THE SECRETARY OF TRANSPORTATION
WASHINGTON, DC 20590

June 23, 2016

The Honorable Betsy Hodges
Mayor of Minneapolis
Minneapolis, MN 55415

Dear Mayor Hodges:

Thank you for your interest in the U.S. Department of Transportation's Smart City Challenge (SCC). Being Smart is not only about incorporating technology but also about using that technology to accomplish community objectives such as improving safety, reducing congestion, and improving the quality of life for all.

By virtue of your participation in this Challenge, you have already demonstrated how transportation innovation intersects with your community's long-term vision. The Department remains committed to helping you achieve that Smart City vision.

To that end, I have enclosed a copy of the Smart City Resource Guide, which is tailored to the projects included in your SCC application. This Resource Guide details potential funding opportunities and program descriptions for your consideration. Most of these discretionary programs are available annually. Our team stands ready to provide technical assistance and answer any questions you have about helping to advance innovation and technologies that may benefit your community. Should you need further information, please email us at smartcitychallenge@dot.gov.

Thank you again for your leadership.

Sincerely,

Anthony R. Foxx

Enclosure

THE SECRETARY OF TRANSPORTATION
WASHINGTON, DC 20590

June 23, 2016

The Honorable Chris Coleman
Mayor of St. Paul
St. Paul, MN 55102

Dear Mayor Coleman:

Thank you for your interest in the U.S. Department of Transportation's Smart City Challenge (SCC). Being Smart is not only about incorporating technology but also about using that technology to accomplish community objectives such as improving safety, reducing congestion, and improving the quality of life for all.

By virtue of your participation in this Challenge, you have already demonstrated how transportation innovation intersects with your community's long-term vision. The Department remains committed to helping you achieve that Smart City vision.

To that end, I have enclosed a copy of the Smart City Resource Guide, which is tailored to the projects included in your SCC application. This Resource Guide details potential funding opportunities and program descriptions for your consideration. Most of these discretionary programs are available annually. Our team stands ready to provide technical assistance and answer any questions you have about helping to advance innovation and technologies that may benefit your community. Should you need further information, please email us at smartcitychallenge@dot.gov.

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Sincerely,

Anthony R. Foxx

Enclosure

U.S. Department of Transportation

Grant Opportunities for Smart City Challenge Applicants

Minneapolis/St. Paul, MN

USDOT's Smart City Challenge generated tremendous interest from cities across America - 78 applications in all. While there will be only one Smart City Challenge winner, we want to ensure every applicant city is familiar with other discretionary grant programs that might be available to fund their proposed projects. We have analyzed your Round 1 application for proposed categories of projects and have created a 'crosswalk' table linking projects to other potential grant opportunities. (A document lists other discretionary grant programs offered by the Federal Transit Administration.) More information on the grant programs is included in a separate attachment.

For further information, please contact SmartCityChallenge@dot.gov.

Key	
Eligible	✓
May Be Eligible	!
Not Eligible	

Note: Programs marked * are currently accepting proposals. Other programs will be open in future funding cycles, subject to appropriations.

Vision Element	Project	ATCMTD*	Mobility on Demand*	DOE Vehicles Tech *	FASTLANE	TIGER	UTC
User-Focused Mobility Services & Choices	Demand Responsive Transit / Dynamic Transit Operations	✓	✓			✓	✓
User-Focused Mobility Services & Choices	Shared Use Transportation (e.g., Carshare, Bikeshare, Rideshare)	✓	✓	!		✓	✓
Urban Delivery and Logistics	Freight Parking including information / Curb Space Management / Loading and Unloading	✓			✓		✓
Urban Automation	Low Speed Shuttle or Podcar (Campus or Protected Lanes)	✓	✓	!		✓	✓
Urban Automation	Low Speed Shuttle or Podcar (Public Road)	✓	✓	!		✓	✓
Urban Analytics	Bike / Pedestrian Analytics	✓	✓			✓	✓
Urban Analytics	Transportation Data Analytics Platform (Traffic Monitoring and TDM Strategies)	✓	✓			✓	✓
Urban Analytics	Transportation Data Analytics Platform (Traffic Monitoring and TDM Strategies)	✓	✓			✓	✓
Strategic Business Models and Partnering	Partnering with University		✓	✓	✓	✓	✓
Strategic Business Models and Partnering	Private Partnerships		✓	✓	✓	✓	✓
Strategic Business Models and Partnering	Public Agency Partnerships		✓	✓		✓	✓
Smart Land Use	Data Driven Land Use Planning		✓				✓

Vision Element	Project	ATCMTD*	Mobility on Demand*	DOE Vehicles Tech *	FASTLANE	TIGER	UTC
Smart Grid, Roadway Electrification & EVs	Converting Public Fleets to Electric Vehicles	✓		✓		✓	
Smart Grid, Roadway Electrification & EVs	Electric Buses	✓		✓		✓	
Low-Cost, Efficient, Secure & Reslient ICT	Fiber or Communications Backbone / Network						
Low-Cost, Efficient, Secure & Reslient ICT	Secure and Resilient ICT					✓	✓
Intelligent Sensor Based Infrastructure	Adaptive Traffic Signal Control / Smart Traffic Signals	✓				✓	✓
Intelligent Sensor Based Infrastructure	Parking Sensors	✓				✓	✓
Intelligent Sensor Based Infrastructure	Pedestrian and Bicyclists Detection	✓	✓			✓	✓
Intelligent Sensor Based Infrastructure	Traffic Sensors (e.g., loop detectors, CCTV cameras, Bluetooth readers, etc.)	✓				✓	✓
Connected, Involved Citizens	Multimodal Traveler Information System (e.g., transit, parking, biking, trip planner, and other information)	✓	✓			✓	✓
Connected Vehicles	Pedestrian Detection / Intersection Warning Applications	✓				✓	✓
Connected Vehicles	Probe Data Collection (i.e., equipping probe vehicles and taxis to collect traffic information)	✓				✓	✓
Connected Vehicles	Road Weather and Maintenance Solutions (e.g., equipped snow plows / maintenance vehicles)	✓					
Connected Vehicles	Transit Applications (e.g., DSRC-equipped vehicles, AVL, Integrated Payment, Transit Traveler Information, and BRT)	✓	✓	!		✓	✓
Connected Vehicles	Transit Signal Priority (TSP)	✓	✓			✓	✓
Connected Vehicles	Traveler Information Applications	✓	✓			✓	✓
Connected Vehicles	V2V Safety Applications (e.g., EEBL, FCW, IMA)	✓				✓	✓
Architecture and Standards	CVRIA (and SET-IT)					✓	✓
Architecture and Standards	Regional and National ITS Architecture					✓	✓

U.S. Department of Transportation

Transit Grant Opportunities for Smart City Challenge Applicants

Minneapolis/St. Paul, MN

USDOT's Smart City Challenge generated tremendous interest from cities across America - 78 applications in all. While there will be only one Smart City Challenge winner, we want to ensure every applicant city is familiar with other discretionary grant programs that might be available to fund their proposed projects. We have analyzed your Round 1 application for proposed categories of projects and have created a 'crosswalk' table linking projects to other potential grant opportunities offered by the Federal Transit Administration (FTA). (A separate document lists other discretionary grant programs offered by USDOT and the Department of Energy.) More information on the grant programs is included in a separate attachment.

