

BOARD OF SUPERVISORS AGENDA ITEM REPORT CONTRACTS / AWARDS / GRANTS

Requested Board Meeting Date: December 13, 2016

or Procurement Director Award

Contractor/Vendor Name (DBA): Pima Association of Governments

Project Title/Description:

Safety: Durable Pavement Markings Memorandum of Understanding

Purpose:

This road safety improvement project was identified through the local network crash data screening process and meets all requirements of Title 23. The proposed request is to upgrade existing pavement markings with durable pavement markings in order to meet the retro reflectivity requirements of the 2009 MUTCD. PCDOT is requesting that ADOT's Traffic Engineering's Group prepare the plans and specifications in FY 17 and that ADOT Contracts and Specifications staff prepare the bid documents and advertise and award the contract to a contractor using HSIP funds in FY 18.

Procurement Method:

Procurement exempt - Memorandum of Understanding

Program Goals/Predicted Outcomes:

Possible 5 year projected crash reduction.

Public Benefit:

Reduction in lane departure crashes resulting in increased public safety.

Metrics Available to Measure Performance:

N/A

Retroactive:

No

To: CoB. 12-6 16- (31 Ver.-1 Pgs. 12 Addardun

Procure Jept 12/06/16 PM01:17

Original information						
Document Type: CTN	Department Code: TR	Contract Number (i.e.,15-123): 17*112				
Effective Date: 12/13/20)16 Termination Date: 9/28/2019	Prior Contract Number (Synergen/CMS):				
☐ Expense Amount: \$		⊠ Revenue Amount: \$ 625,000				
	Highway Safety Improvement Program (HSIP) Funding = \$589,000 Local Funding = \$36,000					
Cost to Pima County Ge	eneral Fund:					
	ally funded with Federal Funds?	⊠ Yes ☐ No ☐ Not Applicable to Grant Awa	ards			
Were insurance or inde	mnity clauses modified?	☐ Yes ☐ No ⊠ Not Applicable to Grant Awa	ards			
Vendor is using a Socia	I Security Number?	☐ Yes ☐ No Not Applicable to Grant Awa	ards			
If Yes, attach the require	ed form per Administrative Proced	dure 22-73.				
Amendment Information	on					
Document Type:	Department Code:	Contract Number (i.e.,15-123):				
Amendment No.:		AMS Version No.:				
☐ Expense ☐ Reven	ue 🗌 Increase 🔲 Decrease					
Funding Source(s):						
Cost to Pima County Ge	eneral Fund:					
Contact: Kathryn Skinne	FT					
Department: Transporta	tion	Telephone: 724-6880				
Department Director Sig	nature/Date:	12	15/16			
Deputy County Administ	rotor Cianatura/Data	Her W End 12/5/16	LYIW-			
County Administrator Sig (Required for Board Agenda/A	gnature/Date:	Fallelain 125/16				

	CONT	RAC		
NO. <u>C11</u>	V- TK	17	- //2	
AMENDME	VT NO.	*P=00}-#		idk=leu
This number	must	appear	on all	
invoices,			and	
documents	pertainin	g to	this	
contract.				

MEMORANDUM OF UNDERSTANDING BETWEEN PIMA ASSOCIATION OF GOVERNMENTS AND PIMA COUNTY FOR

PROGRAMMING AND FUNDING OF SAFETY: DURABLE PAVEMENT MARKING (TIP ID 23.15)

This Memorandum of Understanding (MOU) is entered into by and between Pima Association of Governments (PAG), the designated Metropolitan Planning Organization (MPO) for Pima County, and Pima County, a body politic and corporate of the State of Arizona ("the Lead Agency").

