

**GEOTECHNICAL EXPLORATION REPORT
STATE ROUTE 80, OLD BISBEE TO ERIE STREET
ADOT PROJECT NO. 080 CH 341 T0413 01C
FEDERAL AID NO. BIS-0(204)T
BISBEE, ARIZONA**

Prepared for:



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Prepared by:



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Ethos Project No. 2024032
July 2, 2025



July 2, 2025
Ethos Project No.: 2024032

Tim Rhine, PE, PTOE
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**SUBJECT: Geotechnical Exploration Report
State Route 80, Old Bisbee to Erie Street
ADOT Project No. 080 CH 341 T0413 01C
Federal Aid No. BIS-0(204)T
Bisbee, Arizona**

Dear Tim:

Ethos Engineering, LLC is pleased to present the findings of the geotechnical exploration for the proposed project located in Bisbee, Arizona. Our services were conducted in general accordance with the scope of services presented in our proposal dated February 26, 2024. This report provides the results of our investigation and subgrade testing for pavements planned within this project. This report complements the Final Pavement Design Summary and Final Materials Design Report submitted under separate cover (Ethos 2025).

We appreciate the opportunity to be of service on this project. If you have any questions regarding this report, please do not hesitate to contact us.

Sincerely,
Ethos Engineering, LLC

Francisco J. Garza



Francisco J. Garza, P.E.
President/Senior Geotechnical Engineer

Reviewed By:



Jesse Huston, P.E.
Principal/Senior Geotechnical Engineer

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1.0 INTRODUCTION

1.1 GENERAL

This report presents the results of our geotechnical exploration for the proposed project in Bisbee, Arizona.

The exploration included site reconnaissance, subsurface exploration, soil sampling, laboratory testing, engineering analyses, and preparation of this report. The purpose of this report is to provide information regarding the subsurface soil conditions and general site geology, and to provide geotechnical recommendations for design and construction for the planned roadway improvements.

1.2 PROJECT DESCRIPTION

The overall project will construct a 1.43-mile shared-use path (SUP) from downtown Bisbee (Queen Mine) to Erie Street (Lavender Pit overlook). Included will be the following construction elements:

- Reconfigure State Route 80 (SR 80) from Old Bisbee to Erie Street from four lanes to three lanes (1 travel lane in each direction and a two-way center turn lane).
- The existing eastbound (EB) outside travel lane will be converted to a SUP. Install raised curb barrier to separate EB travel lanes from SUP. It is anticipated that the existing lane will be milled and reconstructed to provide a new surface for the SUP.
- The existing SR 80 travel lanes will be treated with a two-pass micro-surfacing to provide a uniform surface.

The project is located in the Arizona Department of Transportation (ADOT) Southeast District, and the average project elevation is 5,100 feet.

2.0 FIELD EXPLORATION

2.1 EXPLORATORY DRILLING

Prior to our field exploration, Ethos obtained Environmental Clearance and an ADOT encroachment permit (1235043). We marked the boring locations and coordinated clearing our work areas with Arizona 811. A traffic control plan was prepared for this work by Quail Construction, as a subcontractor to Ethos.

Drilling of the exploratory borings was performed by Geomechanics Southwest Inc. (GSI) on January 23, 2025. The fieldwork was supervised by Ramiro Bohon, EIT of Ethos. The subsurface soil conditions at the site were explored by drilling a total of two (2) borings (designated as C-2 and C-3) to approximate depths of 1.5 feet. Logs of the exploratory borings are presented in Appendix A. The boring locations are shown on Figures 1 and 2. A summary of the field exploration program is provided in Table 2.1.

Table 2.1 – Field Exploration Program

Boring ID	Element	Latitude (°N)	Longitude (°E)	Depth (feet)
C-2	Roadway	31.43726	-109.90553	1.5
C-3	Roadway	31.43590	-109.89832	1.5

The roadway borings were drilled with a truck-mounted CME-75 drill-rig advancing 8-inch outside diameter (OD) hollow-stem auger through the asphalt concrete (AC) followed by hand auger to the full depth of penetration. All borings were oriented vertically.

