TwinCATS 2020-2023 Road Project Prioritization System

Agency: City of St. Joseph

Project Name: Langley

Proposed Year: 2011

Total Points: 42

Criteria	Points	
System Preservation	18 points max	
a. Most recent PASER rating	IIIax	
3-4	10	
5-6	8	
1-2	(5)	5
b. Extension of Remaining Service Life (RSL) based on MDOT Geometric Guidelines		
Extends RSL by 15 years or more (4R project)	8	8
Extends RSL by 10-14 years (3R Project)	6	
Extends RSL by 5-9 years (Preventative Maintenance)	4	
Extends RSL by 2-4 years (Preventative Maintenance)	2	
Safety	7 points max	
a. Expected Crash Reduction - Based on MDOT approved Crash Reduction Factors		
50% or greater	50	5
40%-49.9%	4	
30% - 39.9%	3	
20% - 29.9%	2	
10% - 19.9%	1	
Less than 10%	0	
b. Addressing High Crash Locations.		
Number of crashes is 20% higher than MPO median (4 or more)	2	2.
Number of crashes are within 20% of MPO median (2-3)	1	
Number of crashes is lower than 20% of the MPO median (0-1)	0	
Non-motorized Transportation / Complete Streets	6 points max	
a. Follows the Complete Streets Policy	(49)	4
b. Pedestrian and bicycle elements of the project connect to existing bicycle and pedestrian facilities or those that can reasonably expect to be completed between 2019 and 2023.	2	2

Criteria	Points	
Regional Connectivity	10 points max	
a. Average daily traffic (ADT) based on most recent traffic count		-
ADT is 10,000 or more	5	
ADT is 5,000 – 9,999	400	1
ADT is 2,000 – 4,999	3	-
ADT is less than 2,000	0	
b. Functional Classification of the Road		
Principal Arterial	3	
Minor Arterial	(2)	2
Major Collector	1	
Minor Collector	0	
c. Fixed route transit (TCATA Red or Blue line) uses the road	(2)	2
Charles in Land and A David at Diagrams	11 points	
Strategic Investment/ Project Planning		
	max	ユ
a. Project is identified in an Asset Management or Capital Improvement Plan	max 3	3
	max	3
a. Project is identified in an Asset Management or Capital Improvement Plan b. Project is identified as a priority in another planning document such as a master plan	max 3	3
 a. Project is identified in an Asset Management or Capital Improvement Plan b. Project is identified as a priority in another planning document such as a master plan or parks and recreation plan c. Project crosses jurisdictional boundaries (i.e. city to township) and is arranged in such 	3 1	3
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a. Project is identified in an Asset Management or Capital Improvement Plan b. Project is identified as a priority in another planning document such as a master plan or parks and recreation plan c. Project crosses jurisdictional boundaries (i.e. city to township) and is arranged in such a way to be bid as a single project. d. Project continues resurfacing, reconstruction, or preventative maintenance on a segment of roadway adjacent to a project completed during the 2017-2020 TIP cycle or through Rural Task Force funding. e. Additional Local Match Agency will proved 40% or more local match Agency will provide 30% to 39.9% local match	1 2	3 1
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Twin Cities Area Transportation Study 2020-2023 Transportation Improvement Program (TIP) Federal Surface Transportation Block Grant Funds Project Application

Click "Enable Editing" to begin filling out this form. You may save this form at any time.

Section 1. Appli	cant Information		
Agency Name	City of St. Joseph		
Contact Name	Tim Zebell	Title	City Engineer
Phone Number	269-983-5541	Email	tzebell@sjcity.com

Section 2. Project Information	n		
Project Name/Road Name	Langley Avenue Recon	struction Project	
Project Limits (e.g. Napier Ave. to Britain Ave.)	Pearl Street to Napier	Avenue	
Project Length (nearest hundredth of a mile)	0.85	Proposed Year of Funding	2021
Primary Work Type	VELOCI INVOCESSIONICO POR SUCCESSIONICO DE CONTRACTORIO	tore & Rehabilitate □ Roadsi : Operations/Safety □ Other	scrowers researches period and all
Project Description (Please provide major work items including sidewalks, utility work, ADA upgrades etc.)	including all undergrousewer). Non-motorize	Langley Avenue from Pearl St und utilities (water main, sani d facilities: either a non-moto rosswalks, sidewalks, etc. will	tary sewer and storm orized path or bike
Was this project awarded funding for the 2017-2020 TIP, but was either canceled or failed to be obligated	Yes No If yes, pl	ease explain:	/ I 5°

Section 3. Project Funding	
Federal Funding Requested	\$ 1,307,000
Local Match (18.15% minimum)	\$ 872,000
Total	\$ 4,583,000 (construction), \$5,950,000 (total project)
Local Match Percentage (local match/total cost)	40%
Does your agency have the financial capacity to	⊠ Yes □ No
Advance Construct (AC) all or part of this project if	Maximum Dollar Amount you can AC?
necessary? If yes, what is the maximum dollar	\$ 650,000

amount your agency is will Construct (AC)?	ing to Advan	ice				
Section 4. System Pres	ervation					
2018 PASER rating (availibe excel file)	e as an	2				
Current state of drainage		Occasio	and tolerable onal drainage		ems some maintenand ding, excessive ma	
Expected increase in Rema Service life (RSL)	ining	0-3 yea		7-9 10-1	.4 ⊠15-20 on Local Projects	
What MDOT guidelines do project conform to?	es the	□ Resurfa	truction (4R)	ion, and Rehabi		
Section 5. Safety						The same
Please list the number and (2013-2017) (see Michiga				ed project limits	s over the last 5 yi	·s.
Total Crashes	21		Pedestri Crashes	an & Bicycle	1	
Fatalities	0		Serious I	njuries	0	
Using the attached Crash Fincluded in the project	eduction Fac	ctors sheet,	please check	each safety cou	inter measure tha	t will be
Describe any other safety improvements this project provide	will Pa	rking will be otorized faci	reduced or e lities and imp	eliminated as ne	orized path or bike eded to accommo nce. Lighting and I/improved.	
Section 6. Complete St	reets					25 20 5
Does this project meet the approved in 2014?	TwinCATS C	omplete Str	eets Policy,	⊠ Yes □ N	lo	
If yes, Please explain what and/or bicycle improveme					es will be added. The several co	- 5

If No, please state the reason why this project should be exempt from the TwinCATS Complete Streets Policy.			
Does this project connect to an existing pedestrian/bicycle facility or one that is	⊠Yes □I		
planned to be completed from 2020-2023?	If yes, plea	se p	provide a map of the connecting facilities
Section 7. Regional Connectivity			
What is the most current daily traffic count for of this project?	or the limits		Less than 2000 □ 2000-5000 ⋈ 5000-10,000 □ Above 10,000 Year of count: 2015 Source: SWMPC
National Functional Classification (NFC) for the (Berrien County NFC Map)	nis roadway		Minor Arterial
Does one of <u>TCATA fixed route transit lines</u> u (Only indicate yes if it carries a current route planned route).		?	⊠Yes □No
ass e			
Section 8. Strategic Planning & Investn	nent		
Is the project identified in a Asset Manageme or Capital Improvement Plan	ent Plan,	If s	Yes No yes, please cite the plan and page number: sset Management Plan: Appendix G, Page 3 fater System Reliability Study: Page 24
Is the project identified in another planning of such as a master plan or parks and recreation		If '	Yes No yes, please cite the plan and page number: aster Plan: Appendix G, Map 6 (attached)
Does the project cross jurisdictional boundar	ies?		Yes 🔀 No
If yes, will it be bid as a single project?		Г	Yes No NA
Will this project coordinate with other infras projects (i.e. utility, water, sewer, etc.)	tructure	If co	Yes No yes, please indicate the project type and onstruction year: Both water mains and sanitary wer mains will be replaced concurrently with the roject.
How many water main breaks have you had location in the past five years?	at this	3	
Is there a completed a utilities assessment the included televising the sewers in the project		\boxtimes	Yes No
Will this project require environmental mitig purchase of Right of Way (ROW), or railroad	ation,	If ·	Yes ⊠ No □ Not Sure yes, which items are required:
Does this project perform Resurfacing, Recor or Preventative Maintenance on a segment a] Yes 🔀 No

a segment where a federally-funded project was done during the 2017-2020 TwinCATS TIP cycle or RTF cycle?

What segment was the PREVIOUS project done on? Answered No because Napier Avenue resurfaced in 2012 with TIP funding.

Section 9. Existi	ng and Propo	sed Roa	dw	ay Design				
		Existi	ng				Proposed	
Number of Vehicle Lanes	Through Traffic Lanes	Center Turn Lan	e	On Street Parking	1000	hrough raffic Lanes	Center Turn Lane	On Street Parking
	2*	0*		⊠ Yes □ No	2	*	*0	⊠ Yes ⊠ No
Shoulder Surface	Paved Unpaved		Wid NA	dth (ft.)	Paved Width (ft.) Unpaved NA			Width (ft.) NA
Sidewalk/ path information	Placement One Side Both Sides Intermitte None			dth (ft.) T (both)	P	lacement One Side Both Sides Intermitte None		Width (ft.) 5 FT (1 side)** 10 FT (1 side)
On road bicycle facilities	Bike Lane Sharrows Wide Shou	// 	the	r (specify) one		Bike Lane Sharrows Wide Shou	non-mo	r (specify) torized path**
Utilities, Sewer and Water	Utilities Up Sewer and	_				Replaced Relocating Sewer and		Vork
Please describe ar made as part of th crosswalks, signag streetscape eleme project description	nis project to ge or signals, or ents not discuss		will elin puk **	flost of Langley is remain the same ninating it altoge plic input process Either a non-moten-motorizied optimating purposes	e. / the tori	Anticipate re er based upor ized path or l	ducing On Str n early feedba bike lanes wil	eet parking or ack during I be added.
Does this project of pedestrian or bor Dial-A-Ride trans	icyclists to fixed		If y Pro Hea mo	Yes No es, how? ject is on Red Ro alth Lakeland Hos torized facilities o gsley Project slate	spit con	al. Anticipat estructed as p	e connecting	to non-
Section 10 Esti	mated Projec	t Schedu	عارا					

Section 10. Estimated Project Schedule	
Activity	Estimated Date
Resolution of Support for ☐ Local Match Submitted to SWMPC	July 2019
Project Application Submitted to MOT	August 2020
Grade Inspection Package Submitted to MDOT	August 2020
Grade Inspection Meeting Scheduled	October 2020
Final Plan and Estimate to MDOT	December 2020

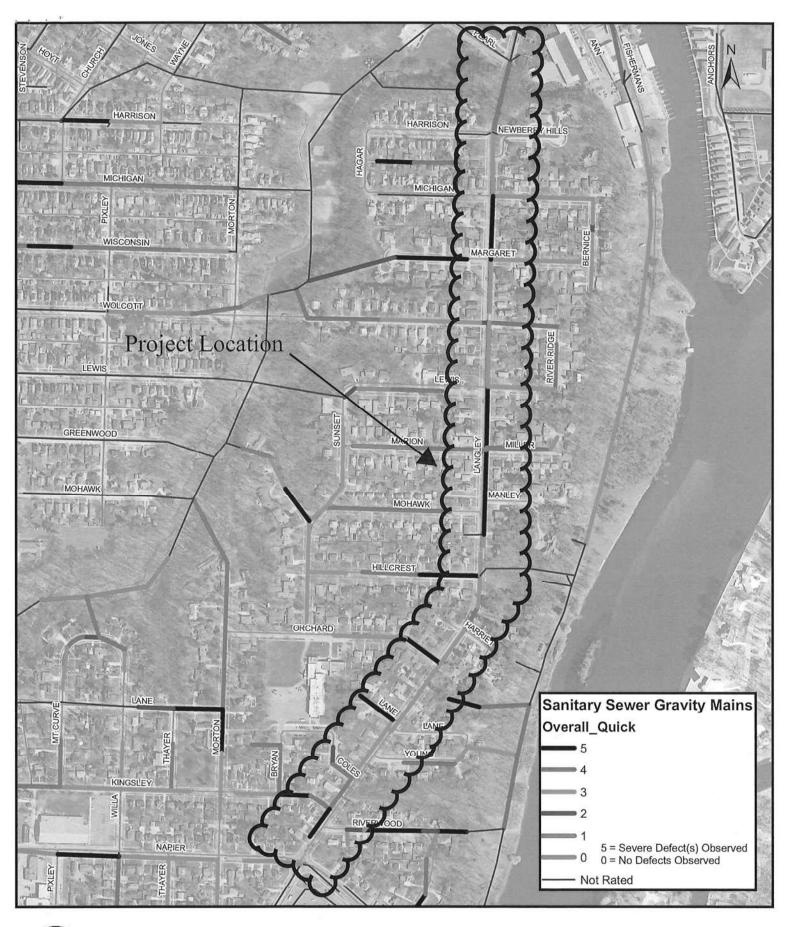
Right of Way (ROW) certified*	December 2020
Rail Road Permits*	N/A
Environmental Mitigation*	N/A
Project Obligated	December 2020
Project Letting	February 2021
Construction Start□	April 2021
Project Completion	October 2021

^{*}Enter NA if these items will not be required.

	riobosed inipiovenient	% Reduction	Associated Crash Types
	SEGMENT	SEGMENT CRASH REDUCTION FACTORS	ION FACTORS
	Geometri	Geometric Safety Enhancements	cements
		80%	Rear-End Left-Turn
	Contor loft Tirm I am Construct	20%	Head-On Left-Turn
		20%	Head-On, Angle, Sideswipe*
		15%	Non Left-Turn Rear-End, Other*
		%59	Rear-End Right-Turn
	Direct Town I am Constant	30%	Angle
	Kignt-Turn Lane - Construct	15%	Rear-End
		10%	Other*
\boxtimes	Horizontal Curve Flattening	30%	Lane Departure***
	Shoulders - Widen to Standard Width (add 1' each side)	2%	Lane Departure***
	Shoulders - Widen to Standard Width (add 2' each side)	10%	Lane Departure***
	Shoulders - Widen to Standard Width (add 3' each side)	15%	Lane Departure***
	Shoulders - Widen to Standard Width (add 4' each side)	20%	Lane Departure***
	Shoulders - Widen to Standard Width (add 5' each side)	25%	Lane Departure***
	Shoulders - Widen to Standard Width (add 6' each side)	30%	Lane Departure***
	Shoulders - Widen to Standard Width (add 7' each side)	35%	Lane Departure***
	Vertical Curve Modification	20%	All Applicable Crash Types +++
	General S	General Segment Enhancements	cements
	Access Management - Improve	15%	Drive-way Related Applicable Crashes
		44%	K and A injury Applicable Crashes
	Conterline Bumble String - Install	46%	Single Vehicle Run off Road Left Crashes
]		43%	Sideswipe Same Crashes
		22%	Sideswipe Opposite Crashes
	High Eristion Surface Treatment - Install	35%	Wet Crashes
	וופון דו נכנוטון סמוומרפ וו במנווופוור - ווואנמון	20%	All Other Applicable Crashes
\boxtimes	Recessed Durable Pavement Markings	2%	All Applicable Crashes
	Pedestrian Refuge - Install	20%	Pedestrian Crashes (Review NCHRP Report 841)
	Road Diet (4-3 Lane Conversion) - Install	20%	Suburban - All Applicable Crashes
	Shoulder Rumble Strips	70%	Run-Off the Road Right Crashes
\boxtimes	Signing/Delineation on Horizontal Curves (Including Recessed Durable Pavement Markings) - Install	20%	Lane Departure***
	Safety Edge Improvement	13%	All non-intersection crashes (CMF Clearing House ID 8658)