RECITALS

- A. 23 U.S.C 134 (b) establishes Metropolitan Planning Organizations in urban areas over 50,000 in population. Additionally, urbanized areas over 200,000 in population are considered Transportation Management Areas (TMA) that require the MPO to incorporate additional requirements into the planning process as outlined in 23 USC 134 (k).
- B. The governing board of the MPO is composed of representatives of each member of the regional jurisdictional governments in accordance with 23 USC 134 (d).
- C. PAG as the MPO is required to annually develop a Transportation Improvement Program (TIP) in accordance with 23 USC 134 (j).
- D. PAG, as part of the regional planning process throughout 23 USC 134 is required to ensure projects identified in the TIP are making satisfactory progress toward completion, have the necessary funding commitments to be completed within the timeframe published in the TIP and that completed projects are reported on using a performance based planning process.
- E. Publication of the PAG TIP document authorizes the obligation of federal funding (expenditure of federal funds obligated for this project on or after May 29, 2015 are subject to terms and conditions of this agreement) and/or authorizes the drawdown of state PAG HURF 12.6% funds to projects that are programmed in the "current" fiscal year of the document.
- F. Pima County has been identified as the Lead Agency for the Safety: Durable Pavement Marking Project ("the Project") and will be responsible for all aspects of Project implementation including, but not limited to, planning, Project management, risk management, design, right of way acquisition, construction, advertisement, award, execution and administration of the design and construction contracts for the Project.

- G. The Lead Agency is authorized by A.R.S. §§ 11-251(4) and 28-6701 et seq. to design, maintain, control and manage public roads within the Lead Agency's jurisdictional boundaries.
- H. The Lead Agency is authorized under A.R.S. § 28-6701 to establish, construct, and maintain highways and related improvements in Pima County within municipal boundaries. The Lead Agency may, when authorized by law, have a legal contract with one or more jurisdictions to perform roadway and other improvements within the boundaries of the other jurisdiction or jurisdictions.
- I. The Lead Agency and PAG wish to cooperate in the programming and funding for the Project. The Project is identified in the PAG TIP with the TIP ID# of 23.15.
- J. It is the policy of PAG to require that the Lead Agency be identified and a Memorandum of Understanding (MOU) be approved and entered into by PAG and the Lead Agency before the project can advance into the first or second year of the TIP document.
- K. The PAG TIP Policies and Procedures document will apply to the programming process for this project unless otherwise specified herein.
- L. The Project has been identified to add value to the stated goals and objectives of the adopted regional transportation plan, as such it must meet and comply with its obligations to the region.

NOW, THEREFORE, Pima County and PAG, pursuant to the above and in consideration of the matters and things set forth herein, do mutually understand as follows:

UNDERSTANDING

- 1. Purpose. The purpose of this MOU is to set forth the responsibilities of the parties for the design, construction, maintenance and operation of the Project and to address various legal and administrative matters among the parties.
- **2. Project.** The proposed project will improve the visibility of pavement markings on Catalina Hwy and Arivaca Road. Catalina Hwy is a popular route used for access to recreation on Mt. Lemmon and to access businesses and the community of Summerhaven. Arivaca Road provides access from I-19 to the community of Arivaca and beyond and is an important roadway for use by the US Border Patrol. Full details are included in Exhibit A, including:
 - a) Project scope and schedule, including a description of how the Project will benefit the PAG region.
 - b) PAG TIP ID# Number.
 - c) Estimated Project budget and cost breakdowns by phase.
 - d) Total amount of regional funding programmed for the Project plus a breakdown of any other funding available to complete the Project.
 - e) Designation of Project phases, if applicable, and any additional related agreements.
 - f) Estimated construction start date and duration of construction.
 - g) Estimated Project timeline.
 - h) Identification of a project contact for the Lead Agency.

