

STP-U & TAP Application Form

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**APPLICATION FOR:**

- **STP-U FUNDS** (Project Development, Preservation, Modernization)

- **TAP FUNDS** (Transportation Alternatives Program)

FY 2016-2018

Project Information				
Project Title:	Traffic Signal Systems Modernization			
Agency Applying:	City of Springfield			
Applying for STP or TAP:	STP			
Fiscal Year(s):	2016-2017			
Staff Contact:	Tom Boyatt or Brian Barnett	Staff Phone:	541-744-3373 or 541.726.3681	
Staff Email:	tboyatt@springfield-or.gov or bbarnett@springfield-or.gov			
Project Type:	<input type="checkbox"/> Preservation	<input checked="" type="checkbox"/> Modernization	<input type="checkbox"/> Project Development	<input type="checkbox"/> Other
Mode:	<input checked="" type="checkbox"/> Roadway	<input checked="" type="checkbox"/> Transit	<input checked="" type="checkbox"/> Bike/Ped	<input type="checkbox"/> Other
Project Description:				
The project is the first phase of a city wide project to replace outmoded traffic signal cabinets and controllers, and communication systems. Congested corridors will be targeted to achieve maximum public traveler benefit.				
Description of Need or Problem				
Existing traffic control systems use "170 model" controllers that are operationally and functionally obsolete and use 1970's technology. Communications between controllers and the City of Springfield's central management computer uses serial modems across narrow gauge wire (similar to telephone wire) resulting in low speeds and low throughput. Both of these systems were installed decades ago and require replacement due to physical failure that has become prevalent. Catastrophic failure of controllers and cabinets regularly occur causing substantial disruption to travelers at unplanned times. Replacement of components and subsystems is on an ad hoc basis precluding improving the systems comprehensively thus missing a valuable opportunity to improve system reliability and efficiency. Technical advancements in controller and communication technology afford the ability to enhance communication to drivers, system operators, collect and analyze data that can then be used to reduce travel delay and uncertainty, and increase agency service delivery efficiency.				
Eligibility			YES	NO
RTP Is the project listed in, consistent with, or able to be added to financially constrained RTP, during project time frame?			<input checked="" type="checkbox"/>	<input type="checkbox"/>
Timeliness. Does the agency have the ability to utilize funds in FY requested?			<input checked="" type="checkbox"/>	<input type="checkbox"/>
Federal Eligibility. Is project eligible for STP-U or TAP funding under Federal guidelines ¹			<input checked="" type="checkbox"/>	<input type="checkbox"/>
Local Match. Can agency provide minimum required matching funds (10.27% of project total)?			<input checked="" type="checkbox"/>	<input type="checkbox"/>
Sufficient Funding. Has sufficient funding been identified to complete project/phase			<input checked="" type="checkbox"/>	<input type="checkbox"/>
¹ For STP-U, see http://www.lcog.org/AgendaCenter/ViewFile/Item/1558?fileID=7308				

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For TAP, see <http://www.fhwa.dot.gov/map21/guidance/guidetap.cfm>

Cost Estimate/Funding Needs		
Total Estimated Project Cost	\$279,000	
Funding Available	\$29,000	Source: Street Fund
	\$	Source:
	\$	Source:
Amount of STP-U/TAP Request (Indicate to the right funding source requested)	\$250,000	STP-U
Note: Total non-federal funding must meet minimum match requirement of 10.27% of Total Project Cost.		

Regional Priorities

<input checked="" type="checkbox"/>	PRESERVES EXISTING TRANSPORTATION ASSETS			
Goal:	Increase travel time reliability and decrease travel time by improving system reliability, communication, data gathering and processing. Reduce equipment failure, downtime, and disruption to travel by motor vehicle, bicycle and transit bus.			
Measures:	Roadway <input checked="" type="checkbox"/>	Transit Route <input checked="" type="checkbox"/>	Bike Lanes <input checked="" type="checkbox"/>	Multi-Use Path <input type="checkbox"/>
	Functional Class:	Minor Arterials & Major Collectors	Transit Volume:	
	PCI:		Freight Volume:	
	Traffic Volume:	10,000 to 18,000 AADT	Bike/Ped Counts:	

Qualitative Assessment:
 Replacing controllers, cabinets and communications equipment will allow for more advanced signal timing, data collection, trouble shooting, and extend the capacity of the travel lanes thus avoiding calls to expand the number of lanes to increase capacity. Unplanned replacement of equipment will be avoided thus reducing extended, untimely and unforeseen congestion from equipment failure.

