

Agency:	Phoenix		Title of Project:		32nd Street Lighting Improvements between McDowell Rd and Thomas Rd
Date:	11/4/2019				
Contact Name and Title:		Phone:		E-Mail:	
Carl Langford		602-262-4613		Carl.langford@phoenix.gov	
Roadway Safety Program (RSP) Project Scope					
1.	Describe your safety improvement project in detail: (50 words or less)				
1a.	The project will improve illumination along 32nd Street by installing street lighting. The first contermeasure that will be applied is CMF 571- Illumination.				
2.	Describe the project location, include pertinent demographic and land development information:				
2a.	32nd St between McDowell Rd and Thomas Rd				
3	For projects on State System:	BMP: (Begin Milepost)		EMP: (End Milepost)	
4.	What network screening method was used to identify this project?				<input type="checkbox"/> MAG <input type="checkbox"/> ADOT <input checked="" type="checkbox"/> Other (Below)
4a	City of Phoenix				
5.	Was this project identified as a recommendation in a study? If so, what kind? (check all that apply)				
5a	<input checked="" type="checkbox"/> RSA <input type="checkbox"/> PA <input type="checkbox"/> SRTS Study <input type="checkbox"/> LASS Study <input type="checkbox"/> Other				
6.	Was the project identified using an agency adopted predictive safety analysis?				<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
7.	What is the safety justification for the proposed project?				
7a	The intent of this project is to improve illumination of roadways at night. The ultimate goal is to reduce dark crashes that result in fatalities and incapacitating injuries. By installing additional street lighting, the city of Phoenix intends to improve visibility for all road users.				
8.	Is Public outreach required for your project? If "yes" Provide what was done, the date(s) and outcomes. (Attach documentation if applicable)				
8a	No public outreach is required for this project.				
9.	What safety related public education will your agency be providing before placing the safety improvement in service, if applicable?				
9a	There will be no safety related public education for this project.				
10.	Equity: Input the largest percent for each element for the one-mile radius or offset (Click on the hyperlinks in the text to open maps. See directions on side on maps):				
	65 yrs and Older	Minority Groups	No Vehicle Households	Disabled	Living in Poverty
10a	11	15	69	15	45
11.	Avg Daily Traffic (ADT) Volume:	35991	Year Collected:	2015	
12.	Total Crash Frequency:	609	Crash Rate (MVM or MEV):	5.3/MVM	
13.	What is the posted speed limit?	40	Benefit/Cost:	101.4	

PROJECT COST ESTIMATE WORKSHEET
(Cost Estimates Are Required Regardless of Programming)

