



**ARKANSAS
SCHOOL**
FOR MATH,
SCIENCES,
+ THE ARTS

Arkansas School for Mathematics, Sciences, and the Arts

200 Whittington Ave, Hot Springs National Park, AR 71901

ADDENDUM #1

DATE: 10/16/2026
SUBJECT: ASMSA FB-27-002

The following change(s) to the above-referenced solicitation have been made as designated below:

- ☐ Change of specification(s)
- ☐ Additional specification(s)
- ☐ Change of bid opening time and date
- ☐ Cancellation of bid
- ☒ Other

Revised Schedule of Remaining Events: **Clerical error regarding Award Commences* Date corrected to December 1, 2026. See comprehensive schedule of remaining events below.**

Event Description	Date
Questions from Bidders due	10/16/2026
Answers to questions posted*	10/20/2026
Bid Deadline/ Bid Opening	10/23/2026 @ 2:30PM
Evaluation complete*	10/24/2026
Recommended award submitted for legislative approval*	10/30/2026*
Final legislative review*	November 2026*
Award Commences*	December 1, 2026*

*Anticipated Dates.

- **Steel Price Escalation:**
 - All pricing submitted in accordance with the Construction Documents shall remain firm for the duration of the project, with the sole exception of steel pricing. Due to market volatility, bidders shall guarantee their submitted steel pricing for a minimum of sixty (60) calendar days from the bid opening date. Steel price adjustments may be considered after the sixty-day period, regardless of whether the steel has been purchased in whole or in part during that period,

provided the Contractor submits sufficient supporting documentation and justification demonstrating the need for an adjustment. Any such adjustment shall be subject to review and written approval by ASMSA. If the market price of steel decreases at the time of purchase compared to the pricing included in the accepted bid, the resulting savings shall be credited to ASMSA through a corresponding reduction in the Contract Sum. No price adjustments will be permitted for other materials or equipment included in the bid.

- **Responsibility for security and insurance of staged materials held on ASMSA property:**
- The contractor is responsible for the security and insurance of all staged materials held on ASMSA property.
 - Reference: IFB §§2.2 and 3.1; Project Manual §01 50 00 and contractual insurance provisions.
- **Responsibility for removing the miscellaneous debris and existing gravel piles located on the project site:**
 - The Contractor shall be responsible for the removal and proper disposal of all existing gravel piles and miscellaneous debris located within the project site as part of the site preparation and construction scope of work. This requirement expressly includes existing stockpiled gravel and miscellaneous debris that may not otherwise be considered part of customary site preparation activities. All site preparation and site development requirements identified in Section 2.2 – Scope of Work of the Invitation for Bid, including but not limited to earthwork, landscaping, hardscaping, pavement, utilities, and related site improvements, remain applicable. Bidders shall include all costs associated with the removal and disposal of these materials in their submitted base bids. No separate compensation will be provided for this work.
 - Reference: IFB No. FB-27002, Section 2.2 – Scope of Work; applicable site preparation, site clearing, and earthwork requirements of the Construction Documents.
- **General Contractor & Sub-Contractor Sign-In Sheet (Pre-Bid/Site Visit):** See *next page*.

Alumni Hall & New Charter Field IFB Sign-In Sheet

October 14, 2026

Name	Company
Patrick Connell	Connell Const
BRIAN JACKSON	GIBERICH ELECTRICAL
John GARDNER	PETER'S Design Center
Jonathon Clem	JACE Constructors
Michael McCallum	Baldwin Shell Const.
John Lucas	Baldwin & Shell
JOSHUA SEALE	Seale Const Co. Inc
John Phillips	Alessi Keys Const
Robby Hubbard	Integrity Const.
Adam Tullos	Kinco
STAN SMITH	S&S Plumbing
James Brown	Glass Innovations

Preston Breeding Glass Innovations P

Alumni Hall & New Charter Field IFB Sign-In Sheet

October 14, 2026

Name	Company
Brian MESSERSMITH	INTEGRITY CONSTRUCTION
Hunter Bell	Bell Construction
Evan Sanderlin	Wagner General Contractors
Chad Coburn	Enformed General Contractors
Caleb Connell	Connell
David Zumbro	Connell
• MATT GILLENWATER	G-WATT ELECTRIC
• Allan Stanley	Umphress Steel

- **GEOTECHNICAL ENGINEERING EXPLORTION REPORTS:** *See next page.*

***All other terms, conditions, specifications, and requirements of IFB No. FB-27002 remain unchanged unless expressly modified by this Addendum.**

NOTE: The specifications by virtue of this addendum become a permanent addition to the above referenced solicitation. It is each respondent's responsibility to thoroughly examine and read the entire solicitation and any Q&A or addenda to this solicitation. Failure of respondents to fully acquaint themselves with existing conditions or information provided will not be a basis for requesting extra compensation after the award of a contract.

If you have any questions please contact Stephen Malec at ASMSA malecs@asmsa.org (501) 622-5106.

MTA ENGINEERS

- Geotechnical Engineering
- Materials Testing • Special Inspections
- Design

mtaengineers.com

GEOTECHNICAL ENGINEERING EXPLORATION

ASMSA Alumni Hall Addition Hot Springs, Arkansas

PREPARED FOR:

Domain Architecture
3200 SW Regency Parkway, Suite 4
Bentonville, AR 72712

PREPARED BY:

MTA ENGINEERS

8001 National Drive
Little Rock, AR 72209

March 31, 2026

Domain Architecture
3200 SW Regency Pkwy, Ste 4
Bentonville, AR 72712

March 31, 2026

Sent via email at: hpugh@domainbr.com

Attention: Hayley Pugh

Subject: Report of Geotechnical Engineering Exploration
Proposed Alumni Hall at ASMSA
Hot Springs, Arkansas

MTA Engineers has completed the authorized Geotechnical Engineering Exploration for the subject project. This work was conducted in accordance with the agreement between MTA Engineers and Domain Architects, detailed in MTA Engineers' Proposal approved on February 27, 2026.

The purpose of our work was to review the general surface and subsurface conditions within the project site area and to gather and present data related to the design and construction of the proposed improvement located in Hot Springs, Arkansas. This report outlines the exploration procedures employed, presents the data obtained, and provides our recommendations.

MTA Engineers appreciates this opportunity to provide these services and looks forward to working with you on future projects. Please do not hesitate to contact us if you have any questions or require additional information.

Sincerely,

MTA ENGINEERS



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EXECUTIVE SUMMARY

This geotechnical exploration was conducted at the existing Arkansas School for Mathematics, Sciences, and the Arts, located in Hot Springs, Arkansas. The site exhibits a downward slope from the building area to the new parking area and the Alumni Lane driveway. The overall grade is gentle, with uncompacted fill, asphalt, and construction debris present near the central portion of the site.

The existing soils generally consist of medium-dense to very-dense mixtures of silt, clay, sand, and rock fragments, as well as hard novaculite rock at depths. Subsurface conditions were consistent across the proposed development area.

