING NUMBER A-05

PAGE 1 OF 1

CLIENT Serverfarm
PROJECT NAME Serverfarm - AR Data Center
PROJECT NUMBER GBHM250047
PROJECT LOCATION Clarksville, AR
DATE STARTED 12/2/25 **COMPLETED** 12/2/25
GROUND ELEVATION 474 ft **HOLE SIZE** 5"
DRILLING CONTRACTOR Earth Core, LLC
GROUND WATER LEVELS:
DRILLING METHOD AIR ROTARY
AT TIME OF DRILLING ---
LOGGED BY S. Wheeler **CHECKED BY** M. McNeill
AT END OF DRILLING ---
NOTES
▽ **AFTER DRILLING** 15.00 ft / Elev 459.00 ft

ELEVATION (ft)	DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX	FINES CONTENT (%)
	0												
			Organic Laden Material (OLM), 2" LEAN CLAY with GRAVEL (CL), red brown, stiff	SS		6-5-9 (14)			37				
				SS		3-5-5 (10)			9				
470													
				SS		50/4"			18				
	5												
			WEATHERED SHALE, brown, gray, hard	SS		6-12-50/4"							
465													
				SS		50/4"							
	10												
460													
				SS		50/5"							
	15	▽											
455													
				SS		50/1"							
	20												
450													
				SS		50/1"							
	25												
			Boring was terminated at 25.5 feet.										
445													
	30												
440													
	35												

GMC

BORING NUMBER A-06

CLIENT Serverfarm

PROJECT NAME Serverfarm - AR Data Center

PROJECT NUMBER GBHM250047

PROJECT LOCATION Clarksville, AR

DATE STARTED 11/5/25 **COMPLETED** 11/5/25

GROUND ELEVATION 475 ft **HOLE SIZE** 5"

DRILLING CONTRACTOR Earth Core, LLC

GROUND WATER LEVELS:

DRILLING METHOD Geoprobe 7822DT, Auto-Hammer, HSA w/ SPT

AT TIME OF DRILLING ---

LOGGED BY S. Wheeler **CHECKED BY** M. McNeill

AT END OF DRILLING ---

NOTES offset 5' NE, AR @ 3'

AFTER DRILLING ---

ELEVATION (ft)	DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS			FINES CONTENT (%)
										LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX	
475	0		Organic Laden Material (OLM), 8"	SS		3-4-6 (10)			23				
			SANDY LEAN CLAY (CL), red, brown, orange, stiff, w/ weathered shale Auger refusal was encountered at 3.0 feet.	SS		6-6-5 (11)			15	28	19	9	59
470	5		SANDY LEAN CLAY (CL), red brown, very soft, with sandstone lense	RC	22 (0)								
465	10		SANDY LEAN CLAY (CL), red brown, brown, with sandstone lense	RC	35 (7)								
460	15		Boring was terminated at 13.0 feet.										
455	20												
450	25												
445	30												
440	35												

BORING NUMBER A-07

PAGE 1 OF 1

CLIENT Serverfarm

PROJECT NAME Serverfarm - AR Data Center

PROJECT NUMBER GBHM250047

PROJECT LOCATION Clarksville, AR

DATE STARTED 11/8/25 **COMPLETED** 11/8/25

GROUND ELEVATION 476 ft **HOLE SIZE** 5"

DRILLING CONTRACTOR Earth Core, LLC

GROUND WATER LEVELS:

DRILLING METHOD AIR ROTARY

AT TIME OF DRILLING ---

LOGGED BY S. Wheeler **CHECKED BY** M. McNeill

AT END OF DRILLING ---

NOTES

AFTER DRILLING ---

ELEVATION (ft)	DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS			FINES CONTENT (%)
										LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX	
	0												
475		⁂	Organic Laden Material (OLM), 8"	☒ SS		0-1-1 (2)			20				
		▨	SANDY LEAN CLAY (CL), red, brown, soft, w/ weathered shale	☒ SS		6-50/2"			13				
		☰	SHALE, red, brown, hard, weathered Auger refusal was encountered at 3.0 feet.										
	5												
470													
	10												
465													
	15												
460													
	20												
455													
	25												
450													
	30												
445													
	35												

BORING NUMBER A-08

PAGE 1 OF 1

CLIENT Serverfarm

PROJECT NAME Serverfarm - AR Data Center

PROJECT NUMBER GBHM250047

PROJECT LOCATION Clarksville, AR

DATE STARTED 11/5/25 **COMPLETED** 11/5/25

GROUND ELEVATION 475 ft **HOLE SIZE** 5"

DRILLING CONTRACTOR Earth Core, LLC

GROUND WATER LEVELS:

DRILLING METHOD AIR ROTARY

AT TIME OF DRILLING ---

LOGGED BY S. Wheeler **CHECKED BY** M. McNeill

AT END OF DRILLING ---

NOTES

AFTER DRILLING ---

ELEVATION (ft)	DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS			FINES CONTENT (%)
										LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX	
475	0												
			Organic Laden Material (OLM), 8"	☒ SS		6-50/5"			12				
		▨	CLAYEY SAND (SC), brown, reddish brown, very dense	SS		50/1"							
			SANDSTONE, red, brown, sightly weathered										
			Auger refusal was encountered at 3.0 feet.										
470	5												
465	10												
460	15												
455	20												
450	25												
445	30												
440	35												

BORING NUMBER A-09

PAGE 1 OF 1

CLIENT Serverfarm

PROJECT NAME Serverfarm - AR Data Center

PROJECT NUMBER GBHM250047

PROJECT LOCATION Clarksville, AR

DATE STARTED 12/2/25 **COMPLETED** 12/2/25

GROUND ELEVATION 489 ft **HOLE SIZE** 5"

DRILLING CONTRACTOR Earth Core, LLC

GROUND WATER LEVELS:

DRILLING METHOD AIR ROTARY

AT TIME OF DRILLING None Encountered

LOGGED BY S. Wheeler **CHECKED BY** M. McNeill

AT END OF DRILLING ---

NOTES

AFTER DRILLING ---

ELEVATION (ft)	DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS LIQUID LIMIT	ATTERBERG LIMITS PLASTIC LIMIT	ATTERBERG LIMITS PLASTICITY INDEX	FINES CONTENT (%)
	0		Organic Laden Material (OLM), 1" SANDY SILT (ML), red brown, brown, soft	SS		1-1-1 (2)			19				
			SANDY LEAN CLAY (CL), red brown, hard, w/ sandstone fragments	SS		6-8-50/2"			15				
485	5		SILT (ML), light brown, stiff to very stiff	SS		6-6-8 (14)			17				
				SS		8-12-14 (26)							
480	10			SS		10-12-15 (27)							
475	15		WEATHERED SHALE, brown, gray, hard	SS		21-50/5"							
470	20			SS		50/1"							
465	25			SS		50/1"							
460	30			SS		50/1"							
			Boring was terminated at 30.5 feet.										
455	35												

BORING NUMBER A-10

PAGE 1 OF 1

CLIENT Serverfarm

PROJECT NAME Serverfarm - AR Data Center

PROJECT NUMBER GBHM250047

PROJECT LOCATION Clarksville, AR

DATE STARTED 11/8/25 **COMPLETED** 11/8/25

GROUND ELEVATION 482 ft **HOLE SIZE** 5"

DRILLING CONTRACTOR Earth Core, LLC

GROUND WATER LEVELS:

DRILLING METHOD AIR ROTARY

▽ **AT TIME OF DRILLING** 14.00 ft / Elev 468.00 ft

LOGGED BY S. Wheeler **CHECKED BY** M. McNeill

AT END OF DRILLING ---

NOTES

AFTER DRILLING ---

ELEVATION (ft)	DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS			FINES CONTENT (%)
										LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX	
	0	▨	Organic Laden Material (OLM), 1" CLAYEY SAND (SC), reddish brown, brown, medium dense	☒ SS		6-12-12 (24)			21				
480		▨		☒ SS		8-8-9 (17)			18				
		▨	CLAYEY SAND (SC), brown, medium										
	5	▨		☒ SS		4-5-10 (15)			25				
475		☰	SHALE, brown, gray, hard, highly weathered	☒ SS		6-50/3"			7				
	10	☰		☒ SS		50/2"							
470		☰											
	15	☰ ▽		☒ SS		50/3"							
465			Auger refusal was encountered at 16.0 feet.										
	20												
460													
	25												
455													
	30												
450													
	35												

GMC

BORING NUMBER A-11

CLIENT Serverfarm

PROJECT NAME Serverfarm - AR Data Center

PROJECT NUMBER GBHM250047

PROJECT LOCATION Clarksville, AR

DATE STARTED 11/9/25 **COMPLETED** 11/9/25

GROUND ELEVATION 493 ft **HOLE SIZE** 5"

DRILLING CONTRACTOR Earth Core, LLC

GROUND WATER LEVELS:

DRILLING METHOD AIR ROTARY

AT TIME OF DRILLING ---

LOGGED BY S. Wheeler **CHECKED BY** M. McNeill

AT END OF DRILLING ---

NOTES

AFTER DRILLING ---

ELEVATION (ft)	DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS			FINES CONTENT (%)
										LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX	
	0		Organic Laden Material (OLM), 6"	SS		1-0-0 (0)			20				
			SANDY LEAN CLAY (CL), red brown, very soft to medium	SS		2-3-4 (7)			20				
490													
			- Auger refusal @ 4 feet SANDY LEAN CLAY (CL), reddish brown to gray, significant wash out, restart SPT sampling	SS		50/1"							
	5			RC									
485													
	10		CLAYEY SAND (SC), reddish brown, medium	SS		50/1"							
480													
	15			SS		6-6-8 (14)							
475													
	20			SS		9-9-12 (21)							
470													
				SS		50/1"							
	25		SHALE, gray, hard										
465													
				SS		50/2"							
	30		Boring was terminated at 30.5 feet.										
460													
	35												

BORING NUMBER A-12

CLIENT Serverfarm

PROJECT NAME Serverfarm - AR Data Center

PROJECT NUMBER GBHM250047

PROJECT LOCATION Clarksville, AR

DATE STARTED 11/7/25 **COMPLETED** 11/7/25

GROUND ELEVATION 488 ft **HOLE SIZE** 5"

DRILLING CONTRACTOR Earth Core, LLC

GROUND WATER LEVELS:

DRILLING METHOD AIR ROTARY

∇ **AT TIME OF DRILLING** 12.00 ft / Elev 476.00 ft

LOGGED BY S. Wheeler **CHECKED BY** M. McNeill

AT END OF DRILLING ---

NOTES

AFTER DRILLING ---

ELEVATION (ft)	DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES CONTENT (%)
	0		Organic Laden Material (OLM), 6"	SS		1-1-1 (2)			18				
			CLAYEY SAND (SC), brown, reddish brown, loose										
485			CLAYEY SAND with GRAVEL (SC), red, brown,gray, medium	SS		4-5-4 (9)			11	26	18	8	28
	5			SS		4-4-5 (9)			22				
480			WEATHERED SHALE, brown, gray, hard	SS		8-12-50/5"							
	10			SS		50/5"							
475		∇											
	15			SS		50/3"							
470			Auger refusal was encountered at 18.0 feet.										
	20		WEATHERED SHALE, brown, gray, soft	RC	78 (27)								
465	25		WEATHERED SHALE, brown, gray, soft	RC	83 (0)								
460	30		Boring was terminated at 28.0 feet.										
455	35												

BORING NUMBER A-13

PAGE 1 OF 1

CLIENT Serverfarm

PROJECT NAME Serverfarm - AR Data Center

PROJECT NUMBER GBHM250047

PROJECT LOCATION Clarksville, AR

DATE STARTED 11/6/25 **COMPLETED** 11/6/25

GROUND ELEVATION 497 ft **HOLE SIZE** 5"

DRILLING CONTRACTOR Earth Core, LLC

GROUND WATER LEVELS:

DRILLING METHOD AIR ROTARY

AT TIME OF DRILLING ---

LOGGED BY S. Wheeler **CHECKED BY** M. McNeill

AT END OF DRILLING ---

NOTES

AFTER DRILLING ---

ELEVATION (ft)	DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES CONTENT (%)
	0	▨	Organic Laden Material (OLM), 6" SANDY LEAN CLAY (CL), red, brown, stiff to hard	SS		3-4-7 (11)			16				
		▨		SS		6-14-22 (36)			13				
495		▨											
		▨	SANDY LEAN CLAY (CL), brown, gray, hard	SS		6-14-22 (36)			11				
	5	▨											
		≡	WEATHERED SHALE, brown, gray, hard	SS		12-22-50/5"							
490		≡											
		≡		SS		4-6-50/5"							
	10	≡											
485		≡											
		≡		SS		16-50/3"							
	15	≡											
480		≡											
		≡		SS		50/1"							
	20	≡											
475		≡											
		≡		SS		50/2"							
	25	≡											
470			Auger refusal was encountered at 27.0 feet.										
	30												
465													
	35												

BORING NUMBER A-14

PAGE 1 OF 1

CLIENT Serverfarm

PROJECT NAME Serverfarm - AR Data Center

PROJECT NUMBER GBHM250047

PROJECT LOCATION Clarksville, AR

DATE STARTED 11/17/25 **COMPLETED** 11/17/25

GROUND ELEVATION 499 ft **HOLE SIZE** 5"

DRILLING CONTRACTOR Earth Core, LLC

GROUND WATER LEVELS:

DRILLING METHOD AIR ROTARY

∇ **AT TIME OF DRILLING** 29.00 ft / Elev 470.00 ft

LOGGED BY S. Wheeler **CHECKED BY** M. McNeill

AT END OF DRILLING ---

NOTES

AFTER DRILLING ---

ELEVATION (ft)	DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS LIQUID LIMIT	ATTERBERG LIMITS PLASTIC LIMIT	ATTERBERG LIMITS PLASTICITY INDEX	FINES CONTENT (%)
	0	▨	Organic Laden Material (OLM), 1.5" LEAN CLAY with GRAVEL (CL), red brown, hard	☒ SS		8-16-50/2"			16				
		▨	LEAN CLAY (CL), red brown, very stiff, w/ WEATHERED SANDSTONE	☒ SS		8-12-12 (24)			5				
495	5	▨	LEAN CLAY (CL), red brown, gray, stiff to hard	☒ SS		8-8-7 (15)			16				
		▨		☒ SS		12-13-21 (34)							
490	10	☰	WEATHERED SHALE, brown, gray, hard	☒ SS		50/5"							
485	15	☰		☒ SS		28-50/1"							
480	20	☰		SS		50/1"							
475	25	☰		SS		50/1"							
470	30	☰ ∇		SS		50/1"							
			Boring was terminated at 30.0 feet.										
465	35												

GMC

BORING NUMBER A-15

PAGE 1 OF 1

CLIENT Serverfarm
PROJECT NAME Serverfarm - AR Data Center
PROJECT NUMBER GBHM250047
PROJECT LOCATION Clarksville, AR
DATE STARTED 11/17/25 **COMPLETED** 11/17/25
GROUND ELEVATION 503 ft **HOLE SIZE** 5"
DRILLING CONTRACTOR Earth Core, LLC
GROUND WATER LEVELS:
DRILLING METHOD AIR ROTARY
AT TIME OF DRILLING ---
LOGGED BY S. Wheeler **CHECKED BY** M. McNeill
AT END OF DRILLING ---
NOTES
AFTER DRILLING ---

ELEVATION (ft)	DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS LIQUID LIMIT	ATTERBERG LIMITS PLASTIC LIMIT	ATTERBERG LIMITS PLASTICITY INDEX	FINES CONTENT (%)
	0												
		▨	Organic Laden Material (OLM), 2" LEAN CLAY (CL), brown, very stiff	SS		8-8-12 (20)			15				
			LEAN CLAY (CL), red brown, stiff	SS		3-4-5 (9)			11				
500													
			LEAN CLAY with SAND (CL), red brown, hard, w/ sandstone fragments	SS		28-50/1"			10				
	5												
			LEAN CLAY (CL), red brown, gray, hard	SS		8-12-18 (30)							
495													
				SS		21-50/2"							
	10												
490													
		☰	WEATHERED SHALE, brown, gray, hard	SS		50/3"							
	15												
485													
				SS		38-50/2"							
	20												
480													
				SS		50/1"							
	25												
475													
				SS		50/1"							
	30												
			Boring was terminated at 30.5 feet.										
470													
	35												

BORING NUMBER A-16

PAGE 1 OF 1

CLIENT Serverfarm
PROJECT NAME Serverfarm - AR Data Center
PROJECT NUMBER GBHM250047
PROJECT LOCATION Clarksville, AR
DATE STARTED 12/3/25 **COMPLETED** 12/3/25
GROUND ELEVATION 492 ft **HOLE SIZE** 5"
DRILLING CONTRACTOR Earth Core, LLC
GROUND WATER LEVELS:
DRILLING METHOD AIR ROTARY
AT TIME OF DRILLING ---
LOGGED BY S. Wheeler **CHECKED BY** M. McNeill
AT END OF DRILLING ---
NOTES
AFTER DRILLING ---

ELEVATION (ft)	DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS LIQUID LIMIT	ATTERBERG LIMITS PLASTIC LIMIT	ATTERBERG LIMITS PLASTICITY INDEX	FINES CONTENT (%)
	0		Organic Laden Material (OLM), 3"										
			SANDY LEAN CLAY (CL), reddish brown, gray, stiff	SS		6-6-8 (14)							
490			SANDY LEAN CLAY (CL), reddish brown, brown, hard, with relic shale bedding	SS		50/1"							
	5			SS		21-21-50/2"							
485			Auger refusal was encountered at 6.0 feet.										
	10												
480													
	15												
475													
	20												
470													
	25												
465													
	30												
460													
	35												

BORING NUMBER A-17

PAGE 1 OF 1

CLIENT Serverfarm

PROJECT NAME Serverfarm - AR Data Center

PROJECT NUMBER GBHM250047

PROJECT LOCATION Clarksville, AR

DATE STARTED 11/22/25 **COMPLETED** 11/22/25

GROUND ELEVATION 513 ft **HOLE SIZE** 5"

DRILLING CONTRACTOR Earth Core, LLC

GROUND WATER LEVELS:

DRILLING METHOD AIR ROTARY

∇ **AT TIME OF DRILLING** 15.00 ft / Elev 498.00 ft

LOGGED BY S. Wheeler **CHECKED BY** M. McNeill

AT END OF DRILLING ---

NOTES

AFTER DRILLING ---

ELEVATION (ft)	DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS LIQUID LIMIT	ATTERBERG LIMITS PLASTIC LIMIT	ATTERBERG LIMITS PLASTICITY INDEX	FINES CONTENT (%)
	0	▨	Organic Laden Material (OLM), 2" LEAN CLAY (CL), red brown, soft to medium	SS		1-2-2 (4)			20				
				SS		2-2-3 (5)			14				
510													
	5	▨	LEAN CLAY (CL), red brown, gray, very stiff	SS		5-10-15 (25)			19	48	25	23	88
				SS		15-22- 50/2"			12				
505													
	10	≡	WEATHERED SHALE, brown, gray, hard	SS		15-50/3"			14				
500													
	15	≡ ∇		SS		35-50/3"							
495													
	20	≡		SS		50/1"							
490													
	25	≡		SS		50/1"							
485													
	30	≡		SS		50/1"							
			Boring was terminated at 30.0 feet.										
480													
	35												

GMC

BORING NUMBER A-18

PAGE 1 OF 1

CLIENT Serverfarm
PROJECT NAME Serverfarm - AR Data Center
PROJECT NUMBER GBHM250047
PROJECT LOCATION Clarksville, AR
DATE STARTED 12/3/25 **COMPLETED** 12/3/25
GROUND ELEVATION 516 ft **HOLE SIZE** 5"
DRILLING CONTRACTOR Earth Core, LLC
GROUND WATER LEVELS:
DRILLING METHOD AIR ROTARY
AT TIME OF DRILLING ---
LOGGED BY S. Wheeler **CHECKED BY** M. McNeill
AT END OF DRILLING ---
NOTES
AFTER DRILLING ---

ELEVATION (ft)	DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS LIQUID LIMIT	ATTERBERG LIMITS PLASTIC LIMIT	ATTERBERG LIMITS PLASTICITY INDEX	FINES CONTENT (%)
515	0	▨	Organic Laden Material (OLM), 2" SANDY LEAN CLAY (CL), red brown, stiff	SS		1-2-2 (4)			19				
		▨		SS		4-8-6 (14)			21				
510	5	▨		SS		4-6-7 (13)			19				
		▨	LEAN CLAY (CL), light brown, hard	SS		10-15- 50/1"			14				
505	10	☰	WEATHERED SHALE, brown, gray, hard	SS		30-50/1"			8				
500	15	☰		SS		16-50/5"							
495	20	☰		SS		50/4"							
490	25	☰		SS		50/1"							
			Auger refusal was encountered at 25.0 feet.										
485	30												
	35												

BORING NUMBER A-19

PAGE 1 OF 1

CLIENT Serverfarm

PROJECT NAME Serverfarm - AR Data Center

PROJECT NUMBER GBHM250047

PROJECT LOCATION Clarksville, AR

DATE STARTED 12/3/25 **COMPLETED** 12/3/25

GROUND ELEVATION 517 ft **HOLE SIZE** 5"

DRILLING CONTRACTOR Earth Core, LLC

GROUND WATER LEVELS:

DRILLING METHOD AIR ROTARY

AT TIME OF DRILLING ---

LOGGED BY S. Wheeler **CHECKED BY** M. McNeill

AT END OF DRILLING ---

NOTES

AFTER DRILLING ---

ELEVATION (ft)	DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES CONTENT (%)
	0		Organic Laden Material (OLM), 2" LEAN CLAY with SAND (CL), red brown, medium to hard	SS		3-3-3 (6)			18				
515				SS		3-2-50/1"			22				
	5			SS		3-7-15 (22)			18	46	24	22	73
510			WEATHERED SHALE, brown, hard	SS		10-50/2"							
	10			SS		50/3"							
505													
	15			SS		22-50/3"							
500													
	20			SS		50/1"							
495													
	25			SS		50/1"							
			Boring was terminated at 25.0 feet.										
490													
	30												
485													
	35												

BORING NUMBER A-20

PAGE 1 OF 1

CLIENT Serverfarm

PROJECT NAME Serverfarm - AR Data Center

PROJECT NUMBER GBHM250047

PROJECT LOCATION Clarksville, AR

DATE STARTED 12/3/25 **COMPLETED** 12/3/25

GROUND ELEVATION 509 ft **HOLE SIZE** 5"