For further information, please contact SmartCityChallenge@dot.gov.

Key	
Eligible	✓
May Be Eligible	!
Not Eligible	

Vision Element	Project	Low or No Emission	Buses and Bus Facilities	Passenger Ferry	Transit Oriented Development	Fixed Guideway / New Starts / Small Starts / BRT
User-Focused Mobility Services & Choices	Demand Responsive Transit / Dynamic Transit Operations					
User-Focused Mobility Services & Choices	Shared Use Transportation (e.g., Carshare, Bikeshare, Rideshare)					
Urban Delivery and Logistics	Freight Parking including information / Curb Space Management / Loading and Unloading					
Urban Automation	Low Speed Shuttle or Podcar (Campus or Protected Lanes)					
Urban Automation	Low Speed Shuttle or Podcar (Public Road)					
Urban Analytics	Bike / Pedestrian Analytics					
Urban Analytics	Transportation Data Analytics Platform (Traffic Monitoring and TDM Strategies)					
Urban Analytics	Transportation Data Analytics Platform (Traffic Monitoring and TDM Strategies)					
Strategic Business Models and Partnering	Partnering with University	✓	✓			
Strategic Business Models and Partnering	Private Partnerships	✓	✓			✓
Strategic Business Models and Partnering	Public Agency Partnerships	✓	✓		✓	✓
Smart Land Use	Data Driven Land Use Planning				✓	
Smart Grid, Roadway Electrification & EVs	Converting Public Fleets to Electric Vehicles	✓	✓			

Vision Element	Project	Low or No Emission	Buses and Bus Facilities	Passenger Ferry	Transit Oriented Development	Fixed Guideway / New Starts / Small Starts / BRT
Smart Grid, Roadway Electrification & EVs	Electric Buses	✓	✓			✓
Low-Cost, Efficient, Secure & Reslient ICT	Fiber or Communications Backbone / Network	✓	✓			
Low-Cost, Efficient, Secure & Reslient ICT	Secure and Resilient ICT					
Intelligent Sensor Based Infrastructure	Adaptive Traffic Signal Control / Smart Traffic Signals					
Intelligent Sensor Based Infrastructure	Parking Sensors					
Intelligent Sensor Based Infrastructure	Pedestrian and Bicyclists Detection	✓	✓			
Intelligent Sensor Based Infrastructure	Traffic Sensors (e.g., loop detectors, CCTV cameras, Bluetooth readers, etc.)	✓	✓			
Connected, Involved Citizens	Multimodal Traveler Information System (e.g., transit, parking, biking, trip planner, and other information)					
Connected Vehicles	Pedestrian Detection / Intersection Warning Applications	✓	✓			✓
Connected Vehicles	Probe Data Collection (i.e., equipping probe vehicles and taxis to collect traffic information)					
Connected Vehicles	Road Weather and Maintenance Solutions (e.g., equipped snow plows / maintenance vehicles)					
Connected Vehicles	Transit Applications (e.g., DSRC-equipped vehicles, AVL, Integrated Payment, Transit Traveler Information, and BRT)	✓	✓	✓		✓
Connected Vehicles	Transit Signal Priority (TSP)	✓	✓			✓
Connected Vehicles	Traveler Information Applications					✓
Connected Vehicles	V2V Safety Applications (e.g., EEBL, FCW, IMA)					
Architecture and Standards	CVRIA (and SET-IT)					
Architecture and Standards	Regional and National ITS Architecture	✓	✓			

Smart Cities Challenge Cross-Walk
Advanced Transportation and Congestion Management Technologies Deployment (ATCMTD) Initiative

Description: The FAST Act directs the Department to establish the ATCMTD initiative to provide grants to states, local governments, and other political subdivision of a State. Grants will be awarded to develop model deployment sites for large scale installation and operation of advanced transportation technologies to improve safety, efficiency, system performance, and infrastructure return on investment. The DOT will make no fewer than 5 and no more than 10 awards up to $12 million individually.

Application Deadline:	Friday, June 24, 2016 (Set Annually by the Federal Highway Administration
FY160-20 Funding Availability:	$60 Million / year (Up to $12 million/project)
FY 16 NOFO:	https://www.fhwa.dot.gov/fastact/nofo_atcmtd_20160325.pdf
COST SHARE:	Cost sharing or matching is required, with the maximum Federal share being 50%; hence, this NOFO requires a minimum non-federal cost share of 50%. Cost sharing or matching means the portion of project costs not paid by Federal funds.

ATCMTD Statutory Eligible Technology	ATCMTD Program Goals
1. Advanced traveler information 2. Advanced transportation management 3. Infrastructure maintenance, monitoring, and condition assessment 4. Advanced public transportation systems 5. Transportation system performance data collection, analysis, and dissemination systems 6. Advanced safety systems 7. Integration of ITS with the Smart Grid and other energy distribution and charging systems 8. Electronic pricing and payment systems 9. Advanced mobility and access technologies, such as dynamic ridesharing and information systems to support human services for elderly and disabled individuals	1. Environmental benefits from congestion management and streamlined traffic flow 2. Measurement and improvement of transportation networks operations 3. Reduction of traffic crashes and increase in personal safety 4. Real time information to improve mobility, reduce congestion and provide for more efficient and accessible transportation 5. Access to safe, reliable, and affordable connections to employment, education, healthcare, freight facilities, and other services; 6. Monitoring transportation assets to improve infrastructure management, reduce maintenance costs, prioritize investment decisions, and ensure a state of good repair 7. Economic benefits from reduced delays, improved system performance, and throughput, and the efficient and reliable movement of people, goods, and services; 8. Accelerated deployment of V2V, V2I, and automated vehicle applications, and autonomous vehicles; 9. Advanced technologies integrated into transportation system management and operations; 10. Demonstration, quantification, and evaluation of the impact of advanced technologies 11. Reproducibility of successful systems and services for technology and knowledge transfer to other locations facing similar challenges.

Smart City Vision Element	ATCMTD Eligible Technology	ATCMTD Program Goals*	Comment
Urban Automation	• Advanced transportation management • Advanced public transportation systems • **Advanced safety systems**	1-11, ***8***	NOFO technology **vi** references advanced safety systems including autonomous vehicles. DOT goal **8** explicitly calls out autonomous vehicles.
Connected Vehicles	• Advanced transportation management • Advanced public transportation systems • Advanced public transportation systems • **Advanced safety systems**	1-11	NOFO technology **vi** references advanced safety systems including V2V and V2I. DOT goal **8** explicitly calls out V2V and V2I.
Intelligent, Sensor-based Infrastructure	• Advanced transportation management • **Infrastructure maintenance, monitoring, and condition assessment** • Transportation system performance data collection, analysis, and dissemination systems	1-11	NOFO technology **iii** references technologies that monitor the condition of transportation infrastructure.
Urban Analytics	• Transportation system performance data collection, analysis, and dissemination systems	1-11, ***4***	NOFO technology **v** references data collection and analysis systems. DOT goal **4** concerns use of data and information to improve mobility, congestion, efficiency, and accessibility.
User-focused Mobility Services and Choices	• Advanced traveler information • Advanced public transportation systems • Electronic pricing and payment systems • **Advanced mobility and access technologies**	1-11	NOFO technology **ix** references advanced mobility and access technologies.
Urban Delivery and Logistics	• Advanced traveler information • Advanced safety systems • Advanced mobility and access technologies	1-11	Freight related traveler information, freight related advanced safety systems, and goods movement oriented advanced mobility and access technologies can potentially support this Vision Element.
Strategic Business Models and Partnering	Potentially All	1-11	Foundational Vision Element. NOFO encourages partnerships.