Regional Priorities

<input type="checkbox"/>	PRESERVES OR ENHANCES TRANSIT SERVICES			
Goal:	Maintain or increase transit ridership.			
Measures:	Existing ridership:		Projected ridership	
	Existing service hrs:		Proj. service hrs:	
	Ex. area of service:		Proj. service area:	
	Title VI Issues:		Title VI Issues:	

Qualitative Assessment:

Regional Priorities				
<input checked="" type="checkbox"/>	IMPROVES SAFETY			
Goals:	Reduce the number and severity of accidents involving pedestrians, bicyclists, and/or vehicles. Address areas perceived to have safety issues to increase the use of multi-use paths.			
Measures:	Roadway <input checked="" type="checkbox"/>	Multi-Use Path <input type="checkbox"/>	Sidewalk <input type="checkbox"/>	Mixed <input type="checkbox"/>
	Vehicular Crash Data:	Varies	Traffic Volume:	10,000 to 18,000 AADT
	Bicycle Crash Data:		Transit Volume:	
	Pedestrian Crash Data:		Bike/Ped Counts:	
Qualitative Assessment:				
Safety will be improved by having controllers, software and communications that is more efficient to maintain traffic signal timing and less prone to failure. Traffic incidents cause over half of all congestion and this project will reduce the equipment failures that cause incidents. Signals malfunctions can create conditions leading to pedestrian, bicyclist, and driver collisions.				
Regional Priorities				
<input checked="" type="checkbox"/>	REDUCES GREENHOUSE GAS EMISSIONS			
Goals:	Reduce greenhouse gas emissions by reducing congestion, increasing operational efficiency, supporting alternative modes, and managing transportation demand.			
Measures:	Congestion Reduction <input checked="" type="checkbox"/>	Operational Efficiency <input checked="" type="checkbox"/>	Alternative Modes <input type="checkbox"/>	Trans. Demand Management (TDM) <input type="checkbox"/>
	Qualitative Assessment:			
Efficiently operating traffic signals significantly reduces congestion. Installing equipment that enhances data collection, communication efficiency, and traffic conditions analysis increases operational efficiency for the driver and decreases systemic and spot congestion. Malfunctioning signals significantly increase congestion. Replacing equipment that is at the end of its useful life will increase system reliability assuring the street user of reliable and safe travel times.				

Additional Project Benefits	
Connectivity	Will completed project fill in key gaps in the transportation system, complete system components, or provide better pedestrian, bicycle, or roadway connectivity at a regional scale?
Measures:	
Multiple Modes	How will completed project benefit more than one mode or purpose (i.e., roadway & transit, bicycle & roadway users, or roadway & identified freight route)?
All user modes benefit from safe, consistent, always-on systems. Transit travel times will be more consistent enabling more precise schedule and route planning. Pedestrians will be less likely to cross an intersection with a malfunctioning signal that doesn't have any pedestrian indications operating. Bicyclists will have similar benefits to pedestrians. Vehicle drivers will benefit from all of the above and experience less stops and starts that cause pollutant emissions and fuel use to increase, and can lead to rear-end collisions.	
Measures:	
Congestion Reduction	Will completed project reduce congestion through provision of additional capacity or critical link or other means?
This project will increase user throughput by more efficiently and reliably using the street capacity presently built.	
Measures:	
Freight	Will completed project improve the freight system and freight movement?
This project will increase user throughput by more efficiently and reliably using the street capacity presently built. Stops and starts are particular costly to heavy vehicles in fuel used, maintenance of brake and driveline systems and lost time.	
Measures:	
Public Health	Will the completed project provide public health benefits?
This project will reduce congestion and resultant pollution and result in localized air quality benefits.	
Measures:	
Economic Development	Will the completed project promote or support economic development?
Measures:	
Other	Are there other benefits that the completed project will provide?
Measures:	
Other Project Information	
Scope of improvement, i.e., regional, community, neighborhood, local	
Community	
Ratio of STP-U Overhead to Overall Project Cost	

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Less than 10%
Opportunity Costs, i.e., cost of not doing activity/project
The opportunity cost of not doing this project could be high. The concern is that continued under-investment in traffic signals and communications will result in increasing number of unexpected equipment failures. Unplanned replacement is always more costly and more disruptive to traffic flow and is not as safe as a managed shut down of a signal for equipment replacement.
APPLICATION DUE DATE: JULY 24, 2015
PLEASE SUBMIT APPLICATION ELECTRONICALLY TO PAUL THOMPSON, LCOG pthompson@lcog.org

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Files\Content.Outlook\VEYRUTEC\MPC5 f-Attachment2-STP-U_TAP_ApplicationForm.docx
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