PAVEMENT DATA REPORT

LAK-84-0.79 (PID 112506)
SR-84 (BISHOP ROAD/RIDGE ROAD), WICKLIFFE, OHIO

SME Project Number: 092062.14
MARCH 20, 2024

SME

SME

9375 Chillicothe Road
Kirtland, OH 44094-8501

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March 20, 2024

Mr. Kyle J. Dohlen, PE
Transportation Engineer
Planning and Engineering
ODOT District 12
5500 Transportation Boulevard
Garfield Heights, Ohio 44125

Via E-Mail: Kyle.Dohlen@dot.ohio.gov

RE: LAK-84-0.79 - Pavement Cores
VAR-District 12/District 3 Subs Inv for Pvmt & Bridges
Wickliffe, Ohio
PID No. 112506
Task D-12-14

Dear Mr. Dohlen:

The attached data report presents the results of our pavement exploration for LAK-84-0.79 (Bishop Road/Ridge Road) in Wickliffe, Ohio.

If you have questions, please feel free to call.

Sincerely,

SME

Brendan P. Lieske, PE
Senior Consultant/Project Manager

Enclosure: Pavement Core Data Report, Dated March 20, 2024

1. INTRODUCTION

This data report presents the results of our pavement exploration for the LAK-84-0.79 (Bishop Road/Ridge Road) project in Wickliffe, Ohio. Existing conditions were evaluated by performing pavement coring at eight locations, designated X-001-0-24 to X-008-0-24. This exploration was performed in general accordance with the current ODOT Specifications for Geotechnical Explorations and SME's proposal, dated January 23, 2024. The pavement core samples were taken to our Kirtland laboratory for visual classification. No recommendations were requested from ODOT at this time.

2. RECONNAISSANCE

SME visited the project site on February 22, 2024, to perform site reconnaissance and mark the core locations. The project length is approximately 2.5 miles, from about 250 feet north of Johnson Drive to about 175 feet west of SOM Center Road. Through the project extents, Bishop Road and Ridge Road consists of a two-lane, asphalt paved roadway with narrow shoulders on each side.

3. EXPLORATION

Pavement conditions were identified by a field exploration program consisting of eight pavement cores designated X-001-0-24 to X-008-0-24. SME visited the site on March 12, 2024, to perform our field exploration. Coring equipment consisted of a 6-inch diameter core barrel with water. We cored the pavement until we reached the underlying base material. Where base material was present, we obtained a sample for visual classification and measured its thickness. The core holes were patched with asphalt cold patch. The approximate core locations are shown below and on the attached *Core Location Diagrams*. The before and after photographs of the core locations are shown in Figures 1 through 16.

Core samples were marked with the location number after each sample was obtained. Aggregate base samples were placed in clean glass jars and marked with project number, core number, and layer thickness. The samples were taken to our Kirtland laboratory where they were visually classified.