Figure 1. General Topography of the Site



Major soil types encountered at each boring may be summarized as follows:

Table 1. Major Soil Types Encountered

SOIL TYPE	DESCRIPTION
GC-GM / GM	Lean Clay / Sandy Clay
ROCK	Weathered Shale & Hard Shale

Refer to *Table 2. The General Strata Classification of Boring Logs* provides a detailed overview of the soil strata encountered on site. The site is partially covered with grass and trees, especially in the new driveway path. Before starting construction, the site should be cleared of all soil containing organic matter, at least **4** inches or deeper in areas of trees.

The new building is expected to be above the current grade to promote proper drainage and to avoid rock excavation. Auger refusal was achieved within **5.5** to **10** feet below the existing grade at two boring locations, B-2 & B-3, using a TMG CSR-174 auger rig with 9,16100 ft-lbs. torque. Excavation for deep utility within the novaculite stratum will require heavy-duty equipment. Trench rock excavation should be anticipated for utility installation.

Upon stripping, the areas of the new building and pavement should be proof-rolled to assess any zone of density irregularity, although this is not anticipated. Any loose spot should be reworked before the construction of any improvements or placement of any fill. Isolated debris consisting of concrete, asphalt, and boulders will require removal within the building area.

Based on the type of soil encountered, it is recommended that the new building be supported on shallow footings that are founded at least **16** inches below the final grade. All footings should be supported within a uniform bearing plane to avoid differential settlement. Shallow footings designed according to these guidelines may have an allowable bearing capacity of **3,000** psf for strip footings and **4,000** psf for isolated spread footings.

The net allowable bearing pressures are calculated with a safety factor greater than **3.0** regarding the expected shear strength of the bearing stratum. Total and differential settlement is expected to be less than $\frac{1}{2}$ inch.

Slab-on-grade type construction is considered appropriate for the floor slab. We recommend that the slab be supported on **4** inches of clean crushed stone or gravel, on prepared subgrade.

SUMMARY

- **Rock/Hard Dig:**
 - Hard novaculite layers were encountered within **5.5** to **10** feet beneath the current grade.
 - Deep excavations for utility will require heavy-duty equipment.
 - Trench rock excavation should be anticipated.
- **Soils:**
 - The site is partially covered with organics; stripping/grubbing of **4** inches is anticipated.
 - The soils predominantly consist of dense granular soils and hard rock.
 - The in-situ soils in the primary grades vary in composition.
 - The subgrade should be proof-rolled to assess the density regularity of the native soils.
 - The native soil of any stratum is considered suitable for structural fill.
- **Foundations/Slabs:**
 - Shallow footings, founded at least **16** inches below the final grade, may be sized using a bearing capacity of **3,000** psf for strip and **4,000** psf for spread footings.
 - All footings should be supported within the same material to avoid differential settlement.
- **Pavement:**
 - **8-in** of Aggregate Base and **2-in** of ACHM surface will be required in light-duty sections.
 - On-site fractured novaculite is considered suitable for an aggregate base course.
 - Additional recommendations are discussed further in this report.
- **Seismic Consideration**
 - Based on ASCE/SE 41-23, a site soil **Class C** may be used for design purposes. The liquefaction potential of the soils in Strata I, II & III is negligible.
- **Uncompacted Fill:**
 - No uncompacted fill was encountered on the site during exploration.
- **Stump/Organic Findings:**
 - The surface soils contain organics. The likelihood of finding buried organic material beneath the surface is low.
- **Miscellaneous:**
 - Any buried utility should be located before excavation begins.
 - Positive drainage must be established before the start of any excavation and integrated throughout the construction process.

INTRODUCTION

This exploration was conducted to evaluate existing subsurface conditions and provide geotechnical design recommendations. The findings of this exploration, along with the geotechnical design recommendations for site construction, are presented in this report.

The exploration process included:

1. Boring **4** locations up to a depth of **15** feet or refusal, to investigate subsurface soil and groundwater conditions. The new driveway is currently impassable with the drill rig due to steep grades and tree obstructions.
2. Obtaining samples from each stratum within the accessible areas using standard geotechnical sampling techniques or standard penetration tests.
3. Performing laboratory tests on various samples to determine the relevant engineering properties of the subsurface strata.
4. Analyzing field and laboratory test data to develop design recommendations.

It is important to note that the scope of this geotechnical exploration did not include an environmental assessment to identify the presence of wetlands or hazardous or toxic materials in the soil or groundwater on or near this site. If there are concerns regarding wetlands or the presence of hazardous/toxic materials, a qualified environmental assessment consultant should be contacted to perform a site investigation before construction begins.

FIELD EXPLORATION

Subsurface conditions at the site were explored using dry auger methods and a split-spoon sampler at **4** locations, up to a maximum depth of **15** feet below the existing grade or refusal. The approximate locations of these borings are depicted in the Plan of Borings found in Appendix A. Boring logs, which provide descriptions of the soil strata encountered, are included in Appendix B. Laboratory testing results for the various soil types are located in Appendix D.

Samples were collected from most locations following Standard Penetration Test (SPT) procedures. The recorded N-Values (blows per foot) are noted in the Blows per foot column on the Boring Logs. All soil samples obtained were placed in moisture-tight containers and transported to our laboratory for further analysis.

At the laboratory, a visual classification was conducted for each sample, and different soil types were analyzed for specific engineering properties. The dry auger drilling method allowed us to observe shallow groundwater conditions. No groundwater was encountered below the existing grade.

GENERAL SITE AND SUBSURFACE CONDITIONS

This geotechnical exploration was conducted for the proposed improvement at the Arkansas School for Mathematics, Sciences, and the Arts, located in Hot Springs, Arkansas. The site exhibits a downward slope from the building to the Alumni Lane driveway. The overall grade is gentle, with construction and pavement debris present near the central portion of the site.

The existing soils consist of dense granular soils with gravel in the primary grades and hard rock at depths. Auger refusal was achieved within **5.5 to 10** feet below the existing grade in borings B-2 & B-3. Overall, the subsurface conditions were consistent throughout the entire area designated for development. The planned drive was not accessible due to steep terrain. Exposed rock formations are visible in this area. Rock excavation should be expected at this location.

The stratigraphy observed at the boring locations is summarized in Table 2. The subsurface conditions were consistent throughout the entire area proposed for development. Borings were drilled to a maximum depth of **13** feet or refusal using dry auger procedures. Auger refusal was nowhere achieved within the depths and locations explored.

For a more detailed description of soils encountered during testing, please refer to the boring log sheets found in Appendix B: Boring Logs attached to this report.