Smart City Vision Element	ATCMTD Eligible Technology	ATCMTD Program Goals*	Comment
Opportunities			
Smart Grid, Roadway Electrification, and EVs	• Integration of ITS with the Smart Grid and other energy distribution and charging systems	1-11	NOFO technology **vii** references integration of ITS with Smart Grid.
Connected, Involved Citizens	• Transportation system performance data collection, analysis, and dissemination systems • Advanced mobility and access technologies	1-11	NOFO technology **v** refers to information dissemination and technology **ix** concerns advanced mobility and access technologies, both of which can support Connected Citizens.
Architecture and Standards	Potentially All	1-11	Foundational Vision Element. Important for all technology deployment planning.
Low Cost, Efficient, Secure, and Resilient ICT	Potentially All	1-11	Foundational Vision Element. Communications and software are important for all technology deployment planning.
Smart Land Use	Potentially All	1-11	Cannot generalize. Applicant would need to demonstrate traceability between ATCMTD edibility and Smart Land Use.

* Numbers refer to goals listed on page 1. Depending on the nature of the deployment, each of the Vision Elements may be shown to support each of the 11 ATCMTD goals. Goals particularly related to Vision Elements are highlighted.

Smart City Vision Element	ATCMTD Eligible Technology	ATCMTD Program Goals*	Comment
Opportunities			
Smart Grid, Roadway Electrification, and EVs	• Integration of ITS with the Smart Grid and other energy distribution and charging systems	1-11	NOFO technology **vii** references integration of ITS with Smart Grid.
Connected, Involved Citizens	• Transportation system performance data collection, analysis, and dissemination systems • Advanced mobility and access technologies	1-11	NOFO technology **v** refers to information dissemination and technology **ix** concerns advanced mobility and access technologies, both of which can support Connected Citizens.
Architecture and Standards	Potentially All	1-11	Foundational Vision Element. Important for all technology deployment planning.
Low Cost, Efficient, Secure, and Resilient ICT	Potentially All	1-11	Foundational Vision Element. Communications and software are important for all technology deployment planning.
Smart Land Use	Potentially All	1-11	Cannot generalize. Applicant would need to demonstrate traceability between ATCMTD edibility and Smart Land Use.

* Numbers refer to goals listed on page 1. Depending on the nature of the deployment, each of the Vision Elements may be shown to support each of the 11 ATCMTD goals. Goals particularly related to Vision Elements are highlighted.

Smart Cities Challenge Crosswalk
Mobility on Demand (MOD) Sandbox Program

Description: The Federal Transit Administration (FTA) announced the availability of $8 Million in Fiscal Year (FY) 2014 and FY 2016 research funds, for a new program to demonstrate and evaluate innovative approaches to integrated "Mobility on Demand" (MOD) solutions within a public transportation framework. The MOD Sandbox Demonstration Program is intended to provide a platform where integrated MOD concepts and solutions are supported and demonstrated through local partnerships in a real-world setting. FTA will fund project teams to adopt innovative business models to deliver high quality, seamless and equitable mobility options for all travelers. The MOD Sandbox further emphasizes FTA's interest in transit and mobility innovation, and builds upon FTA's recent XPEDITE Innovation initiative, which sought industry input through an online dialogue on transit innovation, particularly technology trends that increase public transportation efficiency, effectiveness and enhance the quality of customer travel.

Application Deadline:	Tuesday July 5, 2016
FY160-20 Funding Availability:	$8 Million
NOFO:	https://www.transit.dot.gov/research-innovation/mobility-demand-mod-sandbox-program
NOTE:	This funding is available through the FTA discretionary research program with future funding opportunities determined on an annual basis.

MOD Sandbox Demonstration Eligible Projects	MOD Sandbox Demonstration Program Goals
Innovative Use Cases 1. First mile/last mile connectivity 2. Provisioning of ADA paratransit services 3. Urban center short distance mobility 4. Off-peak, late night services 5. Human service transportation 6. Service disruption/incident management preparedness 7. Local land use and development initiatives 8. Integration of support for use of zero-emission technologies and vehicles 9. Congestion mitigation **Collaborative Multimodal Service** 10. Augmentation of existing public transportation resources 11. Shared-use, on demand services 12. Paratransit, demand-response services 13. Parking/tolling applications 14. Neighborhood or campus shuttles 15. Enhanced airport ground transportation 16. Intercity services **Enabling Technologies and Enhanced Service**	1. Enhance transit industry preparedness for MOD. 2. Assist the transit industry to develop the ability to integrate MOD practices with existing transit service. 3. Validate the technical and institutional feasibility of innovative MOD business models and document MOD best practices that may emerge from the demonstrations. 4. Measure the impacts of MOD on travelers and transportation systems. 5. Examine relevant public sector and federal requirements, regulations and policies that may support or impede transit sector adoption of MOD.

Capabilities

17. Integrated or open payment systems
18. Internet of Things/Smart City applications
19. Advanced traveler information systems
20. Traveler decision support systems
21. Gamification as traveler engagement tools
22. Crowdsourcing of travel information
23. Open big data analytics
24. Connected/automated vehicles

Smart City Vision Element	MOD Sandbox Demonstrations Eligible Technology	MOD Sandbox Demonstrations Program Goals*	Comment
Urban Automation	• Connected/automated vehicles • First mile/last mile connectivity • Urban center/community short distance mobility • Employee, neighborhood or campus shuttles • Enhanced airport ground transportation	1-5	NOFO references first/last mile connectivity, urban center short distance mobility, campus shuttles, and airport transportation, which may include autonomous vehicles.
Connected Vehicles	• Connected/automated vehicles • Parking/tolling applications	1-5	NOFO references connected and automated vehicles, including parking/tolling applications.
Intelligent, Sensor-based Infrastructure	• Service disruption/incident management preparedness	1-5	
Urban Analytics	• Open big data analytics • Internet of Things/Smart City applications	1-5	NOFO references data collection and analysis systems including open big data analytics, Internet of Things, and Smart City applications.
User-focused Mobility Services and Choices	• Provisioning of ADA paratransit services • Human service transportation (e.g., Rides to Wellness) • Augmentation of existing public transportation resources • Shared-use, on demand services • Paratransit, demand-response services • Intercity services • Parking/tolling applications • Traveler decision support systems • Advanced traveler information systems • Integrated or open payment systems	1-5	NOFO references user-focused mobility and access technologies, including ADA paratransit services, human service transportation, shared-use/demand responsive services, intercity services, parking/tolling applications, traveler decision support systems, advanced traveler information systems, and integrated payment systems.
Urban Delivery and Logistics	• tbd	tbd	NOFO does not directly address urban delivery and logistics
Strategic Business	Potentially All	1-5	Foundational Vision Element. Important for all

