Administrative Use Only
Amendment Date: _____

AMENDMENT NUMBER 5 TO AGREEMENT FOR PROFESSIONAL SERVICES BETWEEN DLZ MICHIGAN, INC. AND THE CITY OF ANN ARBOR FOR ENGINEERING DESIGN SERVICES

This Amendment Number 5 ("Amendment") is to the agreement between the City of Ann Arbor, ("City") and DLZ Michigan, Inc., having its offices at 1425 Keystone, Ave, Lansing, MI 48911, ("Contractor") for Engineering Design Services, which is dated October 29, 2021 ("Agreement"). City and Contractor agree to amend the Agreement as follows:

1) Article III, SERVICES, is amended to read as follows:

   A. The Contractor agrees to provide Engineering Design Services ("Services") in connection with the Project as described in **Exhibit A and A2**. The City retains the right to make changes to the quantities of the service within the general scope of the Agreement at any time by a write order. If the changes add to or deduct from the extent of services, the compensation shall be adjusted accordingly. All such changes shall be executed under the conditions of the original Agreement.

2) Article V, COMPENSATION OF CONTRACTOR, is amended to read as follows:

   A. The Contractor shall be paid in the manner set forth in **Exhibit B7**. B7 REPLACES Exhibits B1 to B6. Payment shall be made monthly, unless another payment term is specified, following receipt of invoices submitted by the Contractor, and approved by the Contract Administrator. Additional estimated fees added to contract from Exhibit B7 ($615,216.72). **The Total Fee to be paid to the Contractor for the Services shall not exceed $1,685,347.40**.

All terms, conditions, and provisions of the Agreement, unless specifically amended above, shall apply to this Amendment and are made a part of this Amendment as though expressly rewritten, incorporated, and included herein.

City and Contractor agree that for this Amendment and any documents related to the Agreement: 1) signatures may be delivered electronically in lieu of an original signature; 2) to treat electronic signatures as original signatures that bind them; and 3) signatures may be executed and delivered by facsimile and upon such delivery, the facsimile signature will be deemed to have the same effect as if the original signature had been delivered to the other party.

This Amendment to the Agreement shall be binding on the Parties' heirs, successors, and assigns.

[SIGNATURE PAGE FOLLOWS]

For_____

Contractor Name

By_____

Name:_____

Title:_____

Date: _____

For City of Ann Arbor

By _____
Christopher Taylor, Mayor

By _____
Jacqueline Beaudry, City Clerk

Date: _____

Approved as to substance

_____
Milton Dohoney Jr., City Administrator

_____

Brian Steglitz, Service Area Administrator

Approved as to form and content

_____
Atleen Kaur, City Attorney

EXHIBIT A2
SCOPE OF SERVICES

DLZ
ARCHITECTURE • ENGINEERING • PLANNING
SURVEYING • CONSTRUCTION SERVICES

INNOVATIVE IDEAS
EXCEPTIONAL DESIGN
UNMATCHED CLIENT SERVICE

March 3, 2023

Ms. Francisca Chan
City of Ann Arbor
Engineering
301 E. Huron St., 4th Floor
Ann Arbor, MI 48104

RE: Professional Engineering Services for Redesign of the East Medical Center Drive Bridge Widening Ann Arbor, Michigan

Dear Ms. Chan,

As requested by the Ann Arbor City Council during the February 21st City Council meeting, with the Resolution on the East Medical Center Drive (EMCD) Bridge Rehabilitation and Widening project, DLZ Michigan, Inc. (DLZ) is pleased to submit our proposal for design services to widen DLZ's previously designed EMCD bridge to accommodate a sidewalk width of at least 13 feet on the east side of the bridge and at least 10.5 feet on the west side of the bridge that is consistent with federal and state guidance.

From previous coordination meetings, discussions, and emails with City of Ann Arbor (City) staff related to the redesign of the EMCD bridge, DLZ has the following understanding and proposed work plan to complete the design work.