DRILLING CONTRACTOR Earth Core, LLC

GROUND WATER LEVELS:

DRILLING METHOD AIR ROTARY

∇ **AT TIME OF DRILLING** 8.00 ft / Elev 501.00 ft

LOGGED BY S. Wheeler **CHECKED BY** M. McNeill

AT END OF DRILLING ---

NOTES

AFTER DRILLING ---

ELEVATION (ft)	DEPTH (ft)	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS LIQUID LIMIT	ATTERBERG LIMITS PLASTIC LIMIT	ATTERBERG LIMITS PLASTICITY INDEX	FINES CONTENT (%)
	0	Organic Laden Material (OLM), 3"	SS		8-12-50/5"				NP	NP	NP	55
		SANDY SILT (ML), red brown, very dense, w/ sandstone fragments	SS		50/1"			16				
505	5	SANDY LEAN CLAY (CL), red brown, gray, very stiff	SS		8-12-15 (27)			24				
		∇	SS		8-9-10 (19)							
500	10		SS		10-12-15 (27)							
495	15	WEATHERED SHALE, brown, gray, hard	SS		10-15-50/5"							
490	20		SS		50/1"							
485	25		SS		50/1"							
		Boring was terminated at 25.0 feet.										
480	30											
475	35											

BORING NUMBER A-21

CLIENT Serverfarm
PROJECT NAME Serverfarm - AR Data Center
PROJECT NUMBER GBHM250047
PROJECT LOCATION Clarksville, AR
DATE STARTED 11/22/25 **COMPLETED** 11/22/25
GROUND ELEVATION 534 ft **HOLE SIZE** 5"
DRILLING CONTRACTOR Earth Core, LLC
GROUND WATER LEVELS:
DRILLING METHOD AIR ROTARY
AT TIME OF DRILLING ---
LOGGED BY S. Wheeler **CHECKED BY** M. McNeill
AT END OF DRILLING ---
NOTES
AFTER DRILLING ---

ELEVATION (ft)	DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS LIQUID LIMIT	ATTERBERG LIMITS PLASTIC LIMIT	ATTERBERG LIMITS PLASTICITY INDEX	FINES CONTENT (%)
	0		Organic Laden Material (OLM), 3" SANDY LEAN CLAY (CL), red brown, medium to stiff	SS		1-2-5 (7)			18				
				SS		3-4-5 (9)			16				
530													
	5			SS		3-5-8 (13)			24				
			WEATHERED SHALE, brown, gray, hard sampled as LEAN CLAY with SAND (CL)	SS		8-20-50/5"			15	35	23	12	81
525													
	10			SS		10-50/3"			14				
520													
	15			SS		50/1"							
			Auger refusal was encountered at 16.0 feet.										
			WEATHERED SHALE, brown, gray, very soft										
515				RC	0 (0)								
	20												
510				RC	30 (0)								
	25												
			Boring was terminated at 26.0 feet.										
505													
	30												
500													
	35												

BORING NUMBER A-22

PAGE 1 OF 1

CLIENT Serverfarm

PROJECT NAME Serverfarm - AR Data Center

PROJECT NUMBER GBHM250047

PROJECT LOCATION Clarksville, AR

DATE STARTED 11/22/25 **COMPLETED** 11/22/25

GROUND ELEVATION 535 ft **HOLE SIZE** 5"

DRILLING CONTRACTOR Earth Core, LLC

GROUND WATER LEVELS:

DRILLING METHOD AIR ROTARY

AT TIME OF DRILLING ---

LOGGED BY S. Wheeler **CHECKED BY** M. McNeill

AT END OF DRILLING ---

NOTES

AFTER DRILLING ---

ELEVATION (ft)	DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS			FINES CONTENT (%)
										LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX	
535	0		Organic Laden Material (OLM), 3"										
		▨	SANDY LEAN CLAY (CL), red brown, medium to hard, w/ sandstone fragments	SS		1-3-3 (6)							
				SS		50/1"							
530	5			SS		10-15-20 (35)							
		☰	WEATHERED SHALE, brown, gray, hard	SS		6-20-50/5"							
525	10			SS		50/3"							
520	15		Auger refusal was encountered at 15.0 feet.	SS		50/3"							
		☰	WEATHERED SHALE, brown, gray, very soft	RC	38 (0)								
515	20			RC	40 (0)								
510	25		Boring was terminated at 25.0 feet.										
505	30												
500	35												

BORING NUMBER A-23

CLIENT Serverfarm

PROJECT NAME Serverfarm - AR Data Center

PROJECT NUMBER GBHM250047

PROJECT LOCATION Clarksville, AR

DATE STARTED 11/23/25 **COMPLETED** 11/23/25

GROUND ELEVATION 534 ft **HOLE SIZE** 5"

DRILLING CONTRACTOR Earth Core, LLC

GROUND WATER LEVELS:

DRILLING METHOD AIR ROTARY

AT TIME OF DRILLING ---

LOGGED BY S. Wheeler **CHECKED BY** M. McNeill

AT END OF DRILLING ---

NOTES

AFTER DRILLING ---

ELEVATION (ft)	DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS			FINES CONTENT (%)
										LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX	
	0		Organic Laden Material (OLM), 3" SANDY LEAN CLAY (CL), red brown, medium to stiff	SS		2-2-4 (6)							
				SS		4-5-6 (11)							
530	5			SS		6-6-8 (14)							
			WEATHERED SHALE, brown, gray, hard	SS		20-50/3"							
525	10			SS		20-50/5"							
520	15			SS		20-50/3"							
515	20			SS		50/1"							
			Auger refusal was encountered at 23.0 feet.										
510	25		WEATHERED SHALE, brown, gray, very soft	RC	47 (0)								
			Boring was terminated at 28.0 feet.										
505	30												
500	35												

BORING NUMBER A-24

PAGE 1 OF 1

CLIENT Serverfarm
PROJECT NAME Serverfarm - AR Data Center
PROJECT NUMBER GBHM250047
PROJECT LOCATION Clarksville, AR
DATE STARTED 11/23/25 **COMPLETED** 11/23/25
GROUND ELEVATION 524 ft **HOLE SIZE** 5"
DRILLING CONTRACTOR Earth Core, LLC
GROUND WATER LEVELS:
DRILLING METHOD AIR ROTARY
AT TIME OF DRILLING ---
LOGGED BY S. Wheeler **CHECKED BY** M. McNeill
AT END OF DRILLING ---
NOTES
AFTER DRILLING ---

ELEVATION (ft)	DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS			FINES CONTENT (%)
										LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX	
	0		Organic Laden Material (OLM), 1" SANDY LEAN CLAY (CL), red brown, soft to stiff	SS		2-2-2 (4)							
				SS		2-3-4 (7)							
520	5			SS		4-5-6 (11)							
				SS		5-6-8 (14)							
515	10		WEATHERED SHALE, brown, gray, hard	SS		8-12-50/5"							
510	15			SS		50/4"							
505	20			SS		50/1"							
500	25			SS		50/1"							
495	30			SS		50/1"							
			Boring was terminated at 30.0 feet.										
490	35												

GMC

BORING NUMBER A-25

PAGE 1 OF 1

CLIENT Serverfarm

PROJECT NAME Serverfarm - AR Data Center

PROJECT NUMBER GBHM250047

PROJECT LOCATION Clarksville, AR

DATE STARTED 11/17/25 **COMPLETED** 11/17/25

GROUND ELEVATION 509 ft **HOLE SIZE** 5"

DRILLING CONTRACTOR Earth Core, LLC

GROUND WATER LEVELS:

DRILLING METHOD AIR ROTARY

AT TIME OF DRILLING ---

LOGGED BY S. Wheeler **CHECKED BY** M. McNeill

AT END OF DRILLING ---

NOTES

AFTER DRILLING ---

ELEVATION (ft)	DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS LIQUID LIMIT	ATTERBERG LIMITS PLASTIC LIMIT	ATTERBERG LIMITS PLASTICITY INDEX	FINES CONTENT (%)
	0	▨	Organic Laden Material (OLM), 3" SANDY LEAN CLAY (CL), red brown, stiff	SS		2-4-6 (10)			20				
				SS		50/2"			2				
		⁙	SANDSTONE, brown, hard										
505	5	▨	SANDY LEAN CLAY (CL), red brown, gray, very stiff, w/ relic shale bedding	SS		11-8-8 (16)			17				
				SS		10-14-5/5"							
500	10			SS		10-10-10 (20)							
495	15	☰	WEATHERED SHALE, brown, gray, hard	SS		50/5"							
490	20			SS		32-50/1"							
485	25			SS		50/5"							
480	30			SS		20-25-33 (58)							
			Boring was terminated at 30.5 feet.										
475	35												

BORING NUMBER A-26

PAGE 1 OF 1

CLIENT Serverfarm

PROJECT NAME Serverfarm - AR Data Center

PROJECT NUMBER GBHM250047

PROJECT LOCATION Clarksville, AR

DATE STARTED 11/17/25 **COMPLETED** 11/17/25

GROUND ELEVATION 502 ft **HOLE SIZE** 5"

DRILLING CONTRACTOR Earth Core, LLC

GROUND WATER LEVELS:

DRILLING METHOD AIR ROTARY

∇ **AT TIME OF DRILLING** 23.00 ft / Elev 479.00 ft

LOGGED BY S. Wheeler **CHECKED BY** M. McNeill

AT END OF DRILLING ---

NOTES

AFTER DRILLING ---

ELEVATION (ft)	DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS			FINES CONTENT (%)
										LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX	
	0												
		▨	Organic Laden Material (OLM), 4" SANDY LEAN CLAY (CL), red brown, medium to stiff	SS		3-3-3 (6)			14				
500		▨		SS		3-3-4 (7)			20				
	5	▨		SS		3-5-6 (11)			17				
495		▨	SANDY LEAN CLAY (CL), brown, gray, stiff	SS		6-6-7 (13)							
	10	▨		SS		4-4-8 (12)							
490		▨											
	15	≡	WEATHERED SHALE, brown, gray, hard	SS		35-50/1"							
485		≡											
	20	≡		SS		22-24- 50/4"							
480		≡											
		≡ ∇											
	25	≡		SS		50/1"							
475		≡											
	30	≡		SS		31-50/5"							
			Boring was terminated at 30.0 feet.										
470													
	35												

BORING NUMBER A-27

CLIENT Serverfarm
PROJECT NAME Serverfarm - AR Data Center
PROJECT NUMBER GBHM250047
PROJECT LOCATION Clarksville, AR
DATE STARTED 11/18/25 **COMPLETED** 11/18/25
GROUND ELEVATION 506 ft **HOLE SIZE** 5"
DRILLING CONTRACTOR Earth Core, LLC
GROUND WATER LEVELS:
DRILLING METHOD AIR ROTARY
AT TIME OF DRILLING ---
LOGGED BY S. Wheeler **CHECKED BY** M. McNeill
AT END OF DRILLING ---
NOTES
AFTER DRILLING ---

ELEVATION (ft)	DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS LIQUID LIMIT	ATTERBERG LIMITS PLASTIC LIMIT	ATTERBERG LIMITS PLASTICITY INDEX	FINES CONTENT (%)
505	0	▨	Organic Laden Material (OLM), 2" FAT CLAY (CH), red brown, stiff	SS		4-4-4 (8)			11				
		▨		SS		3-4-4 (8)			25	58	27	31	96
	5	▨		SS		5-4-4 (8)			20				
500		▧	LEAN CLAY with SAND (CL), red brown, gray, very stiff to hard	SS		6-12-15 (27)							
495	10	▧		SS		6-15-27 (42)							
490	15	▤	WEATHERED SHALE, brown, gray, hard	SS		14-50/1"							
485	20	▤		SS		15-50/2"							
480	25	▤		SS		16-50/1"							
475	30	▤		SS		50/5"							
			Boring was terminated at 30.0 feet.										
	35												

GMC

BORING NUMBER A-28

PAGE 1 OF 1

CLIENT Serverfarm
PROJECT NAME Serverfarm - AR Data Center
PROJECT NUMBER GBHM250047
PROJECT LOCATION Clarksville, AR
DATE STARTED 11/18/25 **COMPLETED** 11/18/25
GROUND ELEVATION 506 ft **HOLE SIZE** 5"
DRILLING CONTRACTOR Earth Core, LLC
GROUND WATER LEVELS:
DRILLING METHOD AIR ROTARY
∇ **AT TIME OF DRILLING** 26.00 ft / Elev 480.00 ft
LOGGED BY S. Wheeler **CHECKED BY** M. McNeill
AT END OF DRILLING ---
NOTES
AFTER DRILLING ---

ELEVATION (ft)	DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES CONTENT (%)
505	0		Organic Laden Material (OLM), 2" SANDY LEAN CLAY (CL), red brown, soft	SS		1-1-2 (3)			17				
				SS		1-2-2 (4)			26				
500	5		SANDY LEAN CLAY (CL), red brown, gray, very stiff	SS		3-9-12 (21)			20				
				SS		9-15-50/1"							
			WEATHERED SHALE, brown, gray, hard										
495	10			SS		13-25- 50/3"							
490	15		SANDSTONE, brown, hard WEATHERED SHALE, brown, gray, hard	SS		50/1"							
485	20			SS		50/3"							
	25			SS		50/1"							
480		∇											
475	30		Boring was terminated at 30.0 feet.	SS		50/1"							
	35												

BORING NUMBER A-29

PAGE 1 OF 1

CLIENT Serverfarm

PROJECT NAME Serverfarm - AR Data Center

PROJECT NUMBER GBHM250047

PROJECT LOCATION Clarksville, AR

DATE STARTED 11/21/25 **COMPLETED** 11/21/25

GROUND ELEVATION 522 ft **HOLE SIZE** 5"

DRILLING CONTRACTOR Earth Core, LLC

GROUND WATER LEVELS:

DRILLING METHOD AIR ROTARY

AT TIME OF DRILLING ---

LOGGED BY S. Wheeler **CHECKED BY** M. McNeill

AT END OF DRILLING ---

NOTES

AFTER DRILLING ---

ELEVATION (ft)	DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS			FINES CONTENT (%)
										LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX	
	0		Organic Laden Material (OLM), 1"	SS		50/1"							
			WEATHERED SANDSTONE, red brown, hard										
520				SS		50/1"			27				
	5		SANDY LEAN CLAY (CL), red brown, stiff	SS		2-4-6 (10)			25				
515			WEATHERED SHALE, brown, gray, hard	SS		20-50/5"			9				
	10			SS		10-50/2"			12				
510													
	15			SS		50/2"							
505													
	20			SS		50/1"							
500													
	25			SS		50/1"							
495													
	30			SS		50/1"							
			Boring was terminated at 30.0 feet.										
490													
	35												

BORING NUMBER A-30

PAGE 1 OF 1

CLIENT Serverfarm

PROJECT NAME Serverfarm - AR Data Center

PROJECT NUMBER GBHM250047

PROJECT LOCATION Clarksville, AR

DATE STARTED 11/21/25 **COMPLETED** 11/21/25

GROUND ELEVATION 507 ft **HOLE SIZE** 5"

DRILLING CONTRACTOR Earth Core, LLC

GROUND WATER LEVELS:

DRILLING METHOD AIR ROTARY

AT TIME OF DRILLING ---

LOGGED BY S. Wheeler **CHECKED BY** M. McNeill

AT END OF DRILLING ---

NOTES

AFTER DRILLING ---

ELEVATION (ft)	DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS LIQUID LIMIT	ATTERBERG LIMITS PLASTIC LIMIT	ATTERBERG LIMITS PLASTICITY INDEX	FINES CONTENT (%)
	0		Organic Laden Material (OLM), 4" SANDY LEAN CLAY (CL), red brown, soft to hard	SS		2-2-2 (4)			20				
505													
				SS		1-2-1 (3)			16				
	5			SS		5-15-25 (40)			14				
			SANDY LEAN CLAY (CL), red brown, hard, w/ sandstone fragments										
500				SS		50/2"			9				
			WEATHERED SHALE, brown, gray, hard										
				SS		50/3"			9				
	10												
495													
				SS		50/1"							
	15												
490													
				SS		50/1"							
	20												
485													
				SS		50/1"							
	25												
480													
	30												
			Boring was terminated at 30.0 feet.										
475													
	35												

BORING NUMBER A-31

PAGE 1 OF 1

CLIENT Serverfarm

PROJECT NAME Serverfarm - AR Data Center

PROJECT NUMBER GBHM250047

PROJECT LOCATION Clarksville, AR

DATE STARTED 11/21/25 **COMPLETED** 11/21/25

GROUND ELEVATION 521 ft **HOLE SIZE** 5"

DRILLING CONTRACTOR Earth Core, LLC

GROUND WATER LEVELS:

DRILLING METHOD AIR ROTARY

AT TIME OF DRILLING ---

LOGGED BY S. Wheeler **CHECKED BY** M. McNeill

AT END OF DRILLING ---

NOTES

AFTER DRILLING ---

ELEVATION (ft)	DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS LIQUID LIMIT	ATTERBERG LIMITS PLASTIC LIMIT	ATTERBERG LIMITS PLASTICITY INDEX	FINES CONTENT (%)
	0		Organic Laden Material (OLM), 2"										
520			SANDY LEAN CLAY (CL), red brown, soft to stiff	SS		3-2-3 (5)			14				
				SS		2-2-2 (4)			18				
515	5			SS		2-4-6 (10)			22				
			SANDY LEAN CLAY (CL), red brown, gray, hard	SS		6-16-26 (42)							
			WEATHERED SHALE, brown, gray, hard										
510	10			SS		15-50/3"							
505	15			SS		20-50/1"							
500	20			SS		50/3"							
495	25			SS		50/1"							
				SS		50/1"							
490	30		Boring was terminated at 30.0 feet.										
	35												

BORING NUMBER A-32

CLIENT Serverfarm

PROJECT NAME Serverfarm - AR Data Center

PROJECT NUMBER GBHM250047

PROJECT LOCATION Clarksville, AR

DATE STARTED 11/21/25 **COMPLETED** 11/21/25

GROUND ELEVATION 517 ft **HOLE SIZE** 5"

DRILLING CONTRACTOR Earth Core, LLC

GROUND WATER LEVELS:

DRILLING METHOD AIR ROTARY

▽ **AT TIME OF DRILLING** 5.50 ft / Elev 511.50 ft

LOGGED BY S. Wheeler **CHECKED BY** M. McNeill

AT END OF DRILLING ---

NOTES

AFTER DRILLING ---

ELEVATION (ft)	DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS			FINES CONTENT (%)
										LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX	
	0		Organic Laden Material (OLM), 3" SANDY SILTY CLAY (ML-CL), red brown, medium	SS		2-2-4 (6)				22	17	5	58
515				SS		2-2-3 (5)							
			LEAN CLAY with SAND (CL), red brown, medium										
	5	▽		SS		4-4-5 (9)							
510			LEAN CLAY (CL), red brown, gray, hard, w/ relic shale bedding	SS		10-50/5"							
				SS		15-50/1"							
	10												
505													
	15		WEATHERED SHALE, brown, gray, hard	SS		22-50/5"							
500													
	20			SS		50/1"							
495													
	25			SS		50/1"							
			Auger refusal was encountered at 25.0 feet.										
490													
	30												
485													
	35												

BORING NUMBER A-33

PAGE 1 OF 1

CLIENT Serverfarm
PROJECT NAME Serverfarm - AR Data Center
PROJECT NUMBER GBHM250047
PROJECT LOCATION Clarksville, AR
DATE STARTED 11/23/25 **COMPLETED** 11/23/25
GROUND ELEVATION 526 ft **HOLE SIZE** 5"
DRILLING CONTRACTOR Earth Core, LLC
GROUND WATER LEVELS:
DRILLING METHOD AIR ROTARY
AT TIME OF DRILLING ---
LOGGED BY S. Wheeler **CHECKED BY** M. McNeill
AT END OF DRILLING ---
NOTES
AFTER DRILLING ---

ELEVATION (ft)	DEPTH (ft) 0	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS			FINES CONTENT (%)
										LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX	
525			Organic Laden Material (OLM), 6" SANDY LEAN CLAY (CL), red brown, medium	SS		1-3-3 (6)							
				SS		3-4-4 (8)							
	5		WEATHERED SHALE, brown, gray, hard	SS		15-20-50/5"							
520				SS		50/5"							
	10			SS		50/5"							
515													
	15			SS		50/4"							
510													
	20			SS		50/5"							
505													
	25			SS		50/1"							
500													
			Auger refusal was encountered at 28.0 feet.										
	30												
495													
	35												

GMC

BORING NUMBER A-34

PAGE 1 OF 1

CLIENT Serverfarm

PROJECT NAME Serverfarm - AR Data Center

PROJECT NUMBER GBHM250047

PROJECT LOCATION Clarksville, AR

DATE STARTED 11/23/25 **COMPLETED** 11/23/25

GROUND ELEVATION 523 ft **HOLE SIZE** 5"

DRILLING CONTRACTOR Earth Core, LLC

GROUND WATER LEVELS:

DRILLING METHOD AIR ROTARY

AT TIME OF DRILLING ---

LOGGED BY S. Wheeler **CHECKED BY** M. McNeill

AT END OF DRILLING ---

NOTES

AFTER DRILLING ---

ELEVATION (ft)	DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES CONTENT (%)
	0		Organic Laden Material (OLM), 3" SANDY LEAN CLAY (CL), red brown, medium to stiff	SS		2-3-4 (7)							
520				SS		4-7-12 (19)							
	5			SS		8-8-12 (20)							
			WEATHERED SHALE, brown, gray, hard	SS		50/4"							
515	10			SS		50/4"							
510	15			SS		20-50/5"							
505			Auger refusal was encountered at 20.0 feet.	SS		50/1"							
	20		WEATHERED SHALE, brown, gray, soft	RC	100 (51)								
500	25		Boring was terminated at 25.0 feet.										
495	30												
490	35												

BORING NUMBER A-35

PAGE 1 OF 1

CLIENT Serverfarm

PROJECT NAME Serverfarm - AR Data Center

PROJECT NUMBER GBHM250047

PROJECT LOCATION Clarksville, AR

DATE STARTED 11/23/25 **COMPLETED** 11/23/25

GROUND ELEVATION 526 ft **HOLE SIZE** 5"

DRILLING CONTRACTOR Earth Core, LLC

GROUND WATER LEVELS:

DRILLING METHOD AIR ROTARY

AT TIME OF DRILLING ---

LOGGED BY S. Wheeler **CHECKED BY** M. McNeill

AT END OF DRILLING ---

NOTES

AFTER DRILLING ---

ELEVATION (ft)	DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS LIQUID LIMIT	ATTERBERG LIMITS PLASTIC LIMIT	ATTERBERG LIMITS PLASTICITY INDEX	FINES CONTENT (%)
525	0	▨	Organic Laden Material (OLM), 1" SANDY LEAN CLAY (CL), red brown, stiff	SS		2-4-6 (10)							
		▨		SS		4-4-5 (9)							
520	5	▨	SANDY LEAN CLAY (CL), brown, relic shale bedding	SS		8-12-18 (30)							
		▨		SS		15-50/2"							
515	10	☰	WEATHERED SHALE, brown, gray, hard	SS		50/5"							
510	15	☰		SS		21-50/5"							
505	20	☰		SS		50/5"							
500	25	☰		SS		50/1"							
495	30	☰		SS		50/1"							
			Boring was terminated at 30.0 feet.										
	35												

BORING NUMBER A-36

PAGE 1 OF 1

CLIENT Serverfarm

PROJECT NAME Serverfarm - AR Data Center

PROJECT NUMBER GBHM250047

PROJECT LOCATION Clarksville, AR

DATE STARTED 11/23/25 **COMPLETED** 11/23/25

GROUND ELEVATION 535 ft **HOLE SIZE** 5"

DRILLING CONTRACTOR Earth Core, LLC

GROUND WATER LEVELS:

DRILLING METHOD AIR ROTARY

AT TIME OF DRILLING ---

LOGGED BY S. Wheeler **CHECKED BY** M. McNeill

AT END OF DRILLING ---

NOTES

AFTER DRILLING ---

ELEVATION (ft)	DEPTH (ft)	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS LIQUID LIMIT	ATTERBERG LIMITS PLASTIC LIMIT	ATTERBERG LIMITS PLASTICITY INDEX	FINES CONTENT (%)
535	0	Organic Laden Material (OLM), 6" SANDY LEAN CLAY (CL), red brown, medium to stiff	SS		3-3-3 (6)							
			SS		4-5-8 (13)							
530	5	LEAN CLAY (CL), red brown, w/ relic shale bedding	SS		4-10-12 (22)							
			SS		10-20-50/3"							
525	10	WEATHERED SHALE, brown, gray, hard	SS		12-50/3"							
520	15		SS		50/2"							
515	20	Auger refusal was encountered at 20.0 feet.	SS		50/1"							
		WEATHERED SHALE, brown, gray, soft	RC	40 (0)								
510	25		RC	50 (0)								
505	30	Boring was terminated at 30.0 feet.										
500	35											

GMC

BORING NUMBER A-37

PAGE 1 OF 1

CLIENT Serverfarm
PROJECT NAME Serverfarm - AR Data Center
PROJECT NUMBER GBHM250047
PROJECT LOCATION Clarksville, AR
DATE STARTED 11/18/25 **COMPLETED** 11/18/25
GROUND ELEVATION 506 ft **HOLE SIZE** 5"
DRILLING CONTRACTOR Earth Core, LLC
GROUND WATER LEVELS:
DRILLING METHOD AIR ROTARY
∇ **AT TIME OF DRILLING** 21.00 ft / Elev 485.00 ft
LOGGED BY S. Wheeler **CHECKED BY** M. McNeill
AT END OF DRILLING ---
NOTES
AFTER DRILLING ---

ELEVATION (ft)	DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS			FINES CONTENT (%)
	0									LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX	
505			Organic Laden Material (OLM), 3" LEAN CLAY with SAND (CL), red brown, soft	SS		1-1-1 (2)			17				
				SS		2-2-2 (4)			25				
	5		LEAN CLAY (CL), red brown, gray, very stiff to hard	SS		3-12-15 (27)			19				
500													
				SS		6-16-20 (36)							
	10			SS		12-20-27 (47)							
495													
	15			SS		18-20-25 (45)							
490													
	20		WEATHERED SHALE, brown, gray, hard	SS		20-25-30 (55)							
485		∇											
	25			SS		50/1"							
480			Boring was terminated at 25.5 feet.										
	30												
475													
	35												

GMC

BORING NUMBER A-38

PAGE 1 OF 1

CLIENT Serverfarm
PROJECT NAME Serverfarm - AR Data Center
PROJECT NUMBER GBHM250047
PROJECT LOCATION Clarksville, AR
DATE STARTED 11/19/25 **COMPLETED** 11/19/25
GROUND ELEVATION 506 ft **HOLE SIZE** 5"
DRILLING CONTRACTOR Earth Core, LLC
GROUND WATER LEVELS:
DRILLING METHOD AIR ROTARY
∇ **AT TIME OF DRILLING** 23.00 ft / Elev 483.00 ft
LOGGED BY S. Wheeler **CHECKED BY** M. McNeill
AT END OF DRILLING ---
NOTES
AFTER DRILLING ---

ELEVATION (ft)	DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS LIQUID LIMIT	ATTERBERG LIMITS PLASTIC LIMIT	ATTERBERG LIMITS PLASTICITY INDEX	FINES CONTENT (%)
	0												
505		▨	Organic Laden Material (OLM), 3" LEAN CLAY with SAND (CL), red brown, medium	SS		3-3-3 (6)			19				
		▨		SS		3-2-3 (5)			14				
	5	▨	LEAN CLAY (CL), red brown, gray, stiff to hard	SS		3-4-6 (10)			21				
500		▨		SS		8-25-38 (63)							
	10	▨	- w/ relic shale bedding	SS		10-20-30 (50)							
495		▨											
	15	▨		SS		5-13-22 (35)							
490		▤	WEATHERED SHALE, brown, gray, hard										
	20	▤		SS		50/1"							
485		▤											
		▤ ∇											
	25	▤		SS		50/1"							
480		▤											
	30	▤		SS		50/1"							
			Boring was terminated at 30.0 feet.										
475													
	35												

GMC

BORING NUMBER A-39

CLIENT Serverfarm

PROJECT NAME Serverfarm - AR Data Center

PROJECT NUMBER GBHM250047

PROJECT LOCATION Clarksville, AR

DATE STARTED 11/19/25 **COMPLETED** 11/19/25

GROUND ELEVATION 509 ft **HOLE SIZE** 5"

DRILLING CONTRACTOR Earth Core, LLC

GROUND WATER LEVELS:

DRILLING METHOD AIR ROTARY

∇ **AT TIME OF DRILLING** 21.00 ft / Elev 488.00 ft

LOGGED BY S. Wheeler **CHECKED BY** M. McNeill

AT END OF DRILLING ---

NOTES

AFTER DRILLING ---

ELEVATION (ft)	DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS			FINES CONTENT (%)
										LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX	
	0		Organic Laden Material (OLM), 4"	SS		1-1-1 (2)			21				
			SANDY LEAN CLAY (CL), red brown, soft										
			WEATHERED SHALE, brown, gray, hard	SS		50/2"							
505	5			SS		10-50/3"			8				
				SS		20-50/1"							
500	10			SS		50/5"							
495	15			SS		50/1"							
490	20	∇		SS		50/1"							
485	25			SS		50/1"							
480	30			SS		50/1"							
			Boring was terminated at 30.0 feet.										
475	35												

BORING NUMBER A-40

PAGE 1 OF 1

CLIENT Serverfarm

PROJECT NAME Serverfarm - AR Data Center

PROJECT NUMBER GBHM250047

PROJECT LOCATION Clarksville, AR

DATE STARTED 11/19/25 **COMPLETED** 11/19/25

GROUND ELEVATION 531 ft **HOLE SIZE** 5"

DRILLING CONTRACTOR Earth Core, LLC

GROUND WATER LEVELS:

DRILLING METHOD AIR ROTARY

AT TIME OF DRILLING ---

LOGGED BY S. Wheeler **CHECKED BY** M. McNeill

AT END OF DRILLING ---

NOTES

AFTER DRILLING ---

ELEVATION (ft)	DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS			FINES CONTENT (%)
										LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX	
530	0		Organic Laden Material (OLM), 2.5" SANDY SILT (ML), red brown, soft to hard	SS		1-1-2 (3)			17	22	19	3	66
				SS		3-4-5 (9)			25				
525	5			SS		5-6-8 (14)			19				
				SS		11-12-50/3"							
520	10		WEATHERED SHALE, brown, gray, hard	SS		10-25-50/1"							
515	15			SS		10-50/1"							
510	20			SS		50/1"							
505	25		Auger refusal was encountered at 23.0 feet.										
500	30												
	35												

BORING NUMBER A-41

CLIENT Serverfarm

PROJECT NAME Serverfarm - AR Data Center

PROJECT NUMBER GBHM250047

PROJECT LOCATION Clarksville, AR

DATE STARTED 11/20/25 **COMPLETED** 11/20/25

GROUND ELEVATION 522 ft **HOLE SIZE** 5"

DRILLING CONTRACTOR Earth Core, LLC

GROUND WATER LEVELS:

DRILLING METHOD AIR ROTARY

∇ **AT TIME OF DRILLING** 6.00 ft / Elev 516.00 ft

LOGGED BY S. Wheeler **CHECKED BY** M. McNeill

AT END OF DRILLING ---

NOTES

AFTER DRILLING ---

ELEVATION (ft)	DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS			FINES CONTENT (%)
										LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX	
	0	▨	Organic Laden Material (OLM), 1" SANDY LEAN CLAY (CL), red brown, brown, medium, w/ some organics	☒ SS		2-2-4 (6)			23				
520		▨		☒ SS		2-3-2 (5)			28				
	5	▨	LEAN CLAY with SAND (CL), red brown, gray, stiff	☒ SS		4-4-5 (9)			21				
515		▨ ∇		☒ SS		6-6-9 (15)			21				
	10	▨		☒ SS		10-14-15 (29)							
510		▨											
	15	≡	WEATHERED SHALE, brown, hard	SS		50/2"							
			Auger refusal was encountered at 15.5 feet.										
505													
	20												
500													
	25												
495													
	30												
490													
	35												

BORING NUMBER A-42

CLIENT Serverfarm

PROJECT NAME Serverfarm - AR Data Center

PROJECT NUMBER GBHM250047

PROJECT LOCATION Clarksville, AR

DATE STARTED 11/20/25 **COMPLETED** 11/20/25

GROUND ELEVATION 527 ft **HOLE SIZE** 5"

DRILLING CONTRACTOR Earth Core, LLC

GROUND WATER LEVELS:

DRILLING METHOD AIR ROTARY

AT TIME OF DRILLING ---

LOGGED BY S. Wheeler **CHECKED BY** M. McNeill

AT END OF DRILLING ---

NOTES

AFTER DRILLING ---

ELEVATION (ft)	DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS LIQUID LIMIT	ATTERBERG LIMITS PLASTIC LIMIT	ATTERBERG LIMITS PLASTICITY INDEX	FINES CONTENT (%)
	0		Organic Laden Material (OLM), 2" SANDY LEAN CLAY (CL), red brown, soft	SS		1-2-2 (4)			17				
525				SS		2-2-2 (4)			15				
	5		LEAN CLAY with SAND (CL), red brown, gray, very stiff	SS		5-8-12 (20)			15				
520				SS		8-8-15 (23)			18				
	10			SS		8-8-12 (20)			14				
515													
	15		- hard	SS		12-18- 50/5"							
510													
	20		WEATHERED SHALE, brown, gray, hard	SS		50/4"							
505													
				SS		50/1"							
	25												
			Auger refusal was encountered at 25.5 feet.										
500													
	30												
495													
	35												

GMC

BORING NUMBER A-43

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CLIENT Serverfarm

PROJECT NAME Serverfarm - AR Data Center

PROJECT NUMBER GBHM250047

PROJECT LOCATION Clarksville, AR

DATE STARTED 11/19/25 **COMPLETED** 11/19/25

GROUND ELEVATION 524 ft **HOLE SIZE** 5"

DRILLING CONTRACTOR Earth Core, LLC

GROUND WATER LEVELS:

DRILLING METHOD AIR ROTARY

AT TIME OF DRILLING ---

LOGGED BY S. Wheeler **CHECKED BY** M. McNeill

AT END OF DRILLING ---

NOTES

AFTER DRILLING ---

ELEVATION (ft)	DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES CONTENT (%)
	0		Organic Laden Material (OLM), 4" SANDY LEAN CLAY (CL), brown, soft	SS		1-1-1 (2)			24				
			SANDY LEAN CLAY (CL), red brown, stiff to hard	SS		1-15-18 (33)			6				
520													
	5			SS		3-4-5 (9)			21				
			WEATHERED SHALE, brown, gray, hard										
				SS		12-15- 50/5"			18				
515													
	10			SS		15-50/5"			11				
510				SS		50/2"							
	15												
505				SS		50/1"							
	20												
500				SS		50/1"							
	25												
495				SS		50/1"							
	30		Boring was terminated at 30.0 feet.										
490													
	35												

GMC

BORING NUMBER A-44

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CLIENT Serverfarm
PROJECT NAME Serverfarm - AR Data Center
PROJECT NUMBER GBHM250047
PROJECT LOCATION Clarksville, AR
DATE STARTED 11/19/25 **COMPLETED** 11/19/25
GROUND ELEVATION 531 ft **HOLE SIZE** 5"
DRILLING CONTRACTOR Earth Core, LLC
GROUND WATER LEVELS:
DRILLING METHOD AIR ROTARY
AT TIME OF DRILLING ---
LOGGED BY S. Wheeler **CHECKED BY** M. McNeill
AT END OF DRILLING ---
NOTES
AFTER DRILLING ---

ELEVATION (ft)	DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS LIQUID LIMIT	ATTERBERG LIMITS PLASTIC LIMIT	ATTERBERG LIMITS PLASTICITY INDEX	FINES CONTENT (%)
530	0	▨	Organic Laden Material (OLM), 2" SANDY LEAN CLAY (CL), red brown, soft	SS		1-1-1 (2)			19				
		▨		SS		2-1-2 (3)			18				
	5	▨		SS		5-5-8 (13)			21				
525		▨	- stiff										
		▤	WEATHERED SHALE, brown, gray, hard	SS		10-50/1"							
	10	▤		SS		50/1"							
520		▤											
			Auger refusal was encountered at 13.0 feet.										
	15												
515													
	20												
510													
	25												
505													
	30												
500													
	35												

BORING NUMBER A-45

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CLIENT Serverfarm

PROJECT NAME Serverfarm - AR Data Center

PROJECT NUMBER GBHM250047

PROJECT LOCATION Clarksville, AR

DATE STARTED 11/23/25 **COMPLETED** 11/23/25

GROUND ELEVATION 543 ft **HOLE SIZE** 5"

DRILLING CONTRACTOR Earth Core, LLC

GROUND WATER LEVELS:

DRILLING METHOD AIR ROTARY

AT TIME OF DRILLING ---

LOGGED BY S. Wheeler **CHECKED BY** M. McNeill

AT END OF DRILLING ---

NOTES

AFTER DRILLING ---

ELEVATION (ft)	DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS LIQUID LIMIT	ATTERBERG LIMITS PLASTIC LIMIT	ATTERBERG LIMITS PLASTICITY INDEX	FINES CONTENT (%)
	0		Organic Laden Material (OLM), 1" SANDY LEAN CLAY (CL), red brown, soft	SS		2-1-1 (2)							
				SS		2-2-2 (4)							
540													
	5		SANDY LEAN CLAY (CL), red brown, gray, stiff to hard	SS		3-4-4 (8)							
				SS		10-25- 50/3"							
535													
	10		WEATHERED SHALE, brown, gray, hard	SS		50/5"							
530													
	15			SS		50/1"							
525													
	20			SS		50/1"							
520													
	25		WEATHERED SHALE, brown, gray, soft	RC	67 (0)								
515													
	30		Boring was terminated at 30.0 feet.										
510													
	35												

GMC

BORING NUMBER A-46

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CLIENT Serverfarm

PROJECT NAME Serverfarm - AR Data Center

PROJECT NUMBER GBHM250047

PROJECT LOCATION Clarksville, AR

DATE STARTED 12/2/25 **COMPLETED** 12/2/25

GROUND ELEVATION 545 ft **HOLE SIZE** 5"

DRILLING CONTRACTOR Earth Core, LLC

GROUND WATER LEVELS:

DRILLING METHOD AIR ROTARY

AT TIME OF DRILLING ---

LOGGED BY S. Wheeler **CHECKED BY** M. McNeill

AT END OF DRILLING ---

NOTES

AFTER DRILLING ---

ELEVATION (ft)	DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS			FINES CONTENT (%)
										LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX	
545	0	▨	Organic Laden Material (OLM), 2" LEAN CLAY (CL), red brown, brown, soft to medium	SS		3-3-4 (7)			21				
		▨		SS		2-2-2 (4)			22				
540	5	▨	LEAN CLAY with GRAVEL (CL), red brown, gray, very stiff to hard	SS		5-14-17 (31)			19				
		▨		SS		50/1"							
535	10	▨		SS		8-8-12 (20)			19				
530	15	▤	WEATHERED SHALE, brown, gray, hard	SS		50/5"							
525	20	▤		SS		50/1"							
520	25	▤		SS		50/1"							
			Auger refusal was encountered at 25.0 feet.										
515	30												
510	35												

BORING NUMBER A-47

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CLIENT Serverfarm

PROJECT NAME Serverfarm - AR Data Center

PROJECT NUMBER GBHM250047

PROJECT LOCATION Clarksville, AR

DATE STARTED 12/2/25 **COMPLETED** 12/2/25

GROUND ELEVATION 541 ft **HOLE SIZE** 5"

DRILLING CONTRACTOR Earth Core, LLC

GROUND WATER LEVELS:

DRILLING METHOD AIR ROTARY

AT TIME OF DRILLING ---

LOGGED BY S. Wheeler **CHECKED BY** M. McNeill

AT END OF DRILLING ---

NOTES

AFTER DRILLING ---

ELEVATION (ft)	DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS			FINES CONTENT (%)
										LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX	
	0												
540			Organic Laden Material (OLM), 2" SILTY CLAY with SAND (CL-ML), red brown, gray, medium to hard	SS		3-3-3 (6)			21	22	16	6	76
				SS		4-4-50/5"			17				
	5			SS		6-6-7 (13)			20				
535													
			WEATHERED SHALE, brown, gray, hard	SS		10-12-50/5"			14				
	10			SS		18-25-50/2"			14				
530													
	15			SS		21-50/5"							
525													
	20			SS		50/1"							
520													
	25			SS		50/1"							
515			Auger refusal was encountered at 25.0 feet.										
	30												
510													
	35												

GMC

BORING NUMBER A-48

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CLIENT Serverfarm	**PROJECT NAME** Serverfarm - AR Data Center
PROJECT NUMBER GBHM250047	**PROJECT LOCATION** Clarksville, AR
DATE STARTED 12/2/25 **COMPLETED** 12/2/25	**GROUND ELEVATION** 541 ft **HOLE SIZE** 5"
DRILLING CONTRACTOR Earth Core, LLC	**GROUND WATER LEVELS:**
DRILLING METHOD AIR ROTARY	∇ **AT TIME OF DRILLING** 8.00 ft / Elev 533.00 ft
LOGGED BY S. Wheeler **CHECKED BY** M. McNeill	**AT END OF DRILLING** ---
NOTES	**AFTER DRILLING** ---

ELEVATION (ft)	DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS LIQUID LIMIT	ATTERBERG LIMITS PLASTIC LIMIT	ATTERBERG LIMITS PLASTICITY INDEX	FINES CONTENT (%)
540	0		Organic Laden Material (OLM), 4" SANDY LEAN CLAY (CL), red brown, soft to medium	SS		2-2-3 (5)			23				
				SS		2-2-2 (4)			15				
535	5		SANDY LEAN CLAY with GRAVEL (CL), red brown, gray, very stiff	SS		21-15-10 (25)			12				
		∇	SILT (ML), brown, gray, stiff to very stiff, relic shale bedding	SS		7-7-8 (15)			13				
530	10			SS		8-8-8 (16)			11				
525	15		WEATHERED SHALE, brown, gray, hard	SS		50/4"							
520	20			SS		50/1"							
515	25			SS		50/1"							
			Boring was terminated at 25.0 feet.										
510	30												
	35												

BORING NUMBER A-49

CLIENT Serverfarm

PROJECT NAME Serverfarm - AR Data Center

PROJECT NUMBER GBHM250047

PROJECT LOCATION Clarksville, AR

DATE STARTED 12/2/25 **COMPLETED** 12/2/25

GROUND ELEVATION 461 ft **HOLE SIZE** 5"

DRILLING CONTRACTOR Earth Core, LLC

GROUND WATER LEVELS:

DRILLING METHOD AIR ROTARY

AT TIME OF DRILLING ---

LOGGED BY S. Wheeler **CHECKED BY** M. McNeill

AT END OF DRILLING ---

NOTES

▼ **AFTER DRILLING** 10.00 ft / Elev 451.00 ft

ELEVATION (ft)	DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS LIQUID LIMIT	ATTERBERG LIMITS PLASTIC LIMIT	ATTERBERG LIMITS PLASTICITY INDEX	FINES CONTENT (%)
	0		Organic Laden Material (OLM), 4"										
460			LEAN CLAY (CL), red brown, medium to stiff	SS		2-2-4 (6)			22				
				SS		4-4-5 (9)			11				
	5		LEAN CLAY (CL), red brown, hard, w/ sandstone fragments	SS		50/3"			11				
455				SS		50/2"							
	10	▼	WEATHERED SHALE, brown, gray, hard	SS		50/1"							
450													
	15		Auger refusal was encountered at 15.0 feet.										
445													
	20												
440													
	25												
435													
	30												
430													
	35												

BORING NUMBER A-50

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CLIENT Serverfarm

PROJECT NAME Serverfarm - AR Data Center

PROJECT NUMBER GBHM250047

PROJECT LOCATION Clarksville, AR

DATE STARTED 12/2/25 **COMPLETED** 12/2/25

GROUND ELEVATION 475 ft **HOLE SIZE** 5"

DRILLING CONTRACTOR Earth Core, LLC

GROUND WATER LEVELS:

DRILLING METHOD AIR ROTARY

AT TIME OF DRILLING ---

LOGGED BY S. Wheeler **CHECKED BY** M. McNeill

AT END OF DRILLING ---

NOTES

AFTER DRILLING ---

ELEVATION (ft)	DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS LIQUID LIMIT	ATTERBERG LIMITS PLASTIC LIMIT	ATTERBERG LIMITS PLASTICITY INDEX	FINES CONTENT (%)
475	0	▨	SANDY LEAN CLAY (CL), red brown, medium, w/ sandstone fragments	SS		3-3-3 (6)			19	29	17	12	62
		▨		SS		3-50/2"			17				
470	5	▨		SS		8-15-24 (39)			23				
		▤	WEATHERED SHALE, brown, gray, hard	SS		12-50/3"							
465	10	▤		SS		8-20-18 (38)							
460	15	▤		SS		50/2"							
455	20	▤		SS		50/1"							
			Boring was terminated at 20.5 feet.										
450	25												
445	30												
440	35												

BORING NUMBER A-51

CLIENT Serverfarm

PROJECT NAME Serverfarm - AR Data Center

PROJECT NUMBER GBHM250047

PROJECT LOCATION Clarksville, AR

DATE STARTED 12/2/25 **COMPLETED** 12/2/25

GROUND ELEVATION 490 ft **HOLE SIZE** 5"

DRILLING CONTRACTOR Earth Core, LLC

GROUND WATER LEVELS:

DRILLING METHOD AIR ROTARY

AT TIME OF DRILLING ---

LOGGED BY S. Wheeler **CHECKED BY** M. McNeill

AT END OF DRILLING ---

NOTES

▼ **AFTER DRILLING** 6.00 ft / Elev 484.00 ft

ELEVATION (ft)	DEPTH (ft)	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS LIQUID LIMIT	ATTERBERG LIMITS PLASTIC LIMIT	ATTERBERG LIMITS PLASTICITY INDEX	FINES CONTENT (%)
490	0	Organic Laden Material (OLM), 3" SANDY SILT (ML), brown, medium to stiff	SS		3-3-5 (8)			21				
			SS		4-6-4 (10)			23				
485	5	SANDY LEAN CLAY (CL), red brown, gray, stiff	SS		5-6-8 (14)			23				
		SILT (ML), brown, gray, very stiff, w/ relic shale bedding	SS		8-10-12 (22)							
480	10		SS		8-10-10 (20)							
475	15	WEATHERED SHALE, brown, gray, hard	SS		50/2"							
470	20		SS		50/1"							
465	25		SS		50/1"							
460	30		SS		50/1"							
		Boring was terminated at 30.5 feet.										
455	35											

GMC

BORING NUMBER AB-01

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CLIENT Serverfarm

PROJECT NAME Serverfarm - AR Data Center

PROJECT NUMBER GBHM250047

PROJECT LOCATION Clarksville, AR

DATE STARTED 11/10/25 **COMPLETED** 11/10/25

GROUND ELEVATION 430 ft **HOLE SIZE** 5"

DRILLING CONTRACTOR Earth Core, LLC

GROUND WATER LEVELS:

DRILLING METHOD AIR ROTARY

AT TIME OF DRILLING ---

LOGGED BY S. Wheeler **CHECKED BY** M. McNeill

AT END OF DRILLING ---

NOTES

AFTER DRILLING ---

ELEVATION (ft)	DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS LIQUID LIMIT	ATTERBERG LIMITS PLASTIC LIMIT	ATTERBERG LIMITS PLASTICITY INDEX	FINES CONTENT (%)
430	0		Organic Laden Material (OLM), 8"	SS		1-1-1 (2)			16				
			SANDY LEAN CLAY (CL), brown, soft, w/ gravel fragments	SS		1-1-1 (2)			18				
				SS		50/1"							
425	5		Auger refusal was encountered at 5.0 feet.										
420	10												
415	15												
410	20												
405	25												
400	30												
395	35												

BORING NUMBER AB-02

CLIENT Serverfarm

PROJECT NAME Serverfarm - AR Data Center

PROJECT NUMBER GBHM250047

PROJECT LOCATION Clarksville, AR

DATE STARTED 11/10/25 **COMPLETED** 11/10/25

GROUND ELEVATION 438 ft **HOLE SIZE** 5"

DRILLING CONTRACTOR Earth Core, LLC

GROUND WATER LEVELS:

DRILLING METHOD AIR ROTARY

AT TIME OF DRILLING ---

LOGGED BY S. Wheeler **CHECKED BY** M. McNeill

AT END OF DRILLING ---

NOTES

AFTER DRILLING ---

ELEVATION (ft)	DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS			FINES CONTENT (%)
										LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX	
	0		Organic Laden Material (OLM), 8"	SS		2-3-1 (4)			16				
435			SANDY LEAN CLAY (CL), brown, stiff to very stiff	SS		4-7-16 (23)			10				
	5		Auger refusal was encountered at 4.0 feet.	SS		50/1"							
430													
	10												
425													
	15												
420													
	20												
415													
	25												
410													
	30												
405													
	35												

BORING NUMBER AB-03

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CLIENT Serverfarm

PROJECT NAME Serverfarm - AR Data Center

PROJECT NUMBER GBHM250047

PROJECT LOCATION Clarksville, AR

DATE STARTED 12/3/25 **COMPLETED** 12/3/25

GROUND ELEVATION 438 ft **HOLE SIZE** 5"

DRILLING CONTRACTOR Earth Core, LLC

GROUND WATER LEVELS:

DRILLING METHOD AIR ROTARY

AT TIME OF DRILLING ---

LOGGED BY S. Wheeler **CHECKED BY** M. McNeill

AT END OF DRILLING ---

NOTES

▼ **AFTER DRILLING** 5.50 ft / Elev 432.50 ft

ELEVATION (ft)	DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS LIQUID LIMIT	ATTERBERG LIMITS PLASTIC LIMIT	ATTERBERG LIMITS PLASTICITY INDEX	FINES CONTENT (%)
	0		Organic Laden Material (OLM), 2.5" SANDY LEAN CLAY (CL), red brown, stiff	SS		3-5-9 (14)			13				
435				SS		2-8-8 (16)			20	27	17	10	69
	5		CLAYEY SAND (SC), brown, very dense, w/ sandstone fragments	SS		8-50/2"			14				
		▼											
430				SS		50/2"							
	10		WEATHERED SHALE, brown, gray, hard	SS		50/1"							
425													
	15			SS		50/1"							
			Auger refusal was encountered at 15.0 feet.										
420													
	20												
415													
	25												
410													
	30												
405													
	35												

GMC

BORING NUMBER AB-04

PAGE 1 OF 1

CLIENT Serverfarm
PROJECT NAME Serverfarm - AR Data Center
PROJECT NUMBER GBHM250047
PROJECT LOCATION Clarksville, AR
DATE STARTED 11/10/25 **COMPLETED** 11/10/25
GROUND ELEVATION 449 ft **HOLE SIZE** 5"
DRILLING CONTRACTOR Earth Core, LLC
GROUND WATER LEVELS:
DRILLING METHOD AIR ROTARY
AT TIME OF DRILLING ---
LOGGED BY S. Wheeler **CHECKED BY** M. McNeill
AT END OF DRILLING ---
NOTES
▽ **AFTER DRILLING** 15.00 ft / Elev 434.00 ft

ELEVATION (ft)	DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS LIQUID LIMIT	ATTERBERG LIMITS PLASTIC LIMIT	ATTERBERG LIMITS PLASTICITY INDEX	FINES CONTENT (%)
	0		Organic Laden Material (OLM), 8"	SS		1-3-6 (9)			10				
			SANDY LEAN CLAY with GRAVEL (CL), brown, stiff										
				SS		16-50/5"			9				
445			LEAN CLAY with SAND (CL), reddish brown, gray, very stiff	SS		8-8-10 (18)			16				
	5												
				SS		3-16-50/5"							
440			WEATHERED SHALE, brown, gray, hard										
	10			SS		50/3"							
435													
	15	▽											
				SS		50/1"							
			Auger refusal was encountered at 16.0 feet.										
430													
	20												
425													
	25												
420													
	30												
415													
	35												

BORING NUMBER AB-05

PAGE 1 OF 1

CLIENT Serverfarm

PROJECT NAME Serverfarm - AR Data Center

PROJECT NUMBER GBHM250047

PROJECT LOCATION Clarksville, AR

DATE STARTED 12/3/25 **COMPLETED** 12/3/25

GROUND ELEVATION 442 ft **HOLE SIZE** 5"

DRILLING CONTRACTOR Earth Core, LLC

GROUND WATER LEVELS:

DRILLING METHOD AIR ROTARY

AT TIME OF DRILLING ---

LOGGED BY S. Wheeler **CHECKED BY** M. McNeill

AT END OF DRILLING ---

NOTES

▼ **AFTER DRILLING** 15.00 ft / Elev 427.00 ft

ELEVATION (ft)	DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS LIQUID LIMIT	ATTERBERG LIMITS PLASTIC LIMIT	ATTERBERG LIMITS PLASTICITY INDEX	FINES CONTENT (%)
	0		Organic Laden Material (OLM), 4" SANDY LEAN CLAY with GRAVEL (CL), red brown, gray, medium to stiff	SS		2-2-3 (5)			16				
440				SS		3-4-5 (9)			15				
				SS		50/3"			18				
	5												
435			WEATHERED SHALE, brown, hard	SS		50/1"							
	10		SILT (ML), brown, very stiff, w/ relic shale bedding	SS		6-8-10 (18)							
430													
	15	▼	WEATHERED SHALE, brown, gray, hard	SS		50/1"							
425													
	20			SS		50/1"							
420													
	25			SS		50/1"							
415													
	30			SS		50/1"							
			Boring was terminated at 30.5 feet.										
410													
	35												

BORING NUMBER AR-1

PAGE 1 OF 1

CLIENT Serverfarm

PROJECT NAME Serverfarm - AR Data Center

PROJECT NUMBER GBHM250047

PROJECT LOCATION Clarksville, AR

DATE STARTED 12/2/25 **COMPLETED** 12/2/25

GROUND ELEVATION 475 ft **HOLE SIZE** 5"

DRILLING CONTRACTOR Earth Core, LLC

GROUND WATER LEVELS:

DRILLING METHOD AIR ROTARY

AT TIME OF DRILLING ---

LOGGED BY S. Wheeler **CHECKED BY** M. McNeill

AT END OF DRILLING ---

NOTES

AFTER DRILLING ---

ELEVATION (ft)	DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS			FINES CONTENT (%)
										LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX	
475	0		Organic Laden Material (OLM), 3" SANDY SILT (ML), red brown, medium to stiff	SS		2-2-3 (5)			17				
				SS		4-5-6 (11)			17				
470	5		LEAN CLAY (CL), red brown, gray, stiff	SS		5-5-5 (10)			25				
				SS		6-8-6 (14)			21				
465	10		WEATHERED SHALE, brown, hard	SS		8-8-21 (29)							
460	15			SS		50/1"							
			Boring was terminated at 15.0 feet.										
455	20												
450	25												
445	30												
440	35												

BORING NUMBER AR-2

GMC

CLIENT Serverfarm

PROJECT NAME Serverfarm - AR Data Center

PROJECT NUMBER GBHM250047

PROJECT LOCATION Clarksville, AR

DATE STARTED 12/2/25 **COMPLETED** 12/2/25

GROUND ELEVATION 486 ft **HOLE SIZE** 5"

DRILLING CONTRACTOR Earth Core, LLC

GROUND WATER LEVELS:

DRILLING METHOD AIR ROTARY

∇ **AT TIME OF DRILLING** 15.00 ft / Elev 471.00 ft

LOGGED BY S. Wheeler **CHECKED BY** M. McNeill

AT END OF DRILLING ---

NOTES

AFTER DRILLING ---

ELEVATION (ft)	DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS			FINES CONTENT (%)
										LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX	
	0		Organic Laden Material (OLM), 5"										
485			SANDY LEAN CLAY (CL), red brown, brown, medium to stiff	SS		2-4-6 (10)			22				
				SS		4-4-4 (8)			19				
	5		LEAN CLAY (CL), red brown, gray, medium	SS		2-2-4 (6)			23				
480													
			WEATHERED SHALE, brown, hard	SS		8-8-50/5"			11				
	10			SS		8-8-50/5"							
475													
	15	∇		SS		50/1"							
			Boring was terminated at 15.0 feet.										
470													
	20												
465													
	25												
460													
	30												
455													
	35												

BORING NUMBER AS-01

PAGE 1 OF 1

CLIENT Serverfarm

PROJECT NAME Serverfarm - AR Data Center

PROJECT NUMBER GBHM250047

PROJECT LOCATION Clarksville, AR

DATE STARTED 11/7/25 **COMPLETED** 11/7/25

GROUND ELEVATION 453 ft **HOLE SIZE** 5"

DRILLING CONTRACTOR Earth Core, LLC

GROUND WATER LEVELS:

DRILLING METHOD AIR ROTARY

AT TIME OF DRILLING ---

LOGGED BY S. Wheeler **CHECKED BY** M. McNeill

AT END OF DRILLING ---

NOTES offset 4' N, refusal at 3.5'

AFTER DRILLING ---

ELEVATION (ft)	DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS LIQUID LIMIT	ATTERBERG LIMITS PLASTIC LIMIT	ATTERBERG LIMITS PLASTICITY INDEX	FINES CONTENT (%)
	0		Organic Laden Material (OLM), 2"										
			SANDY SILT (ML), brown, reddish brown, very stiff	SS		6-8-8 (16)			18				
			WEATHERED SHALE, brown, hard	SS		6-12-50/5"			9				
450													
			Auger refusal was encountered at 3.5 feet.										
	5												
445													
	10												
440													
	15												
435													
	20												
430													
	25												
425													
	30												
420													
	35												

GMC

BORING NUMBER AS-02

PAGE 1 OF 1

CLIENT Serverfarm
PROJECT NAME Serverfarm - AR Data Center
PROJECT NUMBER GBHM250047
PROJECT LOCATION Clarksville, AR
DATE STARTED 12/4/25 **COMPLETED** 12/4/25
GROUND ELEVATION 459 ft **HOLE SIZE** 5"
DRILLING CONTRACTOR Earth Core, LLC
GROUND WATER LEVELS:
DRILLING METHOD AIR ROTARY
AT TIME OF DRILLING ---
LOGGED BY S. Wheeler **CHECKED BY** M. McNeill
AT END OF DRILLING ---
NOTES
AFTER DRILLING ---

ELEVATION (ft)	DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS LIQUID LIMIT	ATTERBERG LIMITS PLASTIC LIMIT	ATTERBERG LIMITS PLASTICITY INDEX	FINES CONTENT (%)
	0		Organic Laden Material (OLM), 4"										
			LEAN CLAY with SAND (CL), red brown, very soft	SS		1-1-1 (2)				45	22	23	82
			WEATHERED SANDSTONE, red brown	SS		50/1"							
			LEAN CLAY (CL), red brown, gray, hard										
455													
	5			SS		24-25- 50/1"							
			LEAN CLAY (CL), brown, very stiff to hard, with relic shale bedding	SS		20-25-20 (45)							
450													
	10			SS		10-12-15 (27)							
445													
				SS		21-50/1"							
	15												
440													
			WEATHERED SHALE, brown, gray, hard	SS		50/1"							
	20												
435													
				SS		50/1"							
	25												
430													
				SS		50/1"							
	30												
			Boring was terminated at 30.5 feet.										
425													
	35												

BORING NUMBER AS-03

PAGE 1 OF 1

CLIENT Serverfarm
PROJECT NAME Serverfarm - AR Data Center
PROJECT NUMBER GBHM250047
PROJECT LOCATION Clarksville, AR
DATE STARTED 12/3/25 **COMPLETED** 12/3/25
GROUND ELEVATION 460 ft **HOLE SIZE** 5"
DRILLING CONTRACTOR Earth Core, LLC
GROUND WATER LEVELS:
DRILLING METHOD AIR ROTARY
AT TIME OF DRILLING ---
LOGGED BY S. Wheeler **CHECKED BY** M. McNeill
AT END OF DRILLING ---
NOTES
▽ **AFTER DRILLING** 25.00 ft / Elev 435.00 ft

ELEVATION (ft)	DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX	FINES CONTENT (%)
460	0		Organic Laden Material (OLM), 4" SANDY LEAN CLAY (CL), red brown, brown, soft	SS		1-1-1 (2)							
				SS		1-1-1 (2)							
455	5		SANDY LEAN CLAY (CL)	SS		5-5-5 (10)							
				SS		50/1"							
450	10			SS		8-12-13 (25)							
445	15		WEATHERED SHALE, brown, gray, hard	SS		50/2"							
440	20			SS		50/1"							
435	25	▽		SS		50/1"							
430	30			SS		50/1"							
			Boring was terminated at 30.5 feet.										
425	35												

BORING NUMBER AS-04

PAGE 1 OF 1

CLIENT Serverfarm

PROJECT NAME Serverfarm - AR Data Center

PROJECT NUMBER GBHM250047

PROJECT LOCATION Clarksville, AR

DATE STARTED 11/7/25 **COMPLETED** 11/7/25

GROUND ELEVATION 461 ft **HOLE SIZE** 5"

DRILLING CONTRACTOR Earth Core, LLC

GROUND WATER LEVELS:

DRILLING METHOD AIR ROTARY

AT TIME OF DRILLING ---

LOGGED BY S. Wheeler **CHECKED BY** M. McNeill

AT END OF DRILLING ---

NOTES

▼ **AFTER DRILLING** 12.00 ft / Elev 449.00 ft

ELEVATION (ft)	DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS			FINES CONTENT (%)
										LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX	
460	0		Organic Laden Material (OLM), 2" SANDY LEAN CLAY (CL), reddish brown, stiff	SS		6-6-8 (14)			20				
				SS		8-12-15 (27)			12				
455	5		LEAN CLAY (CL), brown, gray, very stiff	SS		6-8-18 (26)							
				SS		6-18-50/5"							
450	10		SANDY LEAN CLAY (CL), brown, hard, w/ relic shale bedding	SS		18-21-50/5"							
		▼											
445	15		WEATHERED SHALE, brown, gray, hard	SS		28-50/2"							
			Auger refusal was encountered at 17.0 feet.										
440	20												
435	25												
430	30												
	35												

GMC

BORING NUMBER AS-05

PAGE 1 OF 1

CLIENT Serverfarm

PROJECT NAME Serverfarm - AR Data Center

PROJECT NUMBER GBHM250047

PROJECT LOCATION Clarksville, AR

DATE STARTED 11/7/25 **COMPLETED** 11/7/25

GROUND ELEVATION 473 ft **HOLE SIZE** 5"

DRILLING CONTRACTOR Earth Core, LLC

GROUND WATER LEVELS:

DRILLING METHOD AIR ROTARY

AT TIME OF DRILLING ---

LOGGED BY S. Wheeler **CHECKED BY** M. McNeill

AT END OF DRILLING ---

NOTES

AFTER DRILLING ---

ELEVATION (ft)	DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS LIQUID LIMIT	ATTERBERG LIMITS PLASTIC LIMIT	ATTERBERG LIMITS PLASTICITY INDEX	FINES CONTENT (%)
	0		Organic Laden Material (OLM), 3"										
		▨	LEAN CLAY (CL), reddish brown, hard, w/ relic shale bedding	SS		8-8-50/5"			23				
		▨		SS		50/1"							
470		▨	LEAN CLAY (CL), reddish brown, gray, stiff										
	5	▨		SS		3-4-6 (10)							
			Auger refusal was encountered at 5.5 feet.										
465													
	10												
460													
	15												
455													
	20												
450													
	25												
445													
	30												
440													
	35												

BORING NUMBER AS-06

CLIENT Serverfarm

PROJECT NAME Serverfarm - AR Data Center

PROJECT NUMBER GBHM250047

PROJECT LOCATION Clarksville, AR

DATE STARTED 12/2/25 **COMPLETED** 12/2/25

GROUND ELEVATION 473 ft **HOLE SIZE** 5"

DRILLING CONTRACTOR Earth Core, LLC

GROUND WATER LEVELS:

DRILLING METHOD AIR ROTARY

AT TIME OF DRILLING ---

LOGGED BY S. Wheeler **CHECKED BY** M. McNeill

AT END OF DRILLING ---

NOTES

AFTER DRILLING ---

ELEVATION (ft)	DEPTH (ft)	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS LIQUID LIMIT	ATTERBERG LIMITS PLASTIC LIMIT	ATTERBERG LIMITS PLASTICITY INDEX	FINES CONTENT (%)
	0	Organic Laden Material (OLM), 4"										
		LEAN CLAY (CL), red brown, soft to hard	SS		1-1-1 (2)							
			SS		2-2-50/1"							
470												
		LEAN CLAY (CL), red brown, gray, very stiff	SS		7-8-11 (19)							
	5											
		LEAN CLAY (CL), brown, hard, w/ relic shale bedding	SS		8-16-23 (39)							
465												
			SS		6-6-50/3"							
	10											
460												
		WEATHERED SHALE, brown, hard	SS		50/1"							
	15											
		Boring was terminated at 15.5 feet.										
455												
	20											
450												
	25											
445												
	30											
440												
	35											

BORING NUMBER AS-07

CLIENT Serverfarm

PROJECT NAME Serverfarm - AR Data Center

PROJECT NUMBER GBHM250047

PROJECT LOCATION Clarksville, AR

DATE STARTED 11/7/25 **COMPLETED** 11/7/25

GROUND ELEVATION 475 ft **HOLE SIZE** 5"

DRILLING CONTRACTOR Earth Core, LLC

GROUND WATER LEVELS:

DRILLING METHOD AIR ROTARY

AT TIME OF DRILLING ---

LOGGED BY S. Wheeler **CHECKED BY** M. McNeill

AT END OF DRILLING ---

NOTES

▼ **AFTER DRILLING** 15.00 ft / Elev 460.00 ft

ELEVATION (ft)	DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES CONTENT (%)
475	0	▨	Organic Laden Material (OLM), 1" LEAN CLAY (CL), reddish brown, very stiff	SS		8-16-23 (39)			16				
		▨		SS		50/1"							
470	5	▨	LEAN CLAY (CL), brown, reddish brown, very stiff	SS		6-8-9 (17)			22	34	20	14	87
		▨	LEAN CLAY (CL), brown, reddish brown, hard	SS		18-21-50/5"							
465	10	▨		SS		8-18-18 (36)							
460	15	☰ ▼	WEATHERED SHALE, brown, gray	SS		50/1"							
			Auger refusal was encountered at 17.0 feet.										
455	20												
450	25												
445	30												
440	35												

