

BEFORE THE  
FRESNO COUNCIL OF GOVERNMENTS  
RESOLUTION NO. 2017-03

**ID 2.**

In the Matter of:

NEW TECHNOLOGY GRANT)  
FRESNO COUNCIL OF GOVERNMENTS  
PARTNERSHIP WITH CALIFORNIA)  
STATE UNIVERSITY FRESNO)

RESOLUTION ESTABLISHING  
CALIFORNIA STATE UNIVERSITY  
FRESNO AS A SUBGRANTEE OF  
FRESNO COUNCIL OF  
GOVERNMENTS FOR NEW  
TECHNOLOGY GRANT FUNDING

WHEREAS, the 2006 Measure "C" Extension Expenditure Plan was approved by the voters of Fresno County on November 7, 2006;

WHEREAS, the 2006 Measure "C" Extension Expenditure Plan provided funds for the New Technology program,

WHEREAS, Fresno Council of Governments and Fresno County Transportation Authority developed and adopted guidelines for New Technology Funding,

WHEREAS, the New Technology Program Guidelines state that applicants for New Technology funding that are not an eligible public agency must partner with an eligible public agency as a subapplicant,

WHEREAS, the New Technology Program Guidelines call for eligible public agencies to pass a resolution from their governing body,

WHEREAS, Fresno Council of Governments as a eligible public agency has agreed to partner with California State University, Fresno Foundation,

NOW, THEREFORE, BE IT RESOLVED, that the **Fresno Council of Governments:**

Wishes to partner with California State University Fresno as a subapplicant for the purpose of administering the project to develop the Fresno State Transportation Institute;

THE FOREGOING RESOLUTION was passed and adopted by the Fresno Council of Governments this 23th day of February, 2017.

AYES:

NOES:

ABSTAIN:

ABSENT:

Signed: \_\_\_\_\_

ATTEST:

I hereby certify that the foregoing is a true copy of a resolution of the Fresno Council of Governments duly adopted at a regular meeting thereof held on the 23<sup>rd</sup> day of February, 2017.

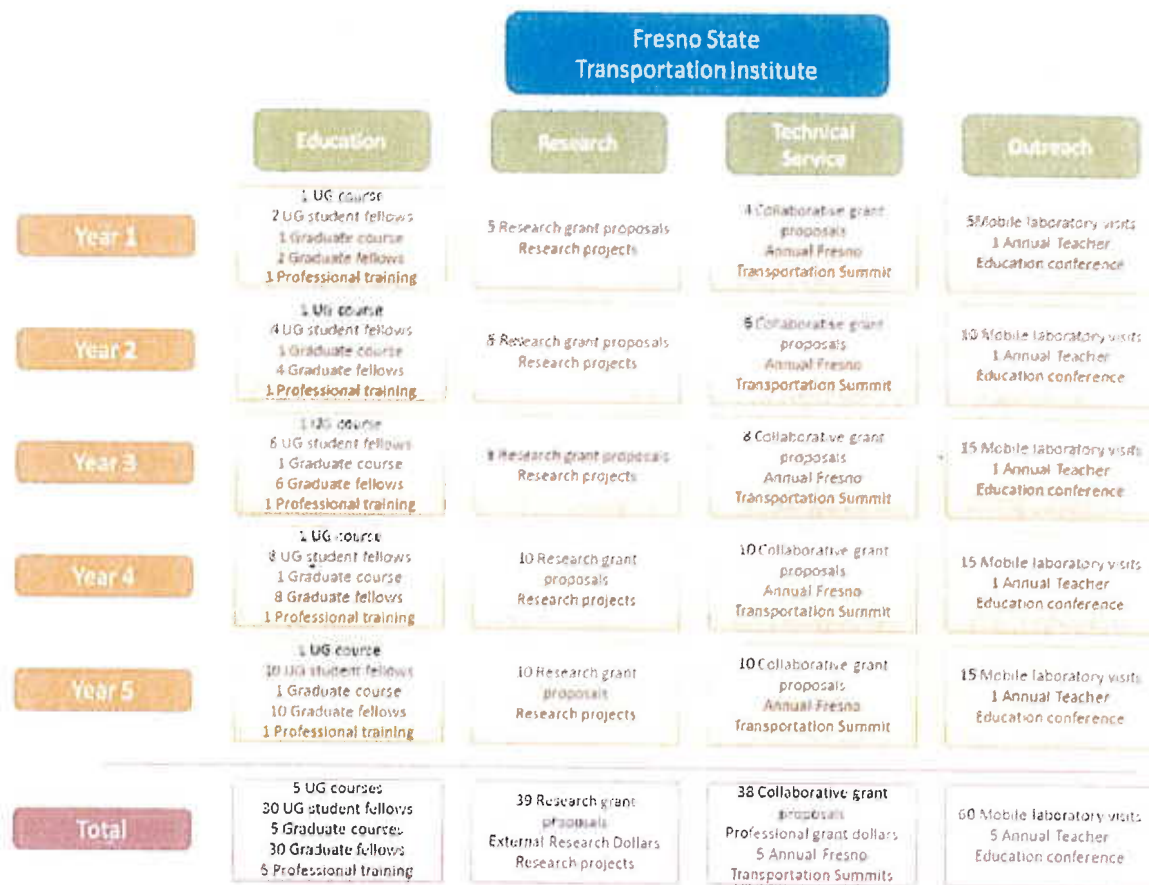
Signed: \_\_\_\_\_  
Tony Boren, Executive Director