FIGURES NO. 1 & 2: Before and After Photographs of X-001-0-24

FIGURES NO. 3 & 4: Before and After Photographs of X-002-0-24

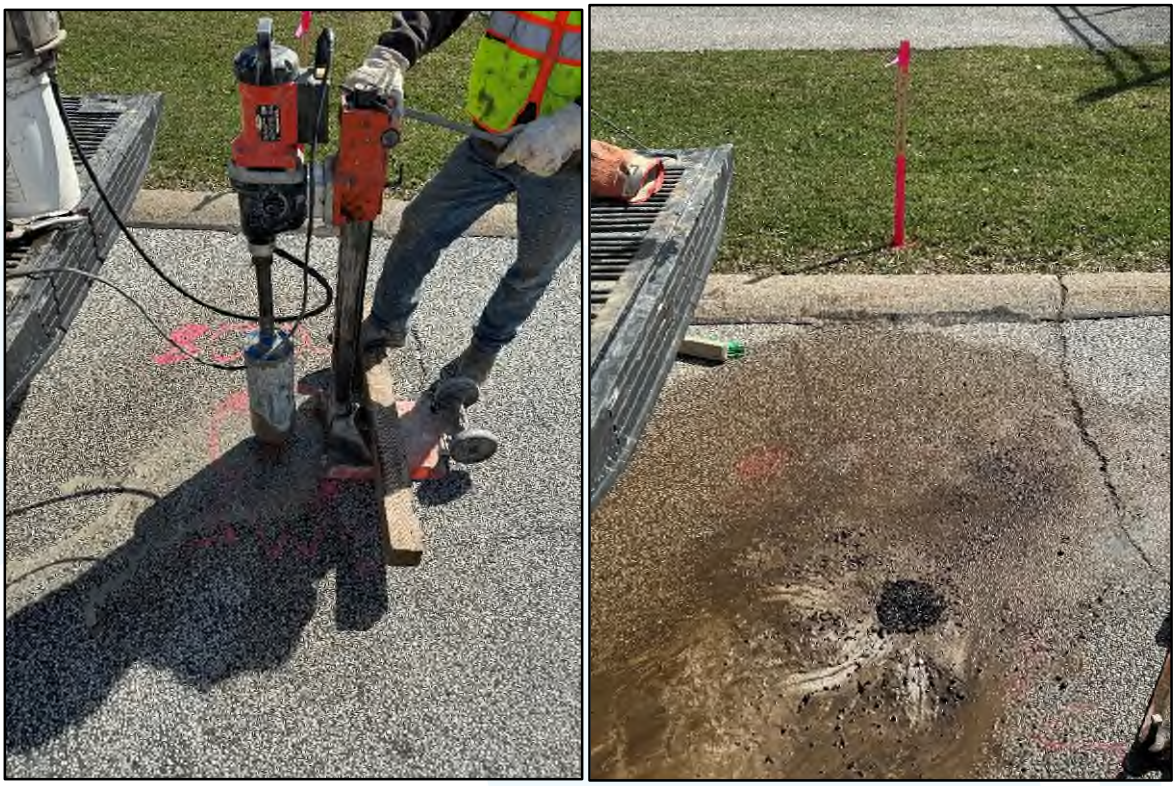
FIGURES NO. 5 & 6: Before and After Photographs of X-003-0-24

FIGURES NO. 7 & 8: Before and After Photographs of X-004-0-24

FIGURES NO. 9 & 10: Before and After Photographs of X-005-0-24

FIGURES NO. 11 & 12: Before and After Photographs of X-006-0-24

FIGURES NO. 13 & 14: Before and After Photographs of X-007-0-24



FIGURES NO. 15 & 16: Before and After Photographs of X-008-0-24

4. FINDINGS

At each location, we encountered 7 to 18 inches of pavement. Locations X-001-0-24 and X-008-0-24 consist of 7 and 10½ inches of asphalt, respectively. Locations X-002-0-24 through X-007-0-24 consist of 2¾ to 9¾ inches of asphalt over 7½ to 8¼ inches of unreinforced concrete. The asphalt was delaminated from the concrete section at each of these locations, except for X-004-0-24. Samples X-003-0-24 and X-004-0-24 were cored near the edge of the existing pavement in the narrow shoulder.

SME encountered aggregate base at core locations X-001-0-24, X-003-0-24, and X-008-0-24 which ranged from about 3½ to 7 inches thick and consisted of varying amounts of crushed limestone, pea gravel, slag, and sandstone. We did not encounter aggregate base at the other sample locations.

5. SIGNATURES

PREPARED BY:

Brian Mercado

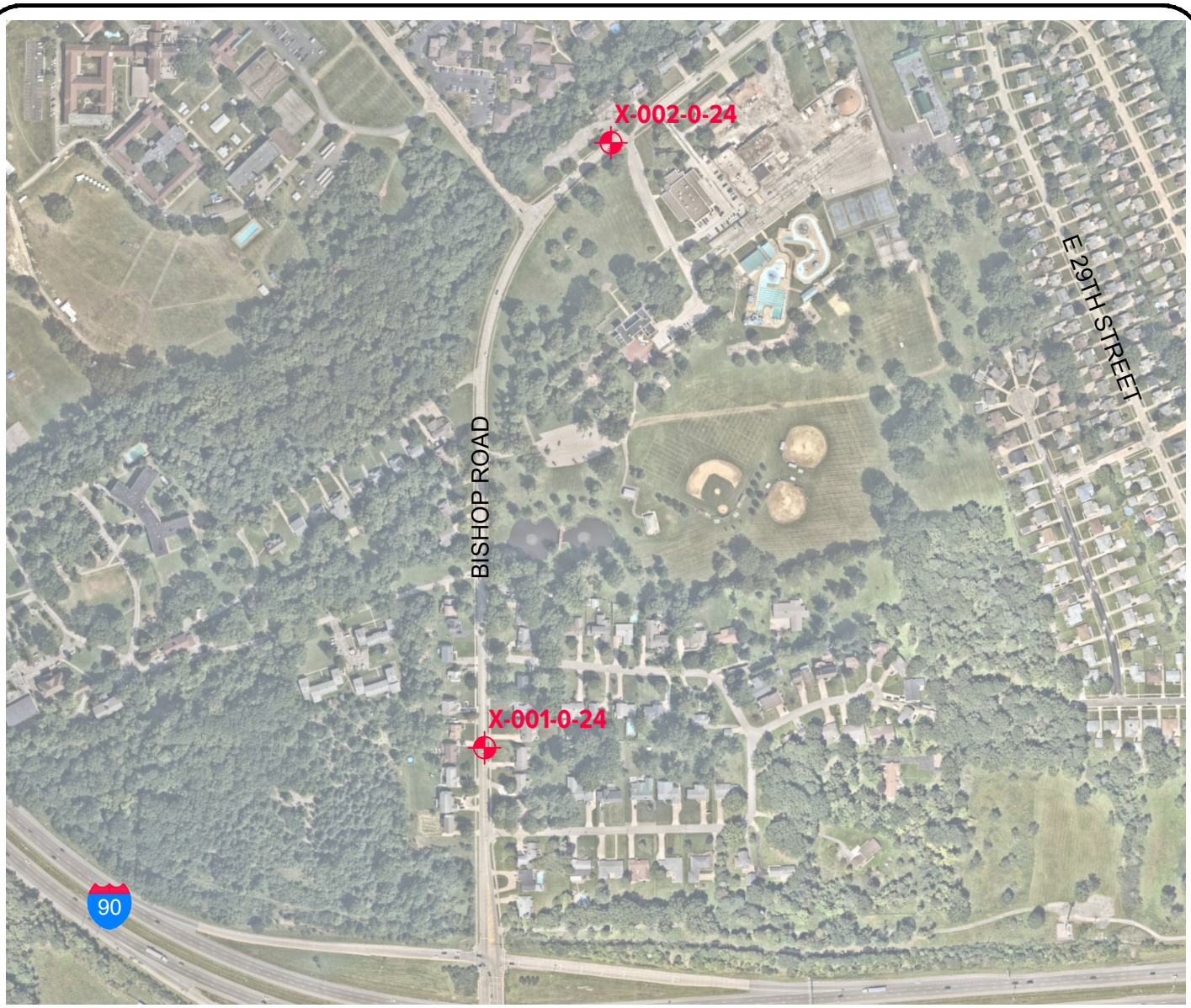
Brian A. Mercado
Staff Engineer

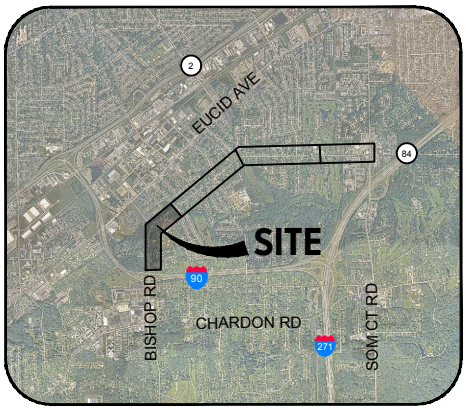
REVIEWED BY:

Brendan Lieske

Brendan P. Lieske, PE
Senior Consultant

APPENDIX A
CORE LOCATION DIAGRAM
PAVEMENT CORE PHOTO LOG





LOCATION MAP

NOT TO SCALE

LEGEND

APPROXIMATE CORE LOCATION

NOTE:
1. AERIAL IMAGE TAKEN FROM GOOGLE EARTH PRO WITH AN IMAGE DATE OF 04-18-2022.

