

**REQUEST FOR QUALIFICATION**  
**RFQ No. 2022-02**  
**ENGINEER & DESIGN SERVICES – REPAIR 10<sup>TH</sup> STREET BRIDGE AND REPLACE**  
**HUBBARD DR. BRIDGE**  
**FOR THE CITY OF ALAMOGORDO, NEW MEXICO**

**I. Introduction**

***A. Purpose of this Request for Qualifications***

The City of Alamogordo is soliciting sealed proposals that specialize in professional services based on the scope of work described below and in accordance with any federal, state and local requirements. It is the intent of the City of Alamogordo to execute and agreement with the most qualified Contactor that present an economically viable proposal. All potential Offerors are to read, understand and accept the requirements of this Request for Qualification.

***B. Project Description/Scope of Work***

Scope of work is to provide services in accordance with "Attachment 4"

***C. CHIEF PROCUREMENT OFFICER***

1. Chief Procurement Officer is responsible for the conduct of this procurement whose name, address, telephone number and e-mail address are listed below:

Name: Barbara Pyeatt, Chief Procurement Officer  
Address: Purchasing Department  
2600 N. Florida Ave.  
Alamogordo, NM 88310  
Telephone: (575) 439-4116  
Fax: (575) 439-4117  
Email: bpyeatt@ci.alamogordo.nm.us

2. All deliveries of responses via express carrier must be addressed as follows:

Name: Purchasing Department  
Attn: Barbara Pyeatt, CPO  
Reference: RFQ 2022-02 Engineer & Design Services – Repair 10<sup>th</sup> Street Bridge  
and Replace Hubbard Dr Bridge  
Address: 2600 N Florida Ave.  
Alamogordo, New Mexico 85310

3. Any inquiries or requests regarding this procurement should be submitted, in writing, to the Purchasing Department. Chief Procurement Officer, Barbara Pyeatt [bpyeatt@ci.alamogordo.nm.us](mailto:bpyeatt@ci.alamogordo.nm.us), Purchasing Specialist, Candice Gebhardt [cgebhardt@ci.alamogordo.nm.us](mailto:cgebhardt@ci.alamogordo.nm.us) . Offerors may contact ONLY the Chief Procurement Officer or Purchasing Specialist regarding this procurement.

**NOTE: DIRECT CONTACT WITH CITY ELECTED OFFICIALS OR CITY STAFF OTHER THAN PURCHASING STAFF REGARDING THIS RFQ WILL RENDER THE PROPOSAL NON-COMPLIANT.**

## **II. Conditions Governing the Procurement**

This section of the RFQ contains the schedule, description and conditions governing the procurement

### **A. SEQUENCE OF EVENTS**

The Chief Procurement Officer will make every effort to adhere to the following schedule. However, if the Selection Committee makes a selection at the proposal Short Listing, oral presentation will not apply. :

<b>Action</b>	<b>Responsible Party</b>	<b>Due Dates</b>
Issue RFQ	City of Alamogordo	May 1st, 2022
Deadline to submit Written Questions	Potential Offerors	May 16, 2022
Addenda if necessary	City of Alamogordo	May 17, 2022
Submission Proposals	Potential Offerors	June 2, 2022
Proposal Evaluation	Evaluation Committee	June 9, 2022
Oral Presentation if requested	City of Alamogordo	TBD
Authorization of Award	City Commission	June 28, 2022

### **B. EXPLANATION OF EVENTS**

The following paragraphs describe the activities listed in the sequence of events shown in Section II, Paragraph A, above.

#### **1. Issuance of RFQ**

This RFQ is being issued on behalf of the Engineering Department, City of Alamogordo.

**2. Distribution List Response Due**

Potential Offerors can hand deliver, return by facsimile, email or registered or certified mail the "Acknowledgement of Receipt of Request for Proposals Form" that accompanies this document, ATTACHMENT 3, to have their organization placed on the procurement distribution list. The form should be signed by an authorized representative of the organization, dated and returned to the Chief Procurement Officer.

The procurement distribution list will be used for the distribution of written responses to questions. Failure to return the Acknowledgement of Receipt form shall constitute a presumption of receipt and rejection of the RFQ, and the potential organization name shall not appear on the distribution list.

**3. Pre-Proposal Conference**

A pre-proposal conference will not be held for this project.

**4. Deadline to Submit Written Questions**

Potential Offerors may submit written questions to the Chief Procurement Officer as to the intent or clarity of this RFQ until 3:00 PM Mountain Standard Time/Daylight Time as indicated in the sequence of events. All written questions must be addressed to the Chief Procurement Officer as declared in Section II, Paragraph C.

**5. Response to Written Questions**

An Addendum will be issued in response to all written questions and will be distributed as indicated in the sequence of events to all potential Offerors whose organization name appears on the procurement distribution list and on the City's website. An e-mail copy will be sent to all Offerors that provide Acknowledgement of Receipt Forms described in II.B.2.

**All offerors will be required to acknowledge receipt of RFQ amendment(s) in writing as part of their proposal transmittal.** A failure to acknowledge receipt of RFQ amendment(s) may be cause for rejection of the proposal.

**6. Submission of Proposal**

***ALL OFFEROR PROPOSALS MUST BE RECEIVED FOR REVIEW AND EVALUATION BY THE CHIEF PROCUREMENT OFFICER OR DESIGNEE NO LATER THAN 3:00 PM MOUNTAIN STANDARD TIME/DAYLIGHT TIME ON see Section II A. Sequence of Events.*** Proposals received after this deadline will not be accepted. The date and time of receipt will be recorded on each proposal.

**Proposals must be addressed and delivered to the Chief Procurement Officer at the address listed in Section I, Paragraph C2. Proposals must be sealed and labeled on the outside of the package to clearly indicate that they are in response to the RFQ 2022-02 ENGINEER & DESIGN SERVICES – REPAIR 10ST BRIDGE AND REPLACE HUBBARD DR BRIDGE. Proposals submitted by facsimile, or other electronic means, will not be accepted.**

At all times, it shall be the responsibility of the offeror to ensure its proposal is delivered to the City of Alamogordo by the proposal due date and time. If the mail or delivery of said proposal is delayed beyond the deadline set for the proposal opening, proposals thus delayed will not be considered.

A public log will be kept of the names of all Offer organizations that submitted proposals. The contents of proposals shall not be disclosed to competing potential Offerors during the negotiation process. The negotiation process is deemed to be in effect until the contract is awarded pursuant to this Request for Qualification has been awarded.

Proposals accepted by the City shall be valid for a period of ninety (90) days following the deadline for the proposal submittal.

## **8. Proposal Evaluation**

A Selection Committee will perform the evaluation of proposals. This process will take place as indicated in the sequence of events, depending upon the number of proposals received. During this time, the Chief Procurement Officer may initiate discussions with Offerors who submit responsive or potentially responsive proposals for the purpose of clarifying aspects of the proposals. However, proposals may be accepted and evaluated without such discussion. Discussions SHALL NOT be initiated by the Offerors.

## **9. Oral Presentations**

Finalist Offerors may be required to conduct an oral presentation at a location to be determined as per schedule Section II, A Sequence of Events or as soon as possible. Whether or not oral presentations will be held is at the discretion of the Issuing Department and Chief Procurement Officer.

## **11. Contract Awards**

The Contract will be finalized with the most advantageous Offeror. In the event that mutually agreeable terms cannot be reached within the time specified, the City of Alamogordo reserves the right to finalize a contract with the next most advantageous Offeror without undertaking a new procurement process or reserves the right to cancel the award.

## 12. Protest Deadline

Any protest by an Offeror must be in conformance with Section 2-13-300 and applicable procurement regulations. The fifteen (15) day protest period for responsive Offerors shall begin on the day following the commission's approval to negotiate and will end at 5:00 pm MDT on the fifteenth (15) calendar day following that approval. Protests must be written and must include the name and address of the Protester and the solicitation number(s). It must also contain a statement of grounds for protest including appropriate supporting exhibits, and it must specify the ruling requested from the Purchasing Manager. The protest must be delivered to the following address:

Name: Barbara Pyeatt  
Title: Chief Procurement Officer  
Address 2600 N. Florida Ave.  
Alamogordo, NM 88310  
Fax Number: 575-439-4117  
E-mail: bpyeatt@ci.alamogordo.nm.us

**Protests received after the deadline will not be accepted.**

## C. GENERAL REQUIREMENTS

### 1. Acceptance of Conditions Governing the Procurement

This procurement will be conducted in accordance with the City of Alamogordo's procurement regulations.

### 2. Incurring Cost

Any cost incurred by the potential Offeror in preparation, transmittal, and/or presentation of any proposal or material submitted in response to this RFQ shall be borne solely by the Offeror.

Any cost incurred by the Offeror for set up and demonstration of the proposed equipment and/or system shall be borne solely by the Offeror.

### 3. Subcontractors

The selected firm shall not assign, sublet, or transfer their interest in this agreement without prior written consent from the City. If such an assignment is allowed, the firm entering into this contract shall be ultimately responsible to ensure that the work is performed satisfactorily.

4. Consultants

Since the award is made on a quality-based evaluation process, replacement of consultants after award of and prior to the contract execution may cause the Offeror to be disqualified.

5. Amended Proposals

An Offeror may submit an amended proposal before the deadline for receipt of proposals. Such amended proposals must be complete replacements for a previously submitted proposal and must be clearly identified as such in the transmittal letter. The Agency personnel will not merge, collate, or assemble proposal materials.

6. Offerors Rights to Withdraw Proposal

Offerors will be allowed to withdraw their proposals at any time prior to the deadline for receipt of proposals. The Offeror must submit a written withdrawal request addressed to the Chief Procurement Officer and signed by the Offerors duly authorized representative.

The approval or denial of withdrawal requests received after the deadline for receipt of the proposals is governed by the applicable procurement regulations.

7. Disclosure of Proposal Contents

The proposals will be kept confidential until negotiations are completed by City of Alamogordo. At that time, all proposals and documents pertaining to the proposals will be open to the public, except for material that is clearly marked proprietary or confidential. The Chief Procurement Officer will not disclose or make public any pages of a proposal on which the potential Offeror has stamped or imprinted "proprietary" or "confidential" subject to the following requirements.

Proprietary or confidential data shall be readily separable from the proposal in order to facilitate eventual public inspection of the non-confidential portion of the proposal. Confidential data is normally restricted to confidential financial information concerning the Offerors organization and data that qualifies as a trade secret in accordance with the Uniform Trade Secrets Act, Sections 57-3A-1 to 57-3A-7 NMSA 1978. The price of products offered or the cost of services proposed shall not be designated as proprietary or confidential information.

If a request is received for disclosure of data for which an Offeror has made a written request for confidentiality, City of Alamogordo shall examine the Offerors request and make a written determination that specifies which portions of the proposal should be disclosed. Unless the Offeror takes legal action to prevent the disclosure, the proposal will be so disclosed. The proposal shall be open to public inspection subject to any continuing prohibition on the disclosure of confidential data.

8. No Obligation

This procurement in no manner obligates the City of Alamogordo or any of its Departments to the use of Offeror services until a valid written contract is awarded and approved by appropriate authorities.

9. Termination

This RFQ may be canceled at any time and any and all proposals may be rejected in whole or in part when Procurement Department determines such action to be in the best interest of the City of Alamogordo.

10. Sufficient Appropriation

Any agreement or contract awarded as a result of this RFQ process may be terminated if sufficient appropriations or authorizations do not exist. Such terminations will be effected by sending written notice to the offeror. The City's decision as to whether sufficient appropriations and authorizations are available will be accepted by the offeror as final.

11. Legal Review

The City requires that all Offerors agree to be bound by the General Requirements contained in this RFQ. Any Offeror concerns must be promptly brought in writing to the attention of the Chief Procurement Officer.

12. Governing Law

This procurement and any agreement with an Offeror which may result from this procurement shall be governed by the laws of the State of New Mexico.

13. Basis for Proposal

Only information supplied, in writing, by the City of Alamogordo through the Chief Procurement Officer or in this RFQ should be used as the basis for the preparation of Offeror proposals.

14. Contract Terms and Conditions

The City of Alamogordo reserves the right to negotiate with a successful Offeror provision in addition to those contained in this solicitation. The contents of this solicitation, as revised and/or supplemented, and the successful Offerors proposal will be incorporated into and become part of the contract.

Should an Offeror object to any of the City of Alamogordo's terms and conditions, as contained in this Section, that Offeror must propose specific alternative language. The City of Alamogordo may or may not accept the alternative language. General references to the Offerors terms and conditions or attempts at complete substitutions are not acceptable to the City of Alamogordo and will result in disqualification of the Offerors proposal.

15. Offerors Terms and Conditions

Offerors must submit with the proposal a complete set of any additional terms and conditions they expect to have included in a contract negotiated with the City of Alamogordo. Not to be included in page count.

16. Contract Deviations

Any additional terms and conditions, which may be the subject of negotiation, will be discussed only between the City of Alamogordo and the Offeror and shall not be deemed an opportunity to amend the Offerors proposal.

17. Offeror Qualifications

The Selection Committee may make such investigations as necessary to determine the ability of the potential Offeror to adhere to the requirements specified within this RFQ. The Selection Committee will reject the proposal of any potential Offeror who is not a responsible Offeror or fails to submit a responsive offer as defined in Section 2-13-110 of the City of Alamogordo Procurement Ordinance.

18. Right to Waive Minor Irregularities

The Chief Procurement Officer reserves the right to waive minor irregularities. The Chief Procurement Officer also reserves the right to waive mandatory requirements provided that all of the otherwise responsive proposals failed to meet the same mandatory requirements and the failure to do so does not otherwise materially affect the procurement. This right is at the sole discretion of the Chief Procurement Officer.

19. Change in Representatives

The City of Alamogordo reserve the right to require a change in offeror representatives if the assigned representatives is not, in the opinion of the City of Alamogordo, meeting its needs adequately.

20. Notice - Bribery and Kickbacks

New Mexico criminal statues imposes civil and misdemeanor criminal penalties for its violation. In addition, the New Mexico criminal statutes impose felony penalties for bribes, gratuities and kickbacks.

21. City of Alamogordo Rights

The City of Alamogordo in agreement with the Chief Procurement Officer reserves the right to accept all or a portion of a potential Offerors proposal.



This procurement in no manner obligates the City of Alamogordo or any of its agencies to the use of any proposed professional services until a valid written contract is awarded and approved by the appropriate authorities.

22. Right to Publish

Throughout the duration of this procurement process and contract term, Offerors must secure from the Chief Procurement Officer and the Owner written approval prior to the release of any information that pertains to the potential work or activities covered by this procurement and/or agency contracts deriving from this procurement. Failure to adhere to this requirement may result in disqualification of the Offerors proposal.

23. Ownership of Proposals

All documents submitted in response to the RFQ shall become property of the City of Alamogordo.

24. Confidentiality

Any confidential information provided to, or developed by, the firm in the performance of services under this contract shall be kept confidential and shall not be made available to any individual or organization by the firm without the prior written approval of the City Commission.

The Offeror agrees to protect the confidentiality of all confidential information and not to publish or disclose such information to any third party without the City Commission's written permission. By confidential information, we mean the software and related materials, including enhancements, which are designated as proprietary and confidential trade secrets of the licensor and licensee of the software. Firm(s) will not remove any copyright, trademark, and other proprietary rights notice from the licensed software or related materials.

25. Electronic mail address required

A large part of the communication regarding this procurement will be conducted by electronic mail (e-mail). Offeror must have a valid e-mail address to receive this correspondence. (See also Section II.B.5, Response to Written Questions).

