

2024 – 2026 APPLICATIONS

NILES-BUCHANAN-CASS AREA TRANSPORTATION STUDY (NATS) SURFACE TRANSPORTATION BLOCK GRANT FUNDING (STBG)

A federal transportation program administered by the Southwest Michigan Planning Commission in partnership with the NATS member communities and the Michigan Department of Transportation



NATS 2024-2026 Road Project Scoring System

Project Name: Cassopolis Rd.	Proposed Year: 2024
Agency: Cass County Road Commission	Total Points: 12

Criteria	Points	
System Preservation	8 points max	
Most recent PASER rating		
2-3 and Previously applied for	5	
2-3 and not previously applied for	3	
4	3	3
5-6	1	
MDOT Geometric Guidelines		
4 R	3	
3R	2	2
PM	1	
Safety	5 points max	
a. Expected Crash Reduction - Based on MDOT approved Crash Reduction Factors		
Safety counter Measures	Up to 3	0
Addressing High Crash Locations.		
Number of crashes is 20% higher than MPO median	2	
Number of crashes are within 20% of MPO median	1	
Number of crashes is lower than 20% of the MPO median	0	0
Non-motorized Transportation / Complete Streets	5 points max	
Pedestrian and Cycling Facilities		0
Add facilities where none currently exist	3	
Improves upon existing facilities	2	
Currently has facilities but there are no improvements	1	
Non-Motorized Connectivity	0	0
Any added ped/bike facilities connect to other ped/bike facilities	2	

Criteria	Points	
Regional Connectivity	9 points max	
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	
Functional Classification of the Road		
Principal Arterial	3	
Minor Arterial	2	2
Major Collector	1	
Minor Collector	0	
Strategic Investment/ Project Planning	11 points max	
Identified In an Asset Management Plan	1	
There is an asset management plan covering other utilities along the limits of the project	1	
Agency staff have asset management training	1	1
Project identified in other planning document	1	
Project connects to a road with a PASER of 7 or higher	1	1
Additional Local Match		
Agency will proved 40%+ Local Match	2	
Agency will proved 24-40% Local Match	1	
Note: An 18.15% local match is the minimum required		
Project Readiness (no points)	Yes	Y
Coordination with sewer or other infrastructure (no points)	Yes	N
Total Score (out of 33)	12	

Niles-Buchanan-Cass Area Transportation Study 2024-2026 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.

If you need assistance, please contact Brandon Kovnat, SWMPC Associate Planner.

Email kovnatb@swmpc.org or call (269) 925-1137 x 1524

Section 1. Applicant Information

Agency Name	Cass County Road Commission		
Contact Name	Joe Bellina	Title	Head Engineer
Phone Number	269-445-8611	Email	jbellina@casscoroad.com
Engineer/Consultant (If applicable)	Nick Mannon		
Phone Number	269-445-8611	Email	nmannon@casscoroad.com

Section 2. Project Information

Project Name/Road Name	Cassopolis Road		
Project Limits (e.g. Napier Ave. to Britain Ave.)	Old 205 to US12		
Project Length (nearest hundredth of a mile)	0.80	Proposed Year of Funding	2024
Primary Work Type	<input type="checkbox"/> Reconstruct <input type="checkbox"/> Restore & Rehabilitate <input type="checkbox"/> Roadside Facility <input checked="" type="checkbox"/> Resurface <input type="checkbox"/> Traffic Operations/Safety <input type="checkbox"/> Other		
Project Description (Please provide major work items including sidewalks, utility work, ADA upgrades etc.)	2.5" Cold Milling HMA Surface replace with 1.5" HMA,36A base course, 1" HMA,36A top course, Shoulder Class II and Pavement Marking		
Was this project applied for during the 2020-2023 Call for Projects but not selected	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Was this project awarded funding for the 2020-2023 TIP, but was either canceled or failed to be obligated	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, please explain:		
If you are submitting multiple applications, please rank your applications by priority.	Project Rank: 1		

Section 3. Project Funding

Estimated STBG Participating Cost of the Project	\$ 180800.86
Minimum local match required - 18.15% of the Participating cost	\$ 32815.36
Can your agency supply additional match beyond the minimum required 18.15%. If so how much?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Amount \$
Are there elements of the project that could be eligible for other federal fund sources such as CMAQ, TAP, Bridge etc.	Source: Amount: \$ Explanation:
Will the project have nonparticipating work, such as water, or sewer work?	amount: \$ Explain:
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)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Maximum Dollar Amount you can AC? \$

Section 4. Regional Connectivity

What is the most current daily traffic count for the limits of this project?	AADT: 4453 Year of count: 2010 Source: CCRC
National Functional Classification (NFC) for this roadway	Minor Arterial

Section 5. System Preservation

2021 PASER rating (Available 8-10-21)	4,3
Current state of drainage	<input checked="" type="checkbox"/> Adequate <input type="checkbox"/> Minor and tolerable drainage problems <input type="checkbox"/> Occasional drainage problems with some maintenance required <input type="checkbox"/> Inadequate, frequent flooding, excessive maintenance required
Expected increase in Remaining Service life (RSL)	12 Use MDOT's Guidelines for Geometrics on Local Projects
What MDOT guidelines does the project conform to?	<input type="checkbox"/> Reconstruction (4R) <input checked="" type="checkbox"/> Resurfacing, restoration, and Rehabilitation (3R) <input type="checkbox"/> Preventative Maintenance (PM)

Section 6. Safety

Please list the number and severity of crashes within the proposed project limits over the last 5 yrs. (2016-2020) (see [Michigan Crash Facts](#) for crash data)

Total Crashes	16	Pedestrian & Bicycle Crashes	0
Fatalities	0	Serious Injuries	0
Using the attached Crash Reduction Factors sheet, please check each safety counter measure that will be included in the project			
Describe any other safety improvements this project will provide			

Section 7. Pedestrian and Bicycle Improvements

Please explain what pedestrian and/or bicycle facilities if any currently exist	None
Please explain any additional pedestrian and/or bicycle improvements included in the project.	None
Does this project connect to an existing pedestrian/bicycle facility or one that is planned to be completed before 2027	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, please provide a map of the connecting facilities

Section 8. Strategic Planning & Investment

Is the project identified in an approved Asset Management Plan, or Capital Improvement Plan	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, please attach the plan.
Is the project identified in another approved planning document such as a master plan or parks and recreation plan	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, please cite the plan and page number:
Is there an approved asset management plan covering the utilities along the project's limits	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No List utilities covered by the asset management plan:
Will this project coordinate with other infrastructure projects (i.e. utility, water, sewer, etc?)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, please indicate the project type and construction year:
How many water main breaks have you had at this location in the past five years?	None
Is there a completed utilities assessment that includes televising the sewers in the project area?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Do you have a maintenance strategy or Asset Management Plan covering non-motorized facilities?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Has staff received Asset Management training through the Transportation Asset Management Council https://www.michigan.gov/tamc/0,7308,7-356-82158--,00.html	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Has your agency completed the Asset Management Readiness Scale from the Michigan Infrastructure Council (MIC)? https://fcm.ca/en/resources/mamp/tool-asset-management-readiness-scale	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No https://fcm.ca/en/resources/mamp/tool-asset-management-readiness-scale
Does the project cross-jurisdictional boundaries?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
If yes, will it be bid as a single project?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA
Will this project require environmental mitigation, purchase of Right of Way (ROW), or railroad permits?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Sure If yes, which items are required:
If any of the above items are required please explain how they will be addressed	
Does this project perform Resurfacing, Reconstruction, or Preventative Maintenance on a segment adjacent to a segment that currently has a PASER of 7 or higher	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No List the adjacent segments that qualify: US12-Starbrick

Section 9. Existing and Proposed Roadway Design

	Existing			Proposed		
Include the number of vehicle lanes	Through Traffic Lanes	Center Turn Lane	On Street Parking	Through Traffic Lanes	Center Turn Lane	On Street Parking
	2	0	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	2	0	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Shoulder Surface	<input checked="" type="checkbox"/> Paved <input type="checkbox"/> Unpaved		Width (ft.) 3	<input checked="" type="checkbox"/> Paved <input type="checkbox"/> Unpaved		Width (ft.) 3
Sidewalk/ path information	Placement <input type="checkbox"/> One Side <input type="checkbox"/> Both Sides <input type="checkbox"/> Intermittent <input checked="" type="checkbox"/> None		Width (ft.)	Placement <input type="checkbox"/> One Side <input type="checkbox"/> Both Sides <input type="checkbox"/> Intermittent <input checked="" type="checkbox"/> None		Width (ft.)
On road bicycle facilities	<input type="checkbox"/> Bike Lane <input type="checkbox"/> Other (specify) <input type="checkbox"/> Sharrows <input type="checkbox"/> Wide Shoulders <input checked="" type="checkbox"/> None			<input type="checkbox"/> Bike Lane <input type="checkbox"/> Other (specify) <input type="checkbox"/> Sharrows <input type="checkbox"/> Wide Shoulders <input checked="" type="checkbox"/> None		
Utilities, Sewer and Water	<input type="checkbox"/> Utilities Upgrades Needed <input type="checkbox"/> Sewer and water work needed			<input type="checkbox"/> Replace Utilities <input type="checkbox"/> Relocate Utilities <input type="checkbox"/> Sewer and Water Line Work		
Please describe any improvements being made as part of this project to crosswalks, signage or signals, or streetscape elements not discussed in project description						
Does this project enhance connectivity of pedestrian or bicyclists to fixed route or Dial-A-Ride transit?			<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, how?			

