



May 19, 2023

ODOT District 12
5500 Transportation Boulevard
Garfield Heights, OH 44125

Attention: Mr. Kyle J. Dohlen, P.E.

Reference: **District 12/3 Subsurface Investigation for Pavement & Bridges
PID No. 114573 Agreement No. 36312**

**Pavement Core Exploration – Data Report
Task Order No. D12-18
CUY-237-6.95 Pavement Cores (PID 114522)**
Brookpark, Cuyahoga County, Ohio
S&ME Project No. 216069U

Mr. Dohlen:

S&ME, Inc. (S&ME) has completed the scope of work requested in the March 8, 2023, ODOT District 12 (D12) Task Order Request for Proposal (RFP) for the above referenced CUY-237-6.95 pavement coring project. S&ME's proposal for this work, dated March 24, 2023, was authorized by D12 via email on April 6, 2023.

Scope of Work

The authorized scope of work included performing four (4) cores through the existing pavement along State Route 237 near the bridge over Snow Road in Brookpark, Cuyahoga County, Ohio. A Vicinity Map (Plate 1 in the Attachments) presents the general project location, and Plate 2 presents a more detailed view of the approximate locations of the completed pavement cores.

Field Exploration

S&ME visited the site on May 5, 2023, to mark the core locations. The core locations, which were selected by ODOT D12, were marked based on measurements from the bridge abutments as shown in ODOT's *Plan and Profile S.R. 237 – STA. 71+00 to STA. 79+00* plan sheet which ODOT provided with the March 8, 2023 RFP. Ohio 811 was contacted to locate and mark underground utilities in the vicinity of the proposed core locations.

S&ME and our sub-consultant, Ohio Concrete Sawing and Drilling visited the site on May 12, 2023, to perform the pavement coring. At each location, the pavement was cored with a nominal 4-inch diameter diamond tipped core bit. The pavement cores were retrieved, and the length of the recovered pavement cores were measured and recorded. The recovered cores were then examined and photographed in the field, and their general conditions were noted. The cores were then labeled, packaged, and delivered to S&ME's facility in Solon, Ohio. A publicly available mapping program was used to convert measurements between the core locations and bridge abutments and concrete barrier wall between the northbound and southbound lanes to obtain approximate



latitude/longitude coordinates for each core. Prior to demobilizing from the site, each core hole was patched with rapid-set concrete topped with cold-patch asphalt.

Findings and Observations

An abbreviated summary of the observations of the recovered cores is as follows:

- An asphalt surface was encountered at each location, ranging from 1½ to 3½ inches thick.
- The asphalt thickness in Cores X-001-0-23 and X-002-0-23, in the northbound left lane and inside shoulder just south of the bridge, was 2 and 1½ inches, respectively. In Cores X-003-0-23 and X-004-0-23, in the southbound left lane and inside shoulder just north of the bridge, the asphalt was 3½ and 3¼ inches thick, respectively.
- Concrete was encountered beneath the asphalt at each core location, with individual thicknesses ranging from 8¾ to 10 inches (average thickness of approximately 9½ inches).
- Reinforcing steel was observed in Cores X-001-0-23 and X-003-0-23 obtained in the travel lanes, at 7¼ and 4½ inches, respectively, below the concrete surface.

The core location coordinates, material thicknesses and general description of the cores are summarized on the *Pavement Core Identification Summary* sheet, included as Plate 3 in the Attachments. Photographs of the recovered cores are provided on Plates 4 and 5 in the Attachments.

We appreciate being given the opportunity to be of service. Please do not hesitate to contact our office if you have any questions concerning our report.

Sincerely,

S&ME, Inc.