26. Use of Electronic Versions of this RFQ

This solicitation is being made available by electronic means. If accepted by such means, the Offeror acknowledges and accepts full responsibility to ensure that no changes are made to the solicitation. In the event of conflict between a version of the solicitation in the Offerors possession and the version maintained by the City of Alamogordo, the version maintained by the City of Alamogordo shall govern.

27. Campaign Contribution Disclosure Form

Offeror must complete, sign, and return the Campaign Contribution Disclosure Form (See Attachment 2) as a part of their proposal. This requirement applies regardless of whether a covered contribution was made or not made. **Failure to complete and return the signed unaltered form will result in disqualification.**

28. Conflict of Interest; Governmental Conduct Act.

The Offeror warrants that it presently has no interest and shall not acquire any interest, direct or indirect, which would conflict in any manner or degree with the performance or services required under the Agreement. The Offeror certifies that the requirements of the Governmental Conduct Act, Sections 10-16-1 through 10-16-18, NMSA 1978, regarding contracting with a public officer or state employee or former state employee have been followed.

29. Utilization of Proposal

The City of Alamogordo may enter into cooperative purchasing agreements with other political subdivisions or other governmental entities of the State of New Mexico in order to conserve resources, reduce procurement costs, and improve the timely acquisition of supplies, equipment and services. The Respondent to whom a contract is awarded under this solicitation may be requested by other parties to such a cooperative purchasing agreement to extend to those parties the right to purchase supplies, equipment and services provided by the Respondent(s) under its contract with the City of Alamogordo, pursuant to terms and conditions stated therein.

30. Award of Contract

The award shall be made to the responsible Offeror whose proposal is most advantageous to the City of Alamogordo taking into consideration the evaluation factors set forth in this solicitation. After initial ranking of the proposals, at the City's sole option, the City may decide to interview the top three ranked firms to develop final rankings or may consider the rankings based on the proposals as final.

The contents of any proposal shall not be disclosed so as to be available to competing offerors during the negotiation process.

31. Registration

All work shall be under the direction of a Professional Engineer registered by the State of New Mexico. (If Applicable)

32. Insurance

The firm must hold errors and omissions/professional liability insurance of at least \$1,000,000.

### III RESPONSE FORMAT AND ORGANIZATION

#### A. NUMBER OF RESPONSES

Offerors shall submit only one proposal in response to this RFQ.

#### B. PROPOSAL FORMAT

##### 1. Proposal Organization

Offerors shall submit **SIX (6) hard copies and ONE (1) electronic copy** of their proposal to the location specified in this RFQ, on or before the closing date and time for receipt of proposals. Proposals shall follow the format as described below:

- A maximum of **FIFTEEN (15)** pages of 8.5“ by 11” paper, including title, index, and other required information, not including front and back covers, transmittal letter, Veteran’s Preference Certification Form, Resident Business Certificate, or Campaign Contribution Disclosure Form.
- Bound on left-hand margin.
- Minimum font size 10.
- Front cover with RFQ number, project title, date, and firm’s name (not included in page limit).
- Back cover without any text (not included in page limit).
- The proposal must be organized and indexed in the following format and order and must contain, as a minimum, all listed items in the sequence indicated:
  1. Letter of transmittal, not to exceed one page (not included in page limit). If applicable, will include **written acknowledgment of receipt of RFQ amendment(s)**;
  2. Responses to the seven (7) Selection Criteria items, addressing all requested information, in the order presented in this RFQ above. Provide the Selection Criteria title at the beginning of each response so that it is clear what proposal text is addressing each Selection Criteria item.
- If applicable, Offerors shall complete Attachment 1 – Resident Veterans Preference Certification Form and submit with each copy of the proposal (not included in page count).
- If applicable, Offerors shall provide Resident Business Certificate and submit with each copy of the proposal (not included in page count).
- Offerors shall complete Attachment 2 – Campaign Contribution Disclosure Form and submit with each copy of the proposal (not included in page count).
- To preclude possible errors and/or misinterpretations, the proposal must be affixed legibly in ink or typewritten. Corrections or changes must be signed or initialed by Offeror prior to scheduled proposal submittal deadline. Failure to do so may be just cause for rejection of proposal.

- Proposals shall be delivered in sealed envelopes which shall be clearly marked “**RFQ 2022-02 Engineer & Design Services – Repair 10<sup>th</sup> Street Bridge and Replace Hubbard Dr Bridge**” on the outside of the envelope. Proposals shall be signed by a representative authorized to bind the company.

## IV. EVALUATION

### A. CRITERIA

Proposals must address each of the following criteria. Each proposal may be awarded points up to the amount listed.

1. Specialized Design and Technical Competence Available Points = 30

Offerors will provide the firm’s and personnel’s experience and technical competence related to the scope of this project. Include familiarity with applicable regulations and permits. Include qualifications for the key personnel who will be assigned to this specific project and summaries of their relative experience. Include information that is relevant to delivery of this project.

2. Capacity and Capability Available Points = 20

Offerors will provide the firm’s current capacity and capability (resources) available to perform services specifically for this project, including specialized services that may be required. Include proposed schedule to perform the work with sufficient detail to understand the timing for delivery of the project deliverables. Include information about other projects that key personnel will be working on during this project and the associated completion schedules as compared to the progress of this project. Address the firm’s potential to effectively replace key personnel, if necessary. Note that Firm Capacity identified that would not be utilized specifically on this project will not be credited. The “capacity and capability” must directly apply to delivery of this particular project.

3. Past Record of Performance Available Points = 20

Offerors will provide the past record of performance on contracts for delivery of work relevant to this project scope. An emphasis will be placed on the firm’s demonstrated ability to meet project schedules and provide a quality product. Include experience and successful project delivery history of the Project Manager responsible for delivery of this project scope on similar projects. As part of the response, firms will provide a list of four (4) projects of similar scope for reference. The reference projects will include a listing of personnel that worked on the reference projects that will also work on this project. A minimum of two (2) references will be provided for the Project Manager who will be responsible for delivery of this project, which may be included in the four (4) reference projects or may be separate reference projects in addition to the four (4) required reference projects. For all reference projects, including those for the Project Manager, list the name of the entity for which the reference project was performed, a brief description of the project, amount and time of initial construction contract award as compared to final contract price and time for completion, name of contact person with the entity who can discuss your firm’s or personnel’s role and performance. Provide current telephone numbers for which to contact these references.

4. Approach to Providing Services Available Points = 15

Offerors will describe their approach to managing and providing the scope of this project successfully. Include the internal Quality Assurance/Quality Control (QA/QC) processes to be utilized on this project. Describe the firm’s approach to communicating effectively with the City of Alamogordo to facilitate successful delivery of this project.

5. Proximity to or Familiarity with the Alamogordo area Available Points = 5

Firm’s and proposed key personnel’s familiarity with the Alamogordo area. Firm’s experience on previous projects in Alamogordo, including the firm’s and key personnel’s experience dealing with local jurisdictional agencies and City departments.

6. Amount of design work that will be produced by a New Mexico business within this state Available Points = 5

Firm will indicate the approximate value of work that will be produced by New Mexico business (es) within this state. Points will be determined as follows:

<u>Estimated Value of Work</u>	<u>Points</u>
\$100,001 or more	5
\$80,001 to \$100,000	4
\$60,001 to \$80,000	3
\$40,001 to \$60,000	2
\$10,001 to \$40,000	1
\$10,000 or less	0

7. Current Volume of Work for the City of Alamogordo Available Points = 5

Offerors will indicate the volume of work currently under contract with the City of Alamogordo that is less than seventy-five percent (75%) complete. The purpose of this criterion is to help distribute projects among qualified firms, and points will be determined as follows:

<u>Value of Work on Projects (less than 75% complete)</u>	<u>Points</u>
None	5
\$1 to \$25,000	4
\$25,001 to \$50,000	3
\$50,001 to \$75,000	2
\$75,001 to \$100,000	1
\$100,001 or more	0

**TOTAL AVAILABLE POINTS = 100**

**Additional Preference Award Points Available per #8, #9 or #10 below**

*An Offeror must specify which preference below they would claim if qualifying for more than one. The preference values are not cumulative.*

**8. Resident Veterans Preference Certification, Attachment 1 (Certificate Required)**

Available Points = 7, 8 or 10 Percent of total Points

Complete the Resident Veterans Preference Certification Form in Attachment 1, if applicable.

**9. New Mexico Business Preference, Attachment 1 (Certificate Required)**

Available Points = 5 Percent of total Points

Points will be awarded based upon offerors ability to provide a copy of a current Resident Business Certificate.

**10. Local Business Preference**

Points will be awarded based upon offerors ability to provide proof of Local Business Residence.

Available Points = 10 Percent of total Points

***B. EVALUATION PROCESS:***

1. All offeror proposals will be reviewed for compliance with the mandatory requirements as stated within the RFQ. Proposals deemed non-responsive will be eliminated from further consideration.
2. The Chief Procurement Officer may contact the offeror for clarification of the response.
3. The Evaluation Committee may use other sources of information to perform the evaluation.
4. Responsive proposals will be evaluated on the factors in Section IV that have been assigned a point value. The responsible Offerors with the highest scores will be selected as finalist Offerors based upon the proposals submitted. Finalist Offerors may be asked to present oral presentation. Points awarded from oral presentations will be added to the previously assigned points to attain final scores.
5. The responsible Offeror (s) whose proposals is most advantageous to the City, taking into consideration the evaluation factors in Section IV, will be recommended for Contract award. Please note, however, that a serious deficiency in the response to any one factor may be grounds for rejection regardless of overall score.

**BID EVALUATION CRITERION FOR AREA BUSINESSES – LOCAL BUSINESS PREFERENCE**

Effective March 20, 2015, the Alamogordo City Commission adopted Ordinance No. 1490 establishing Bid evaluation criterion for area businesses. Any business licensed in New Mexico, with a current business registration from the City of Alamogordo, with fixed offices or distribution points within fifteen (15) miles of the city limits of Alamogordo and able to furnish evidence of payment of New Mexico Gross Receipts tax shall qualify. If a non-Area Business is the highest-ranking Prequalified Candidate, the evaluation score of the proposal submitted by an Areas Business shall be multiplied by a Local Preference Factor of 1.10. If the resulting score of the Area Business receiving the Local Preference is higher than or equal to the highest score of all proposals received, the contract shall be recommended to be awarded the Area Business receiving the preference. If no proposals are

received from an Area Business, or if the proposal received from an Area Business does not qualify for an award after multiplication by the Local Preference Factor, the contract shall be recommended to be awarded the highest-ranking proposer.

View the following link for the complete Ordinance No. 1490 Local Preference:

<http://ci.alamogordo.nm.us/AssetsOrdinance+1490.pdf>

This procurement will be conducted in accordance with the City of Alamogordo Purchasing Ordinance No. 1304.

### **RESIDENT VETERANS PREFERENCE CERTIFICATION**

To receive a Veterans Preference pursuant to Section 13-1-21 and 13-1-22 NMSA 1978, a resident veteran's business shall submit with its proposal a copy of a valid "Resident Veterans Preference Certification" issued by the Taxation and Revenue Department. For the purpose of scoring points, the State of New Mexico General Services Department Purchasing Division Policy Memo FY13-001 shall apply to a proposal submitted by a resident veteran's business. For information on obtaining a Resident Veterans Preference Certificate, the offeror should contact the State of New Mexico Taxation and Revenue Department, P.O. Box 5373, Santa Fe, NM 87502-5374, telephone (505) 827-0951.

### **IN-STATE PREFERENCE (RESIDENT BUSINESS)**

To receive a resident business preference pursuant to Section 13-4-2 NMSA 1978, an offeror shall submit with its proposal a copy of a valid resident business certificate issued by the taxation and revenue department. For a proposal submitted by a resident business with the required Resident Business Certificate, in addition to the total points on an RFQ, 5% must be added for preference points.

For information on obtaining a resident business certificate, the offeror should contact the State of New Mexico Taxation and Revenue Department, P.O. Box 5373, Santa Fe, New Mexico 87502-5374, telephone (505) 827-0951 or on the web at <http://www.tax.newmexico.gov/forms-and-publications/pages/recently-updated.aspx>

**An offeror must specify which preference they would claim if qualifying for more than one. The preference values are not cumulative.**

**ATTACHMENT 1**

**RESIDENT VETERANS PREFERENCE CERTIFICATION**

\_\_\_\_\_ (NAME OF CONTRACTOR) hereby certifies the following in regard to application of the resident veterans preference to this procurement:

**Please check one box only**

I declare under penalty of perjury that my business prior year revenue starting January 1 ending December 31 is less than \$1M allowing me the 10% preference discount on this solicitation. I understand that knowingly giving false or misleading information about this fact constitutes a crime.

I declare under penalty of perjury that my business prior year revenue starting January 1 ending December 31 is more than \$1M but less than \$5M allowing me the 8% preference discount on this bid or proposal. I understand that knowingly giving false or misleading information about this fact constitutes a crime.

I declare under penalty of perjury that my business prior year revenue starting January 1 ending December 31 is more than \$5M allowing me the 7% preference discount on this bid or proposal. I understand that knowingly giving false or misleading information about this fact constitutes a crime.

“I agree to submit a report, or reports, to the State Purchasing Division of the General Services Department declaring under penalty of perjury that during the last calendar year starting January 1 and ending on December 31, the following to be true and accurate:

“In conjunction with this procurement and the requirements of this business application for a Resident Veteran Business Preference/Resident Veteran Contractor Preference under Sections 13-1-21 or 13-1-22 NMSA 1978, when awarded a contract which was on the basis of having such veterans preference, I agree to report to the State Purchasing Division of the General Services Department the awarded amount involved. I will indicate in the report the award amount as a purchase from a public body or as a public works contract from a public body as the case may be.

“I understand that knowingly giving false or misleading information on this report constitutes a crime.”

I declare under penalty of perjury that this statement is true to the best of my knowledge. I understand that giving false or misleading statements about material fact regarding this matter constitutes a crime.

\_\_\_\_\_  
(Signature of Business Representative)\*

\_\_\_\_\_  
(Date)

\*Must be an authorized signatory for the Business.

The representations made in checking the boxes constitutes a material representation by the business that is subject to protest and may result in denial of an award or un-award of the procurement involved if the statements are proven to be incorrect.



## ATTACHMENT 2

### CAMPAIGN CONTRIBUTION DISCLOSURE FORM

Pursuant to Chapter 81, Laws of 2006, any prospective contractor seeking to enter into a Contract with any state agency or local public body must file this form with that state agency or local public body. The prospective contractor must disclose whether they, a family member or a representative of the prospective contractor has made a campaign contribution to an applicable public official of the state or local public body during the two (2) years prior to the date on which the contractor submits a proposal or, in the case of a sole source or small purchase contract, the two (2) years prior to the date the contractor signs the contract, if the aggregate total of contributions given by the prospective contractor, a family member or a representative of the prospective contractor to the public official exceeds two hundred and fifty dollars (\$250) over the two (2) year period.

THIS FORM MUST BE FILED BY ANY PROSPECTIVE CONTRACTOR WHETHER OR NOT THEY, THEIR FAMILY MEMBER, OR THEIR REPRESENTATIVE HAS MADE ANY CONTRIBUTIONS SUBJECT TO DISCLOSURE.

The following definitions apply:

**“Applicable Public Official”** means a person elected to an office or a person appointed to complete a term of an elected office, who has the authority to award or influence the award of the contract for which the prospective contractor is submitting a competitive sealed proposal or who has the authority to negotiate a sole source or small purchase contract that may be awarded without submission of a sealed competitive proposal.