During the field exploration, the soils encountered were visually classified, logged, and sampled by the field engineer. No downhole samples were taken due to potential utility conflicts. Bulk samples of cuttings were also collected at selected near-surface depths from the borings.

The recovered soil samples were sealed to reduce moisture loss and submitted to the ACS Services LLC (ACS) laboratory. All borings were backfilled with cuttings upon completion and cold-patch AC, as needed.

3.0 LABORATORY TESTING

Selected laboratory tests were assigned by Ethos and performed by ACS on representative samples of soil recovered from the borings to support our field classification and to provide information regarding engineering characteristics and properties of the subsurface materials. The results of the laboratory tests are presented in Appendix B. The laboratory testing program is listed in Table 3.1.

Table 3.1 – Summary of Laboratory Testing Program

Laboratory Test	Sample Type	Number of Tests	Purpose of Test
Sieve Analysis (ASTM C136)	Bulk	2	Soil Classification & Correlated R-value
Atterberg Limits (ASTM D4318)	Bulk	2	Soil Classification & Correlated R-value
Moisture Content (ASTM D2216)	Bulk	2	Soil Moisture Condition

4.0 GENERAL SITE CONDITION

4.1 SURFACE CONDITIONS

The project alignment is situated east of Old Bisbee. In general, the overall terrain on SR 80 is relatively steep from Old Bisbee on the west side to Erie Street on the east. As SR 80 leaves the Old Bisbee east of the Queen Mine parking lot it borders the north side of the Lavender Pit and most of the adjacent properties are undeveloped.

4.2 SUBSURFACE CONDITIONS

The near-surface soils encountered in the borings consisted of low plasticity silty clayey sand with gravel (SC-SM) and should provide good bearing conditions for new pavement. Boring C-2 encountered 5 inches of AC and 6 inches of aggregate base (AB) and C-3 encountered 7 inches of AC and 6 inches of AB.

Groundwater was not encountered to the depths explored. The depth to groundwater in the general area (2-mile radius), based on Arizona Department of Water Resources (ADWR 2018), is on the order of 10 feet, but is not representative of the conditions adjacent to the Lavender Pit. However, based on the generally dry conditions encountered in the borings, planned improvements, and anticipated depth to groundwater, the impacts to construction from groundwater appears to be negligible.

5.0 ENGINEERING ANALYSES AND RECOMMENDATIONS

5.1 GENERAL

The following sections of this report present our recommendations for the pavement design, construction considerations, site preparation, slopes, grading, moisture protection, excavations and backfills. These recommendations are based on our

understanding of the project, the results of our field explorations including test drilling, laboratory testing for the site and engineering analyses.

5.2 PAVEMENTS

Laboratory testing of subgrade samples for support of pavements was performed for project pavements. It is anticipated the new pavement will be near existing site grades.

The results of laboratory grain-size analysis and Atterberg limits testing are presented in Table 5.1.

Table 5.1 -Results of Subgrade Testing

Boring ID & Depth (feet)	USCS	%Passing #200 Sieve	Plasticity Index	Correlated R-Value
C-2 (0.9-1.5)	SC-SM	15	6	64
C-3 (1.1-1.5)	SC-SM	17	6	63
Average				63.4
Standard Deviation				1.2

Two correlated R-values ranged from 63 to 64. The calculated R_{mean} value of 63.4 translates to a resilient modulus (M_r) value of 24,169 pounds per square inch (psi) based on a seasonal variation factor of 2.6 determined for Bisbee, Arizona from Table 2-4 of the Pavement Design Manual (PDM) (ADOT 2017). However, given the construction control R-value was calculated at 59.6, to be conservative a design R-value of 55 is recommended which corresponds to an M_r value of 20,151 psi. Additionally, a construction control R-value of 55 is recommended which should allow the majority of subgrade to remain in place. The R_{mean} and modulus calculations are included in Appendix C.

5.2.1 Earthwork Factors

Earthwork (shrink/swell) factors were estimated based on the results of the laboratory and field testing, and from past experience with similar soils. While not anticipated, the site surface soils to a depth of approximately 5 feet are estimated to have shrinkage on the order of 0 percent if over-excavated and re-used on the project for embankment. Ground compaction due to site preparation outside the limits of existing roadway prism is expected to be about 0.0 foot within the project limits.