- i) For non-programmatic projects, the scope should list (at a minimum) all project features and categories that will be identified in the project's base info page in the TIP database. The jurisdictions are encouraged to list additional project features as well.
- j) For programmatic expenditures, the scope should include anticipated deliverables and outcomes, such as number of meetings or outreach events, or number of participants reached.
- 3. Operations and Maintenance. For capital improvement projects the Lead Agency will identify the cost and funding source for operations and maintenance of the completed project.
- **4. Effective Date; Term.** This MOU shall become effective upon approval of this MOU by the PAG Regional Council and the Lead Agency and shall continue in effect until all improvements constructed pursuant to this MOU are completed, all eligible reimbursement payments to the Lead Agency are concluded, and all warranties applicable to the Project have expired.

5. Responsibilities of the Lead Agency.

- a. The Lead Agency shall be responsible for the design, construction and/or installation of the Project in accordance with this MOU and all applicable public roadway, traffic signal, and street lighting design and construction standards. Design Standards are federal, state, county or municipal standards for engineering, traffic, safety or public works facilities design. Examples of Design Standards include the American Association of State Highway and Transportation Officials and Federal Highway Administration standards for highway engineering and construction, the Pima Association of Governments Standard Specifications for Public Improvements, the Pima County Roadway Design Manual, the Pima County Department of Transportation /City of Tucson Department of Transportation Pavement Marking Design Manual, and Pima County and municipal design guidelines for roadway lane widths and level of drainage protection.
- b. If any parties other than the Lead Agency are contracted to perform any portion of the Project, the Lead Agency shall be responsible for the contracts for design, construction, or any other professional services for the Project and shall select the consultants and contractors to be used on the Project. The Lead Agency shall follow all local, regional, state or federal requirements applicable to the funding being used, including selection and contracting for services.
- c. During Project implementation when required, the Lead Agency shall be responsible for all traffic management, including public notification, during construction of the Project.
- d. For construction projects, the Lead Agency shall operate and maintain the improvements during and after completion of construction except where those responsibilities have been agreed to by another agency or jurisdiction.
- e. The final cost of the Project shall be that amount necessary to complete the Project including any work incorporated into the Project by change orders and amendments executed by the Lead Agency. The Lead Agency shall be responsible for all Project costs in excess of the regional funds identified in the TIP document.

- f. The Lead Agency shall exercise its power of eminent domain, if necessary, to acquire property needed for the Project.
- g. Under no circumstances shall the contractor(s) or any other third party entity own or imply ownership of products and services provided and paid for in part or in whole with funds identified in this agreement.
- h. For construction projects the Lead Agency will be responsible for assuming all risks associated with the Project except those that are assigned to another agency or jurisdiction that has agreed to that assumption.
- i. For construction projects the Lead Agency shall require its contractors performing any portion of the Project to name PAG as additional insured and additional indemnitee with respect to insurance policies for general liability, automobile liability and defects in design in all of the Lead Agency's contracts for the Project. The Lead Agency shall also require its contractors to name PAG, as well as any other funding agency involved with the project (RTA, ADOT, FHWA, etc.) as an additional beneficiary in any performance and payment related assurances posted for the Project.
- j. Monthly, the Lead Agency shall be responsible for preparing and submitting the reimbursement requests (invoices) to PAG/ADOT or FHWA depending on the fund source.
- k. The Lead Agency shall be responsible for submitting a status report describing its progress and adherence to the Project scope, schedule and budget to the TIP Subcommittee upon request, and quarterly to PAG.
- 1. The Lead Agency shall indemnify, defend, and hold PAG and any other funding providers harmless from any and all claims, demands, suits, actions, proceedings, loss cost, and damages of every kind and description, including any reasonable attorneys' fees and/or litigation expenses, which may be brought or made against PAG and any other funding providers, and any of their officers, directors and employees, or any person, regardless of who makes the claim, to the extent they result from the negligent or wrongful acts of the Lead Agency or its contractors, or any of their employees, agents, representatives, or sub-contractors, in connection with or incidental to the performance of this MOU. The indemnity provided in this section shall survive termination of this MOU.
- m. For construction projects the Lead Agency and its contractors shall clearly identify the funding source(s) for the Project, as well as any funding agency involved with the project (PAG, RTA, FTA, FHWA, etc.) in all documents and communications materials related to the Project. Communications materials may include, but are not limited to, signs, brochures, press releases, PowerPoint presentations, Web site information, reports, agenda templates, DVD presentations, electronic documents.