Table2. General Strata Classification of Boring Logs

STRATA	DEPTH (ft)	GROUP SYMBOL	SOIL DESCRIPTION	SIGNIFICANT PROPERTIES
<i>4" of Topsoil with Surface Organics / 5" of Gravel / Construction Debris</i>				
STRATUM I	0 to 4 - 10	GC-GM	• Red-Tan or Black-Brown, Silt-Sand-Clay- Gravel/Shale Mixtures	• Medium to Very Dense • Low compressibility • Moderate Bearing
STRATUM II	4 to 5.5 - 15	GM	• Tan-Gray, Sand with Novaculite Fragments Mixtures	• Very Dense • Good Drainage • Moderate Bearing
STRATUM III	Refusal depths	ROCK	• Novaculite (Silica Stone)	• Hard • Reduced Permeability • Moderate to High Bearing
• Groundwater Encountered: none • Auger Refusal: 5.5 to 10 feet BGS				

During our exploration, no groundwater was encountered within the depths explored. However, there is potential for perched groundwater to form above the rock layers during wetter periods of the year. The significant properties and characteristics of the subsurface strata pertinent to design and construction are as follows:

- A. The topography of the site and planned building location.
- B. The anticipated bearing loads.
- C. The presence of high-stiffness granular soils in the primary grades.
- D. The novaculite rock encountered at variable depths.
- E. The anticipated pavement loading and planned location.

LABORATORY TESTING

A description of the soils encountered in the borings was prepared in general accordance with applicable ASTM standards. The soil stratification shown on the boring logs represents soil conditions at specific boring locations. There may be some variations that occur between or beyond the boring locations.

The stratification lines on the boring logs represent the approximate boundaries between soil types. However, the actual transitions between soil layers in the subsurface of the proposed site may be gradual.

Laboratory testing was performed to verify/evaluate classification, volumetric stability, and to determine water content. The results of all testing performed are represented in Appendix D, Laboratory Test Summary.

ANALYSIS AND RECOMMENDATIONS

SITE PREPARATION

Based on the type of soil encountered, it is anticipated that the proposed improvement will be above the current grades to avoid rock excavation and promote proper drainage. Before starting construction or placing any fill, the site must be stripped/grubbed at least **4** inches to remove all organic-containing soil in the area. Deeper striping may be required in areas of deep-rooted trees. Isolated debris removal will also be required.

The shale or rock fragments in the top layer vary in density and composition. Upon stripping off organics, the site may be proof-rolled with a loaded dump truck to assess the density regularity of the subgrade. Any loose spot should be reworked or replaced.

Any required excavation should be performed under dry conditions, using appropriate equipment suitable for the scope of work. Auger refusal was achieved at two locations within the novaculite rock, **5.5 to 10** feet below the ground surface. Excavation for deep utilities will require heavy-duty equipment. The use of light-duty excavators will be limited by depth and soil composition. All excavations should be backfilled with properly compacted structural fill to the planned bearing elevation. Positive drainage should be maintained at all times during excavation to prevent water accumulation.

If the new drive is to be built at the planned location, rock excavation will be necessary. Novaculite is a very dense, hard, and abrasive rock that will be challenging to remove. However, the formation is under pressure, which may naturally fracture it and facilitate easier removal in large areas. Trenching through rock will be difficult. The planned drive area should be re-evaluated for its location to avoid extensive rock removal.

Excessive moisture during excavation could significantly weaken the stability and strength of the soils. No groundwater was encountered during the subsurface sampling; however, perched water may develop during wetter periods of the year. Therefore, installing frequent French drains should be considered to manage groundwater during these wetter times.

STRUCTURAL FILL

Structural fill, if required, should consist of approved materials, free of organic matter and debris. For approval, samples of the proposed fill material should be submitted to MTA ENGINEERS for classification testing. Select fill consisting of low-plasticity soil, such as clayey sand or clayey gravel, classifying as SC or GC according to the Unified Soil Classification System, is generally considered suitable. High-plasticity clay soils (soils with a Liquid Limit above **50**) should not be used as fill. Rock fragments that are greater than **6** inches should not be included in engineered fill within the top **2** feet in pavement areas and within the top **4** feet beneath the buildings.

Placement of approved fill should be achieved in multiple thin lifts. Each lift should not exceed eight **8** inches in loose thickness. Compaction of these lifts should be performed using suitable equipment to achieve **95%** of the standard Proctor test (ASTM D698) within $\pm 3\%$ of the Optimum Moisture Content. Care should be taken to ensure all compaction recommendations are properly performed.

If cohesive soils are to be used, compaction should be performed using a kneading-type vibratory compactor, such as a vibratory sheepsfoot. The material should be broken down sufficiently to provide a dense matrix of particles.

Note: In proper moisture conditions, the native soils are considered suitable for structural fill.

The following table should be used for compaction requirements based on the material and location.

Table 3: Compaction Requirements

Material Type and Location	Min. Compaction (% of ASTM D698)	Allowable Variance in Moisture from Optimum
Structural Fill Beneath Pavement Sections	95%	-2 to +5
Structural Fill Beneath Buildings	95%	-2 to +5
Utility Backfill in Building and Pavement Areas	95%	-3 to +3
Miscellaneous and Green Areas	90%	-3 to +3
Aggregate Base Course	95%	-3 to +3 (at time of Compaction)

BUILDING FOUNDATIONS

All foundations must satisfy two basic and independent design criteria. First, foundations must have an acceptable factor of safety against bearing failure under maximum design loads. Secondly, movement of the foundation due to consolidation, shrinkage, and/or swelling of the supporting strata should not exceed tolerable limits for the structure.

Construction factors such as the installation of foundation units, excavation procedures, and surface and groundwater conditions should also be considered. These factors, coupled with the aforementioned subsurface conditions, were influential in the development of the following recommendation.

In view of the anticipated foundation loading and subsurface conditions encountered, it is recommended that the proposed structures be supported on a foundation system designed in accordance with the following recommendations.

FOUNDATIONS/ SLABS

Conventional Shallow Foundations

Based on the nature of the native and the anticipated loading, it is recommended that the proposed addition be supported on conventional shallow footings founded at least **16** inches beneath the final exterior grade, within the native soils.

Conventional shallow footings founded as accounted may be designed using a net allowable end bearing pressure of **3,000** psf for strip and **4,000** psf for isolated spread footings. All footings should be founded within the same material to prevent differential settlement.

The net allowable end bearing pressures are based on a factor of safety over **3.0** with respect to the anticipated shear strength of the bearing stratum. Total and differential settlement is anticipated to be less than ½ inch.

A slab-on-grade type construction is considered appropriate for the floor slab. We recommend that the slab be supported on **4** inches of clean crushed stone or gravel (ASTM C-33 #57 or equivalent) on the prepared subgrade. A Class **A** impervious moisture barrier with a minimum thickness of **10** mils, specified according to ASTM E-1745, should be provided between the slab and the granular fill due to the potential for perched water to develop during the wetter seasons.

PAVEMENT DESIGN

Paved parking and drives will be constructed as part of the project. Design traffic volumes and loadings have not been determined. However, we anticipate that the drives will be subject to light vehicles and weekly service trucks. Subgrade soils will generally consist of compacted native soils or structural fill

The surface soils in the new drive path contain organics; it is recommended that this area be stripped in the order of **4-in** or deeper to remove all organic-containing soil. The potential to find stumps or other organic material beneath the surface is low. It is anticipated that structural fill may be required to create a gentle grade for the new pavement. Structural fill should be placed as recommended in the “*Structural Fill*” section of the report.

