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County Manager

September 7, 2022

SANTA FE COUNTY
RFP No. 2022-0168-PW/APS
CONSTRUCTION SERVICES FOR NORTHEAST/SOUTHEAST (NE/SE)
CONNECTOR PROJECT

PHASE II ADDENDUM NO. 3

Dear Proponents,

This addendum is issued to reflect the following immediately. It shall be the responsibility of interested Offerors to adhere to any changes or revisions to the RFP as identified in this Addendum No. 3. This documentation shall become permanent and made part of the departmental files.

Attachment A: Geotechnical Report

Attachment B: NTC Monthly Fuel Adjustments

Procedures Attachment C: Revised Bid Sheets

Question No. 1: The RFP mentions specific documents for Phase II that are not included within the RFP packet. Will you provide the following forms: *Affidavit of Bidder, Bidder's List of Quoters for the Disadvantage Business Enterprise (DBE) Program, Non-Debarment Certificate, Pay Equity Acknowledgement, Disclosure of Lobbying Activities?*

Answer No. 1: Please disregard the forms listed. These are not required forms to submit with the cost proposal.

Question No. 2: The Bid Form includes a list of items that are required to be included with the Bid Proposal for submission. Item I is Campaign Contribution Form. It appears that the Campaign Contribution Form is missing. Will you be providing the Campaign Contribution Form?

Answer No. 2: The Campaign Contribution Disclosure Form was submitted with Phase I and does not need to be included with Phase II documents.

Question No. 3: Is this project subject to DBE requirements? If so, what is the DBE goal requested be met?

Answer No. 3: No. This procurement is not subject to DBE requirements.

Question No. 4: Is there a page limit or any other requirements for the Evaluation Criteria section required for the Phase II proposal, such as page size, font size, margins etc.?

Answer No. 4: Proposals shall be limited to twenty (20) pages, with exception to professional licenses and certifications, which shall be added as appendices. The document shall be typewritten with a font no smaller than 12pt. pitch, with nominal 1” margins and normal line spacing.

Questions No. 5: Can you please advise on the submission method for the proposal? Is a hard copy required to be submitted? If so, can you provide the address the number of copies required? If an electronic submittal is acceptable, can you provide the link or email address?

Answer No. 5: Proposals may be submitted in person at 102 Grant Avenue, Santa Fe, NM or electronically via DropBox by utilizing the following link <https://www.dropbox.com/request/6S1Ie4nuQxY3MhCHjSgY>

Question No. 6: If there is a page limit, will the schedule be included in the page count?

Answer No. 6: No, the schedule will not be counted in the Twenty (20) page limit.

Question No. 7: If 11x17 pages are needed for any sections of the Evaluation Criteria, will they count as a single page?

Answer No. 7: 11x17 pages will be counted as one page.

Question No. 8: The bid forms include two forms that are required to be completed by our Subcontractors. The *Non-Collusion Affidavit of Subcontractor* and the *Certification of Subcontractor Regarding Equal Employment Opportunity*. Due to the fact that the contractors will not have all their subcontractors selected until bid time, can the previously mentioned forms be submitted within 24 hours after bid submission?

Answer No. 8: Contractors have until Tuesday, September 20, 2022 by 2:00PM to electronically submit the above mentioned Subcontractor forms via DropBox by utilizing the following link <https://www.dropbox.com/request/6S1Ie4nuQxY3MhCHjSgY>

Question No. 9: After reviewing the Evaluation Criteria in Attachment A, it appears that item 4 in the project schedule section would be better addressed in Section 3, Project Management Plan. Would it be acceptable to address item 4 of the Project Schedule section in the Project Management Plan section?

Answer No. 9: Yes, it is acceptable to address bullet 4, listed in the Project Schedule section, in the Project Management Section as requested.

Question No. 10: Attachment A, Evaluation Criteria, Section 1, Project Schedule, indicates to include the resumes for the key personnel, but it appears that there is not a list of the Key Personnel that are required to be included in Phase II submittal. Can a clarification be provided which states what Key Personnel need to be included in the contractor’s submission?

Answer No. 10: Please provide the County with any key personnel that have changed since submitting from Phase I.

Question No. 11: Can a clarification be provided which states how Section 1, Project Schedule, will be evaluated and how the points will be allocated?

Answer No. 11: Please see Attachment A

Question No. 12: We previously asked if the following forms could be provided: *Affidavit of Bidder, Bidder's List of Quoters for the Disadvantaged Business Enterprise (DBE) Program, Non-Debarment Certification, Pay Equity Acknowledgment, Disclosure of Lobbying Activities*. If they are provided and required to be included with the bid, can you please clarify what section they should be placed within the proposal?

Answer No. 12: Please disregard.

Question No. 13: Reviewing the Geogrid Base Reinforcement quantities on the Surfacing Schedule quaintly breakdown it appears the limits of the Geogrid Base Reinforcement are only 24ft across the roadway prism. Is the limits of the Geogrid Base Reinforcement intended to only be beneath the Driving Lanes (22') plus 1' on the outside of each Driving Lane for a total width of 24'?

Answer No. 13: It is the intent to only have the geogrid base reinforcement to be beneath the Driving Lanes (22') plus 1' on the outside of each Driving Lane for a total width of 24', except where there is curb and gutter along the perimeter of the roundabout, in which case the geogrid base reinforcement matches the width of the pavement.

Question No. 14: Will there be a requirement to pay any Utility Expansion Connection (UEC) fees for the installation of the new Water System? If so, will the County add an allowance item to cover those costs. This will be similar to item 706350 POWER SERVICE INSTALLATION that the NMDOT uses for costs associated with power service installations.

Answer No. 14: No. There will not be a requirement to pay for the installation of the new Water System.

Question No. 15: Can you please confirm the Proposal Document Requirements for the project? In the Memorandum I found two lists of Proposal Document Requirements that do not match.

Answer No. 15: The Proposal Documents Requirements are as following:

- A. Bid Proposal**
- B. Bid Form**
- C. Bid Sheets**
- D. Non-Collusion Affidavit for Prime Bidder**
- E. Certification of Non-Segregated Facilities**
- F. Certification of Bidder Regarding Equal Employment Opportunity**
- G. Bid Bond**
- H. Subcontractor Listing**
- I. Preference Certificates**

Question No. 16: In the Contract Specifications under Bidding Requirements it's noted that the Required Documents are required for each five (5) Bidding Alternates including five (5) Bid Guaranty for each Bidding Alternate. Can you please specify what the Required Documents will be for each five (5) Bidding Alternates in order to not be deemed non-responsive? My understanding is that there will be 5 copies of the Required Documents for the five (5) Bidding Alternates.

Answer No. 16: Please utilize the bid sheets that were provided in the Memorandum dated July 19, 2022. (see attached addendum and bid sheets)

Questions No. 17: Will the Notice to Proceed date be adjusted to account for long lead material items?

Answer No. 17: No, the County will issue Notice of Preliminary Award to Contractor, whereby long lead items will be considered prior to final award and issuance of Notice to Proceed.

Questions No. 18: The Contract Time is 240 days (Base Bid). What is the Contract Time for the Additive Alternates?

Answer No. 18: The Total Contract Time is 240 Days (inclusive of the additive alternatives).

Question No. 19: With the volatility in the current market with regards to utility/waterline components would Santa Fe County consider adding Utility Price Escalation with a NTC. Other entities have included this NTC on current project we can provide a current Utility Price Escalation NTC for review if this option is acceptable.

Answer No. 19: No. The Contractor will be allowed to order the waterline components immediately upon NTP whereby price escalation is not expected to affect unit prices significantly.

Question No. 20: With the volatility in the current market with regards to Fuel would Santa Fe County consider adding the Monthly Fuel Price Adjustment Procedures with a NTC currently be utilized by the NMDOT?

Answer No. 20: Yes, the County will incorporate the Notice to Contractors – Monthly Fuel Price Adjustment Procedures, by virtue of this Addendum, into the construction documents.

Question No. 21: Will the Reinforcing Steel for the Concrete Slop Blankets be paid under Bid Item 540060 Reinforcing Bars Grade 60? How will the Welded Wire Fabric and Penetrating Water Repellant be paid on the Concrete Slope Blankets?

Answer No. 21: Per standard drawing 511-13-1/3 the reinforcing bars, welded wire mesh and anchors shall be considered incidental to the concrete bid item. The water repellant shall be considered as work included in payment for the concrete.

Question No. 22: NTC calls for the project to use a Category II pavement Smoothness Measurement. Would Santa Fe County consider using Category III due to the phased construction of the project.

Answer No. 22: The County will apply Category III for intersection areas only. These areas will be defined from end of splitter island to end of splitter island from all road approach directions of the intersection. However, the mainline sections of the roadways will remain as Category II as these sections are brand new roadway in an area where the Contractors has the capacity for full width paving.

Question No. 23: Can the NTC Restrictions to dates and times of Work Zone Disincentives be updated. The restriction weekends and suspensions – Table 1 will also need to be updated.

Answer No. 23: By virtue of this Addendum the Notice to Contractor – Restrictions to Dates and Times for Work Zones with Disincentives is hereby rescinded in its' entirety.

Question No. 24: Who performs the QC testing for the waterline system?

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505-995-2740 www.santafecountynm.gov

Answer No. 24: A third party testing facility, contracted by Santa Fe County, will perform the QC testing in accordance with the waterline specification requirements.

Question No. 25: What color do you want for the Pedestrian/Bicycle Railing?

Answer No. 25: It is recommended that the pedestrian/bicycle railing match the colors provided for the concrete median pavement on sheet 2-23.

Question No. 26: In the original RFQ and Addendum No. 1 it is stated that a Contractor must have both a GA98 and GB98, does this also apply to subcontractors?

Answer No. 26: The Prime Contractor and the Subcontractors shall be licensed appropriately for the work they will be performing on the project.

Question No. 27: The original RFQ has a table showing days of holidays and non-work days. This appears to be for the Albuquerque area and is dated to 2016, can we please have an update table?

Answer No. 27: Please refer to answer on Question 23.

Question No. 28: For the NMDOT Bid item #705000 “Signal/Lighting System Start-up Costs”, what does this include typically for the NMDOT they give us a budget number price to put in there, what would you like for us to price this on?

Answer No. 28: The County requests respective bidders enter the following Unit Prices as listed below:

Base Bid

| Item No. | Bid Item No. | Description | Unit | Qty | Unit Price | Extended Price |
|----------|--------------|---------------------------------------|-------|-------|-------------|----------------|
| 88 | 705000 | SIGNAL/LIGHTING SYSTEM START-UP COSTS | ALLOW | ALLOW | \$40,000.00 | \$ 40,000.00 |

Bidding Alternate 1B

| Item No. | Bid Item No. | Description | Unit | Qty | Unit Price | Extended Price |
|----------|--------------|---------------------------------------|-------|-------|-------------|----------------|
| 35 | 705000 | SIGNAL/LIGHTING SYSTEM START-UP COSTS | ALLOW | ALLOW | \$10,000.00 | \$ 10,000.00 |

Bidding Alternate 2B

| Item No. | Bid Item No. | Description | Unit | Qty | Unit Price | Extended Price |
|----------|--------------|---------------------------------------|-------|-------|-------------|----------------|
| 37 | 705000 | SIGNAL/LIGHTING SYSTEM START-UP COSTS | ALLOW | ALLOW | \$10,000.00 | \$ 10,000.00 |

Question No. 29: For the NMDOT Bid item #706350 “Power Service Installation”, this is typically used as a pay item for PNM, we do not have enough time to get a price from PNM, we suggest putting a \$10,000.00 price in each and we can only charge for the power-transformer

installation, it may exceed this number and we can only charge what PNM is charging us for the work.

Answer No. 29: The County request respective bidders enter the follow Unit Prices for the items listed below:

Base Bid

| Item No. | Bid Item No. | Description | Unit | Qty | Unit Price | Extended Price |
|-----------------|---------------------|----------------------------|-------------|------------|-------------------|-----------------------|
| 91 | 706350 | POWER SERVICE INSTALLATION | L.S. | L.S. | \$10,000.00 | \$ 10,000.00 |

Bidding Alternate 1B

| Item No. | Bid Item No. | Description | Unit | Qty | Unit Price | Extended Price |
|-----------------|---------------------|----------------------------|-------------|------------|-------------------|-----------------------|
| 38 | 706350 | POWER SERVICE INSTALLATION | L.S. | L.S. | \$10,000.00 | \$ 10,000.00 |

Question No. 30: The Traffic Control section in the Plans has a legend for Temporary Detour Pavement. Can you provide a location where Temporary Detour Pavement is required and a Bid Item associated with Detour Pavement Construction with the intended Detour Pavement Section?

Answer No. 30: Detour pavement is not needed as all the work is completed by routing traffic utilizing existing roadway network and full closures of existing intersections that are reconstructed.

Question No. 31: Item 618000 Traffic Control Management, per specifications 618000, 618.2.2 duties. First paragraph states that the department may allow exceptions to the TCS only duties to be traffic control. Will this exception be allowed on this project? This will reduce project cost substantially.

Answer No. 31: Yes, the County will allow exception to the TCS only duties for this project.

Question No. 32: May we have a copy of the Geotechnical Report.

Answer No. 32: Please see Attachment A.

Please add this Addendum No. 2 to the original proposal documents and refer to proposal documents, hereto as such. This and all subsequent addenda will become part of any resulting contract documents and have effects as if original issued. All other unaffected sections will have their original interpretation and remain in full force and effect. Responders are reminded that any questions or need for clarification must be addressed to Amanda Patterson-Sanchez, Procurement Specialist Senior at apatterson-sanchez@santafecountynm.gov.



Attachment A

**PRELIMINARY
GEOTECHNICAL ENGINEERING
SERVICES
JOB NO. 1-90205
PAVEMENT SECTION DESIGN
NE/SE CONNECTOR ROAD PROJECT
SANTA FE COUNTY, NEW MEXICO**

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PREPARED FOR:

SOUDER, MILLER & ASSOCIATES

June 25, 2019
Job No. 1-90205

**Souder, Miller & Associates
2904 Rodeo Park Drive East, Building 100
Santa Fe, New Mexico 87505**

ATTN: Ivan Trujillo

**Subject: Preliminary Geotechnical Engineering Services
Pavement Section Design
NE/SE Connector Road Project
Santa Fe County, New Mexico**

Dear Mr. Trujillo:

Submitted herein is the Preliminary Geotechnical Engineering Services report for the above referenced project. The report contains the results of our field investigation, laboratory testing, and recommendations for pavement section design and general site grading.

It has been a pleasure to serve you on this project. If you should have any questions, please contact this office.

Respectfully submitted:

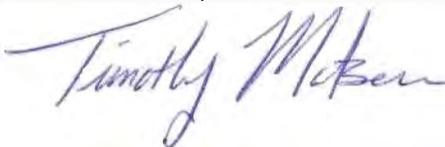
Reviewed by:

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Timothy Matson, Staff Engineer



Robert D Booth, P.E.

Professional Engineer Seal: ROBERT D. BOOTH, NEW MEXICO, 5711, LICENSED PROFESSIONAL ENGINEER

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INTRODUCTION

This report presents the results of a preliminary geotechnical investigation performed by this firm for the proposed new roadways to be constructed in Santa Fe County, New Mexico.

The objective of this investigation is to:

- 1) Evaluate the nature and engineering properties of the subsurface soils underlying the roadways.
- 2) To provide preliminary recommendations for pavement design.

The investigation includes subsurface exploration, selected soil sampling, laboratory testing of the samples, performing an engineering analysis and preparation of this report.

PROPOSED CONSTRUCTION

It is understood that the project consists of the new construction of about 4.4 miles of new roadway. The roadways will consist of two 11-foot wide driving lanes with 5-foot wide shoulders on each lane.

The proposed northeast connector road will extend from Dinosaur Trail, approximately 300 feet west of Richards Avenue, to Rabbit Road, approximately 4,000 feet east of Richards Avenue. The northeast connector will parallel northbound I-25 approximately 140 feet south of the northbound I-25 alignment. The future extension of Avenida del Sur will extend from its intersection with Richards Avenue in an easterly direction for approximately 5,500 feet. The southeast connector will extend from the east end of the future extension of Avenida del Sur in a northerly direction to intersect the northeast connector.

Design traffic data has not been determined at the time this preliminary report was prepared; therefore, the pavement sections presented herein are for different traffic volumes. The pavement sections are based on a Reliability of 80%, an Overall Deviation of 0.45, an Initial Serviceability of 4.2 and a Terminal Serviceability of 2.0. A 20-year Pavement Design Life was used in the analysis.

Should details vary significantly from those outlined above, this firm should be notified for review and revision of recommendations contained herein.

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FIELD EXPLORATION

Eighteen (18) exploratory borings were drilled to depths of approximately 5.5 feet below existing site grades. The approximate locations of the borings are as shown on the Boring Location Map, Figure 1. The soils encountered in the borings were continuously examined, visually classified and logged during the drilling operation by the field engineer. The boring logs are presented in a following section of this report. Drilling was accomplished using a truck mounted drill rig equipped with 5.5-inch diameter continuous flight hollow stem auger. Standard Penetration testing and split spoon sampling was conducted in the borings at depths of 0.5 feet, 2.5 feet and 4.0 feet and composite bulk samples were collected from the auger cuttings.

LABORATORY TESTING

Selected samples were tested in the laboratory to determine certain engineering properties of the soils. Moisture contents were determined to evaluate the various soil deposits with depth. The results of these tests are shown on the boring logs.

Sieve analysis and Atterberg limits tests were performed to aid in soil classification and R-value correlation. In addition, nine R-Value tests were performed on selected bulk samples to provide criteria for pavement design. Soil pH and soluble sulfates tests were also performed on selected samples. The results of these tests are presented in the Summary of Laboratory Results and on the individual test reports presented in a following section of this report.

SITE CONDITIONS

A brief surface reconnaissance was performed during our site exploration. The project areas are unpaved and located in the southwest portion of the City of Santa Fe in Santa Fe County. The NE connector runs parallel to and is located just south of I-25 and is bordered by Richards avenue to the west, vacant land to the south and Rabbit Road to the east. The proposed roadway runs along rolling hills that are traversed with recreational vehicle trails. The SE connector runs in a north-south direction with a portion of the southern end running in a northeast direction. The SE connector is bordered by the NE connector to the north, a small subdivision and Santa Fe community College to the west, vacant land to the east and the future extension of Avenida del Sur to the south. The roadway also runs along rolling hills and crosses several arroyos. The extension of Avenida del Sur will start from Richards Avenue to the west and extend east to the SE connector following an existing unpaved road. No other signs of construction or development were apparent along the proposed alignments during our site investigation.

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GEOLOGY

Based on the Preliminary Geologic Map of the Seton Village 7.5-minute quadrangle, most of the area is underlain by the Ancha Formation as well as younger fluvial terrace deposits, valley fill and alluvium confined to modern drainages. No faults were mapped in the area and no apparent surface features were observed on the topographic/geologic maps or on aerial photos. Three major arroyos cross the site trending in a northeast direction and flowing in a southwest direction. The most northern is an un-named arroyo, the Arroyo Hondo is the middle drainage, the largest of the three crossing the site, and La Cañada del Rancho, is on the southern portion of the site. The stratigraphy of the area is as follows:

- QTa.** The Ancha Formation is the uppermost basin fill unit in the Santa Fe Embayment and is confined to the ridges in the area. The Ancha Formation was deposited on a stream flow-dominated piedmont or alluvial slope in the Santa Fe Embayment. It consists of unconsolidated to poorly consolidated gravel, sand, and silt derived from the southwestern flank of the Sangre de Cristo Mountains. The Ancha Formation is generally beige in color and becomes lighter near the surface from calcium carbonate enrich soils. This formation also contains some pumice ash layers of the Bandelier Tuff along the Arroyo Hondo.
- Qvf.** Valley fill was mapped mainly in the smaller arroyos, (un-named arroyo and La Cañada del Rancho) and in the very center of the Arroyo Hondo. These sediments are locally derived unconsolidated, alluvium and colluvium along margins of the active drainages between the Ancha ridges. Primarily consists of reworked Ancho material moving downslope.
- Qt.** Fluvial terrace deposits along the Arroyo Hondo, consists primarily of gravels, above the modern grade of the arroyo.
- Qa.** Alluvium confined to modern drainages, consisting mainly of sand and gravel and low terraces.

SUBSURFACE SOIL CONDITIONS

As indicated by the exploratory borings, the soils encountered along the proposed roadway corridor vary consisting of interbedded sandy clay, sandy silty clay, clayey sand, silty clayey sand, silty sand, sand with silt and relatively clean sand. These soils are generally low to medium in plasticity and range from soft and loose to moderately firm and medium dense. Some isolated

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areas of dense and firm soils were encountered with depth in several of the borings. Detailed lithologic descriptions are shown on the boring logs. No free groundwater was encountered, and soil moisture contents were relatively low to moderate throughout the extent of the borings.

CONCLUSIONS

According to the Unified Soil Classification System (USCS), the upper 5 feet of the existing subgrade soils consist of Sandy Clays (CL), Sandy Silty Clay (CL-ML), Clayey Sand (SC), Silty Clayey Sand (SC-SM), Silty Sand (SM) with lesser amounts of Sand with Silt (SP-SM) and Poorly Graded Sand (SP). The soils classify as A-7-6, A-6, A-4, A-2-4 and A-1-b, respectively according to the American Association of State Highway and Transportation Officials (AASHTO) soil classification system.

Correlated R-values were determined in accordance with NMDOT procedures for the samples taken from the upper 5.0 feet at the boring locations which indicate that the soils possess correlated R-values ranging from 8 to 69. R-value tests were performed on bulk samples collected from the auger cuttings. R-value results varied, ranging from 11 to 40. Based on the above, a design R-value of 11 was selected for all of the roadways, which correlates to a design Soil Resilient Modules of 7,260 psi. Based on the above the subgrade soils are considered a fair to poor subgrade soil, therefore we recommend that the pavement sections be mechanically stabilized using a Tensar TX7 TriAx[®] geogrid or an equivalent meeting the TX7 product specifications which are included within this report. The geogrid should be placed according to the methods outlined herein and in the Site Grading section of this report.

PAVEMENT SECTION DESIGN

Pavement design and analysis was performed in general conformance the procedures outlined in the latest edition of the "Guidelines of Design of Pavement Structures" by the American Association of State Highway and Transportation and the "Structural Design Guide for Flexible Pavements", Bulletin 102, by the New Mexico Department of Transportation (NMDOT). A 20-year Pavement Design Life was used in the analysis.

The tables below show different un-stabilized pavement thicknesses (up to 12-inches in thickness) along with the corresponding structural numbers and calculated traffic ESAL's.

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| Description | Depth | Structural Number | ESAL's |
|-----------------------|-------|-------------------|-----------|
| Hot Mix Asphalt (HMA) | 5.0 | 2.870 | 556,000 |
| Aggregate Base Course | 7.0 | | |
| Hot Mix Asphalt (HMA) | 5.5 | 3.025 | 785,000 |
| Aggregate Base Course | 6.5 | | |
| Hot Mix Asphalt (HMA) | 6.0 | 3.180 | 1,092,000 |
| Aggregate Base Course | 6.0 | | |

The tables below show different mechanically stabilized pavement thicknesses along with the corresponding structural numbers and calculated traffic ESAL's.

| Description | Depth | Structural Number | ESAL's |
|-----------------------|-------|-------------------|-----------|
| Hot Mix Asphalt (HMA) | 3.0 | 3.042 | 814,000 |
| Aggregate Base Course | 6.0 | | |
| TENSAR TX 7 | | | |
| Hot Mix Asphalt (HMA) | 3.0 | 3.404 | 1,722,000 |
| Aggregate Base Course | 8.0 | | |
| TENSAR TX 7 | | | |

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| | | | |
|-----------------------|-----|-------|-----------|
| Hot Mix Asphalt (HMA) | 4.0 | 3.462 | 1,930,000 |
| Aggregate Base Course | 6.0 | | |
| TENSAR TX 7 | | | |

PAVING MATERIALS

The aggregate base course used in the pavement section should meet NMDOT Type I Base Course specifications and should be placed and compacted in accordance with the current NMDOT Standard Specifications for Road and Bridge Construction.

All paving materials, quality and construction, should conform to the current NMDOT Standard Specifications for Road and Bridge Construction. The HMA should be SPIII or SPIV, compacted to a target density of 94.5 percent, with a minimum compaction of 92 and a maximum compaction of 97 percent of the theoretical maximum density. The Performance Grade (PG) asphalt binder used should be based on the NMDOT's Pavement Type Selection and Design Guideline.

The mechanically stabilized pavement sections recommended above were developed based on the utilization of Tensar TX7 TriAx[®] geogrid or an equivalent meeting the TX7 product specifications which are included within this report. Other variants of geogrid may also be used; however, this firm should be consulted as the use of geogrid other than TX7 or equivalent will alter the above recommended section. The geogrid should be placed according to the method outlined in the Site Grading section of this report.

SITE GRADING

The following general guidelines should be included in the project construction specifications to provide a basis for quality control during earthwork. It is recommended that all structural fill and backfill be placed and compacted under engineering observation and in accordance with the following:

- 1) After site clearing and grubbing and making any required excavations, the exposed soils throughout the roadway areas should be densified prior to placement of geogrid, structural fill or base course.
- 2) Densification of the exposed native soils should consist of scarifying to a depth of 12 inches, moisture conditioning to optimum to +2 percent of

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the optimum moisture content and compacting the area to a minimum of 95 percent of maximum dry density as determined in accordance with AASHTO T-180.