6. Responsibilities of PAG.

- a. PAG will annually publish a TIP document making regional projects eligible for state and federal funding.
- b. PAG will aid the Lead Agency in preparation of any TIP amendments that may be necessary for the completion of the Project.
- c. PAG will report on regional progress toward completion of the program and will report to the region's state and federal funding partners.
- d. PAG will process drawdown requests associated with PAG HURF 12.6% funding.

7. Amendment.

- a. This MOU may be modified, amended, altered or changed only by written agreement signed by both parties.
- b. An amendment to this MOU is required if the scope of work for the Project is significantly altered, such as a change to the Project boundaries, an alteration to the scope of services to be provided by the Project, or addition or elimination of Project features.
- c. An amendment to this MOU is required if the total amount of regional funding programmed on a project changes more than 10% of the total programmed amount or \$200,000, whichever is smaller. Funding changes less than this threshold do not require an amendment to the MOU, as long as there are no significant changes in scope.
- **8. Termination**. Either party may terminate this MOU for material breach of the MOU by the other party. Prior to any termination under this paragraph, the party allegedly in default shall be given written notice by the other party of the nature of the alleged default. Upon termination, programmed funds will no longer be available for use on said project. The party said to be in default shall have forty-five days to cure the default. If the default is not cured within that time, the other party may terminate this MOU. Any such termination shall not relieve either party from liabilities or costs already incurred under this MOU.
- **9. Non-assignment**. Neither party to this MOU shall assign its rights under this MOU to any other party without written permission from the other party to this MOU.

10. Construction of MOU.

- a. Entire agreement. This instrument constitutes the entire agreement between the parties pertaining to the programming of the project in the TIP. Any exhibits to this MOU are incorporated herein by this reference.
- b. Construction and interpretation. All provisions of this MOU shall be construed to be consistent with the intention of the parties as expressed in the Recitals hereof.
- c. Captions and headings. The headings used in this MOU are for convenience only and are not intended to affect the meaning of any provision of this MOU.

- d. Severability. In the event that any provision of this MOU or the application thereof is declared invalid or void by statute or judicial decision, such action shall have no effect on other provisions and their application, which can be given effect without the invalid or void provision or application, and to this extent the provisions of the MOU are severable. In the event that any provision of this MOU is declared invalid or void, the parties agree to meet promptly upon request of the other party in an attempt to reach an agreement on a substitute provision.
- e. This MOU is subject to the provisions of A.R.S. § 38-511.
- 11. Ownership of Improvements. If the Project involves construction, except as otherwise provided for by law or under a contract with one or more other jurisdictions, ownership and title to all materials, equipment and appurtenances installed pursuant to this MOU shall automatically vest in the Lead Agency upon completion of the Project.
- **12.** Legal Jurisdiction. Nothing in this MOU shall be construed as either limiting or extending the legal jurisdiction of the Lead Agency or PAG.
- 13. No Joint Venture. It is not intended by this MOU to, and nothing contained in this MOU shall be construed to, create any partnership, joint venture or employment relationship between the parties or create any employer-employee relationship between the Lead Agency and any PAG employees, or between PAG and any Lead Agency employees. Neither party shall be liable for any debts, accounts, obligations nor other liabilities whatsoever of the other, including (without limitation) the other party's obligation to withhold Social Security and income taxes for itself or any of its employees.
- 14. No Third Party Beneficiaries. Nothing in the provisions of this MOU is intended to create duties or obligations to or rights in third parties not parties to this MOU or affect the legal liability of either party to the MOU by imposing any standard of care different from the standard of care imposed by law.
- **15.** Compliance with Laws. The parties shall comply with all applicable federal, state and local laws, rules, regulations, standards and executive orders, without limitation to those designated within this MOU.
 - a. Anti-Discrimination. Neither party shall discriminate against any employee or client of either party or any other individual in any way because of that person's age, race, creed, color, religion, sex, disability or national origin in the course of carrying out the duties pursuant to this MOU. Both parties shall comply with applicable provisions of Executive Order 75-5, as amended by Executive Order 2009-09 of the Governor of Arizona, which are incorporated into this MOU by reference as if set forth in full herein, including the provisions of A.R.S. '41-1463.
 - b. Americans with Disabilities Act. This MOU is subject to all applicable provisions of the Americans with Disabilities Act (Public Law 101-336, 42 U.S.C. 12101-12213) and all applicable federal regulations under the Act, including 28 CFR Parts 35 and 36.