These estimates are general in nature, and are based on our experience, limited data from our field explorations, and the soil conditions we encountered at the site. Earthwork factors may vary dependent upon the actual subsurface conditions, which may include variations in soil gradations and gravel contents. The earthwork shrinkage values are expected to be larger in areas subjected to higher levels of compaction or where the existing natural soils are looser. The earthwork shrinkage values are also expected to be lower in areas subjected to lower levels of compaction or where the existing natural soils are denser.

5.2.2 Site Grading for Pavement

The following site grading recommendations are intended to provide support for the proposed pavements at the site. The grading activities at the site should be performed under observation and testing directed by a geotechnical engineer.

Trash, debris, vegetation (including roots) and other organics, any unstable (soft, loose, disturbed, water softened, etc.) soils, and other deleterious materials should be completely removed from proposed pavement areas prior to construction. This site grading should extend laterally a minimum of 2 feet beyond pavement and embankment areas. All areas of excavation should be observed and approved by a representative of the geotechnical engineer after clearing and before any filling operations begin at the site.

The subgrade preparation should be performed as outlined in Section 203 of the ADOT Standard Specifications except as noted herein. In proposed pavement areas, the ground surface should be prepared to a minimum depth of 6 inches below finished subgrade.

5.3 TEMPORARY SLOPES

Temporary excavations for construction of footings, etc. can be made with conventional earthmoving equipment. Temporary slopes should be excavated in accordance with OSHA (2020). In accordance with Subpart P, Appendix A, any fills present on-site (although not encountered in our investigation, but anticipated within drainages) and the native granular soils are considered to be Type C soils. For excavations less than 20 feet in such soils, Subpart P, Appendix B indicates a maximum allowable unshored slope of 1.5H:1V for Type C soils. Flatter slopes may be required where either sandy soils are encountered or where the soils become excessively wet, and soft.

Should steeper slopes be required due to the proximity of existing structures or other contractor needs, the stability of the slopes should be verified by a registered geotechnical engineer (State of Arizona) who is proficient in slope stability analyses.

The perimeter of all excavations should be protected against water runoff and infiltration near the edges to maintain stability. Heavy equipment and spoil piles should not be allowed within 10 feet of the edge of the excavation. The perimeter of all excavations should be protected against water runoff and infiltration near the edges to maintain stability.

5.4 SURFACE DRAINAGE

Long-term performance of pavements and structures will require that the subgrade soils and backfill be protected against excessive water infiltration and/or saturation. Surface drainage should be established away from pavements and foundations to minimize moisture infiltration into the subgrade. Structural fill and backfill should be well compacted to reduce possible moisture infiltration through loose soil intervals.

6.0 CLOSURE

The geotechnical services were performed in a manner consistent with that level of care and skill ordinarily exercised by other members of the geotechnical profession practicing in the same locality, under similar conditions and at the date the services are provided. Our conclusions, opinions and recommendations are based on the completed test borings, visual observations and the review of plans prepared by others. It is possible that conditions could vary beyond the data evaluated. Ethos makes no guarantee or warranty, express or implied, regarding the services, communication (oral or written), report, opinion, or instrument of service provided.

This report may be used only by the Client and their representatives, and only for the purposes stated, within a reasonable time from its issuance. Land use, site conditions (both on site and off site), or other factors may change over time, and additional work may be required with the passage of time. Any party other than the Client who wishes to use this report shall notify Ethos of such intended use. Based on the intended use of the report, Ethos may require that additional work be performed and that an updated report be issued. Non-compliance with any of these requirements by the Client or anyone else

will release Ethos from any liability resulting from the use of this report by any unauthorized party.