Smart City Vision Element	MOD Sandbox Demonstrations Eligible Technology	MOD Sandbox Demonstrations Program Goals*	Comment
Models and Partnering Opportunities			technology deployment planning.
Smart Grid, Roadway Electrification, and EVs	• Integration of support for use of zero-emission technologies and vehicles	1-5	NOFO references integration of zero-emission technologies and vehicles.
Connected, Involved Citizens	• Crowdsourcing of travel information • Gamification as traveler engagement tools (such as games, rewards, and incentives)	1-5	NOFO references crowdsourcing of travel information and gamification as traveler engagement tools, both of can support Connected Citizens.
Architecture and Standards	Potentially All	1-5	Foundational Vision Element. Important for all technology deployment planning.
Low Cost, Efficient, Secure, and Resilient ICT	Potentially All	1-5	Foundational Vision Element. Communications and software are important for all technology deployment planning.
Smart Land Use	• Local land use and development initiatives (e.g., retirement communities)	1-5	NOFO references local land use and development initiatives to support this Vision Element.

* Numbers refer to goals listed on page 1. Depending on the nature of the deployment, each of the Vision Elements may be shown to support each of the 5 MOD Sandbox Demonstration Program goals.

Smart City Challenge Cross-Walk
U.S. DOE Vehicle Technologies Multi-Topic Funding Opportunity

Description: This funding opportunity announcement follows Congressional recommendations provided with the 2016 Consolidated Appropriations Act, which requested continued program support for activities under Section 131 of the Energy Independence and Security Act of 2007 (EISA) and alternative fuel community partner projects. It is expected that there will be 2-3 awards made ranging from $3M-$5M over a period of 36 months. State, local, and tribal government entities are eligible to apply for funding as a Prime Recipient or Subrecipient. Please see the solicitation for additional eiligibility details.
consortia of eligible non-profit institutions of higher education to establish and operate UTCs. Non-profit

Application Deadline: Concept paper are due July 6, 2016 (selections expected January 2017)

Funding Availability: Up to $10 million with awards expected to range from $3M-$5M

FOA and More Information:
https://eereexchange.energy.gov/FileContent.aspx?FileID=741e5ffc-841e-48b8-b3d1-a45b734750a5

Proposed Research Topic(s)	Program Goals
Alternative Fuel Community Partner Projects The objective is to fund projects that would accelerate the use of commercially available electric drive and alternative fuel vehicles, and supporting infrastructure technologies through community-based partnerships among state and local governments and the private sector. These projects will reduce U.S. dependence on petroleum, reduce greenhouse gas emissions, increase local fuel diversification, and catalyze the adoption of clean transportation technologies in other communities through the sharing of best practices and the collection and sharing of data. Applications should describe how projects and community-based partnerships would be sustained without federal assistance after DOE funding is expended. Project teams should include other strategic partners such as fuel suppliers, auto dealerships, fuel retailers, public or private fleets, equipment manufacturers, energy marketers, and energy companies. In addition to the information provided in the narrative above specific to this area of interest, applications must also specifically address the	The solicitation supports the DOE Office of Energy Efficiency and Renewable Energy (EERE) 2016-2020 Strategic Plan and Implementation Framework to accelerate the development and adoption of sustainable transportation technologies. The Vehicle Technologies Office (VTO) portfolio spans a broad range of technologies including advanced combustion engines and fuels, electrification, materials, and other enabling technologies. Analysis shows that VTO's combined portfolio of technologies could reduce petroleum consumption by nearly 20% from what is currently projected for 2030 in the Annual Energy Outlook (AEO) 2012. Investing in advanced vehicle technologies, like vehicles electrification and combustion engines, will yield benefits to conventional and alternative fuel vehicles, including sufficiently long ranges, sufficiently low costs, and broad consumer appeal to result in significant market penetration potential. **Partnerships**. Project teams should include other strategic partners such as fuel suppliers, auto dealerships, fuel retailers, public or private fleets, equipment manufacturers, energy marketers, and energy companies. **Matching Funds**. A minimum of 50% Non-Federal Share is required for Applicants who perform

following aspects:

- **Alternative Fuel Vehicles and Advanced Technology Vehicles:** Projects must include deployment of on-road vehicles that use alternative fuels, including electricity, that lead to reductions in petroleum use. Vehicles may be light-, medium-, or heavy-duty.
- **Alternative Fuel Infrastructure:** Projects must include planning for and strategic deployment of refueling infrastructure to support alternative fuel vehicles. Efforts should focus only on the alternative fuels as defined by the Energy Policy Act (http://www.afdc.energy.gov/fuels/).
- **Smart Mobility:** To the greatest extent possible, projects should leverage ongoing smart mobility or smart cities initiatives.
- **Best Practices and Lessons Learned:** Projects should capture data and lessons learned to develop best practices, case studies, and success stories that will serve as templates for other communities. The resulting information will facilitate the ability of communities to share experiences, develop essential expertise, and establish local service and support industries much more rapidly, while demonstrating to others the viability of adopting alternative fuels and advanced vehicles.
- **Policies and Procedures:** Projects must include creation and implementation of operating policies and procedures that increase deployment of infrastructure and vehicles capable of displacing petroleum use with alternative fuels.

more than 50% of the project work as measured by total projects costs

Smart City Vision Element	Eligibility Subject to Required Elements as Defined in Comments*	Comments
Urban Automation	Yes	**Objectives**. The objective is to fund projects that would accelerate the use of commercially available electric drive and alternative fuel vehicles, and supporting infrastructure technologies through community-based partnerships among state and local governments and the private sector. These projects will reduce U.S. dependence on petroleum, reduce greenhouse gas emissions, increase local fuel diversification, and catalyze the adoption of clean transportation technologies in other communities through the sharing of best practices and the collection and sharing of data **All projects must:** • Include deployment of on-road vehicles that use alternative fuels, including electricity, that lead to reductions in petroleum use. Vehicles may be light-, medium-, or heavy-duty. • Include planning for and strategic deployment of refueling infrastructure to support alternative fuel vehicles. • Include creation and implementation of operating policies and procedures that increase deployment of infrastructure and vehicles capable of displacing petroleum use with alternative fuels.
Connected Vehicles	Yes	
Intelligent, Sensor-based Infrastructure	Yes	
Urban Analytics	Yes	
User-focused Mobility Services and Choices	Yes	
Urban Delivery and Logistics	Yes	
Strategic Business Models and Partnering Opportunities	Yes	
Smart Grid, Roadway Electrification, and EVs	Yes	
Connected, Involved Citizens	Yes	
Architecture and Standards	Yes	
Low Cost, Efficient, Secure, and Resilient ICT	Yes	
Smart Land Use	Yes	

*Final eligibility subject to DOE FOA: DE-FOA-0001535

Smart City Challenge Cross-Walk
Nationally Significant Freight and Highway Projects (FASTLANE Grants) Discretionary Grant Program

Description: The Nationally Significant Freight and Highway Projects (NSFHP) program, as established by the Fixing America's Surface Transportation Act (FAST Act), Pub. L. 114-94, section 1105 (23 U.S.C. 117), will provide Federal financial assistance to freight and highway projects of national or regional significance. The Department will also refer to NSFHP grants as Fostering Advancements in Shipping and Transportation for the Long-term Achievement of National Efficiencies (FASTLANE) grants. The NSFHP program provides dedicated, discretionary funding for projects that address critical freight issues facing our nation's highways and bridges and for the first time in the U.S. Department of Transportation's 50-year history, establishes broad, multiyear eligibilities for freight infrastructure.