- 16. Waiver. Waiver by either party of any breach of any term, covenant or condition herein contained shall not be deemed a waiver of any other term, covenant or condition, or any subsequent breach of the same or any other term, covenant, or condition herein contained.
- 17. Force Majeure. A party shall not be in default under this MOU if it does not fulfill any of its obligations under this MOU because it is prevented or delayed in doing so by reason of uncontrollable forces. The term "uncontrollable forces" shall mean, for the purpose of this MOU, any cause beyond the control of the party affected, including but not limited to failure of facilities, breakage or accident to machinery or transmission facilities, weather conditions, flood, earthquake, lightning, fire, epidemic, war, riot, civil disturbance, sabotage, strike, lockout, labor dispute, boycott, material or energy shortage, casualty loss, acts of God, or action or non-action by governmental bodies in approving or failing to act upon applications for approvals or permits which are not due to the negligence or willful action of the parties, order of any government officer or court (excluding orders promulgated by the parties themselves), and declared local, state or national emergency, which, by exercise of due diligence and foresight, such party could not reasonably have been expected to avoid. Either party rendered unable to fulfill any obligations by reason of uncontrollable forces shall exercise due diligence to remove such inability with all reasonable dispatch.
- **18. Notification**. All notices or demands upon any party to this MOU shall be in writing, unless other forms are designated elsewhere, and shall be delivered in person or sent by mail addressed as follows:

Pima Association of Governments: Nathan Barrett, Senior Transportation Planner Pima Association of Governments 1 E. Broadway, Suite 401 Tucson, AZ 85701

Pima County:
Priscilla S. Cornelio, P.E. Director
Pima County Transportation
201 N. Stone, 4th Floor
Tucson, AZ 85701

- **19. Remedies**. Either party may pursue any remedies provided by law for the breach of this MOU. No right or remedy is intended to be exclusive of any other right or remedy and each shall be cumulative and in addition to any other right or remedy existing at law or in equity or by virtue of this MOU.
- **20.** Counterparts. This MOU may be executed in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. The signature pages from one or more counterpart may be removed from such counterpart and attached to a single instrument.

In Witness Whereof, Pima County has caused this MOU to be executed by the Chair of its Board of Supervisors attested to by the Clerk of the Board, and PAG has caused this MOU to be executed by its Chair of the Regional Council.

Chair, Regional Council Chair Date PIMA COUNTY Chair, Board of Supervisors ATTEST: Clerk of the Board Date APPROVEDIAS TO FORM: Deputy County Attorney Deputy County Attorney Date ANDREW FLAGS The foregoing MOU between Pima County and PAG has been approved as to content and is hereby recommended by the undersigned.