BORING NUMBER AS-08

CLIENT Serverfarm
PROJECT NAME Serverfarm - AR Data Center
PROJECT NUMBER GBHM250047
PROJECT LOCATION Clarksville, AR
DATE STARTED 12/3/25 **COMPLETED** 12/3/25
GROUND ELEVATION 478 ft **HOLE SIZE** 5"
DRILLING CONTRACTOR Earth Core, LLC
GROUND WATER LEVELS:
DRILLING METHOD AIR ROTARY
AT TIME OF DRILLING ---
LOGGED BY S. Wheeler **CHECKED BY** M. McNeill
AT END OF DRILLING ---
NOTES
▽ **AFTER DRILLING** 30.50 ft / Elev 447.50 ft

ELEVATION (ft)	DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES CONTENT (%)
	0		Organic Laden Material (OLM), 4"										
		▨	LEAN CLAY (CL), red brown, soft	☒ SS		1-2-2 (4)			20				
		▨	SANDY LEAN CLAY with GRAVEL (CL), red brown, gray, stiff	☒ SS		4-5-7 (12)			22				
475		▨											
	5	▨		☒ SS		4-5-7 (12)			20				
470		▨	LEAN CLAY (CL), brown, hard, w/ relic bedding	☒ SS		8-15-50/4"							
	10	▨	LEAN CLAY (CL), red brown, gray, stiff	☒ SS		4-4-9 (13)							
465		▨											
	15	▨		☒ SS		8-8-9 (17)							
460		▨											
	20	☰	WEATHERED SHALE, brown, gray, hard	☒ SS		21-50/2"							
455		☰											
	25	☰		SS		50/1"							
450		☰											
	30	☰		SS		50/1"							
		▽	Boring was terminated at 30.5 feet.										
445													
	35												

BORING NUMBER AS-09

PAGE 1 OF 1

CLIENT Serverfarm

PROJECT NAME Serverfarm - AR Data Center

PROJECT NUMBER GBHM250047

PROJECT LOCATION Clarksville, AR

DATE STARTED 11/4/25 **COMPLETED** 11/4/25

GROUND ELEVATION 482 ft **HOLE SIZE** 5"

DRILLING CONTRACTOR Earth Core, LLC

GROUND WATER LEVELS:

DRILLING METHOD AIR ROTARY

AT TIME OF DRILLING ---

LOGGED BY S. Wheeler **CHECKED BY** M. McNeill

AT END OF DRILLING ---

NOTES

AFTER DRILLING ---

ELEVATION (ft)	DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS LIQUID LIMIT	ATTERBERG LIMITS PLASTIC LIMIT	ATTERBERG LIMITS PLASTICITY INDEX	FINES CONTENT (%)
	0		Organic Laden Material (OLM), 1" FAT CLAY (CH), red brown, soft	SS		1-1-2 (3)			23				
480				SS		1-1-1 (2)			20				
	5		LEAN CLAY (CL), red brown, gray, stiff to very stiff	SS		6-5-6 (11)			21				
475				SS		8-8-8 (16)							
	10		WEATHERED SHALE, brown, gray, hard	SS		18-50/5"							
470													
	15			SS		6-12-50/1"							
465													
	20			SS		50/1"							
460													
	25			SS		50/1"							
455													
	30		Boring was terminated at 30.5 feet.										
450													
	35												

GMC

BORING NUMBER AS-10

PAGE 1 OF 1

CLIENT Serverfarm

PROJECT NAME Serverfarm - AR Data Center

PROJECT NUMBER GBHM250047

PROJECT LOCATION Clarksville, AR

DATE STARTED 11/7/25 **COMPLETED** 11/7/25

GROUND ELEVATION 489 ft **HOLE SIZE** 5"

DRILLING CONTRACTOR Earth Core, LLC

GROUND WATER LEVELS:

DRILLING METHOD AIR ROTARY

AT TIME OF DRILLING ---

LOGGED BY S. Wheeler **CHECKED BY** M. McNeill

AT END OF DRILLING ---

NOTES

AFTER DRILLING ---

ELEVATION (ft)	DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS LIQUID LIMIT	ATTERBERG LIMITS PLASTIC LIMIT	ATTERBERG LIMITS PLASTICITY INDEX	FINES CONTENT (%)
	0		Organic Laden Material (OLM), 2"										
		▨	SANDY LEAN CLAY with GRAVEL (CL), reddish brown, medium	SS		1-2-3 (5)			11				
		▨	Auger refusal was encountered at 2.5 feet.	SS		50/1"							
485	5	☰	WEATHERED SHALE, brown, very soft	RC	22 (0)								
480	10	☰		RC	18 (0)								
475	15	☰	WEATHERED SHALE, brown, soft	RC	37 (0)								
470	20	☰		RC	75 (0)								
465	25		Boring was terminated at 23.0 feet.										
460	30												
455	35												

BORING NUMBER AS-11

PAGE 1 OF 1

CLIENT Serverfarm

PROJECT NAME Serverfarm - AR Data Center

PROJECT NUMBER GBHM250047

PROJECT LOCATION Clarksville, AR

DATE STARTED 11/7/25 **COMPLETED** 11/7/25

GROUND ELEVATION 490 ft **HOLE SIZE** 5"

DRILLING CONTRACTOR Earth Core, LLC

GROUND WATER LEVELS:

DRILLING METHOD AIR ROTARY

AT TIME OF DRILLING ---

LOGGED BY S. Wheeler **CHECKED BY** M. McNeill

AT END OF DRILLING ---

NOTES

▼ **AFTER DRILLING** 24.00 ft / Elev 466.00 ft

ELEVATION (ft)	DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS LIQUID LIMIT	ATTERBERG LIMITS PLASTIC LIMIT	ATTERBERG LIMITS PLASTICITY INDEX	FINES CONTENT (%)
490	0	▨	Organic Laden Material (OLM), 2" LEAN CLAY with SAND (CL), reddish brown, brown, stiff to very stiff	SS		4-4-9 (13)			19				
		▨		SS		8-8-9 (17)			16				
485	5	▨		SS		10-12-13 (25)			19	34	21	13	70
		☰	WEATHERED SHALE, brown, gray	SS		18-50/5"			11				
480	10	☰		SS		50/5"							
475	15	☰		SS		24-50/4"							
470	20	☰		SS		50/4"							
		☰ ▼											
465	25	☰		SS		50/2"							
			Auger refusal was encountered at 28.0 feet.										
460	30												
455	35												

GMC

BORING NUMBER AS-12

PAGE 1 OF 1

CLIENT Serverfarm

PROJECT NAME Serverfarm - AR Data Center

PROJECT NUMBER GBHM250047

PROJECT LOCATION Clarksville, AR

DATE STARTED 12/4/25 **COMPLETED** 12/4/25

GROUND ELEVATION 492 ft **HOLE SIZE** 5"

DRILLING CONTRACTOR Earth Core, LLC

GROUND WATER LEVELS:

DRILLING METHOD AIR ROTARY

AT TIME OF DRILLING ---

LOGGED BY S. Wheeler **CHECKED BY** M. McNeill

AT END OF DRILLING ---

NOTES

▼ **AFTER DRILLING** 15.00 ft / Elev 477.00 ft

ELEVATION (ft)	DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS			FINES CONTENT (%)
										LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX	
	0		Organic Laden Material (OLM), 3"	SS		1-1-1 (2)							
		▨	LEAN CLAY (CL), red brown, soft										
490		▨	SANDY LEAN CLAY (CL), red brown, medium	SS		2-4-4 (8)							
	5	▨		SS		4-4-4 (8)							
485		▨	LEAN CLAY (CL), brown, gray, hard, with relic shale bedding	SS		50/1"							
	10	▨		SS		6-10-50/3"							
480		▨											
	15	▨ ▼		SS		21-50/4"							
			Boring was terminated at 15.5 feet.										
475													
	20												
470													
	25												
465													
	30												
460													
	35												

BORING NUMBER AS-12A

PAGE 1 OF 1

CLIENT Serverfarm
PROJECT NAME Serverfarm - AR Data Center
PROJECT NUMBER GBHM250047
PROJECT LOCATION Clarksville, AR
DATE STARTED 11/4/25 **COMPLETED** 11/4/25
GROUND ELEVATION 492 ft **HOLE SIZE** 5"
DRILLING CONTRACTOR Earth Core, LLC
GROUND WATER LEVELS:
DRILLING METHOD AIR ROTARY
AT TIME OF DRILLING ---
LOGGED BY S. Wheeler **CHECKED BY** M. McNeill
AT END OF DRILLING ---
NOTES
AFTER DRILLING ---

ELEVATION (ft)	DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS			FINES CONTENT (%)
										LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX	
	0		Organic Laden Material (OLM), 3"										
		▨	LEAN CLAY (CL), red brown, hard	SS		6-8-50/4"							
490		▨		SS		50/1"							
		▨	Auger refusal was encountered at 3.0 feet.										
		░	SANDSTONE, red brown, medium										
		▨	LEAN CLAY (CL), red brown, gray										
	5	▨		RC	37 (7)								
485		▨											
		☰	WEATHERED SHALE, brown, very soft										
	10	☰		RC	82 (0)								
480		☰											
		☰	WEATHERED SHALE, brown, very soft										
	15	☰		RC	58 (0)								
475		☰											
		☰	WEATHERED SHALE, brown, very soft										
	20	☰		RC	77 (0)								
		░	WEATHERED SANDSTONE, red brown, very soft										
470		░											
			Boring was terminated at 23.0 feet.										
	25												
465													
	30												
460													
	35												

A-6; 3 feet to 13 feet

A-11; 3 feet to 10 feet

REF. SHEET:

DESCRIPTION:

ROCK CORE PHOTOGRAPHS
Serverfarm Ark1 Site A
Clarksville, AR

GMC # GBHM250047
DATE: 12-16-2025
DRAWN BY:

A-12; 18 feet to 28 feet

A-22; 15 feet to 25 feet

REF. SHEET:

DESCRIPTION:

ROCK CORE PHOTOGRAPHS
Serverfarm Ark1 Site A
Clarksville, AR

GMC # GBHM250047
DATE: 12-16-2025
DRAWN BY:

A-23; 23 feet to 28 feet

A-34; 20 feet to 25 feet

REF. SHEET:

DESCRIPTION:

ROCK CORE PHOTOGRAPHS
Serverfarm Ark1 Site A
Clarksville, AR

GMC # GBHM250047
DATE: 12-16-2025
DRAWN BY:

GMC

A-36; 20 feet to 30 feet

A-45; 25 feet to 30 feet

REF. SHEET:

DESCRIPTION:

ROCK CORE PHOTOGRAPHS
Serverfarm Ark1 Site A
Clarksville, AR

GMC # GBHM250047
DATE: 12-16-2025
DRAWN BY:

AS-10; 3 feet to 23 feet

A-12A; 3 feet to 13 feet

REF. SHEET:

DESCRIPTION:

ROCK CORE PHOTOGRAPHS
Serverfarm Ark1 Site A
Clarksville, AR

GMC # GBHM250047
DATE: 12-16-2025
DRAWN BY:

AS-12A; 13 feet to 23 feet

REF. SHEET:

DESCRIPTION:

ROCK CORE PHOTOGRAPHS
Serverfarm Ark1 Site A
Clarksville, AR

GMC # GBHM250047
DATE: 12-16-2025
DRAWN BY:

Resistivity Testing Results
ServerFarm
GMC Project Number GBHM250047

Date Performed: 11/4/2025
Location: Clarksville, Arkansas
Temperature: 75°
Weather: Cloudy
Electrodes: 0.375 inch diameter stainless steel
Electrode Depth: Approximately 6 inches

See Location Plan for approximate location of test lines

Line Number	Line Direction	Spacing (ft)	Current (mA)	Resistance (Ω)	Resistivity (Ω-ft)	Resistivity (Ω-cm)
A-05	East to West	2.5	90	280	4,398	134,058
		5	90	130	4,084	124,482
		10	90	60	3,770	114,907
		25	90	8.2	1,288	39,260
A-05	North to South	2.5	90	260	4,084	124,482
		5	90	150	4,712	143,634
		10	90	82	5,152	157,039
		25	90	7.4	1,162	35,430
AS-06	East to West	2.5	90	170	2,670	81,392
		5	90	89	2,796	85,223
		10	90	54	3,393	103,416
		25	90	6.9	1,084	33,036
AS-06	North to South	2.5	90	260	4,084	124,482
		5	90	100	3,142	95,756
		10	90	51	3,204	97,671
		25	90	7.1	1,115	33,993

Equation: $r = 2\pi AR$
A = Spacing (ft)
R = Measured Resistance (Ω)
r = Apparent Resistivity (Ω-ft)

Miller Model 400A S.R.M.
Serial No.: 3659

Operator: Samuel Wheeler

Resistivity Testing Results
ServerFarm
GMC Project Number GBHM250047

Date Performed:	11/4/2025
Location:	Clarksville, Arkansas
Temperature:	75°
Weather:	Cloudy
Electrodes:	0.375 inch diameter stainless steel
Electrode Depth:	Approximately 6 inches

See Location Plan for approximate location of test lines

Line Number	Line Direction	Spacing (ft)	Current (mA)	Resistance (Ω)	Resistivity (Ω-ft)	Resistivity (Ω-cm)
A-19	East to West	2.5	90	330	5,184	157,997
		5	90	65	2,042	62,241
		10	90	40	2,513	76,605
		25	90	16	2,513	76,605
A-19	North to South	2.5	90	280	4,398	134,058
		5	90	83	2,608	79,477
		10	90	48	3,016	91,926
		25	90	9.5	1,492	45,484
A-31	East to West	2.5	90	310	4,869	148,421
		5	90	84	2,639	80,435
		10	90	19	1,194	36,387
		25	90	4.7	738	22,503
A-31	North to South	2.5	90	280	4,398	134,058
		5	90	110	3,456	105,331
		10	90	25	1,571	47,878
		25	90	5.7	895	27,290

Equation: $r = 2\pi AR$
A = Spacing (ft)
R = Measured Resistance (Ω)
r = Apparent Resistivity (Ω-ft)

Miller Model 400A S.R.M.
Serial No.: 3659

Operator: Samuel Wheeler

GMC

Resistivity Testing Results
ServerFarm
GMC Project Number GBHM250047

Date Performed:	11/4/2025
Location:	Clarksville, Arkansas
Temperature:	75°
Weather:	Cloudy
Electrodes:	0.375 inch diameter stainless steel
Electrode Depth:	Approximately 6 inches

See Location Plan for approximate location of test lines

Line Number	Line Direction	Spacing (ft)	Current (mA)	Resistance (Ω)	Resistivity (Ω-ft)	Resistivity (Ω-cm)
A-41	East to West	2.5	90	180	2,827	86,180
		5	90	72	2,262	68,944
		10	90	18	1,131	34,472
		25	90	6.4	1,005	30,642
A-41	North to South	2.5	90	110	1,728	52,666
		5	90	42	1,319	40,217
		10	90	14	880	26,812
		25	90	5.3	833	25,375

Equation: $r = 2\pi AR$

A = Spacing (ft)

R = Measured Resistance (Ω)

r = Apparent Resistivity (Ω-ft)

Miller Model 400A S.R.M.

Serial No.: 3659

Operator: Samuel Wheeler

SUMMARY OF LABORATORY RESULTS

CLIENT Serverfarm

PROJECT NAME Serverfarm - AR Data Center

PROJECT NUMBER GBHM250047

PROJECT LOCATION Clarksville, AR

Borehole	Depth	Liquid Limit	Plastic Limit	Plasticity Index	Max. Sieve Size Tested (mm)	%<#200 Sieve	Natural Moisture (%)	Class-ification	Opt. Moisture Content (%)	Max Dry Density (pcf)	Specific Gravity
A-01	0-1.5						13.9				
A-01	1.5-3						15.7				
A-01	4-5.5						17.1				
A-02	0-1.5						16.0				
A-02	1.5-3						9.8				
A-02	4-5.5						13.4				
A-03	1.5-3						14.2				
A-04	0-1.5						20.2				
A-04	1.5-3						5.2				
A-05	0-1.5						36.6				
A-05	1.5-3						9.4				
A-05	4-5.5						17.7				
A-06	0-1.5						22.5				
A-06	1.5-3	28	19	9	12.5	59	15.3	CL			
A-07	0-1.5						19.9				
A-07	1.5-3						12.7				
A-08	0-1.5						11.8				
A-09	0-1.5						19.2				
A-09	1.5-3						14.6				
A-09	4-5.5						16.8				
A-10	0-1.5						21.2				
A-10	1.5-3						18.1				
A-10	4-5.5						25.1				
A-10	6.5-8						6.5				
A-11	0-1.5						20.1				
A-11	1.5-3						20.4				
A-12	0-1.5						18.0				
A-12	1.5-3	26	18	8	19	28	11.1	SC			
A-12	4-5.5						22.2				
A-13	0-1.5						15.7				
A-13	1.5-3						13.4				
A-13	4-5.5						11.4				
A-14	0-1.5						15.5				
A-14	1.5-3						5.0				
A-14	4-5.5						15.6				
A-15	0-1.5						14.9				
A-15	1.5-3						11.2				
A-15	4-5.5						10.1				
A-17	0-1.5						19.6				
A-17	1.5-3						14.2				
A-17	4-5.5	48	25	23	9.5	88	19.4	CL			
A-17	6.5-8						12.5				
A-17	9-10.5						14.0				

SUMMARY OF LABORATORY RESULTS

CLIENT Serverfarm

PROJECT NAME Serverfarm - AR Data Center

PROJECT NUMBER GBHM250047

PROJECT LOCATION Clarksville, AR

Borehole	Depth	Liquid Limit	Plastic Limit	Plasticity Index	Max. Sieve Size Tested (mm)	%<#200 Sieve	Natural Moisture (%)	Class-ification	Opt. Moisture Content (%)	Max Dry Density (pcf)	Specific Gravity
A-18	0-1.5						18.9				
A-18	1.5-3						20.9				
A-18	4-5.5						19.5				
A-18	6.5-8						14.4				
A-18	9-10.5						8.1				
A-19	0-1.5						18.0				
A-19	1.5-3						22.4				
A-19	4-5.5	46	24	22	9.5	73	17.6	CL			
A-20	0-1	NP	NP	NP	50	55		ML	11.4	117.7	
A-20	1.5-3						16.2				
A-20	4-5.5						24.5				
A-21	0-1.5						18.2				
A-21	1.5-3						16.3				
A-21	4-5.5						23.8				
A-21	6.5-8	35	23	12	9.5	81	15.2	CL			
A-21	9-10.5						14.0				
A-25	0-1.5						20.5				
A-25	1.5-3						1.9				
A-25	4-5.5						17.0				
A-26	0-1.5						13.7				
A-26	1.5-3						19.6				
A-26	4-5.5						17.5				
A-27	0-1.5						11.2				
A-27	1.5-3	58	27	31	4.75	96	25.0	CH			
A-27	4-5.5						20.3				
A-28	0-1.5						17.1				
A-28	1.5-3						26.3				
A-28	4-5.5						20.3				
A-29	1.5-3						27.0				
A-29	4-5.5						24.7				
A-29	6.5-8						9.4				
A-29	9-10.5						11.6				
A-30	0-1.5						19.9				
A-30	1.5-3						16.3				
A-30	4-5.5						14.2				
A-30	6.5-8						9.3				
A-30	9-10.5						8.5				
A-31	0-1.5						13.9				
A-31	1.5-3						18.2				
A-31	4-5.5						21.6				
A-32	0-1	22	17	5	37.5	58		CL-ML	12.5	115.9	
A-37	0-1.5						17.3				
A-37	1.5-3						24.6				

SUMMARY OF LABORATORY RESULTS

CLIENT Serverfarm
PROJECT NAME Serverfarm - AR Data Center
PROJECT NUMBER GBHM250047
PROJECT LOCATION Clarksville, AR

Borehole	Depth	Liquid Limit	Plastic Limit	Plasticity Index	Max. Sieve Size Tested (mm)	%<#200 Sieve	Natural Moisture (%)	Class-ification	Opt. Moisture Content (%)	Max Dry Density (pcf)	Specific Gravity
A-37	4-5.5						18.6				
A-38	0-1.5						19.3				
A-38	1.5-3						13.8				
A-38	4-5.5						20.6				
A-39	0-1.5						20.8				
A-39	4-5.5						8.2				
A-40	0-1.5	22	19	3	50	66	17.3	ML	12.9	113.6	
A-40	1.5-3						24.9				
A-40	4-5.5						19.0				
A-41	0-1.5						23.1				
A-41	1.5-3						27.7				
A-41	4-5.5						20.6				
A-41	6.5-8						20.9				
A-42	0-1.5						16.6				
A-42	1.5-3						15.4				
A-42	4-5.5						14.9				
A-42	6.5-8						18.3				
A-42	9-10.5						13.6				
A-43	0-1.5						23.7				
A-43	1.5-3						6.0				
A-43	4-5.5						21.2				
A-43	6.5-8						18.1				
A-43	9-10.5						10.8				
A-44	0-1.5						19.1				
A-44	1.5-3						17.6				
A-44	4-5.5						20.6				
A-46	0-1.5						20.7				
A-46	1.5-3						22.0				
A-46	4-5.5						19.5				
A-46	9-10.5						19.4				
A-47	0-1.5	22	16	6	9.5	76	21.0	CL-ML			
A-47	1.5-3						17.0				
A-47	4-5.5						19.6				
A-47	6.5-8						14.4				
A-47	9-10.5						14.0				
A-48	0-1.5						23.4				
A-48	1.5-3						15.1				
A-48	4-5.5						12.3				
A-48	6.5-8						12.6				
A-48	9-10.5						10.6				
A-49	0-1.5						21.9				
A-49	1.5-3						11.3				
A-49	4-5.5						11.4				

SUMMARY OF LABORATORY RESULTS

CLIENT Serverfarm
PROJECT NAME Serverfarm - AR Data Center
PROJECT NUMBER GBHM250047
PROJECT LOCATION Clarksville, AR