actual current rate for the Fresno State employees while rates for new hires are billed at the Foundation's current rates for Foundation employees. Fringe benefit rates follow the established rates with all other faculty summer pay and stipends—11%; all student assistants—4%.

- University Indirect Costs (7.2): Fresno State has a federally negotiated rate of 40%. For this proposal, the indirect cost being charged is at 15%.

**Expected Products**

The following Figure, Figure 3, presents the products delivered by each of the four missions of the proposed transportation institute, broken down by year.



**Figure 3: Fresno State Transportation Expected Products Developed by Each Mission, Broken Down by Year of Operation.**

## **Budget Narrative**

Total Project Cost: \$3,857,491

Fresno COG Grant Award: \$2,977,887 (77%) over 5 years

Fresno State's Match: \$879,604 (23%) over 5 years

### **(1) Operations Core**

- Faculty Director (1.1): Dr. Aly Tawfik has extensive experience in transportation systems with large and complex institutional settings involving public and private sectors. He will be responsible for administering and directing the institute. Since Fresno State faculty members are contracted for 100% of their time, they can only work on additional projects by buying-out their time. Accordingly, he will receive 50% release time per academic year and 1 month summer salary of support for his efforts per year. Fresno State will contribute 33% of the 50% release time per academic year for the first three academic years.
- Administrative Assistant (1.2): The budget includes salary support for one Administrative Assistant. Duties will include scheduling meetings, assisting in preparing application materials, providing web site support and maintenance, providing logistical support for the faculty and staff, coordination of 2 conferences, making reservations for conference travel, assisting in processing budget paperwork, assisting with general logistics and other duties as they arise.
- Supplies and Materials (1.3): supplies and materials to support the institute, e.g. office furniture, stationary, printing, mail, technology, etc.
- Travel (1.4): travel funds for networking and meeting with federal and state departments (e.g. Washington DC and Sacramento) to seek research and project funds.

### **(.) Funding Items Spanning Multiple Cores**

- HSR Faculty Member (2.5, 3.7, 4.6, 5.7): Fresno State will contribute 100% of the salary and benefits of one new full time faculty member (to be hired during 2017) with expertise in the area of High Speed Rail (HSR) Engineering. The HSR faculty member will contribute to the four core areas of the Institute: Education, Outreach, Research and Public Service.
- Undergraduate Student Assistants (3.5, 4.3, 5.4): Fresno State undergraduate students will be hired to support the research and projects undertaken by the Institute personnel. At least 30 students are expected to be supported over the five-year period.
- Graduate Student Assistants (3.6, 4.4, 5.5): Fresno State graduate students will be hired to support the research and projects undertaken by the Institute personnel. At least 30 graduate students are expected to be supported over the five-year period. Graduate students will take leadership roles in research, working with cities and communities, supporting the writing of grants, data collection, and the K-12 and community outreach programs.
- Transportation Postdoc (4.5, 5.6): a post-doctoral engineer will be hired and will be a key participant in the operations of the institute. Responsibilities will include identifying grant opportunities, participating and meeting with cities and communities, writing research and technical service grant proposals, mentoring students, and supporting the director in the day-to-day operation of the Institute.



**(2) Education Core**

- Undergraduate Courses (2.1): Fresno State will contribute 100% of the funds required to develop or re-design undergraduate courses in the areas of advanced multimodal transit systems or related fields such as city and regional transportation planning.
- Graduate Courses (2.2): Fresno State will contribute 100% of the funds required to develop or re-design graduate courses in the areas of advanced multimodal transit systems or related fields such as city and regional transportation planning.
- Lab Equipment (2.3): State-of-the-art educational lab tools, equipment and software will be acquired in the area of advanced multimodal transit systems or related fields such as city and regional transportation planning.
- Professional Training (2.4): Fresno State will contribute 100% of the funds required to develop or re-design professional training courses in the areas of advanced multimodal transit systems or related fields such as city and regional transportation planning.
- HSR Faculty Member (2.5): See the “Funding Items Spanning Multiple Cores” section, above.