	Roac	Roadside Enhancements	ents
	Bicycle Lanes - Install per standards	20%	Bicycle Crashes
	Shared Use Path - Install	33%	Bicycle and Pedestrian Related Crashes
×	Fixed Objects From Clearzone (Trees, Culverts, Etc.) - Removal	75%	Fixed-Object Applicable Crashes
	Guardrail - Install	25%	Lane Departure ***Fatalities and "A" Injury Applicable Crashes
	Sidewalk for Pedestrians - Construct	85%	Pedestrian Crashes
	Slope Flattening	15%	Fixed-Object, Overturn Applicable Crashes
	Living Snow Fence	20%	Crashes due to wintry surface conditions
	Lighting - install on segment	70%	Dark Unlighted Crashes
		NTERSECTION CRASH REDUCTION FACTORS	TION FACTORS
	Pedestria	Pedestrian / Bicycle Enhancements	ncements
	Bump Out / Curb Extension - Remove Parking / Install	30%	All Crashes
	Bicycle Lanes - Install per standards	25%	Bicycle Crashes
	Sidewalk for Pedestrians - Construct	85%	Pedestrian Crashes
		75%	Pedestrian Fatal - Dark Unlighted Crashes
	Intersection Lighting - install	40%	Pedestrian A-Injury - Dark Unlighted Crashes
		30%	All Applicable Dark Unlighted Crashes
	Rectangular Rapid Flashing Beacons	47%	Pedestrian Crashes
	Ped. Countdown Signals - Install new Pedestrian signal	30%	Pedestrian Crashes
	Ped. Countdown Signals - Upgrade from existing Pedestrian signal	25%	Pedestrian Crashes
	Signal Timing	g / Hardware Enhancements	Ihancements
	340	3%	Rear-End
\boxtimes	Multiple Low-Cost Improvements	12%	Right-Angle
		3%	Nighttime
	Install Reflectorized Backplates	15%	All Applicable Crashes
	Add All-Red Clearance Interval - Add per ITE	20%	Head-On Left-Turn, Angle
	Yellow-Change Interval - Increase	10%	All Crash Types
		%59	Angle
	Box Span Signal - Upgrade from Stop Control	-25%	Rear-End (Increases Crashes)
		70%	All Other Non Rear-End Crashes
	Box Span Signal - Upgrade from Diagonal Span	10%	All Applicable Crashes+
	Protected Left-Turn Signal Phase - Add	30%	Left-Turn
	Signal Head Size - Increase to 12 "	10%	All Applicable Crashes +
	Signal Optimization & Timing Updates	10%	All Applicable Crashes +
	Removing Night Flash from Signal Timing	20%	Nighttime Flash mode Related Crashes

000	2	
80%	%	Kear-End Leit-Lurn
20%	%	Head-On Left-Turn
20%	%	Head-On, Angle, Other
15%	%	Non Left-Turn Rear-End
30%	%	Angle
Intersection Improvements (Realignment, Sight-Distance Improvements,	%	Rear-End
109	%	Head-On, Sideswipe, Pedestrian, Bicycle, Left-Turn Related
629	%	Angle-Turn, Head-On Left-Turn
20%	%	Rear-End Left-Turn
629	%	Angle-Turn
200	%	Other Applicable Crashes
209	%	Rear-End Right Turn
629	%	Rear-End Right-Turn
209	%	Applicable Rear-End Crashes, Sideswipe Same Direction
785	%	Fatal and A-Injury Reduction
579	%	Minor Crash Reduction
1		See MDOT Interchange Warranted Lighting Guidance and overall MDOT Lighting Guidance
tersection Enhancement	s (Non-	Signalized Intersections)
909	%	All Applicable Crashes
308	%	All Crashes On Install Approach
209	%	All Crashes On Install Approach
308	%	Angle, Rear-End Crashes
308	%	Angle, Rear-End Crashes
159	%	All Applicable Crashes
	15	ancemen 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3





City of St. Joseph 700 Broad Street St. Joseph, MI 49085

P: 269-983-5541 F: 269-985-0346 www.sjcity.com Langley Avenue
Sanitary Sewer Condition

1 inch = 500 feet

User Name: aaustin

Date: 11/28/2018

TwinCATS 2020-2023 Road Project Prioritization System

Upton Drive Agency: City of St. Joseph

Project Name: Upton Drive

Proposed Year: 2022

Total Points: 40

Criteria	Points	
System Preservation	18 points max	
a. Most recent PASER rating		
3-4	10	10
5-6	8	
1-2	5	
b. Extension of Remaining Service Life (RSL) based on MDOT Geometric Guidelines		
Extends RSL by 15 years or more (4R project)	(8)	8
Extends RSL by 10-14 years (3R Project)	6	
Extends RSL by 5-9 years (Preventative Maintenance)	4	
Extends RSL by 2-4 years (Preventative Maintenance)	2	
Safety	7 points max	
a. Expected Crash Reduction - Based on MDOT approved Crash Reduction Factors		
50% or greater	5	
40%-49.9%	4	4
30% - 39.9%	3	
20% - 29.9%	2	
10% - 19.9%	1	
Less than 10%	0	
b. Addressing High Crash Locations.		
Number of crashes is 20% higher than MPO median (4 or more)	2	
Number of crashes are within 20% of MPO median (2-3)	1	
Number of crashes is lower than 20% of the MPO median (0-1)	(6)	8
Non-motorized Transportation / Complete Streets	6 points max	
a. Follows the Complete Streets Policy	(4)	4
b. Pedestrian and bicycle elements of the project connect to existing bicycle and pedestrian facilities or those that can reasonably expect to be completed between 2019 and 2023.	2	2

Criteria	Points	
Regional Connectivity	10 points max	
a. Average daily traffic (ADT) based on most recent traffic count		
ADT is 10,000 or more	5	
ADT is 5,000 – 9,999	4	
ADT is 2,000 – 4,999	3	3
ADT is less than 2,000	0	
b. Functional Classification of the Road		
Principal Arterial	3	
Minor Arterial	2	
Major Collector	(1)	1
Minor Collector	0	
c. Fixed route transit (TCATA Red or Blue line) uses the road	2	
Strategic Investment/ Project Planning	11 points	
, , , , ,	max	
a. Project is identified in an Asset Management or Capital Improvement Plan	max 3	3
		3
a. Project is identified in an Asset Management or Capital Improvement Plan b. Project is identified as a priority in another planning document such as a master plan	3	3
 a. Project is identified in an Asset Management or Capital Improvement Plan b. Project is identified as a priority in another planning document such as a master plan or parks and recreation plan c. Project crosses jurisdictional boundaries (i.e. city to township) and is arranged in such 	1	3
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Twin Cities Area Transportation Study 2020-2023 Transportation Improvement Program (TIP) Federal Surface Transportation Block Grant Funds Project Application

Click "Enable Editing" to begin filling out this form. You may save this form at any time.

Section 1. Appli	cant Information		
Agency Name	City of St. Joseph		
Contact Name	Tim Zebell	Title	City Engineer
Phone Number	269-983-5541	Email	tzebell@sjcity.com

Section 2. Project Information	n		
Project Name/Road Name	Upton Drive Reconstru	ction Project	
Project Limits (e.g. Napier Ave. to Britain Ave.)	Virginia Court to City Li	imits (600 feet north of North	n Upton Drive)
Project Length (nearest hundredth of a mile)	0.49	Proposed Year of Funding	2022
Primary Work Type	The Party was represented that the party of	ore & Rehabilitate □ Roadsi Operations/Safety □ Other	BADOOGO MAAAAAAAAA
Project Description (Please provide major work items including sidewalks, utility work, ADA upgrades etc.)	most underground utili sewer). Non-motorized	Jpton Drive from Virginia Cou ities (water main, sanitary se d facilities: either a non-moto rosswalks, sidewalks, etc. will	wer and storm orized path or bike
Was this project awarded funding for the 2017-2020 TIP, but was either canceled or failed to be obligated	Yes No If yes, ple	ease explain:	

Section 3. Project Funding	建设在设计的 对于1000元代码。
Federal Funding Requested	\$ 739,100
Local Match (18.15% minimum)	\$ 492,800
Total	\$ 2,181,500 (construction), 2,832,000 (total project)
Local Match Percentage (local match/total cost)	40%
Does your agency have the financial capacity to	⊠ Yes □ No
Advance Construct (AC) all or part of this project if	Maximum Dollar Amount you can AC?
necessary? If yes, what is the maximum dollar	\$ 300,000

amount your agency is wil	ling to Adv	ance	thogei		
Construct (AC)?	والمسادعة				
Section 4. System Pres	ervation				
2018 PASER rating (availib	e as an	4			
excel file)					
Current state of drainage			Adequate	77.0	
			Minor and tolerable		
				- category	some maintenance required oding, excessive maintenance
		100	uired	e, rrequert noc	raing, excessive mantenance
Expected increase in Rema	ining		0-3 years	7-9 10-	14 🖾 15-20
Service life (RSL)	Marin III	Use	MDOT's <u>Guidelines</u>	for Geometrics	on Local Projects
What MDOT guidelines do	es the		Reconstruction (4R)		
project conform to?		711-224-5	Resurfacing, restora		ilitation (3R)
		□Р	reventative Mainte	nance (PM)	
Section 5. Safety					
Please list the number and	severity o	f crashe	es within the propo	sed project limit	ts over the last 5 yrs.
(2013-2017) (see Michiga	an Crash F	acts for			1. 是是 1. 人列提克登马特克里特拉
Total Crashes	3			an & Bicycle	0
Fatalities			Crashes Serious	Injuries	
	0		uminasa	ahau azam	0
	Reduction	Factors	sheet, please check	ceach safety co	unter measure that will be
included in the project	ate eller	D a salassa	Investor translator		Larie and mathematical and activities
Describe any other safety improvements this project	2.000		이루팅 글로벌레이트 교육되었는 그리스 병에 회로비슷했다면서 그리네요.		torized path or bike lanes will nated to accommodate non-
provide			ed facilities and imp		
provide		111010112	.ca racinges and mi	orove signe disce	
Section 6. Complete St	reets				
Does this project meet the	TwinCATS	Compl	ete Streets Policy,	⊠ Yes □	No
approved in 2014?					
If yes, Please explain what	·				es will be added. The City
and/or bicycle improveme	nts are inc	luded	150	nput of concept	ts prior to beginning the
			design process.		

If No, please state the reason why this		
project should be exempt from the		
TwinCATS Complete Streets Policy.		
Does this project connect to an existing	Yes No	0
pedestrian/bicycle facility or one that is planned to be completed from 2020-2023? If y	es nlease	e provide a map of the connecting facilities
Section 7. Regional Connectivity	res, piease	provide a map of the conficeting facilities
What is the most current daily traffic count for th	ne limits	Less than 2000 2000-5000
of this project?		5000-10,000 Above 10,000
	7-348	Year of count: 2013 Source: SWMPC
National Functional Classification (NFC) for this ro (Berrien County NFC Map)	oadway	Major Collector
Does one of TCATA fixed route transit lines use the	he road?	
(Only indicate yes if it carries a current route, not	ta	☐Yes ⊠No
planned route).		
Section 8. Strategic Planning & Investment	t	
Is the project identified in a Asset Management P	Plan,	∑Yes
or Capital Improvement Plan	The second secon	f yes, please cite the plan and page number:
	A	Asset Management Plan: Appendix G, Page 5
Is the project identified in another planning docu		∑Yes
such as a master plan or parks and recreation pla		f yes, please cite the plan and page number:
	N	Master Plan: Appendix G, Map 6 (attached)
Does the project cross jurisdictional boundaries?		Yes 🔀 No
If yes, will it be bid as a single project?		Yes No NA
Will this project coordinate with other infrastruct	ture	∑ Yes ☐ No
projects (i.e. utility, water, sewer, etc.)	lt lt	f yes, please indicate the project type and
	C	construction year: Sanitary sewer and older water
	n	mains will be replaced concurrently with the
	p	project.
How many water main breaks have you had at th	nis C	n
location in the past five years?	113	
Is there a completed a utilities assessment that		∑ Yes ☐ No
included televising the sewers in the project area	a?	
Will this project require environmental mitigation		Yes 🔀 No 🗌 Not Sure
purchase of Right of Way (ROW), or railroad perr	mits?	f yes, which items are required:
Doos this project perform Description Description	uction [Yes No
Does this project perform Resurfacing, Reconstruor Preventative Maintenance on a segment adjacent	W	□ Yes No What segment was the PREVIOUS project done
or Preventative Maintenance on a segment adjac	cent to 1	on?

a segment where a federally-funded project was done during the 2017-2020 TwinCATS TIP cycle or RTF cycle?

Section 9. Exist	ing and Propo	sed Roa	adw	ay Design				
Shoulder Paved Surface Unpar Sidewalk/ path Placemen		Exist	ing				Proposed	
	Through Traffic Lanes	Center Turn Lai	ne	On Street Parking		Through Traffic Lanes	Center Turn Lane	On Street Parking
	2	0		⊠ Yes □ No	2	2	0	⊠ Yes ⊠ No
Surface Sidewalk/ path	Paved Unpaved Placement One Side Both Sides	×	NA Wie	dth (ft.) dth (ft.) T (both)	[[[Paved Unpaved Placement One Side Both Sides		Width (ft.) NA Width (ft.) 5 FT (1 side)* 10 FT (1 side)
On road bicycle facilities Utilities, Sewer and Water	Intermitte None Bike Lane Sharrows Wide Shou Sutilities Up	Ilders grades No	 No eede	ed		Intermitte None Bike Lane Sharrows Wide Shou Replaced	Othe non-mo ulders N Utilities Utilities	er (specify) torized path* one
Please describe ar made as part of th crosswalks, signag streetscape eleme project description	nis project to ge or signals, or ents not discuss		nor est Stre	ither a non-moton-motorizied opti imating purposes eet parking (the disciting public inpu	ion s. / deg	ed path or bil included on Anticipate red gree to which	this TIP applic ducing or elim will be deter	ne added. The cation for ninating On mined after
Does this project of pedestrian or bor Dial-A-Ride tran	icyclists to fixed		If your Correction of the Corr	Yes No es, how? nnect the propos posed on Upton bor Village to ne Joseph and the C we where both th	& w City	Whitwam Dri pedestrian br of Benton Ha	ves with exist idge connect arbor that lea	ting path in ing the City of ds to Riverview
Section 10. Esti	mated Projec	t Schedi	ıle					
Activity	matea i i ojec	- Schede	A1-C			Es	stimated Date	
Resolution of Supp	port for□ Local	Match Si	ubm	itted to SWMPC			ly 2020	
Project Application							ugust 2021	
Grade Inspection I	Package Submit	ted to MI	DOT			Aı	ugust 2021	
Grade Inspection I	Meeting Schedu	ıled		1		0	ctober 2021	

Final Plan and Estimate to MDOT

December 2021

Right of Way (ROW) certified*	December 2021
Rail Road Permits*	N/A
Environmental Mitigation*	N/A
Project Obligated	December 2021
Project Letting	February 2022
Construction Start□	April 2022
Project Completion	October 2022

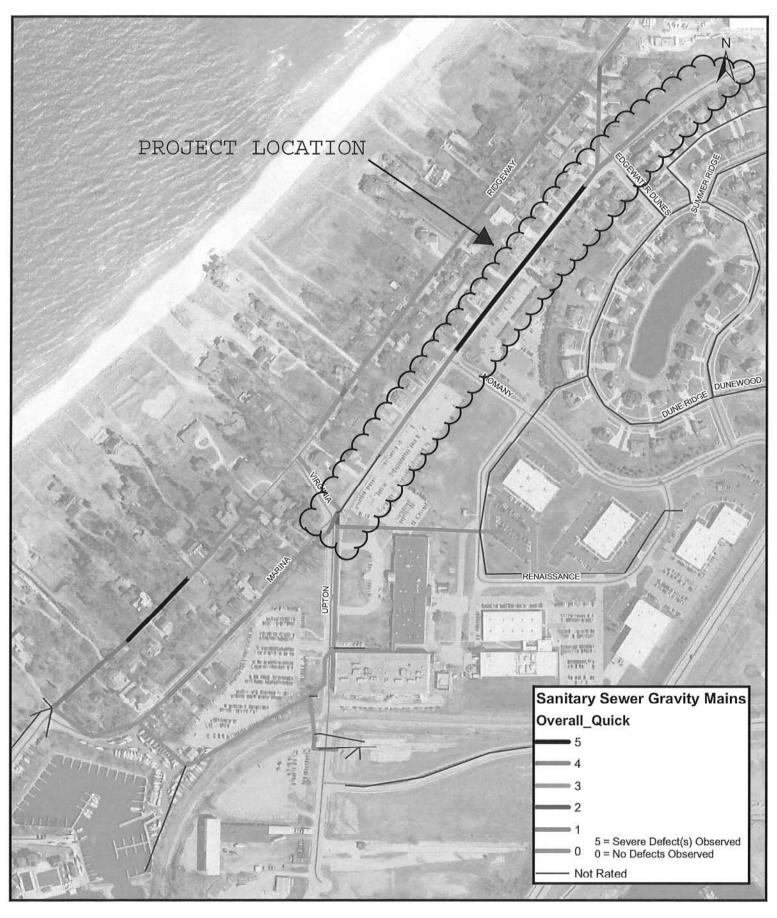
^{*}Enter NA if these items will not be required.