**“Campaign Contribution”** means a gift, subscription, loan, advance or deposit of money or other thing of value, including the estimated value of an in-kind contribution, that is made to or received by an applicable public official or any person authorized to raise, collect or expend contributions on that official’s behalf for the purpose of electing the official to either statewide or local office. “Campaign Contribution” includes the payment of a debt incurred in an election campaign, but does not include the value of services provided without compensation or un-reimbursed travel or other personal expenses of individuals who volunteer a portion or all of their time on behalf of a candidate or political committee, nor does it include the administrative or solicitation expenses of a political committee that are paid by an organization that sponsors the committee.

**“Contract”** means any agreement for the procurement of items of tangible personal property, services, professional services, or construction.

**“Family Member”** means spouse, father, mother, child, father-in-law, mother-in-law, daughter-in-law or son-in-law.

**“Pendency of the Procurement Process”** means the time period commencing with the public notice of the Request for Proposals and ending with the award of the Contract or the cancellation of the Request for Proposals.

**“Person”** means any corporation, partnership, individual, joint venture, association or any other private legal entity.

**“Prospective Contractor”** means a person who is subject to the competitive sealed proposal process set forth in the Procurement Codes or is not required to submit a competitive sealed proposal because that person qualifies for a sole source or a small purchase contract.

**“Representative of a Prospective Contractor”** means an officer or director of a corporation, a member or manager of a limited liability corporation, a partner of a partnership or a trustee of a trust of the prospective contractor.

DISCLOSURE OF CONTRIBUTIONS:

Contribution Made By: \_\_\_\_\_

Relation to Prospective Contractor: \_\_\_\_\_

Name of Applicable Public Official: \_\_\_\_\_

Date Contribution(s) Made: \_\_\_\_\_

Amount(s) of Contribution(s): \_\_\_\_\_

Nature of Contribution(s): \_\_\_\_\_

Purpose of Contributions(s): \_\_\_\_\_

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Title

**--OR--**

**NO CONTRIBUTIONS IN THE AGGREGATE TOTAL OVER TWO HUNDRED FIFTY DOLLARS (\$250) WERE MADE** to an applicable public official by me, a family member or representative.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

**ATTACHMENT 3**

**ACKNOWLEDGMENT OF RECEIPT FORM**

**REQUEST FOR PROPOSALS  
Qualification Based**

In acknowledgement of receipt of this Request for Proposal the undersigned agrees that he/she has received a complete copy of acknowledged **RFQ 2022-02**.

The acknowledgement of receipt should be signed and returned to the Chief Procurement Officer. Only potential Offerors who elect to return this form completed with the intention of submitting a proposal will receive copies of all Offeror written questions and the City's written responses to those questions in the form of an addenda.

**COMPANY:** \_\_\_\_\_

**REPRESENTED BY:** \_\_\_\_\_

**TITLE:** \_\_\_\_\_ **PHONE NO.:** \_\_\_\_\_

**E-MAIL:** \_\_\_\_\_ **FAX NO.:** \_\_\_\_\_

**ADDRESS:** \_\_\_\_\_

**CITY:** \_\_\_\_\_ **STATE:** \_\_\_\_\_ **ZIP CODE:** \_\_\_\_\_

**SIGNATURE:** \_\_\_\_\_ **DATE:** \_\_\_\_\_

This name and address will be used for all correspondence related to the Request for Proposals.

Company does/does not (circle one) intend to respond to this Request for Proposals.

Acknowledgements must be delivered to the Chief Procurement Officer at the following address:

Barbara Pyeatt  
Chief Procurement Officer  
Purchasing Department  
2600 N Florida Ave  
Alamogordo, New Mexico 88310  
[bpyeatt@ci.alamogordo.nm.us](mailto:bpyeatt@ci.alamogordo.nm.us)  
Fax Number: (575) 439-4117

## **ATTACHMENT 4**

### **SCOPE OF WORK**

**RFQ 2022-02 Engineer & Design Services – Repair 10<sup>th</sup> Street Bridge and replace Hubbard Dr. Bridge**

**SCOPE OF WORK  
RFQ NO. 2022-02**

**ENGINEERING AND DESIGN SERVICES  
REPAIR TENTH STREET BRIDGE AND REPLACE HUBBARD DRIVE BRIDGE  
FOR THE CITY OF ALAMOGORDO, NEW MEXICO**

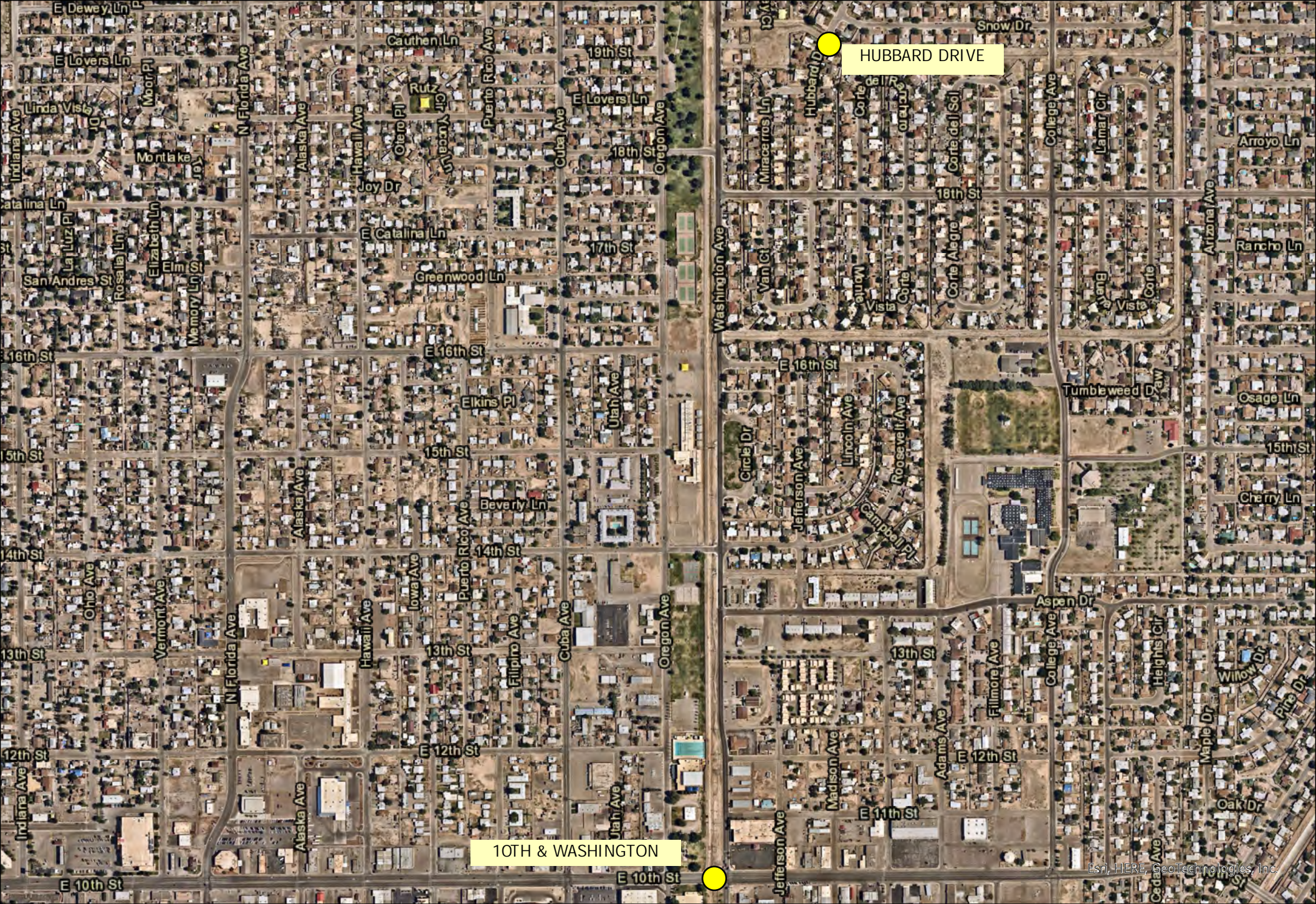
**Tenth Street Bridge**

This project involves planning, engineering, and design services to evaluate the current condition of the structure, determine the cause of settlement and deterioration (primarily on the south side), and develop an appropriate repair methodology. Photos of the structure and a previous geotechnical report are attached as Exhibit A.

**Hubbard Drive Bridge**

This project involves planning, engineering, and design services to replace the structure in its entirety due to substantially deteriorated conditions. Photos of the structure are attached as Exhibit B.

The consultant shall prepare separate bid-ready plans and specifications for each project.



HUBBARD DRIVE

10TH & WASHINGTON

Esri, HERE, GeoTechnologies, Inc.

Folder: T:\GIS\Shared\STony\Map Requests\Pub Works\2022\Bridges\Bridges\

● Bridge Location

# Project Location





EXHIBIT A - TENTH STREET BRIDGE



























# Geotechnical Engineering Report

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**Alamogordo 10th Street CBC  
Alamogordo, New Mexico**

July 25, 2019

Terracon Project No. 68195076

**Prepared for:**

City of Alamogordo  
Alamogordo, NM

**Prepared by:**

Terracon Consultants, Inc.  
Las Cruces, NM



July 25, 2019

City of Alamogordo  
2600 N. Florida Avenue  
Alamogordo, NM 88310



Attn: Mr. Bob Johnson  
P: 575.439.4115  
E: bjohnson@ci.alamogordo.nm.us

Re: Geotechnical Engineering Report  
Alamogordo 10th Street CBC  
East 10th Street and Washington Avenue  
Alamogordo, New Mexico  
Terracon Project No. 68195076

Dear Mr. Johnson:

We have completed the Geotechnical Engineering services for the above referenced project. This study was performed in general accordance with Terracon Proposal No. P68195076 dated May 30, 2019. This report presents the findings of the subsurface exploration and provides geotechnical recommendations concerning earthwork and the design and construction of foundations and pavements for the proposed project.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning this report or if we may be of further service, please contact us.

Sincerely,  
**Terracon Consultants, Inc.**

*for* *Debbie Daniels*  
Daniel Castrillo  
Staff Professional



J. Dan Cosper, P.E.  
Senior Associate

## REPORT TOPICS

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**Note:** This report was originally delivered in a web-based format. **Orange Bold** text in the report indicates a referenced section heading. The PDF version also includes hyperlinks which direct the reader to that section and clicking on the **GeoReport** logo will bring you back to this page. For more interactive features, please view your project online at [client.terracon.com](http://client.terracon.com).

## ATTACHMENTS

**EXPLORATION AND TESTING PROCEDURES**  
**SITE LOCATION AND EXPLORATION PLANS**  
**EXPLORATION RESULTS**  
**SUPPORTING INFORMATION**

**Note:** Refer to each individual Attachment for a listing of contents.

**Geotechnical Engineering Report**  
**Alamogordo 10th Street CBC**  
**East 10th Street and Washington Avenue**  
**Alamogordo, New Mexico**  
**Terracon Project No. 68195076**  
**July 25, 2019**

## INTRODUCTION

This report presents the results of our subsurface exploration and geotechnical engineering services performed for the proposed East 10<sup>th</sup> Street CBC Project to be located at East 10th Street and Washington Avenue in Alamogordo, New Mexico. The purpose of these services is to provide information and geotechnical engineering recommendations relative to:

- Subsurface soil conditions
- Site preparation and earthwork
- Lateral earth pressures
- Foundation design and construction
- Seismic site classification per IBC
- Pavement design and construction

The geotechnical engineering Scope of Services for this project included the advancement of three test borings to a depth of approximately 21-1/2 feet below existing site grades.

Maps showing the site and boring locations are shown in the **Site Location** and **Exploration Plan** sections, respectively. The results of the laboratory testing performed on soil samples obtained from the site during the field exploration are included on the boring logs and as separate graphs in the **Exploration Results** section.

## SITE CONDITIONS

The following description of site conditions is derived from our site visit in association with the field exploration and our review of publicly available geologic and topographic maps.

Item	Description
<b>Parcel Information</b>	The project is located at East 10th Street and Washington Avenue in Alamogordo, New Mexico. Latitude: 32.899905 Longitude: -105.943775
<b>Existing Improvements</b>	Roadway and CBC with wing walls
<b>Current Ground Cover</b>	Asphalt surfaced roadways and exposed native subgrade
<b>Existing Topography</b>	Relatively flat

## Geotechnical Engineering Report

Alamogordo 10th Street CBC ■ Alamogordo, New Mexico

July 25, 2019 ■ Terracon Project No. 68195076



Item	Description
<b>Geology</b>	Our experience near the vicinity of the proposed development or geologic maps indicates subsurface conditions consist of lean clay with varying amounts of sand and silt.

## PROJECT DESCRIPTION

Our initial understanding of the project was provided in our proposal and was discussed during project planning. A period of collaboration has transpired since the project was initiated, and our final understanding of the project conditions is as follows

Item	Description
<b>Information Provided</b>	E-mail from Wilson & Company, Inc. dated 5-6-19
<b>Project Description</b>	Alamogordo 10 <sup>th</sup> Street Wing Wall
<b>Proposed Structure</b>	The project will include rehabilitation or reconstruction of the existing concrete box culvert and wing walls due to settlement issues.
<b>Finished Elevation</b>	Existing
<b>Maximum Loads</b>	Unknown
<b>Below-Grade Structures</b>	None
<b>Pavements</b>	1,100,000 ESAL's were calculated based on traffic counts provided by Wilson & Co., Inc.
<b>Estimated Start of Construction</b>	Unknown

## GEOTECHNICAL CHARACTERIZATION

We have developed a general characterization of the subsurface conditions based upon our review of the subsurface exploration, laboratory data, geologic setting and our understanding of the project. This characterization, termed GeoModel, forms the basis of our geotechnical calculations and evaluation of site preparation and foundation options. Conditions encountered at each exploration point are indicated on the individual logs. The individual logs can be found in the **Exploration Results** section and the GeoModel can be found in the **Figures** section of this report.

Model Layer	Layer Name	General Description
1	ASP	Asphalt
2	BC	Aggregate Base Course
3	SC	Clayey Sand

## Geotechnical Engineering Report

Alamogordo 10th Street CBC ■ Alamogordo, New Mexico

July 25, 2019 ■ Terracon Project No. 68195076



4	CL	Lean Clay
5	CL	Sandy Lean Clay
6	CL	Lean Clay with Sand

## Groundwater Conditions

The boreholes were observed while drilling and after completion for the presence and level of groundwater. The water levels observed in the boreholes can be found on the boring logs in **Exploration Results** and are summarized below.

Boring Number	Approximate Depth to Groundwater while Drilling (feet) <sup>1</sup>	Approximate Depth to Groundwater after Drilling (feet) <sup>1</sup>
B-1 thru B-3	not encountered	not encountered

1. Below ground surface

Groundwater level fluctuations occur due to seasonal variations in the amount of rainfall, runoff and other factors not evident at the time the borings were performed. Therefore, groundwater levels during construction or at other times in the life of the structure may be higher or lower than the levels indicated on the boring logs. The possibility of groundwater level fluctuations should be considered when developing the design and construction plans for the project.

## GEOTECHNICAL OVERVIEW

The near surface soils could become unstable with typical earthwork and construction traffic, especially after precipitation events. The effective drainage should be completed early in the construction sequence and maintained after construction to avoid potential issues. If possible, the grading should be performed during the warmer and drier time of the year. If grading is performed during the winter months, an increased risk for possible undercutting and replacement of unstable subgrade will persist. Additional site preparation recommendations including subgrade improvement and fill placement are provided in the **Earthwork** section.