The NSFHP program provides an opportunity to address nationally or regionally significant challenges across the nation's transportation system including improving the safety, efficiency, and reliability of the movement of freight and people; generating national or regional economic benefits and increasing the United States' global competitiveness; reducing highway congestion and bottlenecks; enabling more efficient intermodal connections; minimizing delays at international borders; improving inadequate first and last mile segments; modernizing port facilities to meet 21st Century demands, including connections between ports and their surface transportation systems; enhancing the resiliency of critical intermodal infrastructure and helping protect the environment; improving grade crossings; improving roadways vital to national energy security; and addressing the impact of population growth on the movement of people and freight. The program also offers resources to advance highway and bridge projects on the National Highway System, including those that improve mobility through added capacity on the Interstate or address needs in a national scenic area. Recognizing the interconnected and multimodal nature of the nation's transportation system, the Department will give additional consideration to nationally or regionally significant multimodal and multijurisdictional projects.

Application Deadline:	Set Annually
Funding Availability:	The FAST Act authorizes the NSFHP program at $4.5 billion for fiscal years (FY) 2016 through 2020
FY16 NOFO:	https://www.transportation.gov/freight
COST SHARE:	NSFHP grants may be used for up to 60 percent of future eligible project costs. Other Federal assistance may satisfy the non-Federal share requirement for an NSFHP grant, but total Federal assistance for a project receiving an NSFHP grant may not exceed 80 percent of the future eligible project costs. Non-Federal sources include State funds originating from programs funded by State revenue, local funds originating from State or local revenue funded programs, private funds or other funding sources of non-Federal origins.

FASTLANE Eligible Projects
Eligible projects for NSFHP grants are: highway freight projects carried out on the National Highway Freight Network (23 U.S.C. 167); highway or bridge projects carried out on the National Highway System (NHS) including projects that add capacity on the Interstate System to improve mobility or projects in a national scenic area; railway-highway grade crossing or grade separation projects; or a freight project that is: (1) an intermodal or rail project; OR (2) within the boundaries of a public or private freight rail, water (including ports), or intermodal facility. A project within the boundaries of a freight rail, water (including ports), or intermodal facility must be a surface transportation infrastructure project necessary to facilitate direct intermodal interchange, transfer, or access into or out of the facility and must significantly improve freight movement on the National Highway Freight Network. *NOTE: For a freight project within the boundaries of a freight rail, water (including ports), or intermodal facility, Federal funds can only support project elements that provide public benefits*.

Smart City Vision Element	FASTLANE Eligible
Urban Automation	• Freight Automation
Connected Vehicles	• Truck Platooning • CV Technology on trucks • First/Mile Last Mile Intermodal Connections
Intelligent, Sensor-based Infrastructure	• Traffic Flow /Congestion Mitigation for Freight • Truck Parking
Urban Analytics	• Urban Freight Data/Analytics • Truck Parking
User-focused Mobility Services and Choices	•
Urban Delivery and Logistics	• Urban Freight Delivery • NHS Freight Projects
Strategic Business Models and Partnering Opportunities	
Smart Grid, Roadway Electrification, and EVs	• Electric Vehicle Delivery
Connected, Involved Citizens	• Engagement on Specific Freight Projects impacting communities and surrounding residents
Architecture and Standards	
Low Cost, Efficient, Secure, and Resilient ICT	
Smart Land Use	

Smart City Challenge Cross-Walk
Transportation Investments Generating Economic Recovery (TIGER) Discretionary Grant Program

Description: The Transportation Investment Generating Economic Recovery (TIGER) Discretionary Grant program provides a unique opportunity for the DOT to invest in road, rail, transit and maritime port projects that advance national transportation objectives. TIGER Discretionary Grants have supported innovative projects, including multimodal and multijurisdictional projects which are difficult to fund through traditional Federal programs. Successful TIGER projects leverage resources, encourage partnership, catalyze investment and growth, fill a critical void in the transportation system or provide a substantial benefit to the nation, region or metropolitan area in which the project is located. The 2016 TIGER grant program will continue to make transformative surface transportation investments that dramatically improve the status quo by providing significant and measurable improvements over existing conditions. TIGER grants fund capital investments in surface transportation infrastructure and are awarded on a competitive basis. Eligible Applicants for TIGER Discretionary Grants are State, local and tribal governments, including U.S. territories, transit agencies, port authorities, metropolitan planning organizations (MPOs), and other political subdivisions of State or local governments.

Application Deadline:	Set Annually
FY16 Funding Availability:	Based on Annual Appropriations
FY16 NOFO:	https://www.transportation.gov/tiger/tiger-nofo
COST SHARE:	TIGER Discretionary Grants may be used for up to 80 percent of the costs of a project located in an urban area and up to 100 percent of the costs of a project located in a rural area

TIGER Eligible	TIGER Selection Criteria Goals
1. Advanced traveler information 2. Advanced transportation management 3. Infrastructure maintenance, monitoring, and condition assessment 4. Advanced public transportation systems 5. Transportation system performance data collection, analysis, and dissemination systems 6. Advanced safety systems 7. Integration of ITS with the Smart Grid and other energy distribution and charging systems 8. Electronic pricing and payment systems 9. Advanced mobility and access technologies, such as dynamic ridesharing and information systems to support human services for elderly and disabled individuals	1. Advance Safety 2. Promote State of Good Repair 3. Enhance Quality of Life 4. Increase Economic Competitiveness 5. Enable Environmental Sustainability