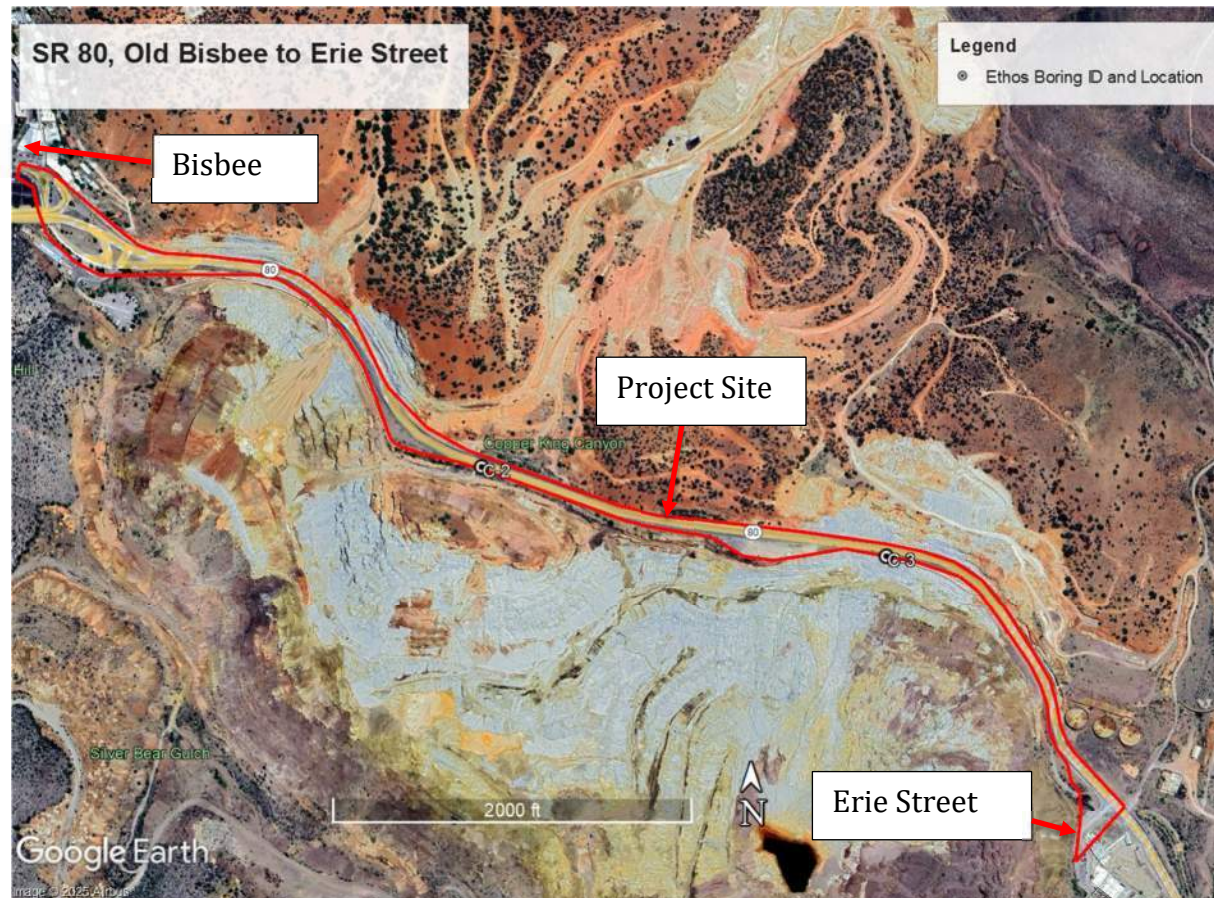
7.0 REFERENCES

Arizona Department of Transportation (ADOT), 2017. *Pavement Design Manual*. Roadway Engineering Group, Pavement Design Section, September 29.

Arizona Department of Water Resources (ADWR). 2018. Groundwater Site Inventory Database. <https://azwatermaps.azwater.gov/gwsi>. Accessed February 2025.

Occupational Safety and Health Administration (OSHA). 2020. Code of Federal Regulations (CFR), Standard Number 1926 Safety and Health Regulations for Construction, Subpart P – Excavations, Appendices A & B. February 18.

FIGURES



Source: latitude 31.43703°, longitude -109.90470°. 2025 Airbus Imagery. Accessed on 2/17/2025.