DESIGN	REQUESTED PROGRAMMING (Complete if Item will be programmed in the MAG TIP)	Location Description	32nd St between McDowell Rd and Thomas Rd				
		Work Description	Street Lighting on 32nd St between McDowell Rd and Thomas Rd				
		Funding Source	Local				
		Preferred Year to Program Work	2020				
COST ESTIMATE FOR DESIGN			UNITS	QUANTITY	UNIT COST	TOTAL	
DESIGN	PRELIMINARY ENGINEERING (15% plans) (Required for Budget)	Topographic Survey	LS	0		\$ -	
		Design Concept Report (DCR)	LS	0		\$ -	
		Federal Project Environmental Determination	LS	0		\$ -	
		HAZMAT Assessment	LS	0		\$ -	
	SUBTOTAL - PRELIMINARY ENGINEERING COSTS					\$ -	
	FINAL DESIGN (30, 60, 95, 100% plans) (Required for Budget)	Plans, Specifications, Cost Estimates, Bidding	LS	1		61,000.00	\$ 61,000.00
		Geotechnical Report	LS	1			\$ -
		Drainage Report	LS	1			\$ -
		SWPPP	LS	1			\$ -
	SUBTOTAL - FINAL DESIGN COSTS					\$ 61,000.00	
TOTAL PRELIMINARY ENGINEERING AND DESIGN COST AVAILABLE FOR PROGRAMMING						\$ 61,000.00	
CONSTRUCTION	REQUESTED PROGRAMMING (Complete only if Construction will be programmed in the MAG TIP)	Location Description	32nd St between McDowell Rd and Thomas Rd				
		Work Description	Street Lighting on 32nd St between McDowell Rd and Thomas Rd				
		Funding Source	RSP				
		Preferred Year to Program Work	2021				
COST ESTIMATE FOR CONSTRUCTION			UNITS	QUANTITY	UNIT COST	TOTAL	
CONSTRUCTION (Required for Budget)	CONSTRUCTION (Required for Budget)	97 Watt Streetlights on 32nd St	EA	31	3529	\$ 109,399.00	
		39 Watt Streetlights on Almeria Rd	EA	1	2,154.13	\$ 2,154.13	
		39 Watt Streetlights on Granada Rd	EA	1	2,154.13	\$ 2,154.13	
		39 Watt Streetlights on Palm Ln	EA	2	2,154.13	\$ 4,308.26	
		39 Watt Streetlights on Hubbell St	EA	1	2,154.13	\$ 2,154.13	
		39 Watt Streetlights on Monte Vista Rd	EA	2	2,154.13	\$ 4,308.26	
		39 Watt Streetlights on Cypress St	EA	2	2,154.13	\$ 4,308.26	
		39 Watt Streetlights on Harvard St	EA	1	2,154.13	\$ 2,154.13	
		39 Watt Streetlights on Sheridan St	EA	2	2,154.13	\$ 4,308.26	
		39 Watt Streetlights on Yale St	EA	2	2,154.13	\$ 4,308.26	
		39 Watt Streetlights on Virginia Ave	EA	2	2,154.13	\$ 4,308.26	
		39 Watt Streetlights on Cambridge Ave	EA	1	2,154.13	\$ 2,154.13	
		39 Watt Streetlights on Windsor Ave	EA	2	2,154.13	\$ 4,308.26	
		Poles	EA	50	1,350.00	\$ 67,500.00	
	Overhead Feed Streetlights	LS	1	217,817.93	\$ 217,817.93		
SUBTOTAL - CONSTRUCTION COST					\$ 435,645.40		
MOBILIZATION AND ADMINISTRATION COSTS	CONTRACTOR MOBILIZATION (Typically 8% of construction cost)				8%	\$ 34,851.63	
	TRAFFIC CONTROL (0-8% of construction cost)				5%	\$ 21,782.27	
	CONSTRUCTION CONTINGENCIES (Typically 5% of construction cost)				5%	\$ 21,782.27	
	CONSTRUCTION ADMINISTRATION (Averaging 18% of construction cost)				15%	\$ 65,346.81	
SUBTOTAL - MOBILIZATION & ADMINISTRATION COSTS					\$ 143,762.98		
TOTAL UTILITIES, CONSTRUCTION AND MOBILIZATION FOR PROGRAMMING						\$ 579,408.38	
TOTAL COST ESTIMATE						\$ 640,408	

Budget and Signature Page

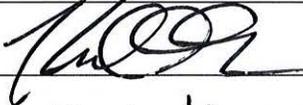
Please describe the agency programming of this project in the agency's CIP		Funds are available in our CIP, once award is determined we will submit for formal project funds.			
Phase	Location Description	Work Description	Year to be Programmed	Funding Source	Amount
Design	32nd St between McDowell Rd and Thomas Rd	Street Lighting on 32nd St between McDowell Rd and Thomas Rd	2020	Local	\$ 61,000
Construction	32nd St between McDowell Rd and Thomas Rd	Street Lighting on 32nd St between McDowell Rd and Thomas Rd	2021	RSP	\$ 579,408
Total Cost					\$ 640,408
Signature: To be signed with printed hard copy that is sent to MAG					
As the jurisdiction's manager/administrator or designated representative, I certify that the information contained in this application is accurate and complete and that the local funds for this project will be included in the Lead Agency's local current CIP/TIP or budget document if the project is selected for MAG Roadway Safety Program funding. I also certify the Lead Agency's commitment to maintain or operate the facility.					
Signature:					
Name:					
Title:					
Date:					

Budget and Signature Page

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Signature: 