Smart City Vision Element	TIGER Eligible	TIGER Program Goals*	Comment
Urban Automation	• ITS technology deployment and operation is an eligible expense for TIGER funding.	1, 3-5	NOFO
Connected Vehicles	• Rolling stock is eligible under TIGER	1	NOFO
Intelligent, Sensor-based Infrastructure	• ITS technology deployment and operation is an eligible expense for TIGER funding.	1-3,5	Safety, mobility, and state of good repair ITS solutions have been developed by vendors and used by transportation practitioners.
Urban Analytics	• ITS technology deployment and operation is an eligible expense for TIGER funding.	1-3,5	NOFO
User-focused Mobility Services and Choices	• ITS technology deployment and operation is an eligible expense for TIGER funding.	1,3-5	Transit systems have offered mobility option services.
Urban Delivery and Logistics	• ITS technology deployment and operation is an eligible expense for TIGER funding.	4,5	Freight related traveler information, freight related advanced safety systems, and goods movement oriented advanced mobility and access technologies can potentially support this Vision Element.
Strategic Business Models and Partnering Opportunities	• Private sector partnering is encouraged under TIGER	1-5	Partnership is a TIGER secondary selection criteria
Smart Grid, Roadway Electrification, and EVs	• Utility upgrades associated with transportation construction is eligible under TIGER	5	NOFO
Connected, Involved Citizens	• Will depend upon how this is specifically addressed in the TGER application.		
Architecture and	• ITS technology deployment and operation is an	1-5	NOFO

Smart City Vision Element	TIGER Eligible	TIGER Program Goals*	Comment
Standards	eligible expense for TIGER funding.		
Low Cost, Efficient, Secure, and Resilient ICT	• Will depend upon how this is specifically addressed in the TGER application.		
Smart Land Use	• ITS technology deployment and operation is an eligible expense for TIGER funding. • Partnership and Innovation are also secondary selection criteria	1-5	The innovative use of land as part of the TIGER application may yield benefits and be competitive.

Smart City Challenge Cross-Walk
University Transportation Centers (UTC) Program

Description: The FAST Act (sec. 6016) directs the Department to conduct a grants competition to select the next round of University Transportation Centers (UTCs). Up to 35 grants will be awarded to consortia of eligible non-profit institutions of higher education to establish and operate UTCs for a five-year period. Non-profit institutions of higher education may include qualifying two-year institutions.

Application Deadline:	Friday, May 13, 2016 (selections expected September 30, 2016) **Note:** New project partnerships may be created with the universities at any time after selection and award, as long as they are consistent with the UTCs' awarded scope of work.
FY16-20 Funding Availability:	$75.5 million / year (average), across up to 35 UTCs
NOFO and More Information:	http://www.rita.dot.gov/utc/fast_act_utc_competition_2016
Cost Sharing:	Each UTC is required to obtain matching funds from non-Federal (private, state/local, non-profit) sources in order to bring technical and financial resources to a partnership project.

UTC Proposed Research Topic(s)

1. Improving mobility of people and goods:

- Increase access to opportunities that promote equity in connecting regions and communities, including urban and rural communities;
- Smart cities;
- Innovations to improve multi-modal connections, system integration, and security;
- Assistive technologies for those with physical or cognitive disabilities;
- Data modeling and analytical tools to optimize passenger and freight movements;
- Innovations in multi-modal planning and modeling for high-growth regions;
- Novel (non-traditional or alternative) modes of transport and shared use of infrastructure; and
- Regional planning and setting of transportation priorities.

2. Reducing congestion:

- Optimize the efficiency and reliability of travel for all transportation system users;
- Improve operations, controls and devices;
- Urban logistics – last mile for both passengers and freight
  - Land use and transportation planning
  - Novel (non-traditional or alternative) forms of freight movement;

UTC Program Goals

The University Transportation Centers grants program has no limitations on technologies that may be pursued, as long as the program's mission and objectives are supported:

Mission. The purpose of these Centers is to:

a. Advance transportation expertise and technology in the many disciplines that comprise transportation through research, education and workforce development, and technology transfer.
b. Provide a critical transportation knowledge base outside the US DOT.
c. Address vital workforce needs and educate the next generation of transportation leaders.

Partnerships. The UTC Grant Solicitation describes the Secretary's proposed non-exclusive research topics areas which the UTC proposals must address. These topics are crosswalked with the Smart City Vision Elements, but do not limit technologies in which UTCs may partner. New partnerships may be created at any time during the five-year life of the UTC grants as long as they are consistent with the UTC's original scope of work. UTCs are not limited to the partnerships submitted with their initial proposals.

- Data Modeling and analytical tools to evaluate effects of shifting transit incentive structure; and
- Ridesharing and alternative forms of transportation.

3. Promoting safety:

- Vehicle and system automation across surface modes;
- Energy and hazardous material transport;
- Safety planning for all users
  - Pedestrians and bicyclists
  - Vehicular users
  - Integrated systems planning;
- Application of transportation safety data and safety management systems;
- Human factors and risk factor analysis;
- Transportation worker safety
  - Construction zones
  - Emergency responders; and
  - Trespass and vandalism.

4. Improving the durability and extending the life of transportation infrastructure:

- Application of new materials and technologies;
- Cyber and communications security;
- Condition monitoring, remote sensing and use of GPS;
- Asset management and performance management
  - Data accessibility and security
  - Analytical tools;
- Construction methodologies and management; and
- Corrosion and aging infrastructure.

5. Preserving the environment:

- Reduction of transportation system Greenhouse Gas emissions;
- Use of alternative fuels and energy technologies;
- Recycling infrastructure assets;
- Effects of new materials on the environment;
- Environmentally responsible planning and construction
  - Multiple uses of existing infrastructure
  - Noise and vibration reduction; and
- Impacts of freight movement.

Matching Funds. Each Center is required to obtain matching funds from non-Federal (private, non-profit, state and local government, etc.) sources.

- National and Regional UTCs must obtain matching funds in an amount at least equal to the USDOT grant amount.
- The match for Tier 1 UTCs is 50 percent of the amount of the UTC grant.
- Average annual Federal grant funding:
  - National UTCs (5): $3.1 million/yr/UTC
  - Regional UTCs (10): $2.9 million/yr/UTC
  - Tier I UTCs (up to 20): $1.5 million/yr/UTC

Limitations. UTC grant funding may <u>not</u> be used for the following, except in limited circumstances:

- The purchase or development of physical facilities.
- The purchase of vehicles of any type.
- The purchase of any real or personal property.

6. Preserving the existing transportation system:

- Innovation in aligning transportation decision-making, funding sources and mechanisms;
- Data modeling and analytical tools to evaluate effects of tolling and investment;
- System response to disruptive events/resilience to disasters;
- Infrastructure preservation techniques and cost effective maintenance practices;
- Retrofits and multiple uses of infrastructure to create efficiencies and reduce barriers to opportunity;
- Workforce development and capacity.