UNDERSTANDING OF PROJECT

Based on discussions with the City, it is our understanding that five vehicle lanes as designed will be maintained in the revised design. Changes anticipated are primarily to increase the width of the sidewalk and accommodate its impacts on the design of the project. The project is anticipated to be bid during Fall of 2023 with construction anticipated in 2024. Part of the redesign effort will include coordination with the University of Michigan (UM) and accommodate impacts resulting from delay in construction. Revisions to the superstructure and substructure design are anticipated along with impacts to the roadway, utilities, and maintenance of traffic as well. DLZ's intent is to utilize as much information as possible from the previous design effort including the survey, Subsurface Utility Engineering (SUE) and geotechnical data. Updated structural inspection will be required to assess current conditions of the bridge. New traffic counts are planned to update the traffic information and account for current pedestrian and vehicular traffic and include them in the revised design.

PROPOSED WORK PLAN

DLZ will manage all aspects of the project design up to the award of the construction contract(s) for the project. This includes the work of all sub-consultants, and project coordination with all affected agencies. The Project Manager will work towards the timely and cost-effective delivery of the project design, as well as provide

oversight and review of all project deliverables. The Project Manager will be responsible for the overall review and coordination of the contract documents to confirm preparation of plans that are detailed, thorough, accurate, and meet all the requirements of the City of Ann Arbor.

DLZ will be involved with public/stakeholder awareness and involvement strategies throughout the course of the design of the project, including public meetings; stakeholder meetings; e-mails; and other information sharing techniques. DLZ will communicate the purpose and the benefits of the project with the public and the stakeholders under the City's guidance and assist the City of Ann Arbor with all necessary negotiations with affected public and private agencies.

DLZ will prepare visual aids and attend the following meetings to coordinate the design of the project with the following groups:

City departments/state agencies/ Immediately affected property owners	Up to 7 meetings
University of Michigan (UM), Amtrak and the City	Up to 30 meetings/phone conferences (Or approximation 1 meeting/check in per week for the duration of the project)
Other public entities (AATA, UM Logistics, Transportation & Parking)	Up to 4 individual meetings
Planning Commission/City Council	2 progress updates 2 regular meetings

DLZ will coordinate elements of the design with affected parties, including, MDOT, AARR, various City Departments, UM, private utility companies, other formal and informal committees, and the public in general.

DLZ will schedule and chair design progress meetings to be held on a bi-monthly basis with agenda and requested attendees provided to all parties a week or more in advance. This is to include a design kick-off meeting in which all affected parties to the design will be contacted and invited to attend. DLZ shall prepare and distribute written meeting minutes for all progress and coordination meetings.

DLZ will prepare complete, thorough, and accurate contract documents including plans, specifications, bid forms, etc., to allow the project to be bid either as one project, or up to two projects, depending on the methods and timing of relocating the existing communication lines at the bridge.

DLZ will track project costs associated with the bridge rehabilitation, widening and utility relocation in separate categories (or other agreed upon categories) as much as possible in order to facilitate final cost sharing with UM.

SURVEY

DLZ will supplement our previously obtained topographic survey of the construction influence area with any new information since the previous topographic survey and SUE investigation was completed. DLZ does not

anticipate additional survey beyond the recently installed AT&T conduit banks and any other visually observable changes. All survey work shall be performed in accordance with the City of Ann Arbor Public Services Area's Standards and its Geodetic Control Manual. No survey inside the railroad right of way is anticipated.

MAINTENANCE OF TRAFFIC (MOT), TRAFFIC ANALYSIS, SIGNAL OPERATIONS

DLZ will use and build upon previous extensive traffic modeling around the project site as part of the EMCD Bridge project. DLZ had prepared Synchro traffic models of the study area analyzing expected operations under the Maintenance of Traffic (MOT) plans. It is assumed that the MOT scheme will not change as part of the bridge widening redesign. DLZ will collect new traffic data at all key intersections and curb cuts and obtain other information to update the Synchro models accordingly. Information on other construction projects that may impact traffic in the study area in the construction year of 2024 will be gathered to update the Synchro traffic models.