Mr. Farhad Moghimi, Executive Director

Priscilla S. Cornelio, P.E., Director

Pima County

PAG TIP Memorandum of Understanding: Exhibit A

Base Information

Project Name	Safety: Durable Pavement Marking					
TIP ID	23.15					
Project Location	Region wide					
Project	The scope of work involves installation of approximately 47 miles of thermoplastic					
Description	pavement markings on t	two rural two-lane	roadways in Pima County.			
	The thermoplastic pavement markings consist of 4" wide centerline striping and 6" wide edge line striping. The existing painted pavement markings would be upgraded with thermoplastic pavement markings that will provide better visibility and will be more durable than painted pavement markings. The improved visibility of the new thermoplastic pavement markings would reduce predicted roadway departure crashes by approximately 3%.					
	The existing pavement markings would be upgraded under a construction contract through ADOT using HSIP funding in FY 17 and FY 18. The HSIP funding would be used for pavement markings at 100% (i.e. no matching funds). The installation of new pavement markings would be done in FY 18. The requested amount includes 10% mobilization, 15% construction engineering and anticipated ADOT design and review fees.					
Lanes Before	2	Lanes After	2			
Project Contact	Steve Wilson					
Project Contact	(520) 724-5912 stephen.wilson@pima.gov					

Estimated Project Schedule

Phase	Estimated Start Date	Estimated End Date
Design	11-3-2016	4-30-2018
Construction	6-15-2018	9-28-2019

Estimated Project Budget

Phase	Regional Funding Source	Year	Amount
Design	HSIP	FY 17	\$65,000
Const.	HSIP	FY 18	\$551,000

Please list any agreements related to the project:
An IGA between ADOT and Pima County DOT will be required for the use of federal funding for construction.

For Infrastructure Projects: mark all that apply

ADA Enhancements	Landscaping	Signals	
Art	Medians	Signalized Ped Crossing	
Bike Racks	Multiuse Paths	Signing	
Bridge	New Bike Lanes	Sound Walls	
Bus Pullouts	New Sidewalks	Street Lighting	
Culverts	Overpass	Striping	X
Curbs	Pavement Preservation	Turn Lanes	
Detection Cameras	Pedestrian Lighting	Underpass	
Drainage Structures	Rubberized Asphalt	Utility Relocation	
Guardrails	Right of Way Purchase	Wildlife Crossing	

Additional Project Features

The proposed durable pavement marking project includes the following:

- This road safety improvement project was identified through the local network crash data screening process and meets all requirements of Title 23. The proposed request is to upgrade existing pavement markings with durable pavement markings in order to meet the retro reflectivity requirements of the 2009 MUTCD. PCDOT is requesting that ADOT's Traffic Engineering's Group prepare the plans and specifications in FY 17 and that ADOT Contracts and Specifications staff prepare the bid documents and advertise and award the contract to a contractor using HSIP funds in FY 18. This request does not does not include any non-infrastructure funding. There will be no ground disturbing activities and no utility relocations are anticipated.
- During the most recent five year period ending December 31, 2015, Pima County experienced 9 total fatal and incapacitating crashes of which 1 was fatal and 8 were incapacitating that were lane departure or intersection related on Arivaca Rd. Using a countermeasure to place edge lines and centerline markings, the Crash Reduction Factor (CRF) was applied to all fatal and incapacitating crashes within the most recent five year period. With a 4-star Crash Reduction Factor (CRF) of 24% obtained from the Crash Modification Factors Clearinghouse for placing edge line and centerline markings, Pima County could see a 5-year reduction of 2.15 crashes including 0.25 fatal and 1.9 incapacitating crashes on Arivaca Rd. During the most recent five year period ending December 31, 2015, Pima County experienced 32 total fatal and incapacitating crashes of which 3 were fatal and 29 were incapacitating that were lane departure or intersection related on Catalina Hwy. Using a countermeasure to place edge lines and centerline markings, the Crash Reduction Factor (CRF) was applied to all fatal and incapacitating crashes within the most recent five year period. With a 4-star Crash Reduction Factor (CRF) of 24% obtained from the Crash Modification Factors Clearinghouse for placing edge line and centerline markings, Pima County could see a 5-year reduction of 7.65 crashes including 0.70 fatal and 6.95 incapacitating crashes on Catalina Hwy.