Figure 1

Vicinity Map Showing Project Site Location
SR 80, Old Bisbee to Erie Street
Bisbee, Arizona



Source: latitude 31.43703°, longitude -109.90470°. 2025 Airbus Imagery. Accessed on 2/17/2025.

Figure 2

Site Map Showing Boring Locations
SR 80, Old Bisbee to Erie Street
Bisbee, Arizona

APPENDIX A

BORING LOGS

SOILS SAMPLING & BORING LOG INFORMATION

The material and in-situ moisture descriptions of soils presented on the boring logs are based on visual observation and classification in accordance with the Unified Soil Classification System (USCS), presented on the next page. The field logs were modified, where appropriate, based on laboratory testing of selected samples.

The relative density and firmness described on the test boring logs are generally based on standard penetration test (SPT) blows per foot (N) for mostly cohesionless and cohesive soils. 2-inch outside diameter (O.D.) SPT samplers are advanced up to 18 inches into undisturbed soils beyond the base of either a hollow stem auger or drill casing. The samplers are driven with a 140-pound hammer and a 30-inch drop. SPT values are recorded on the boring logs for each 6-inch increment of penetration with sampler refusal based on a penetration of less than 6 inches and a blowcount of 50.

Relative Density

Relative density for mostly cohesionless, uncemented sands and sand and gravel mixtures is described based on the following SPT blowcounts:

N	Relative Density
0-4	Very Loose
5-10	Loose
11-30	Medium Dense
31-50	Dense
>50	Very Dense

Relative Firmness

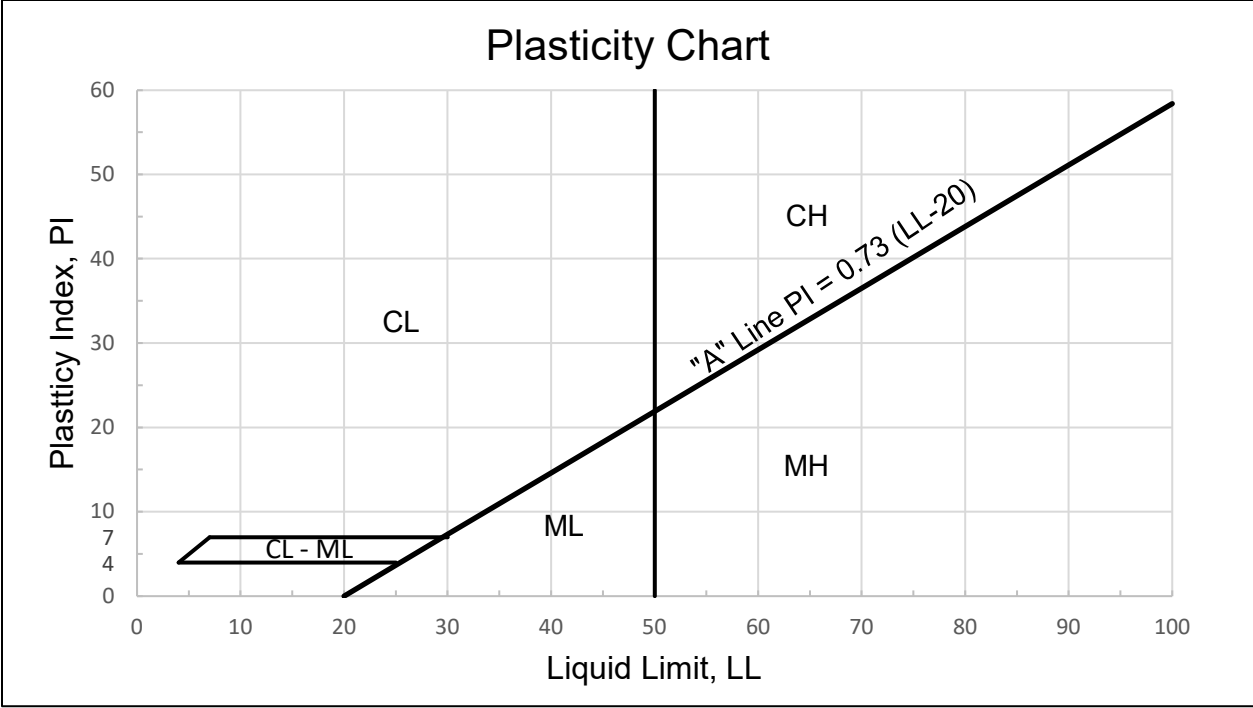
Relative Firmness for cohesive and/or cemented soils including silts, clays and silty to clayey sandy and gravelly soils is described based on the following SPT blowcounts:

N	Relative Firmness
0-4	Very Soft
5-8	Soft
9-15	Moderately Firm
16-30	Firm
31-49	Very Firm
50+	Hard

Undisturbed samples of firmer soils, typically present in the southwest, are obtained with 3-inch O.D. samplers lined with 2.42-inch inside diameter (I.D.) brass rings. The samplers are advanced up to 12 inches into undisturbed soils beyond the base of either a hollow stem auger or drill casing. The samplers are driven with a 140-pound hammer and a 30-inch drop. The N value blowcounts are recorded on the boring logs for each 6-inch increment of penetration with sampler refusal based on a penetration of less than 12 inches and a blowcount of 100.

Unified Soil Classification System (ASTM D2487)

Criteria for Assigning Group Symbols and Group Names Using Laboratory Tests				Group Symbol	Group Description
Coarse-Grained Soils (More than 50% Retained on No. 200 Sieve).	Gravels More than 50% of Coarse Fraction Retained on No. 4 Sieve	Clean Gravels Less than 5% Fines		GW	Well Graded Gravels, Gravel-Sand Mixtures or Sand-Gravel-Cobble Mixtures.
				GP	Poorly Graded Gravels, Gravel-Sand Mixtures or Sand-Gravel-Cobble Mixtures.
		Gravels with More than 12% Fines	Fines Classify as ML or MH	GM	Silty Gravels, Gravel-Sand-Silt Mixtures
			Fines Classify as CL or CH	GC	Clayey Gravels, Gravel-Sand-Clay Mixtures
	Sands 50% or More of Coarse Fraction Passes No. 4 Sieve	Clean Sands Less than 5% Fines		SW	Well Graded Sands, Gravelly Sands.
				SP	Poorly Graded Sands, Gravelly Sands.
		Sands with More than 12% Fines	Fines Classify as ML or MH	SM	Silty Sands, Sand-Silt Mixtures
			Fines Classify as CL or CH	SC	Clayey Sands, Sand-Clay Mixtures
Fine-Grained Soils (50% or More Passes No. 200 Sieve).	Silts and Clays (Liquid Limit less than 50)	PI > 7 and Plots on Above "A" Line		CL	Inorganic Clays of Low to Medium Plasticity, Gravelly Clays, Sandy Clays, Silty Clays, Lean Clays
		PI < 4 or Plots Below "A" Line		ML	Inorganic Silts, Clayey Silts with Low Plasticity
	Silts and Clays (Liquid Limit 50 or More)	PI Plots on Above "A" Line		CH	Inorganic Clays of High Plasticity, Fat Clays, Silty and Sandy Clays of High Plasticity
		PI Plots Below "A" Line		MH	Inorganic Silts of High Plasticity, Silty Soils, Elastic Silts



Angularity	
Angular	
Subangular	
Subrounded	
Rounded	

Soil Particle Definitions	
Material	Particle Size Range
Boulders	Greater than 300 mm (12 in.)
Cobbles	300 mm to 75 mm (12 in. to 3 in.)
Coarse Gravel	75 mm to 19 mm (3 in. to ¾ in.)
Fine Gravel	19mm (¾ in.) to No. 4 sieve
Coarse Sand	No. 4 Sieve to No. 10 Sieve
Medium Sand	No. 10 Sieve to No. 40 Sieve
Fine Sand	No. 40 Sieve to No. 200 Sieve
Fines (Silt or Clay)	Less than No. 200 Sieve

Plasticity	
$PI = 0$	Non-Plastic
$1 \leq PI \leq 7$	Low
$8 \leq PI \leq 25$	Medium
$PI \geq 26$	High

Moisture
Slightly Moist
Moist
Wet
(Saturated)