The **Shallow Foundations** section addresses support of the CBC and wingwalls (if reconstructed) bearing on engineered fill underlain by prepared native soils. The **Specialty Foundations** section addresses support of the existing CBC and wingwalls (if rehabilitated) on helical piers to aid in the reduction or elimination of future settlement.

Flexible pavement systems are recommended for this project. The **Pavements** section addresses

the design of pavement systems.

The **General Comments** section provides an understanding of the report limitations.

## EARTHWORK

Earthwork will include clearing and grubbing, existing pavement removal, existing CBC and wingwalls removal (if reconstructed), excavations, subgrade preparation, fill placement, base course placement, and asphalt placement. The following sections provide recommendations for use in the preparation of specifications for the work. Recommendations include critical quality criteria as necessary to render the site in the state considered in our geotechnical engineering evaluation for pavements.

### Site Preparation

Prior to new construction and/or fill placement (where applicable), existing pavements and the existing CBC/wingwalls should be removed. Complete stripping of the asphalt, underlying base course and near surface soils should be performed in the proposed new construction areas.

Wet or dry material should either be removed, dried or moisture conditioned and compacted. Exposed areas which will receive fill or be constructed upon, once properly cleared, should be scarified to a minimum depth of 10 inches, conditioned to within 2% of optimum moisture content, and compacted to a minimum of 95% of modified Proctor density (ASTM D1557).

### Fill Material Types

Fill required to achieve design grade should be classified as structural fill and general fill. Earthen materials used for structural and general fill should meet the following material property requirements:

Soil Type <sup>1</sup>	USCS Classification	Acceptable Parameters (for Structural Fill)
Import	CL, SC	Less than 75% Passing #200 Sieve, LL<35, PI<15
On-Site Soils	CL, SC	Less than 75% Passing #200 Sieve, LL<35, PI<15 (on-site soils will likely require blending with relatively small amounts of sand to achieve these requirements)

1. Structural and general fill should consist of approved materials free of organic matter and debris. Frozen material should not be used, and fill should not be placed on a frozen subgrade. A sample of each material type should be submitted to the Geotechnical Engineer for evaluation prior to use on this site.



## Fill Compaction Requirements

Structural and general fill should meet the following compaction requirements.

Item	Structural Fill	General Fill
<b>Maximum Lift Thickness</b>	10 inches or less in loose thickness when heavy, self-propelled compaction equipment is used 4 to 6 inches in loose thickness when hand-guided equipment (i.e. jumping jack or plate compactor) is used	Same as Structural fill
<b>Minimum Compaction Requirements</b> <sup>1</sup>	95% of maximum	Same as Structural fill
<b>Water Content Range</b> <sup>1</sup>	-2% to +2% of optimum	Same as Structural fill

<sup>1.</sup> Maximum density and optimum water content as determined by the modified Proctor test (ASTM D 1557).

## Utility Trench Backfill

All trench excavations should be made with sufficient working space to permit construction including backfill placement and compaction.

## Grading and Drainage

Positive drainage should be provided during construction and maintained throughout the life of the proposed project. Infiltration of water beneath foundations and pavements must be prevented during and after construction. Grading adjacent to the roadways should be as such to not allow moisture infiltration, due to precipitation runoff, into the base material.

## Earthwork Construction Considerations

Shallow excavations are anticipated to be accomplished with conventional construction equipment. Upon completion of filling and grading, care should be taken to maintain the subgrade water content prior to construction. Construction traffic over the completed subgrades should be avoided. The site should also be graded to prevent ponding of surface water on the prepared subgrades or in excavations. Water collecting over, or adjacent to, construction areas should be removed. If the subgrade freezes, desiccates, saturates, or is disturbed, the affected material should be removed, or the materials should be scarified, moisture conditioned, and recompacted, prior to construction.

## Geotechnical Engineering Report

Alamogordo 10th Street CBC ■ Alamogordo, New Mexico

July 25, 2019 ■ Terracon Project No. 68195076



As a minimum, excavations should be performed in accordance with OSHA 29 CFR, Part 1926, Subpart P, "Excavations" and its appendices, and in accordance with any applicable local, and/or state regulations.

Excavations into the on-site soils may encounter caving conditions, depending upon the final depth of excavation. The individual contractor(s) should be made responsible for designing and constructing stable, temporary excavations as required to maintain stability of both the excavation sides and bottom. All excavations should be sloped or shored in the interest of safety following local and federal regulations, including current OSHA excavation and trench safety standards.

The soils to be penetrated by the proposed excavations may vary across the site. The soil classifications are based solely on the materials encountered in widely spaced exploratory test borings. The contractor is responsible and should verify that similar conditions exist throughout the proposed area of excavation. If different subsurface conditions are encountered at the time of construction, the actual conditions should be evaluated to determine any excavation modifications necessary to maintain safe conditions.

The contractor should retain a geotechnical engineer to monitor the soils exposed in all excavations and provide engineering services for slopes. This will provide an opportunity to monitor the soil types encountered and to modify the excavation slopes as necessary. It also offers an opportunity to verify the stability of the excavation slopes during construction.

Construction site safety is the sole responsibility of the contractor who controls the means, methods, and sequencing of construction operations. Under no circumstances shall the information provided herein be interpreted to mean Terracon is assuming responsibility for construction site safety, or the contractor's activities; such responsibility shall neither be implied nor inferred.

### **Construction Observation and Testing**

The earthwork efforts should be monitored under the direction of the Geotechnical Engineer. Monitoring should include documentation of adequate removal of existing asphalt/base course, removal of the CBC and wingwalls (if applicable), subgrade preparation, fill placement (where applicable), base course placement and asphalt placement.

Prepared subgrade and each lift of compacted fill (where applicable) should be tested, evaluated, and reworked as necessary until approved by the Geotechnical Engineer prior to placement of additional lifts. Prepared subgrade and each lift of fill (if applicable) should be tested for density and water content at a frequency of at least one test for every 2,500 square feet of compacted fill in the foundation areas and 5,000 square feet in pavement areas. One density and water content test for every 50 linear feet of compacted utility trench backfill.

The bearing subgrade should be evaluated under the direction of the Geotechnical Engineer. In the event that unanticipated conditions are encountered, the Geotechnical Engineer should prescribe mitigation options that may include further excavation and replacement with approved materials.

In addition to the documentation of the essential parameters necessary for construction, the continuation of the Geotechnical Engineer into the construction phase of the project provides the continuity to maintain the Geotechnical Engineer's evaluation of subsurface conditions, including assessing variations and associated design changes.

## SHALLOW FOUNDATIONS

If the site has been prepared in accordance with the requirements noted in **Earthwork**, the following design parameters are applicable for shallow foundations if the existing CBC and wingwalls are to be removed and replaced to address the current settlement issues.

### Design Parameters – Compressive Loads

Item	Description
<b>Maximum Net Allowable Bearing pressure</b> <sup>1, 2</sup>	1,000 psf (based upon estimated dimensions of the CBC as 100' by 50')
<b>Required Bearing Stratum</b> <sup>3</sup>	Minimum thickness of 5 feet of engineered fill underlain by prepared native soils
<b>Ultimate Passive Resistance</b> <sup>4</sup> (equivalent fluid pressures)	325 pcf
<b>Ultimate Coefficient of Sliding Friction</b> <sup>5</sup>	0.25
<b>Minimum Embedment below Finished Grade</b> <sup>6</sup>	18 inches
<b>Estimated Total Settlement from Structural Loads</b> <sup>2</sup>	Less than about 2 inches
<b>Estimated Differential Settlement</b> <sup>2, 7</sup>	About 2/3 of total settlement

Item	Description
1.	The maximum net allowable bearing pressure is the pressure in excess of the minimum surrounding overburden pressure at the footing base elevation. An appropriate factor of safety has been applied. Values assume that exterior grades are no steeper than 20% within 10 feet of structure.
2.	Values provided are for maximum loads noted in <b>Project Description</b> .
3.	Prepared native soils and engineered fill placement per the recommendations presented in the <b>Earthwork</b> .
4.	Use of passive earth pressures require the sides of the excavation for the foundation to be nearly vertical and the concrete placed neat against these vertical faces or that the footing forms be removed and compacted structural fill be placed against the vertical footing face.
5.	Can be used to compute sliding resistance where foundations are placed on suitable soil/materials. Should be neglected for foundations subject to net uplift conditions.
6.	Embedment necessary to minimize the effects of frost and/or seasonal water content variations. For sloping ground, maintain depth below the lowest adjacent exterior grade within 5 horizontal feet of the structure.
7.	Differential settlements are as measured over a span of 50 feet.

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## Foundation Construction Considerations

As noted in **Earthwork**, the foundation excavations and engineered fill placement should be evaluated under the direction of the Geotechnical Engineer. The base of all foundation excavations should be free of water and loose soil, prior to placing concrete. Concrete should be placed soon after engineered fill placement to reduce bearing soil disturbance. Care should be taken to prevent wetting or drying of the bearing materials during construction. Excessively wet or dry material or any loose/disturbed material in the bottom of the footing excavations should be removed/reconditioned before foundation concrete is placed.

## SPECIALTY FOUNDATIONS

As an alternative to reconstruction of the existing CBC and wingwalls, the following recommendations would apply. It is our opinion that the apparent magnitude of movement and potential continued movement of the CBC and wingwalls could be structurally detrimental in the future. This should be evaluated by a qualified structural engineer. Grout injection beneath this structure could actually increase settlement due to the added weight of the grout. Therefore, the preferred method to reduce further potential distress of the CBC and wingwalls is to install a system of underpinning supports (helical anchors).

A system of helical piers, developed by A.B. Chance Company or similar organizations, to support the CBC and wingwalls can be installed by local contractors. To reduce potential future movement, the helical piers would be installed through the upper low density soils and bear in the very stiff clays. The higher density soils were encountered at depths of about 5 to 10 feet bgs. Attachment brackets would be installed at the base of the CBC and wingwall perimeters. The actual spacing and depth should be determined by the specialty contractor. The structural loads are transferred to the pier with a hydraulic jack and the bracket is clamped to the pier. The helical

piers will provide support for the structure along the perimeter. This method of corrective action would be expected to reduce further maintenance required for the structure due to movement. A qualified contractor should review the information contained in this report in order to generate specific design and construction plans.

## **SEISMIC CONSIDERATIONS**

The seismic design requirements for buildings and other structures are based on Seismic Design Category. Site Classification is required to determine the Seismic Design Category for a structure. The Site Classification is based on the upper 100 feet of the site profile defined by a weighted average value of either shear wave velocity, standard penetration resistance, or undrained shear strength in accordance with Section 20.4 of ASCE 7 and the International Building Code (IBC). Based on the soil properties encountered at the site and as described on the exploration logs and results, it is our professional opinion that the **Seismic Site Classification is D**. Subsurface explorations at this site were extended to a maximum depth of 20 feet. The site properties below the boring depth to 100 feet were estimated based on our experience and knowledge of geologic conditions of the general area. Additional deeper borings or geophysical testing may be performed to confirm the conditions below the current boring depth.

## **LATERAL EARTH PRESSURES**

### **Design Parameters**

For soils above any free water surface, recommended equivalent fluid pressures for unrestrained foundation elements when using on-site **lean clay** soils as backfill are:

- Active.....45 psf/ft
- Passive .....325 psf/ft
- Coefficient of base friction.....0.25\*

\*The coefficient of base friction should be reduced to 0.17 when used in conjunction with passive pressure.

Where the design includes restrained elements, the following equivalent fluid pressures are recommended:

- At rest .....66 psf/ft

Fill against foundations should be compacted to densities specified in the Earthwork section of this report.

## PAVEMENTS

### General Pavement Comments

Pavement designs are provided for the traffic conditions and pavement life conditions as noted in **Project Description** and in the following sections of this report. A critical aspect of pavement performance is site preparation. Pavement designs noted in this section must be applied to the site which has been prepared as recommended in the **Earthwork** section.

### Pavement Design Parameters

Design of pavements for the project has been based on procedures outlined in the 1993 Guideline for Design of Pavement Structures by the American Association of State Highway and Transportation Officials (AASHTO). Traffic criteria calculated for pavement thickness design includes single 18-kip equivalent standard axle loads (ESAL's) of 1,100,000. If significantly different traffic criteria becomes available, Terracon should be notified immediately in order to revise our recommendations if necessary.

A subgrade CBR of 4.5 was used for the pavement design. The value was empirically derived based upon our experience with the describe soil type subgrade soils and our understanding of the quality of the subgrade as prescribed by the **Site Preparation** conditions as outlined in **Earthwork**.

### Pavement Section Thicknesses

The following table provides options for AC Sections:

Traffic Area	Recommended Pavement Section Thickness (inches)		
	Asphalt Concrete Surface	Aggregate Base Course	Total
East 10 <sup>th</sup> Street	5	11	16

Aggregate base course should consist of a blend of sand and gravel that meets strict specifications for quality and gradation. Use of materials meeting New Mexico Department of Transportation (NMDOT Section 304) specifications is recommended. Aggregate base course material should be tested to determine compliance with these specifications prior to importation to the site.

Aggregate base course materials should be placed in lifts not exceeding 6 inches and should be compacted to a minimum of 95% of the material's maximum modified Proctor density (ASTM D 1557) within a moisture content range of 2 percent below to 2 percent above optimum.

Asphalt concrete should be obtained from an approved mix design stating the optimum asphalt content, job mix formula, and recommended mixing and placing temperatures. The mix design should be submitted prior to construction to verify its adequacy. The asphalt materials should be placed in maximum 3.0-inch lifts.

## **Pavement Drainage**

Pavements should be sloped to provide rapid drainage of surface water. Water allowed to pond on or adjacent to the pavements could saturate the subgrade and contribute to premature pavement deterioration. In addition, the pavement subgrade should be graded to provide positive drainage within the granular base section. Appropriate sub-drainage or connection to a suitable daylight outlet should be provided to remove water from the granular subbase.

## **Pavement Maintenance**

The pavement sections represent minimum recommended thicknesses and, as such, periodic maintenance should be anticipated. Therefore, preventive maintenance should be planned and provided for through an on-going pavement management program. Maintenance activities are intended to slow the rate of pavement deterioration and to preserve the pavement investment. Maintenance consists of both localized maintenance (e.g., crack and joint sealing and patching) and global maintenance (e.g., surface sealing). Preventive maintenance is usually the priority when implementing a pavement maintenance program. Additional engineering observation is recommended to determine the type and extent of a cost-effective program. Even with periodic maintenance, some movements and related cracking may still occur and repairs may be required.

Pavement performance is affected by its surroundings. In addition to providing preventive maintenance, the civil engineer should consider the following recommendations in the design and layout of pavements:

- Final grade adjacent to paved areas should slope down from the edges at a minimum 2%.
- Subgrade and pavement surfaces should have a minimum 2% slope to promote proper surface drainage.
- Install below pavement drainage systems surrounding areas anticipated for frequent wetting.
- Install joint sealant and seal cracks immediately.
- Seal all landscaped areas in or adjacent to pavements to reduce moisture migration to subgrade soils.
- Place compacted, low permeability backfill against the exterior side of curb and gutter.

## **GENERAL COMMENTS**

Our analysis and opinions are based upon our understanding of the project, the geotechnical conditions in the area, and the data obtained from our site exploration. Natural variations will occur between exploration point locations or due to the modifying effects of construction or weather. The nature and extent of such variations may not become evident until during or after construction. Terracon should be retained as the Geotechnical Engineer, where noted in this report, to provide observation and testing services during pertinent construction phases. If variations appear, we can provide further evaluation and supplemental recommendations. If variations are noted in the absence of our observation and testing services on-site, we should be immediately notified so that we can provide evaluation and supplemental recommendations.