**(3) Outreach Core**

- Mobile Laboratory – Equipment (3.1): Mobile transportation science laboratory will be developed for use during schools visits, summer camps, and community events across Fresno County.
- Mobile Laboratory – Operating Costs (3.2): Operating costs of the mobile laboratory include maintenance, insurance and associated costs. The mobile laboratory will be used for field visits to schools, science fairs, and other community events across Fresno County.
- K-12 Annual Competitions (3.3): Organize, coordinate, judge and award annual transportation competitions for K-12 students from schools across Fresno County to receive support and awards for each year.
- Teacher Ed Conference (3.4): Organize and coordinate a Teacher’s Conference for 100 teachers across Fresno County to receive professional development and training for each year.
- Undergraduate Student Assistants (3.5): See the “Funding Items Spanning Multiple Cores” section, earlier.
- Graduate Student Assistants (3.6): See the “Funding Items Spanning Multiple Cores” section, earlier.
- HSR Faculty Member (3.7): See the “Funding Items Spanning Multiple Cores” section, earlier.

**(4) Research Core**

- Faculty Research Proposals (4.1): Support research in the areas of advanced multimodal transit systems and other related fields such as city and regional transportation planning, by hosting faculty research competitions. About 38 projects will be supported over the grant period.
- Matching Research Funds (4.2): Increase the Institute’s capability to attract new grant funding by providing matching funds.
- Undergraduate Student Assistants (4.3): See the “Funding Items Spanning Multiple Cores” section, earlier.

- Graduate Student Assistants (4.4): See the “Funding Items Spanning Multiple Cores” section, earlier.
- Transportation Postdoc (4.5): See the “Funding Items Spanning Multiple Cores” section, earlier.
- HSR Faculty Member (4.6): See the “Funding Items Spanning Multiple Cores” section, earlier.

**(5) Public Service Core**

- Collaborative Proposals with Local Agencies (5.1): About 19 collaborative proposals or studies will be completed in partnership with Fresno County cities and agencies over the five-year period.
- Writing Proposals for Local Agencies (5.2): About 19 grant proposals will be developed for Fresno County cities and agencies over the five-year period.
- Central California Transportation Conference (5.3): Organizing and hosting an annual transportation conference in Fresno, where transportation professionals will share information about advanced technologies, and network in the areas of advanced multimodal transit systems and other related fields such as city and regional transportation planning.
- Undergraduate Student Assistants (5.4): See the “Funding Items Spanning Multiple Cores” section, earlier.
- Graduate Student Assistants (5.5): See the “Funding Items Spanning Multiple Cores” section, earlier.
- Transportation Postdoc (5.6): See the “Funding Items Spanning Multiple Cores” section, earlier.
- HSR Faculty Member (5.7): See the “Funding Items Spanning Multiple Cores” section, earlier.

**(6) Faculty Fellows**

- Faculty Fellowships (6.1): The Institute will be comprised of 10 active Faculty Fellows recruited primarily from the Lyles College of Engineering, College of Social Sciences and Craig School of Business. The Faculty Fellows will participate in the activities of the Institute.

**(7) University Costs**

- Fringe Benefits (7.1): Fringe benefits include all mandated federal and state/local payroll taxes, such as FICA, Worker’s Compensation, unemployment insurance, and Medicare. Additional benefits for salaried employees include health, vision, dental, and life insurance, and may include optional 401K contribution. Fringe benefits are billed at the actual current rate for the Fresno State employees while rates for new hires are billed at the Foundation’s current rates for Foundation employees. Fringe benefit rates follow the established rates with all other faculty summer pay and stipends—9.88%; all student assistants—2.33%.
- University Indirect Costs (7.2): Fresno State’s federally negotiated rate is presently 40%. For this grant, however, Fresno State has agreed to only charge 15% - a reduction of 62%.