0' 500' 1000'

GRAPHIC SCALE: 1" = 500'

No.	Revision Date		
		Date	03-15-2024
		Drawn By	CRC
		Designed By	BAM
		Scale	AS NOTED
		Project	092062.14

CORE LOCATION DIAGRAM
LAK-84-0.79 -PAVEMENT CORES
PID 112506
BISHOP ROAD/RIDGE ROAD, WICKLIFFE, OH

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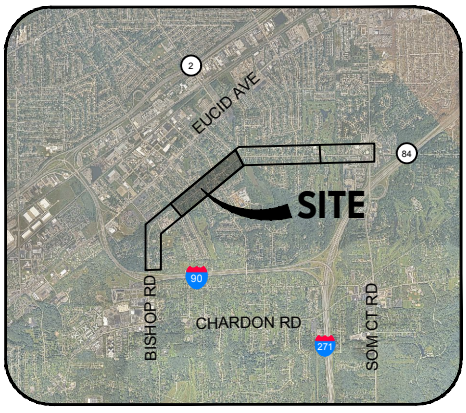
Figure No. 17



LOCATION MAP

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LEGEND

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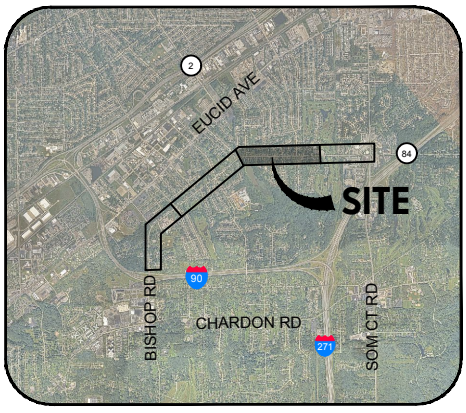
Figure No. 18



LOCATION MAP

NOT TO SCALE

LEGEND

APPROXIMATE CORE LOCATION

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Figure No. 19

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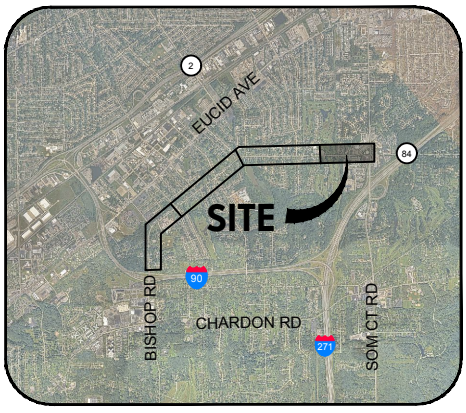

LOCATION MAP

NOT TO SCALE

LEGEND

APPROXIMATE CORE LOCATION

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		Date	03-15-2024
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		Scale	AS NOTED
		Project	092062.14

CORE LOCATION DIAGRAM
LAK-84-0.79 -PAVEMENT CORES
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Figure No. 20

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LAK-84-0.79 (PID 112506)
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SME Project #: 092062.14
March 14, 2024

X-001-0-24

Layer Thickness, in.	Description	Comments
2	**ASPHALT:** Surface Course	- 7 inches of pavement total - Core observed to be intact
5	**ASPHALT:** Intermediate Course	- Shallow vertical crack observed through intermediate layer
3½	**AGGREGATE BASE:** Crushed Limestone and Pea Gravel	

