

City of Dublin Request for Services Pavement Condition Testing

January 20, 2023

The City of Dublin respectfully requests that a quote for the professional services described below. All quotes must be received by **February 10, 2023**.

A. Project Identification

The City of Dublin is seeking additional pavement data for our Annual Street Maintenance Program to help us better design, plan, prioritize and estimate our work.

B. Services Requested Overview

Determine pavement thickness by ground penetrating radar (GPR) and / or mechanical coring techniques. Perform non-destructive pavement deflection testing and analyze the data to provide recommended treatments to predefined segments of roadway in order to provide the most cost effective method of rehabilitation.

C. Detailed Description

Determine pavement thickness by ground penetrating radar (GPR) and / or mechanical coring; GPR shall follow ASTM D4748-10 *Standard test Method for Determining the Thickness of Bound Pavement Layers Using Short Pulse Radar*. GPR testing shall be performed on each segment, or as determined appropriate by the Consultant. Core pavement to verify pavement condition, thickness and composition. All pavement cores shall follow ODOT standards and shall be backfilled with suitable asphaltic concrete material. A minimum of one core per segment shall be performed, or as determined appropriate by the Consultant.

A heavy-duty falling weight deflectometer (FWD) shall be used to calculate stiffnessrelated parameters of the pavement structure. The moduli of individual layers are calculated based on surface deflections induced by the FWD machine and the pavement layer thickness. These moduli provide critical information regarding the pavement's structural condition. The subgrade Resilient Modulus (Mr) is used in MEPDG pavement design. The consultant shall determine the number of tests performed per segment, but a minimum of one test shall be performed on each pavement segment

The Consultant shall evaluate all of the collected data as well as any existing information by others to assess the current pavement condition and deficiencies to determine a matrix of rehabilitation options in order to provide the most cost effective method of rehabilitation for each pavement segment defined in Attachment A and identified in the referenced web map.

D. Attachments

Attachment A – 2024 Street Program (estimated 11.74 miles)

Web map address: <u>https://arcg.is/1mnKLr</u>

E. Deliverables

A report listing all pertinent data for each roadway segment including but not limited to pavement thickness and recommended pavement treatment. The data shall be delivered in both PDF and Microsoft Excel format.

F. Project Completion Time

The completion time for this project shall be 45 days from the execution of the Contract, but no later than **July 31, 2023**.

G. Project Contact

Robert Taylor, P.E., Director – Asset Management & Quality Assurance <u>rjtaylor@dublin.oh.us</u> 614.410.4775

Sincerely,

Robert J Taylor

Robert Taylor, P.E. Director, Asset Management & Quality Assurance

Attachment A

Project Number AT241

| LSN Abbie Glen Blvd | Miles 0.04052 | Avg. 2023PCI 63 |
|------------------------|------------------|--------------------|
| Alimoore Grn | 0.18192 | 75 |
| Aryshire Dr | 0.05817 | 67 |
| Avemore Ct | 0.21274 | 93 |
| Baronscourt Loop | 0.5766 | 67 |
| Baronscourt Way | 0.39249 | 73 |
| Blunden Rd | 0.10994 | 62 |
| Bowles Ct | 0.08553 | 57 |
| Bryne Ct | 0.09562 | 60 |
| Cara Ct | 0.08718 | 72 |
| Charmonte Ct | 0.05402 | 58 |
| Clifton Ct | 0.13044 | 63 |
| Conquistador Ct | 0.06994 | 71 |
| Cosgray Rd | 0.25545 | 67 |
| Coventry Woods Dr | 0.13294 | 56 |
| Crosshaven Ln | 0.05871 | 82 |
| Dale Dr | 0.05404 | 69 |
| Davington Dr | 0.15885 | 88 |
| Drury Rd | 0.07289 | 62 |
| Dublin Rd | 0.18189 | 84 |
| Enterprise Ct | 0.10794 | 62 |
| Frantz Rd | 1.12486 | 73 |
| Green Stone Loop | 0.24647 | 69 |
| Greenland Pl | 0.17507 | 67 |
| Hathaway Ct | 0.15506 | 72 |
| Hyland-Croy Rd | 0.33777 | 67 |
| Kildoon Ct | 0.07298 | 57 |
| Killilea Ct | 0.09498 | 57 |
| Killilea Dr | 0.07819 | 65 |
| Leith Dr | 0.37467 | 71 |
| Mcgreevy Dr | 0.17822 | 73 |
| Mcneven Ct | 0.08309 | 72 |

| Memorial Dr | 0.68454 | 66 |
|------------------|---------|----|
| Myrtlestone St | 0.10322 | 70 |
| N High St | 0.30344 | 89 |
| Nolon Ct | 0.07876 | 69 |
| Norn St | 0.2007 | 50 |
| Oak Meadow Dr | 0.40396 | 61 |
| Oak Park Blvd | 0.12621 | 74 |
| Oak View Ave N | 0.09476 | 55 |
| Oak View Ave S | 0.09476 | 59 |
| Oaktree Dr N | 0.11626 | -5 |
| Oaktree Dr S | 0.11719 | -5 |
| Perimeter Dr | 0.49628 | 50 |
| Pleasant Dr | 0.2784 | 64 |
| Preswick Dr | 0.15548 | 81 |
| Primrose Ct | 0.07801 | 69 |
| Red Stone Loop | 0.20366 | 77 |
| Shamrock Blvd | 0.281 | 67 |
| Sharp Ln | 0.35741 | 54 |
| Shier-Rings Rd | 0.56713 | 71 |
| Snowdrop Ct | 0.07798 | 71 |
| Summerhouse Dr E | 0.29733 | 72 |
| Summerhouse Dr W | 0.42998 | 78 |
| Sweeny Ct | 0.05833 | 74 |
| Wicklow Ct | 0.09424 | 61 |
| | 11.7382 | |
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