SEGMENT	SEGMENT CRASH REDUCTION FACTORS	B
Geometri	Geometric Safety Enhancements	sements
	%08	Rear-End Left-Turn
	20%	Head-On Left-Turn
Center Lett-Lurn Lane - Construct	20%	Head-On, Angle, Sideswipe*
	15%	Non Left-Turn Rear-End, Other*
	%59	Rear-End Right-Turn
	30%	Angle
Right-Turn Lane - Construct	15%	Rear-End
	10%	Other*
Horizontal Curve Flattening	30%	Lane Departure***
	2%	Lane Departure***
Shoulders - Widen to Standard Width (add 2' each side)	10%	Lane Departure***
Shoulders - Widen to Standard Width (add 3' each side)	15%	Lane Departure***
Shoulders - Widen to Standard Width (add 4' each side)	70%	Lane Departure***
Shoulders - Widen to Standard Width (add 5' each side)	25%	Lane Departure***
Shoulders - Widen to Standard Width (add 6' each side)	30%	Lane Departure***
Shoulders - Widen to Standard Width (add 7' each side)	35%	Lane Departure***
□ Vertical Curve Modification	50%	All Applicable Crash Types +++
General S	General Segment Enhancements	cements
☐ Access Management - Improve	15%	Drive-way Related Applicable Crashes
	44%	K and A injury Applicable Crashes
	46%	Single Vehicle Run off Road Left Crashes
Centerline Rumble Strips - Install	43%	Sideswipe Same Crashes
	25%	Sideswipe Opposite Crashes
	35%	Wet Crashes
High Friction Surface Treatment - Install	20%	All Other Applicable Crashes
Recessed Durable Pavement Markings	2%	All Applicable Crashes
☐ Pedestrian Refuge - Install	20%	Pedestrian Crashes (Review NCHRP Report 841)
Road Diet (4-3 Lane Conversion) - Install	20%	Suburban - All Applicable Crashes
Shoulder Rumble Strips	70%	Run-Off the Road Right Crashes
Signing/Delineation on Horizontal Curves (Including Recessed Durable Pavement Markings) - Install	70%	Lane Departure***
Safety Edge Improvement	13%	All non-intersection crashes (CMF Clearing House ID 8658)

	Roddside Ennancements	ובוונץ
☐ Bicycle Lanes - Install per standards	20%	Bicycle Crashes
Shared Use Path - Install	33%	Bicycle and Pedestrian Related Crashes
☐ Fixed Objects From Clearzone (Trees, Culverts, Etc.) - Removal	75%	Fixed-Object Applicable Crashes
☐ Guardrail - Install	25%	Lane Departure ***Fatalities and "A" Injury Applicable Crashes
☐ Sidewalk for Pedestrians - Construct	85%	Pedestrian Crashes
□ Slope Flattening	15%	Fixed-Object, Overturn Applicable Crashes
☐ Living Snow Fence	20%	Crashes due to wintry surface conditions
☐ Lighting - install on segment	70%	Dark Unlighted Crashes
INTERSEC	NTERSECTION CRASH REDUCTION FACTORS	CTION FACTORS
Pedesi	Pedestrian / Bicycle Enhancements	incements
Bump Out / Curb Extension - Remove Parking / Install	30%	All Crashes
☐ Bicycle Lanes - Install per standards	25%	Bicycle Crashes
☐ Sidewalk for Pedestrians - Construct	85%	Pedestrian Crashes
	75%	Pedestrian Fatal - Dark Unlighted Crashes
☐ Intersection Lighting - install	40%	Pedestrian A-Injury - Dark Unlighted Crashes
	30%	All Applicable Dark Unlighted Crashes
Rectangular Rapid Flashing Beacons	47%	Pedestrian Crashes
☐ Ped. Countdown Signals - Install new Pedestrian signal	30%	Pedestrian Crashes
☐ Ped. Countdown Signals - Upgrade from existing Pedestrian signal	25%	Pedestrian Crashes
Signal Timing	ming / Hardware Enhancements	hancements
	3%	Rear-End
☐ Multiple Low-Cost Improvements	12%	Right-Angle
	3%	Nighttime
□ Install Reflectorized Backplates	15%	All Applicable Crashes
☐ Add All-Red Clearance Interval - Add per ITE	50%	Head-On Left-Turn, Angle
☐ Yellow-Change Interval - Increase	10%	All Crash Types
	%59	Angle
□ Box Span Signal - Upgrade from Stop Control	-55%	Rear-End (Increases Crashes)
	20%	All Other Non Rear-End Crashes
☐ Box Span Signal - Upgrade from Diagonal Span	10%	All Applicable Crashes+
☐ Protected Left-Turn Signal Phase - Add	30%	Left-Turn
Signal Head Size - Increase to 12 "	10%	All Applicable Crashes +
☐ Signal Optimization & Timing Updates	10%	All Applicable Crashes +
Removing Night Flach from Signal Timing	20%	Nighttime Flash mode Related Craches

	niifeisection a	Intersection Geometric Enhancements	iancements
		%08	Rear-End Left-Turn
	Total Total	20%	Head-On Left-Turn
	Center Lett-Lurn Lane - Construct	20%	Head-On, Angle, Other
		. 15%	Non Left-Turn Rear-End
		30%	Angle
\boxtimes	Intersection Improvements (Realignment, Sight-Distance Improvements,	15%	Rear-End
	Radii improvements, etc.)	10%	Head-On, Sideswipe, Pedestrian, Bicycle, Left-Turn Related
[%59	Angle-Turn, Head-On Left-Turn
	Onset Lett-I urn Lane - Construct	20%	Rear-End Left-Turn
		%59	Angle-Turn
	Offset Right-Turn Lane - Construct	20%	Other Applicable Crashes
		20%	Rear-End Right Turn
	F 11 12	%59	Rear-End Right-Turn
	KIBUT-TUTH LANE - CONSTRUCT	20%	Applicable Rear-End Crashes, Sideswipe Same Direction
	4	78%	Fatal and A-Injury Reduction
	Koundabout	21%	Minor Crash Reduction
	Lighting	Ĭ	See MDOT Interchange Warranted Lighting Guidance and overall MDOT Lighting Guidance
	General Intersection Enhancements (Non-Signalized Intersections)	cements (No	I-Signalized Intersections)
	All-Way Stop Control - New Installation	%09	All Applicable Crashes
	Ground Mounted Flashing Beacons (Red)- Install **	30%	All Crashes On Install Approach
	Ground Mounted Flashing Beacons(Amber) - Install **	70%	All Crashes On Install Approach
\boxtimes	Signing - Improve/Upgrade	30%	Angle, Rear-End Crashes
\boxtimes	Pavement Markings - Improve/Upgrade	30%	Angle, Rear-End Crashes
	Reflective Sheeting on Sign Posts (Iollipops)	15%	All Applicable Crashes

	57	





City of St. Joseph 700 Broad Street St. Joseph, MI 49085

P: 269-983-5541 F: 269-985-0346 www.sjcity.com Upton Drive Sanitary Sewer Condition

1 inch = 400 feet

User Name: aaustin

Date: 11/28/2018

TwinCATS 2020-2023 Road Project Prioritization System

Project Name: Broad Street

Agency: City of St. Joseph

Proposed Year: 2022

Total Points: 38

Criteria	Points	
System Preservation	18 points max	
a. Most recent PASER rating		
3-4	10	40
5-6	8	
1-2	5	
b. Extension of Remaining Service Life (RSL) based on MDOT Geometric Guidelines		
Extends RSL by 15 years or more (4R project)	8	
Extends RSL by 10-14 years (3R Project)	6	
Extends RSL by 5-9 years (Preventative Maintenance)	(4)	4
Extends RSL by 2-4 years (Preventative Maintenance)	2	
Safety	7 points max	
a. Expected Crash Reduction - Based on MDOT approved Crash Reduction Factors		111
50% or greater	5	
40%-49.9%	4	
30% - 39.9%	3	
20% - 29.9%	(2)	2
10% - 19.9%	1	
Less than 10%	0	
b. Addressing High Crash Locations.		
Number of crashes is 20% higher than MPO median (4 or more)	2	2
Number of crashes are within 20% of MPO median (2-3)	1	
Number of crashes is lower than 20% of the MPO median (0-1)	0	
Non-motorized Transportation / Complete Streets	6 points max	
a. Follows the Complete Streets Policy	4	4
b. Pedestrian and bicycle elements of the project connect to existing bicycle and pedestrian facilities or those that can reasonably expect to be completed between 2019 and 2023.	2	2

Criteria	Points	
Regional Connectivity	10 points max	
a. Average daily traffic (ADT) based on most recent traffic count	1. 5. 5. Market	
ADT is 10,000 or more	5	
ADT is 5,000 – 9,999	(4)	4
ADT is 2,000 – 4,999	3	
ADT is less than 2,000	0	
b. Functional Classification of the Road		
Principal Arterial	3	
Minor Arterial	(2)	7,
Major Collector	1	
Minor Collector	0	
c. Fixed route transit (TCATA Red or Blue line) uses the road	2	2
Strategic Investment/ Project Planning	11 points max	Maria de la companya
a. Project is identified in an Asset Management or Capital Improvement Plan	(3)	3
b. Project is identified as a priority in another planning document such as a master plan or parks and recreation plan	1	J
c. Project crosses jurisdictional boundaries (i.e. city to township) and is arranged in such a way to be bid as a single project.	1	
d. Project continues resurfacing, reconstruction, or preventative maintenance on a segment of roadway adjacent to a project completed during the 2017-2020 TIP cycle or through Rural Task Force funding.	2	
e. Additional Local Match		
Agency will proved 40% or more local match	4	
Agency will provide 30% to 39.9% local match	(2)	2
Note: An 18.15% local match is the minimum required		
Note. All 10:1370 local materials the minimal required	(Yes)	
Project Readiness (no points)	(163)	_
	Yes	
Project Readiness (no points)		

Twin Cities Area Transportation Study 2020-2023 Transportation Improvement Program (TIP) Federal Surface Transportation Block Grant Funds Project Application

Click "Enable Editing" to begin filling out this form. You may save this form at any time.

Section 1. Appli	cant Information		
Agency Name	City of St. Joseph		
Contact Name	Tim Zebell	Title	City Engineer
Phone Number	269-983-5541	Email	tzebell@sjcity.com

Section 2. Project Informatio	n				
Project Name/Road Name	Broad Street Resurfaci	ing Project			
Project Limits (e.g. Napier Ave. to Britain Ave.)	Main Street (BL94) to	Pearl Street			
Project Length (nearest hundredth of a mile)	0.56	Proposed Year of Funding	2022		
Primary Work Type	☐ Reconstruct ☐ Restore & Rehabilitate ☐ Roadside Facility ☐ Resurface ☐ Traffic Operations/Safety ☐ Other				
Project Description	Mill & resurface Broad from Main Street (BL94) to Pearl Street. Includes				
(Please provide major work items including sidewalks, utility	minor utility improven needed to meet curre	nents, sidewalk and ADA ram	p replacement as		
work, ADA upgrades etc.)	needed to meet curren	nt ADA requirements.			
Was this project awarded	Yes No If yes, pl	ease explain:			
funding for the 2017-2020 TIP,					
but was either canceled or failed					
to be obligated					

Section 3. Project Funding	
Federal Funding Requested	\$ 218,000
Local Match (18.15% minimum)	\$ 93,500
Total	\$ 532,000 (construction), 584,800 (total project)
Local Match Percentage (local match/total cost)	30%
Does your agency have the financial capacity to Advance Construct (AC) all or part of this project if necessary? If yes, what is the maximum dollar amount your agency is willing to Advance Construct (AC)?	☐ Yes ☒ No Maximum Dollar Amount you can AC? \$

Section 4. Systen	n Preservatio	1						
2018 PASER rating (excel file)	availibe as an	4						
Current state of dra	inage		Minor and tolerable drainage problems Occasional drainage problems with some maintenance required Inadequate drainage, frequent flooding, excessive maintenance					
Expected increase in Service life (RSL)	n Remaining		0-3 years 4-6 7-9 10-14 15-20 e MDOT's Guidelines for Geometrics on Local Projects					
What MDOT guideli project conform to?		 □ Reconstruction (4R) ☑ Resurfacing, restoration, and Rehabilitation (3R □ Preventative Maintenance (PM) 			ON EVENS HAS RISHDAY			
Section 5. Safety								
Please list the numb				he proposed project lim	nits over the la	st 5 yrs.		
Total Crashes	21			Pedestrian & Bicycle Crashes				
Fatalities	0	0		Serious Injuries	0			
Using the attached included in the proj		Factors s	sheet, ple	ase check each safety o	ounter measu	re that will be		
Describe any other safety improvements this project will provide Replace lighting Broad k		lighting t Broad be	to improvelongs to	pavement markings, sig re safety to extent possi MDOT, the City will req ry can be improved.	ble. The signa	l at Main &		
Castian C Canada	ata Chuasta							
Does this project me approved in 2014?		TS Comple	ete Street	s Policy, Yes 🔀] No			
If yes, Please explain and/or bicycle impr		The same of the sa		Yes and No because sha to so and improve safe		added if it is		
If No, please state t project should be ex TwinCATS Complete	xempt from the	his	Resurfac	cing projects are exemp	t - see note ab	ove.		