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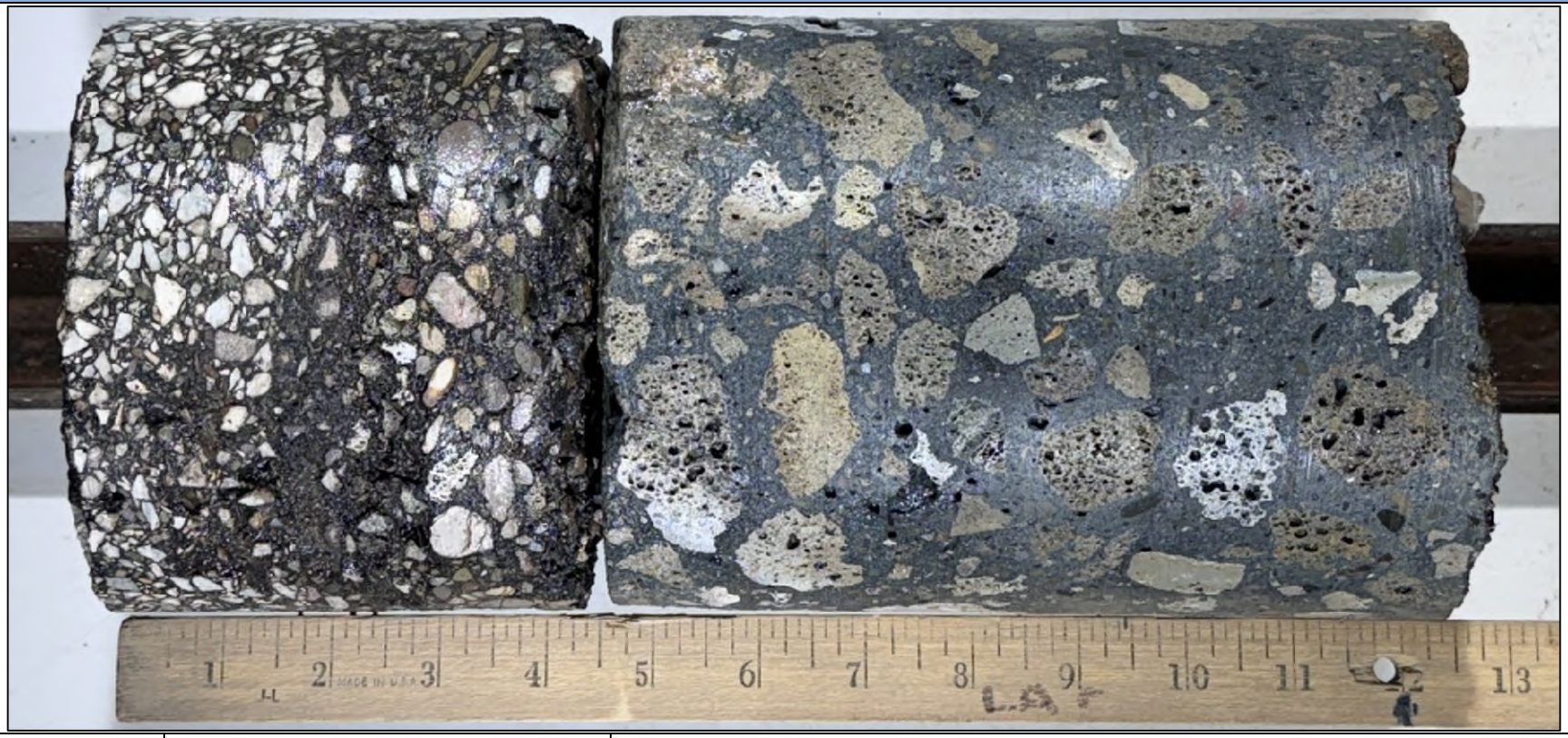
March 14, 2024

X-002-0-24



Layer Thickness, in.	Description	Comments
2	**ASPHALT:** Surface Course	- 12½ inches of pavement total - Asphalt and concrete sections observed to be intact
2½	**ASPHALT:** Intermediate Course	- Slight deterioration in layer - Delaminated from concrete section
8	**UNREINFORCED CONCRETE**	
--	**NO AGGREGATE BASE ENCOUNTERED**	

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SME Project #: 092062.14
March 14, 2024

X-003-0-24

Layer Thickness, in.	Description	Comments
1½	**ASPHALT:** Surface Course	- 10½ inches of pavement total - Asphalt broken/deteriorated
1¼	**ASPHALT:** Intermediate Course	- Delaminated from concrete section
7¾	**UNREINFORCED CONCRETE**	- Concrete section observed to be intact
5½	**AGGREGATE BASE:** Crushed Limestone and Slag	

LAK-84-0.79 (PID 112506)
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March 14, 2024

X-004-0-24

Layer Thickness, in.	Description	Comments
3½	**ASPHALT:** Surface Course	- 13½ inches of pavement total - Asphalt and concrete sections observed to be intact
1¾	**ASPHALT:** Intermediate Course	
8¼	**UNREINFORCED CONCRETE**	
--	**NO AGGREGATE BASE ENCOUNTERED**	