Our Scope of Services does not include either specifically or by implication any environmental or biological (e.g., mold, fungi, bacteria) assessment of the site or identification or prevention of pollutants, hazardous materials or conditions. If the owner is concerned about the potential for such contamination or pollution, other studies should be undertaken.

Our services and any correspondence or collaboration through this system are intended for the sole benefit and exclusive use of our client for specific application to the project discussed and are accomplished in accordance with generally accepted geotechnical engineering practices with no third-party beneficiaries intended. Any third-party access to services or correspondence is solely for information purposes to support the services provided by Terracon to our client. Reliance upon the services and any work product is limited to our client, and is not intended for third parties. Any use or reliance of the provided information by third parties is done solely at their own risk. No warranties, either express or implied, are intended or made.

Site characteristics as provided are for design purposes and not to estimate excavation cost. Any use of our report in that regard is done at the sole risk of the excavating cost estimator as there may be variations on the site that are not apparent in the data that could significantly impact excavation cost. Any parties charged with estimating excavation costs should seek their own site characterization for specific purposes to obtain the specific level of detail necessary for costing. Site safety, and cost estimating including, excavation support, and dewatering requirements/design are the responsibility of others. If changes in the nature, design, or location of the project are planned, our conclusions and recommendations shall not be considered valid unless we review the changes and either verify or modify our conclusions in writing.



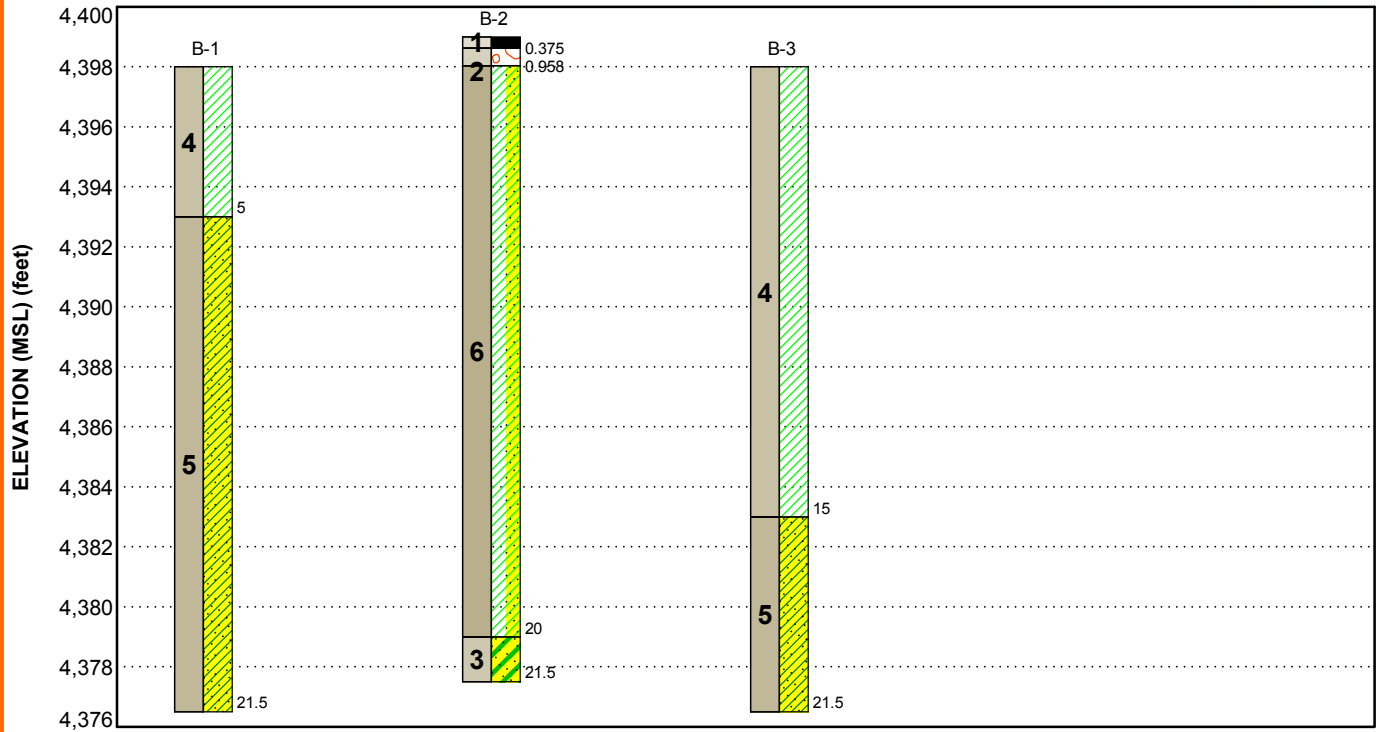
## FIGURES

### Contents:

GeoModel

# GEOMODEL

Alamogordo 10th Street CBC ■ Alamogordo, NM  
 Terracon Project No. 68195076



This is not a cross section. This is intended to display the Geotechnical Model only. See individual logs for more detailed conditions.

### LEGEND

- Lean Clay
- Sandy Lean Clay
- Asphalt
- Aggregate Base Course
- Lean Clay with Sand
- Clayey Sand

Model Layer	Layer Name	General Description
1	ASP	ASPHALT
2	BC	AGGREGATE BASE COURSE
3	SC	CLAYEY SAND
4	CL	LEAN CLAY
5	CL	SANDY LEAN CLAY
6	CL	LEAN CLAY WITH SAND

#### NOTES:

Layering shown on this figure has been developed by the geotechnical engineer for purposes of modeling the subsurface conditions as required for the subsequent geotechnical engineering for this project.

## ATTACHMENTS

## EXPLORATION AND TESTING PROCEDURES

### Field Exploration

Number of Borings	Boring Depth (feet)	Planned Location
3	20 or auger refusal	One bore upstream near wing wall, one bore downstream near wing wall and one bore in roadway on east bound lane of 10 <sup>th</sup> Street.

**Boring Layout and Elevations:** Terracon personnel provided the boring layout. Coordinates were obtained with a handheld GPS unit (estimated horizontal accuracy of about  $\pm 10$  feet) and approximate elevations were obtained by interpolation from a handheld GPS unit. If elevations and a more precise boring layout are desired, we recommend borings be surveyed following completion of fieldwork.

**Subsurface Exploration Procedures:** We advanced the borings with a truck-mounted rotary drill rig using continuous flight augers. Three samples were obtained in the upper 10 feet of each boring and at intervals of 5 feet thereafter. In the split-barrel sampling procedure, a standard 2-inch outer diameter split-barrel sampling spoon was driven into the ground by a 140-pound automatic hammer falling a distance of 30 inches. The number of blows required to advance the sampling spoon the last 12 inches of a normal 18-inch penetration was recorded as the Standard Penetration Test (SPT) resistance value. The SPT resistance values, also referred to as N-values, are indicated on the boring logs at the test depths. A 3-inch O.D. split-barrel sampling spoon with 2.5-inch I.D. ring lined sampler was used for sampling of representative cohesive layers. Ring-lined, split-barrel sampling procedures are similar to standard split spoon sampling procedure; however, blow counts were typically recorded for 6-inch intervals for a total of 12 inches of penetration. We observed and recorded groundwater levels during drilling and sampling. For safety purposes, all borings were backfilled with auger cuttings after their completion. Pavements were patched with cold-mix asphalt and/or pre-mixed concrete, as appropriate.

The sampling depths, penetration distances, and other sampling information was recorded on the field boring logs. The samples were placed in appropriate containers and taken to our soil laboratory for testing and classification by a Geotechnical Engineer. Our exploration team prepared field boring logs as part of the drilling operations. These field logs included visual classifications of the materials encountered during drilling and our interpretation of the subsurface conditions between samples. Final boring logs were prepared from the field logs. The final boring logs represent the Geotechnical Engineer's interpretation of the field logs and include modifications based on observations and tests of the samples in our laboratory.

## Geotechnical Engineering Report

Alamogordo 10th Street CBC ■ Alamogordo, New Mexico

July 25, 2019 ■ Terracon Project No. 68195076



### Laboratory Testing

The project engineer reviewed the field data and assigned laboratory tests to understand the engineering properties of the various soil strata, as necessary, for this project. Procedural standards noted below are for reference to methodology in general. In some cases, variations to methods were applied because of local practice or professional judgment. Standards noted below include reference to other, related standards. Such references are not necessarily applicable to describe the specific test performed.

- ASTM D2216 Standard Test Methods for Laboratory Determination of Water (Moisture) Content of Soil and Rock by Mass
- ASTM D4318 Standard Test Methods for Liquid Limit, Plastic Limit, and Plasticity Index of Soils
- ASTM D422 Standard Test Method for Particle-Size Analysis of Soils

The laboratory testing program often included examination of soil samples by an engineer. Based on the material's texture and plasticity, we described and classified the soil samples in accordance with the Unified Soil Classification System.

## **SITE LOCATION AND EXPLORATION PLANS**

### **Contents:**

Site Location Plan

Exploration Plan

**SITE LOCATION**

Alamogordo 10th Street CBC ■ Alamogordo, NM  
June 25, 2019 ■ Terracon Project No. 68195076

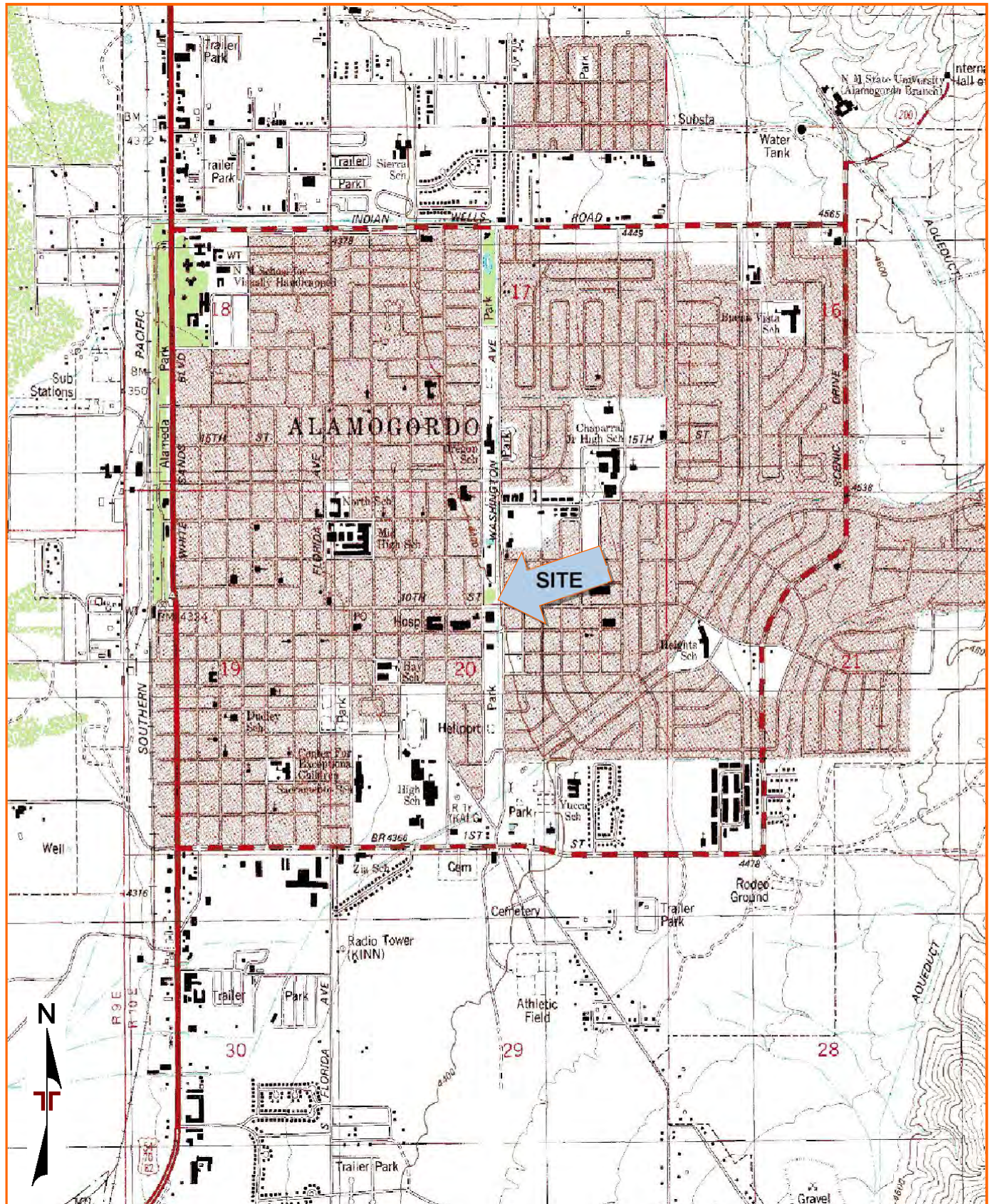


DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

TOPOGRAPHIC MAP IMAGE COURTESY OF THE U.S. GEOLOGICAL SURVEY  
QUADRANGLES INCLUDE: ALAMOGORDO NORTH, NM (1/1/2004).

**EXPLORATION PLAN**

Alamogordo 10th Street CBC ■ Alamogordo, NM  
June 25, 2019 ■ Terracon Project No. 68195076



DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

AERIAL PHOTOGRAPHY PROVIDED BY MICROSOFT BING MAPS



## **EXPLORATION RESULTS**

### **Contents:**

Boring Logs (B-1 through B-3)  
Grain Size Distribution  
Consolidation/Swell

# BORING LOG NO. B-1

**PROJECT:** Alamogordo 10th Street CBC

**CLIENT:** City of Alamogordo NM  
Alamogordo, NM

**SITE:** East 10th Street and Washington Avenue  
Alamogordo, NM

MODEL LAYER	GRAPHIC LOG	LOCATION See <a href="#">Exploration Plan</a> Latitude: 32.9001° Longitude: -105.9436°  Approximate Surface Elev.: 4398 (Ft.) +/- ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	FIELD TEST RESULTS	WATER CONTENT (%)	DRY UNIT WEIGHT (pcf)	ATTERBERG LIMITS		PERCENT FINES
									LL-PL-PI		
4		<b>LEAN CLAY (CL)</b> , brown, soft	5.0			1-1-2 N=3	15		30-20-10	90	
5		<b>SANDY LEAN CLAY (CL)</b> , brown, very stiff  light brown, stiff to very stiff  brown, very stiff	21.5			5-6-12 N=18	14				
		<b>Boring Terminated at 21.5 Feet</b>	21.5			12-12	15	108			
			21.5			5-5-10 N=15	10		27-15-12	69	
			21.5			5-7-13 N=20	9				

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:  
Hollow Stem Auger

See [Exploration and Testing Procedures](#) for a description of field and laboratory procedures used and additional data (if any).

Notes:

Abandonment Method:  
Boring backfilled with auger cuttings upon completion.

See [Supporting Information](#) for explanation of symbols and abbreviations.