DLZ will collect turning movement volumes at up to 39 intersections. Data will be collected from 5:30am to 6:30pm on a typical Tuesday, Wednesday, or Thursday. Vehicular traffic will be classified as lights, medium, or heavy trucks. Pedestrian crossings and bicycle traffic data at each intersection will also be collected. Data will be collected in 15-minute increments.

Collected data will be analyzed to determine the AM and PM peak hour at each intersection for use in the update to the Work Zone Mobility Analysis (WZMA).

The following Synchro models will be updated as part of this effort:

- Existing Conditions AM and PM
- Construction Stage 1 AM and PM
- Construction Stage 2 AM and PM
- Construction Stage 3 AM and PM

DLZ will report the results of the WZMA updates via a memorandum and updated delay and queuing exhibits. The Synchro files will also be provided for review. DLZ has assumed that one round of updates will be made to the models based on the data and information collected. A second round of updates to address questions and comments received from the City and the UM following their review of the results and Synchro files.

Contract documents that define the required MOT layout and signal changes will be prepared so that the Contractor can accurately and feasibly implement the MOT scheme per the contract documents. However, the details will include enough flexibility so that changes that occur on-the-ground during construction, such as changes in traffic volumes, changes in staging, etc., can also be accommodated.

Maintaining pedestrians and one-lane of vehicle traffic in each direction will also be critical and a requirement of this project. DLZ will design, at a minimum, one sidewalk on EMCD that will always be maintained. Pedestrians will be detoured from one side of EMCD and/or West Medical Center Drive via existing pedestrian

crossings and sidewalk ramps or temporary sidewalks and ramps. DLZ assumes that the MOT scheme that was previously prepared will be used for the revised project design with only potentially minor changes based on revised traffic volumes and coordination with other nearby projects.

DLZ will revise the previously developed temporary traffic signal staging plans to accommodate the proposed MOT through the signalized intersection of EMCD at Fuller Road, the signalized intersection of EMCD at Cancer Center Drive, as well as the existing unsignalized intersection of EMCD and West Medical Center Drive. DLZ assumes that the temporary traffic signal locations will remain the same with temporary pole and/or signal head location adjustments. The WZMA is expected to result in recommended traffic signal timing plans for existing signals that are expected to experience different operations during construction and the use of temporary traffic signals at some intersections. Once the WZMA is finalized, DLZ will update the traffic signal timing permits for signals at these intersections. DLZ assumed that eight (8) timing permits will need to be updated as part of this effort.

ALTERNATIVE DEVELOPMENT AND EVALUATION

DLZ will begin preliminary design analysis after receiving NTP using existing information to prepare preliminary structure exhibits. These will be reviewed and discussed with stakeholders. Timely preparation, review, discussion, and approval of preliminary design will allow the project to move forward efficiently and on schedule. The preliminary design will be based on the bridge plans that were advertised for letting in October 2023, but will be adjusted to meet the requirements of the City's resolution that was passed at the City Council Meeting on February 21, 2023.

ROADWAY DESIGN

DLZ shall complete the road design following all applicable design standards and the design details provided. The horizontal and vertical alignments are anticipated to remain the same as the previous EMCD Bridge design. DLZ anticipates that the roadway layout previously designed will continue to be utilized with exception of a wider sidewalk on the west side of the road.

The development and review of these documents will be part of the bi-weekly meetings, as appropriate, to help maintain the schedule and keep parties apprised of project developments and decisions. The completed Preliminary Plan Documents will be submitted to the City and appropriate stakeholders and reviewed and discussed at a Preliminary Plan Review Meeting.

DLZ shall prepare pavement marking plans to provide for the safety of motorists and pedestrians. DLZ anticipates updating the previous signing and pavement marking plans to account for the wider sidewalk on the west side of the bridge.

DLZ shall prepare plans necessary to meet pertinent City of Ann Arbor requirements. The requirements of the City of Ann Arbor Code of Ordinances shall take precedence over all other MDOT standard practices.

STRUCTURAL DESIGN

DLZ shall prepare the design and cost estimate for the bridge cross-section that was approved at the City of Ann Arbor City Council meeting on February 21, 2023. The cross-section includes: 5 – 11 foot lanes, 1.5 foot shy distance at each curb line, a 13 foot sidewalk on the east side of the bridge and a 10.5 foot sidewalk on the west side of the bridge.