- 3) Structural fill required to bring the roadways to finished subgrade elevation shall be placed in maximum 8-inch loose lifts and compacted with approved compaction equipment. Lifts should be reduced to 4-inch loose lifts if hand-held compaction equipment is used. Each lift should be firm and non-yielding. All compaction of structural fill should be accomplished to a minimum of 95 percent of the maximum dry density, and within 1 percent below to 2 percent above the optimum moisture content, as determined in accordance with AASHTO T-180.
- 4) If geogrid is used to mechanically stabilize the pavement section, the geogrid should be placed directly over the prepared subgrade, overlapped a minimum of 12 inches and installed according to the manufacturer's specifications.
- 5) Tests for degree of compaction shall be determined by the AASHTO T-310. Observation and field tests shall be carried out during fill and backfill placement by the geotechnical engineer to assist the contractor in obtaining the required degree of compaction. If less than 95 percent is indicated, additional compaction effort shall be made with adjustment of the moisture content as necessary until a minimum of 95 percent compaction is obtained.

CONSTRUCTION EXCAVATIONS

The results of this investigation indicate that the excavations into the native soils encountered in the borings can be readily excavated using normal earth moving equipment. Excavated slopes should be designed and constructed in accordance with 29 CFR 1926, Subpart P, and any applicable state or local regulations. Temporary cut slopes should not exceed 1½ horizontal to 1 vertical. Permanent cut and/or fill slopes should not exceed 2 to 1. All surface waters should be routed so that water does not flow down the face of the excavation slopes. Shoring, bracing or benching should be performed by the contractor for in accordance with the strictest governing safety standards.

In areas where fill is placed on slopes, it is recommended that the new fill be benched into the existing slope with maximum 1.5-foot vertical cuts where the existing slope is steeper than 5:1 (horizontal to vertical). The width of the cut will depend on the inclination of the existing slope. No benching is considered necessary where the existing slope is less than 5:1.

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MOISTURE PROTECTION

Increases in the subgrade moisture content can weaken the subgrade soils, thereby shortening pavement life and causing localized failure. Therefore, all paved areas should be graded to drain and not allow any ponding on or within 10 feet paved areas. Positive drainage should be provided away from the perimeter of all paved areas for a distance of at least 10 feet. It is recommended that the pavement be graded with a 2 percent crown or slope to facilitate drainage.

The foregoing recommendations should only be considered minimum requirements for overall site development. It is recommended that a civil/drainage engineer be consulted for more detailed grading and drainage recommendations.

CLOSURE

Our preliminary conclusions, recommendations and opinions presented herein are:

- 1) Based upon our evaluation and interpretation of the findings of the field and laboratory program.
- 2) Based upon an interpolation of soil conditions between and beyond the explorations.
- 3) Subject to confirmation of the conditions encountered during construction.
- 4) Based upon the assumption that sufficient observation will be provided during construction.
- 5) Prepared in accordance with generally accepted professional geotechnical engineering principles and practice.

This preliminary report has been prepared for the sole use of Souder, Miller & Associates, specifically to aid in the design of the NE/SE Connector Road project in Santa Fe, New Mexico and is not for the use by any third parties. A final report will be submitted once the design traffic has been determined.

We make no other warranty, either express or implied. Any person using this report for bidding or construction purposes should perform such independent investigation as he deems necessary to satisfy himself as to the surface and subsurface conditions to be encountered and the procedures to be used in the

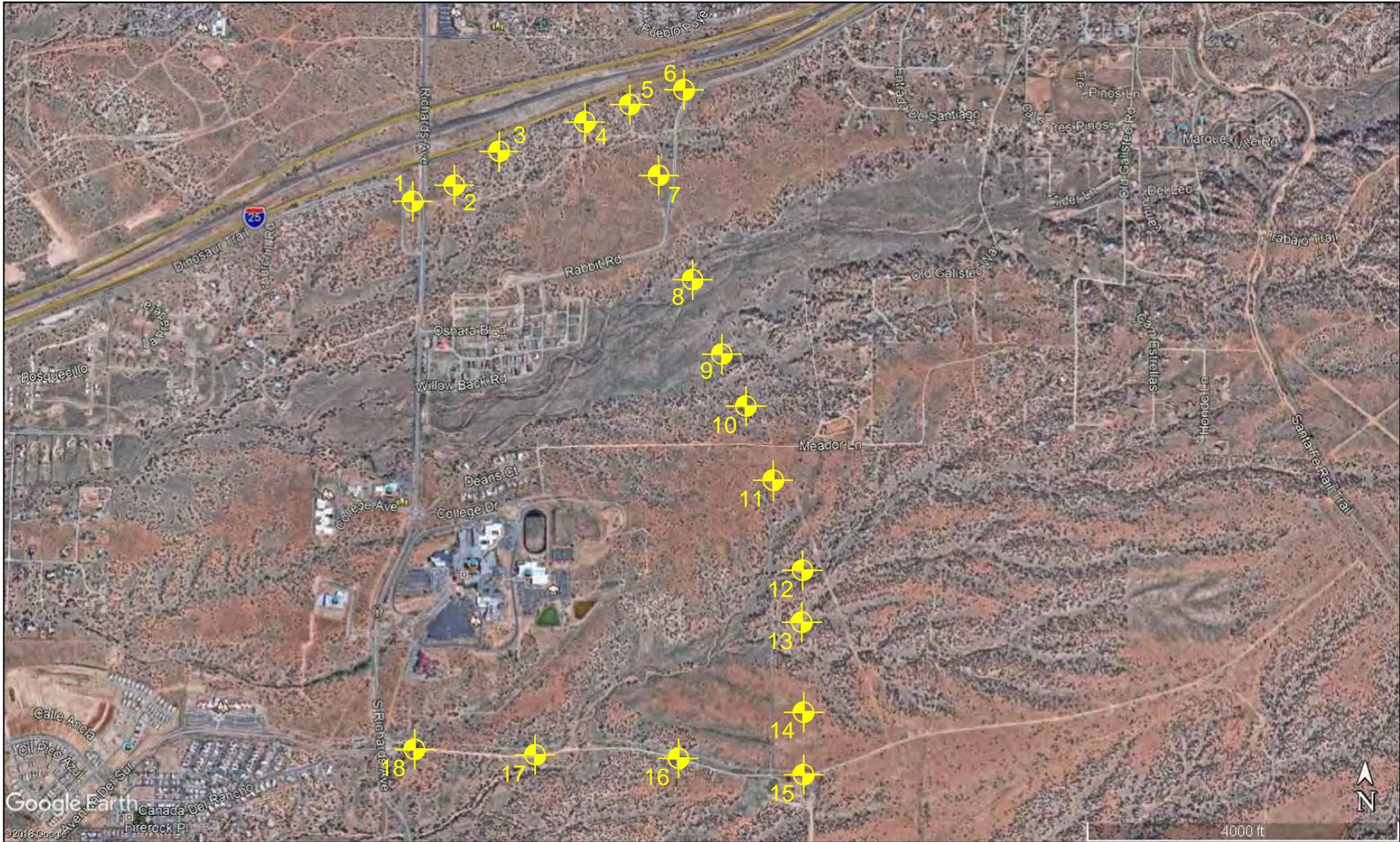
performance of work on this project. If conditions encountered during construction appear to be different than indicated by this report, this office should be notified.

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BORING LOCATION MAP



NE/SE Connector Road Project
Santa Fe County, New Mexico
Job No. 1-90205

Figure 1



GEO-TEST
GEOTECHNICAL ENGINEERING
AND MATERIAL TESTING



Project: NE/SE Connector Road Project
 Date: 03/30/2019 Project No: 1-90205
 Elevation: Type: 5.5" OD HSA

LOG OF TEST BORINGS

GROUNDWATER DEPTH

NO: 01

During Drilling: none

After 24 Hours:

| DEPTH (Ft) | LOG | SAMPLE | | | | | | SUBSURFACE PROFILE | |
|------------|-----|-----------------|------|-------------|------------|-------------------|-----|-----------------------------------------------------------------------------------------------------------|-------------|
| | | SAMPLE INTERVAL | TYPE | N. BLOWS/FT | MOISTURE % | DRY DENSITY (pcf) | USC | DESCRIPTION | N blows/ft |
| | | | | | | | | | 20 40 60 80 |
| | | | SS | 4-8-9 17 | 13 | | CL | SANDY CLAY, medium plasticity, firm, slightly moist, dark brown | 17 |
| | | | AC | | | | | | |
| | | | SS | 3-3-4 7 | 5 | | SM | SILTY SAND with GRAVEL, fine to medium grained, non-plastic to low plasticity, loose, slightly moist, tan | 7 |
| 5 | | | SS | 4-4-5 9 | 6 | | | | 9 |
| | | | | | | | | Stopped Auger @ 4 feet Stopped Sampler @ 5.5 feet | |
| 10 | | | | | | | | | |

LOG OF TEST BORING 1-90205 NE-SE CONNECTOR ROAD PROJECT 2019-0003-PW/KE.GPJ GEO TEST.GDT 5/7/19

LEGEND

- SS - Split Spoon
- AC - Auger Cuttings
- UD/SL - Undisturbed Sleeve
- AMSL - Above Mean Sea Level
- CS - Continuous Sampler
- UD - Undisturbed
- ST - Shelby Tube

Stratification lines represent approximate boundaries between soil types. Transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to factors other than those present at the time measurements were made.



Project: NE/SE Connector Road Project
 Date: 03/28/2019 Project No: 1-90205
 Elevation: Type: 5.5" OD HSA

LOG OF TEST BORINGS

GROUNDWATER DEPTH

NO: 02

During Drilling: none

After 24 Hours:

LOG OF TEST BORING 1-90205 NE-SE CONNECTOR ROAD PROJECT 2019-0003-PW/KE.GPJ GEO TEST.GDT 5/7/19

| DEPTH (Ft) | LOG | SAMPLE | | | | | | SUBSURFACE PROFILE | |
|------------|-----|-----------------|------------------------------------------------------|-------------|------------|-------------------|--------------------------------------------------------------------------------------|--------------------|-------------|
| | | SAMPLE INTERVAL | TYPE | N. BLOWS/FT | MOISTURE % | DRY DENSITY (pcf) | USC | DESCRIPTION | N blows/ft |
| | | | | | | | | | 20 40 60 80 |
| 5 | | | SS | 2-4-8 | 13 | CL | SANDY CLAY, medium plasticity, moderately firm, slightly moist, brown | | 12 |
| | | | AC | 12 | | | | | |
| | | | SS | 6-4-3 | 6 | SC | CLAYEY SAND, fine grained, low plasticity, loose, slightly moist, light brown to tan | | 7 |
| | | | SS | 7 | | | | | |
| | | | SS | 3-4-4 | 7 | | | 8 | |
| | | | Stopped Auger @ 4 feet Stopped Sampler @ 5.5 feet | | | | | | |
| 10 | | | | | | | | | |

LEGEND

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- CS - Continuous Sampler
- UD/SL - Undisturbed Sleeve
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Project: NE/SE Connector Road Project
 Date: 03/28/2019 Project No: 1-90205
 Elevation: Type: 5.5" OD HSA

LOG OF TEST BORINGS

GROUNDWATER DEPTH

NO: 03

During Drilling: none

After 24 Hours:

| DEPTH (Ft) | LOG | SAMPLE | | | | | | SUBSURFACE PROFILE | |
|------------|-----|-----------------|------|-------------|------------|-------------------|-----|------------------------------------------------------------------------------------------------------------------------------------|-------------|
| | | SAMPLE INTERVAL | TYPE | N. BLOWS/FT | MOISTURE % | DRY DENSITY (pcf) | USC | DESCRIPTION | N blows/ft |
| | | | | | | | | | 20 40 60 80 |
| 5 | | | SS | 2-1-3 4 | 13 | | SM | SILTY SAND, fine to medium grained, non-plastic to low plasticity, very loose to loose, moist to slightly moist, dark brown to tan | 4 |
| | | | AC | | | | | | 8 |
| | | | SS | 4-4-4 8 | 12 | | | | 8 |
| | | | SS | 5-4-4 8 | 7 | | | | 8 |
| | | | | | | | | Stopped Auger @ 4 feet Stopped Sampler @ 5.5 feet | |
| 10 | | | | | | | | | |

LOG OF TEST BORING 1-90205 NE-SE CONNECTOR ROAD PROJECT 2019-0003-PW/KE.GPJ GEO TEST.GDT 5/7/19

LEGEND

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- AMSL - Above Mean Sea Level
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Project: NE/SE Connector Road Project
 Date: 03/30/2019 Project No: 1-90205
 Elevation: Type: 5.5" OD HSA

LOG OF TEST BORINGS

GROUNDWATER DEPTH

NO: 04

During Drilling: none

After 24 Hours:

| DEPTH (Ft) | LOG | SAMPLE | | | | | | SUBSURFACE PROFILE | |
|------------|-----|-----------------|------|-------------|------------|-------------------|-------|--------------------------------------------------------------------------------------------------------------|-------------|
| | | SAMPLE INTERVAL | TYPE | N. BLOWS/FT | MOISTURE % | DRY DENSITY (pcf) | USC | DESCRIPTION | N blows/ft |
| | | | | | | | | | 20 40 60 80 |
| 5 | | 3-3-4 7 | SS | 9 | | | | | |
| | | 5-4-5 9 | AC | 5 | | | | | |
| | | 5-3-2 5 | SS | 5 | | | | | |
| | | | | | | | SC-SM | SILTY, CLAYEY SAND, fine to medium grained, low plasticity, loose, slightly moist, dark brown to light brown | |
| | | | | | | | | Stopped Auger @ 4 feet Stopped Sampler @ 5.5 feet | |
| 10 | | | | | | | | | |

LOG OF TEST BORING 1-90205 NE-SE CONNECTOR ROAD PROJECT 2019-0003-PW/KE.GPJ GEO TEST.GDT 5/7/19

LEGEND

- SS - Split Spoon
- AMSL - Above Mean Sea Level
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Project: NE/SE Connector Road Project
 Date: 03/28/2019 Project No: 1-90205
 Elevation: Type: 5.5" OD HSA

LOG OF TEST BORINGS

GROUNDWATER DEPTH

NO: 05

During Drilling: none

After 24 Hours:

| DEPTH (Ft) | LOG | SAMPLE | | | | | | SUBSURFACE PROFILE | |
|------------|-----|-----------------|------|-------------|------------|-------------------|-------|-------------------------------------------------------------------------------------------------------|---------------|
| | | SAMPLE INTERVAL | TYPE | N. BLOWS/FT | MOISTURE % | DRY DENSITY (pcf) | USC | DESCRIPTION | N blows/ft |
| | | | | | | | | | 20 40 60 80 |
| 5 | | 1-2-2 | SS | 4 | 12 | | CL-ML | SANDY SILTY CLAY, fine grained, low plasticity, very soft, slightly moist, brown | 4 |
| | | | AC | | | | | | |
| | | 2-4-4 | SS | 8 | 8 | | SC | CLAYEY SAND, fine grained, low plasticity, loose, moist to slightly moist, brown to tan | 8 |
| | | 3-6-6 | SS | 12 | 2 | | SM | SILTY SAND, fine to medium grained, some coarse sand, non-plastic, medium dense, dry, tan/light brown | 12 |
| | | | | | | | | | |
| | | | | | | | | Stopped Auger @ 4 feet Stopped Sampler @ 5.5 feet | |
| 10 | | | | | | | | | |

LOG OF TEST BORING 1-90205 NE-SE CONNECTOR ROAD PROJECT 2019-0003-PW/KE GPJ GEO TEST GDT 5/7/19

LEGEND

- SS - Split Spoon
- AMSL - Above Mean Sea Level
- AC - Auger Cuttings
- CS - Continuous Sampler
- UD/SL - Undisturbed Sleeve
- UD - Undisturbed
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Project: NE/SE Connector Road Project
 Date: 03/28/2019 Project No: 1-90205
 Elevation: Type: 5.5" OD HSA

LOG OF TEST BORINGS

GROUNDWATER DEPTH

NO: 06

During Drilling: none

After 24 Hours:

| DEPTH (Ft) | LOG | SAMPLE INTERVAL | SAMPLE | | | | | SUBSURFACE PROFILE | |
|------------|-----|-----------------|--------|---------------|------------|-------------------|-----|--------------------------------------------------------------------------------------------------------|-------------|
| | | | TYPE | N. BLOWS/FT | MOISTURE % | DRY DENSITY (pcf) | USC | DESCRIPTION | N blows/ft |
| | | | | | | | | | 20 40 60 80 |
| | | | SS | 2-2-4 6 | 11 | | SC | CLAYEY SAND, fine to medium grained, low plasticity, loose, slightly moist, dark brown to tan | 6 |
| | | | AC | | | | | | |
| | | | SS | 5-5-5 10 | 4 | | SM | SILTY SAND, with GRAVEL, fine to coarse grained, non-plastic, medium dense, slightly moist to dry, tan | 10 |
| 5 | | | SS | 7-10-17 27 | 3 | | | | 27 |
| | | | | | | | | Stopped Auger @ 4 feet Stopped Sampler @ 5.5 feet | |
| 10 | | | | | | | | | |

LOG OF TEST BORING 1-90205 NE-SE CONNECTOR ROAD PROJECT 2019-0003-PW-KE-GPJ GEO TEST GDT 5/7/19

LEGEND

- SS - Split Spoon
- AMSL - Above Mean Sea Level
- AC - Auger Cuttings
- CS - Continuous Sampler
- UD/SL - Undisturbed Sleeve
- UD - Undisturbed
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Project: NE/SE Connector Road Project
 Date: 03/28/2019 Project No: 1-90205
 Elevation: Type: 5.5" OD HSA

LOG OF TEST BORINGS

GROUNDWATER DEPTH

NO: 07

During Drilling: none

After 24 Hours:

| DEPTH (Ft) | LOG | SAMPLE | | | | | | SUBSURFACE PROFILE | |
|------------|-----|-----------------|------|--------------|------------|-------------------|-----|--------------------------------------------------------------------------------------------------------------|-------------|
| | | SAMPLE INTERVAL | TYPE | N. BLOWS/FT | MOISTURE % | DRY DENSITY (pcf) | USC | DESCRIPTION | N blows/ft |
| | | | | | | | | | 20 40 60 80 |
| | | | SS | 3-6-9 15 | 17 | | CL | CLAY with SAND, medium plasticity, moderately firm, moist to slightly moist, brown | 15 |
| | | | AC | | 6 | | | | |
| | | | SS | 9-9-11 20 | 4 | | SM | SILTY SAND, fine to medium grained, non-plastic to low plasticity, medium dense, slightly moist, light brown | 20 |
| 5 | | | SS | 5-9-8 17 | 1 | | SP | SAND, fine to medium grained, some coarse sand and gravel, medium dense, dry, light brown to tan | 17 |
| | | | | | | | | Stopped Auger @ 4 feet Stopped Sampler @ 5.5 feet | |
| 10 | | | | | | | | | |

LOG OF TEST BORING 1-90205 NE-SE CONNECTOR ROAD PROJECT 2019-0003-PW/KE.GPJ GEO TEST.GDT 5/7/19

LEGEND

- SS - Split Spoon
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- CS - Continuous Sampler
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Project: NE/SE Connector Road Project
 Date: 03/29/2019 Project No: 1-90205
 Elevation: Type: 5.5" OD HSA

LOG OF TEST BORINGS

GROUNDWATER DEPTH

NO: 08

During Drilling: none

After 24 Hours:

| DEPTH (Ft) | LOG | SAMPLE | | | | | | SUBSURFACE PROFILE | | |
|------------|-----|-----------------|------|-------------|------------|-------------------|-----|----------------------------------------------------------------|-----------------------------------------|---|
| | | SAMPLE INTERVAL | TYPE | N. BLOWS/FT | MOISTURE % | DRY DENSITY (pcf) | USC | DESCRIPTION | N blows/ft | |
| | | | | | | | | | 20 40 60 80 | |
| 5 | | | SS | 1-3-5 8 | 5 | | | SAND, fine to coarse grained, Non-plastic, loose, moist, brown | 8 | |
| | | | AC | | | | | | | |
| | | | SS | 4-5-3 8 | 4 | | SP | | | 8 |
| | | | SS | 1-2-3 5 | 20 | | | | *4" medium plasticity, clay layer at 5' | 5 |
| | | | | | | | | Stopped Auger @ 4 feet Stopped Sampler @ 5.5 feet | | |
| 10 | | | | | | | | | | |

LOG OF TEST BORING 1-90205 NE-SE CONNECTOR ROAD PROJECT 2019-0003-PW/KE.GPJ GEO TEST.GDT 5/7/19

LEGEND

- SS - Split Spoon
- AC - Auger Cuttings
- UD/SL - Undisturbed Sleeve
- AMSL - Above Mean Sea Level
- CS - Continuous Sampler
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Project: NE/SE Connector Road Project
 Date: 03/29/2019 Project No: 1-90205
 Elevation: Type: 5.5" OD HSA

LOG OF TEST BORINGS

GROUNDWATER DEPTH

NO: 09

During Drilling: none

After 24 Hours:

| DEPTH (Ft) | LOG | SAMPLE INTERVAL | SAMPLE | | | | | SUBSURFACE PROFILE | | | | | |
|------------|-----|-----------------|--------|-------------|------------|-------------------|-------|--------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|--|--|--|----|
| | | | TYPE | N. BLOWS/FT | MOISTURE % | DRY DENSITY (pcf) | USC | DESCRIPTION | N blows/ft 20 40 60 80 | | | | |
| | | | | | | | SC-SM | SILTY, CLAYEY SAND, low plasticity, loose, moist, dark brown | | | | | |
| | | | SS | 2-2-3 5 | 9 2 | | | SP | SAND, fine to medium grained, some coarse sand, non-plastic, loose to medium dense, slightly moist, brown | | | | 5 |
| | | | AC | | | | | | | | | | |
| | | | SS | 4-5-2 7 | 9 | | | CL | CLAY with SAND, low plasticity, soft, slightly moist, tan | | | | 7 |
| 5 | | | SS | 9-7-6 13 | 6 | | | SC | CLAYEY SAND, fine grained, low plasticity, medium dense, slightly moist to dry, tan | | | | 13 |
| | | | | | | | | | Stopped Auger @ 4 feet Stopped Sampler @ 5.5 feet | | | | |
| 10 | | | | | | | | | | | | | |

LOG OF TEST BORING 1-90205 NE-SE CONNECTOR ROAD PROJECT 2019-0003-PW-KE-GPJ GEO TEST GDT 5/7/19

LEGEND

- SS - Split Spoon
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- CS - Continuous Sampler
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Project: NE/SE Connector Road Project
 Date: 03/30/2019 Project No: 1-90205
 Elevation: Type: 5.5" OD HSA

LOG OF TEST BORINGS

GROUNDWATER DEPTH

NO: 10

During Drilling: none

After 24 Hours:

| DEPTH (Ft) | LOG | SAMPLE INTERVAL | SAMPLE | | | | | SUBSURFACE PROFILE | |
|------------|-----|-----------------|--------|----------------|------------|-------------------|-------|----------------------------------------------------------------------------------------------------------------------------------------|-------------|
| | | | TYPE | N. BLOWS/FT | MOISTURE % | DRY DENSITY (pcf) | USC | DESCRIPTION | N blows/ft |
| | | | | | | | | | 20 40 60 80 |
| | | | SS | 6-8-14 22 | | | CL | SANDY CLAY, low plasticity, firm, slightly moist, dark brown | 22 |
| | | | AC | | | | | | |
| | | | SS | 3-4-14 18 | 3 | | SW-SM | SAND with SILT, fine to medium grained, some coarse sand, non-plastic, medium dense, dry, brown to light brown | 18 |
| 5 | | | SS | 15-19-17 36 | 4 | | SM | SILTY SAND, fine to medium grained, some coarse sand and gravel, non-plastic, medium dense to dense, slightly moist to dy, light brown | 36 |
| | | | | | | | | Stopped Auger @ 4 feet Stopped Sampler @ 5.5 feet | |
| 10 | | | | | | | | | |

LOG OF TEST BORING 1-90205 NE-SE CONNECTOR ROAD PROJECT 2019-0003-PW/KE.GPJ GEO TEST.GDT 5/7/19

LEGEND

- SS - Split Spoon
- AMSL - Above Mean Sea Level
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- UD - Undisturbed
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Project: NE/SE Connector Road Project
 Date: 03/30/2019 Project No: 1-90205
 Elevation: Type: 5.5" OD HSA

LOG OF TEST BORINGS

GROUNDWATER DEPTH

NO: 11

During Drilling: none

After 24 Hours:

LOG OF TEST BORING 1-90205 NE-SE CONNECTOR ROAD PROJECT 2019-0003-PW/KE.GPJ GEO TEST.GDT 5/7/19

| DEPTH (Ft) | LOG | SAMPLE | | | | | | SUBSURFACE PROFILE | |
|------------|-----|------------------------------------------------------|------|-------------|------------|-------------------|---------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|------------------------------|
| | | SAMPLE INTERVAL | TYPE | N. BLOWS/FT | MOISTURE % | DRY DENSITY (pcf) | USC | DESCRIPTION | N blows/ft 20 40 60 80 |
| 5 | | 2-2-2 4 | SS | 2-2-2 4 | 12 | | CL | SANDY CLAY, low plasticity, soft to firm, slightly moist, dark brown to brown | |
| | | 6-9-18 27 | SS | | | | | | |
| | | 15-50/4" | SS | 15-50/4" | 6 | SC | CLAYEY SAND, fine grained, low plasticity, medium dense, strongly cemented, slightly moist, brown | | |
| | | Stopped Auger @ 4 feet Stopped Sampler @ 4.8 feet | | | | | | | |

LEGEND

- SS - Split Spoon
- AMSL - Above Mean Sea Level
- AC - Auger Cuttings
- CS - Continuous Sampler
- UD/SL - Undisturbed Sleeve
- UD - Undisturbed
- ST - Shelby Tube

Stratification lines represent approximate boundaries between soil types. Transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to factors other than those present at the time measurements were made.



