

**MEMORANDUM OF UNDERSTANDING**  
**Between**  
**The University of Texas at Austin,**  
**Texas Department of Transportation,**  
**Capital Area Metropolitan Planning Organization,**  
**The City of Austin**  
**and**  
**The Central Texas Regional Mobility Authority**

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**THIS** Memorandum of Understanding (“MOU”) is made between The University of Texas at Austin (“UT Austin”) having a place of business at West Pickle Research building (WPR) 3925 West Braker Lane, Ste. 4.344, Austin, Texas 78759 and the JJ Pickle Research Campus, 10100 Burnet Road, Austin, Texas 78758; Texas Department of Transportation (“TxDOT”) at 7901 North I-35, Austin, Texas, 78753, Capital Area Metropolitan Planning Organization (“CAMPO”) having an office at 3300 North I-35, Suite 630, Austin, Texas, 78705, the City of Austin, having an office at Austin Transportation, 901 S MoPac Expressway, Building 5, Suite 300, Austin Texas 78746 (“City”), and the Central Texas Regional Mobility Authority (“CTRMA”) having an office at 3300 North I-35, Suite 300, Austin, Texas 78705. UT Austin, TxDOT, CAMPO, the City and CTRMA shall be referred to collectively as the “Parties” and individually as a “Party” in this document.

**WHEREAS** UT Austin is an institution of higher education within The University of Texas System engaged in academic education and training, research, development and implementation, including expertise and programs to improve transportation asset management, mobility, safety, traffic operations and management, highway materials, and to develop policy and guidelines for consideration by decision makers;

**WHEREAS** TxDOT is the state agency responsible for delivering the right transportation projects to serve the Texas public and enhance safety, mobility, traffic operations and management, asset management, materials testing, and planning;

**WHEREAS** CAMPO was designated under federal law by the Governor of Texas as the metropolitan planning organization for Bastrop, Burnet, Caldwell, Hays, Travis and Williamson Counties to carry out transportation, air quality, and related planning;

**WHEREAS** the City is a municipal transportation decision making body responsible for the Austin metroplex city streets and roads and is responsible for working with TxDOT and CAMPO to plan programs and build projects that enhance mobility, safety and quality of life;

**WHEREAS** the CTRMA is an independent government agency created in 2002 to improve the transportation system in Williamson and Travis counties, with a mission to develop, deliver operate and maintain high-quality roadways and related transportation solutions; and

**WHEREAS** UT Austin, TxDOT, CAMPO, the City, and CTRMA wish to work cooperatively to implement the Texas Safety, Mobility, Autonomy Research and Testing Track (Texas

SMARTTrack), a Connected Autonomous Vehicle (CAV) and highway infrastructure sensor and communications test track to conduct research and implement results, exchange information and ideas in areas of mutual interest that enhance transportation in the region, and develop a transportation technology evaluation and implementation program for the transportation agencies and members of CAMPO in the Central Texas region.

**NOW, THEREFORE,** UT Austin, TxDOT, CAMPO, the City and CTRMA, as Parties to this MOU, set forth the following:

**PREAMBLE:** The remarkable increase in Connected Autonomous Vehicles (CAVs) sold in the US and globally, and the number of new CAV companies and Original Equipment Manufacturers (OEMs) located in Texas and the Austin metroplex presents unique opportunities to research new ways to improve highway safety and mobility while reducing traffic congestion. Vehicle to Vehicle (V2V), Vehicle to Infrastructure (V2I) and Infrastructure to Vehicle (I2V) communications (collectively referred to in this MOU as "V2X") offers new capabilities to stream data among vehicles and infrastructure components beyond 'line of sight' and at distances that provide new ways of thinking about traffic operations and roadway safety.

UT Austin, TxDOT, CAMPO the City and CTRMA recognize the benefits of establishing a 3-Tier CAV – V2X technology test track at the UT Austin JJ Pickle Research Campus and on selected roadways within the Austin Metroplex. The Texas SMARTTrack will provide a Tier 1 closed test loop and a Tier 2 local roadway network on the UT Austin JJ Pickle Research Campus, and a Tier 3 real-world test environment on controlled access high-speed public roads. UT Austin has dedicated land on the JJ Pickle Research Campus for a period of ten years (until re-evaluation in 2032) for the Texas SMARTTrack Tier 1 closed test loop for proof testing emerging technologies. The 3 test Track Tiers will provide a wide range of conditions and options to install, operate, conduct testing and research for CAV manufacturers and OEM technologies in cooperation with UT Austin, TxDOT, CAMPO and the City. The three Texas SMARTTrack partners, named in this MOU, will work toward early implementation of new infrastructure V2X technologies to ensure that full benefits are experienced for CAV operators and other transportation system users.