Section 10. Estimated Project Schedule

Activity	Estimated Date
Resolution of Support for <input type="checkbox"/> Local Match Submitted to SWMPC	September 2023
Project Application Submitted to MOT	September 2023
Grade Inspection Package Submitted to MDOT	October 2023
Grade Inspection Meeting Scheduled	November 2023
Final Plan and Estimate to MDOT	December 2023
Right of Way (ROW) certified*	NA
Rail Road Permits*	NA
Environmental Mitigation*	NA
Project Obligated	January 2024
Project Letting	March 2024
Construction Start	May 2024
Project Completion	09/30/2024

*Enter NA if these items will not be required.

	Proposed Improvement	% Reduction	Associated Crash Types
	SEGMENT CRASH REDUCTION FACTORS		
	Geometric Safety Enhancements		
<input type="checkbox"/>	Center Left-Turn Lane - Construct	80%	Rear-End Left-Turn
		50%	Head-On Left-Turn
		20%	Head-On, Angle, Sideswipe*
		15%	Non Left-Turn Rear-End, Other*
<input type="checkbox"/>	Right-Turn Lane - Construct	65%	Rear-End Right-Turn
		30%	Angle
		15%	Rear-End
		10%	Other*
<input type="checkbox"/>	Horizontal Curve Flattening	30%	Lane Departure***
<input type="checkbox"/>	Shoulders - Widen to Standard Width (add 1' each side)	5%	Lane Departure***
<input type="checkbox"/>	Shoulders - Widen to Standard Width (add 2' each side)	10%	Lane Departure***
<input type="checkbox"/>	Shoulders - Widen to Standard Width (add 3' each side)	15%	Lane Departure***
<input type="checkbox"/>	Shoulders - Widen to Standard Width (add 4' each side)	20%	Lane Departure***
<input type="checkbox"/>	Shoulders - Widen to Standard Width (add 5' each side)	25%	Lane Departure***
<input type="checkbox"/>	Shoulders - Widen to Standard Width (add 6' each side)	30%	Lane Departure***
<input type="checkbox"/>			
<input type="checkbox"/>	Shoulders - Widen to Standard Width (add 7' each side)	35%	Lane Departure***
<input type="checkbox"/>	Vertical Curve Modification	20%	All Applicable Crash Types +++
	General Segment Enhancements		
<input type="checkbox"/>	Access Management - Improve	15%	Drive-way Related Applicable Crashes
<input type="checkbox"/>	Centerline Rumble Strips - Install	44%	K and A injury Applicable Crashes
		46%	Single Vehicle Run off Road Left Crashes
		43%	Sideswipe Same Crashes
		55%	Sideswipe Opposite Crashes
<input type="checkbox"/>	High Friction Surface Treatment - Install	35%	Wet Crashes
		20%	All Other Applicable Crashes
<input type="checkbox"/>	Recessed Durable Pavement Markings	5%	All Applicable Crashes
<input type="checkbox"/>	Pedestrian Refuge - Install	50%	Pedestrian Crashes (Review NCHRP Report 841)
<input type="checkbox"/>	Road Diet (4-3 Lane Conversion) - Install	50%	Suburban - All Applicable Crashes
<input type="checkbox"/>	Shoulder Rumble Strips	20%	Run-Off the Road Right Crashes
<input type="checkbox"/>	Signing/Delineation on Horizontal Curves (Including Recessed Durable Pavement Markings) - Install	20%	Lane Departure***
<input type="checkbox"/>	Safety Edge Improvement	13%	All non-intersection crashes (CMF Clearing House ID 8658)

Roadside Enhancements			
<input type="checkbox"/>	Bicycle Lanes - Install per standards	50%	Bicycle Crashes
<input type="checkbox"/>	Shared Use Path - <i>Install</i>	33%	Bicycle and Pedestrian Related Crashes
<input type="checkbox"/>	Fixed Objects From Clear zone (Trees, Culverts, Etc.) - <i>Removal</i>	75%	Fixed-Object Applicable Crashes
<input type="checkbox"/>	Guardrail - <i>Install</i>	55%	Lane Departure ***Fatalities and "A" Injury Applicable Crashes
<input type="checkbox"/>	Sidewalk for Pedestrians - <i>Construct</i>	85%	Pedestrian Crashes
<input type="checkbox"/>	Slope Flattening	15%	Fixed-Object, Overturn Applicable Crashes
<input type="checkbox"/>	Living Snow Fence	20%	Crashes due to wintry surface conditions
<input type="checkbox"/>	Lighting - <i>install on segment</i>	20%	Dark Unlighted Crashes
INTERSECTION CRASH REDUCTION FACTORS			
Pedestrian / Bicycle Enhancements			
<input type="checkbox"/>	Bump Out / Curb Extension - <i>Remove Parking / Install</i>	30%	All Crashes
<input type="checkbox"/>	Bicycle Lanes - Install per standards	25%	Bicycle Crashes
<input type="checkbox"/>	Sidewalk for Pedestrians - <i>Construct</i>	85%	Pedestrian Crashes
<input type="checkbox"/>	Intersection Lighting - <i>install</i>	75%	Pedestrian Fatal - Dark Unlighted Crashes
		40%	Pedestrian A-Injury - Dark Unlighted Crashes
		30%	All Applicable Dark Unlighted Crashes
<input type="checkbox"/>	Rectangular Rapid Flashing Beacons	47%	Pedestrian Crashes
<input type="checkbox"/>	Ped. Countdown Signals - <i>Install new Pedestrian signal</i>	30%	Pedestrian Crashes
<input type="checkbox"/>	Ped. Countdown Signals - <i>Upgrade from existing Pedestrian signal</i>	25%	Pedestrian Crashes
Signal Timing / Hardware Enhancements			
<input type="checkbox"/>	Multiple Low-Cost Improvements	3%	Rear-End
		12%	Right-Angle
		3%	Nighttime
<input type="checkbox"/>	Install Reflectorized Backplates	15%	All Applicable Crashes
<input type="checkbox"/>	Add All-Red Clearance Interval - <i>Add per ITE</i>	20%	Head-On Left-Turn, Angle
<input type="checkbox"/>	Yellow-Change Interval - <i>Increase</i>	10%	All Crash Types
<input type="checkbox"/>	Box Span Signal - <i>Upgrade from Stop Control</i>	65%	Angle
		-25%	Rear-End (Increases Crashes)
		20%	All Other Non Rear-End Crashes
<input type="checkbox"/>	Box Span Signal - <i>Upgrade from Diagonal Span</i>	10%	All Applicable Crashes+
<input type="checkbox"/>	Protected Left-Turn Signal Phase - <i>Add</i>	30%	Left-Turn
<input type="checkbox"/>	Signal Head Size - <i>Increase to 12 "</i>	10%	All Applicable Crashes +
<input type="checkbox"/>	Signal Optimization & Timing Updates	10%	All Applicable Crashes +
<input type="checkbox"/>	Removing Night Flash from Signal Timing	50%	Nighttime Flash mode Related Crashes