Project: NE/SE Connector Road Project
 Date: 03/30/2019 Project No: 1-90205
 Elevation: Type: 5.5" OD HSA

LOG OF TEST BORINGS

GROUNDWATER DEPTH

NO: 12

During Drilling: none

After 24 Hours:

| DEPTH (Ft) | LOG | SAMPLE | | | | | | SUBSURFACE PROFILE | |
|------------|-----|-----------------|------|-------------|------------|-------------------|-------|------------------------------------------------------------------------------------------------------------------|-------------|
| | | SAMPLE INTERVAL | TYPE | N. BLOWS/FT | MOISTURE % | DRY DENSITY (pcf) | USC | DESCRIPTION | N blows/ft |
| | | | | | | | | | 20 40 60 80 |
| 5 | | 1-1-1 2 | SS | 9 | | | | | |
| | | | AC | | | | | | |
| | | 3-6-4 10 | SS | 5 | | | SC-SM | SILTY, CLAYEY SAND, fine grained, very loose to loose, slightly moist to dry, dark brown to brown to light brown | 10 |
| | | 4-4-5 9 | SS | 3 | | | | | 9 |
| | | | | | | | | Stopped Auger @ 4 feet Stopped Sampler @ 5.5 feet | |
| 10 | | | | | | | | | |

LOG OF TEST BORING 1-90205 NE-SE CONNECTOR ROAD PROJECT 2019-0003-PW/KE.GPJ GEO TEST.GDT 5/7/19

LEGEND

- SS - Split Spoon
- AMSL - Above Mean Sea Level
- AC - Auger Cuttings
- CS - Continuous Sampler
- UD/SL - Undisturbed Sleeve
- UD - Undisturbed
- ST - Shelby Tube

Stratification lines represent approximate boundaries between soil types. Transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to factors other than those present at the time measurements were made.



Project: NE/SE Connector Road Project
 Date: 03/30/2019 Project No: 1-90205
 Elevation: Type: 5.5" OD HSA

LOG OF TEST BORINGS

GROUNDWATER DEPTH

NO: 13

During Drilling: none

After 24 Hours:

| DEPTH (Ft) | LOG | SAMPLE INTERVAL | SAMPLE | | | | | SUBSURFACE PROFILE | | | | |
|------------|-----|-----------------|--------|-------------|------------|-------------------|-----|------------------------------------------------------|--------------------------------------------------------|--|----|-------------------------------------------------------------------------------|
| | | | TYPE | N. BLOWS/FT | MOISTURE % | DRY DENSITY (pcf) | USC | DESCRIPTION | N blows/ft 20 40 60 80 | | | |
| 5 | | | SS | 3-2-3 5 | 12 | | | CL | SANDY CLAY, medium plasticity, soft, moist, dark brown | | | |
| | | | AC | | | | | | | | | |
| | | | SS | 2-2-4 6 | 11 | | | | | | SC | CLAYEY SAND, fine to medium grained, low plasticity, loose, moist, brown |
| | | | SS | 3-5-5 10 | 7 | | | | | | SM | SILTY SAND, fine to medium grained, non-plastic, loose, slightly moist, brown |
| | | | | | | | | Stopped Auger @ 4 feet Stopped Sampler @ 5.5 feet | | | | |

LOG OF TEST BORING 1-90205 NE-SE CONNECTOR ROAD PROJECT 2019-0003-PW/KE.GPJ GEO TEST.GDT 5/7/19

LEGEND

- SS - Split Spoon
- AMSL - Above Mean Sea Level
- AC - Auger Cuttings
- CS - Continuous Sampler
- UD/SL - Undisturbed Sleeve
- UD - Undisturbed
- ST - Shelby Tube

Stratification lines represent approximate boundaries between soil types. Transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to factors other than those present at the time measurements were made.



Project: NE/SE Connector Road Project
 Date: 03/29/2019 Project No: 1-90205
 Elevation: Type: 5.5" OD HSA

LOG OF TEST BORINGS

GROUNDWATER DEPTH

NO: 14

During Drilling: none

After 24 Hours:

| DEPTH (Ft) | LOG | SAMPLE | | | | | | SUBSURFACE PROFILE | | |
|------------|-----|-----------------|------|---------------|------------|-------------------|-------|---------------------------------------------------------------------|-----------------------------------------------------------------|----|
| | | SAMPLE INTERVAL | TYPE | N. BLOWS/FT | MOISTURE % | DRY DENSITY (pcf) | USC | DESCRIPTION | N blows/ft | |
| | | | | | | | | | 20 40 60 80 | |
| | | | SS | 4-3-7 10 | 9 | | | CL | SANDY CLAY, medium plasticity, soft, slightly moist, dark brown | 10 |
| | | | AC | | | | | | | |
| | | | SS | 8-10-11 21 | 8 | | | | | 21 |
| 5 | | | SS | 12-5-7 12 | 6 | | SC-SM | SILTY, CLAYEY SAND, fine grained, medium dense, slightly moist, tan | | 12 |
| | | | | | | | | Stopped Auger @ 4 feet Stopped Sampler @ 5.5 feet | | |
| 10 | | | | | | | | | | |

LOG OF TEST BORING 1-90205 NE-SE CONNECTOR ROAD PROJECT 2019-0003-PW/KE.GPJ GEO TEST.GDT 5/7/19

LEGEND

- SS - Split Spoon
- AMSL - Above Mean Sea Level
- AC - Auger Cuttings
- CS - Continuous Sampler
- UD/SL - Undisturbed Sleeve
- UD - Undisturbed
- ST - Shelby Tube

Stratification lines represent approximate boundaries between soil types. Transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to factors other than those present at the time measurements were made.



Project: NE/SE Connector Road Project
 Date: 03/29/2019 Project No: 1-90205
 Elevation: Type: 5.5" OD HSA

LOG OF TEST BORINGS

GROUNDWATER DEPTH

NO: 17

During Drilling: none

After 24 Hours:

| DEPTH (Ft) | LOG | SAMPLE INTERVAL | SAMPLE | | | | | SUBSURFACE PROFILE | |
|------------|-----|-----------------|--------|---------------|------------|-------------------|-------|----------------------------------------------------------------------------------------------|-------------|
| | | | TYPE | N. BLOWS/FT | MOISTURE % | DRY DENSITY (pcf) | USC | DESCRIPTION | N blows/ft |
| | | | | | | | | | 20 40 60 80 |
| | | | SS | 6-4-7 11 | 7 | | SM | SILTY SAND with GRAVEL, fine to coarse grained, non-plastic, moist, brown | 11 |
| | | | AC | | | | | | |
| | | | SS | 7-8-12 20 | 1 | | SW-SM | SAND with SILT, fine to coarse grained, some gravel, non-plastic, slightly moist to dry, tan | 20 |
| 5 | | | SS | 12-12-9 21 | 1 | | | | 21 |
| | | | | | | | | Stopped Auger @ 4 feet Stopped Sampler @ 5.5 feet | |
| 10 | | | | | | | | | |

LOG OF TEST BORING 1-90205 NE-SE CONNECTOR ROAD PROJECT 2019-0003-PW/KE.GPJ GEO TEST.GDT 5/7/19

LEGEND

- SS - Split Spoon
- AC - Auger Cuttings
- UD/SL - Undisturbed Sleeve
- AMSL - Above Mean Sea Level
- CS - Continuous Sampler
- UD - Undisturbed
- ST - Shelby Tube

Stratification lines represent approximate boundaries between soil types. Transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to factors other than those present at the time measurements were made.

SUMMARY OF LABORATORY RESULTS

SUMMARY OF LABORATORY RESULTS: 1-90205 NE-SE CONNECTOR ROAD PROJECT 2019-0003-PW-KE.GPJ GEO TEST.GDT 5/7/19

| TEST HOLE | DEPTH (FEET) | UNIFIED CLASS | (% MOIST) | LL | PI | SIEVE ANALYSIS PERCENT PASSING | | | | | | | | | | | |
|-----------|--------------|---------------|-----------|----|----|-----------------------------------|--------|-------|-------|------|------|------|------|-----|--------|----|----|
| | | | | | | NO 200 | NO 100 | NO 40 | NO 10 | NO 4 | 3/8" | 1/2" | 3/4" | 1" | 1 1/2" | 2" | 4" |
| 01 | 0.5 | CL | 13.1 | 40 | 21 | 67 | 74 | 80 | 91 | 97 | 99 | 100 | | | | | |
| 01 | 3.0 | SM | 4.8 | 30 | 4 | 31 | 39 | 48 | 67 | 76 | 79 | 83 | 91 | 100 | | | |
| 01 | 5.0 | | 5.6 | | | | | | | | | | | | | | |
| 02 | 0.5 | CL | 12.5 | 29 | 12 | 67 | 75 | 81 | 94 | 98 | 100 | | | | | | |
| 02 | 3.0 | | 6.1 | | | | | | | | | | | | | | |
| 02 | 5.0 | SC | 6.5 | 27 | 10 | 38 | 51 | 66 | 87 | 93 | 97 | 100 | | | | | |
| 03 | 0.5 | | 12.5 | | | | | | | | | | | | | | |
| 03 | 3.0 | SM | 11.5 | 53 | 9 | 41 | 51 | 64 | 88 | 98 | 100 | | | | | | |
| 03 | 5.0 | | 7.4 | | | | | | | | | | | | | | |
| 04 | 0.5 | SC-SM | 8.5 | 26 | 7 | 42 | 52 | 65 | 86 | 96 | 99 | 100 | | | | | |
| 04 | 3.0 | | 5.3 | | | | | | | | | | | | | | |
| 04 | 5.0 | | 4.7 | | | | | | | | | | | | | | |
| 05 | 0.5 | CL-ML | 12.3 | 25 | 7 | 51 | 61 | 73 | 91 | 98 | 100 | | | | | | |
| 05 | 3.0 | | 7.5 | | | | | | | | | | | | | | |
| 05 | 5.0 | SM | 2.0 | NP | NP | 16 | 26 | 50 | 77 | 91 | 99 | 100 | | | | | |
| 06 | 0.5 | | 10.9 | | | | | | | | | | | | | | |
| 06 | 3.0 | SM | 4.2 | NP | NP | 19 | 26 | 38 | 63 | 81 | 89 | 90 | 90 | 100 | | | |
| 06 | 5.0 | | 2.9 | | | | | | | | | | | | | | |
| 07 | 1.0 | CL | 16.8 | 36 | 20 | 84 | 89 | 92 | 98 | 100 | | | | | | | |



LL = LIQUID LIMIT
PI = PLASTICITY INDEX
NP = NON PLASTIC or NO VALUE

Project: NE/SE Connector Road Project
Location: Santa Fe County, New Mexico
Number: 1-90205

SUMMARY OF LABORATORY RESULTS

SUMMARY OF LABORATORY RESULTS: 1-90205 NE-SE CONNECTOR ROAD PROJECT 2019-0003-PW-KE.GPJ GEO TEST.GDT 5/7/19

| TEST HOLE | DEPTH (FEET) | UNIFIED CLASS | (% MOIST) | LL | PI | SIEVE ANALYSIS PERCENT PASSING | | | | | | | | | | | |
|-----------|--------------|---------------|-----------|----|----|-----------------------------------|--------|-------|-------|------|------|------|------|----|--------|----|----|
| | | | | | | NO 200 | NO 100 | NO 40 | NO 10 | NO 4 | 3/8" | 1/2" | 3/4" | 1" | 1 1/2" | 2" | 4" |
| 07 | 1.8 | CL | 6.2 | 35 | 20 | 74 | 80 | 86 | 96 | 99 | 100 | | | | | | |
| 07 | 3.0 | | 3.9 | | | | | | | | | | | | | | |
| 07 | 4.5 | | 1.2 | | | | | | | | | | | | | | |
| 08 | 0.5 | SP | 4.7 | NP | NP | 4 | 6 | 29 | 85 | 97 | 99 | 99 | 100 | | | | |
| 08 | 3.0 | | 4.4 | | | | | | | | | | | | | | |
| 08 | 5.0 | | 19.8 | | | | | | | | | | | | | | |
| 09 | 0.8 | SC-SM | 9.2 | 24 | 7 | 40 | 50 | 68 | 91 | 97 | 98 | 100 | | | | | |
| 09 | 1.5 | | 1.9 | | | | | | | | | | | | | | |
| 09 | 3.0 | CL | 9.1 | 31 | 13 | 79 | 88 | 94 | 99 | 100 | | | | | | | |
| 09 | 5.0 | | 5.7 | | | | | | | | | | | | | | |
| 10 | 3.0 | SW-SM | 3.0 | NP | NP | 11 | 16 | 32 | 86 | 97 | 99 | 100 | | | | | |
| 10 | 5.0 | SM | 4.2 | NP | NP | 29 | 38 | 52 | 95 | 99 | 100 | | | | | | |
| 11 | 0.5 | | 12.1 | | | | | | | | | | | | | | |
| 11 | 3.0 | CL | 9.8 | 27 | 11 | 58 | 67 | 76 | 90 | 97 | 99 | 100 | | | | | |
| 11 | 4.5 | | 5.7 | | | | | | | | | | | | | | |
| 12 | 0.5 | | 9.5 | | | | | | | | | | | | | | |
| 12 | 3.0 | SC-SM | 4.8 | 21 | 5 | 40 | 52 | 65 | 85 | 95 | 100 | | | | | | |
| 12 | 5.0 | | 3.0 | | | | | | | | | | | | | | |
| 13 | 0.5 | CL | 12.2 | 33 | 16 | 54 | 60 | 68 | 88 | 97 | 99 | 100 | | | | | |



LL = LIQUID LIMIT
PI = PLASTICITY INDEX
NP = NON PLASTIC or NO VALUE

Project: NE/SE Connector Road Project
Location: Santa Fe County, New Mexico
Number: 1-90205

SUMMARY OF LABORATORY RESULTS

SUMMARY OF LABORATORY RESULTS: 1-90205 NE-SE CONNECTOR ROAD PROJECT 2019-0003-PW-KE.GPJ GEO TEST. GDT 5/7/19

| TEST HOLE | DEPTH (FEET) | UNIFIED CLASS | (% MOIST) | LL | PI | SIEVE ANALYSIS PERCENT PASSING | | | | | | | | | | | |
|-----------|--------------|---------------|-----------|----|----|-----------------------------------|--------|-------|-------|------|------|------|------|-----|--------|----|----|
| | | | | | | NO 200 | NO 100 | NO 40 | NO 10 | NO 4 | 3/8" | 1/2" | 3/4" | 1" | 1 1/2" | 2" | 4" |
| 13 | 3.0 | | 10.6 | | | | | | | | | | | | | | |
| 13 | 5.0 | | 6.6 | | | | | | | | | | | | | | |
| 14 | 0.5 | | 9.3 | | | | | | | | | | | | | | |
| 14 | 3.0 | CL | 7.5 | 41 | 23 | 52 | 67 | 82 | 96 | 99 | 99 | 100 | | | | | |
| 14 | 5.0 | | 6.2 | | | | | | | | | | | | | | |
| 15 | 0.5 | SC | 16.9 | 34 | 15 | 47 | 59 | 77 | 98 | 100 | | | | | | | |
| 15 | 3.0 | SM | 5.8 | NP | NP | 29 | 46 | 69 | 90 | 97 | 100 | | | | | | |
| 15 | 5.0 | SC | 7.8 | 29 | 14 | 39 | 60 | 83 | 96 | 99 | 100 | | | | | | |
| 16 | 0.5 | SC | 12.5 | 32 | 17 | 45 | 62 | 84 | 98 | 100 | | | | | | | |
| 16 | 3.0 | SC | 8.3 | 43 | 20 | 38 | 55 | 71 | 91 | 96 | 96 | 100 | | | | | |
| 16 | 5.0 | SC | 7.9 | 37 | 22 | 41 | 58 | 75 | 95 | 99 | 100 | | | | | | |
| 17 | 0.5 | SM | 7.1 | NP | NP | 24 | 33 | 48 | 79 | 89 | 94 | 95 | 95 | 100 | | | |
| 17 | 3.0 | | 0.7 | | | | | | | | | | | | | | |
| 17 | 5.0 | SW-SM | 1.2 | NP | NP | 6 | 10 | 24 | 75 | 90 | 99 | 100 | | | | | |
| 18 | 0.5 | SM | 7.5 | NP | NP | 21 | 30 | 44 | 76 | 89 | 94 | 96 | 96 | 100 | | | |
| 18 | 3.0 | | 2.8 | | | | | | | | | | | | | | |
| 18 | 5.0 | SM | 4.1 | NP | NP | 25 | 33 | 45 | 78 | 95 | 100 | | | | | | |



LL = LIQUID LIMIT
PI = PLASTICITY INDEX
NP = NON PLASTIC or NO VALUE

Project: NE/SE Connector Road Project
Location: Santa Fe County, New Mexico
Number: 1-90205

SUMMARY OF LABORATORY RESULTS

SUMMARY OF LABORATORY RESULTS: 1-90205 NE-SE CONNECTOR ROAD PROJECT 2019-0003-PW-KE-GPJ GEO TEST. GDT 4/14/19

| | | | | | | SIEVE ANALYSIS PERCENT PASSING | | | | | | | | | | | |
|-----------|--------------|---------------|-----------|----|----|-----------------------------------|--------|-------|-------|------|------|------|------|-----|--------|----|----|
| TEST HOLE | DEPTH (FEET) | UNIFIED CLASS | (%) MOIST | LL | PI | NO 200 | NO 100 | NO 40 | NO 10 | NO 4 | 3/8" | 1/2" | 3/4" | 1" | 1 1/2" | 2" | 4" |
| Bulk 01 | 0.0 - 5.0 | CL-ML | | 24 | 4 | 51 | 60 | 69 | 89 | 97 | 100 | | | | | | |
| Bulk 02 | 0.0 - 5.0 | CL | | 29 | 12 | 59 | 67 | 76 | 92 | 98 | 99 | 100 | | | | | |
| Bulk 03 | 0.0 - 5.0 | SM | | 33 | 7 | 47 | 60 | 72 | 90 | 98 | 99 | 100 | | | | | |
| Bulk 04 | 0.0 - 5.0 | SC-SM | | 23 | 4 | 44 | 54 | 66 | 86 | 96 | 99 | 100 | | | | | |
| Bulk 05 | 0.0 - 5.0 | SM | | NP | NP | 39 | 48 | 64 | 88 | 98 | 100 | | | | | | |
| Bulk 06 | 0.0 - 5.0 | SM | | 28 | 5 | 29 | 36 | 46 | 60 | 71 | 80 | 85 | 90 | 96 | 100 | | |
| Bulk 07 | 0.0 - 5.0 | SC | | 32 | 13 | 49 | 55 | 62 | 75 | 85 | 89 | 92 | 93 | 100 | | | |
| Bulk 08 | 0.0 - 5.0 | SW | | NP | NP | 3 | 6 | 21 | 78 | 95 | 99 | 100 | | | | | |
| Bulk 09 | 0.0 - 5.0 | SC-SM | | 21 | 5 | 24 | 29 | 44 | 85 | 98 | 100 | | | | | | |
| Bulk 10 | 0.0 - 5.0 | SC-SM | | 24 | 5 | 26 | 31 | 40 | 61 | 71 | 75 | 78 | 79 | 88 | 100 | | |
| Bulk 11 | 0.0 - 5.0 | CL | | 29 | 10 | 57 | 66 | 75 | 93 | 98 | 100 | | | | | | |
| Bulk 12 | 0.0 - 5.0 | SC-SM | | 25 | 6 | 48 | 56 | 64 | 85 | 96 | 100 | | | | | | |
| Bulk 13 | 0.0 - 5.0 | CL | | 33 | 15 | 61 | 66 | 74 | 92 | 99 | 100 | | | | | | |
| Bulk 14 | 0.0 - 5.0 | CL | | 32 | 11 | 54 | 63 | 76 | 94 | 99 | 100 | | | | | | |
| Bulk 15 | 0.0 - 5.0 | CL-ML | | 24 | 5 | 52 | 64 | 81 | 95 | 99 | 100 | | | | | | |
| Bulk 16 | 0.0 - 5.0 | CL | | 35 | 14 | 61 | 70 | 79 | 92 | 96 | 97 | 99 | 100 | | | | |
| Bulk 17 | 0.0 - 5.0 | SW-SM | | NP | NP | 11 | 14 | 23 | 61 | 82 | 95 | 99 | 99 | 100 | | | |
| Bulk 18 | 0.0 - 5.0 | SC-SM | | 25 | 7 | 17 | 20 | 29 | 56 | 75 | 86 | 89 | 94 | 100 | | | |



LL = LIQUID LIMIT
PI = PLASTICITY INDEX
NP = NON PLASTIC or NO VALUE

Project: NE/SE Connector Road Project
Location: Santa Fe County, New Mexico
Number: 1-90205

| Borehole | Depth | Liquid Limit | Plastic Limit | Plasticity Index | Maximum Size (mm) | % <#200 Sieve | Classification | Water Content (%) | Dry Density (pcf) | AASHTO CLASS | Corr. R-Value |
|----------|-------|--------------|---------------|------------------|-------------------|---------------|----------------|-------------------|-------------------|--------------|---------------|
| 01 | 0.5 | 40 | 19 | 21 | 12.5 | 67 | CL | 13.1 | | A-6 | 8 |
| 01 | 3.0 | 30 | 26 | 4 | 25 | 31 | SM | 4.8 | | A-2-4 | 45 |
| 01 | 5.0 | | | | | | | 5.6 | | | |
| 02 | 0.5 | 29 | 17 | 12 | 9.5 | 67 | CL | 12.5 | | A-6 | 11 |
| 02 | 3.0 | | | | | | | 6.1 | | | |
| 02 | 5.0 | 27 | 17 | 10 | 12.5 | 38 | SC | 6.5 | | A-4 | 20 |
| 03 | 0.5 | | | | | | | 12.5 | | | |
| 03 | 3.0 | 53 | 44 | 9 | 9.5 | 41 | SM | 11.5 | | A-5 | 18 |
| 03 | 5.0 | | | | | | | 7.4 | | | |
| 04 | 0.5 | 26 | 19 | 7 | 12.5 | 42 | SC-SM | 8.5 | | A-4 | 28 |
| 04 | 3.0 | | | | | | | 5.3 | | | |
| 04 | 5.0 | | | | | | | 4.7 | | | |
| 05 | 0.5 | 25 | 18 | 7 | 9.5 | 51 | CL-ML | 12.3 | | A-4 | 28 |
| 05 | 3.0 | | | | | | | 7.5 | | | |
| 05 | 5.0 | NP | NP | NP | 12.5 | 16 | SM | 2.0 | | A-1-b | 69 |
| 06 | 0.5 | | | | | | | 10.9 | | | |
| 06 | 3.0 | NP | NP | NP | 25 | 19 | SM | 4.2 | | A-1-b | 69 |
| 06 | 5.0 | | | | | | | 2.9 | | | |
| 07 | 1.0 | 36 | 16 | 20 | 4.75 | 84 | CL | 16.8 | | A-6 | 8 |
| 07 | 1.8 | 35 | 15 | 20 | 9.5 | 74 | CL | 6.2 | | A-6 | 8 |
| 07 | 3.0 | | | | | | | 3.9 | | | |
| 07 | 4.5 | | | | | | | 1.2 | | | |
| 08 | 0.5 | NP | NP | NP | 19 | 4 | SP | 4.7 | | A-1-b | 69 |
| 08 | 3.0 | | | | | | | 4.4 | | | |
| 08 | 5.0 | | | | | | | 19.8 | | | |
| 09 | 0.8 | 24 | 17 | 7 | 12.5 | 40 | SC-SM | 9.2 | | A-4 | 28 |
| 09 | 1.5 | | | | | | | 1.9 | | | |
| 09 | 3.0 | 31 | 18 | 13 | 4.75 | 79 | CL | 9.1 | | A-6 | 11 |
| 09 | 5.0 | | | | | | | 5.7 | | | |
| 10 | 3.0 | NP | NP | NP | 12.5 | 11 | SW-SM | 3.0 | | A-1-b | 69 |
| 10 | 5.0 | NP | NP | NP | 9.5 | 29 | SM | 4.2 | | A-2-4 | 55 |
| 11 | 0.5 | | | | | | | 12.1 | | | |
| 11 | 3.0 | 27 | 16 | 11 | 12.5 | 58 | CL | 9.8 | | A-6 | 11 |
| 11 | 5.0 | | | | | | | 5.7 | | | |
| 12 | 0.5 | | | | | | | 9.5 | | | |
| 12 | 3.0 | 21 | 16 | 5 | 9.5 | 40 | SC-SM | 4.8 | | A-4 | 33 |
| 12 | 5.0 | | | | | | | 3.0 | | | |
| 13 | 0.5 | 33 | 17 | 16 | 12.5 | 54 | CL | 12.2 | | A-6 | 10 |
| 13 | 3.0 | | | | | | | 10.6 | | | |
| 13 | 5.0 | | | | | | | 6.6 | | | |
| 14 | 0.5 | | | | | | | 9.3 | | | |
| 14 | 3.0 | 41 | 18 | 23 | 12.5 | 52 | CL | 7.5 | | A-7-6 | 6 |

