FDP Research S Amendment (No	Subaward Agreement Jmber Four (4)
Pass-Through Entity (PTE)	Subrecipient
Regents of the University of Michigan Enti	ty Name City of Ann Arbor
	mpraschan@a2gov.org
James Sayer Principa	Investigator David Harris
Neistein Occupation Contains the Assault of Ten	
Project Title: Maintain, Operate, and Sustain the Ann Arbor Te	
PTE Federal Award No: DTFH6115H00005	Federal Awarding Agency: Transportation, Department of-Federal Highway Administration
	nded This Action: Subaward No:
Start Date: 05/11/2015	<u></u>
Effective Date of Amendment: Total Amount of Federal Funds DOE \$ 154,262.00	Subject to FFATA: Automatic Carryover:
	nal Terms and Conditions ed Research Subaward Agreement as follows:
	3
ACTION:	
- The Amount awarded is increased by \$66,786.0 for the entire award is provided in Attachment A t	o this Amendment.
-Addition to Attachment 5 "Statement of Work", o Amendment.	f Subaward Agreement: See Attachment B to this
For clarity: all amounts stated in this amendr	
All other terms and conditions of this Subaw By an Authorized Official of PTE:	Prop Authorized Official of Subropinion:
by an Admonzed Official of Fife.	By an Authorized Official of Subrecipient:
Name: Date Title:	Name: Date Title:

|--|

Name	Himpowing Calary of the Environment Has Amil Has Amil 122 470 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Amt Hs A Amt Hs A A Amt Hs A A Amt Hs A A A A A A A A A A A A A A A A A A	Panel Farent Front		Deployments (Article Deployments (Article Deployments	Focused Feeting Focused Procused Procus	Infrastruc	Develops Operations of Control of	Other Resident Reside	Hourty Ra Varied	107AL BUDDEFT AMIT AMIT AMIT AMIT AMIT AMIT AMIT AMI
Project Rate House	Amrt His	T 000000000000000000000000000000000000	Hs 250 000 000 000 000 000 000 000 000 000				2 0 0 0 0 0 5 0 0 0 0 0 0 0 0 0 0 0 0 0	± 000000000000000000000000000000000000		Hourly Rate Varied	
Compressor Variety V	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	0000000	200000000000000000000000000000000000000				88 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	000000000000000000000000000000000000000			
Section Carolina	7	000000000000000000000000000000000000000	20000 % 000 % 000 000 000 000 000 000 00				98 0 0 0 0 17 4 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0				
Section Vinted O 43 1,277 O C 43 1,277 O C 43 1,277 O C 43 1,277 O C 43 1,441 O C C C C C C C C C	74 4 4477	0000000	200000000000000000000000000000000000000				88 0 0 0 0 12 4 0 0 0 0 0 88 0 0 0 0 0 0 0 0 0 0 0 0	00000000000			
Section Varied Configuration Confi	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	000000	2000				256 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0				
Section Sect	2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	000000	286				984 0 0 0 0 1 12 4 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0				
Section Variety Value Color	74 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	000000	200,00000000000000000000000000000000000				88 0 0 0 42 4 0 0 0 0 2 30 0 0 0 0 0 0 0 0 0 0 0 0 0				
Section Variety Color	2 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	000000	200000000000000000000000000000000000000				88 0 0 0 0 0 12 4 0 00 0	••••••			
Section Varied 0 0 140 400 0 0 0 0 0 0 0 0 0 0 0 0 0 0	20	000000	9,000000				881 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0000000			
Section Complement Comple	7 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	000000	200000				2 4 2 0 0 0 2 4				
Figure Compression Variety Compression Compres	74 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	000000	000000				200002				
Network Administration Vicinal	2 5 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	000000	00000				40000 85				
Secreticism Variety	7. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.	000000	000 99				58 0 0 0	0000			
Field Operations Supervise Variety 0 0 0 0 0 0 0 0 0	76 2.2.676 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	000000	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0				0 0 0 88	0 0 0			
Severifies 1,000	2 5 5 6 6 7 5 7 5 7 5 7 5 7 5 7 5 7 5 7 5	000000	999		- 1111		0 86	90	+		
Forefits 67% 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		000000	000	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0				-	-		
### 1978 14,780 14,780 14,780 19, 10, 10, 10, 10, 10, 10, 10, 10, 10, 10	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	000000	000	65911		000			000		70, 70, 6, 6, 6, 6, 6, 6, 6, 6, 6, 6, 6, 6, 6,
Forefits 67% 0 14,780 0 14,780 0 14,780 0 0 14,780 0 0 14,780 0 0 14,780 0 0 14,780 0 0 14,780 0 0 14,780 0 0 14,780 0 0 14,780 0 1	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	000000	000	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		000			0 0		70,
### Compressor		000000	000	000000	0 0 000	0000		0	0		70,07
### Cartification of the control of	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	000000	000	000	0009	0000		0	-		70,
### Compressor	000000000000000000000000000000000000000	000000	000		0000	000	-		0		
### Compressor		000000	000	0 0 0 0	000	000	_				
155 Mile Compressor 771 0 0 27 209 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		000000	000	00000		000	_				
### Canapters of Table 1		000000		0	00	00	_	0 0	0 0		
### 1999 bit Compressor		000000	000	0 0	•	-			0		
2009 Ford F-250 2009 Godge Caravan 14,15 2009 Godge Caravan 15,15 2009 Godge Caravan 14,15 2009 Godge Caravan 15,15 2009 Godge Caravan 14,15 2009 Godge Caravan 15,15 2009 Godge Caravan 14,15 2009 Godge Caravan 15,15 2009 Godge Caravan 2009 Godge Caravan 2009 Godge Caravan 2009 Godge Caravan 2009		000000	000	0				0	0		
1995 Ford F-250 1995 Ford F-250 2009 Godge Caravan 14.25 2009 Godge Caravan 15.25 2009 Godge Caravan 2009 Godge Caravan 15.25 2009 Godge Caravan 20		000000	000	0							
2009 Godge Garvan 2009 Forder F-280 2009 Forder	272000000000000000000000000000000000000	00000	00		0 0	0	0	_			2
2000 Ford C-5100 2001 Marcellancous Materials 2001 Marcellancous Materials 2002 Marcellancous Materials 2003 Ford C-5100 2005 Marcellancous Materials 2005 Ford C-5100 2005 Marcellancous Materials 2005 Ford C-5100 2005 Ford C-51			-				-	0 0	0 0		7 -
2006 GMC Carfoo 456 0 28 128 0 28 178 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		-				-				<i>i</i>
2006 GMC Sierrat (2.5)	120	00	0				-				-
Maccellancous Materials 10,35 0 0 31 1 0 0 31 1 0 0 31 1 0 0 31 1 0 0 31 1 0 0 31 31	00000	0	0	_			2	0			=
2001 Fact Trailer	3000		0 0	_			0 0	0 0			m'
2001 Real Trailer 1253 0 0 30 376 0 30 376 0 0 20 200 0 200	.00			_			-				
2005 Turns Track 25,9 0 0 30 207 0 0 30 277 0 0 0 30 207 0 0 0 200	0 0	_	0				-	0			m
2001 Dump Truck 23.9 0 0 30 717 0 0 0 30 717 0 0 0 2001 Dump Truck 23.9 0 0 30 717 0 0 0 30 2019 Dump Truck 40.89 0 0 0 45 2 1777 0 0 0 42 1777 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0	0	_			٥	0			70
2015 bender F750 2017 ford F750 2017	0 0	0	•	_			٥	•			7
### State	0 0	0 (; ه				0	0			94
Bucket Truck 22.99 0 0 39 897 0 0 38 697 0 0 0 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2		_	2 -	_			2 -				2,6
2011 Ford F-750 19.16 0 0 40 767 0 0 44 767 0 0 0 0 201 1 1 1 1 2 201 0 0 0 0 0 0 0	0	0	135				135				14
17-enchar 157,89 0 0 14 2,210 0 0 14 2,210 0 0 0 0 0 0 0 0 0	0 0 0	0	200				200	٥			4.6
Miscellaneous Materials 31.65 0 0 45 1,424 0 0 45 1,424 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0						0	0			2,2
Miscellareous Materials 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0	-	0	0		0	0	_			1,424
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0	+	-	74 480	9 6	0 6	+	0	0		2,1
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0											
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0						•					
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0				,		0 0	-	-	-		- 6
687'85 0 765'061 0					0	9		0	0		
0 130,154 0 49,493											
	0 4,607	0		43,369	0	0	47,966	0	0		97,469
Indirect Costs 81,0% 0 29,760 0 29,760 0	0 3,627	0	72	23,416	0	e	57,043	0	0		56,803