Project Name:		SR80, Old Bisbee to Erie Street			Boring ID	C-2
Project Location:		Bisbee, AZ			Boring Location:	SR 80
Project Number:		2024032			Coordinates:	31.43726°, -109.0553°
Drilling Method:		CME 75 with 8-inch Auger and Hand Auger			Surface Elevation:	5216
Logger:		R. Bohon Ethos Engineering, LLC			Groundwater Depth (ft):	None
Driller:		J. Jones Geomechanics Southwest Inc			Date:	1/23/2025

Depth (feet)	Sample Interval	Sample Type	Blowcounts	Firmness/ Density	Moisture	Description & USCS
						5" Asphalt Concrete
						6" Aggregate Base
1		A				Silty Clayey Sand with Gravel (SC-SM) Considerable Fine Grained Subangular Gravel Predominantly Well Graded Sand Low Plasticity Brown Auger Stopped at 1'6" Backfilled with Cuttings Patched with Asphalt at the Surface
2		(0.9-1.5)			Moist	
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						Auger Refusal at 12'6" Stopped Sampler at 13'11" Backfilled with Cuttings Patched with Asphalt at the Surface
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						

	Sample Type	Notes	
	S - SPT Spoon Sampler	NR - No Recovery	
	R - Ring Sampler	PR - Poor Recovery	

Project Name:		SR80, Old Bisbee to Erie Street		Boring ID		C-3
Project Location:		Bisbee, AZ		Boring Location:		SR 80
Project Number:		2024032		Coordinates:		31.43590°, -109.89832°
Drilling Method:		CME 75 with 8-inch Auger and Hand Auger		Surface Elevation:		5149
Logger:		R. Bohon Ethos Engineering, LLC		Groundwater Depth (ft):		None
Driller:		J. Jones Geomechanics Southwest Inc		Date:		23-Jan-25

Depth (feet)	Sample Interval	Sample Type	Blowcounts	Firmness/ Density	Moisture	Description & USCS
						7" Asphalt Concrete
						6" Aggregate Base
1		A				
2		(1.1-1.5)			Moist	Silty Clayey Sand with Gravel (SC-SM)
3						Considerable Fine Grained Subangular Gravel
4						Predominantly Well Graded Sand
5						Low Plasticity
6						Brown
7						Auger Stopped at 1'6"
8						Backfilled with Cuttings
9						Patched with Asphalt at the Surface
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						



Sample Type

S - SPT Spoon Sampler

R - Ring Sampler

A - Auger Cuttings

Notes

NR - No Recovery

PR - Poor Recovery



APPENDIX B

LABORATORY TEST RESULTS

TABLE B-1: SUMMARY OF LABORATORY TEST RESULTS

Boring Number	Sample Depth (feet)		USCS/Group Symbol (ASTM D2487)	Percent Fines (minus #200) (ASTM C136)	Liquid Limit (ASTM D4318)	Plasticity Index (ASTM D4318)	Moisture Content (%) (ASTM D2216/T265)
	Begin	End					
C-2	0.90	1.50	SC-SM	15	21	6	4.9
C-3	1.10	1.50	SC-SM	17	22	6	5.7
Average				---	---	---	5.3
Standard Deviation				---	---	---	0.4
Maximum				17	22	6	5.7
Minimum				15	NV	NP	4.9
Count				2	2	2	2

ACS SERVICES LLC

Laboratory Soil Test Results

ACS PROJECT # 2501073

ACS Lab # 25-1301-1

Client: Ethos Engineering, LLC

Project Name: Bisbee Shared Used Path

Project Address: Bisbee

Project City: Bisbee

Sample Location: C - 2 @ 0.9 - 1.5

Material Type: Soils

Supplier: Client

Sample Date: 1/27/2025

Sampled By: Client

Test Date: 1/30/2025

Tested By: Mahalia Davis

Reviewed By: Keagen Mayfield

Sieve Analysis (ASTM C-136 / AASHTO T 27 / ARIZ 201)