DLZ anticipates redesigning the following items at the EMCD Bridge over Amtrak Railroad:

- Removing and replacing the bridge deck
  - Redesigning the full bridge deck to include the additional widening for the west sidewalk.
  - Reanalyzing the proposed beams to determine if they can support the wider deck and west sidewalk and looking into either larger beams or a third beam line if necessary.
  - Investigating fencing options for the proposed railings to meet Amtrak criteria but also provide aesthetic appeal.
- Removing and replacing the pier caps and portions of the pier to accommodate the wider superstructure,
  - Redesigning the pier cap for the newly approved wider section.
  - Reanalyzing the widened portion of the pier to investigate whether additional columns or micropiles will be needed.
- Removing and replacing portions of the abutments to accommodate the wider superstructure,
  - Reanalyzing the widened portions of the abutments and wingwalls and investigating whether additional micropiles will be needed.
- Removing the existing beams
  - Cleaning and coating the beams offsite
  - Designing beam end or other steel repairs, as needed, for the existing beams (if reused)
    - Or, replacing the existing beams with new beams
  - Reinstalling the rehabilitated (or new) beams on the substructure units

The reinstalled or new beams will be designed to have a minimum vertical clearance over the tracks of 23’-0”.

The plan sheets from the previously advertised set will be redone to include the wider cross-section. DLZ is anticipating that every single bridge sheet from that set will need to be amended.

DLZ will also perform a mid-cycle bridge inspection to determine the amount of required substructure patching to include in the bridge plans. The beams will also be inspected to determine the limits of the proposed structural steel repairs. At that time, we will also determine if any existing beams will need to be replaced in kind instead of repaired. The existing bridge load rating will also be updated at that time. DLZ is anticipating that the bridge inspection will take place in April or May.

DESIGN REQUIREMENTS

All improvements shall be designed in accordance with the applicable AASHTO, City of Ann Arbor, UM, MDOT, ADA, Amtrak, and any other relevant standards.

All drawings shall be prepared to City of Ann Arbor Public Services Area Drafting Standards or MDOT Standards as approved by the City of Ann Arbor. All drawings shall be prepared using AutoCAD 2020, or newer, software. The City shall be provided with PDF and CAD files in CD ROM/flashdrive of all drawings, specifications, and cost estimates.

In general, DLZ shall prepare to City of Ann Arbor Standards, plan, and profile sheets that shall include, but not be limited to, utility and roadway plans. Other plans, such as structure plans, sections, and elevations; traffic control drawings; intersection enlargement plans; typical cross-sections, cross-sections, details, etc. shall be drawn at scales as approved by the City to properly complete the work of the project.

UTILITY COORDINATION

DLZ anticipates utilizing the previously obtained SUE for below ground water, gas, sewers, telephone/communications, fiber optic, and electric and supplementing with additional topographic survey work to locate the recently installed AT&T conduit banks and UM communications conduit bank.

UNIVERSITY OF MICHIGAN COMMUNICATION CABLING

DLZ will coordinate the relocation of the existing UM owned communication cables in the vicinity of the bridge that are impacted by this project. This may include the installation of new conduits, vaults, and manholes, either as part of the bridge project or as a separate, stand-alone project to be constructed in advance of the bridge project. Some of the actual construction work and materials (e.g., cables, pulling and splicing of cables, etc.) may be completed by the UM or a Contractor retained by the UM. Construction work and materials needed for relocating the existing or installing new cables (e.g., new conduits, handholes, vaults, etc.) will be coordinated and/or installed and provided by the bridge Contractor or other Contractors.

PROJECT ASSUMPTIONS

- DLZ does not anticipate additional SUE investigation beyond the recently installed AT&T conduit banks and UM communications conduit bank.
- DLZ does not anticipate any additional Geotechnical investigation work.
- DLZ's work plan assumes that the existing beams can either be repaired or replaced in-kind, a superstructure replacement is not included.

SCHEDULE

DLZ anticipates the design revisions to take approximately 7 months to complete once a Notice to Proceed is provided.