Intersection Geometric Enhancements			
<input type="checkbox"/>	Center Left-Turn Lane - Construct	80%	Rear-End Left-Turn
		50%	Head-On Left-Turn
		20%	Head-On, Angle, Other
		15%	Non Left-Turn Rear-End
<input type="checkbox"/>	Intersection Improvements (Realignment, Sight-Distance Improvements, Radii Improvements, Etc.)	30%	Angle
		15%	Rear-End
		10%	Head-On, Sideswipe, Pedestrian, Bicycle, Left-Turn Related
<input type="checkbox"/>	Offset Left-Turn Lane - Construct	65%	Angle-Turn, Head-On Left-Turn
		20%	Rear-End Left-Turn
<input type="checkbox"/>	Offset Right-Turn Lane - Construct	65%	Angle-Turn
		50%	Other Applicable Crashes
		20%	Rear-End Right Turn
<input type="checkbox"/>	Right-Turn Lane - Construct	65%	Rear-End Right-Turn
		20%	Applicable Rear-End Crashes, Sideswipe Same Direction
<input type="checkbox"/>	Roundabout	78%	Fatal and A-Injury Reduction
		57%	Minor Crash Reduction
<input type="checkbox"/>	Lighting	-	See MDOT Interchange Warranted Lighting Guidance and overall MDOT Lighting Guidance
General Intersection Enhancements (Non-Signalized Intersections)			
<input type="checkbox"/>	All-Way Stop Control - New Installation	60%	All Applicable Crashes
<input type="checkbox"/>	Ground Mounted Flashing Beacons (Red)- Install **	30%	All Crashes On Install Approach
<input type="checkbox"/>	Ground Mounted Flashing Beacons(Amber) - Install **	20%	All Crashes On Install Approach
<input type="checkbox"/>	Signing - Improve/Upgrade	30%	Angle, Rear-End Crashes
<input type="checkbox"/>	Pavement Markings - Improve/Upgrade	30%	Angle, Rear-End Crashes
<input type="checkbox"/>	Reflective Sheeting on Sign Posts (lollipops)	15%	All Applicable Crashes

NATS 2024-2026 Road Project Scoring System

Project Name: Elkhart	Proposed Year: 2025
Agency: Cass County Road Commission	Total Points: 11

Criteria	Points	
System Preservation	8 points max	
Most recent PASER rating		
2-3 and Previously applied for	5	
2-3 and not previously applied for	3	
4	3	3
5-6	1	
MDOT Geometric Guidelines		
4 R	3	
3R	2	2
PM	1	
Safety	5 points max	
a. Expected Crash Reduction - Based on MDOT approved Crash Reduction Factors		
Safety counter Measures	Up to 3	0
Addressing High Crash Locations.		
Number of crashes is 20% higher than MPO median	2	
Number of crashes are within 20% of MPO median	1	
Number of crashes is lower than 20% of the MPO median	0	0
Non-motorized Transportation / Complete Streets	5 points max	
Pedestrian and Cycling Facilities		0
Add facilities where none currently exist	3	
Improves upon existing facilities	2	
Currently has facilities but there are no improvements	1	
Non-Motorized Connectivity	0	0
Any added ped/bike facilities connect to other ped/bike facilities	2	

Criteria	Points	
Regional Connectivity	9 points max	
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	
Functional Classification of the Road		
Principal Arterial	3	
Minor Arterial	2	
Major Collector	1	1
Minor Collector	0	
Strategic Investment/ Project Planning	11 points max	
Identified In an Asset Management Plan	1	
There is an asset management plan covering other utilities along the limits of the project	1	
Agency staff have asset management training	1	1
Project identified in other planning document	1	
Project connects to a road with a PASER of 7 or higher	1	1
Additional Local Match		
Agency will proved 40%+ Local Match	2	
Agency will proved 24-40% Local Match	1	
Note: An 18.15% local match is the minimum required		
Project Readiness (no points)	Yes	Y
Coordination with sewer or other infrastructure (no points)	Yes	N
Total Score (out of 33)	11	

Niles-Buchanan-Cass Area Transportation Study 2024-2026 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.

If you need assistance, please contact Brandon Kovnat, SWMPC Associate Planner.

Email kovnatb@swmpc.org or call (269) 925-1137 x 1524

Section 1. Applicant Information

Agency Name	Cass County Road Commission		
Contact Name	Joe Bellina	Title	Head Engineer
Phone Number	269-445-8611	Email	jbellina@casscoroad.com
Engineer/Consultant (If applicable)	Nick Mannon		
Phone Number	269-445-8611	Email	nmannon@casscoroad.com

Section 2. Project Information

Project Name/Road Name	Elkhart Road		
Project Limits (e.g. Napier Ave. to Britain Ave.)	May Street to Village of Edwardsburg Limits		
Project Length (nearest hundredth of a mile)	0.82	Proposed Year of Funding	2025
Primary Work Type	<input type="checkbox"/> Reconstruct <input type="checkbox"/> Restore & Rehabilitate <input type="checkbox"/> Roadside Facility <input checked="" type="checkbox"/> Resurface <input type="checkbox"/> Traffic Operations/Safety <input type="checkbox"/> Other		
Project Description (Please provide major work items including sidewalks, utility work, ADA upgrades etc.)	1.5" HMA, 36A top course overlay, Shoulder Class II and Pavement Marking		
Was this project applied for during the 2020-2023 Call for Projects but not selected	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Was this project awarded funding for the 2020-2023 TIP, but was either canceled or failed to be obligated	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, please explain:		
If you are submitting multiple applications, please rank your applications by priority.	Project Rank: 2		

Section 3. Project Funding

Estimated STBG Participating Cost of the Project	\$ 123202.39
Minimum local match required - 18.15% of the Participating cost	\$ 22361.23
Can your agency supply additional match beyond the minimum required 18.15%. If so how much?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Amount \$
Are there elements of the project that could be eligible for other federal fund sources such as CMAQ, TAP, Bridge etc.	Source: Amount: \$ Explanation:
Will the project have nonparticipating work, such as water, or sewer work?	amount: \$ Explain:
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)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Maximum Dollar Amount you can AC? \$

Section 4. Regional Connectivity

What is the most current daily traffic count for the limits of this project?	AADT: 3974 Year of count: 2010 Source: CCRC
National Functional Classification (NFC) for this roadway	Major Collector

Section 5. System Preservation

2021 PASER rating (Available 8-10-21)	4
Current state of drainage	<input checked="" type="checkbox"/> Adequate <input type="checkbox"/> Minor and tolerable drainage problems <input type="checkbox"/> Occasional drainage problems with some maintenance required <input type="checkbox"/> Inadequate, frequent flooding, excessive maintenance required
Expected increase in Remaining Service life (RSL)	7 Use MDOT's Guidelines for Geometrics on Local Projects
What MDOT guidelines does the project conform to?	<input type="checkbox"/> Reconstruction (4R) <input type="checkbox"/> Resurfacing, restoration, and Rehabilitation (3R) <input checked="" type="checkbox"/> Preventative Maintenance (PM)

Section 6. Safety

Please list the number and severity of crashes within the proposed project limits over the last 5 yrs. (2016-2020) (see [Michigan Crash Facts](#) for crash data)

Total Crashes	3	Pedestrian & Bicycle Crashes	0
Fatalities	0	Serious Injuries	0
Using the attached Crash Reduction Factors sheet, please check each safety counter measure that will be included in the project			
Describe any other safety improvements this project will provide			

Section 7. Pedestrian and Bicycle Improvements

Please explain what pedestrian and/or bicycle facilities if any currently exist	None
Please explain any additional pedestrian and/or bicycle improvements included in the project.	
Does this project connect to an existing pedestrian/bicycle facility or one that is planned to be completed before 2027	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, please provide a map of the connecting facilities

Section 8. Strategic Planning & Investment

Is the project identified in an approved Asset Management Plan, or Capital Improvement Plan	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, please attach the plan.
Is the project identified in another approved planning document such as a master plan or parks and recreation plan	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, please cite the plan and page number:
Is there an approved asset management plan covering the utilities along the project's limits	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No List utilities covered by the asset management plan:
Will this project coordinate with other infrastructure projects (i.e. utility, water, sewer, etc?)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, please indicate the project type and construction year:
How many water main breaks have you had at this location in the past five years?	0
Is there a completed utilities assessment that includes televising the sewers in the project area?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Do you have a maintenance strategy or Asset Management Plan covering non-motorized facilities?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Has staff received Asset Management training through the Transportation Asset Management Council https://www.michigan.gov/tamc/0,7308,7-356-82158--,00.html	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Has your agency completed the Asset Management Readiness Scale from the Michigan Infrastructure Council (MIC)? https://fcm.ca/en/resources/mamp/tool-asset-management-readiness-scale	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No https://fcm.ca/en/resources/mamp/tool-asset-management-readiness-scale
Does the project cross-jurisdictional boundaries?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
If yes, will it be bid as a single project?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA
Will this project require environmental mitigation, purchase of Right of Way (ROW), or railroad permits?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Sure If yes, which items are required:
If any of the above items are required please explain how they will be addressed	
Does this project perform Resurfacing, Reconstruction, or Preventative Maintenance on a segment adjacent to a segment that currently has a PASER of 7 or higher	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No List the adjacent segments that qualify: M62 to Village Limit