For non-infrastructure projects: describe the outcomes and deliverables with project costs associated with each
Describe how the region as a whole will benefit from this project, including any jurisdictions that will be affected or receive benefits from the project.
The proposed project will improve the visibility of pavement markings Catalina Hwy and Arivaca Road. Catalina Hwy is a popular route used for access to recreation on Mt. Lemmon and to access to businesses and the community of Summerhaven. Arivaca Road provides access from I-19 to the community of Arivaca and beyond and is an important roadway for use by the US Border Patrol.

PAG TIP PROJECT APPLICATION 2017-2021

Provide data or show changes as necessary and submit to PAG

Jurisdictional	Project Name:	Durable Par	vement					
Priority	Markings			Phone (520) 740-5912		Lamas hafarra NYA		
	Project Limits: Countywide			Contact e-mail	Lanes before:N/A_			
2	Description: In			Stephen. Wilson	n@pima.gov	Lanes after:	N/A_	
	Project Sponso							
	Contact Name							
TIP ID:	RTP ID:	1	SPONSOR ID		LENGTH			
FED ID:			STATE ID:					
HSIP								
Total Project Cost	$(000^{\circ}s) = \$1,$	266						
FY 16 FUND	ING		TIP FUND	ING REQUEST	Γ (000'S) State	Fiscal Year (Jul	v – June)	
Local	0	2017	2018	2019	2020	2021	,,	
State	0	0 Local	0 Local	0 Local	0 Local	0 Local		
RTA	0	0 State	0 State	0 State	0 State	0 State		
Fund Type 1	0	633 HSIP	633 HSIP	0 RTA	0 RTA	0 RTA		
Fund Type 2	0	0	0	0	0	0		
Phase		0	0	0	0	0		
FUTURE FUNDS	NEEDED	2022	2023	2024	2025			
		0 Local	0 Local	0 Local	0 Local			
		0 State	0 State	0 State	0 State			
		0 RTA	0 RTA	0 RTA	0 RTA			
		0	0	0	0			
		0	0	0	0			
SCHEDULE INFO	RMATION							
		Current	1 .			Current		Proposed
Scoping Completed		N/A		R/W Clear		4/30/2016		
Authorization to Proceed		1/12/2016	Ī	Utilities Clear		5/15/2016		
Environmental Clearance			4/15/2016		RR Clear		5/10/2016	
L/G/T Plans Done		N/A	Final Plan	s Complete &		6/20/2016		

PROJECT SCOPE:

The scope of work involves installation of approximately 65 miles of thermoplastic pavement markings on rural two-lane roadways in Pima County. The thermoplastic pavement markings consist of 4" wide centerline striping and 6" wide edge line striping. The existing painted pavement markings would be upgraded with thermoplastic pavement markings that will provide better visibility and will be more durable than painted pavement markings. The improved visibility of the new thermoplastic pavement markings would reduce predicted roadway departure crashes by approximately 3%. The existing pavement markings would be upgraded under a construction contract through ADOT using HSIP funding in FY 17 and FY 18. The HSIP funding would be used for pavement markings at 100% (i.e. no matching funds). The installation of new pavement markings would be done in FY 17 and FY 18. The requested amount includes 10% mobilization, 15% construction engineering and anticipated ADOT design and review fees. The funding request also includes the purchase of a hand-held pavement marking retroreflectometer to monitor compliance with minimum requirements for retroreflectivity and to facilitate calculation of Crash Modification Factors (CMF's).

N/A

CURRENT STATUS / PROGRESS

The proposed project will improve the visibility of pavement markings on approximately 65 miles of rural roadway which improves safety for the public.

R/W Plans Completed

Could this project be advanced if funding was available? If YES indicate earliest commitment schedule Attach additional sheets as necessary

STATUS:

No NO

N/A

NOTE: This is an Application Form and does not represent a funding commitment. 08/03/2015

Anticipated Sale Date