Does this project connect to an existing pedestrian/bicycle facility or one that is	No			
	se provide a map of the connecting facilities			
Section 7. Regional Connectivity				
What is the most current daily traffic count for the limits of this project?	Less than 2000 2000-5000 5000-10,000 Above 10,000 Year of count: 2013 Source: TAMC			
National Functional Classification (NFC) for this roadway (Berrien County NFC Map)	Minor Arterial			
Does one of <u>TCATA fixed route transit lines</u> use the road (Only indicate yes if it carries a current route, not a planned route).	Yes □No			
Section 8. Strategic Planning & Investment				
Is the project identified in a Asset Management Plan, or Capital Improvement Plan				
Is the project identified in another planning documents such as a master plan or parks and recreation plan				
Does the project cross jurisdictional boundaries?	Yes No			
If yes, will it be bid as a single project?	Yes No NA			
Will this project coordinate with other infrastructure projects (i.e. utility, water, sewer, etc.)	☐ Yes ☒ No If yes, please indicate the project type and construction year: The majority of the underground utilities in this area have been replaced as part of combined sewer overflow and water system improvement projects completed within the last 20 years.			
How many water main breaks have you had at this location in the past five years?	1			
Is there a completed a utilities assessment that included televising the sewers in the project area?	Yes No			
Will this project require environmental mitigation, purchase of Right of Way (ROW), or railroad permits?	☐ Yes ☑ No ☐ Not Sure If yes, which items are required:			
Does this project perform Resurfacing, Reconstruction, or Preventative Maintenance on a segment adjacent to a segment where a federally-funded project was done during the 2017-2020 TwinCATS TIP cycle or RTF cycle?	☐ Yes ☑ No What segment was the PREVIOUS project done on?			

	Existing				Proposed			
Number of	Through	Center		On Street	Т	hrough	Center	On Street
Vehicle Lanes	Traffic Lanes	Turn Lan	e	Parking	Т	raffic Lanes	Turn Lane	Parking
	2	@ Main	St	⊠ Yes □ No	2		@ Main St	⊠ Yes □ No
Shoulder	Paved		Wie	dth (ft.)	T	Paved	,	Width (ft.)
Surface	Unpaved		NA			Unpaved		NA
Sidewalk/ path	Placement		Wie	dth (ft.)	P	lacement		Width (ft.)
information	One Side		5 F	Τ		One Side		5 FT
	Both Sides					⊠ Both Sides		
	Intermittent None				ļ	Intermitte	nt	
				ļĻ	None	5-4		
On road bicycle				r (specify)	L	Bike Lane		er (specify)
facilities	Sharrows				12	Sharrows	if possik	
	Wide Shoulders None			╁	Wide Shou		one	
Utilities, Sewer	Utilities Upgrades Needed Sewer and water work needed				Replaced			
and Water	Sewer and water wo			eeded		Relocating	Utilities Water Line \	Morle
DI 1 1		t - 1 1	1		ط <i>ا</i>			
Please describe any improvements being				orove signage an in & Broad, com				
made as part of this project to				nain the same.	pic	ted III 2005 V	vitii a saicty g	grant, will
crosswalks, signage or signals, or streetscape elements not discussed in			101	nam the same.				
project description								
project description								
Does this project enhance connectivity			\boxtimes	Yes No				
of pedestrian or b		Action to the control of the control	If y	es, how?				
or Dial-A-Ride trai	nsit?		This project is located on the Red Route and connects the					
			downtown, residential, light industrial and recreational areas to					
			the	bus stop at Spe	ctru	um Health La	keland Hospit	tal.
Section 10. Esti	mated Projec	t Schedu	ıle					中华山村
Activity						E:	stimated Date	e
Resolution of Sup	port for□ Loca	l Match Su	ubm	itted to SWMPC			ıly 2020	
Project Applicatio	n Submitted to	MOT					ugust 2021	
Grade Inspection	Package Submit	ted to MI	TOC				ugust 2021	
Grade Inspection	Meeting Sched	uled					ctober 2021	
Final Plan and Est							ecember 202	
Right of Way (RO)	W) certified*						ecember 202	1
Rail Road Permits	*						/A	
Environmental Mitigation*						N	/A	

Project Obligated

Section 9. Existing and Proposed Roadway Design

December 2021

Project Letting	February 2022
Construction Start□	April 2022
Project Completion	May 2022

^{*}Enter NA if these items will not be required.

	rioposed improvement	% Reduction	Associated Crash Types
	SEGMENT	SEGMENT CRASH REDUCTION FACTORS	ION FACTORS
	Geomet	Geometric Safety Enhancements	cements
		80%	Rear-End Left-Turn
	Contour off Trees one Construct	20%	Head-On Left-Turn
7	Center Letter Lane - Construct	20%	Head-On, Angle, Sideswipe*
		15%	Non Left-Turn Rear-End, Other*
	(90)	929	Rear-End Right-Turn
	Dieba Tomo I am Contact	30%	Angle
	Kignt-I urn Lane - Construct	15%	Rear-End
		10%	Other*
	Horizontal Curve Flattening	30%	Lane Departure ***
	Shoulders - Widen to Standard Width (add 1' each side)	2%	Lane Departure***
	Shoulders - Widen to Standard Width (add 2' each side)	10%	Lane Departure***
	Shoulders - Widen to Standard Width (add 3' each side)	15%	Lane Departure***
	Shoulders - Widen to Standard Width (add 4' each side)	20%	Lane Departure***
	Shoulders - Widen to Standard Width (add 5' each side)	25%	Lane Departure***
	Shoulders - Widen to Standard Width (add 6' each side)	30%	Lane Departure***
	Shoulders - Widen to Standard Width (add 7' each side)	35%	Lane Departure***
	Vertical Curve Modification	20%	All Applicable Crash Types +++
	General	General Segment Enhancements	cements
	Access Management - Improve	15%	Drive-way Related Applicable Crashes
		44%	K and A injury Applicable Crashes
	Contorling Dumblo String Install	46%	Single Vehicle Run off Road Left Crashes
	Centernie Natione Strips - Ilistali	43%	Sideswipe Same Crashes
		25%	Sideswipe Opposite Crashes
	Uigh Eriction Confess Treatment (actall	35%	Wet Crashes
91	וופון דווכנוסון סמון מכפי וופמנוופון - ווופנמון	20%	All Other Applicable Crashes
	Recessed Durable Pavement Markings	2%	All Applicable Crashes
	Pedestrian Refuge - Install	20%	Pedestrian Crashes (Review NCHRP Report 841)
	Road Diet (4-3 Lane Conversion) - Install	20%	Suburban - All Applicable Crashes
	Shoulder Rumble Strips	20%	Run-Off the Road Right Crashes
	Signing/Delineation on Horizontal Curves (Including Recessed Durable Pavement Markings) - Install	20%	Lane Departure***
	Safety Edge Improvement	13%	All non-intersection crashes (CMF Clearing House ID 8658)

	BON	Roadside Enhancements	ents
	Bicycle Lanes - Install per standards	20%	Bicycle Crashes
	Shared Use Path - Install	33%	Bicycle and Pedestrian Related Crashes
	Fixed Objects From Clearzone (Trees, Culverts, Etc.) - Removal	75%	Fixed-Object Applicable Crashes
	Guardrail - Install	25%	Lane Departure ***Fatalities and "A" Injury Applicable Crashes
	Sidewalk for Pedestrians - Construct	82%	Pedestrian Crashes
	Slope Flattening	15%	Fixed-Object, Overturn Applicable Crashes
	Living Snow Fence	70%	Crashes due to wintry surface conditions
	Lighting - install on segment	20%	Dark Unlighted Crashes
	INTERSECTION	NTERSECTION CRASH REDUCTION FACTORS	CTION FACTORS
	Pedestria	Pedestrian / Bicycle Enhancements	ncements
	Bump Out / Curb Extension - Remove Parking / Install	30%	All Crashes
	Bicycle Lanes - Install per standards	72%	Bicycle Crashes
	Sidewalk for Pedestrians - Construct	85%	Pedestrian Crashes
		75%	Pedestrian Fatal - Dark Unlighted Crashes
	Intersection Lighting - install	40%	Pedestrian A-Injury - Dark Unlighted Crashes
		30%	All Applicable Dark Unlighted Crashes
	Rectangular Rapid Flashing Beacons	47%	Pedestrian Crashes
	Ped. Countdown Signals - Install new Pedestrian signal	30%	Pedestrian Crashes
	Ped. Countdown Signals - Upgrade from existing Pedestrian signal	25%	Pedestrian Crashes
	Signal Timing	ng / Hardware Enhancements	ihancements
		3%	Rear-End
	Multiple Low-Cost Improvements	12%	Right-Angle
		3%	Nighttime
	Install Reflectorized Backplates	15%	All Applicable Crashes
	Add All-Red Clearance Interval - Add per ITE	70%	Head-On Left-Turn, Angle
	Yellow-Change Interval - Increase	10%	All Crash Types
		%59	Angle
	Box Span Signal - Upgrade from Stop Control	-25%	Rear-End (Increases Crashes)
		20%	All Other Non Rear-End Crashes
	Box Span Signal - Upgrade from Diagonal Span	10%	All Applicable Crashes+
	Protected Left-Turn Signal Phase - Add	30%	Left-Turn
	Signal Head Size - Increase to 12 "	10%	All Applicable Crashes +
\boxtimes	Signal Optimization & Timing Updates	10%	All Applicable Crashes +
	Removing Night Flach from Signal Timing	20%	Nighttime Flash mode Related Crashes

Rear-End Left-Turn Sow Rear-End Left-Turn Sow Rear-End Left-Turn Sow Rear-End Left-Turn Sow Rear-End Left-Turn Intersection Improvements (Realignment, Sight-Distance Improvements) Sow Angle Radii Improvements (Realignment, Sight-Distance Improvements) Sow Angle Rear-End Left-Turn Rear-End Registration Sow Rear-End Left-Turn Related Offset Right-Turn Lane - Construct Sow Rear-End Left-Turn Related Sight-Turn Lane - Construct Sow Angle-Turn Rear-End Left-Turn Related Stight-Turn Lane - Construct Sow Angle-Turn Rear-End Right-Turn Stoundabout Sow Sow Control Crash Reduction Ighting All-Way Stop Control - New Install Angle Sow All Crashes On Install Approach Ground Mounted Flashing Beacons (Red) - Install *** Sow All Crashes On Install Approach Sighing - Improve/Upgrade Sow All Crashes On Install Approach Sighing - Improve/Upgrade Sow All Crashes On Install Approach Sighing - Improve/Upgrade Sow All Crashes On Install Approach Sighing - Improve/Upgrade Sow All Crashes On Install Approach Sighing - Improve/Upgrade Sow All Crashes On Install Approach Sighing - Improve/Upgrade Sow All Crashes On Install Approach Sighing - Improve/Upgrade Sow All Crashes On Install Approach Sighing - Improve/Upgrade Sow All Crashes On Install Approach Sighing - Improve/Upgrade Sow All Crashes On Install Approach Sighing - Improve/Upgrade Sow All Crashes On Install Approach Sighing - Improve/Upgrade Sow All Crashes Sement Markings - Improve/Upgrade Sow All Crashes Sighing - Improve/Upgrade Sow All Crashes Sow All Crashes Sement Markings - Improve All Sow Sow All Crashes Sow All Crashes Sement Markings - Improve All Sow Sow All Crashes Sow Sow Sow Sow Sow Sow Sow		Intersection Geometric Enhancements	eometric En	hancements
Center Left-Turn Lane - Construct 20% 15% 15% 15% 10% 15% 10%			%08	Rear-End Left-Turn
Intersection Improvements (Realignment, Sight-Distance Improvements, 15% Radii Improvements, Etc.) Offset Left-Turn Lane - Construct Offset Right-Turn Lane - Construct Sight-Turn Lane - Construct Right-Turn Lane - Construct Right-Turn Lane - Construct Right-Turn Lane - Construct Sight-Turn Lane - Construct Construct Right-Turn Lane - Construct Sight-Turn Lane - Construct Construct All-Way Stop Control - New Installation General Intersection Enhancements (Non-Signing - Install ** Ground Mounted Flashing Beacons (Red) - Install ** Ground Mounted Flashing Beacons (Amber) - Install ** Signing - Improve/Upgrade Signing - Improve/Upgrade Pavement Markings - Improve/Upgrade Reflective Sheeting on Sign Posts (Iollipops) 15%	C		20%	Head-On Left-Turn
Intersection Improvements (Realignment, Sight-Distance Improvements, Radii Improvements, Etc.) Radii Improvements, Etc.) Offset Left-Turn Lane - Construct Offset Right-Turn Lane - Construct Right-Turn Lane - Construct Right-Turn Lane - Construct Roundabout Roundabout All-Way Stop Control - New Installation General Intersection Enhancements (Non-Si Ground Mounted Flashing Beacons (Red) - Install *** Ground Mounted Flashing Beacons (Red) - Install *** Ground Mounted Flashing Beacons (Amber) - Install *** Signing - Improve/Upgrade Signing - Improve/Upgrade Signing - Improve/Upgrade Signing - Improve/Upgrade Reflective Sheeting on Sign Posts (Iollipops) 15%		Center Lett-Lurn Lane - Construct	20%	Head-On, Angle, Other
Intersection Improvements (Realignment, Sight-Distance Improvements, Radii Improvements, Etc.) Offset Left-Turn Lane - Construct Offset Right-Turn Lane - Construct Right-Turn Lane - Construct Right-Turn Lane - Construct Construct Right-Turn Lane - Construct All-Way Stop Control - New Installation General Intersection Enhancements (Non-Si and Mounted Flashing Beacons (Red) - Install *** Ground Mounted Flashing Beacons (Amber) - Install *** Ground Mounted Flashing Beacons (Amber) - Install *** Signing - Improve/Upgrade Signing - Improve/Upgrade Pavement Markings - Improve/Upgrade Reflective Sheeting on Sign Posts (Iollipops) 15%			15%	Non Left-Turn Rear-End
Intersection Improvements, Isase Radii Improvements, Etc. Offset Left-Turn Lane - Construct 20% Offset Right-Turn Lane - Construct 20% Right-Turn Lane - Construct 20% Right-Turn Lane - Construct 20% Roundabout 20% 20% Ighting General Intersection Enhancements (Non-Si 20% Ground Mounted Flashing Beacons (Red) - Install *** 30% Ground Mounted Flashing Beacons (Amber) - Install *** 20% Signing - Improve/Upgrade 30% Pavement Markings - Improve/Upgrade 30% Reflective Sheeting on Sign Posts (Iollipops) 15%			30%	Angle
Offset Left-Turn Lane - Construct 65% Offset Left-Turn Lane - Construct 20% Offset Right-Turn Lane - Construct 20% Right-Turn Lane - Construct 20% Roundabout 78% Roundabout 57% Lighting General Intersection Enhancements (Non-Si Ground Mounted Flashing Beacons (Red) - Install ** 30% Ground Mounted Flashing Beacons (Amber) - Install ** 20% Signing - Improve/Upgrade 30% Pavement Markings - Improve/Upgrade 30% Reflective Sheeting on Sign Posts (Iollipops) 15%		Intersection Improvements (Realignment, Signt-Distance Improvements,	15%	Rear-End
Offset Left-Turn Lane - Construct 65% Offset Right-Turn Lane - Construct 20% Right-Turn Lane - Construct 20% Roundabout 78% Roundabout 57% Lighting 60% All-Way Stop Control - New Installation 60% Ground Mounted Flashing Beacons (Red) - Install *** 20% Ground Mounted Flashing Beacons (Red) - Install *** 20% Signing - Improve/Upgrade 30% Pavement Markings - Improve/Upgrade 30% Reflective Sheeting on Sign Posts (Iollipops) 15%		Naul Improvements, Etc.)	10%	Head-On, Sideswipe, Pedestrian, Bicycle, Left-Turn Related
Offset Right-Turn Lane - Construct 50% Offset Right-Turn Lane - Construct 20% Right-Turn Lane - Construct 20% Roundabout 78% Lighting - All-Way Stop Control - New Installation 60% Ground Mounted Flashing Beacons (Red) - Install ** 30% Ground Mounted Flashing Beacons(Amber) - Install ** 30% Signing - Improve/Upgrade 30% Pavement Markings - Improve/Upgrade 30% Reflective Sheeting on Sign Posts (Iollipops) 15%			%59	Angle-Turn, Head-On Left-Turn
Offset Right-Turn Lane - Construct 50% Right-Turn Lane - Construct 20% Roundabout 78% Roundabout 57% Lighting - All-Way Stop Control - New Installation 60% Ground Mounted Flashing Beacons (Red) - Install ** 30% Ground Mounted Flashing Beacons (Amber) - Install ** 20% Signing - Improve/Upgrade 30% Pavement Markings - Improve/Upgrade 30% Reflective Sheeting on Sign Posts (Iollipops) 15%		Onset Lett-I urn Lane - Construct	70%	Rear-End Left-Turn
Offset Right-Turn Lane - Construct 50% Right-Turn Lane - Construct 20% Roundabout 78% Ighting 57% All-Way Stop Control - New Installation 60% Ground Mounted Flashing Beacons (Red) - Install ** 30% Ground Mounted Flashing Beacons (Amber) - Install ** 20% Signing - Improve/Upgrade 30% Pavement Markings - Improve/Upgrade 30% Pavement Markings - Improve/Upgrade 30% Reflective Sheeting on Sign Posts (IoIlipops) 15%			%59	Angle-Turn
Right-Turn Lane - Construct 65% 65% Roundabout 78% 78% Lighting General Intersection Enhancements (Non-Si Ground Mounted Flashing Beacons (Red) - Install ** 30% 30% Signing - Improve/Upgrade 30% 30% 30% Reflective Sheeting on Sign Posts (Iollipops) 15% 15%		Offset Right-Turn Lane - Construct	20%	Other Applicable Crashes
Right-Turn Lane - Construct 20% 78%			70%	Rear-End Right Turn
Roundabout 1986 1		F 11 10	%59	Rear-End Right-Turn
Roundabout 18% Lighting General Intersection Enhancements (Non-Si All-Way Stop Control - New Installation 60% Ground Mounted Flashing Beacons (Red) - Install ** 30% Ground Mounted Flashing Beacons(Amber) - Install ** 30% Signing - Improve/Upgrade 30% Pavement Markings - Improve/Upgrade 30% Reflective Sheeting on Sign Posts (Iollipops) 15%		Kignt-Turn Lane - Construct	70%	Applicable Rear-End Crashes, Sideswipe Same Direction
Lighting Lighting General Intersection Enhancements (Non-Si All-Way Stop Control - New Installation Ground Mounted Flashing Beacons (Red) - Install ** Ground Mounted Flashing Beacons(Amber) - Install ** Signing - Improve/Upgrade Pavement Markings - Improve/Upgrade Reflective Sheeting on Sign Posts (Iollipops) 15%		4	78%	Fatal and A-Injury Reduction
Lighting General Intersection Enhancements (Non-Si All-Way Stop Control - New Installation Ground Mounted Flashing Beacons (Red) - Install ** Ground Mounted Flashing Beacons(Amber) - Install ** Signing - Improve/Upgrade Pavement Markings - Improve/Upgrade Reflective Sheeting on Sign Posts (Iollipops) 15%		Koundabout	21%	Minor Crash Reduction
General Intersection Enhancements (Non-Si All-Way Stop Control - New Installation Ground Mounted Flashing Beacons (Red) - Install ** 30% Ground Mounted Flashing Beacons(Amber) - Install ** 20% Signing - Improve/Upgrade 30% Pavement Markings - Improve/Upgrade 30% Reflective Sheeting on Sign Posts (Iollipops) 15%		Lighting		See MDOT Interchange Warranted Lighting Guidance and overall MDOT Lighting Guidance
All-Way Stop Control - New Installation 60% Ground Mounted Flashing Beacons (Red) - Install ** 30% Ground Mounted Flashing Beacons(Amber) - Install ** 20% Signing - Improve/Upgrade 30% Pavement Markings - Improve/Upgrade 30% Reflective Sheeting on Sign Posts (Iollipops) 15%		General Intersection Enhance	cements (No	n-Signalized Intersections)
Ground Mounted Flashing Beacons (Red)- Install ** 30% Ground Mounted Flashing Beacons(Amber) - Install ** 20% Signing - Improve/Upgrade 30% Pavement Markings - Improve/Upgrade 30% Reflective Sheeting on Sign Posts (Iollipops) 15%		All-Way Stop Control - New Installation	%09	All Applicable Crashes
Ground Mounted Flashing Beacons(Amber) - Install ** 20% Signing - Improve/Upgrade 30% Pavement Markings - Improve/Upgrade 30% Reflective Sheeting on Sign Posts (Iollipops) 15%		Ground Mounted Flashing Beacons (Red)- Install **	30%	All Crashes On Install Approach
Signing - Improve/Upgrade 30% Pavement Markings - Improve/Upgrade 30% Reflective Sheeting on Sign Posts (IoIlipops) 15%		Ground Mounted Flashing Beacons(Amber) - Install **	70%	All Crashes On Install Approach
Pavement Markings - Improve/Upgrade 30% Reflective Sheeting on Sign Posts (IoIlipops) 15%	\boxtimes	Signing - Improve/Upgrade	30%	Angle, Rear-End Crashes
Reflective Sheeting on Sign Posts (lollipops)	\boxtimes	Pavement Markings - Improve/Upgrade	30%	Angle, Rear-End Crashes
		Reflective Sheeting on Sign Posts (lollipops)	15%	All Applicable Crashes