Section 9. Existing and Proposed Roadway Design

	Existing			Proposed		
Include the number of vehicle lanes	Through Traffic Lanes	Center Turn Lane	On Street Parking	Through Traffic Lanes	Center Turn Lane	On Street Parking
	2	0	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	2	0	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Shoulder Surface	<input checked="" type="checkbox"/> Paved <input type="checkbox"/> Unpaved		Width (ft.) 3	<input checked="" type="checkbox"/> Paved <input type="checkbox"/> Unpaved		Width (ft.) 3
Sidewalk/ path information	Placement <input type="checkbox"/> One Side <input type="checkbox"/> Both Sides <input type="checkbox"/> Intermittent <input checked="" type="checkbox"/> None		Width (ft.)	Placement <input type="checkbox"/> One Side <input type="checkbox"/> Both Sides <input type="checkbox"/> Intermittent <input checked="" type="checkbox"/> None		Width (ft.)
On road bicycle facilities	<input type="checkbox"/> Bike Lane <input type="checkbox"/> Other (specify) <input type="checkbox"/> Sharrows <input type="checkbox"/> Wide Shoulders <input checked="" type="checkbox"/> None			<input type="checkbox"/> Bike Lane <input type="checkbox"/> Other (specify) <input type="checkbox"/> Sharrows <input type="checkbox"/> Wide Shoulders <input checked="" type="checkbox"/> None		
Utilities, Sewer and Water	<input type="checkbox"/> Utilities Upgrades Needed <input type="checkbox"/> Sewer and water work needed			<input type="checkbox"/> Replace Utilities <input type="checkbox"/> Relocate Utilities <input type="checkbox"/> Sewer and Water Line Work		
Please describe any improvements being made as part of this project to crosswalks, signage or signals, or streetscape elements not discussed in project description						
Does this project enhance connectivity of pedestrian or bicyclists to fixed route or Dial-A-Ride transit?			<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, how?			

Section 10. Estimated Project Schedule

Activity	Estimated Date
Resolution of Support for <input type="checkbox"/> Local Match Submitted to SWMPC	September 2024
Project Application Submitted to MOT	September 2024
Grade Inspection Package Submitted to MDOT	October 2024
Grade Inspection Meeting Scheduled	November 2024
Final Plan and Estimate to MDOT	December 2024
Right of Way (ROW) certified*	NA
Rail Road Permits*	NA
Environmental Mitigation*	NA
Project Obligated	January 2025
Project Letting	March 2025
Construction Start	May 2025
Project Completion	09/30/2025

*Enter NA if these items will not be required.

	Proposed Improvement	% Reduction	Associated Crash Types
	SEGMENT CRASH REDUCTION FACTORS		
	Geometric Safety Enhancements		
<input type="checkbox"/>	Center Left-Turn Lane - Construct	80%	Rear-End Left-Turn
		50%	Head-On Left-Turn
		20%	Head-On, Angle, Sideswipe*
		15%	Non Left-Turn Rear-End, Other*
<input type="checkbox"/>	Right-Turn Lane - Construct	65%	Rear-End Right-Turn
		30%	Angle
		15%	Rear-End
		10%	Other*
<input type="checkbox"/>	Horizontal Curve Flattening	30%	Lane Departure***
<input type="checkbox"/>	Shoulders - Widen to Standard Width (add 1' each side)	5%	Lane Departure***
<input type="checkbox"/>	Shoulders - Widen to Standard Width (add 2' each side)	10%	Lane Departure***
<input type="checkbox"/>	Shoulders - Widen to Standard Width (add 3' each side)	15%	Lane Departure***
<input type="checkbox"/>	Shoulders - Widen to Standard Width (add 4' each side)	20%	Lane Departure***
<input type="checkbox"/>	Shoulders - Widen to Standard Width (add 5' each side)	25%	Lane Departure***
<input type="checkbox"/>	Shoulders - Widen to Standard Width (add 6' each side)	30%	Lane Departure***
<input type="checkbox"/>			
<input type="checkbox"/>	Shoulders - Widen to Standard Width (add 7' each side)	35%	Lane Departure***
<input type="checkbox"/>	Vertical Curve Modification	20%	All Applicable Crash Types +++
	General Segment Enhancements		
<input type="checkbox"/>	Access Management - Improve	15%	Drive-way Related Applicable Crashes
<input type="checkbox"/>	Centerline Rumble Strips - Install	44%	K and A injury Applicable Crashes
		46%	Single Vehicle Run off Road Left Crashes
		43%	Sideswipe Same Crashes
		55%	Sideswipe Opposite Crashes
<input type="checkbox"/>	High Friction Surface Treatment - Install	35%	Wet Crashes
		20%	All Other Applicable Crashes
<input type="checkbox"/>	Recessed Durable Pavement Markings	5%	All Applicable Crashes
<input type="checkbox"/>	Pedestrian Refuge - Install	50%	Pedestrian Crashes (Review NCHRP Report 841)
<input type="checkbox"/>	Road Diet (4-3 Lane Conversion) - Install	50%	Suburban - All Applicable Crashes
<input type="checkbox"/>	Shoulder Rumble Strips	20%	Run-Off the Road Right Crashes
<input type="checkbox"/>	Signing/Delineation on Horizontal Curves (Including Recessed Durable Pavement Markings) - Install	20%	Lane Departure***
<input type="checkbox"/>	Safety Edge Improvement	13%	All non-intersection crashes (CMF Clearing House ID 8658)

Roadside Enhancements			
<input type="checkbox"/>	Bicycle Lanes - Install per standards	50%	Bicycle Crashes
<input type="checkbox"/>	Shared Use Path - <i>Install</i>	33%	Bicycle and Pedestrian Related Crashes
<input type="checkbox"/>	Fixed Objects From Clear zone (Trees, Culverts, Etc.) - <i>Removal</i>	75%	Fixed-Object Applicable Crashes
<input type="checkbox"/>	Guardrail - <i>Install</i>	55%	Lane Departure ***Fatalities and "A" Injury Applicable Crashes
<input type="checkbox"/>	Sidewalk for Pedestrians - <i>Construct</i>	85%	Pedestrian Crashes
<input type="checkbox"/>	Slope Flattening	15%	Fixed-Object, Overturn Applicable Crashes
<input type="checkbox"/>	Living Snow Fence	20%	Crashes due to wintry surface conditions
<input type="checkbox"/>	Lighting - <i>install on segment</i>	20%	Dark Unlighted Crashes
INTERSECTION CRASH REDUCTION FACTORS			
Pedestrian / Bicycle Enhancements			
<input type="checkbox"/>	Bump Out / Curb Extension - <i>Remove Parking / Install</i>	30%	All Crashes
<input type="checkbox"/>	Bicycle Lanes - Install per standards	25%	Bicycle Crashes
<input type="checkbox"/>	Sidewalk for Pedestrians - <i>Construct</i>	85%	Pedestrian Crashes
<input type="checkbox"/>	Intersection Lighting - <i>install</i>	75%	Pedestrian Fatal - Dark Unlighted Crashes
		40%	Pedestrian A-Injury - Dark Unlighted Crashes
		30%	All Applicable Dark Unlighted Crashes
<input type="checkbox"/>	Rectangular Rapid Flashing Beacons	47%	Pedestrian Crashes
<input type="checkbox"/>	Ped. Countdown Signals - <i>Install new Pedestrian signal</i>	30%	Pedestrian Crashes
<input type="checkbox"/>	Ped. Countdown Signals - <i>Upgrade from existing Pedestrian signal</i>	25%	Pedestrian Crashes
Signal Timing / Hardware Enhancements			
<input type="checkbox"/>	Multiple Low-Cost Improvements	3%	Rear-End
		12%	Right-Angle
		3%	Nighttime
<input type="checkbox"/>	Install Reflectorized Backplates	15%	All Applicable Crashes
<input type="checkbox"/>	Add All-Red Clearance Interval - <i>Add per ITE</i>	20%	Head-On Left-Turn, Angle
<input type="checkbox"/>	Yellow-Change Interval - <i>Increase</i>	10%	All Crash Types
<input type="checkbox"/>	Box Span Signal - <i>Upgrade from Stop Control</i>	65%	Angle
		-25%	Rear-End (Increases Crashes)
		20%	All Other Non Rear-End Crashes
<input type="checkbox"/>	Box Span Signal - <i>Upgrade from Diagonal Span</i>	10%	All Applicable Crashes+
<input type="checkbox"/>	Protected Left-Turn Signal Phase - <i>Add</i>	30%	Left-Turn
<input type="checkbox"/>	Signal Head Size - <i>Increase to 12 "</i>	10%	All Applicable Crashes +
<input type="checkbox"/>	Signal Optimization & Timing Updates	10%	All Applicable Crashes +
<input type="checkbox"/>	Removing Night Flash from Signal Timing	50%	Nighttime Flash mode Related Crashes