SUMMARY AASHTO 1-90205 NE-SE CONNECTOR ROAD PROJECT 2019-0003-PW-KE.GPJ GEO-TEST.GDT 5/7/19



AASHTO Summary of Laboratory Results

Project: NE/SE Connector Road Project
 Location: Santa Fe County, New Mexico
 Number: 1-90205

| Borehole | Depth | Liquid Limit | Plastic Limit | Plasticity Index | Maximum Size (mm) | % <#200 Sieve | Classification | Water Content (%) | Dry Density (pcf) | AASHTO CLASS | Corr. R-Value |
|----------|-------|--------------|---------------|------------------|-------------------|---------------|----------------|-------------------|-------------------|--------------|---------------|
| 14 | 5.0 | | | | | | | 6.2 | | | |
| 15 | 0.5 | 34 | 19 | 15 | 4.75 | 47 | SC | 16.9 | | A-6 | 10 |
| 15 | 3.0 | NP | NP | NP | 9.5 | 29 | SM | 5.8 | | A-2-4 | 55 |
| 15 | 5.0 | 29 | 15 | 14 | 9.5 | 39 | SC | 7.8 | | A-6 | 10 |
| 16 | 0.5 | 32 | 15 | 17 | 4.75 | 45 | SC | 12.5 | | A-6 | 9 |
| 16 | 3.0 | 43 | 23 | 20 | 12.5 | 38 | SC | 8.3 | | A-7-6 | 6 |
| 16 | 5.0 | 37 | 15 | 22 | 9.5 | 41 | SC | 7.9 | | A-6 | 7 |
| 17 | 0.5 | NP | NP | NP | 25 | 24 | SM | 7.1 | | A-1-b | 69 |
| 17 | 3.0 | | | | | | | 0.7 | | | |
| 17 | 5.0 | NP | NP | NP | 12.5 | 6 | SW-SM | 1.2 | | A-1-b | 69 |
| 18 | 0.5 | NP | NP | NP | 25 | 21 | SM | 7.5 | | A-1-b | 69 |
| 18 | 3.0 | | | | | | | 2.8 | | | |
| 18 | 5.0 | NP | NP | NP | 9.5 | 25 | SM | 4.1 | | A-1-b | 69 |

SUMMARY AASHTO 1-90205 NE-SE CONNECTOR ROAD PROJECT 2019-0003-PW-KE.GPJ GEO-TEST.GDT 5/7/19



AASHTO Summary of Laboratory Results

Project: NE/SE Connector Road Project

Location: Santa Fe County, New Mexico

Number: 1-90205

| Borehole | Depth | Liquid Limit | Plastic Limit | Plasticity Index | Maximum Size (mm) | % <#200 Sieve | Classification | Water Content (%) | R-Value | AASHTO CLASS | Corr. R-Value |
|----------|-----------|--------------|---------------|------------------|-------------------|---------------|----------------|-------------------|---------|--------------|---------------|
| Bulk 01 | 0.0 - 5.0 | 24 | 20 | 4 | 9.5 | 51 | CL-ML | | 13 | A-4 | 36 |
| Bulk 02 | 0.0 - 5.0 | 29 | 17 | 12 | 12.5 | 59 | CL | | 11 | A-6 | 11 |
| Bulk 03 | 0.0 - 5.0 | 33 | 26 | 7 | 12.5 | 47 | SM | | | A-4 | 28 |
| Bulk 04 | 0.0 - 5.0 | 23 | 19 | 4 | 12.5 | 44 | SC-SM | | | A-4 | 36 |
| Bulk 05 | 0.0 - 5.0 | NP | NP | NP | 9.5 | 39 | SM | | | A-4 | 46 |
| Bulk 06 | 0.0 - 5.0 | 28 | 23 | 5 | 37.5 | 29 | SM | | | A-2-4 | 43 |
| Bulk 07 | 0.0 - 5.0 | 32 | 19 | 13 | 25 | 49 | SC | | 30 | A-6 | 11 |
| Bulk 08 | 0.0 - 5.0 | NP | NP | NP | 12.5 | 3 | SW | | | A-1-b | 69 |
| Bulk 09 | 0.0 - 5.0 | 21 | 16 | 5 | 9.5 | 24 | SC-SM | | 40 | A-1-b | 60 |
| Bulk 10 | 0.0 - 5.0 | 24 | 19 | 5 | 37.5 | 26 | SC-SM | | | A-2-4 | 43 |
| Bulk 11 | 0.0 - 5.0 | 29 | 19 | 10 | 9.5 | 57 | CL | | 28 | A-4 | 20 |
| Bulk 12 | 0.0 - 5.0 | 25 | 19 | 6 | 9.5 | 48 | SC-SM | | | A-4 | 31 |
| Bulk 13 | 0.0 - 5.0 | 33 | 18 | 15 | 9.5 | 61 | CL | | 19 | A-6 | 10 |
| Bulk 14 | 0.0 - 5.0 | 32 | 21 | 11 | 9.5 | 54 | CL | | 13 | A-6 | 11 |
| Bulk 15 | 0.0 - 5.0 | 24 | 19 | 5 | 9.5 | 52 | CL-ML | | 11 | A-4 | 33 |
| Bulk 16 | 0.0 - 5.0 | 35 | 21 | 14 | 19 | 61 | CL | | 11 | A-6 | 10 |
| Bulk 17 | 0.0 - 5.0 | NP | NP | NP | 25 | 11 | SW-SM | | | A-1-b | 69 |
| Bulk 18 | 0.0 - 5.0 | 25 | 18 | 7 | 25 | 17 | SC-SM | | | A-2-4 | 38 |

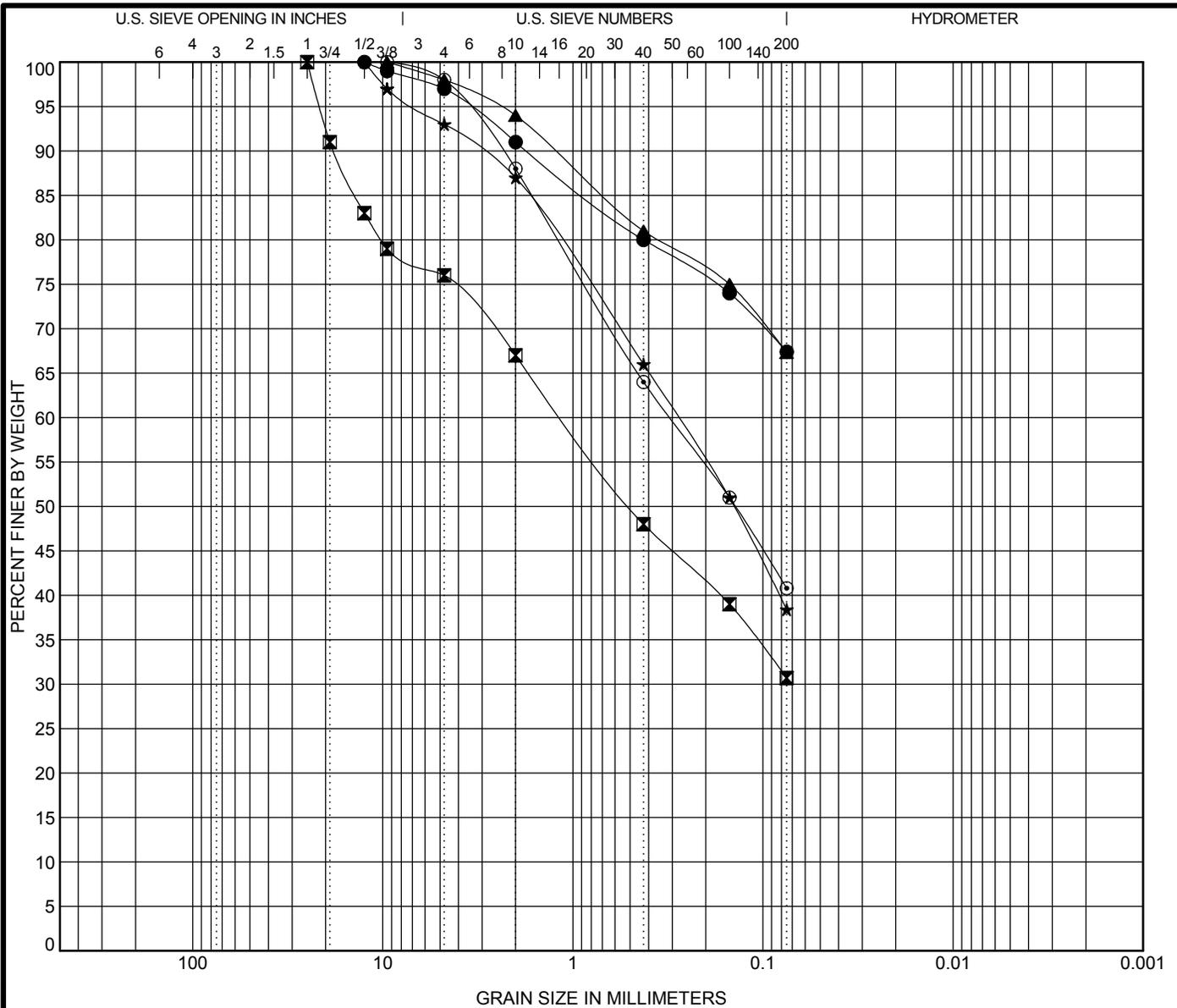
SUMMARY AASHTO 1-90205 NE-SE CONNECTOR ROAD PROJECT 2019-0003-PW-KE.GPJ GEO-TEST.GDT 4/14/19



AASHTO Summary of Laboratory Results

Project: NE/SE Connector Road Project
 Location: Santa Fe County, New Mexico
 Number: 1-90205

U.S. GRAIN SIZE 1-90205 NE-SE CONNECTOR ROAD PROJECT 2019-0003-PW-KE.GPJ GEO TEST.GDT 5/7/19



| COBBLES | GRAVEL | | SAND | | | SILT OR CLAY |
|---------|--------|------|--------|--------|------|--------------|
| | coarse | fine | coarse | medium | fine | |

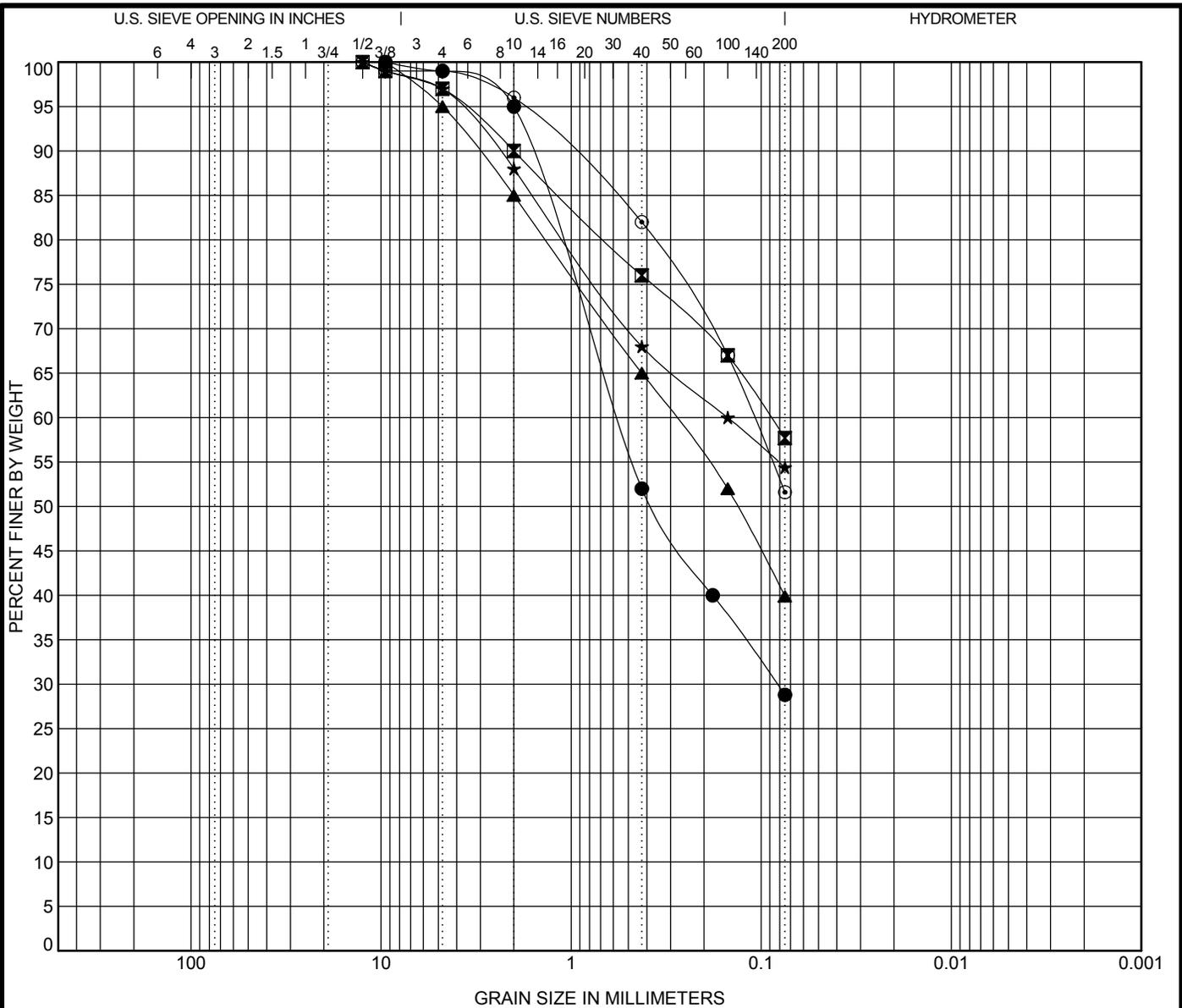
| Specimen Identification | Classification | LL | PL | PI | Cc | Cu | | |
|-------------------------|--------------------------------|------|-------|-----|---------|-------|-------|-------|
| ● 01 | 0.5 SANDY LEAN CLAY(CL) | 40 | 19 | 21 | | | | |
| ■ 01 | 3.0 SILTY SAND with GRAVEL(SM) | 30 | 26 | 4 | | | | |
| ▲ 02 | 0.5 SANDY LEAN CLAY(CL) | 29 | 17 | 12 | | | | |
| ★ 02 | 5.0 CLAYEY SAND(SC) | 27 | 17 | 10 | | | | |
| ⊙ 03 | 3.0 SILTY SAND(SM) | 53 | 44 | 9 | | | | |
| Specimen Identification | D100 | D60 | D30 | D10 | %Gravel | %Sand | %Silt | %Clay |
| ● 01 | 0.5 | 12.5 | | | 3.0 | 29.6 | | 67.4 |
| ■ 01 | 3.0 | 25 | 1.13 | | 24.0 | 45.3 | | 30.7 |
| ▲ 02 | 0.5 | 9.5 | | | 2.0 | 30.7 | | 67.3 |
| ★ 02 | 5.0 | 12.5 | 0.28 | | 7.0 | 54.6 | | 38.4 |
| ⊙ 03 | 3.0 | 9.5 | 0.308 | | 2.0 | 57.2 | | 40.8 |



GRAIN SIZE DISTRIBUTION

Project: NE/SE Connector Road Project
 Location: Santa Fe County, New Mexico
 Number: 1-90205

U.S. GRAIN SIZE 1-90205 NE-SE CONNECTOR ROAD PROJECT 2019-0003-PW-KE.GPJ GEO TEST.GDT 5/7/19



| COBBLES | GRAVEL | | SAND | | | SILT OR CLAY |
|---------|--------|------|--------|--------|------|--------------|
| | coarse | fine | coarse | medium | fine | |

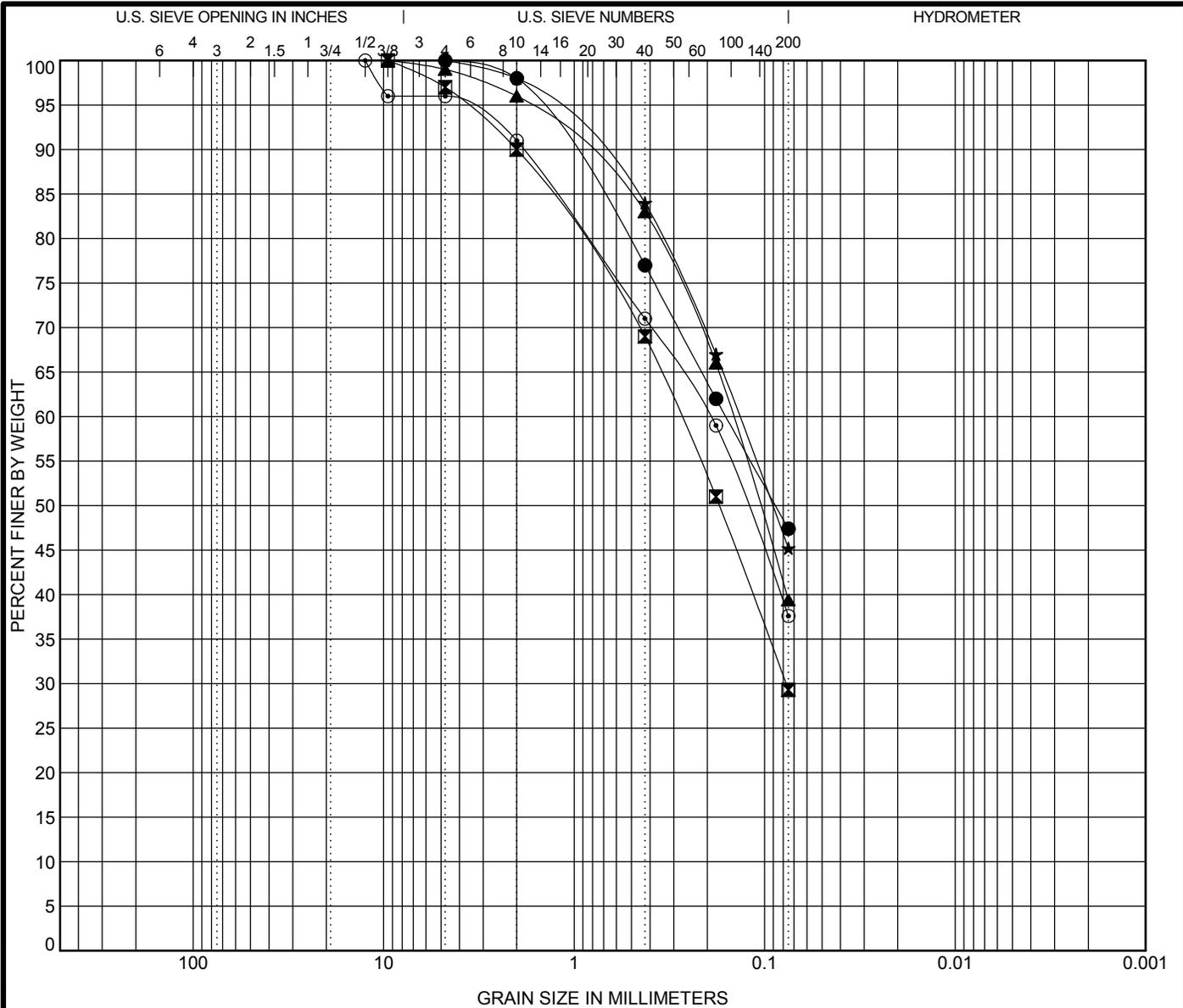
| Specimen Identification | | | Classification | | | LL | PL | PI | Cc | Cu |
|-------------------------|------|------|----------------------------------|-------|---------|-------|-------|-------|----|----|
| ● 10 | 5.0 | | SILTY SAND(SM) | | | NP | NP | NP | | |
| ☒ 11 | 3.0 | | SANDY LEAN CLAY(CL) | | | 27 | 16 | 11 | | |
| ▲ 12 | 3.0 | | SILTY, CLAYEY SAND(SC-SM) | | | 21 | 16 | 5 | | |
| ★ 13 | 0.5 | | SANDY LEAN CLAY(CL) | | | 33 | 17 | 16 | | |
| ◎ 14 | 3.0 | | SANDY LEAN CLAY(CL) | | | 41 | 18 | 23 | | |
| Specimen Identification | D100 | D60 | D30 | D10 | %Gravel | %Sand | %Silt | %Clay | | |
| ● 10 | 5.0 | 9.5 | 0.567 | 0.082 | 1.0 | 70.2 | 28.8 | | | |
| ☒ 11 | 3.0 | 12.5 | 0.089 | | 3.0 | 39.3 | 57.7 | | | |
| ▲ 12 | 3.0 | 9.5 | 0.285 | | 5.0 | 55.1 | 39.9 | | | |
| ★ 13 | 0.5 | 12.5 | 0.15 | | 3.0 | 42.6 | 54.4 | | | |
| ◎ 14 | 3.0 | 12.5 | 0.109 | | 1.0 | 47.4 | 51.6 | | | |



GRAIN SIZE DISTRIBUTION

Project: NE/SE Connector Road Project
 Location: Santa Fe County, New Mexico
 Number: 1-90205

U.S. GRAIN SIZE 1-90205 NE-SE CONNECTOR ROAD PROJECT 2019-0003-PW-KE.GPJ GEO TEST.GDT 5/7/19



| COBBLES | GRAVEL | | SAND | | | SILT OR CLAY |
|---------|--------|------|--------|--------|------|--------------|
| | coarse | fine | coarse | medium | fine | |

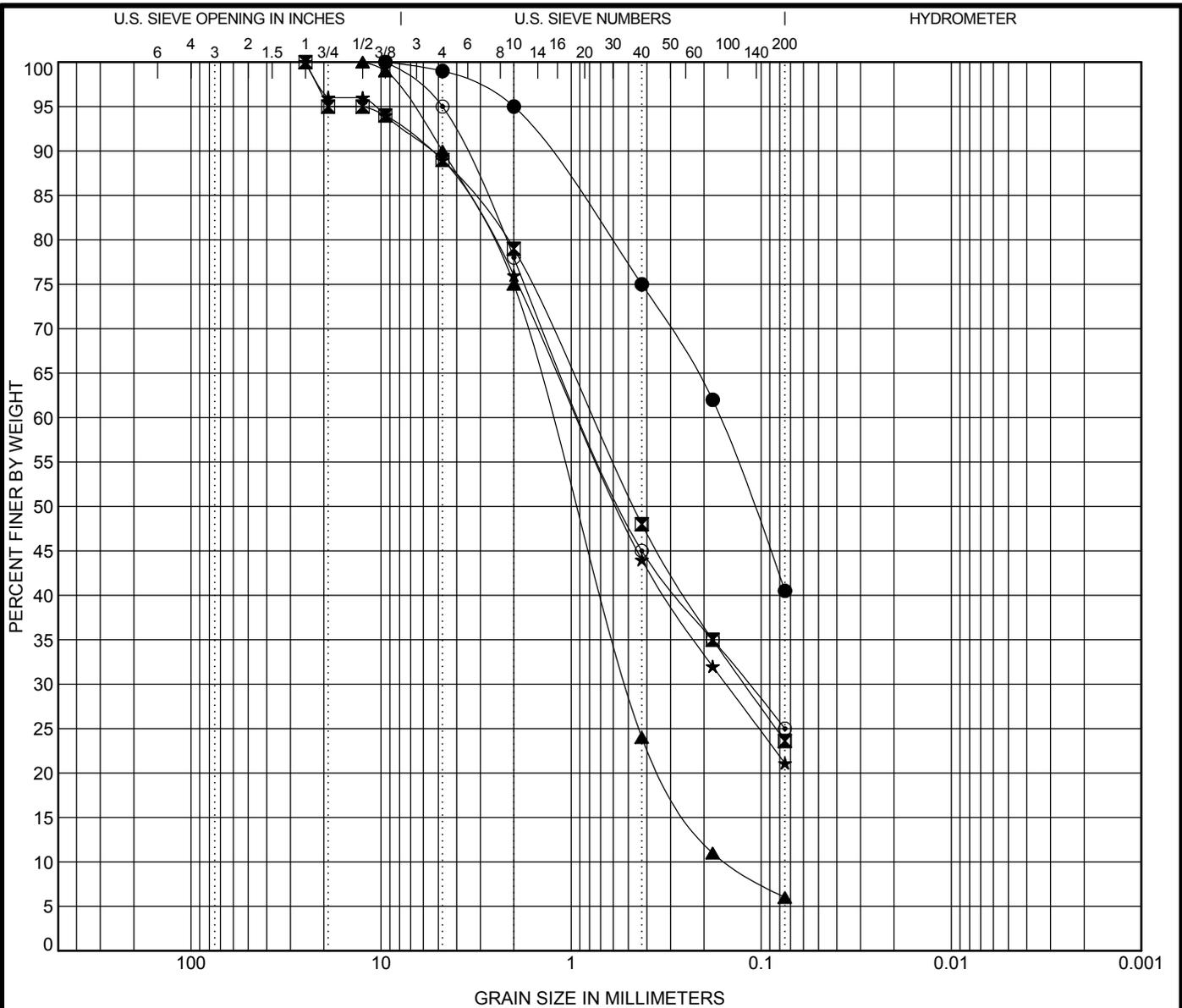
| Specimen Identification | Classification | | LL | PL | PI | Cc | Cu | |
|-------------------------|----------------|-----------------|-------|-------|---------|-------|-------|-------|
| ● 15 | 0.5 | CLAYEY SAND(SC) | 34 | 19 | 15 | | | |
| ☒ 15 | 3.0 | SILTY SAND(SM) | NP | NP | NP | | | |
| ▲ 15 | 5.0 | CLAYEY SAND(SC) | 29 | 15 | 14 | | | |
| ★ 16 | 0.5 | CLAYEY SAND(SC) | 32 | 15 | 17 | | | |
| ⊙ 16 | 3.0 | CLAYEY SAND(SC) | 43 | 23 | 20 | | | |
| Specimen Identification | D100 | D60 | D30 | D10 | %Gravel | %Sand | %Silt | %Clay |
| ● 15 | 0.5 | 4.75 | 0.16 | | 0.0 | 52.6 | | 47.4 |
| ☒ 15 | 3.0 | 9.5 | 0.277 | 0.077 | 3.0 | 67.7 | | 29.3 |
| ▲ 15 | 5.0 | 9.5 | 0.148 | | 1.0 | 59.6 | | 39.4 |
| ★ 16 | 0.5 | 4.75 | 0.136 | | 0.0 | 54.8 | | 45.2 |
| ⊙ 16 | 3.0 | 12.5 | 0.193 | | 4.0 | 58.4 | | 37.6 |