Shawn H. Smith, P.E.
Project Engineer

Richard S. Weigand, P.E.
Principal Engineer/Senior Reviewer

Attachments: Vicinity Map (1 sheet)
Plan of Cores (1 sheet)
Pavement Core Identification Summary (1 sheet)
Pavement Core Photos (2 sheets)

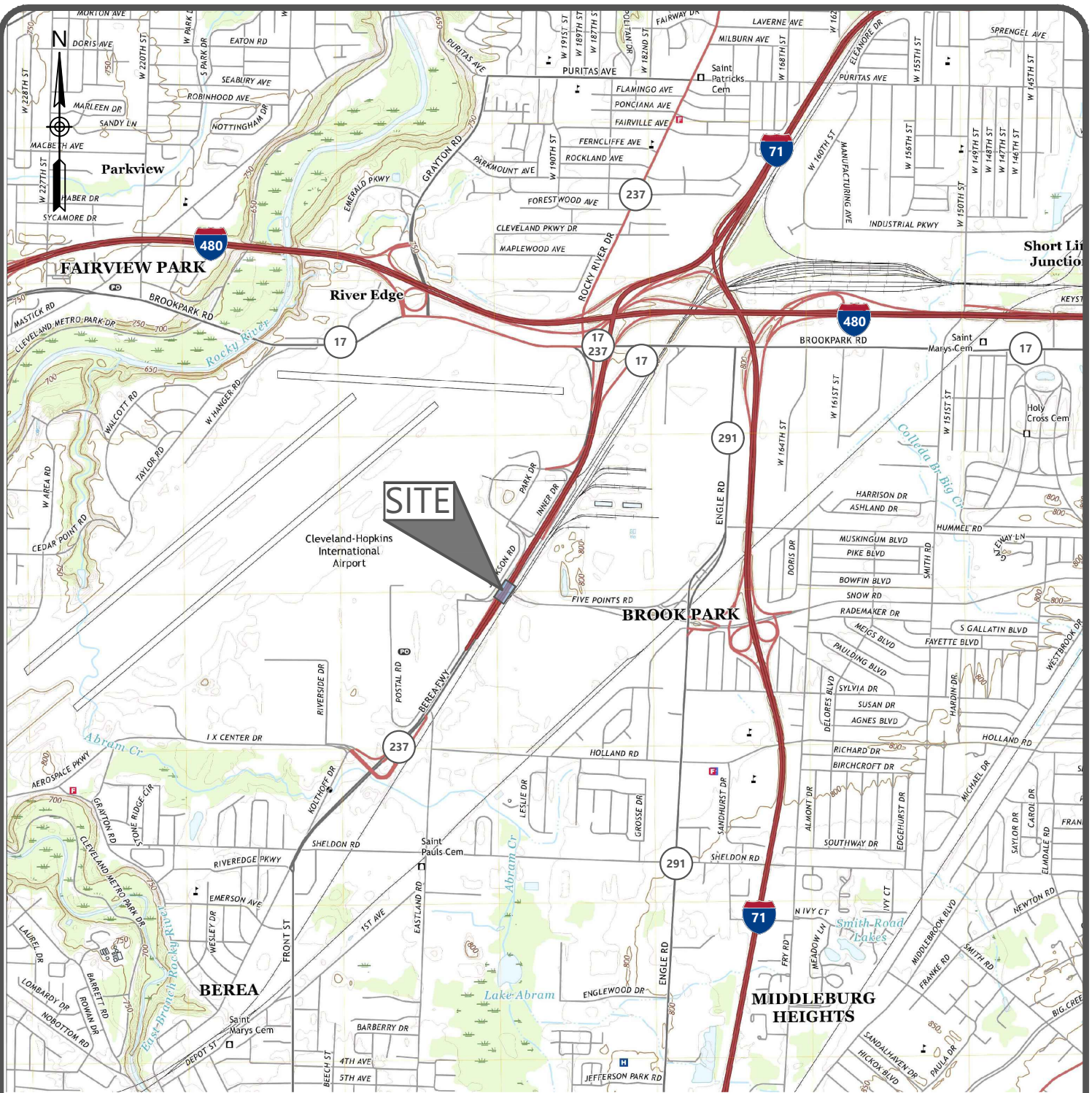
Submitted: Email Copy (Kyle.Dohlen@dot.ohio.gov)