Intersection Geometric Enhancements			
<input type="checkbox"/>	Center Left-Turn Lane - Construct	80%	Rear-End Left-Turn
		50%	Head-On Left-Turn
		20%	Head-On, Angle, Other
		15%	Non Left-Turn Rear-End
<input type="checkbox"/>	Intersection Improvements (Realignment, Sight-Distance Improvements, Radii Improvements, Etc.)	30%	Angle
		15%	Rear-End
		10%	Head-On, Sideswipe, Pedestrian, Bicycle, Left-Turn Related
<input type="checkbox"/>	Offset Left-Turn Lane - Construct	65%	Angle-Turn, Head-On Left-Turn
		20%	Rear-End Left-Turn
<input type="checkbox"/>	Offset Right-Turn Lane - Construct	65%	Angle-Turn
		50%	Other Applicable Crashes
		20%	Rear-End Right Turn
<input type="checkbox"/>	Right-Turn Lane - Construct	65%	Rear-End Right-Turn
		20%	Applicable Rear-End Crashes, Sideswipe Same Direction
<input type="checkbox"/>	Roundabout	78%	Fatal and A-Injury Reduction
		57%	Minor Crash Reduction
<input type="checkbox"/>	Lighting	-	See MDOT Interchange Warranted Lighting Guidance and overall MDOT Lighting Guidance
General Intersection Enhancements (Non-Signalized Intersections)			
<input type="checkbox"/>	All-Way Stop Control - New Installation	60%	All Applicable Crashes
<input type="checkbox"/>	Ground Mounted Flashing Beacons (Red)- Install **	30%	All Crashes On Install Approach
<input type="checkbox"/>	Ground Mounted Flashing Beacons(Amber) - Install **	20%	All Crashes On Install Approach
<input type="checkbox"/>	Signing - Improve/Upgrade	30%	Angle, Rear-End Crashes
<input type="checkbox"/>	Pavement Markings - Improve/Upgrade	30%	Angle, Rear-End Crashes
<input type="checkbox"/>	Reflective Sheeting on Sign Posts (lollipops)	15%	All Applicable Crashes

NATS 2024-2026 Road Project Scoring System

Project Name:	White Street – M-51 to Thompson	Proposed Year:	2026
Agency:	Cass County Road Commission	Total Points:	7

Criteria	Points	
System Preservation	8 points max	
Most recent PASER rating		
2-3 and Previously applied for	5	
2-3 and not previously applied for	3	3
4	3	
5-6	1	
MDOT Geometric Guidelines		
4 R	3	
3R	2	2
PM	1	
Safety	5 points max	
a. Expected Crash Reduction - Based on MDOT approved Crash Reduction Factors		
Safety counter Measures	Up to 3	0
Addressing High Crash Locations.		
Number of crashes is 20% higher than MPO median	2	
Number of crashes are within 20% of MPO median	1	
Number of crashes is lower than 20% of the MPO median	0	0
Non-motorized Transportation / Complete Streets	5 points max	
Pedestrian and Cycling Facilities		0
Add facilities where none currently exist	3	
Improves upon existing facilities	2	
Currently has facilities but there are no improvements	1	
Non-Motorized Connectivity	0	0
Any added ped/bike facilities connect to other ped/bike facilities	2	

Criteria	Points	
Regional Connectivity	9 points max	
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	
ADT is less than 2,000	0	0
Functional Classification of the Road		
Principal Arterial	3	
Minor Arterial	2	
Major Collector	1	1
Minor Collector	0	
Strategic Investment/ Project Planning	11 points max	
Identified In an Asset Management Plan	1	
There is an asset management plan covering other utilities along the limits of the project	1	
Agency staff have asset management training	1	1
Project identified in other planning document	1	
Project connects to a road with a PASER of 7 or higher	1	
Additional Local Match		
Agency will proved 40%+ Local Match	2	
Agency will proved 24-40% Local Match	1	
Note: An 18.15% local match is the minimum required		
Project Readiness (no points)	Yes	Y
Coordination with sewer or other infrastructure (no points)	Yes	N
Total Score (out of 33)	7	

Niles-Buchanan-Cass Area Transportation Study 2024-2026 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.

If you need assistance, please contact Brandon Kovnat, SWMPC Associate Planner.

Email kovnatb@swmpc.org or call (269) 925-1137 x 1524

Section 1. Applicant Information

Agency Name	Cass County Road Commission		
Contact Name	Joe Bellina	Title	Head Engineer
Phone Number	269-445-8611	Email	jbellina@casscoroad.com
Engineer/Consultant (If applicable)	Nick Mannon		
Phone Number	269-445-8611	Email	nmannon@casscoroad.com

Section 2. Project Information

Project Name/Road Name	White Street		
Project Limits (e.g. Napier Ave. to Britain Ave.)	M51 to Thomson Road		
Project Length (nearest hundredth of a mile)	1.50	Proposed Year of Funding	2026
Primary Work Type	<input type="checkbox"/> Reconstruct <input checked="" type="checkbox"/> Restore & Rehabilitate <input type="checkbox"/> Roadside Facility <input type="checkbox"/> Resurface <input type="checkbox"/> Traffic Operations/Safety <input type="checkbox"/> Other		
Project Description (Please provide major work items including sidewalks, utility work, ADA upgrades etc.)	Crush and Shape HMA Surface and add 4" HMA, 36A, Shoulder Class II and Pavement Marking		
Was this project applied for during the 2020-2023 Call for Projects but not selected	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Was this project awarded funding for the 2020-2023 TIP, but was either canceled or failed to be obligated	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, please explain:		
If you are submitting multiple applications, please rank your applications by priority.	Project Rank: 3		

Section 3. Project Funding

Estimated STBG Participating Cost of the Project	\$ 559295.30
Minimum local match required - 18.15% of the Participating cost	\$ 101512.10
Can your agency supply additional match beyond the minimum required 18.15%. If so how much?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Amount \$
Are there elements of the project that could be eligible for other federal fund sources such as CMAQ, TAP, Bridge etc.	Source: Amount: \$ Explanation:
Will the project have nonparticipating work, such as water, or sewer work?	amount: \$ Explain:
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)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Maximum Dollar Amount you can AC? \$

Section 4. Regional Connectivity

What is the most current daily traffic count for the limits of this project?	AADT: 512 Year of count: 2020 Source: CCRC
National Functional Classification (NFC) for this roadway	Major Collector

Section 5. System Preservation

2021 PASER rating (Available 8-10-21)	3,1,2
Current state of drainage	<input checked="" type="checkbox"/> Adequate <input type="checkbox"/> Minor and tolerable drainage problems <input type="checkbox"/> Occasional drainage problems with some maintenance required <input type="checkbox"/> Inadequate, frequent flooding, excessive maintenance required
Expected increase in Remaining Service life (RSL)	17 Use MDOT's Guidelines for Geometrics on Local Projects
What MDOT guidelines does the project conform to?	<input type="checkbox"/> Reconstruction (4R) <input checked="" type="checkbox"/> Resurfacing, restoration, and Rehabilitation (3R) <input type="checkbox"/> Preventative Maintenance (PM)

Section 6. Safety

Please list the number and severity of crashes within the proposed project limits over the last 5 yrs. (2016-2020) (see [Michigan Crash Facts](#) for crash data)

Total Crashes	7	Pedestrian & Bicycle Crashes	0
Fatalities	0	Serious Injuries	0

Using the attached Crash Reduction Factors sheet, please check each safety counter measure that will be included in the project

Describe any other safety improvements this project will provide

Section 7. Pedestrian and Bicycle Improvements

Please explain what pedestrian and/or bicycle facilities if any currently exist

None

Please explain any additional pedestrian and/or bicycle improvements included in the project.