GRAIN SIZE DISTRIBUTION

Project: NE/SE Connector Road Project
 Location: Santa Fe County, New Mexico
 Number: 1-90205

U.S. GRAIN SIZE 1-90205 NE-SE CONNECTOR ROAD PROJECT 2019-0003-PW-KE.GPJ GEO TEST.GDT 5/7/19



| COBBLES | GRAVEL | | SAND | | | SILT OR CLAY |
|---------|--------|------|--------|--------|------|--------------|
| | coarse | fine | coarse | medium | fine | |

| Specimen Identification | Classification | LL | PL | PI | Cc | Cu |
|-------------------------|------------------------------------------|----|----|----|------|------|
| ● 16 | 5.0 CLAYEY SAND(SC) | 37 | 15 | 22 | | |
| ☒ 17 | 0.5 SILTY SAND(SM) | NP | NP | NP | | |
| ▲ 17 | 5.0 WELL-GRADED SAND with SILT(SW-SM) | NP | NP | NP | 1.36 | 8.39 |
| ★ 18 | 0.5 SILTY SAND(SM) | NP | NP | NP | | |
| ⊙ 18 | 5.0 SILTY SAND(SM) | NP | NP | NP | | |

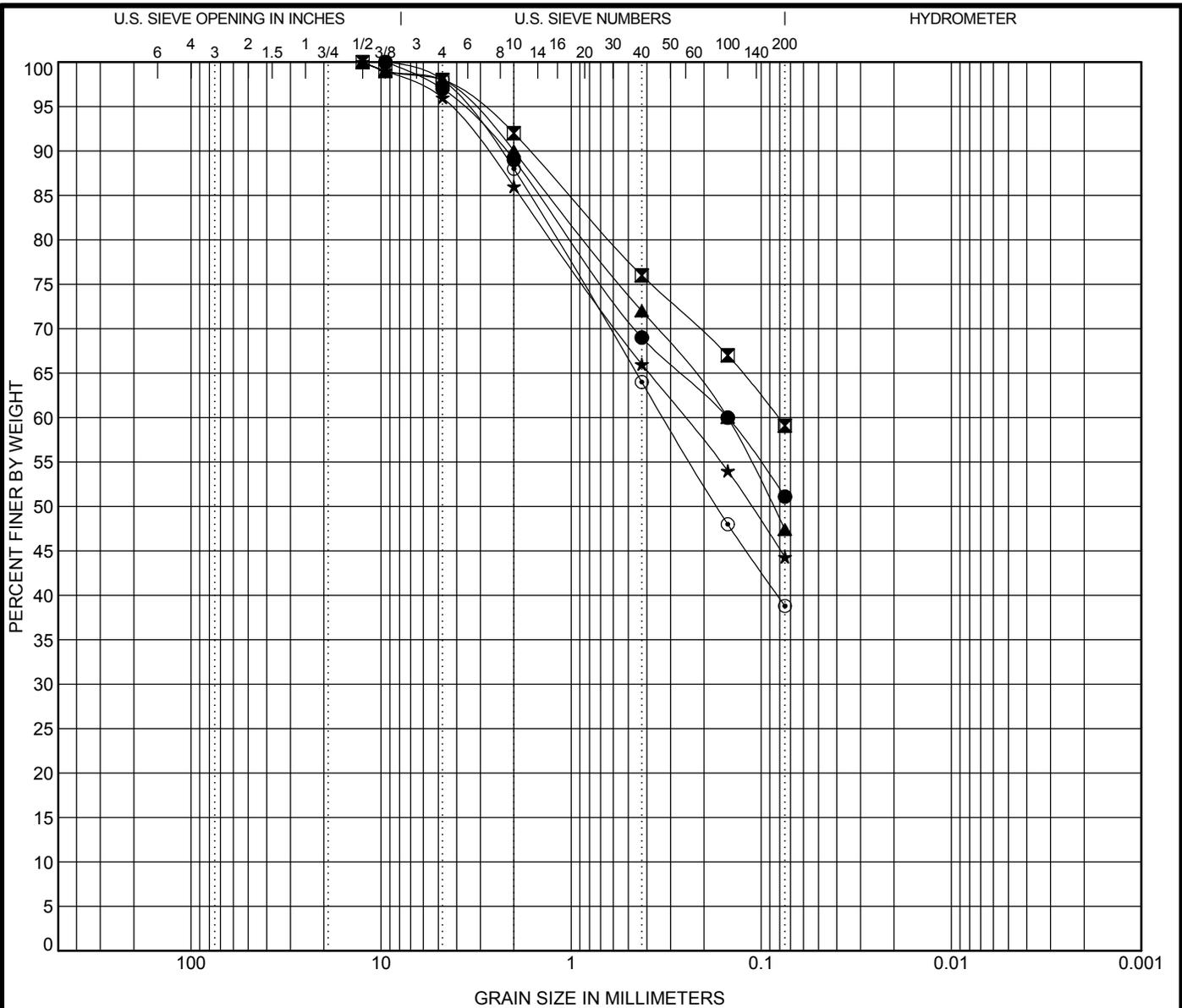
| Specimen Identification | D100 | D60 | D30 | D10 | %Gravel | %Sand | %Silt | %Clay |
|-------------------------|------|------|-------|-------|---------|-------|-------|-------|
| ● 16 | 5.0 | 9.5 | 0.166 | | 1.0 | 58.5 | 40.5 | |
| ☒ 17 | 0.5 | 25 | 0.774 | 0.123 | 11.0 | 65.4 | 23.6 | |
| ▲ 17 | 5.0 | 12.5 | 1.268 | 0.51 | 0.151 | 10.0 | 84.0 | 6.0 |
| ★ 18 | 0.5 | 25 | 0.922 | 0.153 | 11.0 | 67.9 | 21.1 | |
| ⊙ 18 | 5.0 | 9.5 | 0.859 | 0.116 | 5.0 | 70.0 | 25.0 | |



GRAIN SIZE DISTRIBUTION

Project: NE/SE Connector Road Project
 Location: Santa Fe County, New Mexico
 Number: 1-90205

U.S. GRAIN SIZE 1-90205 NE-SE CONNECTOR ROAD PROJECT 2019-0003-PW-KE.GPJ GEO TEST.GDT 4/12/19



| COBBLES | GRAVEL | | SAND | | | SILT OR CLAY |
|---------|--------|------|--------|--------|------|--------------|
| | coarse | fine | coarse | medium | fine | |

| Specimen Identification | Classification | LL | PL | PI | Cc | Cu |
|-------------------------|---------------------------|----|----|----|----|----|
| ● Bulk 01 0.0 - 5.0 | SANDY SILTY CLAY(CL-ML) | 24 | 20 | 4 | | |
| ☒ Bulk 02 0.0 - 5.0 | SANDY LEAN CLAY(CL) | 29 | 17 | 12 | | |
| ▲ Bulk 03 0.0 - 5.0 | SILTY SAND(SM) | 33 | 26 | 7 | | |
| ★ Bulk 04 0.0 - 5.0 | SILTY, CLAYEY SAND(SC-SM) | 23 | 19 | 4 | | |
| ⊙ Bulk 05 0.0 - 5.0 | SILTY SAND(SM) | NP | NP | NP | | |

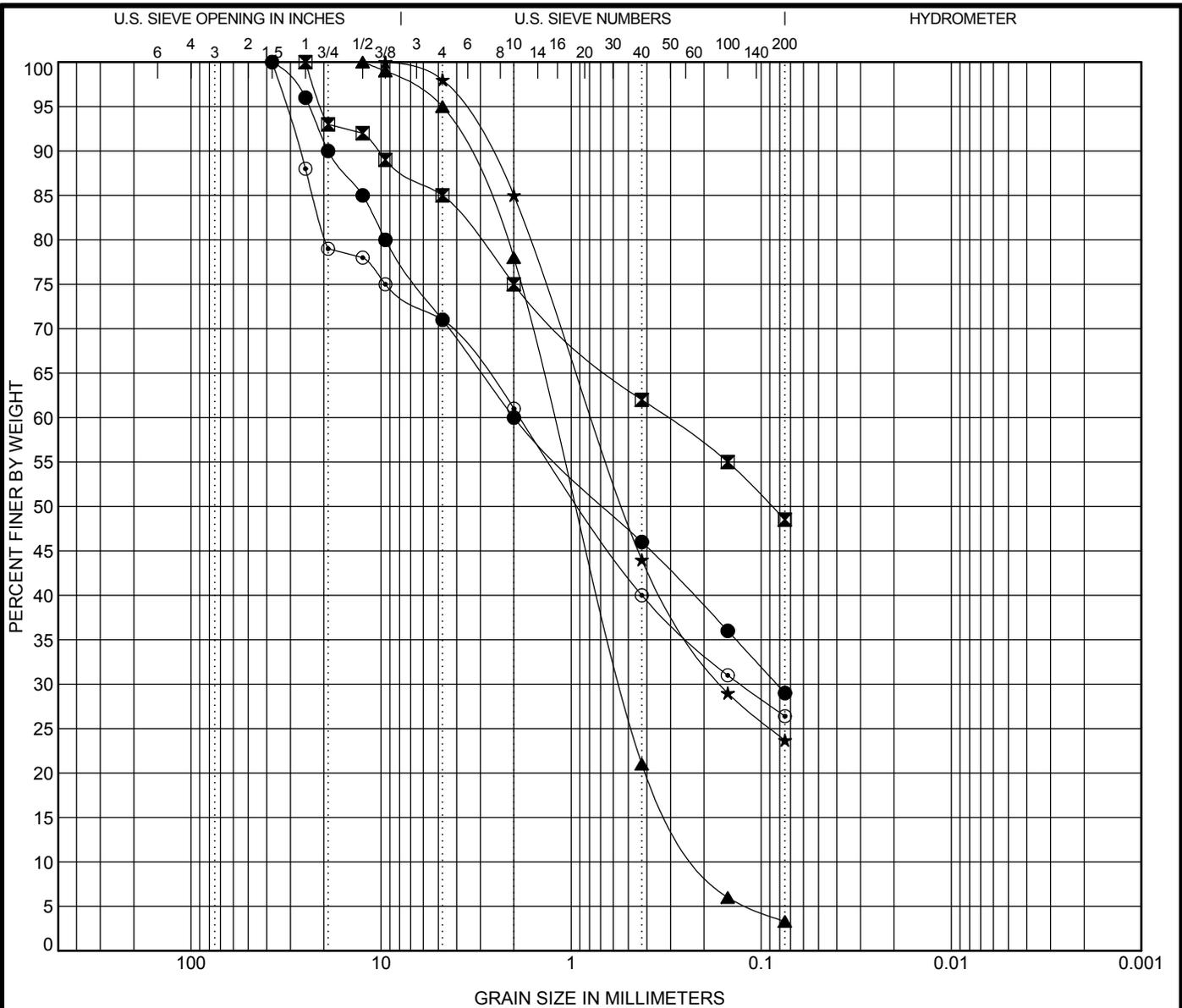
| Specimen Identification | D100 | D60 | D30 | D10 | %Gravel | %Sand | %Silt | %Clay |
|-------------------------|------|-------|-----|-----|---------|-------|-------|-------|
| ● Bulk 01 0.0 - 5.0 | 9.5 | 0.15 | | | 3.0 | 45.9 | 51.1 | |
| ☒ Bulk 02 0.0 - 5.0 | 12.5 | 0.081 | | | 2.0 | 38.9 | 59.1 | |
| ▲ Bulk 03 0.0 - 5.0 | 12.5 | 0.15 | | | 2.0 | 50.6 | 47.4 | |
| ★ Bulk 04 0.0 - 5.0 | 12.5 | 0.252 | | | 4.0 | 51.7 | 44.3 | |
| ⊙ Bulk 05 0.0 - 5.0 | 9.5 | 0.328 | | | 2.0 | 59.2 | 38.8 | |



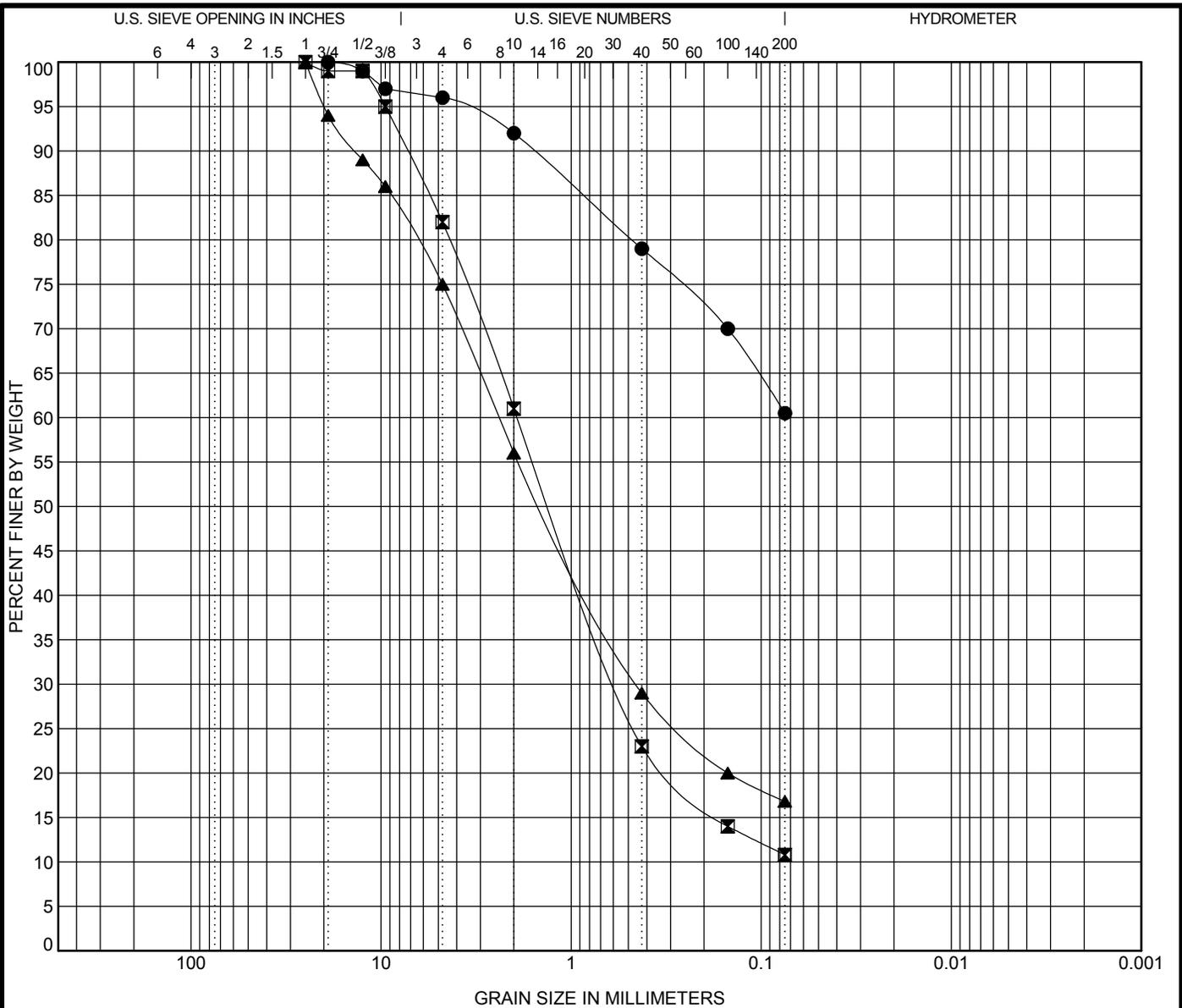
GRAIN SIZE DISTRIBUTION

Project: NE/SE Connector Road Project
 Location: Santa Fe County, New Mexico
 Number: 1-90205

U.S. GRAIN SIZE 1-90205 NE-SE CONNECTOR ROAD PROJECT 2019-0003-PW-KE.GPJ GEO TEST.GDT 4/12/19



U.S. GRAIN SIZE 1-90205 NE-SE CONNECTOR ROAD PROJECT 2019-0003-PW-KE-GPJ GEO TEST.GDT 4/12/19



| COBBLES | GRAVEL | | SAND | | | SILT OR CLAY |
|---------|--------|------|--------|--------|------|--------------|
| | coarse | fine | coarse | medium | fine | |

| Specimen Identification | Classification | LL | PL | PI | Cc | Cu |
|-------------------------|-----------------------------------------------------|----|----|----|------|-------|
| ● Bulk 16 0.0 - 5.0 | SANDY LEAN CLAY(CL) | 35 | 21 | 14 | | |
| ☒ Bulk 17 0.0 - 5.0 | WELL-GRADED SAND with SILT and GRAVEL(SW-SM) | NP | NP | NP | 2.64 | 30.45 |
| ▲ Bulk 18 0.0 - 5.0 | SILTY, CLAYEY SAND with GRAVEL(SC-SM) | 25 | 18 | 7 | | |

| Specimen Identification | D100 | D60 | D30 | D10 | %Gravel | %Sand | %Silt | %Clay |
|-------------------------|------|-------|-------|-----|---------|-------|-------|-------|
| ● Bulk 16 0.0 - 5.0 | 19 | | | | 4.0 | 35.5 | 60.5 | |
| ☒ Bulk 17 0.0 - 5.0 | 25 | 1.92 | 0.565 | | 18.0 | 71.2 | 10.8 | |
| ▲ Bulk 18 0.0 - 5.0 | 25 | 2.399 | 0.45 | | 25.0 | 58.2 | 16.8 | |



GRAIN SIZE DISTRIBUTION

Project: NE/SE Connector Road Project
 Location: Santa Fe County, New Mexico
 Number: 1-90205

APPENDIX A

Client: Geo-Test Inc.
8528 Calle Alameda NE
Albuquerque, NM 87113-

Report Date: May 03, 2019

Attn: Tim Byres
Project Name: 2018 Geo-Test Misc. Testing

Project #: 18-519-01950
Work Order #: 4
Lab #: 19-0178-01

Sampled By: Client
Date Sampled:

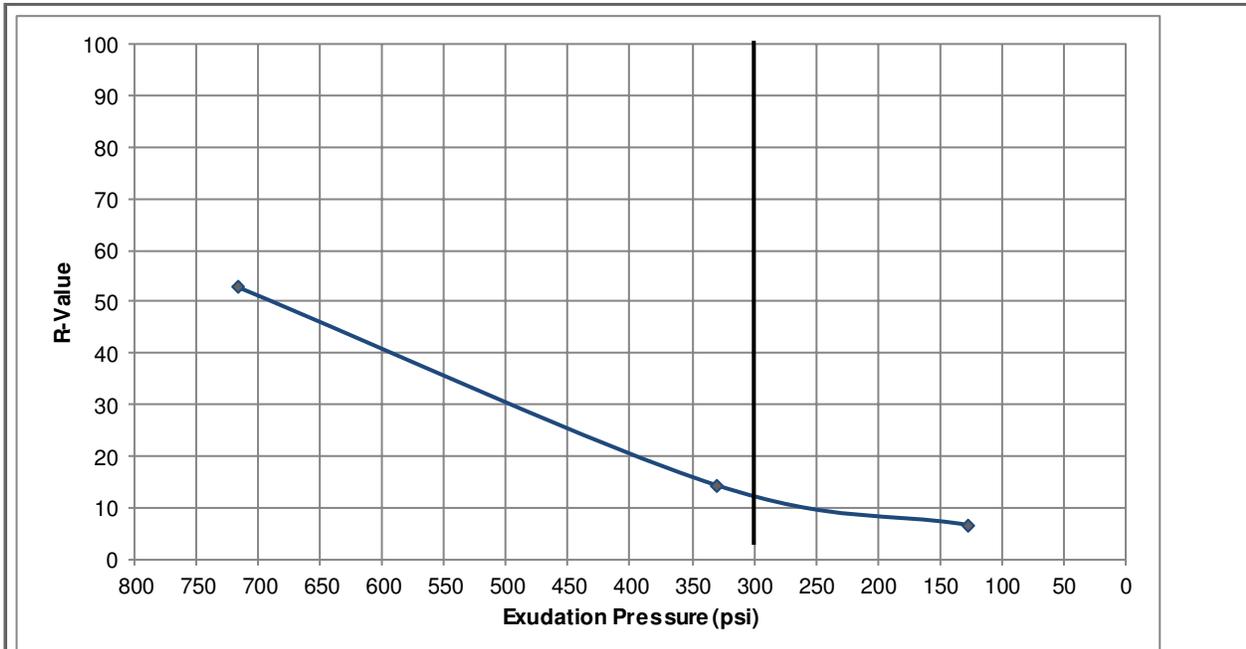
Color & Type of Material:

Sample Source: B-2 @ 0-5'

SOILS / AGGREGATES

RESISTANCE R-VALUE AND EXPANSION PRESSURE OF COMPACTED SOILS (ASTM D2844-07)

| <u>Specimen Id.</u> | <u>A</u> | <u>B</u> | <u>C</u> |
|--------------------------------------|----------|----------|----------|
| Moisture (%): | 11.4% | 14.5% | 16.3% |
| Compactor Pressure (psi): | 350 | 160 | 60 |
| Specimen Height (in): | 2.49 | 2.55 | 2.55 |
| Dry Density (pcf): | 121.3 | 114.9 | 111.5 |
| Horizontal Pressure @ 1000lbs (psi): | 30 | 55 | 65 |
| Horizontal Pressure @ 2000lbs (psi): | 50 | 120 | 140 |
| Displacement: | 4.90 | 4.95 | 5.10 |
| Expansion Pressure (psi): | -0.902 | -2.736 | -2.556 |
| Exudation Pressure (psi): | 716 | 330 | 127 |
| R-Value: | 53 | 14 | 7 |



R-Value at 300psi: 13

Reviewed By: _____

Distribution: Client File: Supplier: Email: Other: Addressee (2)

Client: Geo-Test Inc.
8528 Calle Alameda NE
Albuquerque, NM 87113-

Report Date: May 03, 2019

Attn: Tim Byres
Project Name: 2018 Geo-Test Misc. Testing

Project #: 18-519-01950

Work Order #: 4

Lab #: 19-0178-02

Sampled By: Client

Date Sampled:

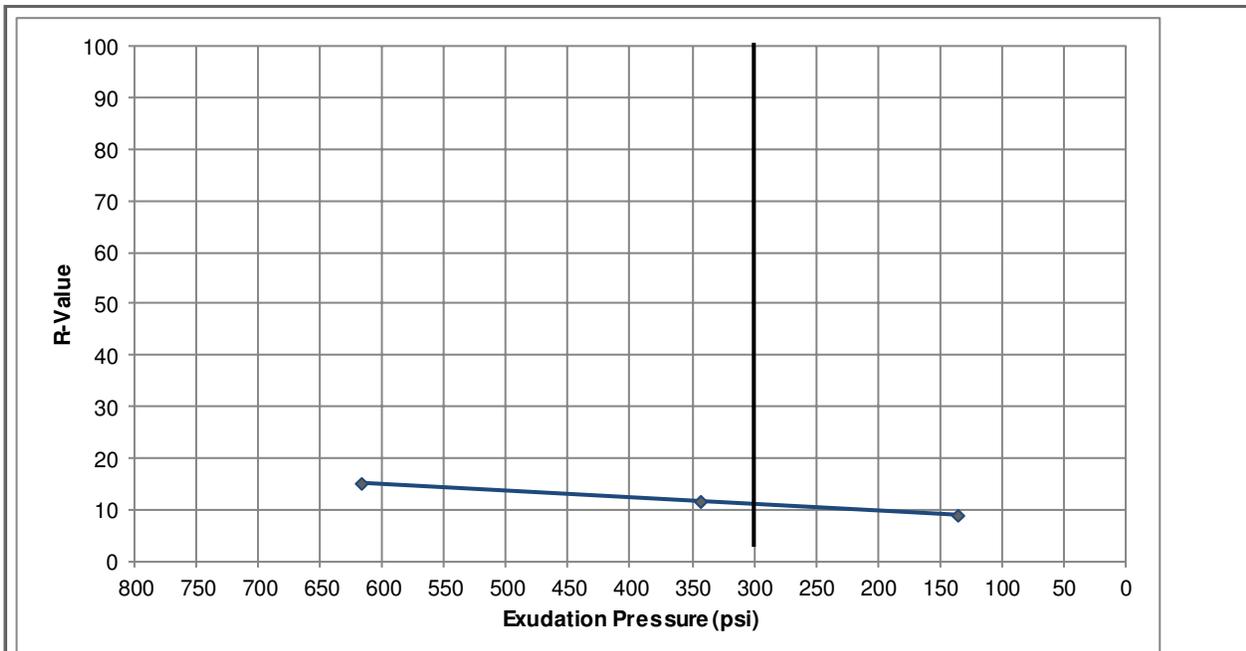
Color & Type of Material:

Sample Source: B-3 @ 0-5'