The following design criteria were used to develop the recommended pavement sections in conjunction with the AASHTO Design Guide 1996:

Table 4. Pavement Design Assumption Values

PAVEMENT DESIGN ASSUMPTION VALUES	
Subgrade Type:	Stratum I
CBR	5
R-Value	20
Soil Support Value (SSV)	15
Secant Modulus (E_s)	10,500-psi
Poisson's Ratio (μ)	0.35
Subgrade Reaction Value (K)	400-pci

Based on information obtained during this study, subgrade soils in paved areas should generally consist of compacted native layers or structural fill. Structural fill, where required, should be placed as recommended in the *Site Preparation* and *Structural Fill* sections of this report. It is recommended that positive site drainage be provided during construction and incorporated during the final design.

Table 5. Pavement Design Recommendations

PAVEMENT DESIGN RECOMMENDATIONS	
Standard Duty Asphalt Paving	2 inches of ACHM Surface Course
	8 inches of Crushed Stone Base Course
	24 inches of Compacted subgrade
Heavy Duty Asphalt Paving	3-in ACHM Surface Course
	8-in Crushed Stone Base Course
	24 inches of Compacted subgrade
Standard Duty Concrete Paving	5-in Concrete Pavement
	6-in Crushed Stone Base Course
	24 inches of Compacted subgrade
Heavy Duty Concrete Paving & Dumpster Pad	6-in Concrete Pavement
	6-in Crushed Stone Base Course
	24 inches of Compacted subgrade

Note: All pavement sections must comply with the city's minimum requirements. It should be recognized that some periodic maintenance of the pavement will be required. As a minimum, this should include periodic sealing of all joints and cracks to prevent surface water infiltration.

UNCOMPACTED FILL

Uncompacted fill piles and construction debris were encountered during exploration.

STUMP/ ORGANIC FINDINGS

The surface soils contain organics and gravel. The likelihood of finding buried organic material beneath the surface is low.

SEISMIC CONSIDERATION

Based on ASCE/SE 41-23, a site soil **Class C** may be used for design purposes. The liquefaction potential of the soils in Strata I, II & III is negligible. Additional design information on Seismic Consideration is attached as Appendix E.

CONSTRUCTION PROCEDURES

The potential exists for perched water to develop during wetter seasons. Therefore, foundation excavation and any other site grading should be performed during drier periods to reduce the possibility of changes in conditions. Consideration should also be given to the installation of frequent French drains to control groundwater during wetter periods.

Subsurface conditions significantly at variance with those encountered within the borings should be brought to the attention of the engineer, and work should be delayed pending evaluation and/or preparation of additional recommendations, if warranted.



The following illustrations are attached to complete this report:

Appendix A: Plan of Excavation

Appendix B: Boring Logs

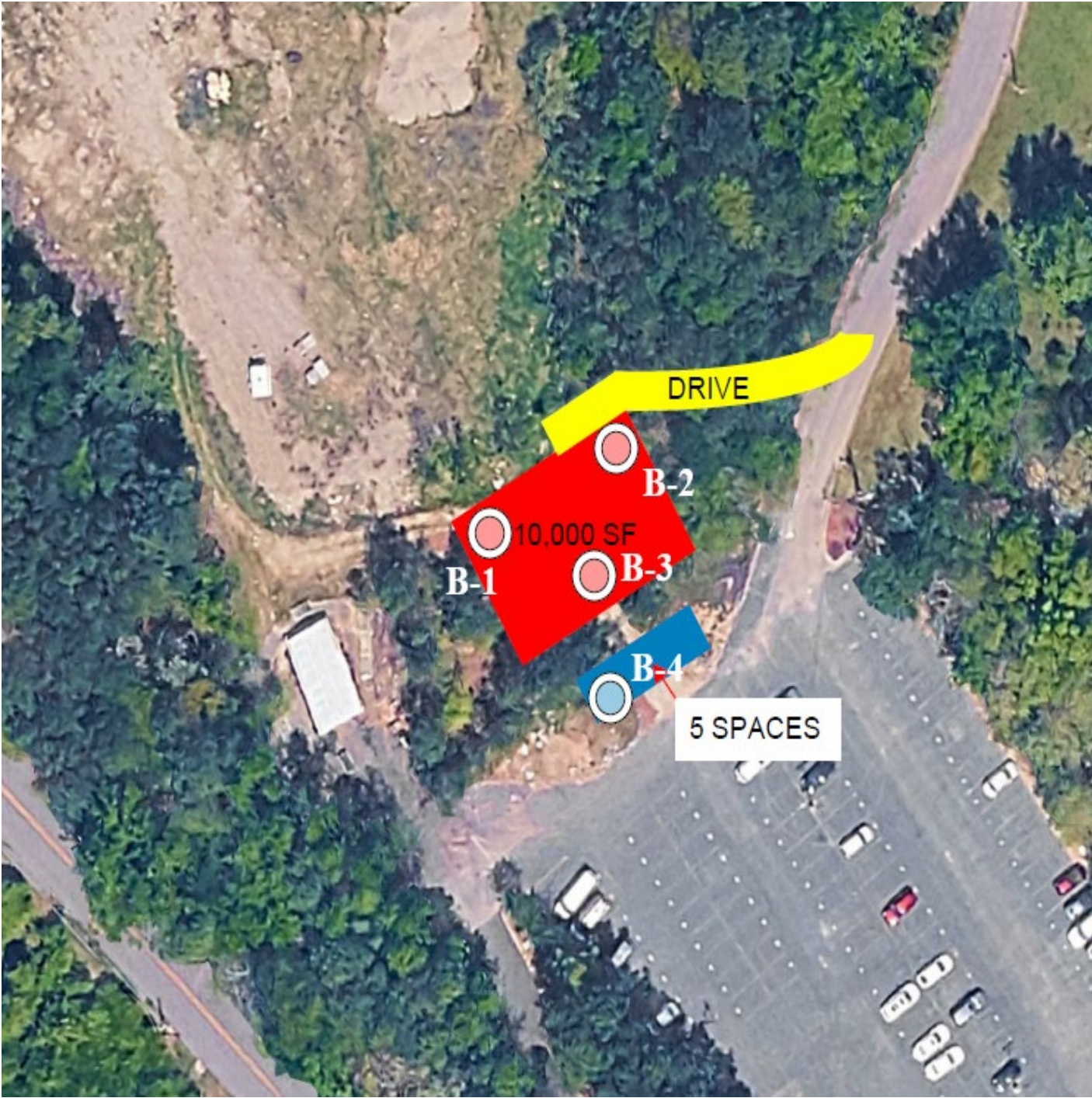
Appendix C: Key to Terms and Symbols

Appendix D: Laboratory Test Results

Appendix E: Seismic Design Criteria



Appendix A: Boring Location Plan



Appendix B: Boring Logs



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MATERIALS TESTING OF ARKANSAS

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Boring Log Report

BORING NO. B-1

PAGE 1 OF 1

JOB NO. GEO26-048

JOB NAME: ASMSA ALUMNI HALL

COORDINATES: NORTH: _____ EAST: _____

STATION: _____

LOCATION: HOT SPRINGS, AR

DATE: 3/17/26

TYPE OF DRILLING: DRYA AUGER

EQUIPMENT: TMG-CSR-174

LOGGED BY: C.D.