Does this project connect to an existing pedestrian/bicycle facility or one that is planned to be completed before 2027

☐ Yes ☒ No

If yes, please provide a map of the connecting facilities

Section 8. Strategic Planning & Investment

Is the project identified in an approved Asset Management Plan, or Capital Improvement Plan	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, please attach the plan.
Is the project identified in another approved planning document such as a master plan or parks and recreation plan	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, please cite the plan and page number:
Is there an approved asset management plan covering the utilities along the project's limits	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No List utilities covered by the asset management plan:
Will this project coordinate with other infrastructure projects (i.e. utility, water, sewer, etc?)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, please indicate the project type and construction year:
How many water main breaks have you had at this location in the past five years?	None
Is there a completed utilities assessment that includes televising the sewers in the project area?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Do you have a maintenance strategy or Asset Management Plan covering non-motorized facilities?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Has staff received Asset Management training through the Transportation Asset Management Council https://www.michigan.gov/tamc/0,7308,7-356-82158--,00.html	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Has your agency completed the Asset Management Readiness Scale from the Michigan Infrastructure Council (MIC)? https://fcm.ca/en/resources/mamp/tool-asset-management-readiness-scale	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No https://fcm.ca/en/resources/mamp/tool-asset-management-readiness-scale
Does the project cross-jurisdictional boundaries?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
If yes, will it be bid as a single project?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA
Will this project require environmental mitigation, purchase of Right of Way (ROW), or railroad permits?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Sure If yes, which items are required: Railroad Permit
If any of the above items are required please explain how they will be addressed	Through MDOT Rail department forms
Does this project perform Resurfacing, Reconstruction, or Preventative Maintenance on a segment adjacent to a segment that currently has a PASER of 7 or higher	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No List the adjacent segments that qualify:

Section 9. Existing and Proposed Roadway Design

	Existing			Proposed		
Include the number of vehicle lanes	Through Traffic Lanes	Center Turn Lane	On Street Parking	Through Traffic Lanes	Center Turn Lane	On Street Parking
	2	0	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	2	0	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Shoulder Surface	<input type="checkbox"/> Paved <input checked="" type="checkbox"/> Unpaved		Width (ft.) 3	<input type="checkbox"/> Paved <input checked="" type="checkbox"/> Unpaved		Width (ft.) 3
Sidewalk/ path information	Placement <input type="checkbox"/> One Side <input type="checkbox"/> Both Sides <input type="checkbox"/> Intermittent <input checked="" type="checkbox"/> None		Width (ft.)	Placement <input type="checkbox"/> One Side <input type="checkbox"/> Both Sides <input type="checkbox"/> Intermittent <input checked="" type="checkbox"/> None		Width (ft.)
On road bicycle facilities	<input type="checkbox"/> Bike Lane <input type="checkbox"/> Other (specify) <input type="checkbox"/> Sharrows <input type="checkbox"/> Wide Shoulders <input checked="" type="checkbox"/> None			<input type="checkbox"/> Bike Lane <input type="checkbox"/> Other (specify) <input type="checkbox"/> Sharrows <input type="checkbox"/> Wide Shoulders <input checked="" type="checkbox"/> None		
Utilities, Sewer and Water	<input type="checkbox"/> Utilities Upgrades Needed <input type="checkbox"/> Sewer and water work needed			<input type="checkbox"/> Replace Utilities <input type="checkbox"/> Relocate Utilities <input type="checkbox"/> Sewer and Water Line Work		
Please describe any improvements being made as part of this project to crosswalks, signage or signals, or streetscape elements not discussed in project description						
Does this project enhance connectivity of pedestrian or bicyclists to fixed route or Dial-A-Ride transit?			<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, how?			

Section 10. Estimated Project Schedule

Activity	Estimated Date
Resolution of Support for <input type="checkbox"/> Local Match Submitted to SWMPC	September 2025
Project Application Submitted to MOT	September 2025
Grade Inspection Package Submitted to MDOT	October 2025
Grade Inspection Meeting Scheduled	November 2025
Final Plan and Estimate to MDOT	December 2025
Right of Way (ROW) certified*	NA
Rail Road Permits*	October 2025
Environmental Mitigation*	NA
Project Obligated	January 2026
Project Letting	March 2026
Construction Start	May 2026
Project Completion	09/30/2026

*Enter NA if these items will not be required.

	Proposed Improvement	% Reduction	Associated Crash Types
	SEGMENT CRASH REDUCTION FACTORS		
	Geometric Safety Enhancements		
<input type="checkbox"/>	Center Left-Turn Lane - Construct	80%	Rear-End Left-Turn
		50%	Head-On Left-Turn
		20%	Head-On, Angle, Sideswipe*
		15%	Non Left-Turn Rear-End, Other*
<input type="checkbox"/>	Right-Turn Lane - Construct	65%	Rear-End Right-Turn
		30%	Angle
		15%	Rear-End
		10%	Other*
<input type="checkbox"/>	Horizontal Curve Flattening	30%	Lane Departure***
<input type="checkbox"/>	Shoulders - Widen to Standard Width (add 1' each side)	5%	Lane Departure***
<input type="checkbox"/>	Shoulders - Widen to Standard Width (add 2' each side)	10%	Lane Departure***
<input type="checkbox"/>	Shoulders - Widen to Standard Width (add 3' each side)	15%	Lane Departure***
<input type="checkbox"/>	Shoulders - Widen to Standard Width (add 4' each side)	20%	Lane Departure***
<input type="checkbox"/>	Shoulders - Widen to Standard Width (add 5' each side)	25%	Lane Departure***
<input type="checkbox"/>	Shoulders - Widen to Standard Width (add 6' each side)	30%	Lane Departure***
<input type="checkbox"/>			
<input type="checkbox"/>	Shoulders - Widen to Standard Width (add 7' each side)	35%	Lane Departure***
<input type="checkbox"/>	Vertical Curve Modification	20%	All Applicable Crash Types +++
	General Segment Enhancements		
<input type="checkbox"/>	Access Management - Improve	15%	Drive-way Related Applicable Crashes
<input type="checkbox"/>	Centerline Rumble Strips - Install	44%	K and A injury Applicable Crashes
		46%	Single Vehicle Run off Road Left Crashes
		43%	Sideswipe Same Crashes
		55%	Sideswipe Opposite Crashes
<input type="checkbox"/>	High Friction Surface Treatment - Install	35%	Wet Crashes
		20%	All Other Applicable Crashes
<input type="checkbox"/>	Recessed Durable Pavement Markings	5%	All Applicable Crashes
<input type="checkbox"/>	Pedestrian Refuge - Install	50%	Pedestrian Crashes (Review NCHRP Report 841)
<input type="checkbox"/>	Road Diet (4-3 Lane Conversion) - Install	50%	Suburban - All Applicable Crashes
<input type="checkbox"/>	Shoulder Rumble Strips	20%	Run-Off the Road Right Crashes
<input type="checkbox"/>	Signing/Delineation on Horizontal Curves (Including Recessed Durable Pavement Markings) - Install	20%	Lane Departure***
<input type="checkbox"/>	Safety Edge Improvement	13%	All non-intersection crashes (CMF Clearing House ID 8658)

Roadside Enhancements			
<input type="checkbox"/>	Bicycle Lanes - Install per standards	50%	Bicycle Crashes
<input type="checkbox"/>	Shared Use Path - <i>Install</i>	33%	Bicycle and Pedestrian Related Crashes
<input type="checkbox"/>	Fixed Objects From Clear zone (Trees, Culverts, Etc.) - <i>Removal</i>	75%	Fixed-Object Applicable Crashes
<input type="checkbox"/>	Guardrail - <i>Install</i>	55%	Lane Departure ***Fatalities and "A" Injury Applicable Crashes
<input type="checkbox"/>	Sidewalk for Pedestrians - <i>Construct</i>	85%	Pedestrian Crashes
<input type="checkbox"/>	Slope Flattening	15%	Fixed-Object, Overturn Applicable Crashes
<input type="checkbox"/>	Living Snow Fence	20%	Crashes due to wintry surface conditions
<input type="checkbox"/>	Lighting - <i>install on segment</i>	20%	Dark Unlighted Crashes
INTERSECTION CRASH REDUCTION FACTORS			
Pedestrian / Bicycle Enhancements			
<input type="checkbox"/>	Bump Out / Curb Extension - <i>Remove Parking / Install</i>	30%	All Crashes
<input type="checkbox"/>	Bicycle Lanes - Install per standards	25%	Bicycle Crashes
<input type="checkbox"/>	Sidewalk for Pedestrians - <i>Construct</i>	85%	Pedestrian Crashes
<input type="checkbox"/>	Intersection Lighting - <i>install</i>	75%	Pedestrian Fatal - Dark Unlighted Crashes
		40%	Pedestrian A-Injury - Dark Unlighted Crashes
		30%	All Applicable Dark Unlighted Crashes
<input type="checkbox"/>	Rectangular Rapid Flashing Beacons	47%	Pedestrian Crashes
<input type="checkbox"/>	Ped. Countdown Signals - <i>Install new Pedestrian signal</i>	30%	Pedestrian Crashes
<input type="checkbox"/>	Ped. Countdown Signals - <i>Upgrade from existing Pedestrian signal</i>	25%	Pedestrian Crashes
Signal Timing / Hardware Enhancements			
<input type="checkbox"/>	Multiple Low-Cost Improvements	3%	Rear-End
		12%	Right-Angle
		3%	Nighttime
<input type="checkbox"/>	Install Reflectorized Backplates	15%	All Applicable Crashes
<input type="checkbox"/>	Add All-Red Clearance Interval - <i>Add per ITE</i>	20%	Head-On Left-Turn, Angle
<input type="checkbox"/>	Yellow-Change Interval - <i>Increase</i>	10%	All Crash Types
<input type="checkbox"/>	Box Span Signal - <i>Upgrade from Stop Control</i>	65%	Angle
		-25%	Rear-End (Increases Crashes)
		20%	All Other Non Rear-End Crashes
<input type="checkbox"/>	Box Span Signal - <i>Upgrade from Diagonal Span</i>	10%	All Applicable Crashes+
<input type="checkbox"/>	Protected Left-Turn Signal Phase - <i>Add</i>	30%	Left-Turn
<input type="checkbox"/>	Signal Head Size - <i>Increase to 12 "</i>	10%	All Applicable Crashes +
<input type="checkbox"/>	Signal Optimization & Timing Updates	10%	All Applicable Crashes +
<input type="checkbox"/>	Removing Night Flash from Signal Timing	50%	Nighttime Flash mode Related Crashes