SOILS / AGGREGATES

RESISTANCE R-VALUE AND EXPANSION PRESSURE OF COMPACTED SOILS (ASTM D2844-07)

| <u>Specimen Id.</u> | <u>A</u> | <u>B</u> | <u>C</u> |
|--------------------------------------|----------|----------|----------|
| Moisture (%): | 13.4% | 15.6% | 17.4% |
| Compactor Pressure (psi): | 350 | 150 | 60 |
| Specimen Height (in): | 2.52 | 2.55 | 2.55 |
| Dry Density (pcf): | 116.4 | 112.3 | 109.2 |
| Horizontal Pressure @ 1000lbs (psi): | 45 | 55 | 60 |
| Horizontal Pressure @ 2000lbs (psi): | 120 | 125 | 130 |
| Displacement: | 4.70 | 5.30 | 5.90 |
| Expansion Pressure (psi): | -0.150 | 0.120 | 0.331 |
| Exudation Pressure (psi): | 616 | 343 | 135 |
| R-Value: | 15 | 12 | 9 |



R-Value at 300psi: 11

Reviewed By: 

Distribution: Client File: Supplier: Email: Other: Addressee (2)

Client: Geo-Test Inc.
8528 Calle Alameda NE
Albuquerque, NM 87113-

Report Date: May 03, 2019

Attn: Tim Byres
Project Name: 2018 Geo-Test Misc. Testing

Project #: 18-519-01950

Work Order #: 4

Lab #: 19-0178-03

Sampled By: Client

Date Sampled:

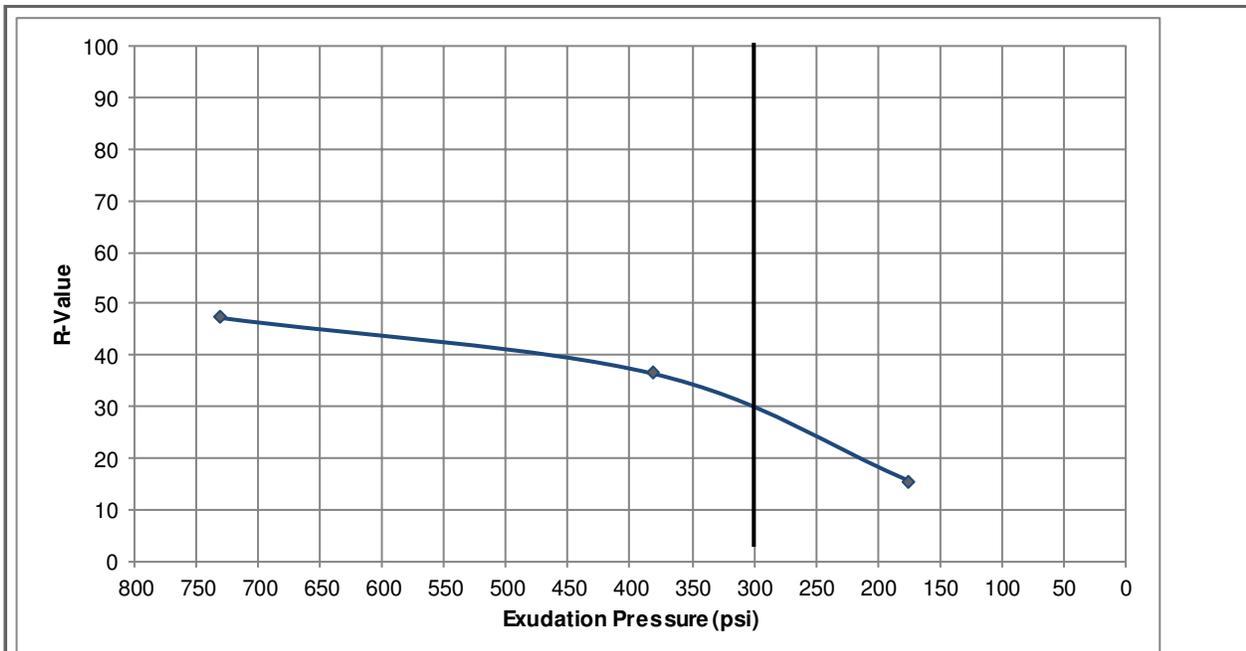
Color & Type of Material:

Sample Source: B-7E @ 0-5'

SOILS / AGGREGATES

RESISTANCE R-VALUE AND EXPANSION PRESSURE OF COMPACTED SOILS (ASTM D2844-07)

| <u>Specimen Id.</u> | <u>A</u> | <u>B</u> | <u>C</u> |
|--------------------------------------|----------|----------|----------|
| Moisture (%): | 11.3% | 12.6% | 14.0% |
| Compactor Pressure (psi): | 220 | 110 | 70 |
| Specimen Height (in): | 2.45 | 2.45 | 2.50 |
| Dry Density (pcf): | 120.2 | 118.7 | 116.1 |
| Horizontal Pressure @ 1000lbs (psi): | 25 | 30 | 45 |
| Horizontal Pressure @ 2000lbs (psi): | 65 | 80 | 120 |
| Displacement: | 4.05 | 4.35 | 4.55 |
| Expansion Pressure (psi): | -1.353 | -0.752 | -1.804 |
| Exudation Pressure (psi): | 732 | 382 | 175 |
| R-Value: | 47 | 36 | 15 |



R-Value at 300psi: 30

Reviewed By: 

Distribution: Client File: Supplier: Email: Other: Addressee (2)

Client: Geo-Test Inc.
8528 Calle Alameda NE
Albuquerque, NM 87113-

Report Date: May 03, 2019

Attn: Tim Byres
Project Name: 2018 Geo-Test Misc. Testing

Project #: 18-519-01950

Work Order #: 4

Lab #: 19-0178-04

Sampled By: Client

Date Sampled:

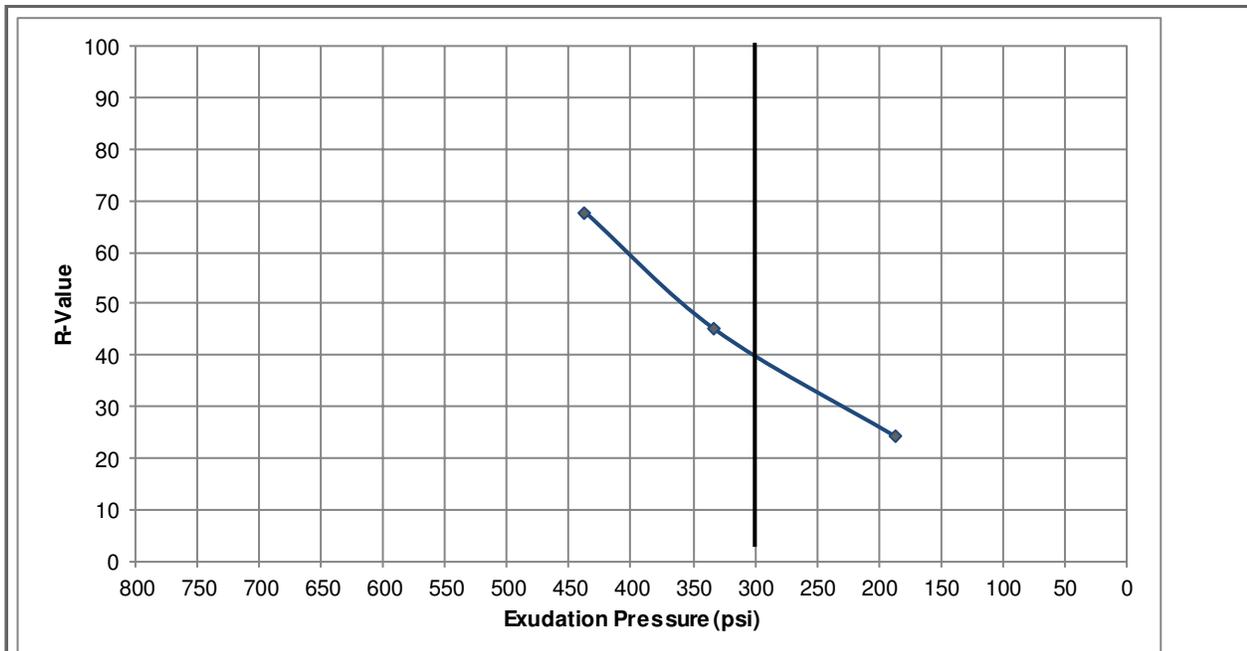
Color & Type of Material:

Sample Source: B-9E @ 0-5'

SOILS / AGGREGATES

RESISTANCE R-VALUE AND EXPANSION PRESSURE OF COMPACTED SOILS (ASTM D2844-07)

| <u>Specimen Id.</u> | <u>A</u> | <u>B</u> | <u>C</u> |
|--------------------------------------|----------|----------|----------|
| Moisture (%): | 7.9% | 9.2% | 10.5% |
| Compactor Pressure (psi): | 350 | 290 | 190 |
| Specimen Height (in): | 2.50 | 2.45 | 2.50 |
| Dry Density (pcf): | 135.9 | 123.7 | 119.8 |
| Horizontal Pressure @ 1000lbs (psi): | 20 | 30 | 50 |
| Horizontal Pressure @ 2000lbs (psi): | 35 | 65 | 100 |
| Displacement: | 4.25 | 4.45 | 4.70 |
| Expansion Pressure (psi): | -2.857 | -2.857 | -2.947 |
| Exudation Pressure (psi): | 438 | 333 | 186 |
| R-Value: | 68 | 45 | 24 |



R-Value at 300psi: 40

Reviewed By: _____

Distribution: Client File: Supplier: Email: Other: Addressee (2)

Client: Geo-Test Inc.
8528 Calle Alameda NE
Albuquerque, NM 87113-

Report Date: May 03, 2019

Attn: Tim Byres
Project Name: 2018 Geo-Test Misc. Testing

Project #: 18-519-01950

Work Order #: 4

Lab #: 19-0178-06

Sampled By: Client

Date Sampled:

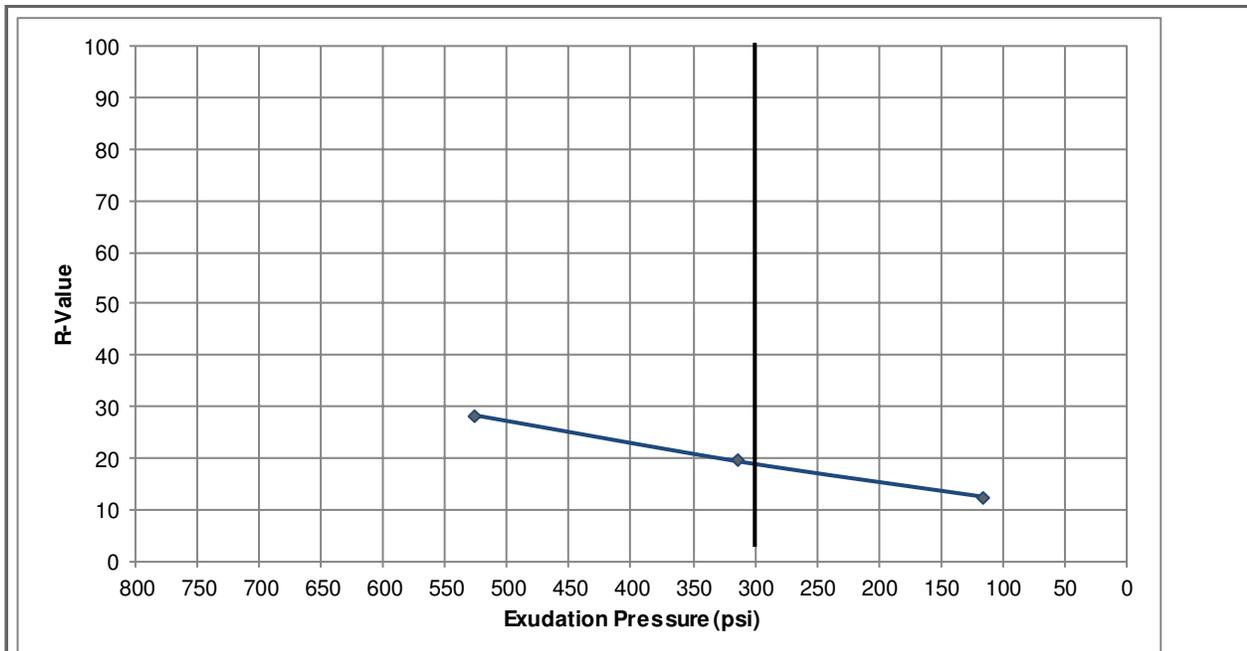
Color & Type of Material:

Sample Source: B-13 @ 0-5'

SOILS / AGGREGATES

RESISTANCE R-VALUE AND EXPANSION PRESSURE OF COMPACTED SOILS (ASTM D2844-07)

| <u>Specimen Id.</u> | <u>A</u> | <u>B</u> | <u>C</u> |
|---------------------------------------------|----------|----------|----------|
| Moisture (%): | 12.6% | 14.0% | 16.3% |
| Compactor Pressure (psi): | 200 | 130 | 50 |
| Specimen Height (in): | 2.47 | 2.54 | 2.55 |
| Dry Density (pcf): | 114.6 | 116.5 | 112.9 |
| Horizontal Pressure @ 1000lbs (psi): | 35 | 45 | 50 |
| Horizontal Pressure @ 2000lbs (psi): | 100 | 115 | 130 |
| Displacement: | 3.80 | 4.05 | 4.10 |
| Expansion Pressure (psi): | -2.556 | -2.706 | -0.301 |
| Exudation Pressure (psi): | 526 | 314 | 115 |
| R-Value: | 28 | 19 | 12 |



R-Value at 300psi: 19

Reviewed By: _____

Distribution: Client File: Supplier: Email: Other: Addressee (2)

Client: Geo-Test Inc.
8528 Calle Alameda NE
Albuquerque, NM 87113-

Report Date: May 03, 2019

Attn: Tim Byres
Project Name: 2018 Geo-Test Misc. Testing

Project #: 18-519-01950
Work Order #: 4
Lab #: 19-0178-07

Sampled By: Client
Date Sampled:

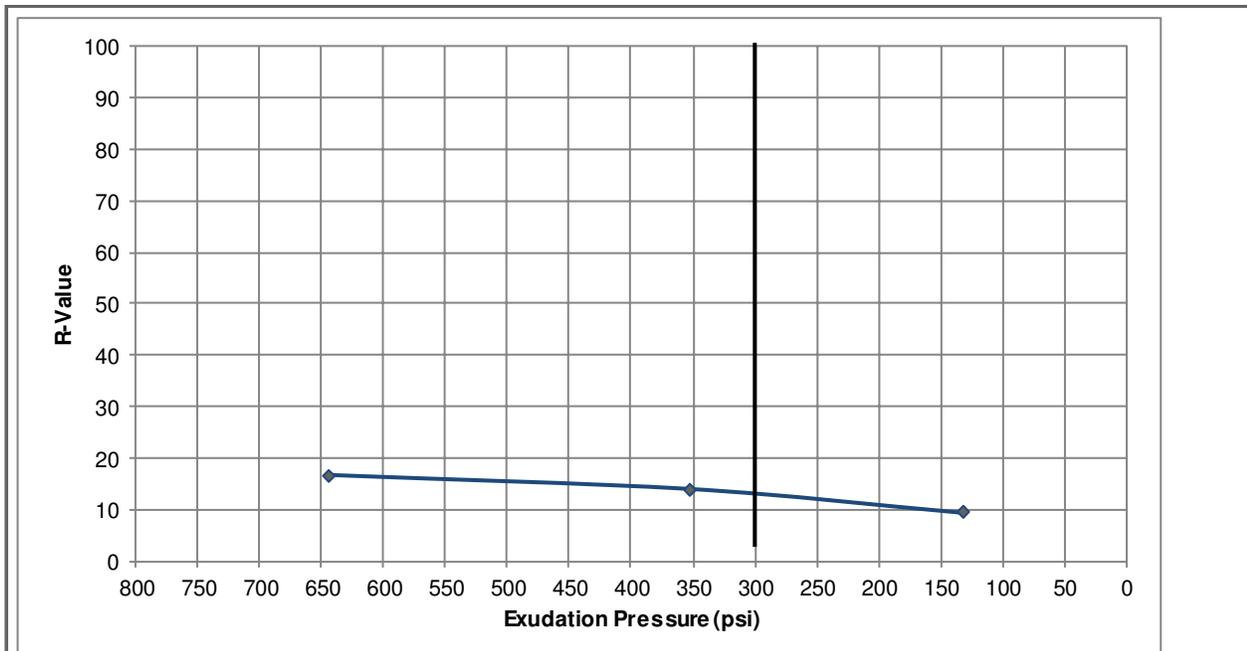
Color & Type of Material:

Sample Source: B-14 @ 0-5'

SOILS / AGGREGATES

RESISTANCE R-VALUE AND EXPANSION PRESSURE OF COMPACTED SOILS (ASTM D2844-07)

| <u>Specimen Id.</u> | <u>A</u> | <u>B</u> | <u>C</u> |
|--------------------------------------|----------|----------|----------|
| Moisture (%): | 13.1% | 15.3% | 17.6% |
| Compactor Pressure (psi): | 230 | 100 | 40 |
| Specimen Height (in): | 2.52 | 2.55 | 2.55 |
| Dry Density (pcf): | 117.0 | 115.3 | 111.0 |
| Horizontal Pressure @ 1000lbs (psi): | 50 | 55 | 65 |
| Horizontal Pressure @ 2000lbs (psi): | 120 | 125 | 135 |
| Displacement: | 4.20 | 4.35 | 4.45 |
| Expansion Pressure (psi): | -0.210 | -0.030 | 0.150 |
| Exudation Pressure (psi): | 644 | 353 | 132 |
| R-Value: | 17 | 14 | 9 |



R-Value at 300psi: 13

Reviewed By: _____

Distribution: Client File: Supplier: Email: Other: Addressee (2)

Client: Geo-Test Inc.
8528 Calle Alameda NE
Albuquerque, NM 87113-

Report Date: May 03, 2019

Attn: Tim Byres
Project Name: 2018 Geo-Test Misc. Testing

Project #: 18-519-01950
Work Order #: 4
Lab #: 19-0178-08

Sampled By: Client
Date Sampled:

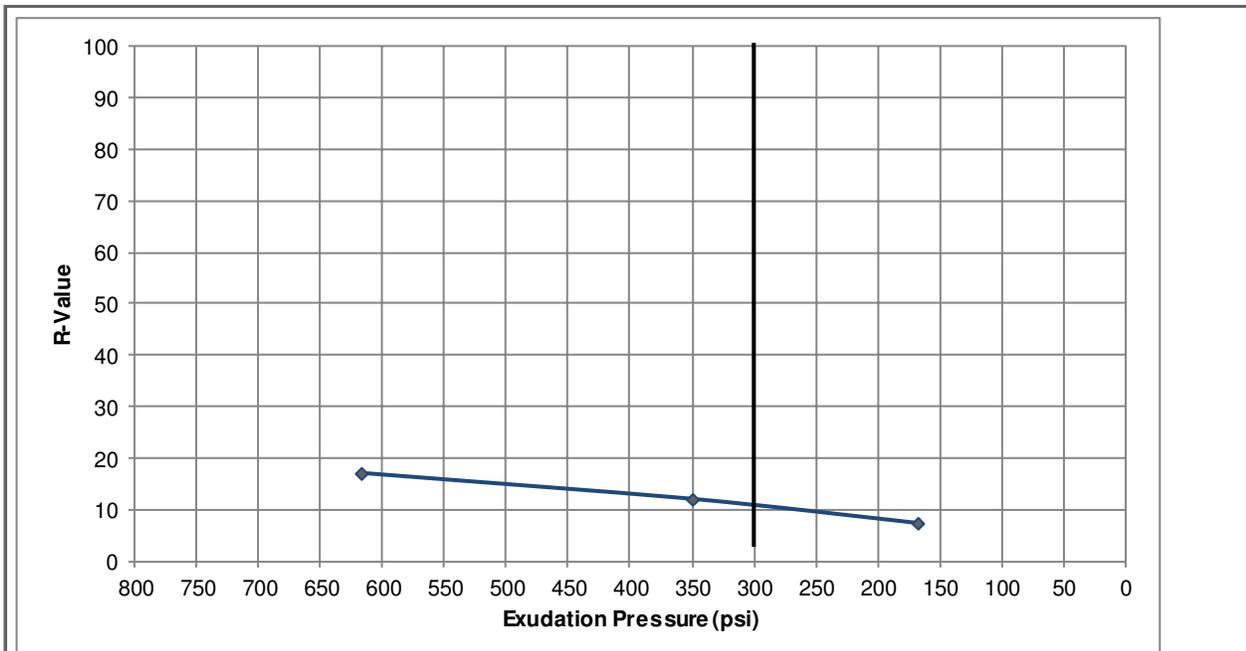
Color & Type of Material:

Sample Source: B-15 @ 0-5'

SOILS / AGGREGATES

RESISTANCE R-VALUE AND EXPANSION PRESSURE OF COMPACTED SOILS (ASTM D2844-07)

| <u>Specimen Id.</u> | <u>A</u> | <u>B</u> | <u>C</u> |
|--------------------------------------|----------|----------|----------|
| Moisture (%): | 15.0% | 16.8% | 19.0% |
| Compactor Pressure (psi): | 200 | 100 | 50 |
| Specimen Height (in): | 2.50 | 2.55 | 2.55 |
| Dry Density (pcf): | 112.4 | 112.3 | 108.5 |
| Horizontal Pressure @ 1000lbs (psi): | 50 | 55 | 60 |
| Horizontal Pressure @ 2000lbs (psi): | 120 | 130 | 140 |
| Displacement: | 4.05 | 4.25 | 4.45 |
| Expansion Pressure (psi): | -0.060 | 0.030 | 0.331 |
| Exudation Pressure (psi): | 616 | 350 | 167 |
| R-Value: | 17 | 12 | 7 |



R-Value at 300psi: 11

Reviewed By: _____

Distribution: Client File: Supplier: Email: Other: Addressee (2)

Client: Geo-Test Inc.
8528 Calle Alameda NE
Albuquerque, NM 87113-

Report Date: May 03, 2019

Attn: Tim Byres
Project Name: 2018 Geo-Test Misc. Testing

Project #: 18-519-01950

Work Order #: 4

Lab #: 19-0178-09

Sampled By: Client

Date Sampled:

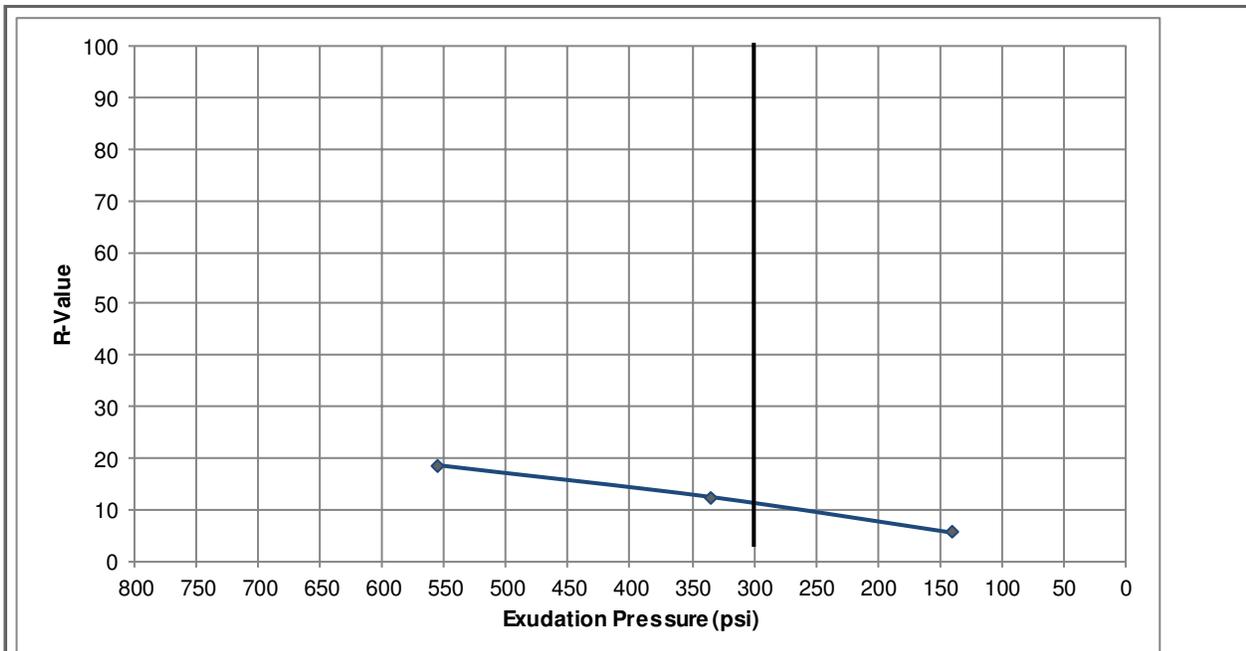
Color & Type of Material:

Sample Source: B-16 @ 0-5'

SOILS / AGGREGATES

RESISTANCE R-VALUE AND EXPANSION PRESSURE OF COMPACTED SOILS (ASTM D2844-07)

| <u>Specimen Id.</u> | <u>A</u> | <u>B</u> | <u>C</u> |
|---------------------------------------------|----------|----------|----------|
| Moisture (%): | 16.0% | 17.8% | 19.1% |
| Compactor Pressure (psi): | 200 | 150 | 50 |
| Specimen Height (in): | 2.55 | 2.55 | 2.50 |
| Dry Density (pcf): | 116.9 | 108.9 | 112.5 |
| Horizontal Pressure @ 1000lbs (psi): | 40 | 50 | 60 |
| Horizontal Pressure @ 2000lbs (psi): | 105 | 120 | 140 |
| Displacement: | 5.75 | 5.85 | 5.95 |
| Expansion Pressure (psi): | -0.150 | 0.060 | 0.000 |
| Exudation Pressure (psi): | 556 | 335 | 139 |
| R-Value: | 19 | 12 | 6 |