DRILLED BY: P.K.

DEPTH FT.	SYMBOL	SAMPLES	DESCRIPTION OF MATERIAL	SOIL GROUP	PLASTIC LIMIT	% MOIST.	LIQUID LIMIT	PLASTICITY INDEX	PERCENT PASSING #200	NO. OF BLOWS PER 6-IN.	N-Value
			SURFACE ELEVATION: EXISTING GRADE								
			DENSE	GC-GM						15	31
			DENSE							19-12	
			5" SURFACE GRAVEL REDDISH TAN, SILT-SAND- CLAY- GRAVEL MIXTURES							7	50
										12-38	
5			V.DENSE	GM						42	50+
			V.DENSE							50+	
			V.DENSE							23	50+
			V.DENSE							50+	
10			TAN, SAND W/ NOVACULITE FRAGMENTS							50+	50+
15			V.DENSE							50+	50+
			Boring Terminated								
20											
25											
30											

COMPLETION DEPTH: 15

WATER DEPTH> INITIAL:

AFTER 24 HOURS:

REMARKS:



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Boring Log Report

BORING NO. B-2

PAGE 1 OF 1

JOB NO. GEO26-048

JOB NAME: ASMSA ALUMNI HALL

COORDINATES: NORTH: _____ EAST: _____

STATION: _____

LOCATION: HOT SPRINGS, AR

DATE: 3/17/26

TYPE OF DRILLING: DRYA AUGER

EQUIPMENT: TMG-CSR-174

LOGGED BY: C.D.

DRILLED BY: P.K.

DEPTH FT.	SYMBOL	SAMPLES	DESCRIPTION OF MATERIAL	SOIL GROUP	PLASTIC LIMIT	% MOIST.	LIQUID LIMIT	PLASTICITY INDEX	PERCENT PASSING #200	NO. OF BLOWS PER 6-IN.	N-Value
			SURFACE ELEVATION: EXISTING GRADE								
			M.DENSE	GC-GM	19	9.8	24	5	22.4	9	22
			BROWN, SILTY CLAYEY GRAVEL W/ SAND							10-12	
			V.DENSE	GM						8	50+
										27-30+	
5			V.DENSE							50+	50+
			V.DENSE							50+	50+
			TAN, SAND W/ NOVACULITE FRAGMENTS	GM						50+	50+
			V.DENSE							50+	50+
			V.DENSE							50+	50+
10			AUGER REFUSAL AT 10 FT								
			Boring Terminated								
15											
20											
25											
30											

COMPLETION DEPTH: 10

WATER DEPTH> INITIAL:

AFTER 24 HOURS:

REMARKS:



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Boring Log Report

BORING NO. **B-3**

PAGE **1** OF **1**

JOB NO. **GEO26-048**

JOB NAME: **ASMSA ALUMNI HALL**

COORDINATES: NORTH: _____ EAST: _____

STATION: _____

LOCATION: **HOT SPRINGS, AR**

DATE: **3/17/26**

TYPE OF DRILLING: **DRYA AUGER**

EQUIPMENT: **TMG-CSR-174**

LOGGED BY: **C.D.**

DRILLED BY: **P.K.**

DEPTH FT.	SYMBOL	SAMPLES	DESCRIPTION OF MATERIAL	SOIL GROUP	PLASTIC LIMIT	% MOIST.	LIQUID LIMIT	PLASTICITY INDEX	PERCENT PASSING #200	NO. OF BLOWS PER 6-IN.	N-Value
			SURFACE ELEVATION: EXISTING GRADE								
			DENSE BLACK-BROWN, SAND-CLAY- NOVACULITE FRAGMENTS	GC- GM						9 12-23	35
			V.DENSE							24 50+	50+
5			V.DENSE GRAY, SAND-QUARTZ MIX AUGER REFUSAL AT 5.5 FT Boring Terminated	GM						22 50+	50+
10											
15											
20											
25											
30											

COMPLETION DEPTH: **6**

WATER DEPTH> INITIAL:

AFTER 24 HOURS:

REMARKS:



MTA ENGINEERS a division of
MATERIALS TESTING OF ARKANSAS

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Boring Log Report

BORING NO. B-4

PAGE 1 OF 1

JOB NO. GEO26-048

JOB NAME: ASMSA ALUMNI HALL

COORDINATES: NORTH: _____ EAST: _____

STATION: _____

LOCATION: HOT SPRINGS, AR

DATE: 3/17/26

TYPE OF DRILLING: DRYA AUGER

EQUIPMENT: TMG-CSR-174

LOGGED BY: C.D.

DRILLED BY: P.K.

DEPTH FT.	SYMBOL	SAMPLES	DESCRIPTION OF MATERIAL	SOIL GROUP	PLASTIC LIMIT	% MOIST.	LIQUID LIMIT	PLASTICITY INDEX	PERCENT PASSING #200	NO. OF BLOWS PER 6-IN.	N-Value
			SURFACE ELEVATION: EXISTING GRADE								
			V.DENSE							20	50+
			V.DENSE							33-34	
			V.DENSE							39	50
										50+	
5			V.DENSE							32	50+
										50+	
			V.DENSE							50+	50+
			V.DENSE							50+	50+
10											
			Boring Terminated								
15											
20											
25											
30											

COMPLETION DEPTH: 10

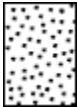
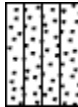
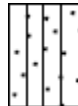
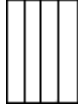
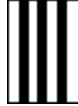
WATER DEPTH> INITIAL:

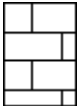
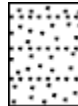
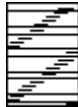
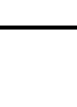
AFTER 24 HOURS:

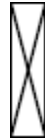
REMARKS:

Appendix C: Key to Terms

TERMS AND SYMBOLS USED ON BORING LOGS

SOIL TYPES			
	CLAY (CH)		SILTY CLAY (CL)
	CLAY (CL)		SANDY CLAY (CL)
	WELL-GRADED SAND (SW)		POORLY-GRADED SAND (SP)
	SILTY SAND (SM)		CLAYEY SAND (SC)
	WELL-GRADED GRAVEL (GW)		POORLY-GRADED GRAVEL (GP)
	SILTY GRAVEL (GM)		SANDY SILT (ML)
	CLAYEY GRAVEL (GC)		SILT (ML)
	SILT (MH)		FILL MATERIAL

ROCK TYPES		
	LIMESTONE	
	SHALE	
	SANDSTONE	
	WEATHERED LIMESTONE	
	WEATHERED SHALE	
	WEATHERED SANDSTONE	

SAMPLER TYPE			
	SHELBY TUBE SAMPLE		SPLIT SPOON SAMPLE
	AUGER SAMPLE		NO RECOVERY

SOIL GRAIN SIZE

U.S. STANDARD SIEVE								
12"	3"	3/4"	4	10	40	200		
BOULDERS	COBBLES	GRAVEL		SAND			SILT	CLAY
		COARSE	FINE	COARSE	MEDIUM	FINE		
304	76.2	19.1	4.75	2	0.42	0.074	0.002	
SOIL GRAIN SIZE IN MILLIMETERS								

TERMS DESCRIBING CONSISTENCY OR CONDITION

COARSE GRAINED SOILS (major portion retained on No 200 sieve): Includes (1) clean gravels and sands, and (2) silty clayey gravels and sands condition is rated according to relative density, as determined by laboratory tests.