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Brookpark, Cuyahoga County, Ohio
S&ME Project No. 216069U

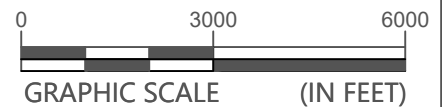
Attachments

Drawing Path: T:\Columbus-1170\Projects\2021\216069_ODOT_D12-3_GES_Ohio\216069U_CUY-237-6.95_VMAP and POB (Portrait).dwg



Project Location
Cuyahoga County, Ohio

USGS Mapping:
Lakewood USGS Quad

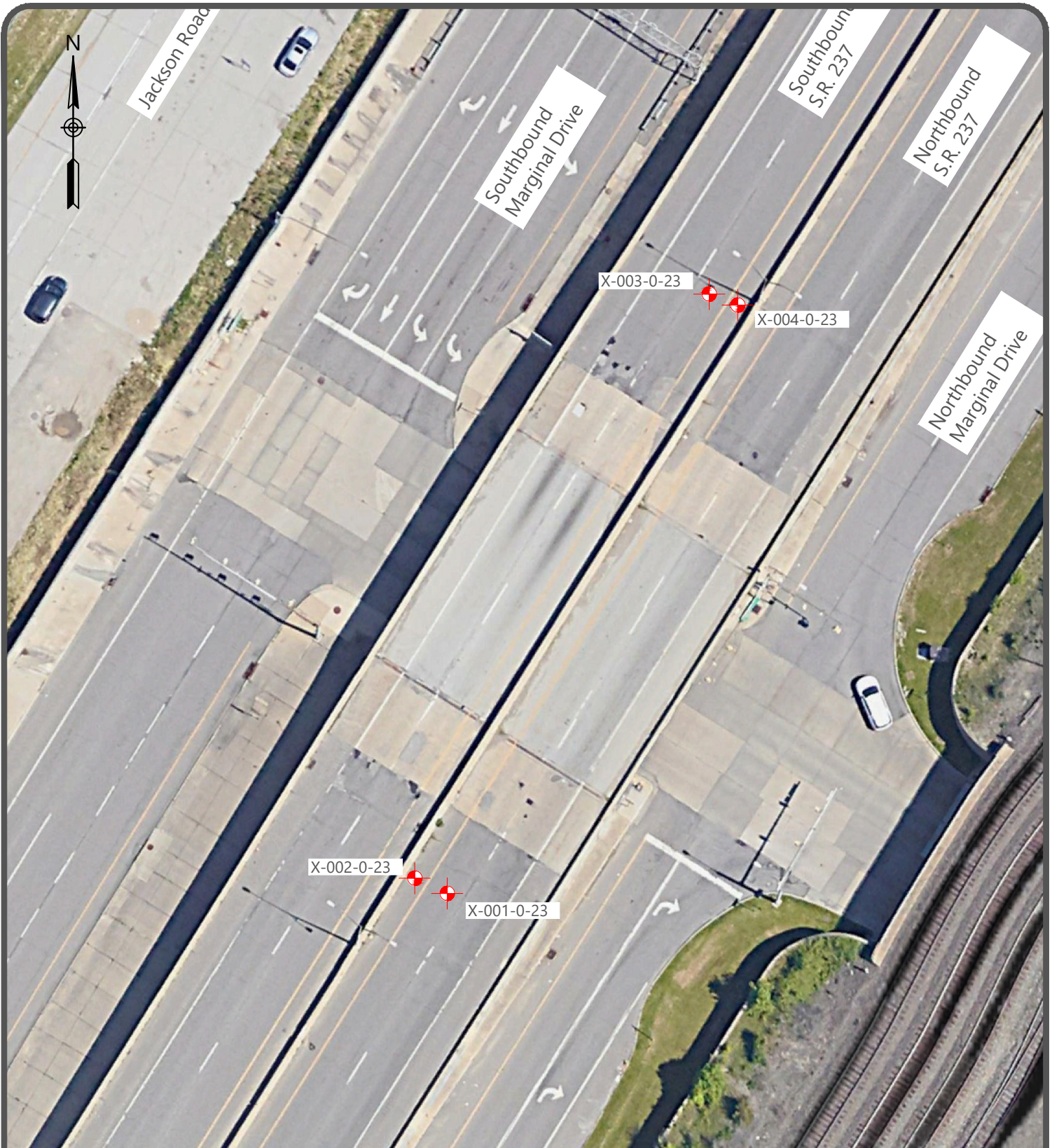


Vicinity Map

Pavement Core Exploration
CUY-237-6.95 Pavement Cores (PID 114522)
Brookpark, Cuyahoga County, Ohio

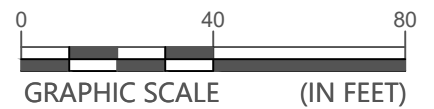
SCALE:	FIGURE NO.
GRAPHIC	1
DATE:	
PROJECT NUMBER	
216069U	

Drawing Path: T:\Columbus-1170\Projects\2021\216069_ODOT_D12-3_GES_Ohio\216069U_CUY-237-6.95_Cores\CAD\Sketch\CUY-237-6.95_VMAP and POB (Portrait).dwg



LEGEND

 X-001-0-23 Core Location and Number



Plan of Cores

Pavement Core Exploration
 CUY-237-6.95 Pavement Cores (PID 114522)
 Brookpark, Cuyahoga County, Ohio

SCALE:	GRAPHIC
DATE:	05-17-2023
PROJECT NUMBER	216069U

FIGURE NO.

2

Pavement Core Identification Summary



Date(s) Cored: 5/12/2023

S&ME Project No.: 216069U

Identified By: Shawn Smith

Project Name: CUY-237-6.95 Pavement Cores (PID 114522)