TwinCATS 2020-2023 Road Project Prioritization System
Project Name: Water Street Agency: C1+4 of St. Joseph

Proposed Year: 2023

Total Points: 32

Criteria	Points	
System Preservation	18 points max	
a. Most recent PASER rating		
3-4	10	19
5-6	8	
1-2	(5)	5
b. Extension of Remaining Service Life (RSL) based on MDOT Geometric Guidelines		
Extends RSL by 15 years or more (4R project)	(8)	8
Extends RSL by 10-14 years (3R Project)	6	
Extends RSL by 5-9 years (Preventative Maintenance)	4	
Extends RSL by 2-4 years (Preventative Maintenance)	2	
Safety	7 points max	
a. Expected Crash Reduction - Based on MDOT approved Crash Reduction Factors		
50% or greater	5	
40%-49.9%	4	
30% - 39.9%	3	
20% - 29.9%	2	
10% - 19.9%	1	1
Less than 10%	0	
b. Addressing High Crash Locations.		
Number of crashes is 20% higher than MPO median (4 or more)	2	2
Number of crashes are within 20% of MPO median (2-3)	1	
Number of crashes is lower than 20% of the MPO median (0-1)	0	
Non-motorized Transportation / Complete Streets	6 points max	
a. Follows the Complete Streets Policy	4	4
b. Pedestrian and bicycle elements of the project connect to existing bicycle and pedestrian facilities or those that can reasonably expect to be completed between 2019 and 2023.	(2)	2

Criteria	Points	
Regional Connectivity	10 points max	
a. Average daily traffic (ADT) based on most recent traffic count		
ADT is 10,000 or more	5	
ADT is 5,000 – 9,999	4	
ADT is 2,000 – 4,999	(3)	3
ADT is less than 2,000	0	
b. Functional Classification of the Road		
Principal Arterial	3	
Minor Arterial	2	
Major Collector	1	1
Minor Collector	0	
c. Fixed route transit (TCATA Red or Blue line) uses the road	2	
Strategic Investment/ Project Planning	11 points max	
Strategic Investment/ Project Planning a. Project is identified in an Asset Management or Capital Improvement Plan		3
	max	3
a. Project is identified in an Asset Management or Capital Improvement Plan b. Project is identified as a priority in another planning document such as a master plan	max 3	3
a. Project is identified in an Asset Management or Capital Improvement Plan b. Project is identified as a priority in another planning document such as a master plan or parks and recreation plan c. Project crosses jurisdictional boundaries (i.e. city to township) and is arranged in such	3 1	3 1
 a. Project is identified in an Asset Management or Capital Improvement Plan b. Project is identified as a priority in another planning document such as a master plan or parks and recreation plan c. Project crosses jurisdictional boundaries (i.e. city to township) and is arranged in such a way to be bid as a single project. d. Project continues resurfacing, reconstruction, or preventative maintenance on a segment of roadway adjacent to a project completed during the 2017-2020 TIP cycle or 	1 max 1	3 1
 a. Project is identified in an Asset Management or Capital Improvement Plan b. Project is identified as a priority in another planning document such as a master plan or parks and recreation plan c. Project crosses jurisdictional boundaries (i.e. city to township) and is arranged in such a way to be bid as a single project. d. Project continues resurfacing, reconstruction, or preventative maintenance on a segment of roadway adjacent to a project completed during the 2017-2020 TIP cycle or through Rural Task Force funding. 	1 max 1	3 1
 a. Project is identified in an Asset Management or Capital Improvement Plan b. Project is identified as a priority in another planning document such as a master plan or parks and recreation plan c. Project crosses jurisdictional boundaries (i.e. city to township) and is arranged in such a way to be bid as a single project. d. Project continues resurfacing, reconstruction, or preventative maintenance on a segment of roadway adjacent to a project completed during the 2017-2020 TIP cycle or through Rural Task Force funding. e. Additional Local Match 	1 2	3 1
 a. Project is identified in an Asset Management or Capital Improvement Plan b. Project is identified as a priority in another planning document such as a master plan or parks and recreation plan c. Project crosses jurisdictional boundaries (i.e. city to township) and is arranged in such a way to be bid as a single project. d. Project continues resurfacing, reconstruction, or preventative maintenance on a segment of roadway adjacent to a project completed during the 2017-2020 TIP cycle or through Rural Task Force funding. e. Additional Local Match Agency will proved 40% or more local match 	1 2 4	3 1
 a. Project is identified in an Asset Management or Capital Improvement Plan b. Project is identified as a priority in another planning document such as a master plan or parks and recreation plan c. Project crosses jurisdictional boundaries (i.e. city to township) and is arranged in such a way to be bid as a single project. d. Project continues resurfacing, reconstruction, or preventative maintenance on a segment of roadway adjacent to a project completed during the 2017-2020 TIP cycle or through Rural Task Force funding. e. Additional Local Match Agency will proved 40% or more local match Agency will provide 30% to 39.9% local match 	1 2 4	3 1 2
 a. Project is identified in an Asset Management or Capital Improvement Plan b. Project is identified as a priority in another planning document such as a master plan or parks and recreation plan c. Project crosses jurisdictional boundaries (i.e. city to township) and is arranged in such a way to be bid as a single project. d. Project continues resurfacing, reconstruction, or preventative maintenance on a segment of roadway adjacent to a project completed during the 2017-2020 TIP cycle or through Rural Task Force funding. e. Additional Local Match Agency will proved 40% or more local match Agency will provide 30% to 39.9% local match Note: An 18.15% local match is the minimum required 	1 2 4 2	3 1

Twin Cities Area Transportation Study 2020-2023 Transportation Improvement Program (TIP) Federal Surface Transportation Block Grant Funds Project Application

Click "Enable Editing" to begin filling out this form. You may save this form at any time.

Section 1. Appli	cant Information		
Agency Name	City of St. Joseph		
Contact Name	Tim Zebell	Title	City Engineer
Phone Number	269-983-5541	Email	tzebell@sjcity.com

Section 2. Project Information	Section 2. Project Information							
Project Name/Road Name	Water Street Reconstr	uction Project						
Project Limits (e.g. Napier Ave. to Britain Ave.)	South State Street to V	/ine Street						
Project Length (nearest hundredth of a mile)	0.11	Proposed Year of Funding	2023					
Primary Work Type	 □ Reconstruct □ Restore & Rehabilitate □ Roadside Facility □ Resurface □ Traffic Operations/Safety □ Other 							
Project Description	Full reconstruction of \	Water Street, replacement of	underground utilities					
(Please provide major work	as needed and rehabili	tation of the existing retainin	ig wall. Crosswalks,					
items including sidewalks, utility	sidewalks, etc. will be	designed to meet current AD	A standards.					
work, ADA upgrades etc.)								
Was this project awarded	Yes No If yes, pl	ease explain:						
funding for the 2017-2020 TIP,	48 24 SA SA SA							
but was either canceled or failed		87						
to be obligated								

Section 3. Project Funding	
Federal Funding Requested	\$ 339,000
Local Match (18.15% minimum)	\$ 145,300 (~\$495,000 with retaining wall rehab)
Total	\$ 998,000 (construction), 1,296,000 (total project)
Local Match Percentage (local match/total cost)	30%
Does your agency have the financial capacity to Advance Construct (AC) all or part of this project if necessary? If yes, what is the maximum dollar amount your agency is willing to Advance Construct (AC)?	☐ Yes ⊠ No Maximum Dollar Amount you can AC? \$

Section 4. System	n Preservatio	n					
2018 PASER rating (excel file)	availibe as an	2					
Current state of dra	inage		Occasional d	lerable drainage pr rainage problems w Irainage, frequent f	ith some mainte	Committee of Commi	
Expected increase in Service life (RSL)	n Remaining		0-3 years	4-6 7-9 1 delines for Geometi	10-14 \(\sum 15-20\)	iects	
What MDOT guideli project conform to?		⊠ F	 ☑ Reconstruction (4R) ☐ Resurfacing, restoration, and Rehabilitation (3R) ☐ Preventative Maintenance (PM) 				
Section 5. Safety							
Please list the numb	er and severity Michigan Crash			proposed project li	mits over the las	t 5 yrs.	
Total Crashes	8		P	edestrian & Bicycle rashes	1		
Fatalities	0			erious Injuries	0		
Using the attached included in the project		n Factors	sheet, please	check each safety	counter measur	e that will be	
Describe any other simprovements this provide	safety	No received made		, improve horizonta extent possible.	al and vertical ali	gnments at	
Section 6. Compl	ete Streets						
Does this project me approved in 2014?	eet the <u>TwinCA</u>	TS Compl	ete Streets P	olicy, Xes [No		
If yes, Please explain and/or bicycle impre			There is an	existing non-motor	ized path next to	o the road.	
If No, please state the project should be ex TwinCATS Complete	cempt from the						
Does this project co pedestrian/bicycle f planned to be comp	acility or one th	nat is	⊠Yes ☐	No se provide a map of	the connecting	facilities	

CONTRACTOR OF THE PROPERTY OF	
Section 7. Regional Connectivity	
What is the most current daily traffic count for the limits of this project?	Less than 2000 2000-5000 5000-10,000 Above 10,000 Year of count: 2013 Source: TAMC
National Functional Classification (NFC) for this roadway (Berrien County NFC Map)	Major Collector
Does one of <u>TCATA fixed route transit lines</u> use the road (Only indicate yes if it carries a current route, not a planned route).	? ☐Yes ☑No
Section 8. Strategic Planning & Investment	
Is the project identified in a Asset Management Plan, or Capital Improvement Plan	☑Yes ☑No If yes, please cite the plan and page number: Asset Management Plan: Appendix G, Page 5
Is the project identified in another planning documents such as a master plan or parks and recreation plan	
Does the project cross jurisdictional boundaries?	☐ Yes ☑ No
If yes, will it be bid as a single project?	Yes No NA
Will this project coordinate with other infrastructure projects (i.e. utility, water, sewer, etc.)	Yes No If yes, please indicate the project type and construction year: Water mains will be replaced as needed concurrently with the project.
How many water main breaks have you had at this location in the past five years?	0
Is there a completed a utilities assessment that included televising the sewers in the project area?	☐ Yes ☑ No
Will this project require environmental mitigation, purchase of Right of Way (ROW), or railroad permits?	☐ Yes ☑ No ☐ Not Sure If yes, which items are required:
Does this project perform Resurfacing, Reconstruction, or Preventative Maintenance on a segment adjacent to a segment where a federally-funded project was done during the 2017-2020 TwinCATS TIP cycle or RTF cycle?	Yes No What segment was the PREVIOUS project done on?