Name: KINI KNUDSON

Title: DIRECTOR OF STREET TRANSPORTATION

Date: 11/6/2019

RSP Application Benefit-Cost Tabulation Sheet

Agency:	Phoenix	Title of Project:	Improvements between McDowell Rd and Thomas Rd		
Annual Benefit Tabulation					
Severity	Annual Average	Estimated CRF* Reduction	Total Reduction	Unit Cost	Annual Benefit
Fatal	1.20	69%	0.83	\$9,515,371	\$7,878,727
Incapacitating Injury	2.20	0%	0.00	\$550,499	\$0
Non-Incapacitating	4.40	0%	0.00	\$149,132	\$0
Possible Injury	4.60	0%	0.00	\$103,145	\$0
Total Annual Benefits					\$7,878,727
Costs					
Total Project Cost					\$640,408
Project Life (years)					20
Interest Rate (%)					8%
Capital Recovery Factor					0.1019
Annual Construction Cost					\$65,227
Annual Maintenance Cost					\$12,400.00
Total Annual Costs					\$77,627
Benefit / Cost					
Annual Benefit	Annual cost			Benefit / Cost Ratio	
\$7,878,727	\$77,627			101.4	
List CMF(s) Used in the field below and its associated countermeasure(s)					
CMF 571 : Illumination					

Phoenix 32nd Street Lighting Improvements between McDowell Rd and Thomas RSP App V1 2019																									
Incident ID	Incident Date & Time	Incident On Road	Incident Crossing Feature	Incident Offset	Incident Injury Severity Description	Incident First Harmful Description	Incident Collision Manner Desc	Incident Light Condition Desc	Incident Weather Desc	Incident Intersection Type Desc	Incident Junction Relation Desc	Incident Traffic Way Type Desc	Unit Travel Direction Desc	Unit Action Desc	Unit Road Condition Desc1	Unit Surface Condition Desc1	Unit Env Condition Desc1	Unit Defect Desc1	Unit Number	Unit Event Sequence Desc1	Unit Event Sequence Desc2	Unit Event Sequence Desc3	Person Type Desc	Person Safety Device Desc	Person Violation Desc1
3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	27	28	29
3379978	6/9/2018 0:37	32nd St	McDowell Rd	-41	5-Fatal	Curb	Single Vehicle	Dark	Clear	Four-Way Intersection	Intersection Related Non-Controlled	Two-Way NOT Divided (continuous left turn lane)	2 - South	Unknown	Unknown	Dry	Unknown	Unknown	1	Curb	Building	Traffic Signal Support	Driver	None Used	Speed Too Fast
2894915	7/18/2014 20:53	32nd St	Granada Rd	0	5-Fatal	Pedestrian	Pedestrian	Dark	Clear	T-Intersection	Intersection Within Non-Controlled	Two-Way Divided (unprotected median)	99 - UNKNOWN	UNKNOWN	No Contributing Circumstances	DRY	NO_CONTRIBUTING_CIRCUMSTANCES	No Data	1	MOTOR_VEHICLE_IN_TRANSPORT	-	-	Pedestrian	NA	Did Not Use Xwalk
2926546	7/7/2014 22:37	32nd St	Windsor Av	0	5-Fatal	Pedestrian	Pedestrian	Dark	Clear	Four-Way Intersection	Intersection Within Non-Controlled	Two-Way Divided (unprotected median)	4 - WEST	Crossing Road	No Contributing Circumstances	DRY	NO_CONTRIBUTING_CIRCUMSTANCES	No Data	1	MOTOR_VEHICLE_IN_TRANSPORT	-	-	Pedestrian	NA	Failed to Yield
3053902	11/20/2015 20:05	32nd St	Oak St	0	5-Fatal	Motor Vehicle	Left Turn	Dark	Unknown	Four-Way Intersection	Intersection Within Non-Controlled	Unknown	2 - SOUTH	Making Left Turn	UNKNOWN	UNKNOWN	UNKNOWN	UNKNOWN	1	MOTOR_VEHICLE_IN_TRANSPORT	-	-	Driver	Shoulder Lap Belt	Failed to Yield
3072971	1/24/2016 20:33	32nd St	Almeria Rd	0	5-Fatal	Pedestrian	Pedestrian	Dark	Unknown	Unknown	Unknown	Unknown	3 - EAST	Crossing Road	UNKNOWN	UNKNOWN	UNKNOWN	No Data	1	MOTOR_VEHICLE_IN_TRANSPORT	MOTOR_VEHICLE_IN_TRANSPORT	-	Pedestrian	NA	Did Not Use Xwalk
3286759	7/6/2017 20:05	Thomas Rd	32nd St	0	5-Fatal	Pedestrian	Pedestrian	Dark	Unknown	Unknown	Unknown	Two-Way NOT Divided (continuous left turn lane)	3 - EAST	UNKNOWN	UNKNOWN	UNKNOWN	UNKNOWN	UNKNOWN	1	PEDESTRIAN	-	-	Driver	Unknown	Unknown