**WATER LEVEL OBSERVATIONS**



Boring Started: 06-24-2019

Boring Completed: 06-24-2019

Drill Rig: CME-75

Driller: Terracon

Project No.: 68195076

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL\_68195076 ALAMOGORDO 10TH S.GPJ TERRACON\_DATATEMPLATE.GDT 7/17/19

# BORING LOG NO. B-2

**PROJECT:** Alamogordo 10th Street CBC

**CLIENT:** City of Alamogordo NM  
Alamogordo, NM

**SITE:** East 10th Street and Washington Avenue  
Alamogordo, NM

MODEL LAYER	GRAPHIC LOG	LOCATION See <a href="#">Exploration Plan</a> Latitude: 32.8999° Longitude: -105.9439°  Approximate Surface Elev.: 4399 (Ft.) +/-	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	FIELD TEST RESULTS	WATER CONTENT (%)	DRY UNIT WEIGHT (pcf)	ATTERBERG LIMITS		PERCENT FINES
									LL-PL-PI		
1		0.4 <b>ASPHALT 4.5" thick</b>	4398.5+/-								
2		1.0 <b>AGGREGATE BASE COURSE 7" thick</b> <b>LEAN CLAY WITH SAND (CL)</b> , brown with black, medium stiff, Asphalt particles present	4398+/-								
6		dark brown, soft	5			1-2-2 N=4	12				
							2-2	17	100		
		brown, stiff	10			4-5-7 N=12	14		31-18-13	81	
3		20.0 <b>CLAYEY SAND (SC)</b> , brown, medium dense	4379+/-								
		21.5 <b>Boring Terminated at 21.5 Feet</b>	4377.5+/-								

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:  
Hollow Stem Auger

See [Exploration and Testing Procedures](#) for a description of field and laboratory procedures used and additional data (if any).

Notes:

Abandonment Method:  
Boring backfilled with Auger Cuttings and/or Bentonite  
Surface Capped with Asphalt

See [Supporting Information](#) for explanation of symbols and abbreviations.

**WATER LEVEL OBSERVATIONS**



Boring Started: 06-24-2019

Boring Completed: 06-24-2019

Drill Rig: CME-75

Driller: Terracon

Project No.: 68195076

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL\_68195076 ALAMOGORDO 10TH S.GPJ TERRACON\_DATATEMPLATE.GDT 7/17/19

# BORING LOG NO. B-3

**PROJECT:** Alamogordo 10th Street CBC

**CLIENT:** City of Alamogordo NM  
Alamogordo, NM

**SITE:** East 10th Street and Washington Avenue  
Alamogordo, NM

MODEL LAYER	GRAPHIC LOG	LOCATION	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	FIELD TEST RESULTS	WATER CONTENT (%)	DRY UNIT WEIGHT (pcf)	ATTERBERG LIMITS	PERCENT FINES
		See <a href="#">Exploration Plan</a> Latitude: 32.8997° Longitude: -105.9439°  Approximate Surface Elev.: 4398 (Ft.) +/- ELEVATION (Ft.)							LL-PL-PI	
4		<b>LEAN CLAY (CL)</b> , light brown, stiff								
			5	X		4-6-6 N=12	9			
			10	X		3-6-7 N=13	14		34-20-14	87
		15.0								
		<b>SANDY LEAN CLAY (CL)</b> , brown, stiff to very stiff								
5			15	X		5-6-9 N=15	14		27-16-11	63
			20	X		4-3-5 N=8	12			
		21.5								
		<b>Boring Terminated at 21.5 Feet</b>								
			4383+/-							
			4376.5+/-							

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:  
Hollow Stem Auger

See [Exploration and Testing Procedures](#) for a description of field and laboratory procedures used and additional data (if any).

Notes:

Abandonment Method:  
Boring backfilled with auger cuttings upon completion.

See [Supporting Information](#) for explanation of symbols and abbreviations.

**WATER LEVEL OBSERVATIONS**



Boring Started: 06-24-2019

Boring Completed: 06-24-2019

Drill Rig: CME-75

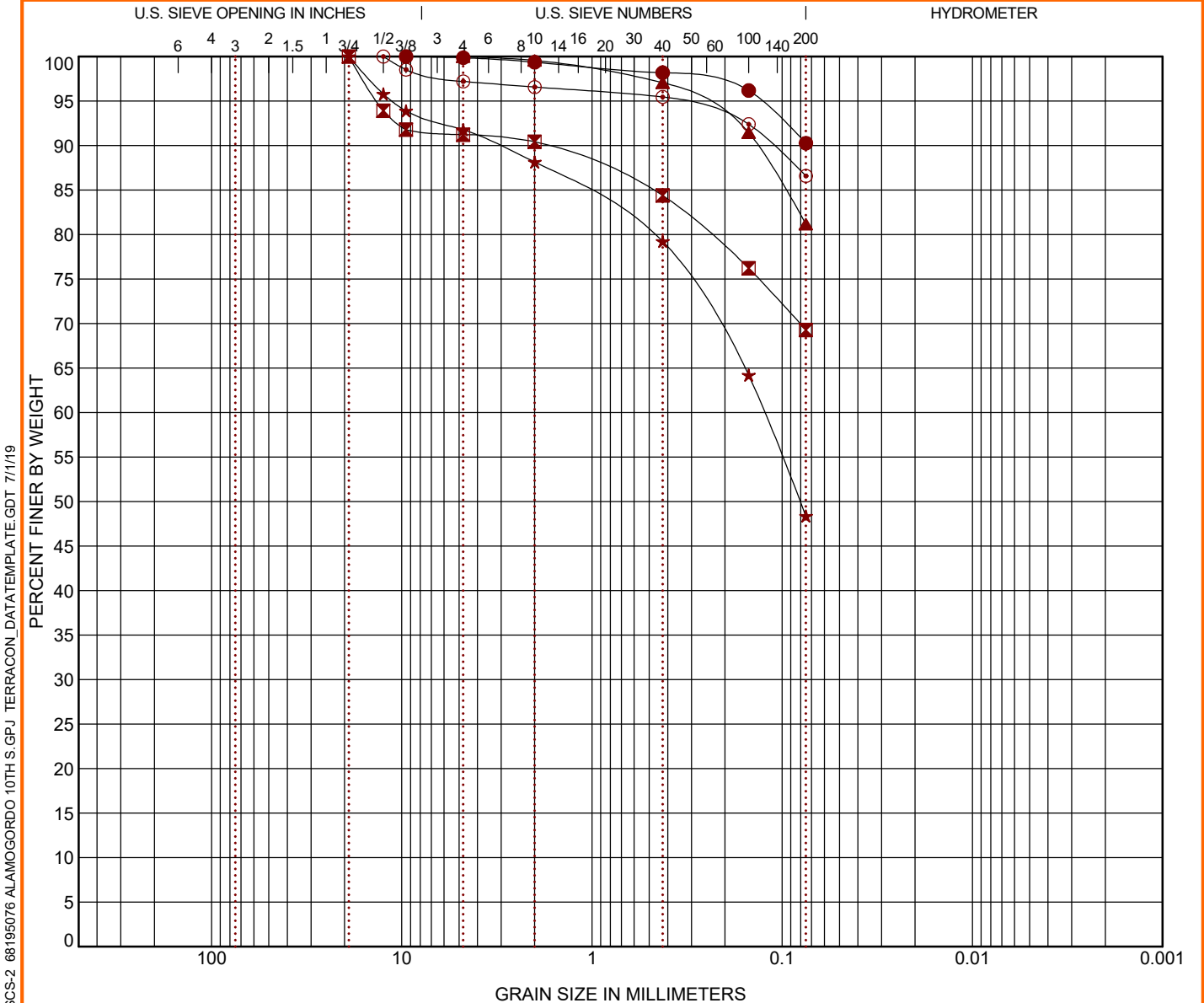
Driller: Terracon

Project No.: 68195076

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL. 68195076 ALAMOGORDO 10TH S.GPJ TERRACON\_DATATEMPLATE.GDT 7/17/19

# GRAIN SIZE DISTRIBUTION

ASTM D422 / ASTM C136




COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Boring ID	Depth	USCS Classification				WC (%)	LL	PL	PI	Cc	Cu
● B-1	2.5 - 4	LEAN CLAY (CL)				15	30	20	10		
☒ B-1	15 - 16.5	SANDY LEAN CLAY (CL)				10	27	15	12		
▲ B-2	10 - 11.5	LEAN CLAY with SAND (CL)				14	31	18	13		
★ B-2	20 - 21.5	CLAYEY SAND (SC)				10	32	17	15		
⊙ B-3	5 - 6.5	LEAN CLAY (CL)				14	34	20	14		

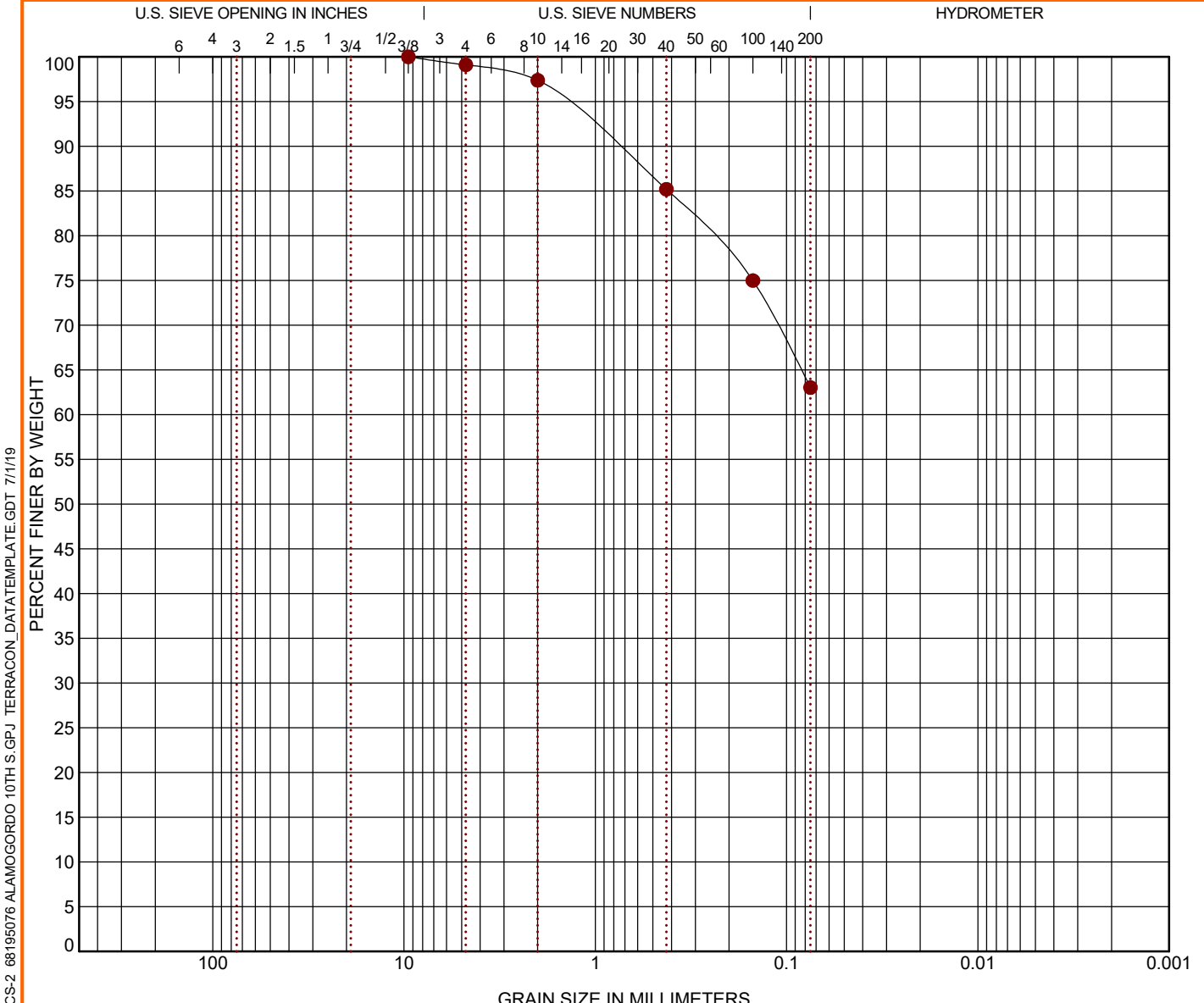
Boring ID	Depth	D <sub>100</sub>	D <sub>60</sub>	D <sub>30</sub>	D <sub>10</sub>	%Cobbles	%Gravel	%Sand	%Silt	%Fines	%Clay
● B-1	2.5 - 4	9.5				0.0	0.1	9.6		90.3	
☒ B-1	15 - 16.5	19				0.0	8.8	21.9		69.3	
▲ B-2	10 - 11.5	4.75				0.0	0.0	18.8		81.2	
★ B-2	20 - 21.5	19	0.125			0.0	8.2	43.4		48.4	
⊙ B-3	5 - 6.5	12.5				0.0	2.8	10.6		86.6	

PROJECT: Alamogordo 10th Street CBC	 4450 Bataan Memorial E Las Cruces, NM	PROJECT NUMBER: 68195076
SITE: East 10th Street and Washington Avenue Alamogordo, NM		CLIENT: City of Alamogordo NM Alamogordo, NM

LABORATORY TESTS ARE NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GRAIN SIZE: USCS-2 68195076 ALAMOGORDO 10TH S.GPJ TERRACON\_DATATEMPLATE.GDT 7/1/19

# GRAIN SIZE DISTRIBUTION

ASTM D422 / ASTM C136



LABORATORY TESTS ARE NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GRAIN SIZE: USCS-2 68195076 ALAMOGORDO 10TH S.GPJ TERRACON\_DATATEMPLATE.GDT 7/1/19

COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

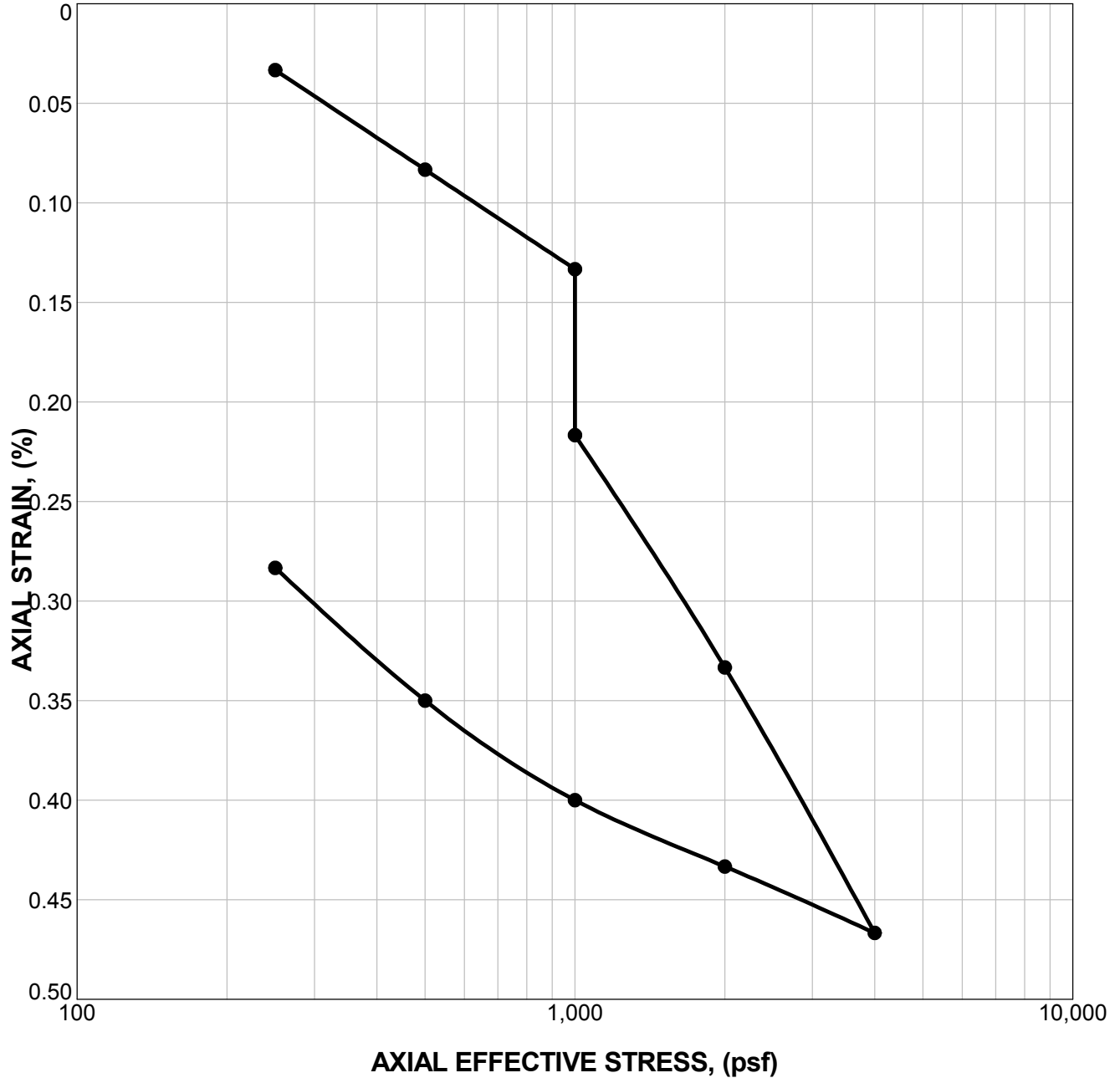
Boring ID	Depth	USCS Classification	WC (%)	LL	PL	PI	Cc	Cu
● B-3	15 - 16.5	SANDY LEAN CLAY (CL)	14	27	16	11		