Borehole	Depth	Liquid Limit	Plastic Limit	Plasticity Index	Max. Sieve Size Tested (mm)	%<#200 Sieve	Natural Moisture (%)	Class-ification	Opt. Moisture Content (%)	Max Dry Density (pcf)	Specific Gravity
A-50	0-1	29	17	12	37.5	62	19.3	CL	14.4	112.7	
A-50	1.5-3						16.6				
A-50	4-5.5						23.0				
A-51	0-1.5						21.4				
A-51	1.5-3						22.8				
A-51	4-5.5						23.1				
AB-01	0-1.5						16.3				
AB-01	1.5-3						17.9				
AB-02	0-1.5						16.4				
AB-02	1.5-3						10.3				
AB-03	0-1.5						12.9				
AB-03	1.5-3	27	17	10	12.5	69	19.8	CL			
AB-03	4-5.5						13.8				
AB-04	0-1.5						10.2				
AB-04	1.5-3						8.5				
AB-04	4-5.5						16.3				
AB-05	0-1.5						16.5				
AB-05	1.5-3						14.8				
AB-05	4-5.5						18.2				
AR-1	0-1.5						16.9				
AR-1	1.5-3						17.2				
AR-1	4-5.5						24.5				
AR-1	6.5-8						20.8				
AR-2	0-1.5						22.3				
AR-2	1.5-3						18.6				
AR-2	4-5.5						22.5				
AR-2	6.5-8						11.0				
AS-01	0-1.5						17.7				
AS-01	1.5-3						8.6				
AS-02	0-1.5	45	22	23	19	82		CL	16.3	105.9	
AS-04	0-1.5						20.1				
AS-04	1.5-3						12.3				
AS-05	0-1.5						23.1				
AS-07	0-1.5						16.1				
AS-07	4-5.5	34	20	14	4.75	87	21.6	CL			
AS-08	0-1.5						20.2				
AS-08	1.5-3						22.1				
AS-08	4-5.5						19.5				
AS-09	0-1.5						23.4				
AS-09	1.5-3						20.4				
AS-09	4-5.5						20.7				
AS-10	0-1.5						11.3				
AS-11	0-1.5						19.1				

SUMMARY OF LABORATORY RESULTS

CLIENT Serverfarm

PROJECT NAME Serverfarm - AR Data Center

PROJECT NUMBER GBHM250047

PROJECT LOCATION Clarksville, AR

Borehole	Depth	Liquid Limit	Plastic Limit	Plasticity Index	Max. Sieve Size Tested (mm)	%<#200 Sieve	Natural Moisture (%)	Class-ification	Opt. Moisture Content (%)	Max Dry Density (pcf)	Specific Gravity
AS-11	1.5-3						15.9				
AS-11	4-5.5	34	21	13	9.5	70	18.8	CL			
AS-11	6.5-8						11.2				

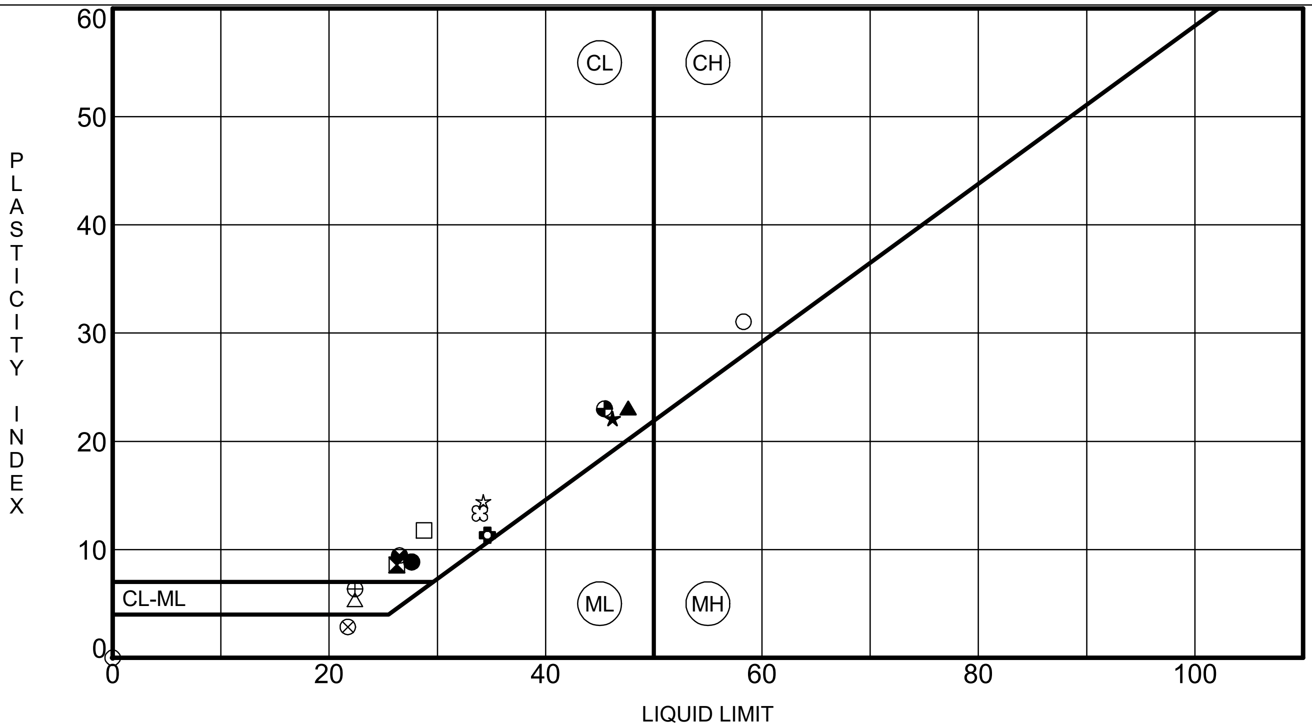
ATTERBERG LIMITS' RESULTS

CLIENT Serverfarm

PROJECT NAME Serverfarm - AR Data Center

PROJECT NUMBER GBHM250047

PROJECT LOCATION Clarksville, AR

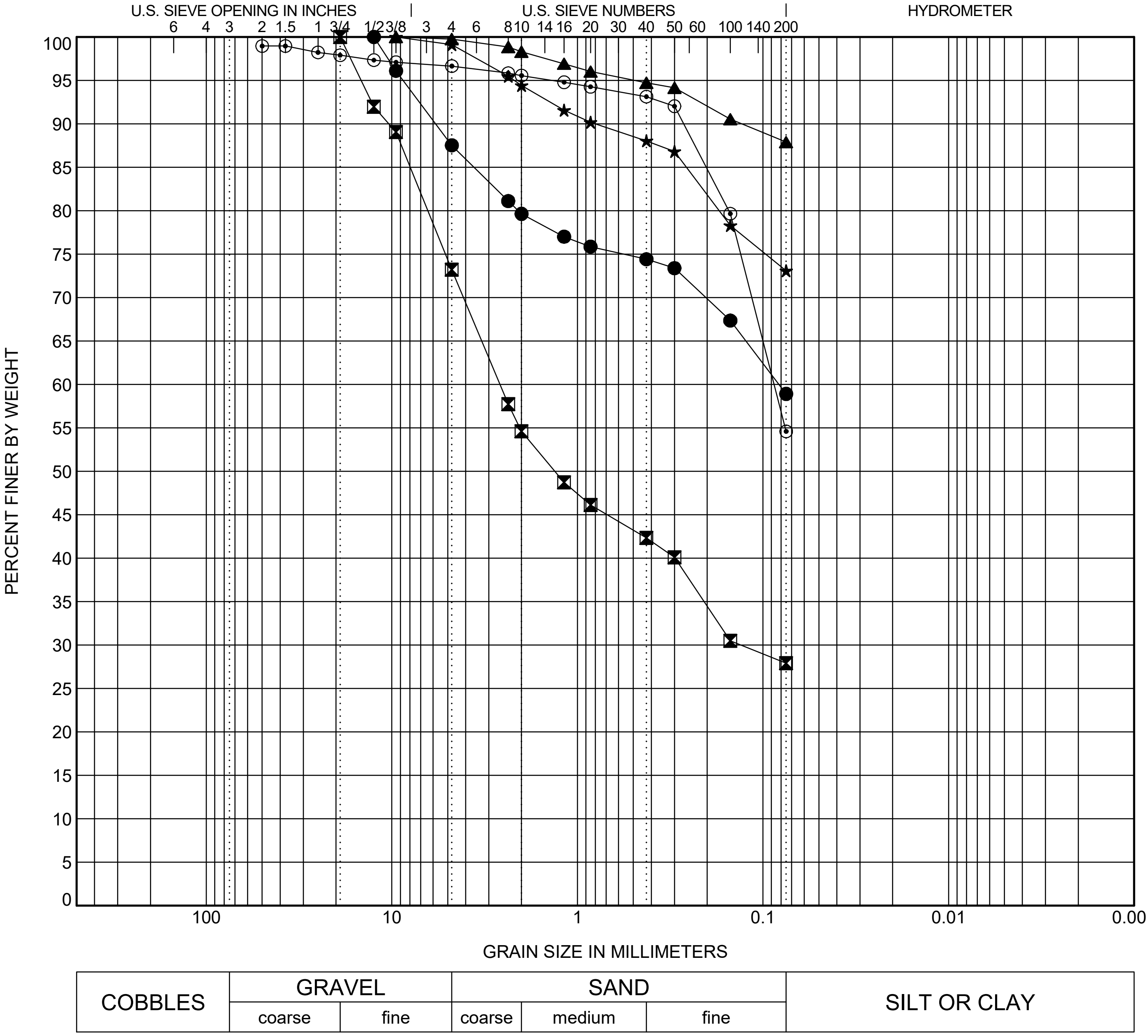


	Specimen Identification		LL	PL	PI	Fines	Classification
●	**A-06**	**1.5-3.0**	**28**	**19**	**9**	**59**	**SANDY LEAN CLAY(CL)**
⧗	**A-12**	**1.5-3.0**	**26**	**18**	**8**	**28**	**CLAYEY SAND with GRAVEL(SC)**
▲	**A-17**	**4.0-5.5**	**48**	**25**	**23**	**88**	**LEAN CLAY(CL)**
★	**A-19**	**4.0-5.5**	**46**	**24**	**22**	**73**	**LEAN CLAY with SAND(CL)**
⦿	**A-20**	**0.0-1.0**	**NP**	**NP**	**NP**	**55**	**SANDY SILT(ML)**
✿	**A-21**	**6.5-8.0**	**35**	**23**	**12**	**81**	**LEAN CLAY with SAND(CL)**
○	**A-27**	**1.5-3.0**	**58**	**27**	**31**	**96**	**FAT CLAY(CH)**
△	**A-32**	**0.0-1.0**	**22**	**17**	**5**	**58**	**SANDY SILTY CLAY(CL-ML)**
⊗	**A-40**	**0.0-1.5**	**22**	**19**	**3**	**66**	**SANDY SILT(ML)**
⊕	**A-47**	**0.0-1.5**	**22**	**16**	**6**	**76**	**SILTY CLAY with SAND(CL-ML)**
□	**A-50**	**0.0-1.0**	**29**	**17**	**12**	**62**	**SANDY LEAN CLAY(CL)**
⊛	**AB-03**	**1.5-3.0**	**27**	**17**	**10**	**69**	**SANDY LEAN CLAY(CL)**
◕	**AS-02**	**0.0-1.5**	**45**	**22**	**23**	**82**	**LEAN CLAY with SAND(CL)**
☆	**AS-07**	**4.0-5.5**	**34**	**20**	**14**	**87**	**LEAN CLAY(CL)**
❀	**AS-11**	**4.0-5.5**	**34**	**21**	**13**	**70**	**LEAN CLAY with SAND(CL)**

GRAIN SIZE DISTRIBUTION

CLIENT Serverfarm **PROJECT NAME** Serverfarm - AR Data Center

PROJECT NUMBER GBHM250047 **PROJECT LOCATION** Clarksville, AR

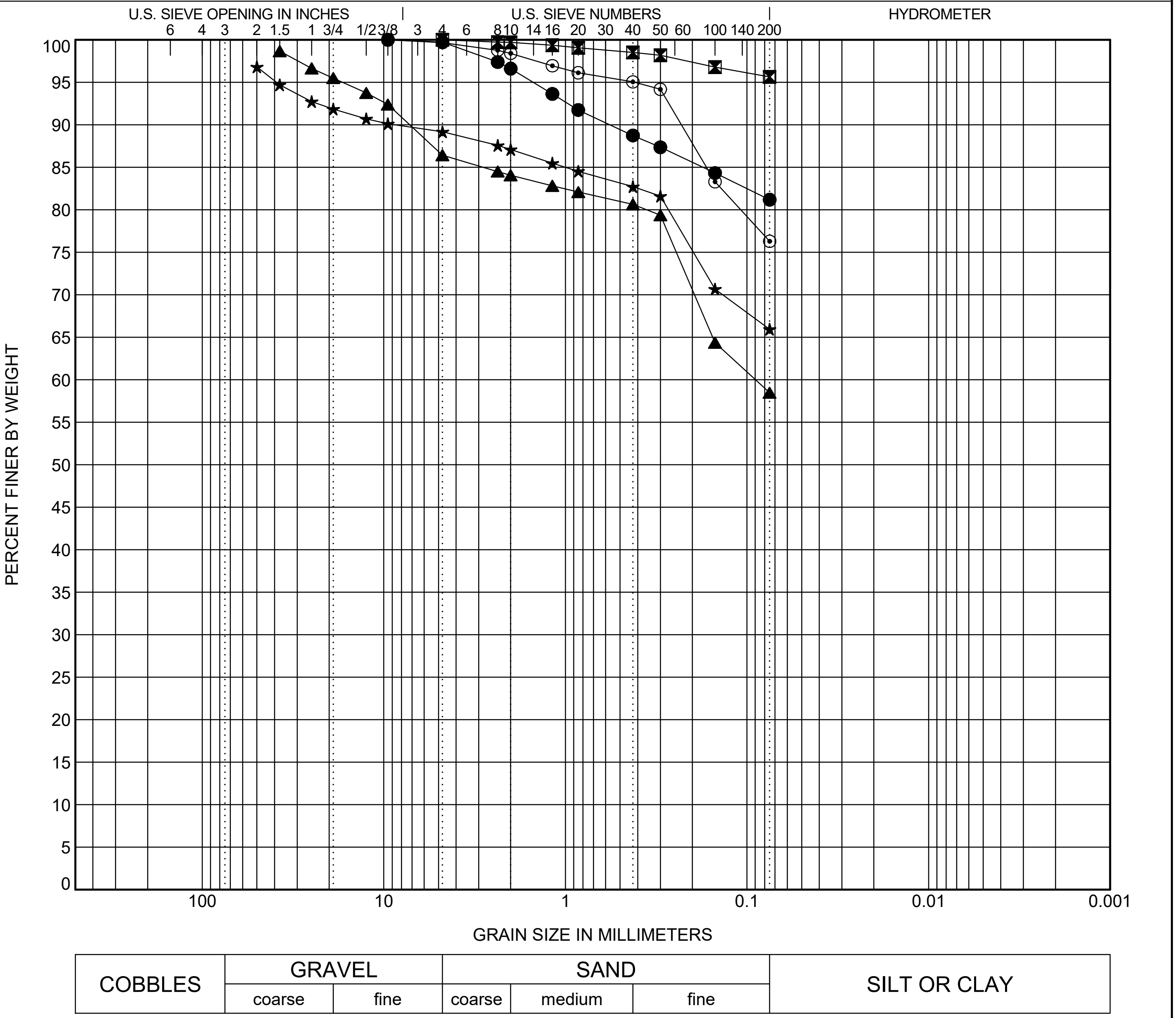


Specimen Identification			Classification	LL	PL	PI	Cc	Cu
●	**A-06**	**1.5-3.0**	**SANDY LEAN CLAY(CL)**	**28**	**19**	**9**		
⧗	**A-12**	**1.5-3.0**	**CLAYEY SAND with GRAVEL(SC)**	**26**	**18**	**8**		
▲	**A-17**	**4.0-5.5**	**LEAN CLAY(CL)**	**48**	**25**	**23**		
★	**A-19**	**4.0-5.5**	**LEAN CLAY with SAND(CL)**	**46**	**24**	**22**		
⊙	**A-20**	**0.0-1.0**	**SANDY SILT(ML)**	**NP**	**NP**	**NP**		

Specimen Identification			D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
●	**A-06**	**1.5-3.0**	**12.5**	**0.082**			**12.5**	**28.6**	**58.9**	
⧗	**A-12**	**1.5-3.0**	**19**	**2.614**	**0.132**		**26.8**	**45.3**	**27.9**	
▲	**A-17**	**4.0-5.5**	**9.5**				**0.2**	**11.9**	**87.9**	
★	**A-19**	**4.0-5.5**	**9.5**				**0.9**	**26.0**	**73.1**	
⊙	**A-20**	**0.0-1.0**	**50**	**0.087**			**2.3**	**42.1**	**54.6**	

GRAIN SIZE DISTRIBUTION

CLIENT Serverfarm
PROJECT NAME Serverfarm - AR Data Center
PROJECT NUMBER GBHM250047
PROJECT LOCATION Clarksville, AR



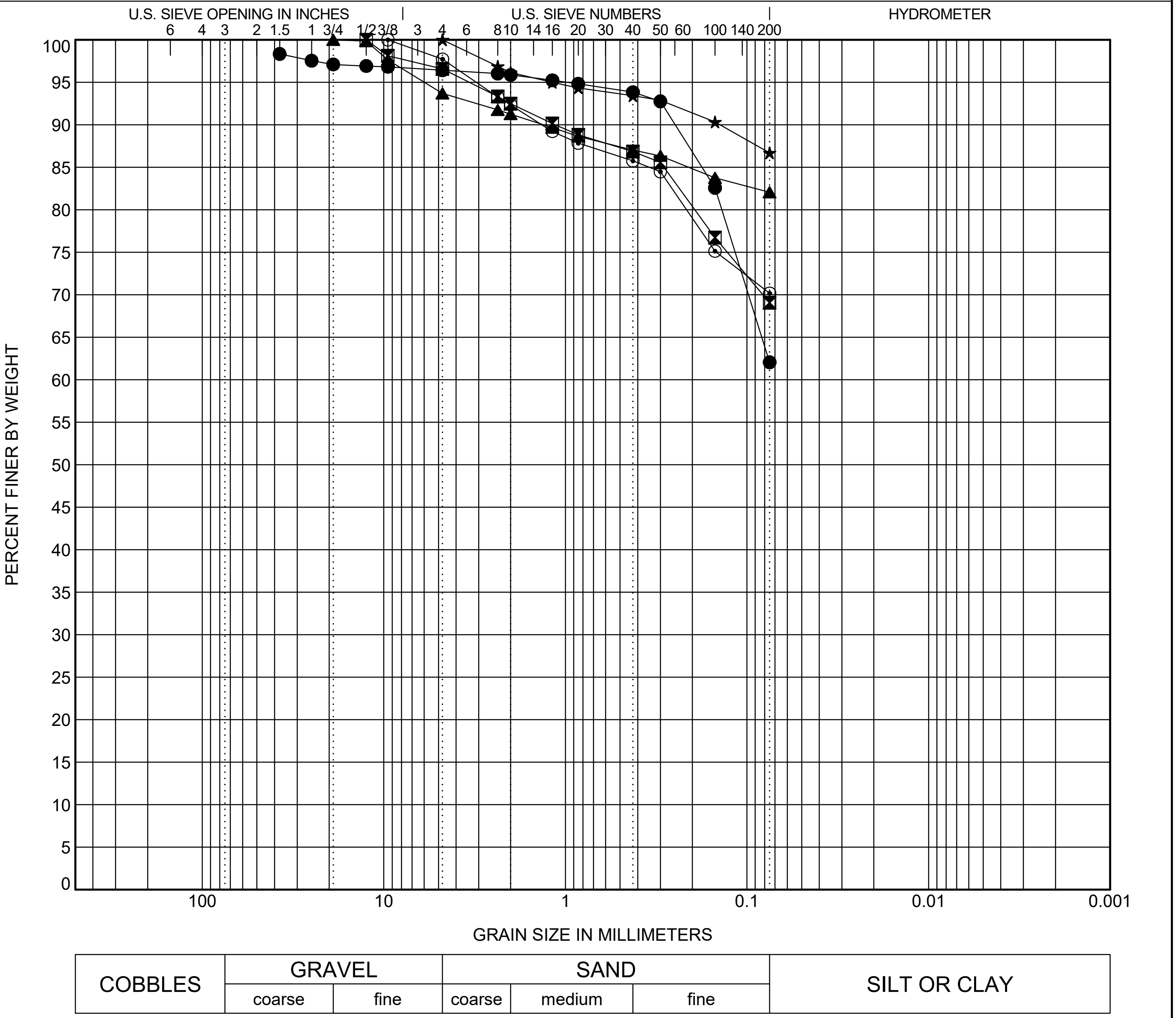
Specimen Identification		Classification	LL	PL	PI	Cc	Cu
● **A-21**	**6.5-8.0**	**LEAN CLAY with SAND(CL)**	**35**	**23**	**12**		
☒ **A-27**	**1.5-3.0**	**FAT CLAY(CH)**	**58**	**27**	**31**		
▲ **A-32**	**0.0-1.0**	**SANDY SILTY CLAY(CL-ML)**	**22**	**17**	**5**		
★ **A-40**	**0.0-1.5**	**SANDY SILT(ML)**	**22**	**19**	**3**		
⊙ **A-47**	**0.0-1.5**	**SILTY CLAY with SAND(CL-ML)**	**22**	**16**	**6**		

Specimen Identification		D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● **A-21**	**6.5-8.0**	**9.5**				**0.3**	**18.5**	**81.2**	
☒ **A-27**	**1.5-3.0**	**4.75**				**0.0**	**4.4**	**95.6**	
▲ **A-32**	**0.0-1.0**	**37.5**	**0.09**			**12.2**	**27.9**	**58.5**	
★ **A-40**	**0.0-1.5**	**50**				**7.6**	**23.2**	**65.9**	
⊙ **A-47**	**0.0-1.5**	**9.5**				**0.3**	**23.4**	**76.3**	

GRAIN SIZE DISTRIBUTION

CLIENT Serverfarm **PROJECT NAME** Serverfarm - AR Data Center

PROJECT NUMBER GBHM250047 **PROJECT LOCATION** Clarksville, AR



Specimen Identification			Classification	LL	PL	PI	Cc	Cu
●	**A-50**	**0.0-1.0**	**SANDY LEAN CLAY(CL)**	**29**	**17**	**12**		
⧗	**AB-03**	**1.5-3.0**	**SANDY LEAN CLAY(CL)**	**27**	**17**	**10**		
▲	**AS-02**	**0.0-1.5**	**LEAN CLAY with SAND(CL)**	**45**	**22**	**23**		
★	**AS-07**	**4.0-5.5**	**LEAN CLAY(CL)**	**34**	**20**	**14**		
⊙	**AS-11**	**4.0-5.5**	**LEAN CLAY with SAND(CL)**	**34**	**21**	**13**		