Sieve Size	% Retained	% Passed	Specs
6"	0	100	
3"	0	100	
2 1/2"	0	100	
2"	0	100	
1 1/2"	0	100	
1"	0	100	
3/4"	3	97	
1/2"	8	89	
3/8"	7	82	
1/4"	11	71	
#4	8	63	
#8	14	49	
#10	3	46	
#16	7	39	
#30	7	32	
#40	3	29	
#50	3	26	
#100	6	20	
#200	5	15	

Liquid Limit
(ASTM D4318)

21

Plastic Limit
(ASTM D4318)

15

Plasticity Index
(ASTM D4318)

6

Moisture Content
(ASTM D2216)

4.9

USCS Soil
Classification

SC-SM

Group Name (ASTM D2487)

Silty, clayey SAND with gravel

Keagen Mayfield

Laboratory Manager

Keagen Mayfield

Signature

ACS SERVICES LLC

Laboratory Soil Test Results

ACS PROJECT # 2501073
ACS Lab # 25-1301-2
Client: Ethos Engineering, LLC
Project Name: Bisbee Shared Used Path
Project Address: Bisbee
Project City: Bisbee
Sample Location: C - 3 @ 1.1 - 1.5

Material Type: Soils
Supplier: Client
Sample Date: 1/27/2025
Sampled By: Client
Test Date: 1/30/2025
Tested By: Mahalia Davis
Reviewed By: Keagen Mayfield

Sieve Analysis (ASTM C-136 / AASHTO T 27 / ARIZ 201)

Sieve Size	% Retained	% Passed	Specs
6"	0	100	
3"	0	100	
2 1/2"	0	100	
2"	0	100	
1 1/2"	0	100	
1"	4	96	
3/4"	2	94	
1/2"	11	84	
3/8"	7	77	
1/4"	8	68	
#4	6	62	
#8	13	49	
#10	3	46	
#16	7	39	
#30	7	32	
#40	3	29	
#50	3	26	
#100	5	21	
#200	4	17	

Liquid Limit
(ASTM D4318)

22

Plastic Limit
(ASTM D4318)

16

Plasticity Index
(ASTM D4318)

6

Moisture Content
(ASTM D2216)

5.7

USCS Soil
Classification

SC-SM

Group Name (ASTM D2487)

Silty, clayey SAND with gravel

Keagen Mayfield

Laboratory Manager

Keagen Mayfield

Signature

APPENDIX C

PAVEMENT SUBGRADE ANALYSES

Mean R-Value and Modulus Calculations

Project Name:	SR 80, Old Bisbee to Erie Street
Roadway Name	SR 80
Roadway Segment:	Old Bisbee to Erie Street

Mean R-Value Equation

$$R_{mean} = \frac{N_t \overline{R_t} \sigma_c^2 + N_c \overline{R_c} \sigma_t^2}{N_t \sigma_c^2 + N_c \sigma_t^2}$$

Tested R-Values

Boring ID	Depth	R-Value
Assumed	C-2 @ 0.9-1.5	64
Assumed	C-3 @ 1.1-1.5	63
Number of R-Value Tests (N_t):		2
Mean R-Value Tests (R_t):		63.4
Std Dev. of R-Values (σ_t):		1.2
Adjusted Mean R-Value (R'_t):		63.4

Correlated R-Values

Boring ID	Depth	PI	-#200	R-Value
C-2	0.9-1.5	6	15	64
C-3	1.1-1.5	6	17	63
Number of Correlated R-Values (N_c):				2
Mean of Correlated R-Value Results (R_c):				63.4
Std Dev. of Correlated R-Values (σ_c):				1.2
Adjusted Mean of Correlated R-Value (R'_c):				63.4

Calculated R_{mean}	63.4
Design R_{mean}	55
Calculated Control R_c	59.6
Design Control R_c	55

Resilient Modulus Equation

$$M_R = \frac{1815 + 225(R_{mean}) + 2.40(R_{mean})^2}{0.6(SVF)^{0.6}}$$

Maximum Allowable Resilient Modulus (M_R) _{max}	26,000
Seasonal Variation Factor, SVF	2.6
Calculated Resilient Modulus M_R (adjusted for SVF) (psi)	20,151
Design Resilient Modulus M_R (psi)	20,151