DESCRIPTIVE TERMS	N VALUE	RELATIVE DENSITY
VERY LOOSE	0-4	0 – 15 %
LOOSE	4-10	15 – 35 %
MEDIUM DENSE	10-30	35 – 65 %
DENSE	30-50	65 – 85 %
VERY DENSE	50 and above	85 – 100 %

FINE GRAINED SOILS (major portion passing No 200 sieve): include (1) inorganic and organic silt and clays, (2) gravelly, sandy, or silty clays, and (3) clayey silts. Consistency is rated according to shearing strength, as indicated by penetrometer reading or by unconfined compression tests.

DESCRIPTIVE TERMS	N VALUE	UNCONFINED COMPRESSIVE STRENGTH
		TON / SQ. FT.
VERY SOFT	0-3	less than 0.25
SOFT	3-6	0.25 - 0.50
FIRM	6-12	0.50 - 1.00
STIFF	13-20	1.00 - 2.00
VERY STIFF	20-50	2.00- 4.00
HARD	50 and above	4.00 and higher

NOTE: Slickensided and fissured clays may have lower unconfined compressive strengths than shown above because of planes of weakness or cracks in the soil. The consistency rating of such soils are based on penetrometer readings

TERMS CHARACTERIZING MOISTURE CONTENT

DRY: No water evident in sample; fines less than plastic limit.

MOIST: Sample feels damp; fines near the plastic limit.

VERY MOIST: Water visible on sample; fines greater than plastic limit and less than liquid limit.

WET: Sample bears free water; fines greater than liquid limit.

TERMS CHARACTERIZING SOIL STRUCTURE

SLICKENSIDED: Having inclined planes of weakness that are slick and glassy in appearance.

FISSURED: Containing shrinkage cracks, frequently filled with fine sand or silt; usually more or less vertical.

LAMINATED: Composed of thin layer of varying color and texture.

INTERBEDDED: Composed of alternate layers of different soil types

CALCAREOUS: Containing appreciable quantities of calcium carbonate.

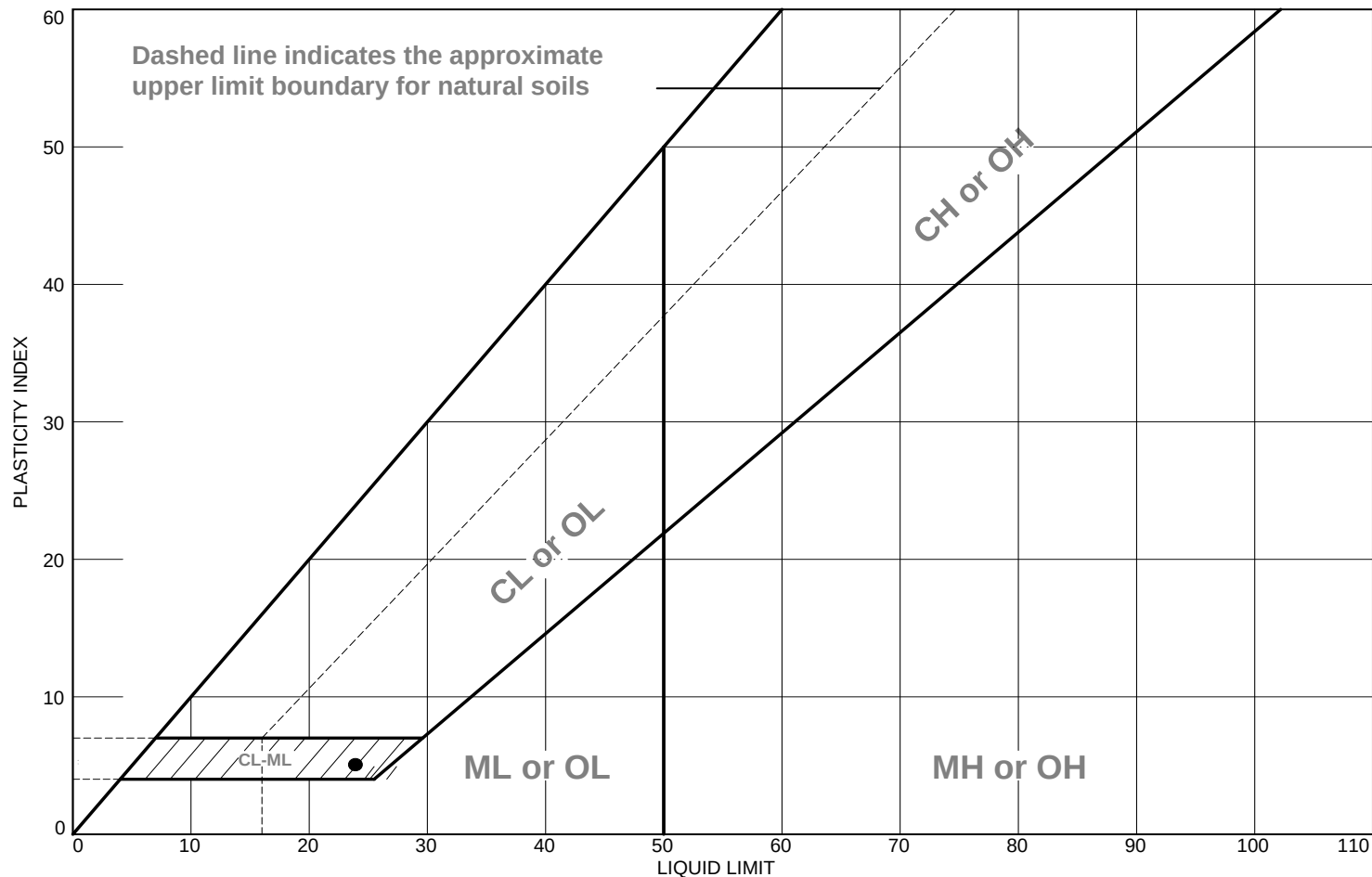
WELL GRADED: Having wide range in grain sizes and substantial amounts of all intermediate particle size.