FEES

Attached to this letter is a Derivation of DLZ Costs showing the cost breakdown for the above Understanding of Project and the Proposed Work Plan. For services described, DLZ proposes to charge, and the City agrees to pay a NOT TO EXCEED fee of **$615,216.72**. A breakdown of fees is attached for consideration. Please note, the rates utilized are our current rates for 2023 which are different from the rates proposed in our original proposal

in 2021. Rates have been updated to address changes in payroll costs for employees, promotions, and overhead cost updates over the two-year period since our original proposal. This amount will not be exceeded without the prior approval of the City and charges will be based on the hourly rates noted on the Derivation of DLZ Costs.

DLZ appreciates the opportunity to submit this Letter Agreement for Professional Services. Should you have any questions or need any additional information, please call Leigh Merrill at (248) 836-4060.

Sincerely,

DLZ MICHIGAN, INC.

Manoj Sethi, PE
President

Attachments – Fee Proposal
Rate Schedule

CC: Leigh Merrill – DLZ
David Hoeh – DLZ

EXHIBIT B7
COMPENSATION

General

Contractor shall be paid for those Services performed pursuant to this Agreement inclusive of all reimbursable expenses (if applicable), in accordance with the terms and conditions herein. The Compensation Schedule below/attached states nature and amount of compensation the Contractor may charge the City:

City of Ann Arbor

East Medical Center Drive Bridge Widening Project

				Phase Fee
Task	Description		Hours	
1	Professional Project Management		380	$60,123.60
2	Project Coordination Meetings		188	$34,663.76
3	Alternative Design Analysis		543	$77,297.27
4	Design of Bridge/Roadway/MOT		2,656	$348,274.96
5	Utility Coordination		40	$6,328.80
6	Stakeholder Engagement - Design		94	$18,163.80
7	Design Assistance During Construction *		42	$6,846.51
9	Stakeholder Engagement - Construction *		55	$9,401.14
		SUBTOTAL	3,998	$561,099.84
	Direct Fees	Qty	Rate	Total
	Mileage	1500	$0.685	$1,027.50
	Hotel Stay	1	$200.00	$200.00
	Per Diem	2	$20.00	$40.00
	Lump Sum Tasks			
	Topographic Survey **			$14,500.00
	Traffic Data Collection			$21,190.00
	Bridge Inspection **			$17,159.38
	TOTAL S			$615,216.72

* Phase fee based on recouping the number of hours used for revised proposal and City Council information

** Lump Sum Fee includes railroad permit and traffic control fees

DLZ RATE SCHEDULE

PROJECT NO.	PROJECT DESCRIPTION:
2141-7363-00	**East Medical Center Drive Bridge Widening Project**

CLASSIFICATION	*NAME*	*RATE/HR*
Project Principal	Manoj Sethi	$369.33
Project Manager	Leigh Merrill	$158.22
Quality Manager - Bridge	Michael Kummeth	$257.84
Quality Manager - Road/Traffic	David Hoeh	$241.29
Lead Bridge/Load Rating Engineer	Carrie Hamel	$174.63
Bridge Engineer	Kyle Slavik	$130.88
Bridge Engineer	David Henkle	$226.05
Bridge Engineer	Yaohua Deng	$201.94
Bridge Engineer	Pedro Trana	$190.45
Bridge Engineer	Owen Brenneman	$101.67
Bridge Engineer	Rithvak Pulugu	$89.37
CAD Technician	Gina Gamboa	$73.72
Designer	David Fildey	$111.34
Road/Pavement Marking/MOT Engineer	Dava Lakatos	$97.13
Designer	Ian Blair	$106.95
Lead Traffic Engineer	Matt Hamel	$205.10
Work Zone Mobility and Safety Engineer	Charles Fawcett	$221.51
Traffic Engineer	Tian, Xin	$163.32
Signal Design/Operations Engineer	Wiktorzak, Daniel	$191.07
Signal Design/Operations Engineer	Brad Park	$104.02

*Revised hourly rates are based on 2 years worth of employee salary increases and promotions