Boring ID	Depth	D <sub>100</sub>	D <sub>60</sub>	D <sub>30</sub>	D <sub>10</sub>	%Cobbles	%Gravel	%Sand	%Silt	%Fines	%Clay
● B-3	15 - 16.5	9.5				0.0	0.9	36.1		63.0	

PROJECT: Alamogordo 10th Street CBC	4450 Bataan Memorial E Las Cruces, NM	PROJECT NUMBER: 68195076
SITE: East 10th Street and Washington Avenue Alamogordo, NM		CLIENT: City of Alamogordo NM Alamogordo, NM

# CONSOLIDATION TEST (D2435)

Per ASTM D2435/D2435M, Fig. 3



LABORATORY TESTS ARE NOT VALID IF SEPARATED FROM ORIGINAL REPORT. CONS\_LOAD-DEF\_PROP\_STRESS-STRAIN 68195076 ALAMOGORDO 10TH S.GPJ TERRACON\_DATATEMPLATE.GDT 7/17/19

Natural		Initial Dry Density (pcf)	LL	PI	Sp. Gr.	Overburden (psf)	P <sub>c</sub> (psf)	C <sub>c</sub> (% / log stress)	C <sub>u</sub> (% / log stress)	Initial Void Ratio
Saturation	Moisture									
68.2 %	15.0 %	107.8			2.79		583	0.443	0.149	0.615

MATERIAL DESCRIPTION									USCS	AASHTO
SANDY LEAN CLAY									CL	

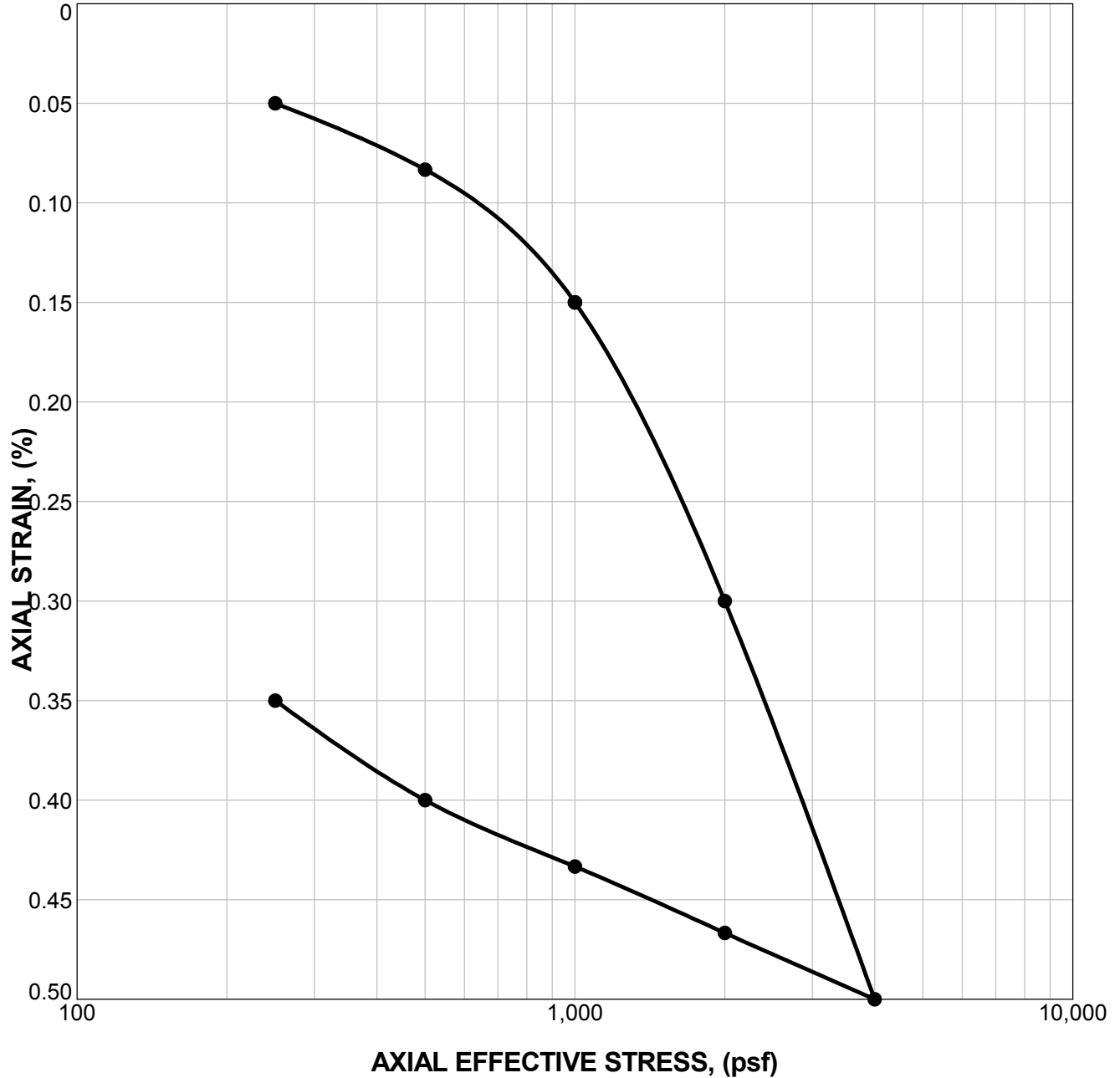
NOTES:

**Borehole: B-1 Depth: 10 ft**

PROJECT: Alamogordo 10th Street CBC	<p style="font-size: small;">4450 Bataan Memorial E Las Cruces, NM</p>	PROJECT NUMBER: 68195076
SITE: East 10th Street and Washington Avenue Alamogordo, NM		CLIENT: City of Alamogordo NM Alamogordo, NM

# CONSOLIDATION TEST (D2435)

Per ASTM D2435/D2435M, Fig. 3



LABORATORY TESTS ARE NOT VALID IF SEPARATED FROM ORIGINAL REPORT. CONS\_LOAD-DEF\_PROP\_STRESS-STRAIN 68195076 ALAMOGORDO 10TH S.GPJ TERRACON\_DATATEMPLATE.GDT 7/17/19

Natural		Initial Dry Density (pcf)	LL	PI	Sp. Gr.	Overburden (psf)	P <sub>c</sub> (psf)	C <sub>c</sub> (% / log stress)	C <sub>u</sub> (% / log stress)	Initial Void Ratio
Saturation	Moisture									
63.4 %	16.8 %	100.1			2.79		1,279	0.664	0.122	0.740

MATERIAL DESCRIPTION									USCS	AASHTO
LEAN CLAY WITH SAND									CL	

NOTES:

**Borehole: B-2 Depth: 5 ft**

PROJECT: Alamogordo 10th Street CBC	<p style="font-size: small;">4450 Bataan Memorial E Las Cruces, NM</p>	PROJECT NUMBER: 68195076
SITE: East 10th Street and Washington Avenue Alamogordo, NM		CLIENT: City of Alamogordo NM Alamogordo, NM



## **SUPPORTING INFORMATION**

### **Contents:**

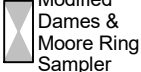




General Notes  
Unified Soil Classification System  
Pavement Section Sheet

# GENERAL NOTES

## DESCRIPTION OF SYMBOLS AND ABBREVIATIONS

Alamogordo 10th Street CBC ■ Alamogordo, NM

July 1, 2019 ■ Terracon Project No. 68195076

SAMPLING	WATER LEVEL	FIELD TESTS
 Modified Dames & Moore Ring Sampler  Split Spoon	 Water Initially Encountered  Water Level After a Specified Period of Time  Water Level After a Specified Period of Time  Water levels indicated on the soil boring logs are the levels measured in the borehole at the times indicated. Groundwater level variations will occur over time. In low permeability soils, accurate determination of groundwater levels is not possible with short term water level observations.	(N) Standard Penetration Test Resistance (Blows/Ft.) (HP) Hand Penetrometer (T) Torvane (DCP) Dynamic Cone Penetrometer (UC) Unconfined Compressive Strength (PID) Photo-Ionization Detector (OVA) Organic Vapor Analyzer

### DESCRIPTIVE SOIL CLASSIFICATION

Soil classification is based on the Unified Soil Classification System. Coarse Grained Soils have more than 50% of their dry weight retained on a #200 sieve; their principal descriptors are: boulders, cobbles, gravel or sand. Fine Grained Soils have less than 50% of their dry weight retained on a #200 sieve; they are principally described as clays if they are plastic, and silts if they are slightly plastic or non-plastic. Major constituents may be added as modifiers and minor constituents may be added according to the relative proportions based on grain size. In addition to gradation, coarse-grained soils are defined on the basis of their in-place relative density and fine-grained soils on the basis of their consistency.

### LOCATION AND ELEVATION NOTES

Unless otherwise noted, Latitude and Longitude are approximately determined using a hand-held GPS device. The accuracy of such devices is variable. Surface elevation data annotated with +/- indicates that no actual topographical survey was conducted to confirm the surface elevation. Instead, the surface elevation was approximately determined from topographic maps of the area.

### STRENGTH TERMS

RELATIVE DENSITY OF COARSE-GRAINED SOILS (More than 50% retained on No. 200 sieve.) Density determined by Standard Penetration Resistance		CONSISTENCY OF FINE-GRAINED SOILS (50% or more passing the No. 200 sieve.) Consistency determined by laboratory shear strength testing, field visual-manual procedures or standard penetration resistance		
Descriptive Term (Density)	Standard Penetration or N-Value Blows/Ft.	Descriptive Term (Consistency)	Unconfined Compressive Strength Qu, (tsf)	Standard Penetration or N-Value Blows/Ft.
Very Loose	0 - 3	Very Soft	less than 0.25	0 - 1
Loose	4 - 9	Soft	0.25 to 0.50	2 - 4
Medium Dense	10 - 29	Medium Stiff	0.50 to 1.00	4 - 8
Dense	30 - 50	Stiff	1.00 to 2.00	8 - 15
Very Dense	> 50	Very Stiff	2.00 to 4.00	15 - 30
		Hard	> 4.00	> 30

RELATIVE PROPORTIONS OF SAND AND GRAVEL		RELATIVE PROPORTIONS OF FINES	
Descriptive Term(s) of other constituents	Percent of Dry Weight	Descriptive Term(s) of other constituents	Percent of Dry Weight
Trace	<15	Trace	<5
With	15-29	With	5-12
Modifier	>30	Modifier	>12

GRAIN SIZE TERMINOLOGY		PLASTICITY DESCRIPTION	
Major Component of Sample	Particle Size	Term	Plasticity Index
Boulders	Over 12 in. (300 mm)	Non-plastic	0
Cobbles	12 in. to 3 in. (300mm to 75mm)	Low	1 - 10
Gravel	3 in. to #4 sieve (75mm to 4.75 mm)	Medium	11 - 30
Sand	#4 to #200 sieve (4.75mm to 0.075mm)	High	> 30
Silt or Clay	Passing #200 sieve (0.075mm)		

Criteria for Assigning Group Symbols and Group Names Using Laboratory Tests <sup>A</sup>				Soil Classification		
				Group Symbol	Group Name <sup>B</sup>	
<b>Coarse-Grained Soils:</b> More than 50% retained on No. 200 sieve	<b>Gravels:</b> More than 50% of coarse fraction retained on No. 4 sieve	<b>Clean Gravels:</b> Less than 5% fines <sup>C</sup>	$Cu \geq 4$ and $1 \leq Cc \leq 3$ <sup>E</sup>	GW	Well-graded gravel <sup>F</sup>	
			$Cu < 4$ and/or $[Cc < 1 \text{ or } Cc > 3.0]$ <sup>E</sup>	GP	Poorly graded gravel <sup>F</sup>	
		<b>Gravels with Fines:</b> More than 12% fines <sup>C</sup>	Fines classify as ML or MH	GM	Silty gravel <sup>F, G, H</sup>	
			Fines classify as CL or CH	GC	Clayey gravel <sup>F, G, H</sup>	
	<b>Sands:</b> 50% or more of coarse fraction passes No. 4 sieve	<b>Clean Sands:</b> Less than 5% fines <sup>D</sup>	$Cu \geq 6$ and $1 \leq Cc \leq 3$ <sup>E</sup>	SW	Well-graded sand <sup>I</sup>	
			$Cu < 6$ and/or $[Cc < 1 \text{ or } Cc > 3.0]$ <sup>E</sup>	SP	Poorly graded sand <sup>I</sup>	
		<b>Sands with Fines:</b> More than 12% fines <sup>D</sup>	Fines classify as ML or MH	SM	Silty sand <sup>G, H, I</sup>	
			Fines classify as CL or CH	SC	Clayey sand <sup>G, H, I</sup>	
<b>Fine-Grained Soils:</b> 50% or more passes the No. 200 sieve	<b>Silts and Clays:</b> Liquid limit less than 50	<b>Inorganic:</b>	$PI > 7$ and plots on or above "A" line	CL	Lean clay <sup>K, L, M</sup>	
			$PI < 4$ or plots below "A" line <sup>J</sup>	ML	Silt <sup>K, L, M</sup>	
		<b>Organic:</b>	Liquid limit - oven dried	< 0.75	OL	Organic clay <sup>K, L, M, N</sup>
			Liquid limit - not dried			Organic silt <sup>K, L, M, O</sup>
	<b>Silts and Clays:</b> Liquid limit 50 or more	<b>Inorganic:</b>	$PI$ plots on or above "A" line	CH	Fat clay <sup>K, L, M</sup>	
			$PI$ plots below "A" line	MH	Elastic Silt <sup>K, L, M</sup>	
		<b>Organic:</b>	Liquid limit - oven dried	< 0.75	OH	Organic clay <sup>K, L, M, P</sup>
			Liquid limit - not dried			Organic silt <sup>K, L, M, Q</sup>
<b>Highly organic soils:</b>	Primarily organic matter, dark in color, and organic odor			PT	Peat	

<sup>A</sup> Based on the material passing the 3-inch (75-mm) sieve.