POORLY GRADED: Predominantly of one grain size, or having a range of sizes with some intermediate size missing

Terms used in this report for describing soils according to their texture or grain size distribution are in accordance with UNIFIED SOIL CLASSIFICATION SYSTEM as described in technical Memorandum No 3-357, Waterways Experiment Station, March 1953

Appendix D: Laboratory Test Results

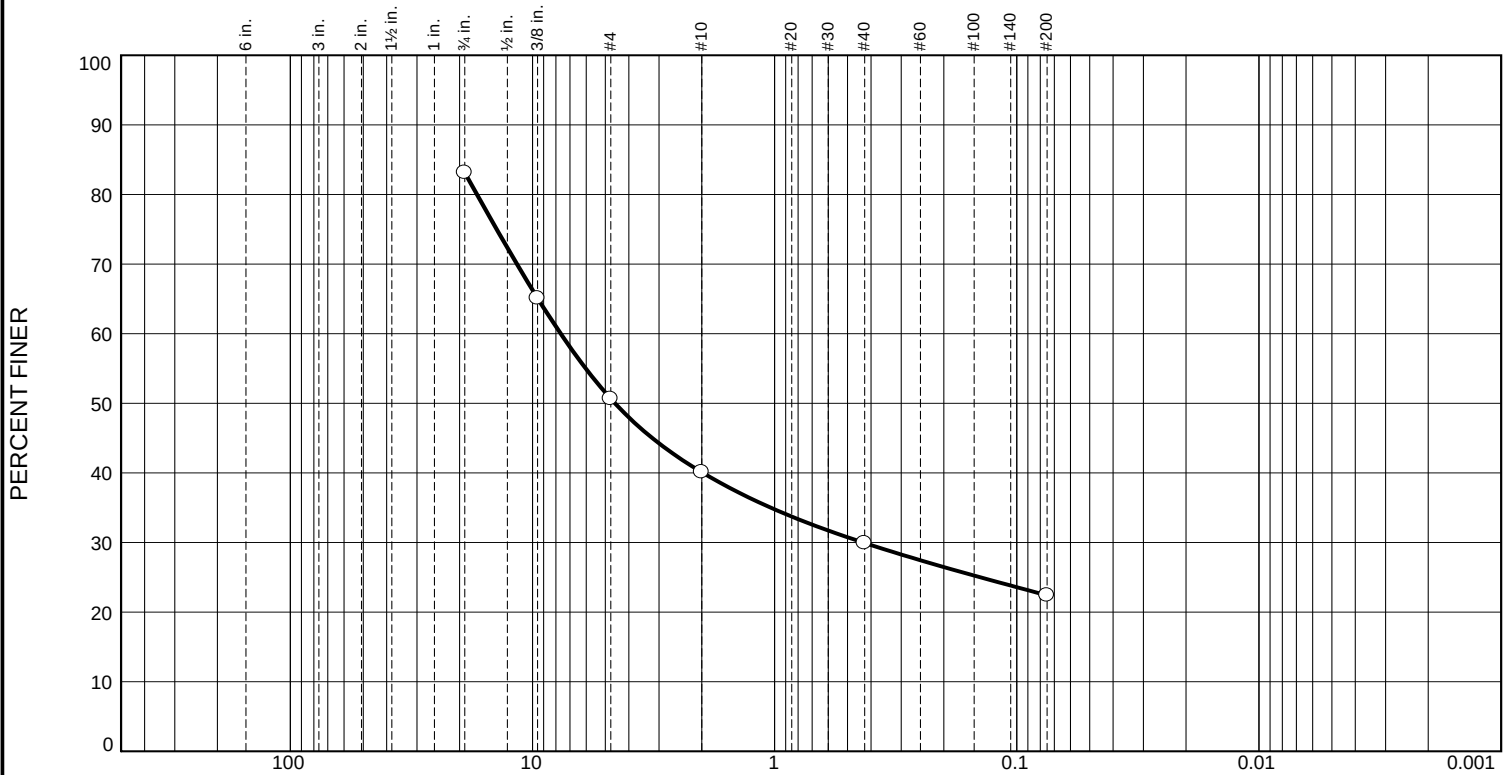
LIQUID AND PLASTIC LIMITS TEST REPORT



	MATERIAL DESCRIPTION	LL	PL	PI	%<#40	%<#200	USCS
●	SILTY CLAYEY GRAVEL W/ SAND	24	19	5	29.9	22.4	GC-GM

Project No. GEO26-048 Client: DOMAIN Project: ASMSA ALUMNI HALL ● Source of Sample: B-2 Depth: 0 Materials Testing of Arkansas Little Rock, AR	Remarks: Figure
---	---------------------------------------

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
		32.4	10.6	10.2	7.5	22.4	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
3/4"	83.1		
3/8"	65.1		
#4	50.7		
#10	40.1		
#40	29.9		
#200	22.4		

Material Description SILTY CLAYEY GRAVEL W/ SAND		
PL= 19 USCS= GC-GM	Atterberg Limits LL= 24 Classification AASHTO=	PI= 5 A-1-b Remarks

* (no specification provided)

Source of Sample: B-2

Depth: 0

Date:

Materials Testing of Arkansas

Little Rock, AR

Client: DOMAIN

Project: ASMSA ALUMNI HALL

Project No: GEO26-048

Figure

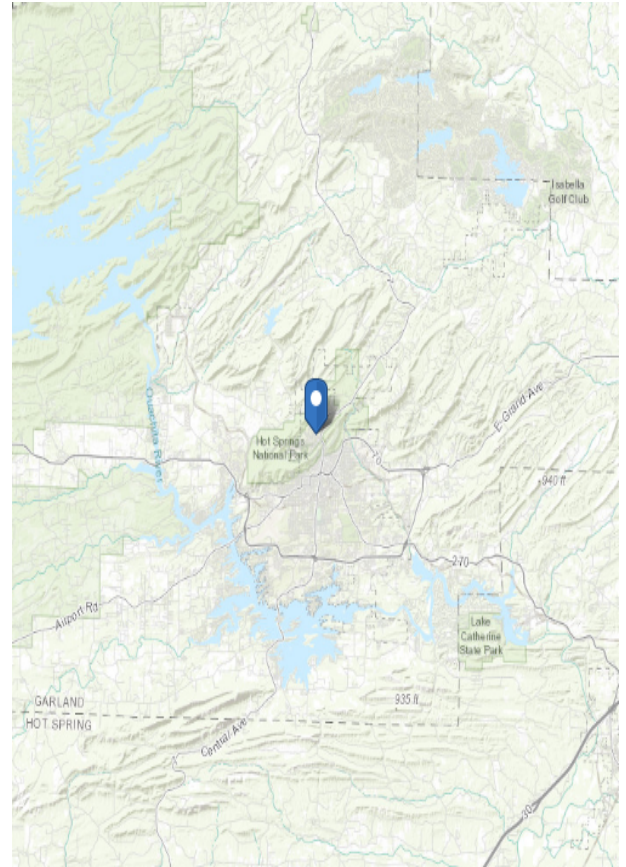
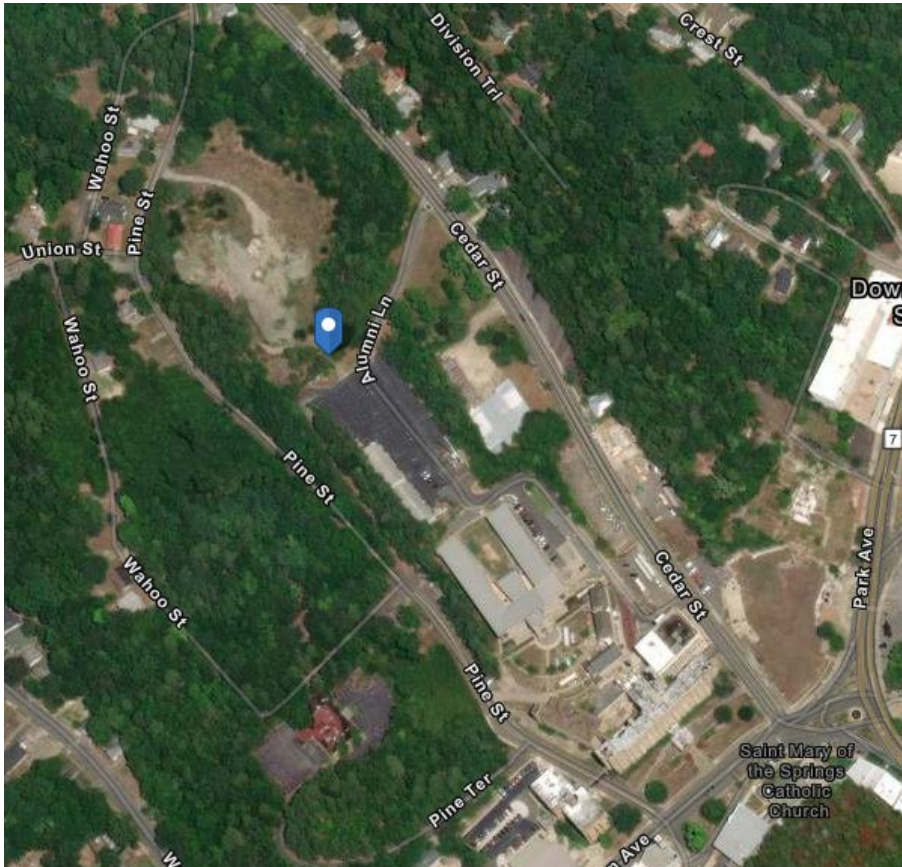
Appendix E: Seismic Design Criteria