LAK-84-0.79 (PID 112506)
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SME Project #: 092062.14
March 14, 2024

X-005-0-24

Layer Thickness, in.	Description	Comments
3	**ASPHALT:** Surface Course	- 13½ inches of pavement total
2½	**ASPHALT:** Intermediate Course	- Moderate deterioration in layer - Delaminated from concrete section
8	**UNREINFORCED CONCRETE**	- Concrete section observed to be intact
--	**NO AGGREGATE BASE ENCOUNTERED**	

LAK-84-0.79 (PID 112506)
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SME Project #: 092062.14
March 14, 2024

X-006-0-24

Layer Thickness, in.	Description	Comments
2½	**ASPHALT:** Surface Course	- 12½ inches of pavement total
2½	**ASPHALT:** Intermediate Course	- Moderate deterioration in intermediate layer - Delaminated from concrete section
7½	**UNREINFORCED CONCRETE**	- Concrete section observed to be intact
--	**NO AGGREGATE BASE ENCOUNTERED**	

LAK-84-0.79 (PID 112506)
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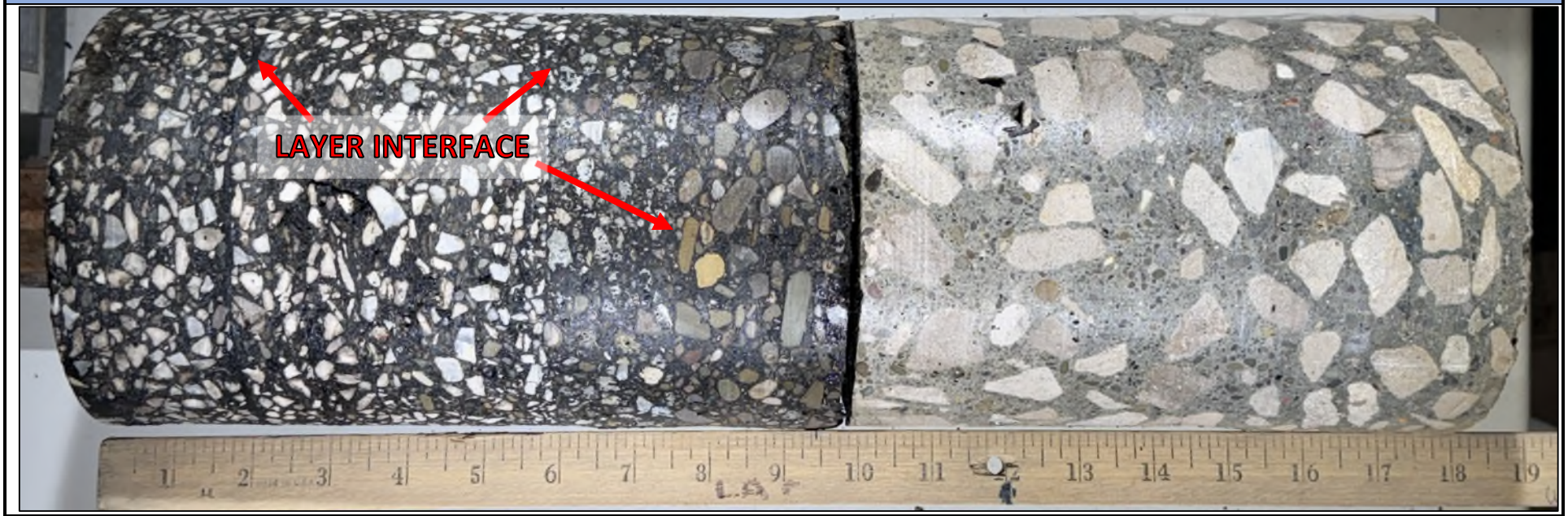
SME Project #: 092062.14
March 14, 2024