City of Ann Arbor

Amendment 4

Actions:

- The Amount Funded this Action is increased by \$66,785, from \$87,476 to \$154,262. The total budget is provided as exhibit A to this amendment, and this shall replace any previous versions.
- The statement of work for Federal Funds is revised as follows:

Complete Expansion of the Ann Arbor Connected Vehicle Test Environment.

The City will support the UMTRI-led Infrastructure Team to expand the number of infrastructure sites to seventy-five (75). This includes completing any field work to enable communications on the City fiber network; upgrade controllers to be NTCIP compliant for communications to the RSU; install the DSRC Roadside Units (RSU) and associated hardware.

Equip City of Ann Arbor Vehicle Fleet with DSRC Devices.

The City of Ann Arbor will allow UMTRI to install vehicle awareness devices (VADs), antennas, and power harnesses on their city operated vehicles. The City of Ann Arbor will bring the vehicles to the UMTRI facility where UMTRI technicians will install the equipment.

The statement of work for MTC funds is revised to add:

Equip City of Ann Arbor Vehicle Fleet with DSRC Devices.

The City of Ann Arbor will allow UMTRI to install vehicle awareness devices (VADS), antennas, and power harnesses on their city operated vehicles. The City of Ann Arbor will bring the vehicles to the UMTRI facility where UMTRI technicians will install the equipment.

The source of this particular funding is from various Members, as such Members have rights; refer to the terms and conditions of the Mobility Transformation Center Membership Agreement as was incorporated into this Subaward through Amendment 2.