#	Budget Item	Description	Unit Cost	n1	Year 1	Match	n2	Year 2	Match	n3	Year 3	Match	n4	Year 4	Match	n5	Year 5	Match	COG Sum	Percentage from Total COG Share	Univ. Match Sum	Percentage from Total Univ. Share	Total Sum	Percentage from Total Project Cost	Percentage from Main Budget Item
1	Operations																		\$391,070	13%	\$89,873	10%	\$480,943	12%	
1.1	- Faculty Director	Cost per year	\$39,887	1	\$39,887	\$14,958	1	\$39,887	\$14,958	1	\$39,887	\$14,958	1	\$39,887		1	\$39,887		\$199,435	7%	\$44,873	5%	\$244,308	6%	51%
1.2	- Admin Assistant	Cost per year	\$30,000	0	\$0	\$30,000	0.5	\$15,000	\$15,000	1	\$30,000		1	\$30,000		1	\$30,000		\$105,000	4%	\$45,000	5%	\$150,000	4%	27%
1.3	- Supplies, Equipment, Reports, Materials and Misc.	Cost per year	varies	-	\$18,000		-	\$8,135		-	\$8,000		-	\$7,500		-	\$7,500		\$49,135	2%	\$0	0%	\$49,135	1%	13%
1.4	- Travel to Funding Agencies (DC and Sac) and Conf	Cost per year	varies	-	\$7,500		-	\$7,500		-	\$7,500		-	\$7,500		-	\$7,500		\$37,500	1%	\$0	0%	\$37,500	1%	10%
2	Education																		\$150,000	5%	\$435,000	49%	\$585,000	15%	
2.1	- UG Courses	Cost per course	\$5,000	1	\$0	\$5,000	1	\$0	\$5,000	1	\$0	\$5,000	1	\$0	\$5,000	1	\$0	\$5,000	\$0	0%	\$25,000	3%	\$25,000	1%	0%
2.2	- Graduate Courses	Cost per course	\$5,000	1	\$0	\$5,000	1	\$0	\$5,000	1	\$0	\$5,000	1	\$0	\$5,000	1	\$0	\$5,000	\$0	0%	\$25,000	3%	\$25,000	1%	0%
2.3	- Lab Equipment	Cost per year	varies	-	\$50,000		-	\$80,000		-	\$20,000		-			-			\$150,000	5%	\$0	0%	\$150,000	4%	100%
2.4	- Professional Training	Cost per training	\$5,000	1	\$0	\$5,000	1	\$0	\$5,000	1	\$0	\$5,000	1	\$0	\$5,000	1	\$0	\$5,000	\$0	0%	\$25,000	3%	\$25,000	1%	0%
2.5	- HSR Faculty Member (1)	Cost per year	\$72,000	-	\$0	\$72,000	-	\$0	\$72,000	-	\$0	\$72,000	-	\$0	\$72,000	-	\$0	\$72,000	\$0	0%	\$360,000	41%	\$360,000	9%	0%
3	Outreach																		\$405,000	14%	\$60,000	7%	\$465,000	12%	
3.1	- Mobile Laboratory - Equipment	Cost per year	varies	-	\$50,000		-	\$5,000		-	\$5,000		-	\$5,000		-	\$5,000		\$70,000	2%	\$0	0%	\$70,000	2%	17%
3.2	- Mobile Laboratory - Operations costs	Cost per visit	\$1,000	5	\$5,000		5	\$5,000		5	\$5,000		5	\$5,000		5	\$5,000		\$25,000	1%	\$0	0%	\$25,000	1%	6%
3.3	- K-12 Annual Competitions	Cost per year	\$10,000	1	\$10,000		1	\$10,000		1	\$10,000		1	\$10,000		1	\$10,000		\$50,000	2%	\$0	0%	\$50,000	1%	12%
3.4	- Teacher Ed Conference (stipends, materials, supplie	Cost per conference	\$20,000	1	\$20,000		1	\$20,000		1	\$20,000		1	\$20,000		1	\$20,000		\$100,000	3%	\$0	0%	\$100,000	3%	25%
3.5	- UG Students Assistants (1) (~15 hrs/week)	Cost per student year	\$6,000	0.67	\$4,000		1.33	\$8,000		2	\$12,000		2.67	\$16,000		3.33	\$20,000		\$60,000	2%	\$0	0%	\$60,000	2%	15%
3.6	- Grad Students Assistants (1) (~15 hrs/week)	Cost per student year	\$10,000	0.67	\$6,667		1.33	\$13,333		2	\$20,000		2.67	\$26,667		3.33	\$33,333		\$100,000	3%	\$0	0%	\$100,000	3%	25%
3.7	- HSR Faculty Member (2)	Cost per year	\$12,000	-	\$0	\$12,000	-	\$0	\$12,000	-	\$0	\$12,000	-	\$0	\$12,000	-	\$0	\$12,000	\$0	0%	\$60,000	7%	\$60,000	2%	0%