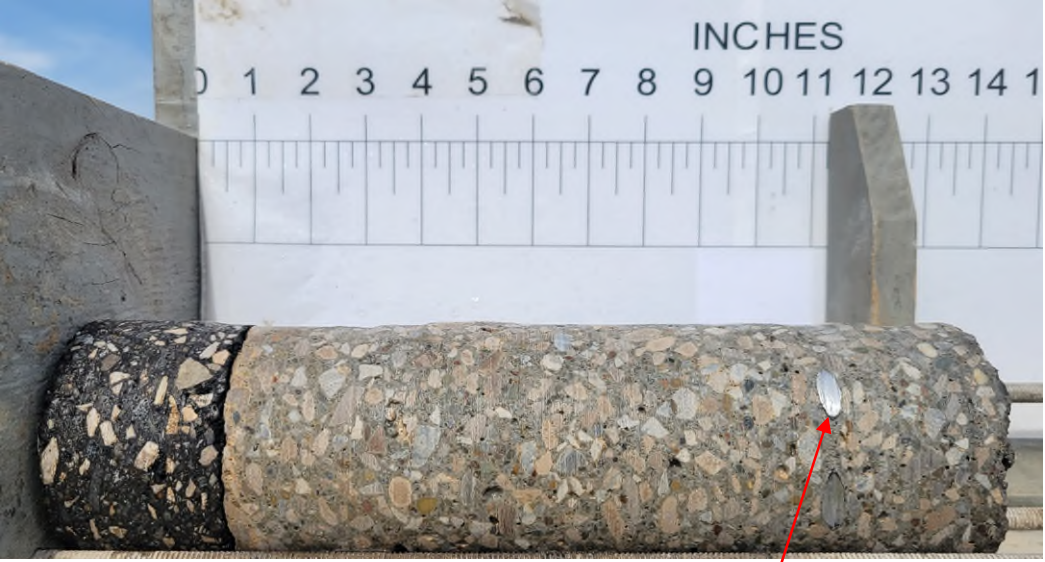
Date(s) Identified: 5/12/2023

Project Location: Brookpark, Cuyahoga County, Ohio


Client: ODOT District 12

Core Number	Latitude/Longitude		Station, Offset	Lane / Location	Asphalt (in.)	Concrete (in.)	Total Core Thickness (in.)	Notes:
X-001-0-23	41.404374°	-81.836919°	Station 72+03 13 feet right of CL	Northbound Left Lane 50 feet south of the Snow Road bridge	2	9¼	11¼	Reinforcing steel was observed approximately 7¼ inches below the top of concrete.
X-002-0-23	41.404386°	-81.836952°	Station 72+03 4 feet right of CL	Northbound Left Shoulder 50 feet south of the Snow Road bridge	1½	10	11½	
X-003-0-23	41.404868°	-81.836630°	Station 74+00 15 feet left of CL	Southbound Left Lane 65 feet north of the Snow Road bridge	3½	9¼	13¼	Reinforcing steel was observed approximately 4½ inches below the top of concrete.