Smart City Vision Element	UTC Proposed Research Topic(s)	UTC Program Topic(s)*	Comments
Urban Automation	• Improving Mobility of People and Goods • Reducing Congestion • Promoting Safety • Improving the Durability and Extending the Life of Transportation Infrastructure	1-4	**Objectives**. The UTC Program and each Center share the following objectives: a. Research: To conduct basic, advanced, and applied research, the products of which are judged by peers or other experts in the field of transportation to advance the body of knowledge in transportation. b. Education and Workforce Development: To provide an education program relating to transportation that includes multidisciplinary course work, participation in research, and workforce development activities and programs to expand the workforce of transportation professionals. c. Technology Transfer: To deliver an ongoing program of technology transfer that makes transportation research results available to potential users in a form that can be implemented, utilized, commercialized, or otherwise applied. **Research Priorities**. UTCs shall support the following research priorities: 1. Improving mobility of people and goods 2. Reducing congestion 3. Promoting safety 4. Improving the durability and extending the life of transportation infrastructure 5. Preserving the environment 6. Preserving the existing transportation system.
Connected Vehicles	• Improving Mobility of People and Goods • Reducing Congestion • Promoting Safety • Improving the Durability and Extending the Life of Transportation Infrastructure • Preserving the Environment	1-5	
Intelligent, Sensor-based Infrastructure	Potentially All	1-6	
Urban Analytics	Potentially All	1-6	
User-focused Mobility Services and Choices	• Improving Mobility of People and Goods • Reducing Congestion • Promoting Safety	1-3	
Urban Delivery and Logistics	• Improving Mobility of People and Goods • Reducing Congestion • Preserving the Environment	1-2, 5	
Strategic Business Models and Partnering Opportunities	Potentially All	1-6	
Smart Grid, Roadway Electrification, and EVs	• Improving Mobility of People and Goods • Improving the Durability and Extending the Life of Transportation Infrastructure • Preserving the Environment • Preserving the Existing Transportation System	1, 4-6	

Smart City Vision Element	UTC Proposed Research Topic(s)	UTC Program Topic(s)*	Comments
Connected, Involved Citizens	Potentially All	1-6	
Architecture and Standards	Potentially All	1-6	
Low Cost, Efficient, Secure, and Resilient ICT	• Improving Mobility of People and Goods • Reducing Congestion • Promoting Safety • Improving the Durability and Extending the Life of Transportation Infrastructure	1-4	
Smart Land Use	Potentially All	1-6	

* Numbers refer to UTC Proposed Research Topics beginning at page 1.

Smart City Challenge Cross-Walk

Low or No Emission Program Smart Cities Challenge

Description: The Federal Transit Administration's 5339(c) Low or No Emission Bus Competitive Grant Program (Low-No Program) will finance the purchase or lease of low or no emission vehicles that use advanced technologies, including related equipment or facilities, for transit revenue operations. The main purpose of the Low-No Program is to deploy the cleanest and most energy efficient U.S.-made transit buses that have been largely proven in testing and demonstrations but are not yet widely deployed in transit fleets. Projects may include costs incidental to the acquisition of buses or to the construction of facilities, such as the costs of related workforce development and training activities, and project development. . Eligible recipients include direct recipients that operate fixed route bus service or that allocate funding to fixed route bus operators; state or local governmental entities; and federally recognized Indian tribes that operate fixed route bus service that are eligible to receive direct grants under 5307 and 5311. Subrecipients include direct recipients of 5307 grants and local government authorities that operate fixed route transit service.

Application Deadline:	Established on an annual basis by the Federal Transit Administration (www.transit.dot.gov)
FY16-20 Funding Availability:	$275 million
FY 16 NOFO:	https://www.transit.dot.gov/funding/grants/low-or-no-emission-vehicle-deployment-program-5339c
COST SHARE:	The maximum federal share is 85% for vehicles and 90% for facilities

Low or No Emission Program Eligible Projects	Low or No Emission Program Goals
Capital Projects 1. Low or no emission buses 2. Low or no emission facilities 3. Related equipment (including intelligent technology and software)	1. Reduce Direct Carbon Emissions. 2. Reduce Particulate Emissions. 3. Support Deployment of Advanced Propulsion Technologies. 4. Demonstrate Successful Revenue Operation of New Technologies.

Smart City Vision Element	Low or No Emission Bus Program Eligible Technology	Bus Program Demonstrations Program Goals*	Comment
Connected Vehicles	• Connected/automated vehicles • Parking/tolling applications	1-4	NOFO references ITS.
Intelligent, Sensor-based Infrastructure	• Service disruption/incident management preparedness	1-4	NOFO references ITS.
User-focused Mobility Services and Choices	• Augmentation of existing public transportation resources	1-4	NOFO references ITS.
Smart Grid, Roadway Electrification, and EVs	• Integration of support for use of zero-emission technologies and vehicles	1-4	NOFO references integration of zero-emission technologies and vehicles.
Low Cost, Efficient, Secure, and Resilient ICT	Potentially All	1-4	NOFO references ITS.

* Numbers refer to goals listed on page 1. Depending on the nature of the deployment, each of the Vision Elements may be shown to support each of the 4 Bus Program Demonstration Program goals.

Smart City Challenge Cross-Walk

5339(b) Competitive Grants for Buses and Bus Facilities Program

Description: The Federal Transit Administration's Section 5339(b) Grants for Buses and Bus Facilities Competitive Grant Program (Bus Program will finance capital projects to replace, rehabilitate, purchase or lease buses and related equipment and to rehabilitate, purchase, construct or lease bus-related facilities, including programs of bus and bus-related projects for subrecipients that are public agencies, private companies engaged in public transportation, or private non-profit organizations. Projects may include costs incidental to the acquisition of buses or to the construction of facilities, such as the costs of related workforce development and training activities, and project development. Eligible recipients include direct recipients that operate fixed route bus service or that allocate funding to fixed route bus operators; state or local governmental entities; and federally recognized Indian tribes that operate fixed route bus service that are eligible to receive direct grants under 5307 and 5311. Subrecipients include eligible recipients that receive grant funding under the formula or discretionary programs may allocate amounts from the grant to subrecipients that are public agencies or private nonprofit organizations engaged in public transportation.

Application Deadline:	Set Annually by the Federal Transit Administration www.transit.dot.gov
FY16-20 Funding Availability:	$228.6 million in FY 17 *NOTE: FAST ACT provides $1.24 billion total from FY2016-FY2020*
2016 NOFO:	https://www.transit.dot.gov/funding/applying/notices-funding/5339b-bus-and-bus-facilities-discretionary-program-bus-program-2016
OOST SHARE:	The Maximum Federal Share for Vehicles is 85% and 90% for facilities

Bus Program Eligible Projects	Bus Program Goals
Capital projects to replace, rehabilitate purchase, or lease buses, vans, and related equipment (including intelligent technology and software) Capital projects to rehabilitate, purchase, construct, or lease bus-related facilities.	1. Improve the condition of the nation's public transportation bus fleets 2. Expand transportation access to employment, educational, and healthcare facilities, and to improve mobility options in rural and urban areas throughout the country

Smart City Vision Element	Bus Program Eligible Technology	Bus Program Demonstrations Program Goals*	Comment
Connected Vehicles	• Connected/automated vehicles • Parking/tolling applications	1-2	NOFO references ITS.
Intelligent, Sensor-based Infrastructure	• Service disruption/incident management preparedness	1-2	NOFO references ITS.
User-focused Mobility Services and Choices	• Provisioning of ADA paratransit services • Human service transportation (e.g., Rides to Wellness) • Augmentation of existing public transportation resources • Shared-use, on demand services • Paratransit, demand-response services • Intercity services • Traveler decision support systems • Advanced traveler information systems • Integrated or open payment systems	1-2	NOFO references user-focused mobility and access technologies, including ADA paratransit services, human service transportation, shared-use/demand responsive services, intercity services, and ITS.
Smart Grid, Roadway Electrification, and EVs	• Integration of support for use of zero-emission technologies and vehicles	1-2	NOFO references integration of zero-emission technologies and vehicles.
Connected, Involved Citizens	• Crowdsourcing of travel information • Gamification as traveler engagement tools (such as games, rewards, and incentives)	1-2	NOFO references ITS.
Low Cost, Efficient, Secure, and Resilient ICT	Potentially All	1-2	NOFO references ITS.