X-007-0-24



Layer Thickness, in.	Description	Comments
2	**ASPHALT:** Surface Course	- 18 inches of pavement total - Asphalt and concrete sections observed to be intact
4	**ASPHALT:** Surface Course	
1½	**ASPHALT:** Surface Course	
2¼	**ASPHALT:** Intermediate Course	- Delaminated from concrete section
8¼	**UNREINFORCED CONCRETE**	
--	**NO AGGREGATE BASE ENCOUNTERED**	

LAK-84-0.79 (PID 112506)
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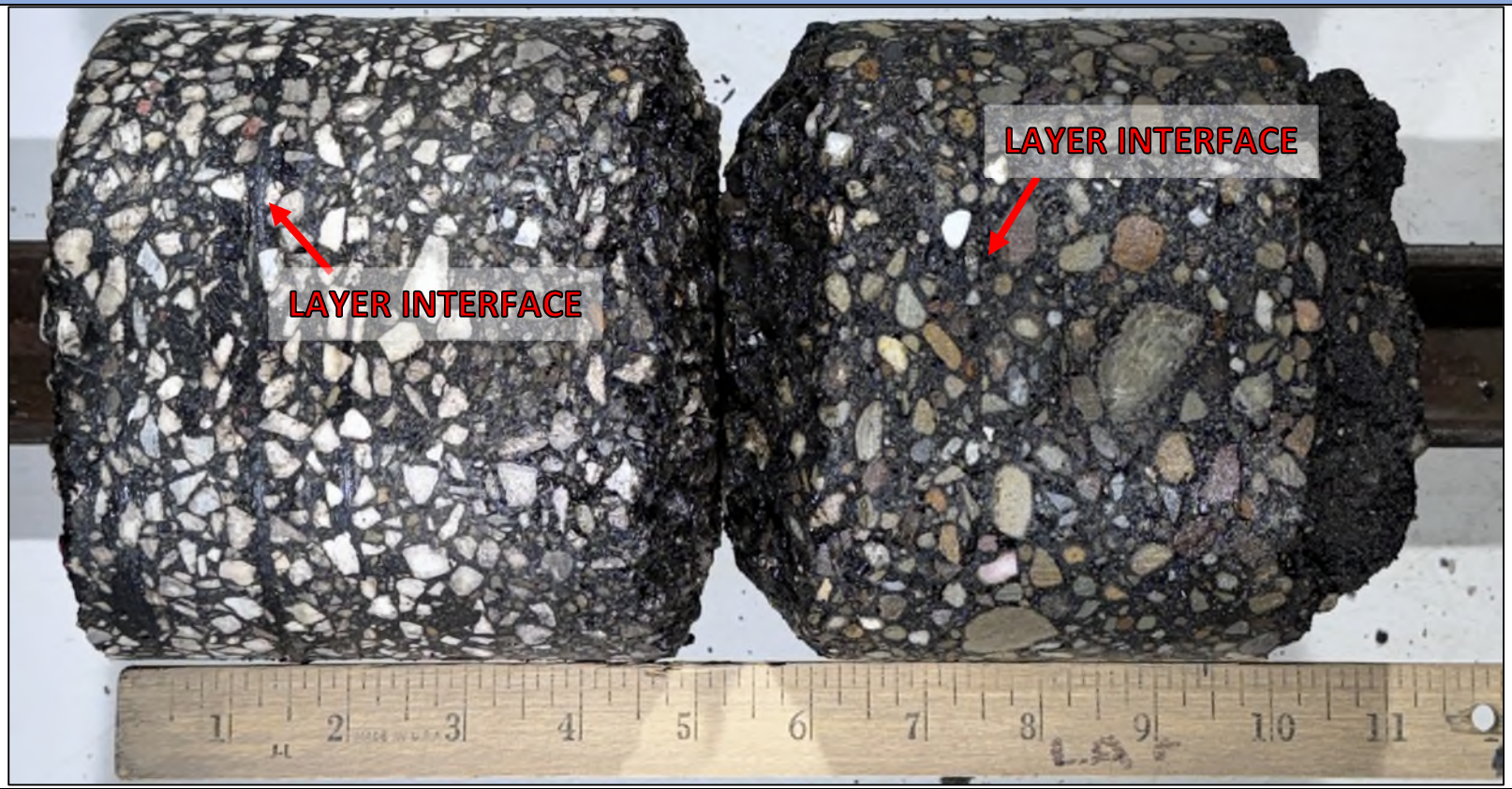
March 14, 2024