Specimen Identification			D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
●	**A-50**	**0.0-1.0**	**37.5**				**1.9**	**34.4**	**62.1**	
⧗	**AB-03**	**1.5-3.0**	**12.5**				**3.4**	**27.5**	**69.1**	
▲	**AS-02**	**0.0-1.5**	**19**				**6.3**	**11.6**	**82.1**	
★	**AS-07**	**4.0-5.5**	**4.75**				**0.0**	**13.3**	**86.7**	
⊙	**AS-11**	**4.0-5.5**	**9.5**				**2.3**	**27.5**	**70.2**	

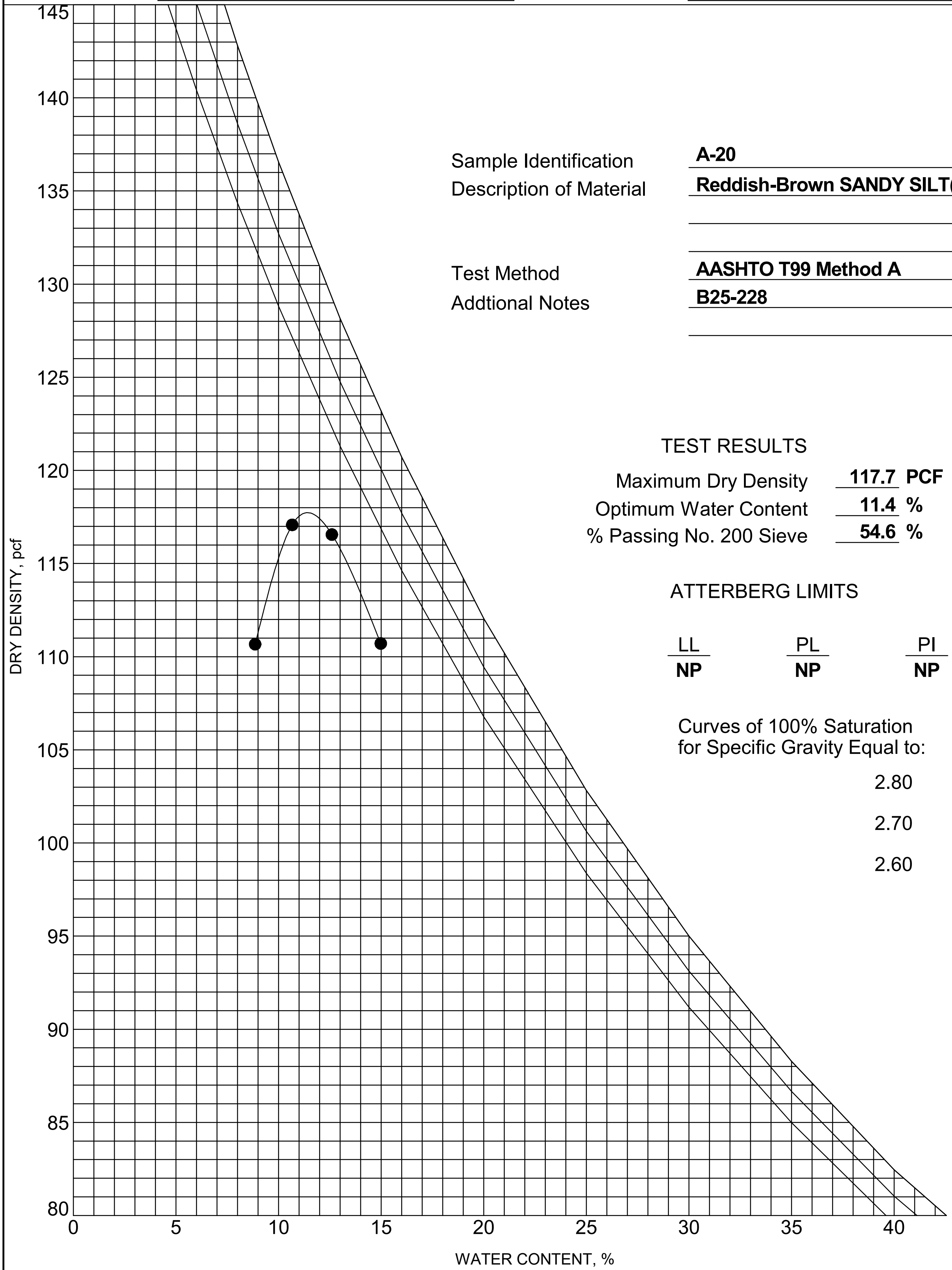
MOISTURE-DENSITY RELATIONSHIP

CLIENT Serverfarm

PROJECT NAME Serverfarm - AR Data Center

PROJECT NUMBER GBHM250047

PROJECT LOCATION Clarksville, AR



Sample Identification **A-20**

Description of Material **Reddish-Brown SANDY SILT(ML)**

Test Method **AASHTO T99 Method A**

Addtional Notes **B25-228**

TEST RESULTS

Maximum Dry Density	**117.7**	**PCF**
Optimum Water Content	**11.4**	**%**
% Passing No. 200 Sieve	**54.6**	**%**

ATTERBERG LIMITS

LL	PL	PI
NP	**NP**	**NP**

Curves of 100% Saturation
for Specific Gravity Equal to:

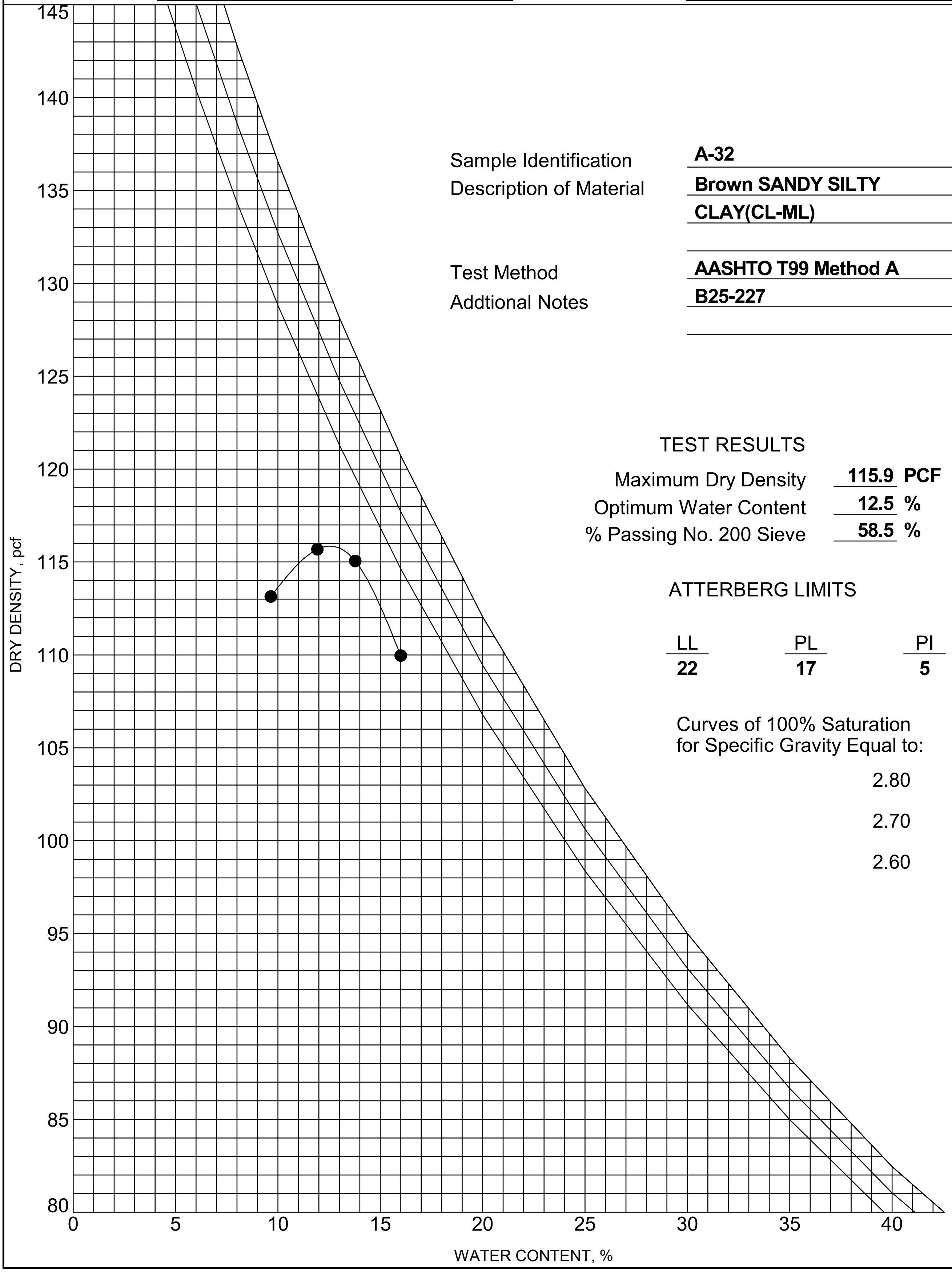
2.80

2.70

2.60

MOISTURE-DENSITY RELATIONSHIP

CLIENT Serverfarm
PROJECT NAME Serverfarm - AR Data Center
PROJECT NUMBER GBHM250047
PROJECT LOCATION Clarksville, AR



Sample Identification **A-32**
Description of Material **Brown SANDY SILTY CLAY(CL-ML)**

Test Method **AASHTO T99 Method A**
Addtional Notes **B25-227**

TEST RESULTS

Maximum Dry Density	**115.9**	**PCF**
Optimum Water Content	**12.5**	**%**
% Passing No. 200 Sieve	**58.5**	**%**

ATTERBERG LIMITS

LL	PL	PI
22	**17**	**5**

Curves of 100% Saturation
for Specific Gravity Equal to:

2.80

2.70

2.60

GMC

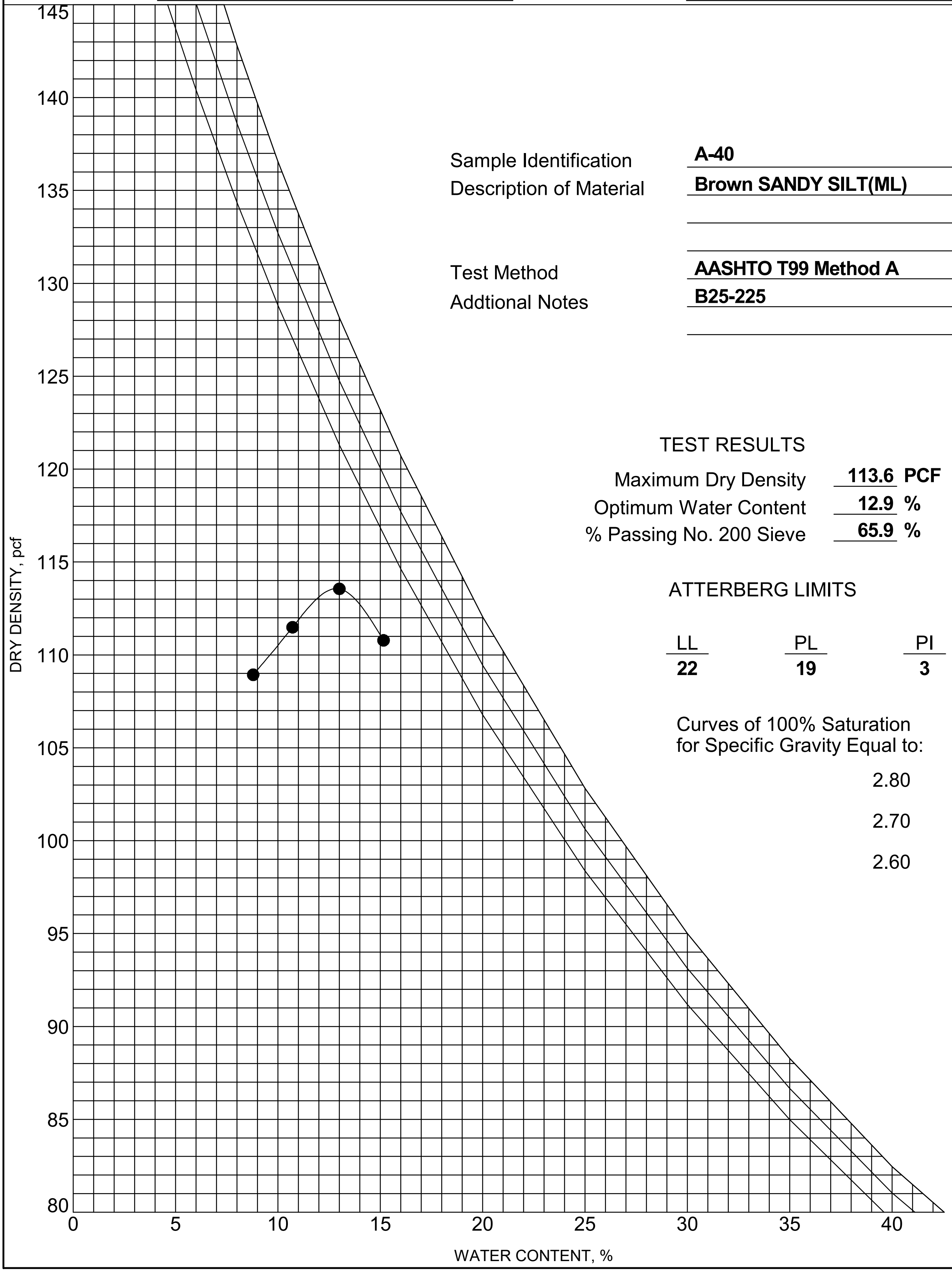
MOISTURE-DENSITY RELATIONSHIP

CLIENT Serverfarm

PROJECT NAME Serverfarm - AR Data Center

PROJECT NUMBER GBHM250047

PROJECT LOCATION Clarksville, AR



Sample Identification **A-40**

Description of Material **Brown SANDY SILT(ML)**

Test Method **AASHTO T99 Method A**

Addtional Notes **B25-225**

TEST RESULTS

Maximum Dry Density	**113.6**	**PCF**
Optimum Water Content	**12.9**	**%**
% Passing No. 200 Sieve	**65.9**	**%**

ATTERBERG LIMITS

LL	PL	PI
22	**19**	**3**

Curves of 100% Saturation
for Specific Gravity Equal to:

2.80

2.70

2.60

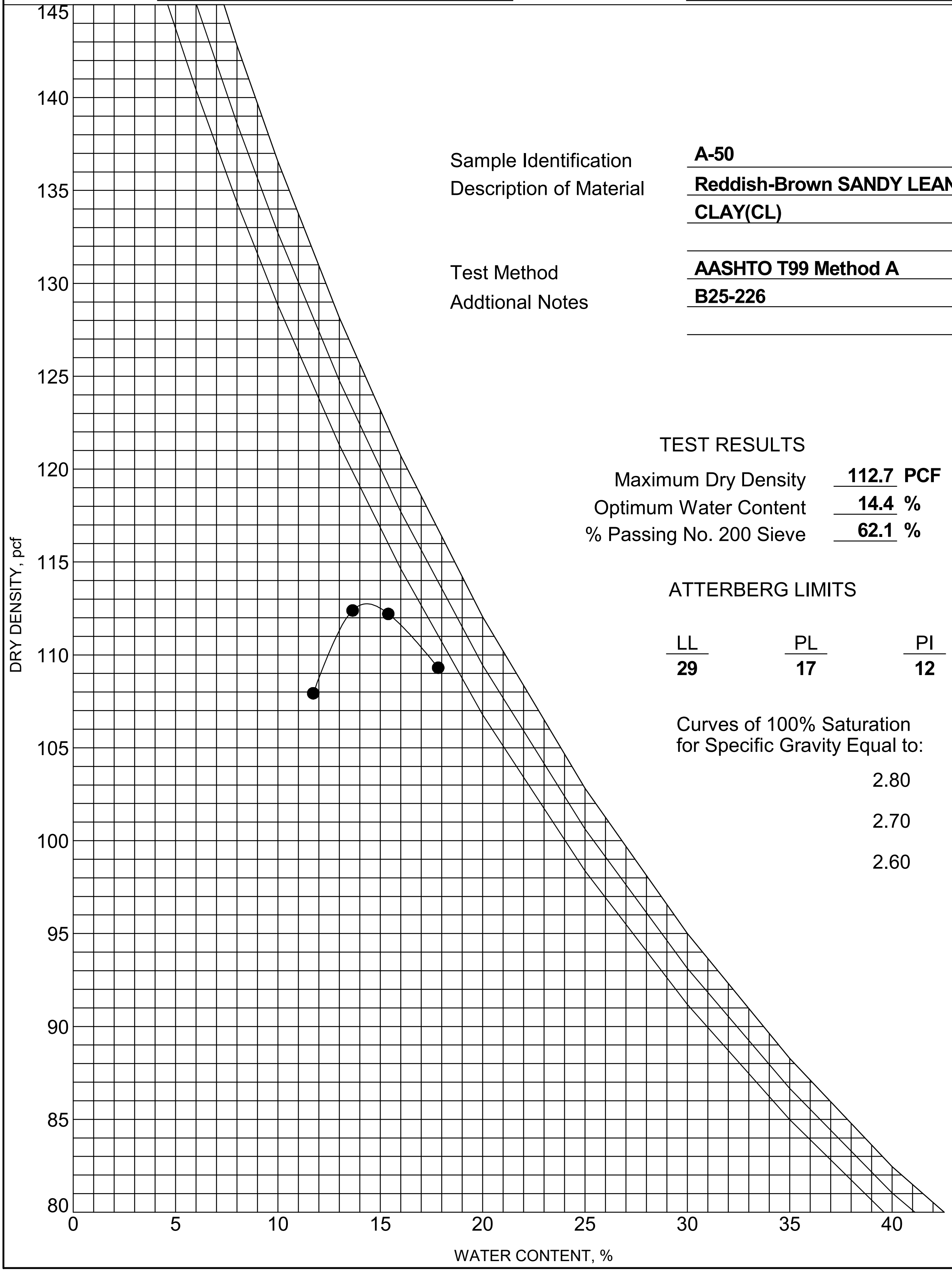
MOISTURE-DENSITY RELATIONSHIP

CLIENT Serverfarm

PROJECT NAME Serverfarm - AR Data Center

PROJECT NUMBER GBHM250047

PROJECT LOCATION Clarksville, AR



Sample Identification	**A-50**
Description of Material	**Reddish-Brown SANDY LEAN CLAY(CL)**
Test Method	**AASHTO T99 Method A**
Addtional Notes	**B25-226**

TEST RESULTS

Maximum Dry Density	**112.7**	**PCF**
Optimum Water Content	**14.4**	**%**
% Passing No. 200 Sieve	**62.1**	**%**

ATTERBERG LIMITS

LL	PL	PI
29	**17**	**12**

Curves of 100% Saturation
for Specific Gravity Equal to:

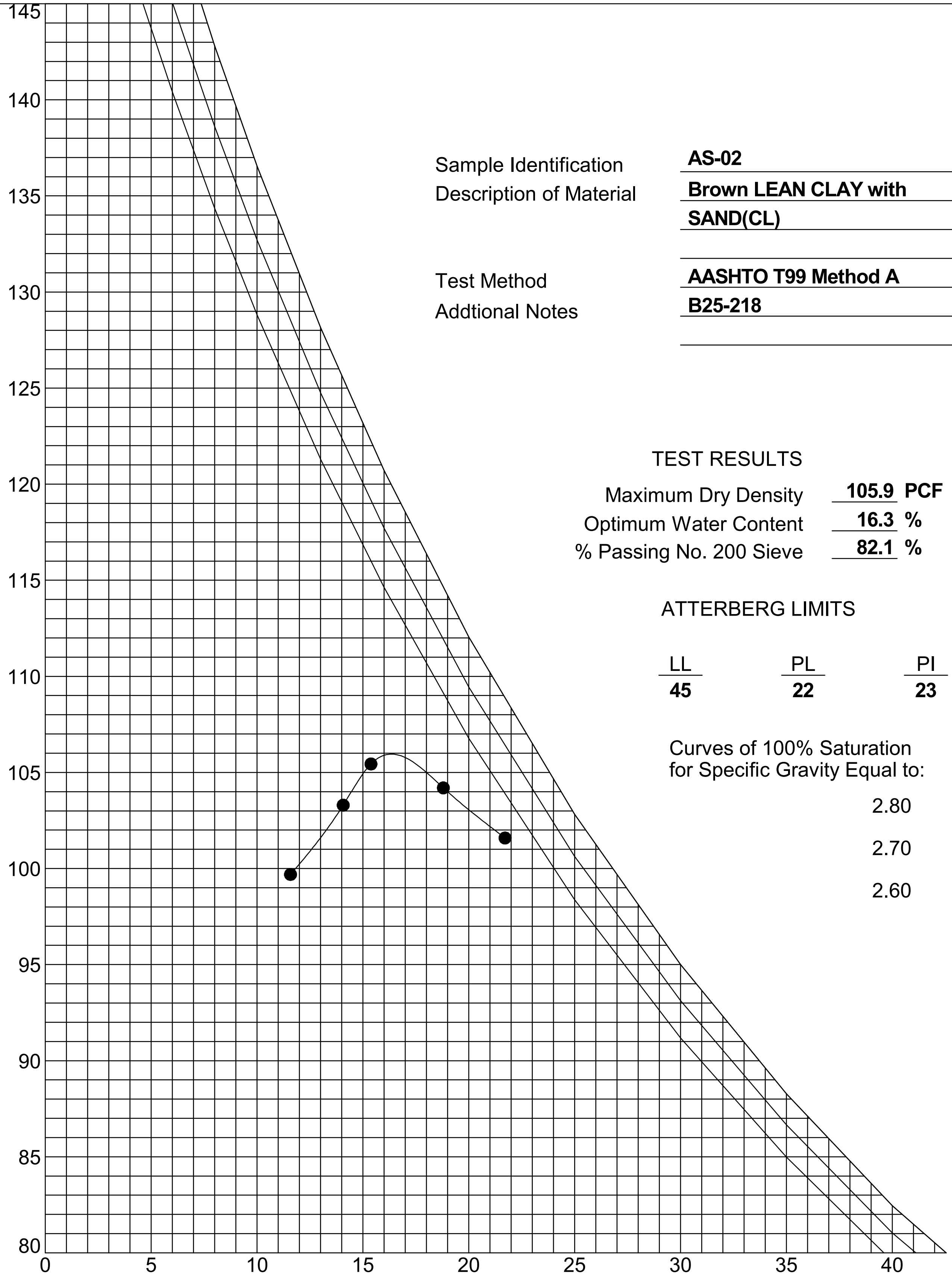
2.80

2.70

2.60

MOISTURE-DENSITY RELATIONSHIP

CLIENT Serverfarm
PROJECT NAME Serverfarm - AR Data Center
PROJECT NUMBER GBHM250047
PROJECT LOCATION Clarksville, AR