* Numbers refer to goals listed on page 1. Depending on the nature of the deployment, each of the Vision Elements may be shown to support each of the 4 Bus Program Demonstration Program goals.

Smart Cities Challenge Cross-Walk

Passenger Ferry Grant Program (Ferry Program)

Description: The Federal Transit Administration's Section 5307 Discretionary Passenger Ferry Grant program funds capital projects for passenger ferries with service to urbanized areas. These funds constitute a core investment in the enhancement and revitalization of public ferry systems in the Nation's urbanized areas. Capital projects include, but are not limited to, the purchase, replacement, or rehabilitation of ferries and terminals and related equipment. Funds may not be used to fund operating expenses, planning, or preventive maintenance. Eligible proposers and eventual grant applicants under this initiative must be designated recipients or eligible direct recipients of Section 5307 funds, which includes public entities engaged in providing a public transportation passenger ferry service. Ferry systems that accommodate cars must also accommodate walk-on passengers in order to be eligible for funding. Approximately $30 million is available annually.

Application Deadline:	Set Annually by the Federal Transit Administration
Funding:	$30 million in FY17. FAST Act provides $150 million from 2016-2020
FY 15 NOFO:	http://www.gpo.gov/fdsys/pkg/FR-2015-08-03/pdf/2015-18917.pdf
COST SHARE	The maximum federal share is 80%

Passenger Ferry Grant Eligible Projects	Passenger Ferry Grant Program Goals
Capital Projects 1. Passenger Ferries 2. Terminals **3.** Related Infrastructure	1. Core investment in the enhancement and revitalization of public ferry systems in the Nation's urbanized areas 2. Expand Ladders of Opportunity 3. Improve Safety

Smart City Vision Element	Passenger Ferry Eligible Technology	Passenger Ferry Demonstrations Program Goals*	Comment
Connected Vehicles	• Connected/automated vehicles • Transit applications	1-3	Eligible as capital expenses under NOFO .
Intelligent, Sensor-based Infrastructure	• Service disruption/incident management preparedness	1-3	Eligible as capital expenses under NOFO .
User-focused Mobility Services and Choices	• Augmentation of existing public transportation resources • Intercity services • Traveler decision support systems • Advanced traveler information systems • Integrated or open payment systems	1-3	Eligible as capital expenses under NOFO .
Smart Grid, Roadway Electrification, and EVs	• Integration of support for use of zero-emission technologies and vehicles	1-3	Eligible as capital expenses under NOFO .
Connected, Involved Citizens	• Multimodal transportation information systems • Public wi-fi	1-3	Eligible as capital expenses under NOFO .

* Numbers refer to goals listed on page 1. Depending on the nature of the deployment, each of the Vision Elements may be shown to support each of the 3 Bus Program Demonstration Program goals.

Smart Cities Challenge Cross-Walk
Pilot Program for Transit-Oriented Development (TOD) Planning

Description: The Pilot Program for TOD Planning helps support FTA's mission of improving public transportation for America's communities by providing funding to local communities to integrate land use and transportation planning with a New Starts, Core Capacity or fixed-guideway Small Starts project that is seeking or has recently received funding through the CIG Program. Any comprehensive planning funded through the Pilot Program for TOD Planning must, per statute, examine ways to improve economic development and ridership, foster multimodal connectivity and accessibility, improve transit access for pedestrian and bicycle traffic, engage the private sector, identify infrastructure needs, and enable mixed-use development near transit stations. The statute also requires that the planning work be associated with a new fixed guideway or core capacity transit project as defined under the CIG Program.

Application Deadline: Established on an annual basis by the Federal Transit Administration

Funding Availability: $50 million total provided in the FAST Act from FY 16-FY20

FY 16 NOFO: https://www.transit.dot.gov/funding/applying/notices-funding/pilot-program-transit-oriented-development-tod-planning

COST SHARE: The maximum federal share is 80%

Pilot Program for TOD Planning Eligible Activities	Pilot Program for TOD Planning Goals
Any work funded through the program must address all of the following six areas of general authority that appear in statute: 1. Enhances economic development, ridership, and other goals established for the transit project; 2. Facilitates multimodal connectivity and accessibility; 3. Increases access to transit hubs for pedestrian and bicycle traffic; 4. Enables mixed-use development; 5. Identifies infrastructure needs associated with the transit project; and 6. Includes private sector participation. Examples of deliverables include, but are not limited to: 1. A comprehensive plan for the project corridor or a portion of the corridor; 2. Revised TOD-focused zoning codes and/or	1. Augment the much larger investments in CIG Program projects that FTA recently made or is likely to make to better integrate the land use and transit planning processes. 2. Support comprehensive planning projects that are likely to be implemented, as demonstrated by partnerships between transit agencies and land use authorities. 3. Support comprehensive planning projects that would likely not occur without Federal support. This may be due to limited local resources for planning. 4. Support planning efforts that include strategies to support housing affordability and address residential and commercial displacement that can sometimes occur when transit capital projects are implemented.

resolutions;

3. Recommendations of financial tools and incentives to encourage TOD such as land banking, value capture, and development financing;
4. Recommendations to promote inclusive communities and reduce residential and commercial displacement in the project corridor;
5. Multimodal access plans for transit station areas;
6. Recommendations for ways to connect disadvantaged populations to essential services;
7. Policies to encourage TOD; and/or
8. Local or regional resolutions to implement TOD plans and/or establish TOD funding mechanisms.

Smart City Vision Element	Pilot Program for TOD Planning Eligible Activity	Pilot Program for TOD Planning Goals*	Comment
Smart Land Use	• Complete streets planning • Data-driven land use planning • Zoning code revisions • Development of transit-supportive parking policies in a transit corridor • TOD/smart growth planning for a transit corridor • Planning for improved walk and bike access to transit	1-4	All of these activities, which are comparable to SCC project types, are eligible for funding and consistent with FTA's goals for the program. However, any of these activities taken alone may not constitute an eligible comprehensive planning project – see the description of eligible activities above.
Strategic Business Models and Partnering	• Private partnerships • Public agency partnerships	1-4	Any comprehensive planning projects funded through the Pilot Program for TOD Planning must involve the private sector in some capacity (this is up to applicants to determine). Per the NOFO, the sponsor of the transit project and at least one land use authority in the transit project corridor must partner in the comprehensive planning effort. Partnerships with additional public agencies are encouraged.

* Numbers refer to goals listed on page 1. Depending on the nature of the activities funded, each of the Vision Elements may be shown to support each of the four Pilot Program for TOD Planning goals.