X-008-0-24



Layer Thickness, in.	Description	Comments
1½	**ASPHALT:** Surface Course	- 10½ inches of pavement total
4	**ASPHALT:** Surface Course	
2	**ASPHALT:** Intermediate Course	- Deteriorated at interface of surface and intermediate layers
3	**ASPHALT:** Intermediate Course	
7	**AGGREGATE BASE:** Crushed Limestone, Sandstone, and Pea Gravel	

APPENDIX B
GENERAL COMMENTS

GENERAL COMMENTS

BASIS OF GEOTECHNICAL REPORT

This report has been prepared in accordance with generally accepted geotechnical engineering practices to assist in the design and/or evaluation of this project. If the project plans, design criteria, and other project information referenced in this report and utilized by SME to prepare our recommendations are changed, the conclusions and recommendations contained in this report are not considered valid unless the changes are reviewed, and the conclusions and recommendations of this report are modified or approved in writing by our office.

The discussions and recommendations submitted in this report are based on the available project information, described in this report, and the geotechnical data obtained from the field exploration at the locations indicated in the report. Variations in the soil and groundwater conditions commonly occur between or away from sampling locations. The nature and extent of the variations may not become evident until the time of construction. If significant variations are observed during construction, SME should be contacted to reevaluate the recommendations of this report. SME should be retained to continue our services through construction to observe and evaluate the actual subsurface conditions relative to the recommendations made in this report.

In the process of obtaining and testing samples and preparing this report, procedures are followed that represent reasonable and accepted practice in the field of soil and foundation engineering. Specifically, field logs are prepared during the field exploration that describe field occurrences, sampling locations, and other information. Samples obtained in the field are frequently subjected to additional testing and reclassification in the laboratory and differences may exist between the field logs and the report logs. The engineer preparing the report reviews the field logs, laboratory classifications, and test data and then prepares the report logs. Our recommendations are based on the contents of the report logs and the information contained therein.

REVIEW OF DESIGN DETAILS, PLANS, AND SPECIFICATIONS

SME should be retained to review the design details, project plans, and specifications to verify those documents are consistent with the recommendations contained in this report.

REVIEW OF REPORT INFORMATION WITH PROJECT TEAM

Implementation of our recommendations may affect the design, construction, and performance of the proposed improvements, along with the potential inherent risks involved with the proposed construction. The client and key members of the design team, including SME, should discuss the issues covered in this report so that the issues are understood and applied in a manner consistent with the owner's budget, tolerance of risk, and expectations for performance and maintenance.

FIELD VERIFICATION OF GEOTECHNICAL CONDITIONS

SME should be retained to verify the recommendations of this report are properly implemented during construction. This may avoid misinterpretation of our recommendations by other parties and will allow us to review and modify our recommendations if variations in the site subsurface conditions are encountered.

PROJECT INFORMATION FOR CONTRACTOR

This report and any future addenda or other reports regarding this site should be made available to prospective contractors prior to submitting their proposals for their information only and to supply them with facts relative to the subsurface evaluation and laboratory test results. If the selected contractor encounters subsurface conditions during construction, which differ from those presented in this report, the contractor should promptly describe the nature and extent of the differing conditions in writing and SME should be notified so that we can verify those conditions. The construction contract should include provisions for dealing with differing conditions and contingency funds should be reserved for potential problems during earthwork and foundation construction. We would be pleased to assist you in developing the contract provisions based on our experience.

The contractor should be prepared to handle environmental conditions encountered at this site, which may affect the excavation, removal, or disposal of soil; dewatering of excavations; and health and safety of workers. Any Environmental Assessment reports prepared for this site should be made available for review by bidders and the successful contractor.

THIRD PARTY RELIANCE/REUSE OF THIS REPORT

This report has been prepared solely for the use of our Client for the project specifically described in this report. This report cannot be relied upon by other parties not involved in the project, unless specifically allowed by SME in writing. SME also is not responsible for the interpretation by other parties of the geotechnical data and the recommendations provided herein.

Passionate People Building
and Revitalizing our World

SME