<sup>B</sup> If field sample contained cobbles or boulders, or both, add "with cobbles or boulders, or both" to group name.

<sup>C</sup> Gravels with 5 to 12% fines require dual symbols: GW-GM well-graded gravel with silt, GW-GC well-graded gravel with clay, GP-GM poorly graded gravel with silt, GP-GC poorly graded gravel with clay.

<sup>D</sup> Sands with 5 to 12% fines require dual symbols: SW-SM well-graded sand with silt, SW-SC well-graded sand with clay, SP-SM poorly graded sand with silt, SP-SC poorly graded sand with clay.

$$Cu = D_{60}/D_{10} \quad Cc = \frac{(D_{30})^2}{D_{10} \times D_{60}}$$

<sup>F</sup> If soil contains <sup>3</sup> 15% sand, add "with sand" to group name.

<sup>G</sup> If fines classify as CL-ML, use dual symbol GC-GM, or SC-SM.

<sup>H</sup> If fines are organic, add "with organic fines" to group name.

<sup>I</sup> If soil contains <sup>3</sup> 15% gravel, add "with gravel" to group name.

<sup>J</sup> If Atterberg limits plot in shaded area, soil is a CL-ML, silty clay.

<sup>K</sup> If soil contains 15 to 29% plus No. 200, add "with sand" or "with gravel," whichever is predominant.

<sup>L</sup> If soil contains <sup>3</sup> 30% plus No. 200 predominantly sand, add "sandy" to group name.

<sup>M</sup> If soil contains <sup>3</sup> 30% plus No. 200, predominantly gravel, add "gravelly" to group name.

<sup>N</sup>  $PI \geq 4$  and plots on or above "A" line.

<sup>O</sup>  $PI < 4$  or plots below "A" line.

<sup>P</sup>  $PI$  plots on or above "A" line.

<sup>Q</sup>  $PI$  plots below "A" line.

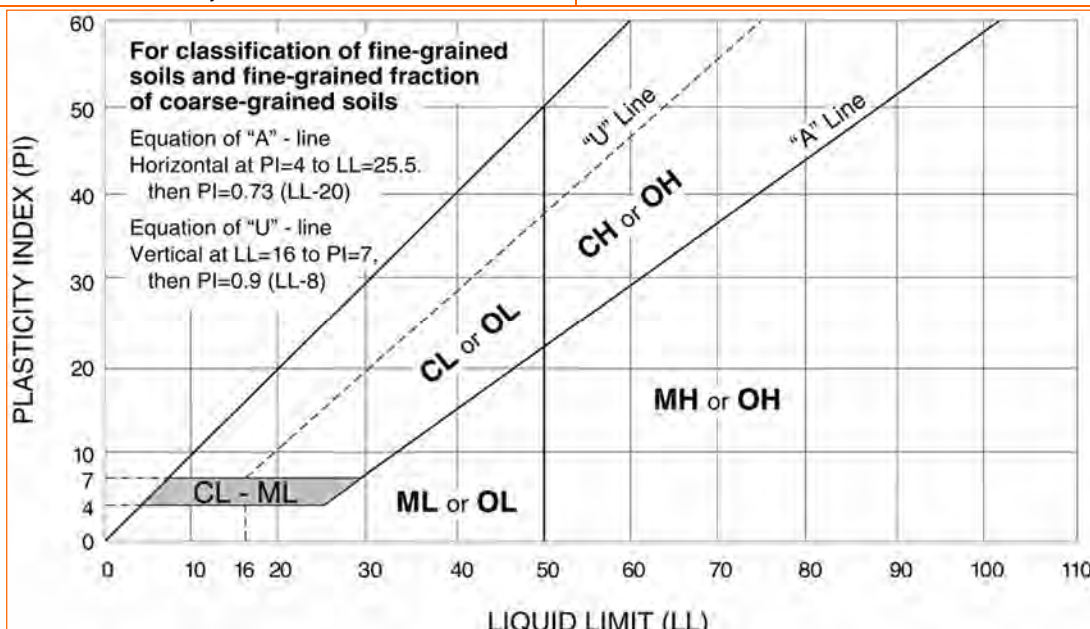






EXHIBIT B - HUBBARD DRIVE BRIDGE



















Hi

80  
5/11/10

# DRAFT COPY

## SERVICES AGREEMENT

THIS AGREEMENT, made this \_\_\_\_\_ day of \_\_\_\_\_, 2022 is made and entered into by and between the City of Alamogordo, a New Mexico municipal corporation (the “City”), and XXXX Company (the “Consultant”).

WHEREAS, the City desires to hire Consultant to provide engineering services for the update to several City Codes of Ordinance (Ordinance Updates) (See Attachment A); and,

WHEREAS, Consultant has held itself out to the City as having the requisite expertise and experience to perform the required services; and,

WHEREAS, the City has selected the Consultant as the offeror most advantageous to the City.

NOW, THEREFORE, it is hereby agreed as follows:

IT IS MUTUALLY AGREED BETWEEN THE PARTIES:

1. **Scope of Work.** The City engages the Consultant to furnish those services (the “Services”) described in the attached Attachment “A.” The Consultant accepts such engagement upon, subject to and in accordance with the terms, conditions and provisions of this Agreement. The Consultant shall perform the Services as expeditiously as is consistent with good professional skill and care and the orderly progress of the Services.

2. **Professional Responsibility.**

2.1 Consultant hereby warrants that it is qualified to assume the responsibilities and render the services described herein and has all requisite corporate authority and professional licenses in good standing, required by law.

2.2 Consultant further warrants that the work performed by Consultant shall be in accordance with generally accepted professional practices and the level of competency presently maintained by other practicing professional firms in the same or similar type of work in the applicable community.

2.3 Consultant shall be responsible for the professional quality, technical accuracy, timely completion, and the coordination of all reports and other services furnished by Consultant under this Agreement. Consultant shall, without additional compensation, correct or resolve any errors or deficiencies in his reports and other services, which fall below the standard of professional practice, and reimburse the City for costs caused by errors and omissions which fall below the standard of professional practice.

2.4 Approval by the City of reports and incidental work or materials furnished hereunder shall not in any way relieve Consultant of responsibility for technical adequacy of the work. Neither the City's review, approval of or acceptance of, nor payment for, any of the services shall be construed to operate as a waiver of any rights under this Agreement or of any cause of action arising out of the performance of this Agreement, and Consultant shall be and remain liable in accordance with applicable performance of any of the services furnished under this Agreement.

2.5 The rights and remedies of the City provided for under this Agreement are in addition to any other rights and remedies provided by law.

3. **Compensation.** The City agrees to compensate the Consultant for services provided on an amount equal to the cumulative hours charged to the project by each class of Consultant’s employee’s times the hourly rate as in the attached fee schedule, by this reference made part of this Agreement, not to exceed \$XXXXXXXX excluding NMGRT. Payment shall be made upon receipt of a detailed statement of accounting for services performed. Reimbursables and per diem are not allowed, unless specified in Attachment “A”. In the event of a conflict between the terms of this Agreement and Attachment “A”, the terms of this Agreement shall prevail. The Consultant shall pay the New Mexico gross receipts taxes, pursuant to the Gross Receipts and Compensating Tax Act of New Mexico, assessed against the contract fee and costs paid for performance of this contract, or of any part or portion thereof, within the State of New Mexico. The Consultant shall be reimbursed by the City for applicable New

Mexico gross receipts taxes, excluding interest or penalties assessed on the Consultant by any authority. Consultant shall hold the City harmless from any responsibility for taxes, damages and interest, if applicable, contributions required under Federal, and/or state and local laws and regulations and any other costs including transaction privilege taxes, unemployment compensation insurance. Social Security and Worker's Compensation. Consultant shall file New Mexico tax returns and pay the required taxes for any and all payments made under this Agreement and any and all payments previously made to the Consultant. The City shall have the right to deduct from any payment made under this Agreement to the Consultant any federal, state, local or foreign income, employment or other taxes it determines are required by law to be paid with respect to such payments or to require payment from the Consultant, which the Consultant agrees to pay upon demand, for the purpose of satisfying any such obligation. Failure to comply with these obligations shall constitute a material breach of this Agreement.

4. **Commencement and Completion of Work.** Within twenty-one (21) calendar days of receipt from the City of a Notice to Proceed, Consultant shall commence work on all its obligations as set forth in Attachment "A" or that portion of such obligations as is specified in said Notice. Except as may be changed in writing by the City, the Project shall be complete and Consultant shall furnish the City the specified deliverables as provided in Attachment "A."

5. **Effective Date/ Term.** This agreement will become effective when both parties have signed it. The date this agreement is signed by the second party to sign it (as indicated by the date associated with that party's signature) will be deemed the date of this agreement. *If a party signs but fails to date a signature, the date that the other party receives the signing party's signature will be deemed to be the date that the signing party signed this agreement.* This Agreement shall terminate on December 31, 2024, unless otherwise terminated pursuant to the provisions contained herein.

6. **Termination.** This Agreement may be terminated by either of the parties hereto upon written notice delivered to the other party at least ten (10) days prior to the intended date of termination. By such termination, neither party may nullify obligations already incurred for performance or failure to perform prior to the date of termination. **THE PROVISION IS NOT EXCLUSIVE AND DOES NOT WAIVE OTHER LEGAL RIGHTS AND REMEDIES UNDER DEFAULT/BREACH OF CONTRACT.**

7. **Appropriations.** The terms of this Agreement are contingent upon sufficient appropriations and authorization being made by the Alamogordo City Commission for the performance of this Agreement. If sufficient appropriations and authorization are not made by the Commission, this Agreement shall terminate immediately upon written notice being given by the City to the Consultant. The City's decision as to whether sufficient appropriations are available shall be accepted by the Consultant and shall be final. If the City proposes an amendment to the Agreement to unilaterally reduce funding, the Consultant shall have the option to terminate the Agreement or to agree to the reduced funding, within thirty (30) days of receipt of the proposed amendment.

8. **Status of Consultant.** The Consultant and its agents and employees are independent contractors performing professional services for the City and are not employees of the City. The Consultant and its agents and employees shall not accrue leave, retirement, insurance, bonding, use of state vehicles, or any other benefits afforded to employees of the City as a result of this Agreement. The Consultant acknowledges that all sums received hereunder are personally reportable by it for income tax purposes as self-employment or business income and are reportable for self-employment tax. The Consultant shall have no authority to act on behalf of the City other than as expressly provided in this Agreement. The Consultant is not authorized to act as a general agent for or to undertake, direct or modify any contracts on behalf of the City. The Consultant lacks any authority to bind the City on any contractual matters. Final approval of all contractual matters that purport to obligate the City must be executed by the City in accordance with the City's Code of Ordinances.

9. **Insurance.** Consultant agrees to procure and maintain, at its own cost, a policy or policies of insurance sufficient to insure against all liability, claims, demands, and other obligations assumed by Consultant pursuant to the terms of this agreement. Such insurance shall be in addition to any other insurance requirements imposed by this Agreement or by law. Consultant shall not be relieved of any liability, claims, demands, or other obligations

assumed pursuant to this agreement by reason of its failure to procure or maintain insurance, or by reason of its failure to procure or maintain insurance in sufficient amounts, durations, or types.

**10. Assignment.** The Consultant shall not assign or transfer any interest in this Agreement or assign any claims for money due or to become due under this Agreement without the prior written approval of the City.

**11. Subcontracting.** The Consultant shall not subcontract any portion of the services to be performed under this Agreement without the prior written approval of the City.

**12. Records and Audit.** The Consultant shall maintain, for three years, detailed time records which indicate the date, time and nature of services rendered. These records shall be subject to inspection by the City. The City shall have a right to audit billings both before and after payment; payment under this Agreement shall not foreclose the right of the City to recover excessive and/or illegal payments.

**13. Release.** The Consultant's acceptance of final payment of the amount due under this Agreement shall operate as a release of the City, its officers and employees, from all liabilities, claims and obligations whatsoever arising from or under this Agreement. The Consultant agrees not to purport to bind the City unless the Consultant has express written authority to do so, and then only within the strict limits of the authority.

**14. Compliance with Laws:** The Consultant hereby represents and warrants that:

**14.1** It is qualified to do business in the State of New Mexico and that it will take such action as, from time to time, may be necessary to remain so qualified;

**14.2** It is not in arrears with respect to the payment of any monies due and owing the State of New Mexico, or any department or unit thereon including, but not limited to, the payment of taxes and employee benefits, and that it shall not become so in arrears during the term of this Contract;

**14.3** It shall comply with all Federal, State and local laws, regulations, and ordinances applicable to its activities and obligations under this Contract; and

**14.4** It shall procure, at its expense, all licenses, permits, insurance, and governmental approval or registration, if any, necessary to the performance of its obligations under this Contract.

**15. Confidentiality.** Any confidential information provided to or developed by the Consultant in the performance of this Agreement shall be kept confidential and shall not be made available to any individual or organization by the Consultant without the prior written approval of the City. The City may provide Consultant with reports and such other data as may be available to the City and reasonably required by Consultant to perform hereunder. No project information shall be disclosed by Consultant to third parties without prior written consent of the City or pursuant to a lawful court order directing such disclosure. All documents provided by the City to Consultant shall be returned to the City.

**16. Product of Service - Copyright.** The City acknowledges that the Consultant's work product is an instrument of professional service. Nevertheless, all materials developed, acquired or prepared under this Agreement shall become the property of the City upon completion of the work and shall be delivered to the City no later than the termination date of this Agreement. Nothing produced, in whole or in part, by the Consultant under this Agreement shall be the subject of an application for copyright or other claim of ownership by or on behalf of the Consultant.

**17. Conflict of Interest.** The Consultant warrants that it presently has no interest and shall not acquire any interest, direct or indirect, which would conflict in any manner or degree with the performance or services required under the Agreement. The Consultant certifies that the requirements of the Governmental Conduct Act, Sections 10-16-1 through 10-16-17 NMSA 1978, regarding contracting with a public officer or public employee have been followed.

**18. Amendment.** This Agreement shall not be altered, changed or amended except by instrument in writing executed by the parties hereto.



19. **Merger.** This Agreement incorporates all the agreements, covenants and understandings between the parties hereto concerning the subject matter hereof, and all such covenants, agreements, and understandings have been merged into this written Agreement. No prior agreement or understanding, oral or otherwise, of the parties or then- agents shall be valid or enforceable unless embodied in this Agreement.

20. **Equal Opportunity Compliance.** The Consultant agrees to abide by all federal and state laws and rules and regulations pertaining to equal employment opportunity. In accordance with all such laws of the State of New Mexico, the Consultant agrees to assure that no person in the United States shall, on the grounds of race, religion, color, national origin, ancestry, sex, age or handicap, be excluded from employment with or participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity performed under this Agreement. If Consultant is found to not be in compliance with these requirements during the life of this Agreement, Consultant agrees to take appropriate steps to correct these deficiencies.

21. **Applicable Law.** This Agreement shall be governed by the laws of the State of New Mexico.

CONSULTANT  
Company

Date: \_\_\_\_\_

By: \_\_\_\_\_

NM Taxpayer Identification Number: \_\_\_\_\_

Federal Taxpayer Identification Number: \_\_\_\_\_

CITY OF ALAMOGORDO, NEW MEXICO  
a New Mexico municipal corporation

Date: \_\_\_\_\_

By: \_\_\_\_\_  
Brian Cesar, City Manager

ATTEST:

APPROVED AS TO FORM:

\_\_\_\_\_  
Rachel Hughs, City Clerk

\_\_\_\_\_  
Petria Bengoechea, City Attorney