R-Value at 300psi: 11

Reviewed By: _____

Distribution: Client File: Supplier: Email: Other: Addressee (2)

APPENDIX B

pH of Soil (ASTM G-51 & D-4972)

Sample Location: B-1 at 0-5'

| | | |
|---------------------------|------|-------------|
| Distilled Water Solution: | pH = | 8.20 |
|---------------------------|------|-------------|

| | | |
|----------------------------|------|-------------|
| Calcium Chloride Solution: | pH = | 7.84 |
|----------------------------|------|-------------|

Sample Location: B-2 at 0-5'

| | | |
|---------------------------|------|-------------|
| Distilled Water Solution: | pH = | 8.38 |
|---------------------------|------|-------------|

| | | |
|----------------------------|------|-------------|
| Calcium Chloride Solution: | pH = | 7.86 |
|----------------------------|------|-------------|

Sample Location: B-7 at 0-5'

| | | |
|---------------------------|------|-------------|
| Distilled Water Solution: | pH = | 8.09 |
|---------------------------|------|-------------|

| | | |
|----------------------------|------|-------------|
| Calcium Chloride Solution: | pH = | 7.78 |
|----------------------------|------|-------------|

Sample Location: B-9 at 0-5'

| | | |
|---------------------------|------|-------------|
| Distilled Water Solution: | pH = | 8.39 |
|---------------------------|------|-------------|

| | | |
|----------------------------|------|-------------|
| Calcium Chloride Solution: | pH = | 7.71 |
|----------------------------|------|-------------|

Sample Location: B-11 at 0-5'

| | | |
|---------------------------|------|-------------|
| Distilled Water Solution: | pH = | 8.11 |
|---------------------------|------|-------------|

| | | |
|----------------------------|------|-------------|
| Calcium Chloride Solution: | pH = | 7.45 |
|----------------------------|------|-------------|

pH of Soil (ASTM G-51 & D-4972)

Sample Location: B-13 at 0-5'

| | | |
|---------------------------|------|-------------|
| Distilled Water Solution: | pH = | 8.02 |
|---------------------------|------|-------------|

| | | |
|----------------------------|------|-------------|
| Calcium Chloride Solution: | pH = | 7.45 |
|----------------------------|------|-------------|

Sample Location: B-14 at 0-5'

| | | |
|---------------------------|------|-------------|
| Distilled Water Solution: | pH = | 8.58 |
|---------------------------|------|-------------|

| | | |
|----------------------------|------|-------------|
| Calcium Chloride Solution: | pH = | 7.91 |
|----------------------------|------|-------------|

Sample Location: B-15 at 0-5'

| | | |
|---------------------------|------|-------------|
| Distilled Water Solution: | pH = | 8.12 |
|---------------------------|------|-------------|

| | | |
|----------------------------|------|-------------|
| Calcium Chloride Solution: | pH = | 7.92 |
|----------------------------|------|-------------|

Sample Location: B-16 at 0-5'

| | | |
|---------------------------|------|-------------|
| Distilled Water Solution: | pH = | 8.20 |
|---------------------------|------|-------------|

| | | |
|----------------------------|------|-------------|
| Calcium Chloride Solution: | pH = | 7.84 |
|----------------------------|------|-------------|

APPENDIX C

Analytical Report

Lab Order: 1905849

Date Reported: 5/24/2019

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Geo-Test, Inc**Lab Order:** 1905849**Project:** NE SE Connector Road Project**Lab ID:** 1905849-001**Collection Date:** 5/13/2019 7:00:00 AM**Client Sample ID:** B-2@ 0-5'**Matrix:** SOIL

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed | Batch ID |
|---------------------------------|--------|-----|------|-------|----|----------------------|--------------|
| EPA METHOD 300.0: ANIONS | | | | | | | Analyst: MRA |
| Fluoride | 3.4 | 1.5 | | mg/Kg | 5 | 5/20/2019 8:28:57 PM | 45029 |
| Chloride | 140 | 7.5 | | mg/Kg | 5 | 5/20/2019 8:28:57 PM | 45029 |
| Nitrogen, Nitrite (As N) | ND | 1.5 | | mg/Kg | 5 | 5/20/2019 8:28:57 PM | 45029 |
| Bromide | 2.0 | 1.5 | | mg/Kg | 5 | 5/20/2019 8:28:57 PM | 45029 |
| Nitrogen, Nitrate (As N) | 3.7 | 1.5 | | mg/Kg | 5 | 5/20/2019 8:28:57 PM | 45029 |
| Sulfate | 180 | 7.5 | | mg/Kg | 5 | 5/20/2019 8:28:57 PM | 45029 |

Lab ID: 1905849-002**Collection Date:** 5/13/2019 7:30:00 AM**Client Sample ID:** B-3@ 0-5'**Matrix:** SOIL

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed | Batch ID |
|---------------------------------|--------|-----|------|-------|----|----------------------|--------------|
| EPA METHOD 300.0: ANIONS | | | | | | | Analyst: smb |
| Fluoride | 3.6 | 1.5 | | mg/Kg | 5 | 5/21/2019 9:03:19 AM | 45049 |
| Chloride | 240 | 7.5 | | mg/Kg | 5 | 5/21/2019 9:03:19 AM | 45049 |
| Nitrogen, Nitrite (As N) | ND | 1.5 | | mg/Kg | 5 | 5/21/2019 9:03:19 AM | 45049 |
| Bromide | 2.7 | 1.5 | | mg/Kg | 5 | 5/21/2019 9:03:19 AM | 45049 |
| Nitrogen, Nitrate (As N) | 1.5 | 1.5 | | mg/Kg | 5 | 5/21/2019 9:03:19 AM | 45049 |
| Sulfate | 73 | 7.5 | | mg/Kg | 5 | 5/21/2019 9:03:19 AM | 45049 |

Lab ID: 1905849-003**Collection Date:** 5/13/2019 7:45:00 AM**Client Sample ID:** B-7@ 0-5'**Matrix:** SOIL

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed | Batch ID |
|---------------------------------|--------|-----|------|-------|----|----------------------|--------------|
| EPA METHOD 300.0: ANIONS | | | | | | | Analyst: smb |
| Fluoride | 3.9 | 1.5 | | mg/Kg | 5 | 5/21/2019 9:52:57 AM | 45049 |
| Chloride | 140 | 7.5 | | mg/Kg | 5 | 5/21/2019 9:52:57 AM | 45049 |
| Nitrogen, Nitrite (As N) | ND | 1.5 | | mg/Kg | 5 | 5/21/2019 9:52:57 AM | 45049 |
| Bromide | 2.3 | 1.5 | | mg/Kg | 5 | 5/21/2019 9:52:57 AM | 45049 |
| Nitrogen, Nitrate (As N) | 2.5 | 1.5 | | mg/Kg | 5 | 5/21/2019 9:52:57 AM | 45049 |
| Sulfate | 210 | 7.5 | | mg/Kg | 5 | 5/21/2019 9:52:57 AM | 45049 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

| | | | | |
|--------------------|-----|-------------------------------------------------------|----|-------------------------------------------------|
| Qualifiers: | * | Value exceeds Maximum Contaminant Level. | B | Analyte detected in the associated Method Blank |
| | D | Sample Diluted Due to Matrix | E | Value above quantitation range |
| | H | Holding times for preparation or analysis exceeded | J | Analyte detected below quantitation limits |
| | ND | Not Detected at the Reporting Limit | P | Sample pH Not In Range |
| | PQL | Practical Quantitative Limit | RL | Reporting Limit |
| | S | % Recovery outside of range due to dilution or matrix | | |

Analytical Report

Lab Order: 1905849

Date Reported: 5/24/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Geo-Test, Inc

Lab Order: 1905849

Project: NE SE Connector Road Project

Lab ID: 1905849-004

Collection Date: 5/13/2019 9:00:00 AM

Client Sample ID: B-9@ 0-5'

Matrix: SOIL

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed | Batch ID |
|---------------------------------|--------|-----|------|-------|----|-----------------------|---------------------|
| EPA METHOD 300.0: ANIONS | | | | | | | Analyst: smb |
| Fluoride | ND | 1.5 | | mg/Kg | 5 | 5/21/2019 10:17:46 AM | 45049 |
| Chloride | ND | 7.5 | | mg/Kg | 5 | 5/21/2019 10:17:46 AM | 45049 |
| Nitrogen, Nitrite (As N) | ND | 1.5 | | mg/Kg | 5 | 5/21/2019 10:17:46 AM | 45049 |
| Bromide | ND | 1.5 | | mg/Kg | 5 | 5/21/2019 10:17:46 AM | 45049 |
| Nitrogen, Nitrate (As N) | 2.9 | 1.5 | | mg/Kg | 5 | 5/21/2019 10:17:46 AM | 45049 |
| Sulfate | ND | 7.5 | | mg/Kg | 5 | 5/21/2019 10:17:46 AM | 45049 |

Lab ID: 1905849-005

Collection Date: 5/13/2019 9:30:00 AM

Client Sample ID: B-11@ 0-5'

Matrix: SOIL

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed | Batch ID |
|---------------------------------|--------|-----|------|-------|----|-----------------------|---------------------|
| EPA METHOD 300.0: ANIONS | | | | | | | Analyst: smb |
| Fluoride | ND | 1.5 | | mg/Kg | 5 | 5/21/2019 11:07:25 AM | 45049 |
| Chloride | ND | 7.5 | | mg/Kg | 5 | 5/21/2019 11:07:25 AM | 45049 |
| Nitrogen, Nitrite (As N) | ND | 1.5 | | mg/Kg | 5 | 5/21/2019 11:07:25 AM | 45049 |
| Bromide | ND | 1.5 | | mg/Kg | 5 | 5/21/2019 11:07:25 AM | 45049 |
| Nitrogen, Nitrate (As N) | 3.7 | 1.5 | | mg/Kg | 5 | 5/21/2019 11:07:25 AM | 45049 |
| Sulfate | 9.3 | 7.5 | | mg/Kg | 5 | 5/21/2019 11:07:25 AM | 45049 |

Lab ID: 1905849-006

Collection Date: 5/13/2019 11:00:00 AM

Client Sample ID: B-13@ 0-5'

Matrix: SOIL

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed | Batch ID |
|---------------------------------|--------|-----|------|-------|----|-----------------------|---------------------|
| EPA METHOD 300.0: ANIONS | | | | | | | Analyst: smb |
| Fluoride | ND | 1.5 | | mg/Kg | 5 | 5/21/2019 11:32:14 AM | 45049 |
| Chloride | ND | 7.5 | | mg/Kg | 5 | 5/21/2019 11:32:14 AM | 45049 |
| Nitrogen, Nitrite (As N) | ND | 1.5 | | mg/Kg | 5 | 5/21/2019 11:32:14 AM | 45049 |
| Bromide | ND | 1.5 | | mg/Kg | 5 | 5/21/2019 11:32:14 AM | 45049 |
| Nitrogen, Nitrate (As N) | 5.0 | 1.5 | | mg/Kg | 5 | 5/21/2019 11:32:14 AM | 45049 |
| Sulfate | 11 | 7.5 | | mg/Kg | 5 | 5/21/2019 11:32:14 AM | 45049 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order: 1905849

Date Reported: 5/24/2019

CLIENT: Geo-Test, Inc

Lab Order: 1905849

Project: NE SE Connector Road Project

Lab ID: 1905849-007

Collection Date: 5/13/2019 11:15:00 AM

Client Sample ID: B-14@ 0-5'

Matrix: SOIL

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed | Batch ID |
|---------------------------------|--------|-----|------|-------|----|-----------------------|---------------------|
| EPA METHOD 300.0: ANIONS | | | | | | | Analyst: smb |
| Fluoride | 4.2 | 1.5 | | mg/Kg | 5 | 5/21/2019 11:57:03 AM | 45049 |
| Chloride | 84 | 7.5 | | mg/Kg | 5 | 5/21/2019 11:57:03 AM | 45049 |
| Nitrogen, Nitrite (As N) | ND | 1.5 | | mg/Kg | 5 | 5/21/2019 11:57:03 AM | 45049 |
| Bromide | ND | 1.5 | | mg/Kg | 5 | 5/21/2019 11:57:03 AM | 45049 |
| Nitrogen, Nitrate (As N) | 3.2 | 1.5 | | mg/Kg | 5 | 5/21/2019 11:57:03 AM | 45049 |
| Sulfate | 83 | 7.5 | | mg/Kg | 5 | 5/21/2019 11:57:03 AM | 45049 |

Lab ID: 1905849-008

Collection Date: 5/13/2019 1:00:00 PM

Client Sample ID: B-15@ 0-5'

Matrix: SOIL

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed | Batch ID |
|---------------------------------|--------|-----|------|-------|----|-----------------------|---------------------|
| EPA METHOD 300.0: ANIONS | | | | | | | Analyst: smb |
| Fluoride | 3.2 | 1.5 | | mg/Kg | 5 | 5/21/2019 12:21:52 PM | 45049 |
| Chloride | 160 | 7.5 | | mg/Kg | 5 | 5/21/2019 12:21:52 PM | 45049 |
| Nitrogen, Nitrite (As N) | ND | 1.5 | | mg/Kg | 5 | 5/21/2019 12:21:52 PM | 45049 |
| Bromide | 2.6 | 1.5 | | mg/Kg | 5 | 5/21/2019 12:21:52 PM | 45049 |
| Nitrogen, Nitrate (As N) | 1.9 | 1.5 | | mg/Kg | 5 | 5/21/2019 12:21:52 PM | 45049 |
| Sulfate | 1300 | 30 | | mg/Kg | 20 | 5/21/2019 12:34:17 PM | 45049 |

Lab ID: 1905849-009

Collection Date: 5/13/2019 1:45:00 PM

Client Sample ID: B-16@ 0-5'

Matrix: SOIL

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed | Batch ID |
|---------------------------------|--------|-----|------|-------|----|-----------------------|---------------------|
| EPA METHOD 300.0: ANIONS | | | | | | | Analyst: smb |
| Fluoride | 3.8 | 1.5 | | mg/Kg | 5 | 5/21/2019 12:46:43 PM | 45049 |
| Chloride | 210 | 7.5 | | mg/Kg | 5 | 5/21/2019 12:46:43 PM | 45049 |
| Nitrogen, Nitrite (As N) | ND | 1.5 | | mg/Kg | 5 | 5/21/2019 12:46:43 PM | 45049 |
| Bromide | ND | 1.5 | | mg/Kg | 5 | 5/21/2019 12:46:43 PM | 45049 |
| Nitrogen, Nitrate (As N) | 2.1 | 1.5 | | mg/Kg | 5 | 5/21/2019 12:46:43 PM | 45049 |
| Sulfate | 280 | 7.5 | | mg/Kg | 5 | 5/21/2019 12:46:43 PM | 45049 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

| | | | | |
|--------------------|-----|-------------------------------------------------------|----|-------------------------------------------------|
| Qualifiers: | * | Value exceeds Maximum Contaminant Level. | B | Analyte detected in the associated Method Blank |
| | D | Sample Diluted Due to Matrix | E | Value above quantitation range |
| | H | Holding times for preparation or analysis exceeded | J | Analyte detected below quantitation limits |
| | ND | Not Detected at the Reporting Limit | P | Sample pH Not In Range |
| | PQL | Practical Quantitative Limit | RL | Reporting Limit |
| | S | % Recovery outside of range due to dilution or matrix | | |

NOTICE TO CONTRACTORS

Monthly Fuel Price Adjustment Procedures

Payment adjustments will be made in monthly increments based on the estimated diesel consumed on Contract Work, the estimated price per gallon of diesel at the time of letting, and the percentage change using the monthly average diesel price posting for Diesel Fuel No. 2 (On-Highway), Ultra Low Sulfur - Industrial, Petroleum Administration for Defense District (PADD) 3, Gulf Coast, Rack Price as provided by the U.S. Energy Information Administration and the following link:

[Gulf Coast \(PADD 3\) Gasoline and Diesel Retail Prices \(eia.gov\)](https://www.eia.gov/finance/analysis/tables/PADD3_GulfCoast_Gasoline_and_Diesel_Retail_Prices.php)

No adjustment will be made for fluctuations in the price of fuels other than diesel.

The number of gallons of diesel fuel used per month will be considered to equal 1.5 percent of the dollar amount of Contract Work reported by the Contractor for each month. Such dollar amount will not include incentives earned by the Contractor or for revenue accrued for bituminous Material cost fluctuations, taxes or diesel fuel price adjustments.

No payment adjustment for fuel shall be made unless the price index varies by more than 15% from the index indicated in this Notice to Contractors.

Fuel Price Adjustment

- | | |
|----------------------------|--------------------------------------------------------------------------------------------------------------------|
| Quantity (Q) - | The number of gallons determined from 1.5 percent of the dollar amount of applicable Bid Items. |
| Base Fuel Index (BFI) – | The Monthly Fuel Index for the month that the Project is let will become the BFI for the duration of the Contract. |
| Monthly Fuel Index (MFI) – | The monthly average diesel price posting for the month as determined by the estimate cutoff date. |

The Project Manager (PM) will compute the ratio of the MFI to the BFI. If the ratio falls between 0.85 and 1.15, no fuel adjustment will be made for the month. If the ratio is less than 0.85, a credit to the Department will be computed. If the ratio is greater than 1.15, additional payment to the Contractor will be computed.

If the MFI is greater than the BFI, the following formula shall be used to determine the amount of Contractor Fuel Cost Adjustment (CFCA):

$$CFCA = [(MFI/BFI) - 1.15] \times Q \times BFI$$

If the MFI is less than the BFI, the following formula shall be used to determine the amount of Department Fuel Cost Adjustment (DFCA):

REVISED BID SHEETS
RFP No. 2021-168-PW/APS
Base Bid

| Item No. | Bid Item No. | Description | Unit | Qty | Unit Price | Extended Price |
|----------|--------------|-----------------------------------------------|---------|--------|------------|----------------|
| 1 | 201000 | CLEARING AND GRUBBING | L.S. | LS | | |
| 2 | 203000 | UNCLASSIFIED EXCAVATION | CU.YD. | 139000 | | |
| 3 | 203100 | BORROW | CU.YD. | 500 | | |
| 4 | 207000 | SUBGRADE PREPARATION | SQ.YD. | 107800 | | |
| 5 | 210003 | MAJOR STRUCTURE BACKFILL | CU.YD. | 1070 | | |
| 6 | 303000 | BASE COURSE | TON | 29200 | | |
| 7 | 407000 | ASPHALT MATERIAL FOR TACK COAT | TON | 16 | | |
| 8 | 408100 | PRIME COAT MATERIAL | TON | 169 | | |
| 9 | 423283 | HMA SP IV COMPLETE | TON | 15110 | | |
| 10 | 502030 | DRILLED SHAFT FOUNDATION 30" DIAMETER | LIN.FT. | 312 | | |
| 11 | 511000 | STRUCTURAL CONCRETE, CLASS A | CU.YD. | 130 | | |
| 12 | 511030 | STRUCTURAL CONCRETE, CLASS AA | CU.YD. | 500 | | |
| 13 | 540060 | REINFORCING BARS GRADE 60 | LBS. | 120172 | | |
| 14 | 541200 | STRUCTURAL STEEL FOR MISCELLANEOUS STRUCTURES | LBS. | 3225 | | |
| 15 | 570018 | 18" CULVERT PIPE | LIN.FT. | 325 | | |
| 16 | 570019 | 18" CULVERT PIPE END SECTION | EACH | 13 | | |
| 17 | 570024 | 24" CULVERT PIPE | LIN.FT. | 804 | | |
| 18 | 570025 | 24" CULVERT PIPE END SECTION | EACH | 13 | | |
| 19 | 570030 | 30" CULVERT PIPE | LIN.FT. | 28 | | |
| 20 | 570031 | 30" CULVERT PIPE END SECTION | EACH | 2 | | |
| 21 | 570036 | 36" CULVERT PIPE | LIN.FT. | 3320 | | |
| 22 | 570037 | 36" CULVERT PIPE END SECTION | EACH | 24 | | |
| 23 | 570048 | 48" CULVERT PIPE | LIN.FT. | 645 | | |

| Item No. | Bid Item No. | Description | Unit | Qty | Unit Price | Extended Price |
|----------|--------------|-------------------------------------------|----------|-------|------------|----------------|
| 24 | 570437 | 24" STORM DRAIN CULVERT PIPE | LIN.FT. | 176 | | |
| 25 | 570461 | 36" STORM DRAIN CULVERT PIPE | LIN.FT. | 370 | | |
| 26 | 570465 | 36" STORM DRAIN CULVERT PIPE END SECTION | EACH | 1 | | |
| 27 | 601000 | REMOVAL OF STRUCTURES AND OBSTRUCTIONS | L.S. | LS | | |
| 28 | 601110 | REMOVAL OF SURFACING | SQ.YD. | 14400 | | |
| 29 | 602000 | RIPRAP CLASS A | CU.YD. | 565 | | |
| 30 | 602010 | RIPRAP CLASS B | CU.YD. | 206 | | |
| 31 | 602020 | RIPRAP CLASS C | CU.YD. | 500 | | |
| 32 | 603100 | TEMPORARY SOIL STABILANT | ACRE | 30 | | |
| 33 | 603221 | CHECK DAM TYPE II | LIN.FT. | 6858 | | |
| 34 | 603250 | DROP INLET PROTECTION TYPE I | EACH | 25 | | |
| 35 | 603260 | CULVERT PROTECTION | SQ.YD. | 498 | | |
| 36 | 603262 | COMPOSTED MULCH SOCKS | LIN.FT. | 12458 | | |
| 37 | 603281 | SWPPP PLAN PREPARATION AND MAINTENANCE | L.S. | LS | | |
| 38 | 604310 | GEOGRID BASE REINFORCEMENT | SQ.YD. | 57020 | | |
| 39 | 606001 | SINGLE FACE W-BEAM GUARDRAIL | LIN.FT. | 38 | | |
| 40 | 606052 | END TREATMENT TL-2 END TERMINAL | EACH | 1 | | |
| 41 | 606053 | END TREATMENT W-BEAM END ANCHOR | EACH | 1 | | |
| 42 | 606062 | TRANSITION METAL BARRIER TO RIGID BARRIER | EACH | 2 | | |
| 43 | 606542 | CONCRETE WALL BARRIER 42" | LIN.FT. | 90 | | |
| 44 | 607004 | BARBED WIRE FENCE 4' | LIN.FT. | 2600 | | |
| 45 | 607079 | PEDESTRIAN/BICYCLE RAILING | LIN. FT. | 770 | | |
| 46 | 608004 | CONCRETE SIDEWALK 4" | SQ.YD. | 2430 | | |

| Item No. | Bid Item No. | Description | Unit | Qty | Unit Price | Extended Price |
|----------|--------------|---------------------------------------------------------------------|---------|------|------------|----------------|
| 47 | 608404 | CONCRETE MEDIAN PAVEMENT 4" (COLORED AND PATTERNED) | SQ.YD. | 2330 | | |
| 48 | 608406 | CONCRETE MEDIAN PAVEMENT 6" (COLORED AND PATTERNED) | SQ.YD. | 1260 | | |
| 49 | 609324 | CONCRETE SLOPED CURB AND GUTTER 6" X 24" | LIN.FT. | 6830 | | |
| 50 | 609424 | CONCRETE VERTICAL CURB AND GUTTER TYPE B 6" X 24" | LIN.FT. | 6410 | | |
| 51 | 618000 | TRAFFIC CONTROL MANAGEMENT | L.S. | LS | | |
| 52 | 621000 | MOBILIZATION | L.S. | LS | | |
| 53 | 623001 | MEDIAN DROP INLET TYPE I (URBAN) H=3'1" TO 6'0" | EACH | 2 | | |
| 54 | 623045 | MODIFIED MEDIAN DROP INLET TYPE I (VALLEY/URBAN) H=3'1" TO 6'0" | EACH | 16 | | |
| 55 | 623046 | MODIFIED MEDIAN DROP INLET TYPE I (VALLEY/URBAN) H=6'1" TO 9'0" | EACH | 6 | | |
| 56 | 623047 | MODIFIED MEDIAN DROP INLET TYPE I (VALLEY/URBAN) H=9'1" TO 12'0" | EACH | 1 | | |
| 57 | 623331 | CURB DROP INLET TYPE I-B, OVER 4' | EACH | 1 | | |
| 58 | 623504 | TRANSVERSE DROP INLET TYPE IV, 0' TO 8' | EACH | 1 | | |
| 59 | 623600 | JUNCTION BOX | EACH | 1 | | |
| 60 | 632000 | CLASS A SEEDING | ACRE | 21 | | |
| 61 | 632020 | CLASS C SEEDING | ACRE | 6 | | |
| 62 | 662022 | MANHOLE TYPE C-6' DIAMETER OVER 6' TO 10' DEPTH | EACH | 1 | | |
| 63 | 662070 | MANHOLE TYPE E-6' DIAMETER 0' TO 6' DEPTH | EACH | 1 | | |
| 64 | 662400 | MANHOLE ADJUSTMENT | EACH | 3 | | |
| 65 | 663206 | WATER SYSTEM | L.S. | LS | | |
| 66 | 663855 | ADJUST VALVE BOX TO GRADE | EACH | 16 | | |
| 67 | 663865 | ADJUST WATER METER TO GRADE | EACH | 1 | | |