Sample Identification **AS-02**
Description of Material **Brown LEAN CLAY with SAND(CL)**

Test Method **AASHTO T99 Method A**
Addtional Notes **B25-218**

TEST RESULTS

Maximum Dry Density	**105.9**	**PCF**
Optimum Water Content	**16.3**	**%**
% Passing No. 200 Sieve	**82.1**	**%**

ATTERBERG LIMITS

LL	PL	PI
45	**22**	**23**

Curves of 100% Saturation
for Specific Gravity Equal to:
2.80
2.70
2.60

3.STD PROCTOR TEST GBHM250047 SERVERFARM - ARKANSAS DATA CENTER.GPJ GMC DATA TEMPLATE.GDT 12/16/25

TIMELY
ENGINEERING
SOIL
TESTS, LLC

1874 Forge Street Tucker, GA 30084
Phone: 770-938-8233
Fax: 770-923-8973
Web: www.test-llc.com

AASHTO ACCREDITED

Tested By	EB
Date	12/13/25
Checked By	LB

Client Pr. #	GBHM250047	Lab. PR. #	25153-12-1
Pr. Name	Serverfarm Ark1	S. Type	UD
Sample ID	54028/AB-2	Depth/Elev.	1-3'
Location	AB-2	Add. Info	-

ASTM D 5084; Standard Test Method for Measurement of Hydraulic Conductivity of Saturated Porous Materials Using a Flexible Wall Permeameter (Method D, Constant Rate of Flow)

Initial Sample Data (Before Test)

Height	3.020	in	7.67	cm
Diameter	2.867	in	7.28	cm
Area	6.46	in^2	41.65	cm^2
Volume	319.49	cm^3	0.0113	ft^3
Mass	639.20	g	1.41	lb
Specific Gravity	2.650	(Assumed)		
Dry Density	106.6	pcf		

Moisture Content

Mass of wet sample & tare	639.20	g
Mass of dry sample & tare	545.60	g
Mass of tare	0.00	g
% Moisture	17.2	

Test Data

Speed	10	
Board Number	5	
Cell Number	34	
Flow Pump Number	4A	
Flow Pump Rate*	2.24E-04	cm^3/sec
B - Value	0.95	
Cell Pressure	83.0	psi
Back Pressure	80.0	psi
Confining (Effective) Pressure	3.0	psi
Max Head	28.84	cm
Min Head	28.14	cm
Maximum Gradient	3.76	
Minimum Gradient	3.67	

Final Data (After Test)

Average Height of Sample			3.022	in	7.68	cm
Average Diameter of Sample			2.875	in	7.30	cm
Area	6.49	in^2	41.88	cm^2		
Volume	321.49	cm^3	0.0114	ft^3		
Mass	657.40	g	1.45	lb		

Dry Density	106.0	pcf
Vol. of Voids	115.41	cm^3
Vol. of Solids	206.07	cm^3
Void Ratio	0.56	
Saturation	96.4	%

Moisture Content

Mass of wet sample & tare	743.90	g
Mass of dry sample & tare	632.70	g
Mass of tare	87.10	g
% Moisture	20.4	

TIME FUNCTION			Δ t	READING	Head	Gradient	Temp.	PERMEABILITY (cm/sec)			
DATE	HOUR	MIN	(sec)	DP, (psi)	(cm)		T_x(°C)	@ T_x	R_T	@ 20 °C	
12/13/25	10	5	-	0.41	28.84	3.76	22.5	-	-	-	
12/13/25	10	10	300	0.40	28.14	3.67	22.5	1.44E-06	0.942	1.36E-06	
12/13/25	10	15	300	0.41	28.84	3.76	22.5	1.44E-06	0.942	1.36E-06	
12/13/25	10	20	300	0.40	28.14	3.67	22.5	1.44E-06	0.942	1.36E-06	*
12/13/25	10	25	300	0.41	28.84	3.76	22.5	1.44E-06	0.942	1.36E-06	*
12/13/25	10	30	300	0.40	28.14	3.67	22.5	1.44E-06	0.942	1.36E-06	*
12/13/25	10	35	300	0.41	28.84	3.76	22.5	1.44E-06	0.942	1.36E-06	*

Note: Deaired Water Used for Permeability Test.

DESCRIPTION

NA

USCS
(ASTM D2487;2488)

NA

REMARKS

Portion of sample used for testing located 1" above bottom of shelby tube.

Reported Average Hydraulic Conductivity* 1.4E-06 cm/sec

Flow pump ID #	1043	Balance ID #	1035/1036		Differential Pressure Meter ID #	1044/1048
Thermometer ID #	796/985	Oven ID #	495	60°C	Board Pressure Meter ID #	1042
Syringe ID #	1047	Oven ID #	496/758	110°C	Pore Pressure Meter ID #	1105

*Constant Rate of Flow System (Flow Pump with Calibrated Syringe for Inflow and Calibrated Graduated Pipette for outflow) is capable to maintain a constant rate of inflow & outflow through the fully saturated sample with accuracy +/-5%. Flow Pump Rate isused for calculations of HC (ASTM STP 977) results at steady Differential Pressure (DP) Readings at the range of +/-5%. Permeation was stopped after HC versus Time (see table above) showed no significant upward or downward trend.

ANALYTICAL RESULTS

Project: Clarksville, AR
Pace Project No.: 20374387

Sample: A-20 1-4' **Lab ID: 20374387001** Collected: 11/26/25 13:00

Results reported on a "wet-weight" basis

Parameters	Results	Units	Report Limit	DF	Qualifiers
Sulfide	ND	mg/kg	50.0	1	
pH at 25 Degrees C	**4.6**	Std. Units	0.010	1	
Resistivity	**25700**	ohms-cm	0.50	1	
Sulfate	**617**	mg/kg	469	10	D4
Chloride	**227**	mg/kg	93.9	10	D4

Sample: A-32 1-4' **Lab ID: 20374387002** Collected: 11/26/25 13:00

Results reported on a "wet-weight" basis

Parameters	Results	Units	Report Limit	DF	Qualifiers
Sulfide	ND	mg/kg	50.0	1	
pH at 25 Degrees C	**4.6**	Std. Units	0.010	1	
Resistivity	**95500**	ohms-cm	0.50	1	
Sulfate	**853**	mg/kg	464	10	D4
Chloride	**183**	mg/kg	92.7	10	D4

Sample: A-40 1-4' **Lab ID: 20374387003** Collected: 11/26/25 13:00

Results reported on a "wet-weight" basis

Parameters	Results	Units	Report Limit	DF	Qualifiers
Sulfide	ND	mg/kg	50.0	1	
pH at 25 Degrees C	**4.6**	Std. Units	0.010	1	
Resistivity	**83600**	ohms-cm	0.50	1	
Sulfate	**337**	mg/kg	244	5	D4
Chloride	**120**	mg/kg	48.8	5	D4

Sample: A-50 1-4' **Lab ID: 20374387004** Collected: 11/26/25 13:00

Results reported on a "wet-weight" basis

Parameters	Results	Units	Report Limit	DF	Qualifiers
Sulfide	ND	mg/kg	50.0	1	
pH at 25 Degrees C	**4.5**	Std. Units	0.010	1	
Resistivity	**86700**	ohms-cm	0.50	1	
Sulfate	**690**	mg/kg	488	10	D4
Chloride	**232**	mg/kg	97.6	10	D4

QUALIFIERS

Project:	Clarksville, AR
Pace Project No.:	20374387

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

ANALYTE QUALIFIERS

D4	Sample was diluted due to the presence of high levels of target analytes.

FIELD TEST PROCEDURES

General

The general field procedures employed by Goodwyn Mills Cawood, LLC (GMC), are summarized in the American Society for Testing and Materials (ASTM) Standard D420 which is entitled "Investigating and Sampling Soil and Rock". This recommended practice lists recognized methods for determining soil and rock distribution and groundwater conditions. These methods include geophysical and in-situ methods as well as borings.

The detailed collection methods used during this exploration are presented in the following paragraphs.

Standard Drilling Techniques

General: To obtain subsurface samples, borings are drilled using one of several alternate techniques depending upon the subsurface conditions. These techniques are as follows:

In Soils:
- a) Continuous hollow stem augers.
- b) Rotary borings using roller cone bits or drag bits, and water or drilling mud to flush the hole.
- c) "Hand" augers.

In Rock:
- a) Core drilling with diamond-faced, double or triple tube core barrels.
- b) Core boring with roller cone bits.

Hollow Stem Auger: A hollow stem augers consists of a hollow steel tube with a continuous exterior spiral flange termed a flight. The auger is turned into the ground, returning the cuttings along the flights. The hollow center permits a variety of sampling and testing tools to be used without removing the auger.

Rotary Borings: Rotary drilling involves the use of roller cone or drag type drill bits attached to the end of drill rods. A flushing medium, normally water or bentonite slurry, is pumped through the rods to clear the cuttings from the bit face and flush them to the surface. Casing is sometimes set behind the advancing bit to prevent the hole from collapsing and to restrict the penetration of the drilling fluid into the surrounding soils. Cuttings returned to the surface by the drilling fluid are typically collected in a settling tank, to allow the fluid to be recirculated.

Hand Auger Boring: Hand auger borings are advanced by manually twisting a 4” diameter steel bucket auger into the ground and withdrawing it when filled to observe the sample collected. Posthole diggers are sometimes used in lieu of augers to obtain shallow soil samples. Occasionally these hand auger borings are used for driving 3-inch diameter steel tubes to obtain intact soil samples.

Dual-Mass Dynamic Cone Penetrometer: Dual-Mass Dynamic Cone Penetrometer tests (DM-DCP) test is intended to provide data that can be correlated to an in situ California Bearing Ratio test. A 0.79-inch O.D. cone is seated at the test location and driven with a 17.6-pound (or 10.1-pound) weight falling 22.6 inches. The length of penetration is recorded with a given number of blows. The values are then evaluated and correlated with an in situ CBR.

Dynamic Cone Penetrometer: Dynamic Cone Penetrometer tests (DCP) is intended to provide data that can be correlated to the standard penetration test (SPT). A 1.5 inch O.D. cone is seated to penetrate any loose cuttings, then driven three, 1-3/4” increments with blows from a 15-pound weight falling 20 inches. The average number of blows required to drive the cone three increments is an index to soil strength and compressibility.

Core Drilling: Soil drilling methods are not normally capable of penetrating through hard cemeted soil, weathered rock, coarse gravel or boulders, thin rock seams, or the upper surface of sound, continuous rock. Material that cannot be penetrated by auger or rotary soil-drilling methods at a reasonable rate is designated as “refusal material”. Core drilling procedures are required to penetrate and sample refusal materials.

Prior to coring, casing may be set in the drilled hole through the overburden soils, to keep the hole from caving and to prevent excessive water loss. The refusal materials are then cored according to ASTM D2113 using a diamond studded bit fastened to the end of a hollow, double or triple tube core barrel. This device is rotated at high speeds, and the cuttings are brought to the surface by circulating water. Core samples of the material penetrated are protected and retained in the swivel-mounted inner tube. Upon completion of each drill run, the core barrel is brought to the surface, the core recovery is measured, and the core is placed, in sequence, in boxes for storage and transported to our laboratory.

Sampling and Testing in Boreholes

General: Several techniques are used to obtain samples and data in soils; however, the most common methods in this area are:

a) Standard Penetrating Testing
b) Water Level Readings

These procedures are presented below. Any additional testing techniques employed during this exploration are contained in other sections of the Appendix.

Standard Penetration Testing: At regular intervals, the drilling tools are removed and soil samples obtained with a standard 2-inch diameter split tube sampler connected to an A or N-size rod. The sampler is first seated 6 inches to penetrate any loose cuttings, and then driven an additional 12 inches with blows of a 140-pound safety hammer falling 30 inches. Generally, the number of hammer blows required to drive the sampler the final 12 inches is designated the "penetration resistance" or "N" value, in blows per foot (bpf). The split barrel sampler is designed to retain the soil penetrated, so that it may be returned to the surface for observation. Representative portions of the soil samples obtained from each split barrel sample are placed in jars, sealed and transported to our laboratory.

The standard penetration test, when properly evaluated, provides an indication of the soil strength and compressibility. The tests are conducted according to ASTM Standard D1586. The depths and N-values of standard penetration tests are shown on the Boring Records. Split barrel samples are suitable for visual observation and classification tests but are not sufficiently intact for quantitative laboratory testing.

Water Level Readings: Water table readings are normally taken in the borings and are recorded on the Boring Records. In sandy soils, these readings indicate the approximate location of the hydrostatic water table at the time of our field exploration. In clayey soils, the rate of water seepage into the borings is low and it is generally not possible to establish the location of the hydrostatic water table through short-term water level readings. Also, fluctuation in the water table should be expected with variations in precipitation, surface run-off, evaporation, and other factors. For long-term monitoring of water levels, it is necessary to install piezometers. The water levels reported on the Boring Records are determined by field crews immediately after the drilling tools are removed, and several hours after the borings are completed, if possible. The time lag is intended to permit stabilization of the groundwater table, which may have been disrupted by the drilling operation.

Occasionally the borings will cave-in, preventing water level readings from being obtained or trapping drilling water above the cave-in zone. The cave-in depth is measured and recorded on the Boring Records.

Boring Records

The subsurface conditions encountered during drilling are reported on a field boring record prepared by the Driller. The record contains information concerning the boring method, samples attempted and recovered, indications of the presence of coarse gravel, cobbles, etc., and observations of ground water. It also contains the driller's interpretation of the soil conditions between samples. Therefore, these boring records contain both factual and interpretive information. The field boring records are kept on file in our office.

After the drilling is completed, a geotechnical professional classifies the soil samples and prepares the final Boring Records, which are the basis for all evaluations and recommendations. The following terms are taken from ASTM D2487 or Deere's Technical Description of Rock Cores for Engineering Purposes, <u>Rock Mechanical Engineering Geology</u> 1, pp. 18-22.

Relative Density of Cohesionless Soils From Standard Penetration Test		**Consistency of Cohesive Soils**	
Very Loose	≤ 4 bpf	Very Soft	≤ 2 bpf
Loose	5 - 10 bpf	Soft	3 - 4 bpf
Medium	11 – 30 bpf	Medium	5 - 8 bpf
Dense	31 - 50 bpf	Stiff	9 - 15 bpf
Very Dense	> 50 bpf	Very Stiff	16 - 30 bpf
(bpf = blows per foot, ASTM D 1586)		Hard	> 30 bpf
Relative Hardness of Rock		**Particle Size Identification**	
Very Soft Rock disintegrates or easily compresses to touch; can be hard to very hard soil.		Boulders	Larger than 12"
		Cobbles	3" - 12"
Soft Rock may be broken with fingers.		Gravel	
		Coarse	3/4" - 3"
Moderately Soft Rock may be scratched with a nail, corners and edges may be broken with fingers.		Fine	4.76mm - 3/4"
		Sand	
		Coarse	2.0 - 4.76 mm
Moderately Hard Rock a light blow of hammer is required to break samples.		Medium	0.42 - 2.00 mm
		Fine	0.42 - 0.074 mm
Hard Rock a hard blow of hammer is required to break sample.		Fines (Silt or Clay)	Smaller than 0.074 mm
Rock Continuity		**Relative Quality of Rocks**	
$\textbf{RECOVERY} = \frac{\text{Total Length of Core}}{\text{Length of Core Run}} \times 100\ \%$		$\textbf{RQD} = \frac{\text{Total core, counting only pieces > 4" long}}{\text{Length of Core Run}} \times 100\ \%$	
<u>Description</u>	<u>Core Recovery %</u>	<u>Description</u>	<u>RQD %</u>
Incompetent	Less than 40	Very Poor	0 - 25 %
Competent	40 - 70	Poor	25 - 50 %
Fairly Continuous	71 - 90	Fair	50 - 75 %
Continuous	91 - 100	Good	75 - 90 %
		Excellent	90 - 100 %

LABORATORY TESTING

GENERAL

The laboratory testing procedures employed by Goodwyn Mills Cawood, LLC (GMC) are in general accordance with ASTM standard methods and other applicable specifications. Several test methods, described together with others in this Appendix, were used during the course of this exploration. The Laboratory Data Summary sheet indicates the specific tests performed.

SOIL CLASSIFICATION

Soil classifications provide a general guide to the engineering properties of various soil types and enable the engineer to apply past experience to current problems. In our investigations, samples obtained during drilling operations are examined in our laboratory and visually classified by an engineer. The soils are classified according to consistency (based on number of blows from standard penetration tests), color and texture. These classification descriptions are included on our "Boring Records".

The classification system discussed above is primarily qualitative and for detailed soil classification, two laboratory tests are commonly performed: grain size tests and plasticity tests. Using these test results the soil can be classified according to the AASHTO or Unified Classification Systems (ASTM D2487). Each of these classification systems and the in-place physical soil properties provides an index for estimating the soil's behavior. The soil classification and physical properties obtained are presented in this report.

POCKET PENETROMETER TEST

A pocket penetrometer test is performed by pressing the tip of a small, spring-loaded penetrometer with even pressure to a prescribed depth into a soil sample. This test yields a value for unconfined compressive strength, which may be correlated with unconfined compressive strengths obtained by other laboratory methods.

MOISTURE CONTENT

Moisture contents are determined from representative portions of the specimen. The soil is dried to a constant weight in an oven at 100° C and the loss of moisture during the drying process is measured. From this data, the moisture content is computed.

ATTERBERG LIMITS

Liquid Limit (LL), Plastic Limit (PL) and Shrinkage Limit (SL) tests are performed to aid in the classification of soils and to determine the plasticity and volume change characteristics of the materials. The Liquid Limit is the minimum moisture content at which a soil will flow as a heavy viscous fluid. The Plastic Limit is the minimum moisture content at which the soil behaves as a plastic material. The Shrinkage Limit is the moisture content below which no further volume change will take place with continued drying. The Plasticity Index (PI) is the numeric difference of Liquid Limit and Plastic Limit and indicates the range of moisture content over which a soil remains plastic. These tests are performed in accordance with ASTM D4318, D4943 and D427.

PARTICLE SIZE DISTRIBUTION

The distribution of soils coarser than the No. 200 (75-mm) sieve is determined by passing a representative specimen through a standard set of nested sieves. The weight of material retained on each sieve is determined and the percentage retained (or passing) is calculated.

A specimen may be washed through only the No. 200 sieve, if the full range of particle sizes is not required. The percentage of material passing the No. 200 sieve is reported.

The distribution of materials finer than the No. 200 sieve is determined by use of a hydrometer. The particle sizes and distribution are computed from the time rate of settlement of the different size particles while suspended in water. These tests are performed in accordance with ASTM D421, D422 and D1140.

COMPACTION TESTS (Moisture-Density Relationships)

Compaction tests are performed on representative soil samples to determine the maximum dry density and optimum moisture content. The results of the tests are used in conjunction with other tests to determine the desired engineering properties relating to settlement, bearing capacity, shear strength, and permeability. The results may also be used as a standard to determine the percent compaction of soil fills.

The two most commonly used compaction tests are the standard proctor test and the modified proctor test. They are performed in accordance with ASTM Specifications D698 and D1557, respectively. Generally, the standard proctor compaction test is run on samples from building areas and areas where moderate building loads are anticipated. The modified compaction test is generally used for analyses of highways and other areas where large building loads are expected. Both tests have three alternative methods.

Test	Method	Hammer		Mold Diameter	Run on Material Finer Than	No. Layers	No. of Blows/ Layer
		Wt.	Fall				
Standard Proctor D698	A	5.5 lb.	12”	4”	No. 4 sieve	3	25
	B	5.5 lb.	12”	4”	3/8” sieve	3	25
	C	5.5 lb.	12”	6”	3/4” sieve	3	56
Modified Proctor D1557	A	10 lb.	18”	4”	No. 4 sieve	5	25
	B	10 lb.	18”	4”	3/8” sieve	5	25
	C	10 lb.	18”	6”	3/4” sieve	5	56

Test results are presented in the form of a dry unit weight versus moisture content curve. The compaction method used and any deviations from the recommended procedures are noted in this report.

PERMEABILITY TEST

The permeability test is used to measure the ease with which water will flow through soils, such as seepage through liners or under dams, the squeezing out of water from the soil by the application of load and drainage of subgrades, dams and backfills.

The permeability test is conducted on undisturbed or remolded samples. Samples are trimmed to 1.4 or 2.85 inches in diameter and are variable heights. The samples are molded or trimmed and placed in a ring and placed between porous plates. Water is forced to flow through the sample and the rate of flow is determined.

Two methods of permeability are used, depending on the grain size of soils.

Constant head method is used for granular soil per ASTM D2434.

Falling head method is used for fine grained soil per ASTM D5084.

SOIL pH TESTS

The electrometric measurement of the pH of soils in suspension in distilled water is made with a potentiometer using a glass calomel electrode system. Calibrated with buffers of known pH previous to every series of tests. A slurry is made by thoroughly mixing distilled water with the soil, and the pH is read on the meter, according to the instructions of the manufacturer. The pH of the soil is a unitless number derived from the hydrogen ion content and is compared to a pH of 7. A pH of less than 7 is acid, and greater than 7 is basic. A pH of 7 is neutral. This is in general accordance with ASTM D4972.

LABORATORY SOIL RESISTIVITY TESTS

The ASTM G57 procedures requires the soil to be mixed with preferably on-site groundwater or alternately de-ionized, distilled water. The mixture is totally saturated and the slurry is allowed to set for 24 hours. The sample is then placed in a soil box and the sample is then tested using an ohm meter. The results obtained are reported as the soil's minimum resistivity.

SULFATE AND CHLORIDE CONTENT TESTS

Sulfate and chloride content tests were performed on selected soil samples. The tests were performed in general accordance with method 9038 (sulfate) and method 9252 (chloride) of EPA publication SW-846, 3rd edition, November, 1986.