Intersection Geometric Enhancements			
<input type="checkbox"/>	Center Left-Turn Lane - Construct	80%	Rear-End Left-Turn
		50%	Head-On Left-Turn
		20%	Head-On, Angle, Other
		15%	Non Left-Turn Rear-End
<input type="checkbox"/>	Intersection Improvements (Realignment, Sight-Distance Improvements, Radii Improvements, Etc.)	30%	Angle
		15%	Rear-End
		10%	Head-On, Sideswipe, Pedestrian, Bicycle, Left-Turn Related
<input type="checkbox"/>	Offset Left-Turn Lane - Construct	65%	Angle-Turn, Head-On Left-Turn
		20%	Rear-End Left-Turn
<input type="checkbox"/>	Offset Right-Turn Lane - Construct	65%	Angle-Turn
		50%	Other Applicable Crashes
		20%	Rear-End Right Turn
<input type="checkbox"/>	Right-Turn Lane - Construct	65%	Rear-End Right-Turn
		20%	Applicable Rear-End Crashes, Sideswipe Same Direction
<input type="checkbox"/>	Roundabout	78%	Fatal and A-Injury Reduction
		57%	Minor Crash Reduction
<input type="checkbox"/>	Lighting	-	See MDOT Interchange Warranted Lighting Guidance and overall MDOT Lighting Guidance
General Intersection Enhancements (Non-Signalized Intersections)			
<input type="checkbox"/>	All-Way Stop Control - New Installation	60%	All Applicable Crashes
<input type="checkbox"/>	Ground Mounted Flashing Beacons (Red)- Install **	30%	All Crashes On Install Approach
<input type="checkbox"/>	Ground Mounted Flashing Beacons(Amber) - Install **	20%	All Crashes On Install Approach
<input type="checkbox"/>	Signing - Improve/Upgrade	30%	Angle, Rear-End Crashes
<input type="checkbox"/>	Pavement Markings - Improve/Upgrade	30%	Angle, Rear-End Crashes
<input type="checkbox"/>	Reflective Sheeting on Sign Posts (lollipops)	15%	All Applicable Crashes

NATS 2024-2026 Road Project Scoring System

Project Name:	Redfield from Countyline to Batchelor Dr.	Proposed Year:	2024
Agency:	Cass County Road Commission	Total Points:	10

Criteria	Points	
System Preservation	8 points max	
Most recent PASER rating		
2-3 and Previously applied for	5	
2-3 and not previously applied for	3	3
4	3	
5-6	1	
MDOT Geometric Guidelines		
4 R	3	
3R	2	
PM	1	1
Safety	5 points max	
a. Expected Crash Reduction - Based on MDOT approved Crash Reduction Factors		
Safety counter Measures	Up to 3	0
Addressing High Crash Locations.		
Number of crashes is 20% higher than MPO median	2	
Number of crashes are within 20% of MPO median	1	
Number of crashes is lower than 20% of the MPO median	0	0
Non-motorized Transportation / Complete Streets	5 points max	
Pedestrian and Cycling Facilities		0
Add facilities where none currently exist	3	
Improves upon existing facilities	2	
Currently has facilities but there are no improvements	1	
Non-Motorized Connectivity	0	0
Any added ped/bike facilities connect to other ped/bike facilities	2	

Criteria	Points	
Regional Connectivity	9 points max	
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	
Functional Classification of the Road		
Principal Arterial	3	
Minor Arterial	2	2
Major Collector	1	
Minor Collector	0	
Strategic Investment/ Project Planning	11 points max	
Identified In an Asset Management Plan	1	
There is an asset management plan covering other utilities along the limits of the project	1	
Agency staff have asset management training	1	1
Project identified in other planning document	1	
Project connects to a road with a PASER of 7 or higher	1	
Additional Local Match		
Agency will proved 40%+ Local Match	2	
Agency will proved 24-40% Local Match	1	
Note: An 18.15% local match is the minimum required		
Project Readiness (no points)	Yes	Y
Coordination with sewer or other infrastructure (no points)	Yes	N
Total Score (out of 33)	10	

Niles-Buchanan-Cass Area Transportation Study 2024-2026 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.

If you need assistance, please contact Brandon Kovnat, SWMPC Associate Planner.

Email kovnatb@swmpc.org or call (269) 925-1137 x 1524

Section 1. Applicant Information

Agency Name	Cass County Road Commission		
Contact Name	Joe Bellina	Title	Head Engineer
Phone Number	269-445-8611	Email	jbellina@casscoroad.com
Engineer/Consultant (If applicable)	Nick Mannon		
Phone Number	269-445-8611	Email	nmannon@casscoroad.com

Section 2. Project Information

Project Name/Road Name	Redfield Street		
Project Limits (e.g. Napier Ave. to Britain Ave.)	Cass County line to Batchelor Drive		
Project Length (nearest hundredth of a mile)	1.03	Proposed Year of Funding	2024
Primary Work Type	<input type="checkbox"/> Reconstruct <input type="checkbox"/> Restore & Rehabilitate <input type="checkbox"/> Roadside Facility <input checked="" type="checkbox"/> Resurface <input type="checkbox"/> Traffic Operations/Safety <input type="checkbox"/> Other		
Project Description (Please provide major work items including sidewalks, utility work, ADA upgrades etc.)	1.5" HMA, 36A top course overlay, Shoulder Class II and Pavement Marking		
Was this project applied for during the 2020-2023 Call for Projects but not selected	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Was this project awarded funding for the 2020-2023 TIP, but was either canceled or failed to be obligated	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, please explain:		
If you are submitting multiple applications, please rank your applications by priority.	Project Rank: 4		

Section 3. Project Funding

Estimated STBG Participating Cost of the Project	\$ 150246.82
Minimum local match required - 18.15% of the Participating cost	\$ 27269.8
Can your agency supply additional match beyond the minimum required 18.15%. If so how much?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Amount \$
Are there elements of the project that could be eligible for other federal fund sources such as CMAQ, TAP, Bridge etc.	Source: Amount: \$ Explanation:
Will the project have nonparticipating work, such as water, or sewer work?	amount: \$ Explain:
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)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Maximum Dollar Amount you can AC? \$

Section 4. Regional Connectivity

What is the most current daily traffic count for the limits of this project?	AADT: 4772 Year of count: 2009 Source: CCRC
National Functional Classification (NFC) for this roadway	Minor Arterial

Section 5. System Preservation

2021 PASER rating (Available 8-10-21)	4
Current state of drainage	<input checked="" type="checkbox"/> Adequate <input type="checkbox"/> Minor and tolerable drainage problems <input type="checkbox"/> Occasional drainage problems with some maintenance required <input type="checkbox"/> Inadequate, frequent flooding, excessive maintenance required
Expected increase in Remaining Service life (RSL)	7 Use MDOT's Guidelines for Geometrics on Local Projects
What MDOT guidelines does the project conform to?	<input type="checkbox"/> Reconstruction (4R) <input type="checkbox"/> Resurfacing, restoration, and Rehabilitation (3R) <input checked="" type="checkbox"/> Preventative Maintenance (PM)

Section 6. Safety

Please list the number and severity of crashes within the proposed project limits over the last 5 yrs. (2016-2020) (see [Michigan Crash Facts](#) for crash data)

Total Crashes	40	Pedestrian & Bicycle Crashes	0
Fatalities	0	Serious Injuries	1

Using the attached Crash Reduction Factors sheet, please check each safety counter measure that will be included in the project

Describe any other safety improvements this project will provide

Section 7. Pedestrian and Bicycle Improvements

Please explain what pedestrian and/or bicycle facilities if any currently exist

None

Please explain any additional pedestrian and/or bicycle improvements included in the project.