Section 9. Exist	ing and Propo	sed Ro	adw	ay Design				
	BRASIMI	Exist	ing		Proposed			
Number of Vehicle Lanes	Through Traffic Lanes			On Street ne Parking		Through Center Traffic Lanes Turn Lane		On Street Parking
	2 0 [☐ Yes ⊠ No	2		1	☐ Yes ⊠ No
Shoulder Surface Sidewalk/ path	Paved Width (1) Unpaved NA Placement Width (1)			35 ST	P	Paved Unpaved	Width (ft.) NA Width (ft.)	
information	One Side Both Sides Intermittent None			FT		One Side Both Sides Intermittent None		10 FT
On road bicycle facilities	Sharrows			r (specify) one	Bike Lane Other (specify) Sharrows Wide Shoulders None			ar in the state of
Utilities, Sewer and Water	Utilities Up					Replaced Relocating Sewer and		Vork
made as part of th crosswalks, signag	le as part of this project to swalks, signage or signals, or etscape elements not discussed in			e City intends to r ncurrently with th			er Street Ret	aining Wall
Does this project of pedestrian or bor Dial-A-Ride tran	icyclists to fixed		Yes No If yes, how? The existing non-motorized connects to the proposed non-motorized facilities on South State Street and Ship Street that lead to the Red Route stop at the Whitcomb Tower.				ip Street that	

Section 10. Estimated Project Schedule	
Activity	Estimated Date
Resolution of Support for ☐ Local Match Submitted to SWMPC	July 2021
Project Application Submitted to MOT	August 2022
Grade Inspection Package Submitted to MDOT	August 2022
Grade Inspection Meeting Scheduled	October 2022
Final Plan and Estimate to MDOT	December 2022
Right of Way (ROW) certified*	December 2022
Rail Road Permits*	N/A
Environmental Mitigation*	N/A
Project Obligated	December 2022
Project Letting	February 2023

Construction Start□	April 2023
Project Completion	July 2023

^{*}Enter NA if these items will not be required.

Proposed Improvement	% Reduction	Associated Crash Types
SEGM	SEGMENT CRASH REDUCTION FACTORS	ON FACTORS
eg .	Geometric Safety Enhancements	cements
	%08	Rear-End Left-Turn
	20%	Head-On Left-Turn
Center Lett-Turn Lane - Construct	20%	Head-On, Angle, Sideswipe*
	15%	Non Left-Turn Rear-End, Other*
	%59	Rear-End Right-Turn
	30%	Angle
Kignt-Turn Lane - Construct	15%	Rear-End
	10%	Other*
Horizontal Curve Flattening	30%	Lane Departure***
Shoulders - Widen to Standard Width (add 1' each side)	2%	Lane Departure***
Shoulders - Widen to Standard Width (add 2' each side)	10%	Lane Departure***
Shoulders - Widen to Standard Width (add 3' each side)	15%	Lane Departure***
Shoulders - Widen to Standard Width (add 4' each side)	20%	Lane Departure***
Shoulders - Widen to Standard Width (add 5' each side)	25%	Lane Departure***
Shoulders - Widen to Standard Width (add 6' each side)	30%	Lane Departure***
Shoulders - Widen to Standard Width (add 7' each side)	35%	Lane Departure***
Vertical Curve Modification	20%	All Applicable Crash Types +++
a D	General Segment Enhancements	cements
Access Management - Improve	15%	Drive-way Related Applicable Crashes
	44%	K and A injury Applicable Crashes
	46%	Single Vehicle Run off Road Left Crashes
Centerline Kumble Strips - Install	43%	Sideswipe Same Crashes
	25%	Sideswipe Opposite Crashes
	35%	Wet Crashes
High Friction Surface Treatment - Install	20%	All Other Applicable Crashes
Recessed Durable Pavement Markings	2%	All Applicable Crashes
Pedestrian Refuge - Install	20%	Pedestrian Crashes (Review NCHRP Report 841)
Road Diet (4-3 Lane Conversion) - Install	20%	Suburban - All Applicable Crashes
Shoulder Rumble Strips	20%	Run-Off the Road Right Crashes
Signing/Delineation on Horizontal Curves (Including Recessed Durable Pavement Markings) - Install	1 ble 20%	Lane Departure***
Safety Edge Improvement	13%	All non-intersection crashes (CMF Clearing House ID 8658)

☐ Bicycle Lanes - Install per standards	20%	Bicycle Crashes
Shared Use Path - Install	33%	Bicycle and Pedestrian Related Crashes
☐ Fixed Objects From Clearzone (Trees, Culverts, Etc.) - Removal	75%	Fixed-Object Applicable Crashes
☐ Guardrail - Install	25%	Lane Departure ***Fatalities and "A" Injury Applicable Crashes
☐ Sidewalk for Pedestrians - Construct	85%	Pedestrian Crashes
□ Slope Flattening	15%	Fixed-Object, Overturn Applicable Crashes
☐ Living Snow Fence	70%	Crashes due to wintry surface conditions
Lighting - install on segment	70%	Dark Unlighted Crashes
INTERSECTIO	TERSECTION CRASH REDUCTION FACTORS	CTION FACTORS
Pedestria	Pedestrian / Bicycle Enhancements	incements
Bump Out / Curb Extension - Remove Parking / Install	30%	All Crashes
☐ Bicycle Lanes - Install per standards	25%	Bicycle Crashes
Sidewalk for Pedestrians - Construct	85%	Pedestrian Crashes
	75%	Pedestrian Fatal - Dark Unlighted Crashes
☐ Intersection Lighting - install	40%	Pedestrian A-Injury - Dark Unlighted Crashes
	30%	All Applicable Dark Unlighted Crashes
☐ Rectangular Rapid Flashing Beacons	47%	Pedestrian Crashes
☐ Ped. Countdown Signals - Install new Pedestrian signal	30%	Pedestrian Crashes
☐ Ped. Countdown Signals - Upgrade from existing Pedestrian signal	25%	Pedestrian Crashes
Signal Timin	Signal Timing / Hardware Enhancements	hancements
	3%	Rear-End
☐ Multiple Low-Cost Improvements	12%	Right-Angle
	3%	Nighttime
□ Install Reflectorized Backplates	15%	All Applicable Crashes
Add All-Red Clearance Interval - Add per ITE	20%	Head-On Left-Turn, Angle
☐ Yellow-Change Interval - Increase	10%	All Crash Types
	%59	Angle
□ Box Span Signal - Upgrade from Stop Control	-25%	Rear-End (Increases Crashes)
	70%	All Other Non Rear-End Crashes
Box Span Signal - Upgrade from Diagonal Span	10%	All Applicable Crashes+
\Box Protected Left-Turn Signal Phase - Add	30%	Left-Turn
Signal Head Size - Increase to 12 "	10%	All Applicable Crashes +
Signal Optimization & Timing Updates	10%	All Applicable Crashes +
Removing Night Flash from Signal Timing	20%	Nighttime Flash mode Related Crashes

		%08	Rear-End Left-Turn
		20%	Head-On Left-Turn
Center Left-Tu	Center Lett-Lurn Lane - Construct	70%	Head-On, Angle, Other
		15%	Non Left-Turn Rear-End
		30%	Angle
Intersection In	Intersection Improvements (Realignment, Sight-Distance Improvements,	15%	Rear-End
Kadii Improvements, Etc.,	ments, etc.)	10%	Head-On, Sideswipe, Pedestrian, Bicycle, Left-Turn Related
		%59	Angle-Turn, Head-On Left-Turn
Offset Left-Tur	Offset Left-Turn Lane - Construct	20%	Rear-End Left-Turn
		%59	Angle-Turn
Offset Right-Tu	Offset Right-Turn Lane - Construct	20%	Other Applicable Crashes
		70%	Rear-End Right Turn
		%59	Rear-End Right-Turn
Kignt-Iurn Lane - Construct	ie - construct	20%	Applicable Rear-End Crashes, Sideswipe Same Direction
-		78%	Fatal and A-Injury Reduction
Koundabout		21%	Minor Crash Reduction
l ighting		,	See MDOT Interchange Warranted Lighting Guidance and overall
5111115			MDOT Lighting Guidance
Set mine the state of	General Intersection Enhancements (Non-Signalized Intersections)	cements (Nor	-Signalized Intersections)
All-Way Stop C	All-Way Stop Control - New Installation	%09	All Applicable Crashes
Ground Mount	Ground Mounted Flashing Beacons (Red)- Install **	30%	All Crashes On Install Approach
Ground Mount	Ground Mounted Flashing Beacons(Amber) - Install **	20%	All Crashes On Install Approach
Signing - Improve/Upgrade	ove/Upgrade	30%	Angle, Rear-End Crashes
Pavement Mar	Pavement Markings - Improve/Upgrade	30%	Angle, Rear-End Crashes
Reflective Shee	Reflective Sheeting on Sign Posts (IoIlipops)	15%	All Applicable Crashes

TwinCATS 2020-2023 Road Project Prioritization System

Project Name: Botham Que, Agency: City of St. Joseph

Proposed Year: 2023

Total Points: 35

Criteria	Points	
System Preservation	18 points max	
a. Most recent PASER rating		
3-4	10	10
5-6	8	
1-2	5	
b. Extension of Remaining Service Life (RSL) based on MDOT Geometric Guidelines		
Extends RSL by 15 years or more (4R project)	(8)	8
Extends RSL by 10-14 years (3R Project)	6	-
Extends RSL by 5-9 years (Preventative Maintenance)	4	
Extends RSL by 2-4 years (Preventative Maintenance)	2	
Safety	7 points max	
a. Expected Crash Reduction - Based on MDOT approved Crash Reduction Factors		-2
50% or greater	5	
40%-49.9%	4	
30% - 39.9%	3	
20% - 29.9%	2	
10% - 19.9%	1	1112
Less than 10%	(0)	0
b. Addressing High Crash Locations.		
Number of crashes is 20% higher than MPO median (4 or more)	2	
Number of crashes are within 20% of MPO median (2-3)	1	
Number of crashes is lower than 20% of the MPO median (0-1)	0	0
Non-motorized Transportation / Complete Streets	6 points max	
a. Follows the Complete Streets Policy	(4)	4
b. Pedestrian and bicycle elements of the project connect to existing bicycle and pedestrian facilities or those that can reasonably expect to be completed between 2019 and 2023.	2	Z.

Criteria	Points	
Regional Connectivity	10 points max	
a. Average daily traffic (ADT) based on most recent traffic count		
ADT is 10,000 or more	5	
ADT is 5,000 – 9,999	4	4
ADT is 2,000 – 4,999	3	,
ADT is less than 2,000	0	
b. Functional Classification of the Road		
Principal Arterial	3	
Minor Arterial	2	
Major Collector		(
Minor Collector	0	
c. Fixed route transit (TCATA Red or Blue line) uses the road	2	
Strategic Investment/ Project Planning	11 points max	
a. Project is identified in an Asset Management or Capital Improvement Plan	3	3
b. Project is identified as a priority in another planning document such as a master plan or parks and recreation plan	<u>a</u>	1
c. Project crosses jurisdictional boundaries (i.e. city to township) and is arranged in such a way to be bid as a single project.	1	
d. Project continues resurfacing, reconstruction, or preventative maintenance on a	2	
segment of roadway adjacent to a project completed during the 2017-2020 TIP cycle or through Rural Task Force funding.	55%	
through Rural Task Force funding.	4	
through Rural Task Force funding. e. Additional Local Match	092	2
through Rural Task Force funding. e. Additional Local Match Agency will proved 40% or more local match	4	2
through Rural Task Force funding. e. Additional Local Match Agency will proved 40% or more local match Agency will provide 30% to 39.9% local match	4	2
through Rural Task Force funding. e. Additional Local Match Agency will proved 40% or more local match Agency will provide 30% to 39.9% local match Note: An 18.15% local match is the minimum required	4 2	2

Twin Cities Area Transportation Study 2020-2023 Transportation Improvement Program (TIP) Federal Surface Transportation Block Grant Funds Project Application

Click "Enable Editing" to begin filling out this form. You may save this form at any time.

Section 1. Appli	cant Information		公司的总理的
Agency Name	City of St. Joseph		
Contact Name	Tim Zebell	Title	City Engineer
Phone Number	269-983-5541	Email	tzebell@sjcity.com

Section 2. Project Information							
Project Name/Road Name	Botham Avenue Recor	Botham Avenue Reconstruction Project					
Project Limits (e.g. Napier Ave. to Britain Ave.)	South State Street to Niles Avenue (M-63)						
Project Length (nearest hundredth of a mile)	0.13	Proposed Year of Funding	2023				
Primary Work Type	 ☑ Reconstruct ☐ Restore & Rehabilitate ☐ Roadside Facility ☐ Resurface ☐ Traffic Operations/Safety ☐ Other 						
Project Description (Please provide major work items including sidewalks, utility work, ADA upgrades etc.) Was this project awarded funding for the 2017-2020 TIP, but was either canceled or failed to be obligated	Full reconstruction of Botham Avenue and all underground utilities (water main, sanitary sewer and storm sewer). Non-motorized facilities: likely in the form of bike lanes will be added. Crosswalks, sidewalks, etc. will be designed to meet current ADA standards. Yes No If yes, please explain:						

Section 3. Project Funding	
Federal Funding Requested	\$ 250,600
Local Match (18.15% minimum)	\$ 107,500
Total	\$ 903,000 (construction), 993,500 (total project)
Local Match Percentage (local match/total cost)	30%
Does your agency have the financial capacity to Advance Construct (AC) all or part of this project if necessary? If yes, what is the maximum dollar amount your agency is willing to Advance Construct (AC)?	✓ Yes ☐ NoMaximum Dollar Amount you can AC?\$ 125,000

Section 4. System Pres	ervation				
2018 PASER rating (availibe excel file)	e as an	4			
Current state of drainage	iii yas 16.mv	Occasiona	d tolerable al drainage	· ·	ns ome maintenance required ng, excessive maintenance
Expected increase in Rema	ining	0-3 years	4-6	7-9 10-14	
Service life (RSL)				for Geometrics o	n Local Projects
What MDOT guidelines do	⊠ Reconstru	850 19			
		les	25-01	ion, and Rehabilit	tation (3R)
Market Control of the		□Preventativ	e Mainten	ance (PM)	
Section 5. Safety					
Please list the number and	severity of cr	rashes within t	he propos	ed project limits	over the last 5 yrs.
(2013-2017) (see Michiga	n Crash Facts	s for crash data	a)		
Total Crashes	1		Pedestria Crashes	an & Bicycle	0
Fatalities	0		Serious II	njuries	0
Using the attached Crash Fincluded in the project	Reduction Fac	tors sheet, ple	ase check	each safety coun	ter measure that will be
Describe any other safety improvements this project provide		king will be red ilities and impi			mmodate non-motorized
Section 6. Complete St	reets				
Does this project meet the approved in 2014?	TwinCATS Co	omplete Street	s Policy,	⊠ Yes □ No	
If yes, Please explain what	pedestrian	Bike lan	es or a non	-motorized path	will be added. The City
and/or bicycle improveme	nts are includ		it public in gn process		oncepts prior to beginning
If No, please state the reas project should be exempt TwinCATS Complete Street	from the	ellod			

Does this project connect to an existing pedestrian/bicycle facility or one that is]No
	ase provide a map of the connecting facilities
Section 7. Regional Connectivity	
What is the most current daily traffic count for the limit of this project?	s Less than 2000 2000-5000 Source: TAMC
National Functional Classification (NFC) for this roadway (Berrien County NFC Map)	Major Collector
Does one of <u>TCATA fixed route transit lines</u> use the road (Only indicate yes if it carries a current route, not a planned route).	I? ☐Yes ⊠No
Section 8. Strategic Planning & Investment	
Is the project identified in a Asset Management Plan, or Capital Improvement Plan	
Is the project identified in another planning documents such as a master plan or parks and recreation plan	Yes No If yes, please cite the plan and page number: Master Plan: Appendix G, Map 6 (attached)
Does the project cross jurisdictional boundaries?	☐ Yes ⊠ No
If yes, will it be bid as a single project?	Yes No NA
Will this project coordinate with other infrastructure projects (i.e. utility, water, sewer, etc.)	Yes No If yes, please indicate the project type and construction year: Sanitary sewer and water mains will be replaced concurrently with the project.
How many water main breaks have you had at this location in the past five years?	2
Is there a completed a utilities assessment that included televising the sewers in the project area?	∑ Yes ☐ No
Will this project require environmental mitigation, purchase of Right of Way (ROW), or railroad permits?	☐ Yes ☑ No ☐ Not Sure If yes, which items are required:
Does this project perform Resurfacing, Reconstruction, or Preventative Maintenance on a segment adjacent to a segment where a federally-funded project was done during the 2017-2020 TwinCATS TIP cycle or RTF cycle?	Yes No What segment was the PREVIOUS project done on?