The ultimate goal of this MOU is for UT Austin, TxDOT, CAMPO, the City and CTRMA to work towards an Interlocal Agreement (ILA) for UT Austin to furnish services to facilitate a transportation technology evaluation and implementation program for CAMPO members and agencies through Texas SMARTTrack. In process of collaboratively developing the Texas SMARTTrack concept, the Parties will determine the optimal scope of work and conditions for this ILA.

**PREMISE:** By entering into this MOU, the Parties will endeavor to cooperate on a broad range of strategies, programs and activities which initially include the following:

1. Collaboratively develop a transportation technology evaluation, implementation, and pre-approval program for Central Texas regional partners in CAMPO, including TxDOT the City and CTRMA, which UT Austin would facilitate through Texas SMARTTrack.

2. Work collaboratively to determine and develop protocols and evaluation criteria for implementation and deployment of transportation technology solutions for CAMPO regional partners in Central Texas.
3. Collaboratively develop an Interlocal Agreement to facilitate and operate this transportation technology implementation program.
4. Work cooperatively to develop an administration structure to direct, manage and oversee this transportation technology implementation program.
5. Work cooperatively to provide a Tier 1, closed loop test track, a Tier 2, test track composed of a local street system with 'blocked line of sight' and other features to emulate different real world traffic scenarios, and a Tier 3, open test track within the Austin metroplex that forms a test loop on public, controlled access roadways.
6. Work cooperatively with CAV manufacturers and OEMs to facilitate use of the Texas SMARTTrack to evaluate emerging technologies and to translate those technologies to implementable results.
7. Conduct world class research and development to facilitate progress in CAV and infrastructure sensor and communications breakthrough technologies including both hardware and software systems.
8. Work cooperatively to facilitate talent acquisition, workforce development, training and academic programs.
9. Work cooperatively to further develop Artificial Intelligence, Machine Learning, Image Recognition and V2X communications capabilities.
10. Work cooperatively to future-proof new roadway projects and corridor planning to prevent early obsolescence of Traffic Management Systems, sensors, traffic detection systems, weather monitoring and pavement surface condition detection and other infrastructure sensing and communications devices.
11. Work cooperatively to enhance easy upgrades and/or replacement of infrastructure sensors, communication and power systems, cybersecurity, software and other support hardware.
12. Work to develop and implement cybersecurity hardware and software, and best practices including physical security of roadside hardware that might be accessible to cyber criminals.
13. Enhance safety of vulnerable road users including pedestrians, pedalcyclists, non-motorized scooter riders, hike and bike trail users, persons using wheel chairs and related modes of transportation.
14. Enhance safety and mobility of mass-transit users through research of public bus, rail, and robo-taxis to further implement CAV, V2X and related technologies to provide a safe and seamless transportation experience.
15. Reduce road fatalities and serious injuries through development and implementation of new vehicle and infrastructure technologies and communications methods.
16. Consider future development and implementation of robots and robotic delivery vehicles operating on sidewalks and bike paths among pedestrians, pedalcyclists, other vulnerable road users and CAVs.
17. Consider factors such as human behavior and equity on implementation of future technologies.

18. Other areas to be explored as breakthrough technologies achieved by private industry and the MOU parties.

#### **JOINT ADVISORY COMMITTEE**

The Parties will work to establish a Texas SMARTTrack Joint Advisory Committee ("COMMITTEE") composed of transportation professionals and professionals in other disciplines. The COMMITTEE will meet periodically to review on-going research and planned testing relevant to Texas SMARTTrack to advise the Parties on:

1. Provide subject matter expertise and recommendations on protocols and evaluation criteria for the evaluation and implementation program of transportation technology solutions for CAMPO regional partners in Central Texas.
2. Provide guidance on best practices from other states and jurisdictions on implementing data and resource sharing, innovative procurement & contracting, and enabling legislation for various transportation technologies and use cases.
3. Opportunities to apply new research results on the regional transportation network.
4. Recommendations about attracting new Texas SMARTTrack users through connections with industry, academia, national and international conferences and forums and other methods.
5. Recommendations about seeking new funding sources through state and federal programs.
6. Recommendations about best use of personnel and funding resources to focus on both tactical and strategic CAV-V2X research needs.
7. Opportunities for wider implementation of research results through other states, the Federal Highway Administration (FHWA), US Department of Transportation (USDOT), National Highway Traffic Safety Administration (NHTSA), the Federal Motor Carrier Safety Administration (FMCSA), the Defense Advanced Research Projects Agency (DARPA) and other national programs interested in CAV-V2X research and implementation.
8. Other guidance as requested during periodic COMMITTEE meetings with the Parties.

#### **GENERAL PROVISIONS**

1. **Term, Amendment and Termination.** This MOU is effective as of the date of signing by the responsible individuals who represent the Parties within the stated Premise of this MOU. This non-binding MOU will be effective until a legally binding Interlocal Agreement for Texas SMARTTrack is agreed to and signed by the Parties OR a Party terminates participation. A Party may terminate their participation in this MOU at any time by giving at least thirty (30) days prior written notice of termination to the other Parties.

This MOU may be modified subject to the mutual written consent of the Parties. An Amendment will be prepared and agreed to by all Parties as witnessed by signing the Amendment. Amendments will expire on the date of the expiration of the MOU unless extended by agreement of all Parties.

**2. Principal Contacts.** The principal contacts for this MOU are:

UT Austin Contact:  
Dr. Daniel Jaffe  
Vice President for Research  
UT Austin  
512-471-2877  
[dtj@austin.utexas.edu](mailto:dtj@austin.utexas.edu)

TxDOT Austin District Contact:  
Miguel Arellano, P.E.  
Deputy District Engineer  
TxDOT Austin District  
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CAMPO Contact:  
Ashby Johnson  
Executive Director  
CAMPO  
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City of Austin Transportation Department Contact:  
Gina Fiandaca  
Assistant City Manager for Mobility  
City of Austin  
512-974-2000  
[Gina.fiandaca@austintexas.gov](mailto:Gina.fiandaca@austintexas.gov)

CTRMA Contact:  
James Bass  
Executive Director  
CTRMA  
512-996-9778  
[JBass@CTRMA.org](mailto:JBass@CTRMA.org)

3. **Publicity.** The Parties agree to jointly prepare any news releases, public announcements, or other publicity documents. No Party shall use the marks or name of the other Parties in any advertising or other publicity without the written permission of the other Parties.
4. **Financial Obligation.** The Parties agree that all financial arrangements necessary to implement objectives of this MOU must be negotiated and will depend on the availability of funds. No party shall have any financial obligation to the other parties based on this MOU.
5. **Applicable Law.** This MOU will be executed in full compliance with all applicable federal and state laws, and regulations. Each Party shall comply with applicable laws, rules and regulations in the performance of this MOU.

IN WITNESS WHEREOF, the authorized representatives of the Parties affixed their signatures.

**The University of Texas at Austin**

**Texas Department of Transportation**

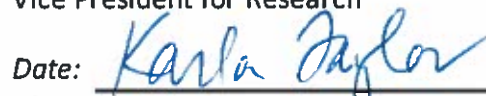


Signature

Dr. Daniel Jaffe

Vice President for Research

Date:



for Gina Fiandaca

**The City of Austin**



Signature

Tucker Ferguson, P.E.

District Engineer, Austin District

Date:

1/5/2023

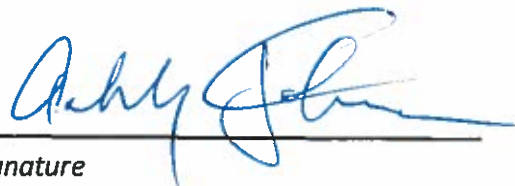
**Capital Area Metropolitan Planning Organization**

Signature

Gina Fiandaca

Assistant City Manager for Mobility

Date:



Signature

Ashby Johnson

Executive Director

Date:

**Central Texas Regional Mobility Authority**



Signature

James Bass

Executive Director

Date:

1/5/2023