4	Research																		\$532,500	18%	\$120,000	14%	\$652,500	17%	
4.1	- Faculty research proposals	Cost per proposal	\$5,000	5	\$25,000		6	\$30,000		8	\$40,000		9	\$45,000		10	\$50,000		\$190,000	6%	\$0	0%	\$190,000	5%	36%
4.2	- Matching research funds	Cost per year	varies	-	\$20,000		-	\$20,000		-	\$20,000		-	\$20,000		-	\$20,000		\$100,000	3%	\$0	0%	\$100,000	3%	19%
4.3	- UG Students Assistants (2) (~15 hrs/week)	Cost per student year	\$6,000	0.67	\$4,000		1.33	\$8,000		2	\$12,000		2.67	\$16,000		3.33	\$20,000		\$60,000	2%	\$0	0%	\$60,000	2%	11%
4.4	- Grad Students Assistants (2) (~15 hrs/week)	Cost per student year	\$10,000	0.67	\$6,667		1.33	\$13,333		2	\$20,000		2.67	\$26,667		3.33	\$33,333		\$100,000	3%	\$0	0%	\$100,000	3%	19%
4.5	- Transportation Postdoc (1)	Cost per year	\$16,500	1	\$16,500		-	\$16,500		-	\$16,500		-	\$16,500		-	\$16,500		\$82,500	3%	\$0	0%	\$82,500	2%	15%
4.6	- HSR Faculty Member (3)	Cost per year	\$24,000	-	\$0	\$24,000	-	\$0	\$24,000	-	\$0	\$24,000	-	\$0	\$24,000	-	\$0	\$24,000	\$0	0%	\$120,000	14%	\$120,000	3%	0%
5	Public service																		\$592,500	20%	\$60,000	7%	\$652,500	17%	
5.1	- Collaborative proposals with local agencies	Cost per proposal	\$5,000	2	\$10,000		3	\$15,000		4	\$20,000		5	\$25,000		5	\$25,000		\$95,000	3%	\$0	0%	\$95,000	2%	16%
5.2	- Writing proposals for local agencies	Cost per proposal	\$5,000	2	\$10,000		3	\$15,000		4	\$20,000		5	\$25,000		5	\$25,000		\$95,000	3%	\$0	0%	\$95,000	2%	16%
5.3	- Central CA Transportation Conference	Cost per conference	\$10,000	1	\$10,000		1	\$10,000		1	\$10,000		1	\$10,000		1	\$10,000		\$50,000	2%	\$0	0%	\$50,000	1%	8%
5.4	- UG Students Assistants (3) (~15 hrs/week)	Cost per student year	\$6,000	0.67	\$4,000		1.33	\$8,000		2	\$12,000		2.67	\$16,000		3.33	\$20,000		\$60,000	2%	\$0	0%	\$60,000	2%	10%
5.5	- Grad Students Assistants (3) (~15 hrs/week)	Cost per student year	\$10,000	0.67	\$6,667		1.33	\$13,333		2	\$20,000		2.67	\$26,667		3.33	\$33,333		\$100,000	3%	\$0	0%	\$100,000	3%	17%
5.6	- Transportation Postdoc (2)	Cost per year	\$38,500	1	\$38,500		1	\$38,500		1	\$38,500		1	\$38,500		1	\$38,500		\$192,500	6%	\$0	0%	\$192,500	5%	32%
5.7	- HSR Faculty Member (4)	Cost per year	\$12,000	-	\$0	\$12,000	-	\$0	\$12,000	-	\$0	\$12,000	-	\$0	\$12,000	-	\$0	\$12,000	\$0	0%	\$60,000	7%	\$60,000	2%	0%
6	Faculty Fellows																		\$150,000	5%	\$0	0%	\$150,000	4%	
6.1	- Faculty Fellowships	Cost per year	\$3,000	10	\$30,000		10	\$30,000		10	\$30,000		10	\$30,000		10	\$30,000		\$150,000	5%	\$0	0%	\$150,000	4%	100%
7	University Costs																		\$756,817	25%	\$114,731	13%	\$871,548	23%	
7.1	- Fringe Benefits	Cost per year	varies	-	\$59,432		-	\$72,177		-	\$86,423		-	\$91,668		-	\$93,914		\$403,614	14%	\$0	0%	\$403,614	10%	53%
7.2	- University Indirect Costs 15% (excludes equipment & scho	Cost per year	varies	-	\$51,273	\$26,994	-	\$61,005	\$24,744	-	\$73,172	\$22,494	-	\$80,933	\$20,250	-	\$86,820	\$20,250	\$353,203	12%	\$114,731	13%	\$467,934	12%	47%
	<b>Grand Total</b>																		<b>\$2,977,887</b>	<b>77%</b>	<b>\$879,604</b>	<b>23%</b>	<b>\$3,857,491</b>	<b>100%</b>	