X-004-0-23	41.404860°	-81.836604°	Station 74+00 5 feet left of CL	Southbound Left Shoulder 65 feet north of the Snow Road bridge	3¼	8¾	12	



		Date: 5/12/2023
		Photographer: SHS
1	Core Number / Thickness	X-001-0-23 / Asphalt = 2 " Concrete = 9¼"
	Remarks	Reinforcing steel was observed approximately 7¼ inches below the top of concrete.

Reinforcing steel

		Date: 5/12/2023
		Photographer: SHS
2	Core Number / Thickness	X-002-0-23 / Asphalt = 1½" Concrete = 10 "
	Remarks	

District 12/3 Subsurface Investigation for Pavement Bridges

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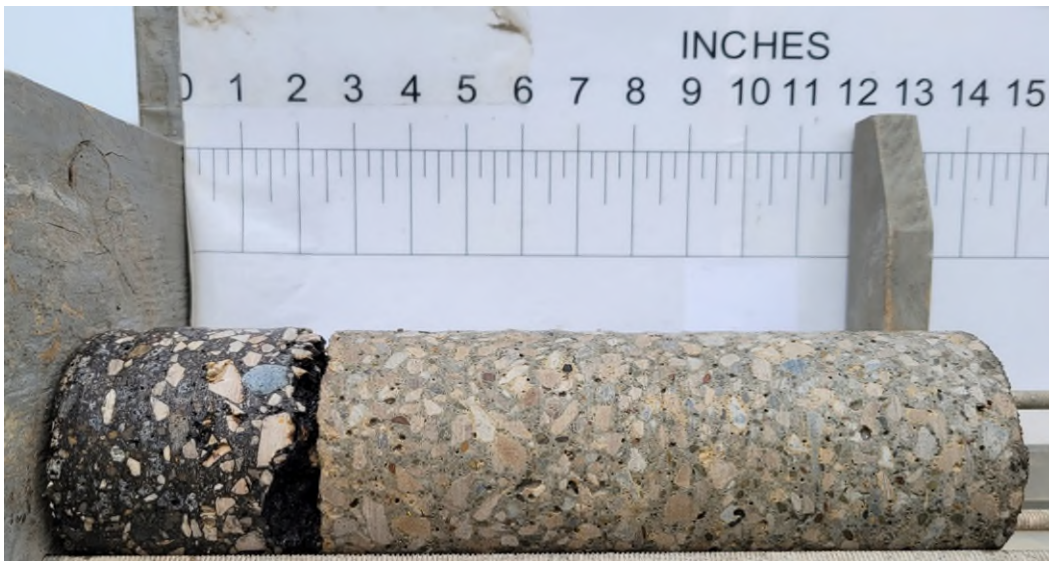


Reinforcing steel

Date: 5/12/2023

Photographer: SHS

3	Core Number / Thickness	X-003-0-23 / Asphalt = 3½" Concrete = 9¾"
	Remarks	Reinforcing steel was observed approximately 4½ inches below the top of concrete.



Date: 5/12/2023

Photographer: SHS

4	Core Number / Thickness	X-004-0-23 / Asphalt = 3¼" Concrete = 8¾"
	Remarks	