| Item No. | Bid Item No. | Description | Unit | Qty | Unit Price | Extended Price |
|----------|--------------|----------------------------------------------------------------------|---------|--------|------------|----------------|
| 68 | 667212 | CRUSHER FINES 4" | SQ.YD. | 4505 | | |
| 69 | 701000 | PANEL SIGNS | SQ.FT. | 1190 | | |
| 70 | 701030 | REMOVE AND RESET PANEL SIGN | EACH | 1 | | |
| 71 | 701100 | STEEL POST AND BASE POST FOR ALUMINUM PANEL SIGNS | LIN.FT. | 3160 | | |
| 72 | 702238 | BARRICADE, TYPE III-8' | EACH | 10 | | |
| 73 | 702610 | PORTABLE CHANGEABLE MESSAGE SIGN | EACH | 6 | | |
| 74 | 702810 | TRAFFIC CONTROL DEVICES FOR CONSTRUCTION | L.S. | LS | | |
| 75 | 703002 | OBJECT MARKER TYPE 2 | EACH | 37 | | |
| 76 | 703003 | OBJECT MARKER TYPE 3 | EACH | 6 | | |
| 77 | 703004 | OBJECT MARKER TYPE 4 | EACH | 16 | | |
| 78 | 704000 | RETROREFLECTORIZED PAINTED MARKINGS 4" | LIN.FT. | 112110 | | |
| 79 | 704002 | RETROREFLECTORIZED PAINTED MARKINGS 6" | LIN.FT. | 62900 | | |
| 80 | 704004 | RETROREFLECTORIZED PAINTED MARKINGS 12" | LIN.FT. | 2210 | | |
| 81 | 704005 | RETROREFLECTORIZED PAINTED MARKINGS 24" | LIN.FT. | 1950 | | |
| 82 | 704020 | RETROREFLECTORIZED PAINTED MARKING YIELD LINE | LIN.FT. | 610 | | |
| 83 | 704716 | HOT THERMOPLASTIC PAVEMENT MARKING COMBINATION (THRU AND LEFT) ARROW | EACH | 14 | | |
| 84 | 704718 | HOT THERMOPLASTIC PAVEMENT MARKING LEFT ARROW | EACH | 1 | | |
| 85 | 704729 | HOT THERMOPLASTIC PAVEMENT MARKING FISH HOOK | EACH | 15 | | |
| 86 | 704732 | HOT THERMOPLASTIC PAVEMENT MARKING BIKE SYMBOL (BIKEWAY) | EACH | 40 | | |

| Item No. | Bid Item No. | Description | Unit | Qty | Unit Price | Extended Price |
|------------------------------------------|--------------|-------------------------------------------------|---------|-------|-------------|----------------|
| 87 | 704855 | REFLECTIVE RAISED PAVEMENT MARKER, TYPE B | EACH | 90 | | |
| 88 | 705000 | SIGNAL/LIGHTING SYSTEM START-UP COSTS | ALLOW | ALLOW | \$40,000.00 | \$40,000.00 |
| 89 | 706110 | SERVICE RISER (LIGHTING) | EACH | 4 | | |
| 90 | 706210 | METER PEDESTAL (LIGHTING) | EACH | 4 | | |
| 91 | 706350 | POWER SERVICE INSTALLATION | L.S. | LS | \$10,000.00 | \$10,000.00 |
| 92 | 706405 | LIGHTING CONTROL CABINET-SIX CIRCUIT | EACH | 3 | | |
| 93 | 706420 | LIGHTING CONTROL CABINET-TWO CIRCUIT | EACH | 2 | | |
| 94 | 707530 | TYPE V STANDARD, 30' | EACH | 52 | | |
| 95 | 709012 | RIGID ELECTRICAL CONDUIT 1 1/4" (DIA.) | LIN.FT. | 54810 | | |
| 96 | 709020 | RIGID ELECTRICAL CONDUIT 2" (DIA.) | LIN.FT. | 7570 | | |
| 97 | 709030 | RIGID ELECTRICAL CONDUIT 3" (DIA.) | LIN.FT. | 170 | | |
| 98 | 710000 | ELECTRICAL PULL BOX (STANDARD) | EACH | 21 | | |
| 99 | 711102 | SINGLE CONDUCTOR 2 | LIN.FT. | 19000 | | |
| 100 | 711230 | SINGLE CONDUCTOR 3/0 | LIN.FT. | 560 | | |
| 101 | 715005 | SOLAR POWERED RECTANGULAR RAPID FLASHING BEACON | EACH | 2 | | |
| 102 | 716701 | LED ROADWAY LUMINAIRE | EACH | 52 | | |
| 103 | 721000 | REMOVAL OF PAVEMENT STRIPE | LIN.FT. | 820 | | |
| 104 | 721101 | REMOVAL OF PAVEMENT MARKING | EACH | 4 | | |
| 105 | 750060 | ITS PULLBOX (33"X24"X24") | EACH | 18 | | |
| 106 | 801000 | CONSTRUCTION STAKING BY THE CONTRACTOR | L.S. | LS | | |
| 107 | 802000 | POST CONSTRUCTION PLANS | L.S. | LS | | |
| TOTAL BASE BID WRITTEN IN NUMBERS | | | | | | |

| Item No. | Bid Item No. | Description | Unit | Qty | Unit Price | Extended Price |
|----------------------------------------|--------------|-------------|-----------------|-----|------------|----------------|
| | | | Dollars & Cents | | | |
| TOTAL BASE BID WRITTEN IN WORDS | | | | | | |

Bidding Alternative No. 1

| Item No. | Bid Item No. | Description | Unit | Qty | Unit Price | Extended Price |
|-----------------|---------------------|----------------------------------------------------------------|-------------|------------|-------------------|-----------------------|
| 1 | 203000 | UNCLASSIFIED EXCAVATION | CU.YD. | 1864 | | |
| 2 | 203100 | BORROW | CU.YD. | 4443 | | |
| 3 | 207000 | SUBGRADE PREPARATION | SQ.YD. | 5600 | | |
| 4 | 303000 | BASE COURSE | TON | 1620 | | |
| 5 | 407000 | ASPHALT MATERIAL FOR TACK COAT | TON | 1 | | |
| 6 | 408100 | PRIME COAT MATERIAL | TON | 10 | | |
| 7 | 423283 | HMA SP IV COMPLETE | TON | 850 | | |
| 8 | 570018 | 18" CULVERT PIPE | LIN.FT. | 25 | | |
| 9 | 570019 | 18" CULVERT PIPE END SECTION | EACH | 1 | | |
| 10 | 603100 | TEMPORARY SOIL STABILANT | ACRE | 1 | | |
| 11 | 603262 | COMPOSTED MULCH SOCKS | LIN.FT. | 537 | | |
| 12 | 604310 | GEOGRID BASE REINFORCEMENT | SQ.YD. | 4140 | | |
| 13 | 608004 | CONCRETE SIDEWALK 4" | SQ.YD. | 40 | | |
| 14 | 623045 | MODIFIED MEDIAN DROP INLET TYPE I (VALLEY/URBAN) H=3"1" TO 60" | EACH | 1 | | |
| 15 | 632000 | CLASS A SEEDING | ACRE | 1 | | |
| 16 | 632020 | CLASS C SEEDING | ACRE | 1 | | |
| 17 | 701000 | PANEL SIGNS | SQ.FT. | 30 | | |
| 18 | 701100 | STEEL POST AND BASE POST FOR ALUMINUM PANEL SIGNS | LIN.FT. | 70 | | |
| 19 | 704000 | RETROREFLECTORIZED PAINTED MARKINGS 4" | LIN.FT. | 5630 | | |
| 20 | 704002 | RETROREFLECTORIZED PAINTED MARKINGS 6" | LIN.FT. | 7480 | | |
| 21 | 704004 | RETROREFLECTORIZED PAINTED MARKINGS 12" | LIN.FT. | 40 | | |
| 22 | 704005 | RETROREFLECTORIZED PAINTED MARKINGS 24" | LIN.FT. | 240 | | |

| Item No. | Bid Item No. | Description | Unit | Qty | Unit Price | Extended Price |
|-------------------------------------------------------------|--------------|----------------------------------------------------------|-----------------------|-----|------------|----------------|
| 23 | 704732 | HOT THERMOPLASTIC PAVEMENT MARKING BIKE SYMBOL (BIKEWAY) | EACH | 5 | | |
| TOTAL ADDITIVE ALTERNATIVE NO. 1A WRITTEN IN NUMBERS | | | <hr/> Dollars & Cents | | | |
| TOTAL ADDITIVE ALTERNATIVE NO. 1 WRITTEN IN WORDS | | | | | | |

Bidding Alternative No. 1B

| Item No. | Bid Item No. | Description | Unit | Qty | Unit Price | Extended Price |
|-----------------|---------------------|----------------------------------------------------------------|-------------|------------|-------------------|-----------------------|
| 1 | 203000 | UNCLASSIFIED EXCAVATION | CU.YD. | 1909 | | |
| 2 | 203100 | BORROW | CU.YD. | 5354 | | |
| 3 | 207000 | SUBGRADE PREPARATION | SQ.YD. | 4300 | | |
| 4 | 303000 | BASE COURSE | TON | 1250 | | |
| 5 | 407000 | ASPHALT MATERIAL FOR TACK COAT | TON | 1 | | |
| 6 | 408100 | PRIME COAT MATERIAL | TON | 8 | | |
| 7 | 423283 | HMA SP IV COMPLETE | TON | 710 | | |
| 8 | 502030 | DRILLED SHAFT FOUNDATION 30" DIAMETER | LIN.FT. | 54 | | |
| 9 | 540060 | REINFORCING BARS GRADE 60 | LBS. | 1760 | | |
| 10 | 570018 | 18" CULVERT PIPE | LIN.FT. | 25 | | |
| 11 | 570019 | 18" CULVERT PIPE END SECTION | EACH | 1 | | |
| 12 | 602010 | RIPRAP CLASS B | CU.YD. | 4 | | |
| 13 | 603100 | TEMPORARY SOIL STABILANT | ACRE | 1 | | |
| 14 | 603262 | COMPOSTED MULCH SOCKS | LIN.FT. | 562 | | |
| 15 | 604310 | GEOGRID BASE REINFORCEMENT | SQ.YD. | 3640 | | |
| 16 | 608004 | CONCRETE SIDEWALK 4" | SQ.YD. | 740 | | |
| 17 | 608404 | CONCRETE MEDIAN PAVEMENT 4" (COLORED AND PATTERNED) | SQ.YD. | 390 | | |
| 18 | 608406 | CONCRETE MEDIAN PAVEMENT 6" (COLORED AND PATTERNED) | SQ.YD. | 280 | | |
| 19 | 609324 | CONCRETE SLOPED CURB AND GUTTER 6" X 24" | LIN.FT. | 1330 | | |
| 20 | 609424 | CONCRETE VERTICAL CURB AND GUTTER TYPE B 6" X 24" | LIN.FT. | 1370 | | |
| 21 | 623045 | MODIFIED MEDIAN DROP INLET TYPE I (VALLEY/URBAN) H=3"1" TO 60" | EACH | 1 | | |
| 22 | 632000 | CLASS A SEEDING | ACRE | 1 | | |

| Item No. | Bid Item No. | Description | Unit | Qty | Unit Price | Extended Price |
|----------|--------------|----------------------------------------------------------------------|---------|-------|-------------|----------------|
| 23 | 701000 | PANEL SIGNS | SQ.FT. | 210 | | |
| 24 | 701100 | STEEL POST AND BASE POST FOR ALUMINUM PANEL SIGNS | LIN.FT. | 600 | | |
| 25 | 704000 | RETROREFLECTORIZED PAINTED MARKINGS 4" | LIN.FT. | 11190 | | |
| 26 | 704002 | RETROREFLECTORIZED PAINTED MARKINGS 6" | LIN.FT. | 1660 | | |
| 27 | 704004 | RETROREFLECTORIZED PAINTED MARKINGS 12" | LIN.FT. | 190 | | |
| 28 | 704005 | RETROREFLECTORIZED PAINTED MARKINGS 24" | LIN.FT. | 540 | | |
| 29 | 704020 | RETROREFLECTORIZED PAINTED MARKING YIELD LINE | LIN.FT. | 130 | | |
| 30 | 704716 | HOT THERMOPLASTIC PAVEMENT MARKING COMBINATION (THRU AND LEFT) ARROW | EACH | 2 | | |
| 31 | 704718 | HOT THERMOPLASTIC PAVEMENT MARKING LEFT ARROW | EACH | 1 | | |
| 32 | 704729 | HOT THERMOPLASTIC PAVEMENT MARKING FISH HOOK | EACH | 3 | | |
| 33 | 704732 | HOT THERMOPLASTIC PAVEMENT MARKING BIKE SYMBOL (BIKEWAY) | EACH | 2 | | |
| 34 | 704855 | REFLECTIVE RAISED PAVEMENT MARKER, TYPE B | EACH | 18 | | |
| 35 | 705000 | SIGNAL/LIGHTING SYSTEM START-UP COSTS | ALOW | ALLOW | \$10,000.00 | \$10,000.00 |
| 36 | 706110 | SERVICE RISER (LIGHTING) | EACH | 1 | | |
| 37 | 706210 | METER PEDESTAL (LIGHTING) | EACH | 1 | | |
| 38 | 706350 | POWER SERVICE INSTALLATION | L.S. | LS | \$10,000.00 | \$10,000.00 |
| 39 | 706420 | LIGHTING CONTROL CABINET-TWO CIRCUIT | EACH | 1 | | |
| 40 | 707530 | TYPE V STANDARD, 30' | EACH | 9 | | |

| Item No. | Bid Item No. | Description | Unit | Qty | Unit Price | Extended Price |
|-------------------------------------------------------------|--------------|------------------------------------|-----------------------|------|------------|----------------|
| 41 | 709020 | RIGID ELECTRICAL CONDUIT 2" (DIA.) | LIN.FT. | 1260 | | |
| 42 | 709030 | RIGID ELECTRICAL CONDUIT 3" (DIA.) | LIN.FT. | 25 | | |
| 43 | 710000 | ELECTRICAL PULL BOX (STANDARD) | EACH | 3 | | |
| 44 | 711102 | SINGLE CONDUCTOR 2 | LIN.FT. | 2650 | | |
| 45 | 711230 | SINGLE CONDUCTOR 3/0 | LIN.FT. | 90 | | |
| 46 | 716701 | LED ROADWAY LUMINAIRE | EACH | 9 | | |
| TOTAL ADDITIVE ALTERNATIVE NO. 1B WRITTEN IN NUMBERS | | | <hr/> Dollars & Cents | | | |
| TOTAL ADDITIVE ALTERNATIVE NO. 1B WRITTEN IN WORDS | | | | | | |

Bidding Alternate 2A

| Item No. | Bid Item No. | Description | Unit | Qty | Unit Price | Extended Price |
|-----------------|---------------------|--------------------------------------------------------------------|-------------|------------|-------------------|-----------------------|
| 1 | 203000 | UNCLASSIFIED EXCAVATION | CU.YD. | 1592 | | |
| 2 | 203100 | BORROW | CU.YD. | 1057 | | |
| 3 | 207000 | SUBGRADE PREPARATION | SQ.YD. | 5600 | | |
| 4 | 303000 | BASE COURSE | TON | 1400 | | |
| 5 | 407000 | ASPHALT MATERIAL FOR TACK COAT | TON | 1 | | |
| 6 | 408100 | PRIME COAT MATERIAL | TON | 9 | | |
| 7 | 423283 | HMA SP IV COMPLETE | TON | 800 | | |
| 8 | 570018 | 18" CULVERT PIPE | LIN.FT. | 78 | | |
| 9 | 570019 | 18" CULVERT PIPE END SECTION | EACH | 1 | | |
| 10 | 603100 | TEMPORARY SOIL STABILANT | ACRE | 1 | | |
| 11 | 603221 | CHECK DAM TYPE II | LIN.FT. | 192 | | |
| 12 | 603250 | DROP INLET PROTECTION TYPE I | EACH | 2 | | |
| 13 | 603262 | COMPOSTED MULCH SOCKS | LIN.FT. | 518 | | |
| 14 | 604310 | GEOGRID BASE REINFORCEMENT | SQ.YD. | 2640 | | |
| 15 | 607079 | PEDESTRIAN/BICYCLE RAILING | LIN. FT. | 30 | | |
| 16 | 608004 | CONCRETE SIDEWALK 4" | SQ.YD. | 50 | | |
| 17 | 623045 | MODIFIED MEDIAN DROP INLET TYPE I (VALLEY/URBAN) H=3'1" TO 6'0" | EACH | 2 | | |
| 18 | 632000 | CLASS A SEEDING | ACRE | 1 | | |
| 19 | 701000 | PANEL SIGNS | SQ.FT. | 60 | | |
| 20 | 701100 | STEEL POST AND BASE POST FOR ALUMINUM PANEL SIGNS | LIN.FT. | 110 | | |
| 21 | 703002 | OBJECT MARKER TYPE 2 | EACH | 1 | | |
| 22 | 704000 | RETROREFLECTORIZED PAINTED MARKINGS 4" | LIN.FT. | 4280 | | |
| 23 | 704002 | RETROREFLECTORIZED PAINTED MARKINGS 6" | LIN.FT. | 3910 | | |

| Item No. | Bid Item No. | Description | Unit | Qty | Unit Price | Extended Price |
|-------------------------------------------------------------|--------------|------------------------------------------------|-----------------------|-----|------------|----------------|
| 24 | 704004 | RETROREFLECTORIZED PAINTED MARKINGS 12" | LIN.FT. | 210 | | |
| 25 | 704005 | RETROREFLECTORIZED PAINTED MARKINGS 24" | LIN.FT. | 300 | | |
| 26 | 704717 | HOT THERMOPLASTIC PAVEMENT MARKING RIGHT ARROW | EACH | 3 | | |
| TOTAL ADDITIVE ALTERNATIVE NO. 2A WRITTEN IN NUMBERS | | | <hr/> Dollars & Cents | | | |
| TOTAL ADDITIVE ALTERNATIVE NO. 2A WRITTEN IN WORDS | | | | | | |

Bidding Alternate 2B

| Item No. | Bid Item No. | Description | Unit | Qty | Unit Price | Extended Price |
|-----------------|---------------------|-----------------------------------------------------|-------------|------------|-------------------|-----------------------|
| 1 | 203000 | UNCLASSIFIED EXCAVATION | CU.YD. | 1703 | | |
| 2 | 203100 | BORROW | CU.YD. | 1994 | | |
| 3 | 207000 | SUBGRADE PREPARATION | SQ.YD. | 4100 | | |
| 4 | 303000 | BASE COURSE | TON | 1170 | | |
| 5 | 407000 | ASPHALT MATERIAL FOR TACK COAT | TON | 1 | | |
| 6 | 408100 | PRIME COAT MATERIAL | TON | 7 | | |
| 7 | 423283 | HMA SP IV COMPLETE | TON | 700 | | |
| 8 | 502030 | DRILLED SHAFT FOUNDATION 30" DIAMETER | LIN.FT. | 66 | | |
| 9 | 540060 | REINFORCING BARS GRADE 60 | LBS. | 2160 | | |
| 10 | 570024 | 24" CULVERT PIPE | LIN.FT. | 80 | | |
| 11 | 570025 | 24" CULVERT PIPE END SECTION | EACH | 2 | | |
| 12 | 602010 | RIPRAP CLASS B | CU.YD. | 14 | | |
| 13 | 603100 | TEMPORARY SOIL STABILANT | ACRE | 1 | | |
| 14 | 603221 | CHECK DAM TYPE II | LIN.FT. | 240 | | |
| 15 | 603262 | COMPOSTED MULCH SOCKS | LIN.FT. | 540 | | |
| 16 | 604310 | GEOGRID BASE REINFORCEMENT | SQ.YD. | 3760 | | |
| 17 | 608004 | CONCRETE SIDEWALK 4" | SQ.YD. | 460 | | |
| 18 | 608404 | CONCRETE MEDIAN PAVEMENT 4" (COLORED AND PATTERNED) | SQ.YD. | 480 | | |
| 19 | 608406 | CONCRETE MEDIAN PAVEMENT 6" (COLORED AND PATTERNED) | SQ.YD. | 320 | | |
| 20 | 609324 | CONCRETE SLOPED CURB AND GUTTER 6" X 24" | LIN.FT. | 1480 | | |
| 21 | 609424 | CONCRETE VERTICAL CURB AND GUTTER TYPE B 6" X 24" | LIN.FT. | 1650 | | |
| 22 | 623311 | CURB DROP INLET TYPE I-B, 0' TO 4' | EACH | 1 | | |

| Item No. | Bid Item No. | Description | Unit | Qty | Unit Price | Extended Price |
|----------|--------------|----------------------------------------------------------------------|---------|-------|-------------|----------------|
| 23 | 623331 | CURB DROP INLET TYPE I-B, OVER 4' | EACH | 1 | | |
| 24 | 632000 | CLASS A SEEDING | ACRE | 1 | | |
| 25 | 701000 | PANEL SIGNS | SQ.FT. | 180 | | |
| 26 | 701100 | STEEL POST AND BASE POST FOR ALUMINUM PANEL SIGNS | LIN.FT. | 560 | | |
| 27 | 703002 | OBJECT MARKER TYPE 2 | EACH | 1 | | |
| 28 | 704000 | RETROREFLECTORIZED PAINTED MARKINGS 4" | LIN.FT. | 7090 | | |
| 29 | 704002 | RETROREFLECTORIZED PAINTED MARKINGS 6" | LIN.FT. | 520 | | |
| 30 | 704004 | RETROREFLECTORIZED PAINTED MARKINGS 12" | LIN.FT. | 60 | | |
| 31 | 704005 | RETROREFLECTORIZED PAINTED MARKINGS 24" | LIN.FT. | 180 | | |
| 32 | 704020 | RETROREFLECTORIZED PAINTED MARKING YIELD LINE | LIN.FT. | 170 | | |
| 33 | 704716 | HOT THERMOPLASTIC PAVEMENT MARKING COMBINATION (THRU AND LEFT) ARROW | EACH | 4 | | |
| 34 | 704729 | HOT THERMOPLASTIC PAVEMENT MARKING FISH HOOK | EACH | 4 | | |
| 35 | 704732 | HOT THERMOPLASTIC PAVEMENT MARKING BIKE SYMBOL (BIKEWAY) | EACH | 1 | | |
| 36 | 704855 | REFLECTIVE RAISED PAVEMENT MARKER, TYPE B | EACH | 24 | | |
| 37 | 705000 | SIGNAL/LIGHTING SYSTEM START-UP COSTS | ALOW | ALLOW | \$10,000.00 | \$10,000.00 |
| 38 | 706110 | SERVICE RISER (LIGHTING) | EACH | 1 | | |
| 39 | 706210 | METER PEDESTAL (LIGHTING) | EACH | 1 | | |
| 40 | 706350 | POWER SERVICE INSTALLATION | L.S. | LS | | |
| 41 | 706405 | LIGHTING CONTROL CABINET-SIX CIRCUIT | EACH | 1 | | |
| 42 | 707530 | TYPE V STANDARD, 30' | EACH | 11 | | |

| Item No. | Bid Item No. | Description | Unit | Qty | Unit Price | Extended Price |
|-------------------------------------------------------------|---------------------|------------------------------------|-----------------|------------|-------------------|-----------------------|
| 43 | 709020 | RIGID ELECTRICAL CONDUIT 2" (DIA.) | LIN.FT. | 2970 | | |
| 44 | 709030 | RIGID ELECTRICAL CONDUIT 3" (DIA.) | LIN.FT. | 30 | | |
| 45 | 710000 | ELECTRICAL PULL BOX (STANDARD) | EACH | 11 | | |
| 46 | 711102 | SINGLE CONDUCTOR 2 | LIN.FT. | 6160 | | |
| 47 | 711230 | SINGLE CONDUCTOR 3/0 | LIN.FT. | 90 | | |
| 48 | 716701 | LED ROADWAY LUMINAIRE | EACH | 11 | | |
| TOTAL ADDITIVE ALTERNATIVE NO. 2B WRITTEN IN NUMBERS | | | | | | |
| | | | Dollars & Cents | | | |
| TOTAL ADDITIVE ALTERNATIVE NO. 2B WRITTEN IN WORDS | | | | | | |

Bidding Alternate 3

| Item No. | Bid Item No. | Description | Unit | Qty | Unit Price | Extended Price |
|-----------------------------------------------------------------------------------------|---------------------|--------------------|-----------------------|------------|-------------------|-----------------------|
| 1 | 663206 | WATER SYSTEM | L.S. | LS | | |
| TOTAL ADDITIVE ALTERNATIVE NO. 3 WRITTEN IN NUMBERS | | | <hr/> Dollars & Cents | | | |
| TOTAL ADDITIVE ALTERNATIVE NO. 3 WRITTEN IN WORDS | | | | | | |
| TOTAL BASE BID PLUS ADDITIVE ALTERNATIVE 1A, 1B, 2A, 2B AND 3 WRITTEN IN NUMBERS | | | <hr/> Dollars & Cents | | | |
| TOTAL BASE BID PLUS ADDITIVE ALTERNATIVE 1A, 1B, 2A, 2B AND 3 WRITTEN IN WORDS | | | | | | |

ALL BID ITEMS AND ADDITIVE ALTERATIVES MUST BE EXCLUSIVE OF NM GRT

Monthly Fuel Price Adjustment Procedures
Page 2

$$DFCA = [0.85 - (MFI/BFI)] \times Q \times BFI$$

No adjustments will be made for Work performed after Substantial Completion.

If the Contractor chooses not to participate in the Diesel Adjustment, they shall notify the PM in writing no later than the Pre-Construction Conference.