ASCE Hazards Report

Address:
No Address at This Location

Standard: ASCE/SEI 41-23
Risk Category: NaN
Soil Class: C - Very Dense
Soil and Soft Rock

Latitude: 34.52073
Longitude: -93.05969
Elevation: 718.5554233710693 ft
(NAVD 88)



Site Soil Class: C - Very Dense Soil and Soft Rock

Hazard Level BSE-2N:

S_{XS} : 0.37 S_{X1} : 0.17

Hazard Level BSE-1N:

S_{XS} : 0.24 S_{X1} : 0.12

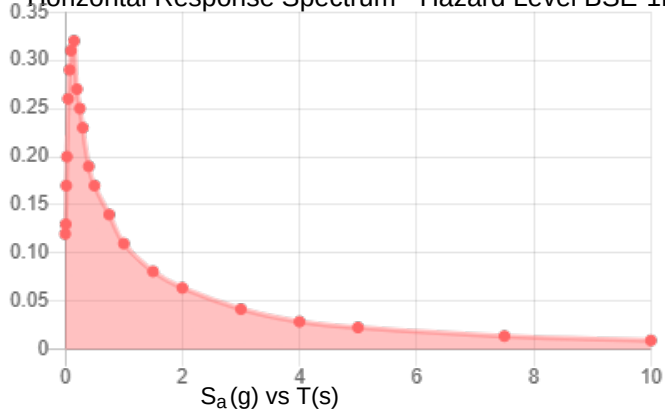
Hazard Level BSE-2E:

S_{XS} : 0.24 S_{X1} : 0.11

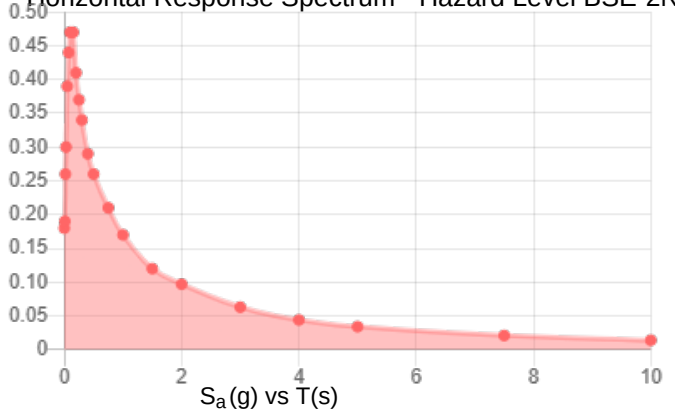
Hazard Level BSE-1E:

S_{XS} : 0.075 S_{X1} : 0.025

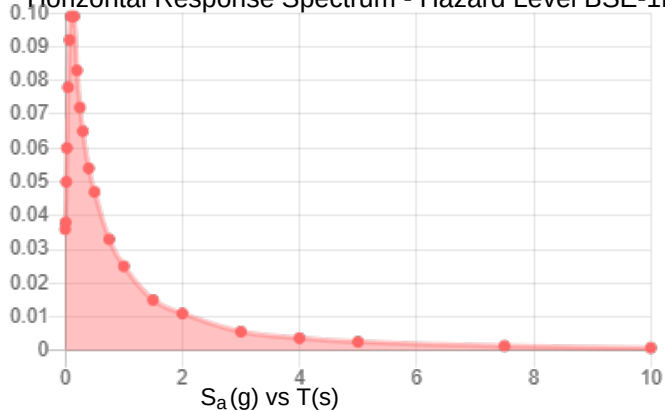
Horizontal Response Spectrum - Hazard Level BSE-1N



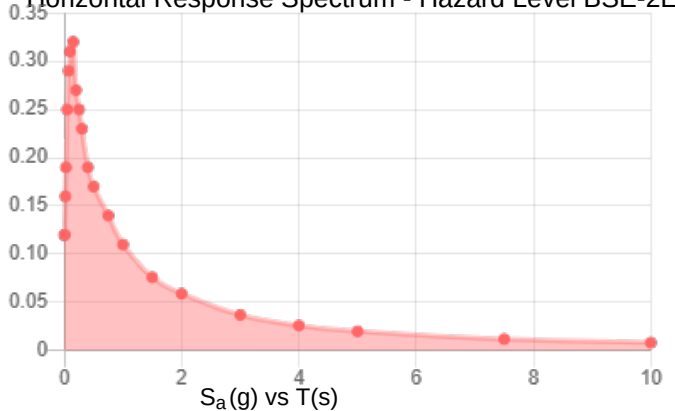
Horizontal Response Spectrum - Hazard Level BSE-2N



Horizontal Response Spectrum - Hazard Level BSE-1E



Horizontal Response Spectrum - Hazard Level BSE-2E



Data Accessed: Wed Mar 18 2026

The ASCE Hazard Tool is provided for your convenience, for informational purposes only, and is provided “as is” and without warranties of any kind. The location data included herein has been obtained from information developed, produced, and maintained by third party providers; or has been extrapolated from maps incorporated in the ASCE standard. While ASCE has made every effort to use data obtained from reliable sources or methodologies, ASCE does not make any representations or warranties as to the accuracy, completeness, reliability, currency, or quality of any data provided herein. Any third-party links provided by this Tool should not be construed as an endorsement, affiliation, relationship, or sponsorship of such third-party content by or from ASCE.

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