Section 9. Existing and Proposed Roadway Design								
		Existi	ng				Proposed	
Number of Vehicle Lanes	Through Traffic Lanes	Center Turn Lar	ne	On Street Parking			On Street Parking	
	2	0		⊠ Yes □ No	2		0	⊠ Yes ⊠ No
Shoulder Surface Sidewalk/ path	Paved Unpaved Placement	Unpaved NA			P	Paved Unpaved		Width (ft.) NA Width (ft.)
information	One Side Both Sides Intermitted None		5 FT One Botl		One Side Both Sides Intermitte None		5 FT	
On road bicycle facilities	Bike Lane Sharrows Wide Shou	· ·	Other (specify) Sharrows None Wide Shoulders				one	
Utilities, Sewer and Water	∭Utilities Up ∭Sewer and						Vork	
Please describe any improvements being made as part of this project to crosswalks, signage or signals, or streetscape elements not discussed in project description			Bike Lanes or a non-motorized path will be added. Bike Lanes included on this TIP application for estimating purposes. Anticipate reducing or eliminating On Street parking (the degree to which will be determined in the conceptual design process after soliciting public input).					
of pedestrian or bicyclists to fixed route or Dial-A-Ride transit?		If you	Yes No es, how? nnect the propos th State Street a ich leads to the R spital.	nd	Botham Ave	nue east of N	iles Avenue	
Section 10. Estimated Project Schedule								
Activity			-674	Es	stimated Date	9		
Resolution of Support for ☐ Local Match Submitted to SWMPC				Ju	ıly 2021			
Project Application Submitted to MOT				August 2022				
Grade Inspection I		12 - 0	TOC				ugust 2022	
Grade Inspection I		ıled					ctober 2022	
Final Plan and Esti	LOVE GREENE MAN						ecember 202	
Right of Way (ROW) certified*						D	ecember 202	2

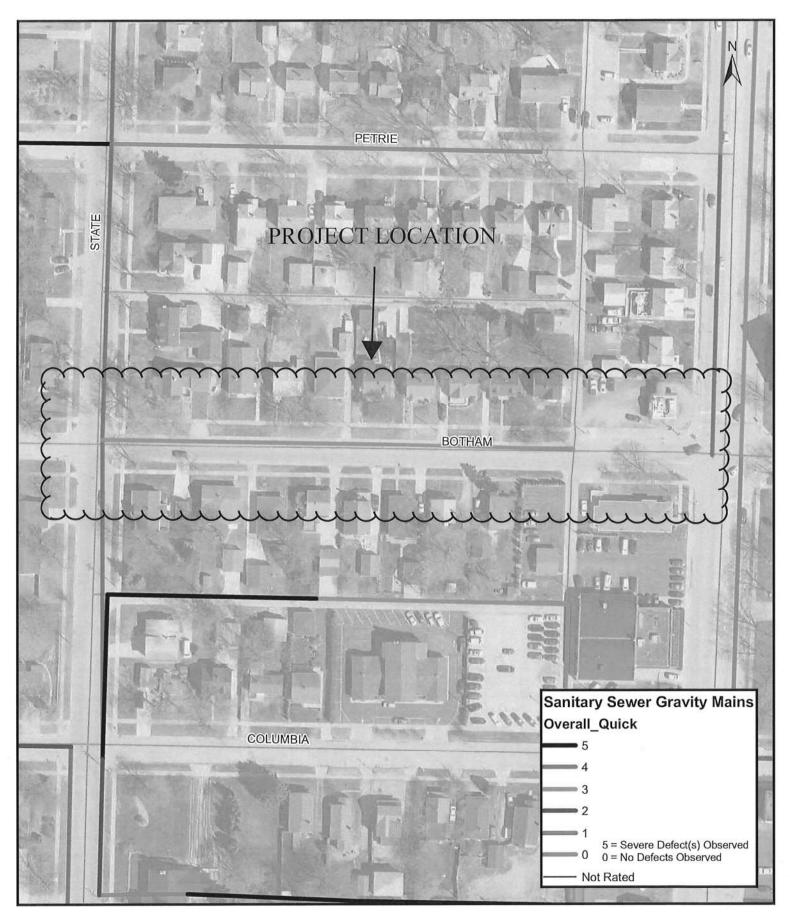
Rail Road Permits*	N/A	
Environmental Mitigation*	N/A	
Project Obligated	December 2022	
Project Letting	February 2023	
Construction Start ☐	June 2023	
Project Completion	August 2023	

^{*}Enter NA if these items will not be required.

	Proposed Improvement	% Reduction	Associated Crash Types
	SEGMEN	SEGMENT CRASH REDUCTION FACTORS	ON FACTORS
	Geome	Geometric Safety Enhancements	ements
		%08	Rear-End Left-Turn
-		20%	Head-On Left-Turn
	Center Left-Turn Lane - Construct	20%	Head-On, Angle, Sideswipe*
		15%	Non Left-Turn Rear-End, Other*
		%59	Rear-End Right-Turn
[30%	Angle
	Right-Turn Lane - Construct	15%	Rear-End
		10%	Other*
	Horizontal Curve Flattening	30%	Lane Departure***
	Shoulders - Widen to Standard Width (add 1' each side)	2%	Lane Departure***
	Shoulders - Widen to Standard Width (add 2' each side)	10%	Lane Departure***
	Shoulders - Widen to Standard Width (add 3' each side)	15%	Lane Departure***
	Shoulders - Widen to Standard Width (add 4' each side)	70%	Lane Departure***
	Shoulders - Widen to Standard Width (add 5' each side)	25%	Lane Departure***
	Shoulders - Widen to Standard Width (add 6' each side)	30%	Lane Departure***
	Shoulders - Widen to Standard Width (add 7' each side)	35%	Lane Departure***
	Vertical Curve Modification	70%	All Applicable Crash Types +++
	Gener	General Segment Enhancements	ements
	Access Management - Improve	15%	Drive-way Related Applicable Crashes
		44%	K and A injury Applicable Crashes
		46%	Single Vehicle Run off Road Left Crashes
	Centerline Rumble Strips - Install	43%	Sideswipe Same Crashes
		25%	Sideswipe Opposite Crashes
1		35%	Wet Crashes
	High Friction Surface Treatment - ///Std//	70%	All Other Applicable Crashes
\boxtimes	Recessed Durable Pavement Markings	2%	All Applicable Crashes
	Pedestrian Refuge - Install	20%	Pedestrian Crashes (Review NCHRP Report 841)
	Road Diet (4-3 Lane Conversion) - Install	20%	Suburban - All Applicable Crashes
	Shoulder Rumble Strips	20%	Run-Off the Road Right Crashes
	Signing/Delineation on Horizontal Curves (Including Recessed Durable Pavement Markings) - Install	50%	Lane Departure***
	Safety Edge Improvement	13%	All non-intersection crashes (CMF Clearing House ID 8658)

	Ro	Roadside Enhancements	ients
	Bicycle Lanes - Install per standards	20%	Bicycle Crashes
	Shared Use Path - install	33%	Bicycle and Pedestrian Related Crashes
	Fixed Objects From Clearzone (Trees, Culverts, Etc.) - Removal	75%	Fixed-Object Applicable Crashes
	Guardrail - Install	25%	Lane Departure ***Fatalities and "A" Injury Applicable Crashes
	Sidewalk for Pedestrians - Construct	85%	Pedestrian Crashes
	Slope Flattening	15%	Fixed-Object, Overturn Applicable Crashes
	Living Snow Fence	70%	Crashes due to wintry surface conditions
	Lighting - install on segment	70%	Dark Unlighted Crashes
	INTERSECT	NTERSECTION CRASH REDUCTION FACTORS	CTION FACTORS
	Pedestri	Pedestrian / Bicycle Enhancements	incements
	Bump Out / Curb Extension - Remove Parking / Install	30%	All Crashes
	Bicycle Lanes - Install per standards	25%	Bicycle Crashes
<u> </u>	Sidewalk for Pedestrians - Construct	85%	Pedestrian Crashes
		75%	Pedestrian Fatal - Dark Unlighted Crashes
	Intersection Lighting - install	40%	Pedestrian A-Injury - Dark Unlighted Crashes
		30%	All Applicable Dark Unlighted Crashes
	Rectangular Rapid Flashing Beacons	47%	Pedestrian Crashes
	Ped. Countdown Signals - Install new Pedestrian signal	30%	Pedestrian Crashes
	Ped. Countdown Signals - Upgrade from existing Pedestrian signal	722%	Pedestrian Crashes
	Signal Timi	Signal Timing / Hardware Enhancements	ihancements
		3%	Rear-End
	Multiple Low-Cost Improvements	12%	Right-Angle
		3%	Nighttime
	Install Reflectorized Backplates	15%	All Applicable Crashes
1 0	Add All-Red Clearance Interval - Add per ITE	70%	Head-On Left-Turn, Angle
	Yellow-Change Interval - Increase	10%	All Crash Types
		%59	Angle
	Box Span Signal - Upgrade from Stop Control	-25%	Rear-End (Increases Crashes)
		20%	All Other Non Rear-End Crashes
	Box Span Signal - Upgrade from Diagonal Span	10%	All Applicable Crashes+
	Protected Left-Turn Signal Phase - Add	30%	Left-Turn
<u></u>	Signal Head Size - Increase to 12 "	10%	All Applicable Crashes +
	Signal Optimization & Timing Updates	10%	All Applicable Crashes +
	Removing Night Flash from Signal Timing	20%	Nighttime Flash mode Related Crashes

	Intersection Geometric Enhancements	eometric En	nancements
		%08	Rear-End Left-Turn
		20%	Head-On Left-Turn
	Center Lett-Turn Lane - Construct	20%	Head-On, Angle, Other
		15%	Non Left-Turn Rear-End
		30%	Angle
\boxtimes	Intersection Improvements (Realignment, Sight-Distance Improvements,	15%	Rear-End
	Kadii improvements, Etc.,	10%	Head-On, Sideswipe, Pedestrian, Bicycle, Left-Turn Related
[%59	Angle-Turn, Head-On Left-Turn
	Offset Left-Turn Lane - Construct	70%	Rear-End Left-Turn
		%59	Angle-Turn
	Offset Right-Turn Lane - Construct	20%	Other Applicable Crashes
		20%	Rear-End Right Turn
1		%59	Rear-End Right-Turn
	Kignt-I urn Lane - Construct	70%	Applicable Rear-End Crashes, Sideswipe Same Direction
		78%	Fatal and A-Injury Reduction
	Koundabout	22%	Minor Crash Reduction
	Lighting	1	See MDOT Interchange Warranted Lighting Guidance and overall MDOT Lighting Guidance
	General Intersection Enhanc	cements (No	section Enhancements (Non-Signalized Intersections)
	All-Way Stop Control - New Installation	%09	All Applicable Crashes
	Ground Mounted Flashing Beacons (Red)- Install **	30%	All Crashes On Install Approach
	Ground Mounted Flashing Beacons(Amber) - Install **	70%	All Crashes On Install Approach
	Signing - Improve/Upgrade	30%	Angle, Rear-End Crashes
	Pavement Markings - Improve/Upgrade	30%	Angle, Rear-End Crashes
\boxtimes	Reflective Sheeting on Sign Posts (lollipops)	15%	All Applicable Crashes





City of St. Joseph 700 Broad Street St. Joseph, MI 49085

P: 269-983-5541 F: 269-985-0346 www.sjcity.com

Botham Avenue Sanitary Sewer Condition

1 inch = 106 feet

User Name: aaustin

Date: 11/28/2018

¥		

TwinCATS 2020-2023 Road Project Prioritization System

Lake Blvd Agency: City of St. Joseph.

Project Name: Lake Blvd

Proposed Year: 2023

Total Points: 33

Criteria	Points	
System Preservation	18 points max	
a. Most recent PASER rating		
3-4	10	, ii a
5-6	8	8
1-2	5	
b. Extension of Remaining Service Life (RSL) based on MDOT Geometric Guidelines		
Extends RSL by 15 years or more (4R project)	8	
Extends RSL by 10-14 years (3R Project)	6	
Extends RSL by 5-9 years (Preventative Maintenance)	4	4
Extends RSL by 2-4 years (Preventative Maintenance)	2	
Safety	7 points max	
a. Expected Crash Reduction - Based on MDOT approved Crash Reduction Factors		
50% or greater	5	
40%-49.9%	4	
30% - 39.9%	3	
20% - 29.9%	2	
10% - 19.9%	(T)	1
Less than 10%	0	
b. Addressing High Crash Locations.		
Number of crashes is 20% higher than MPO median (4 or more)	2	2
Number of crashes are within 20% of MPO median (2-3)	1	
Number of crashes is lower than 20% of the MPO median (0-1)	0	1111
Non-motorized Transportation / Complete Streets	6 points max	
a. Follows the Complete Streets Policy	(4)	4
b. Pedestrian and bicycle elements of the project connect to existing bicycle and pedestrian facilities or those that can reasonably expect to be completed between 2019 and 2023.	2	

Criteria	Points	
Regional Connectivity	10 points	
a. Average daily traffic (ADT) based on most recent traffic count		
ADT is 10,000 or more	5	
ADT is 5,000 – 9,999	4	4
ADT is 2,000 – 4,999	3	*
ADT is less than 2,000	0	
b. Functional Classification of the Road		
Principal Arterial	3	
Minor Arterial	(2)	2
Major Collector	1	
Minor Collector	0	
c. Fixed route transit (TCATA Red or Blue line) uses the road	2	2
Strategic Investment/ Project Planning	11 points max	
a. Project is identified in an Asset Management or Capital Improvement Plan	3	3
b. Project is identified as a priority in another planning document such as a master plan or parks and recreation plan	<u>(1)</u>	1
c. Project crosses jurisdictional boundaries (i.e. city to township) and is arranged in such a way to be bid as a single project.	1	
d. Project continues resurfacing, reconstruction, or preventative maintenance on a segment of roadway adjacent to a project completed during the 2017-2020 TIP cycle or through Rural Task Force funding.	2	
e. Additional Local Match		
Agency will proved 40% or more local match	4	
Agency will provide 30% to 39.9% local match	2	Z
Note: An 18.15% local match is the minimum required		
Project Readiness (no points)	Yes	
Coordination with sewer or other infrastructure (no points)	Yes	
Total Score (out of 52)	33	

Twin Cities Area Transportation Study 2020-2023 Transportation Improvement Program (TIP) Federal Surface Transportation Block Grant Funds Project Application

Click "Enable Editing" to begin filling out this form. You may save this form at any time.

Section 1. Appli	cant Information		
Agency Name	City of St. Joseph		
Contact Name	Tim Zebell	Title	City Engineer
Phone Number	269-983-5541	Email	tzebell@sjcity.com

Section 2. Project Information						
Project Name/Road Name	Lake Boulevard Resurf	acing Project				
Project Limits (e.g. Napier Ave. to Britain Ave.)	Ship Street to Sutherland Avenue					
Project Length (nearest hundredth of a mile)	0.65 Proposed Year of Funding 2023					
Primary Work Type	☐ Reconstruct ☐ Restore & Rehabilitate ☐ Roadside Facility ☐ Resurface ☐ Traffic Operations/Safety ☐ Other					
Project Description	Mill & resurface Lake B	Blvd from Ship St to Sutherlar	nd Ave. Includes			
(Please provide major work items including sidewalks, utility work, ADA upgrades etc.)	minor utility improven needed to meet curre	nents, sidewalk and ADA ram nt ADA requirements.	p replacement as			
Was this project awarded	Yes No If yes, pl	ease explain:				
funding for the 2017-2020 TIP,						
but was either canceled or failed						
to be obligated						

Section 3. Project Funding	
Federal Funding Requested	\$ 225,000
Local Match (18.15% minimum)	\$ 96,500
Total	\$ 484,000 (construction), 590,000 (total project)
Local Match Percentage (local match/total cost)	30%
Does your agency have the financial capacity to Advance Construct (AC) all or part of this project if necessary? If yes, what is the maximum dollar amount your agency is willing to Advance Construct (AC)?	☐ Yes ☒ No Maximum Dollar Amount you can AC? \$

Section 4. System Pres	ervation						
2018 PASER rating (availibe excel file)	e as an	5 - 0	6 (depending upon segment)				
Current state of drainage			Adequate Minor and tolerable drainage problems Occasional drainage problems with some maintenance required Inadequate drainage, frequent flooding, excessive maintenance required				
Expected increase in Rema	aining		0-3 years	4-6		-14 15-20 s on Local Proje	erts
What MDOT guidelines do project conform to?	es the	:he ☐ Reco ⊠ Resu		☐ Reconstruction (4R) ☑ Resurfacing, restoration, and Rehabilitation (3R) ☐Preventative Maintenance (PM)			
Section 5. Safety							
Please list the number and (2013-2017) (see Michig					ed project lim	ts over the last	5 yrs.
Total Crashes	13				an & Bicycle	10	
Fatalities	0			Serious I	njuries	0	
		Replace	/improve	pavement	and working by	nage and analy	
provide							
Section 6. Complete St	reets						
Does this project meet the approved in 2014?	TwinCATS	Comple	ete Street	s Policy,	⊠ Yes □	No	
If yes, Please explain what and/or bicycle improveme			The second secon	n portion on n-motoriz	and the second second second second	pike lanes, the	north section
If No, please state the reas project should be exempt TwinCATS Complete Stree	from the	S E					

Does this project connect to an existing pedestrian/bicycle facility or one that is ☐Yes ☐I]No		
planned to be completed from 2020-2023? If	se provide a map of the connecting facilities			
Section 7. Regional Connectivity				
What is the most current daily traffic count for	the limits	Less than 2000 2000-5000		
of this project?		5000-10,000 Above 10,000		
		Year of count: 2013 Source: TAMC		
National Functional Classification (NFC) for this (Berrien County NFC Map)	Minor Arterial			
Does one of TCATA fixed route transit lines use	the road?			
(Only indicate yes if it carries a current route, no	ot a	⊠Yes □No		
planned route).				
Section 8. Strategic Planning & Investme	nt			
Is the project identified in a Asset Management	t Plan,	∑Yes No		
or Capital Improvement Plan		f yes, please cite the plan and page number:		
	1	Asset Management Plan: Appendix G, Page 6		
Is the project identified in another planning doc	cuments [∑Yes		
such as a master plan or parks and recreation p	lan	f yes, please cite the plan and page number:		
	1	Master Plan: Appendix G, Map 6		
Does the project cross jurisdictional boundaries	5?	Yes No		
If yes, will it be bid as a single project?		Yes No ⊠ NA		
Will this project coordinate with other infrastru	icture [Yes No		
projects (i.e. utility, water, sewer, etc.)		f yes, please indicate the project type and		
	0	construction year: Almost all of the underground		
	ı	utilities in this area were replaced as part of 2006		
	L	ake Blvd Reconstruction Project.		
How many water main breaks have you had at t	this C)		
location in the past five years?	AMMER	<u>r na nama a a a a a a a a a a a a a a a a</u>		
Is there a completed a utilities assessment that		Yes 🔀 No		
included televising the sewers in the project are	-			
Will this project require environmental mitigation	AND A STATE OF THE PARTY OF THE	Yes No Not Sure		
purchase of Right of Way (ROW), or railroad per	rmits?	f yes, which items are required:		
AND THE PROPERTY OF THE PARTY O				
Does this project perform Resurfacing, Reconstr	THE PERSON NAMED IN	Yes No		
or Preventative Maintenance on a segment adja		What segment was the PREVIOUS project done		
a segment where a federally-funded project wa	ACCUPATION OF THE PARTY OF THE	on?		
during the 2017-2020 TwinCATS TIP cycle or RTI	F cycle?			

Number of	Through	Center	On Street	Through	Center	On Street
Vehicle Lanes	Traffic Lanes	Turn Lane	Parking	Traffic Lanes	Turn Lane	Parking
90	s-anorizi on					
	2			2		
Shoulder	Paved	l v	Vidth (ft.)	Paved		Width (ft.)
Surface	Unpaved	200	Α	Unpaved		NA
Sidewalk/ path	Placement	V	Vidth (ft.)	Placement		Width (ft.)
information	One Side	5	FT	One Side		5 FT
	Both Sides	8		Both Sides	5	
	Intermitte	nt		Intermitte	nt	
	None			None		
On road bicycle	Bike Lane	Oth	er (specify)	Bike Lane	Othe	er (specify)
facilities	Sharrows			Sharrows		8
manimum 90	Wide Shou		None	Wide Shou		lone
Utilities, Sewer		grades Nee		Replaced		
and Water	Sewer and	water work	needed	Relocating		
					Water Line	
Please describe a			ignage and pavem			d/improved
made as part of th		(1	recessed markings	were applicable	:).	
crosswalks, signag	0.70					
streetscape eleme		eam				
project descriptio	n	TATOM !				
Does this project	enhance conne	ctivity	Yes No			4
of pedestrian or b			yes, how?			
or Dial-A-Ride tra	THE STATE OF THE PARTY OF THE P	A CONTRACTOR OF THE PARTY OF TH	portion of this pr	oject is located o	on the Red Ro	oute.
Section 10. Esti	mated Projec	t Schedule	9			
Activity				E	stimated Dat	e
Resolution of Sup	port for□ Loca	l Match Sub	mitted to SWMPC	Jι	ıly 2021	
Project Applicatio					ugust 2022	
Grade Inspection			DT	- A33.0	ugust 2022	
Grade Inspection	Meeting Sched	uled		17.60	ctober 2022	
Final Plan and Est	imate to MDOT				ecember 202	
Right of Way (RO	W) certified*				ecember 202	22
Rail Road Permits	*				/A	
Environmental M					/A	
Project Obligated				D	ecember 202	22
Project Letting				F	ebruary 2023	3

Construction Start□

Project Completion

Section 9. Existing and Proposed Roadway Design

Existing

April 2023 May 2023

Proposed

*Enter l	NA if these iter	ms will not be re	auired.		- 8	
Litter	VA II tirese itei	ms will not be re	quireu.			
		6				
			W 027 204 W	12 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		9355 0355 (\$50)

Proposed Improvement	% Reduction	Associated Crash Types
SEGMENT	SEGMENT CRASH REDUCTION FACTORS	ON FACTORS
Geometri	Geometric Safety Enhancements	ements
	%08	Rear-End Left-Turn
	20%	Head-On Left-Turn
Center Left-Turn Lane - Construct	20%	Head-On, Angle, Sideswipe*
	15%	Non Left-Turn Rear-End, Other*
	%59	Rear-End Right-Turn
	30%	Angle
Right-Turn Lane - Construct	15%	Rear-End
	10%	Other*
Horizontal Curve Flattening	30%	Lane Departure***
Shoulders - Widen to Standard Width (add 1' each side)	2%	Lane Departure***
Shoulders - Widen to Standard Width (add 2' each side)	10%	Lane Departure***
Shoulders - Widen to Standard Width (add 3' each side)	15%	Lane Departure***
Shoulders - Widen to Standard Width (add 4' each side)	20%	Lane Departure***
Shoulders - Widen to Standard Width (add 5' each side)	25%	Lane Departure***
Shoulders - Widen to Standard Width (add 6' each side)	30%	Lane Departure***
Shoulders - Widen to Standard Width (add 7' each side)	35%	Lane Departure***
Vertical Curve Modification	20%	All Applicable Crash Types +++
General	General Segment Enhancements	ements
Access Management - Improve	15%	Drive-way Related Applicable Crashes
	44%	K and A injury Applicable Crashes
	46%	Single Vehicle Run off Road Left Crashes
Centerline Rumble Strips - ///stall	43%	Sideswipe Same Crashes
	25%	Sideswipe Opposite Crashes
	35%	Wet Crashes
High Friction Surface Treatment - Install	70%	All Other Applicable Crashes
Recessed Durable Pavement Markings	2%	All Applicable Crashes
Pedestrian Refuge - Install	20%	Pedestrian Crashes (Review NCHRP Report 841)
Road Diet (4-3 Lane Conversion) - Install	20%	Suburban - All Applicable Crashes
□ Shoulder Rumble Strips	20%	Run-Off the Road Right Crashes
Signing/Delineation on Horizontal Curves (Including Recessed Durable Pavement Markings) - Install	20%	Lane Departure***
Cafety Edge marayement	13%	All non-intersection crashes (CMF Clearing House ID 8658)

Bicycle Lanes - Install per standards	20%	Bicycle Crashes
Shared Use Path - Install	33%	Bicycle and Pedestrian Related Crashes
Fixed Objects From Clearzone (Trees, Culverts, Etc.) - Removal	75%	Fixed-Object Applicable Crashes
Guardrail - Install	25%	Lane Departure ***Fatalities and "A" Injury Applicable Crashes
Sidewalk for Pedestrians - Construct	85%	Pedestrian Crashes
Slope Flattening	15%	Fixed-Object, Overturn Applicable Crashes
Living Snow Fence	20%	Crashes due to wintry surface conditions
Lighting - install on segment	20%	Dark Unlighted Crashes
INTERSECTI	NTERSECTION CRASH REDUCTION FACTORS	CTION FACTORS
Pedestri	Pedestrian / Bicycle Enhancements	ncements
Bump Out / Curb Extension - Remove Parking / Install	30%	All Crashes
Bicycle Lanes - Install per standards	25%	Bicycle Crashes
Sidewalk for Pedestrians - Construct	85%	Pedestrian Crashes
	75%	Pedestrian Fatal - Dark Unlighted Crashes
Intersection Lighting - install	40%	Pedestrian A-Injury - Dark Unlighted Crashes
	30%	All Applicable Dark Unlighted Crashes
Rectangular Rapid Flashing Beacons	47%	Pedestrian Crashes
Ped. Countdown Signals - Install new Pedestrian signal	30%	Pedestrian Crashes
Ped. Countdown Signals - Upgrade from existing Pedestrian signal	722%	Pedestrian Crashes
Signal Timir	Signal Timing / Hardware Enhancements	hancements
	3%	Rear-End
Multiple Low-Cost Improvements	12%	Right-Angle
	3%	Nighttime
Install Reflectorized Backplates	15%	All Applicable Crashes
Add All-Red Clearance Interval - Add per ITE	20%	Head-On Left-Turn, Angle
Yellow-Change Interval - Increase	10%	All Crash Types
	%59	Angle
Box Span Signal - Upgrade from Stop Control	-25%	Rear-End (Increases Crashes)
	20%	All Other Non Rear-End Crashes
Box Span Signal - Upgrade from Diagonal Span	10%	All Applicable Crashes+
Protected Left-Turn Signal Phase - Add	30%	Left-Turn
Signal Head Size - Increase to 12 "	10%	All Applicable Crashes +
Signal Optimization & Timing Updates	10%	All Applicable Crashes +
Removing Night Flash from Signal Timing	20%	Nighttime Flach mode Related Craches

			Illersection decine the managements
		80%	Rear-End Left-Turn
		20%	Head-On Left-Turn
	Center Left-Turn Lane - Construct	20%	Head-On, Angle, Other
		15%	Non Left-Turn Rear-End
	EDWOOD CO.	30%	Angle
	Intersection Improvements (Realignment, Sight-Distance Improvements,	15%	Rear-End
7	Radii Improvements, Etc.)	10%	Head-On, Sideswipe, Pedestrian, Bicycle, Left-Turn Related
		%59	Angle-Turn, Head-On Left-Turn
	Offset Left-Turn Lane - Construct	20%	Rear-End Left-Turn
		%59	Angle-Turn
	Offset Right-Turn Lane - Construct	20%	Other Applicable Crashes
		20%	Rear-End Right Turn
		%59	Rear-End Right-Turn
V20000	Right-Turn Lane - Construct	20%	Applicable Rear-End Crashes, Sideswipe Same Direction
	W. CROWN	78%	Fatal and A-Injury Reduction
	Roundabout	21%	Minor Crash Reduction
			See MDOT Interchange Warranted Lighting Guidance and overall
	Lighting		MDOT Lighting Guidance
	General Intersection Enhancements (Non-Signalized Intersections)	cements (Nor	-Signalized Intersections)
	All-Way Stop Control - New Installation	%09	All Applicable Crashes
	Ground Mounted Flashing Beacons (Red)- Install **	30%	All Crashes On Install Approach
	Ground Mounted Flashing Beacons(Amber) - Install **	20%	All Crashes On Install Approach
×	Signing - Improve/Upgrade	30%	Angle, Rear-End Crashes
	Pavement Markings - Improve/Upgrade	30%	Angle, Rear-End Crashes
D	Deflecting Chaoting on Cirm Docte (Jollingne)	15%	All Applicable Crashes