Does this project connect to an existing pedestrian/bicycle facility or one that is planned to be completed before 2027

☐ Yes ☒ No

If yes, please provide a map of the connecting facilities

Section 8. Strategic Planning & Investment

Is the project identified in an approved Asset Management Plan, or Capital Improvement Plan	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, please attach the plan.
Is the project identified in another approved planning document such as a master plan or parks and recreation plan	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, please cite the plan and page number:
Is there an approved asset management plan covering the utilities along the project's limits	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No List utilities covered by the asset management plan:
Will this project coordinate with other infrastructure projects (i.e. utility, water, sewer, etc?)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, please indicate the project type and construction year:
How many water main breaks have you had at this location in the past five years?	None
Is there a completed utilities assessment that includes televising the sewers in the project area?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Do you have a maintenance strategy or Asset Management Plan covering non-motorized facilities?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Has staff received Asset Management training through the Transportation Asset Management Council https://www.michigan.gov/tamc/0,7308,7-356-82158--,00.html	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Has your agency completed the Asset Management Readiness Scale from the Michigan Infrastructure Council (MIC)? https://fcm.ca/en/resources/mamp/tool-asset-management-readiness-scale	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No https://fcm.ca/en/resources/mamp/tool-asset-management-readiness-scale
Does the project cross-jurisdictional boundaries?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
If yes, will it be bid as a single project?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA
Will this project require environmental mitigation, purchase of Right of Way (ROW), or railroad permits?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Sure If yes, which items are required:
If any of the above items are required please explain how they will be addressed	
Does this project perform Resurfacing, Reconstruction, or Preventative Maintenance on a segment adjacent to a segment that currently has a PASER of 7 or higher	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No List the adjacent segments that qualify: Batchelor Drive to Gumwood Road

Section 9. Existing and Proposed Roadway Design

	Existing			Proposed		
Include the number of vehicle lanes	Through Traffic Lanes	Center Turn Lane	On Street Parking	Through Traffic Lanes	Center Turn Lane	On Street Parking
	2	0	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	2	0	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Shoulder Surface	<input checked="" type="checkbox"/> Paved <input type="checkbox"/> Unpaved		Width (ft.) 3	<input checked="" type="checkbox"/> Paved <input type="checkbox"/> Unpaved		Width (ft.) 3
Sidewalk/ path information	Placement <input type="checkbox"/> One Side <input type="checkbox"/> Both Sides <input type="checkbox"/> Intermittent <input checked="" type="checkbox"/> None		Width (ft.)	Placement <input type="checkbox"/> One Side <input type="checkbox"/> Both Sides <input type="checkbox"/> Intermittent <input checked="" type="checkbox"/> None		Width (ft.)
On road bicycle facilities	<input type="checkbox"/> Bike Lane <input type="checkbox"/> Other (specify) <input type="checkbox"/> Sharrows <input type="checkbox"/> Wide Shoulders <input checked="" type="checkbox"/> None			<input type="checkbox"/> Bike Lane <input type="checkbox"/> Other (specify) <input type="checkbox"/> Sharrows <input type="checkbox"/> Wide Shoulders <input checked="" type="checkbox"/> None		
Utilities, Sewer and Water	<input type="checkbox"/> Utilities Upgrades Needed <input type="checkbox"/> Sewer and water work needed			<input type="checkbox"/> Replace Utilities <input type="checkbox"/> Relocate Utilities <input type="checkbox"/> Sewer and Water Line Work		
Please describe any improvements being made as part of this project to crosswalks, signage or signals, or streetscape elements not discussed in project description						
Does this project enhance connectivity of pedestrian or bicyclists to fixed route or Dial-A-Ride transit?			<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, how?			

Section 10. Estimated Project Schedule

Activity	Estimated Date
Resolution of Support for <input type="checkbox"/> Local Match Submitted to SWMPC	September 2023
Project Application Submitted to MOT	September 2023
Grade Inspection Package Submitted to MDOT	October 2023
Grade Inspection Meeting Scheduled	November 2023
Final Plan and Estimate to MDOT	December 2023
Right of Way (ROW) certified*	NA
Rail Road Permits*	NA
Environmental Mitigation*	NA
Project Obligated	January 2024
Project Letting	March 2024
Construction Start	May 2024
Project Completion	09/30/2024

*Enter NA if these items will not be required.

	Proposed Improvement	% Reduction	Associated Crash Types
	SEGMENT CRASH REDUCTION FACTORS		
	Geometric Safety Enhancements		
<input type="checkbox"/>	Center Left-Turn Lane - Construct	80%	Rear-End Left-Turn
		50%	Head-On Left-Turn
		20%	Head-On, Angle, Sideswipe*
		15%	Non Left-Turn Rear-End, Other*
<input type="checkbox"/>	Right-Turn Lane - Construct	65%	Rear-End Right-Turn
		30%	Angle
		15%	Rear-End
		10%	Other*
<input type="checkbox"/>	Horizontal Curve Flattening	30%	Lane Departure***
<input type="checkbox"/>	Shoulders - Widen to Standard Width (add 1' each side)	5%	Lane Departure***
<input type="checkbox"/>	Shoulders - Widen to Standard Width (add 2' each side)	10%	Lane Departure***
<input type="checkbox"/>	Shoulders - Widen to Standard Width (add 3' each side)	15%	Lane Departure***
<input type="checkbox"/>	Shoulders - Widen to Standard Width (add 4' each side)	20%	Lane Departure***
<input type="checkbox"/>	Shoulders - Widen to Standard Width (add 5' each side)	25%	Lane Departure***
<input type="checkbox"/>	Shoulders - Widen to Standard Width (add 6' each side)	30%	Lane Departure***
<input type="checkbox"/>			
<input type="checkbox"/>	Shoulders - Widen to Standard Width (add 7' each side)	35%	Lane Departure***
<input type="checkbox"/>	Vertical Curve Modification	20%	All Applicable Crash Types +++
	General Segment Enhancements		
<input type="checkbox"/>	Access Management - Improve	15%	Drive-way Related Applicable Crashes
<input type="checkbox"/>	Centerline Rumble Strips - Install	44%	K and A injury Applicable Crashes
		46%	Single Vehicle Run off Road Left Crashes
		43%	Sideswipe Same Crashes
		55%	Sideswipe Opposite Crashes
<input type="checkbox"/>	High Friction Surface Treatment - Install	35%	Wet Crashes
		20%	All Other Applicable Crashes
<input type="checkbox"/>	Recessed Durable Pavement Markings	5%	All Applicable Crashes
<input type="checkbox"/>	Pedestrian Refuge - Install	50%	Pedestrian Crashes (Review NCHRP Report 841)
<input type="checkbox"/>	Road Diet (4-3 Lane Conversion) - Install	50%	Suburban - All Applicable Crashes
<input type="checkbox"/>	Shoulder Rumble Strips	20%	Run-Off the Road Right Crashes
<input type="checkbox"/>	Signing/Delineation on Horizontal Curves (Including Recessed Durable Pavement Markings) - Install	20%	Lane Departure***
<input type="checkbox"/>	Safety Edge Improvement	13%	All non-intersection crashes (CMF Clearing House ID 8658)

Roadside Enhancements			
<input type="checkbox"/>	Bicycle Lanes - Install per standards	50%	Bicycle Crashes
<input type="checkbox"/>	Shared Use Path - <i>Install</i>	33%	Bicycle and Pedestrian Related Crashes
<input type="checkbox"/>	Fixed Objects From Clear zone (Trees, Culverts, Etc.) - <i>Removal</i>	75%	Fixed-Object Applicable Crashes
<input type="checkbox"/>	Guardrail - <i>Install</i>	55%	Lane Departure ***Fatalities and "A" Injury Applicable Crashes
<input type="checkbox"/>	Sidewalk for Pedestrians - <i>Construct</i>	85%	Pedestrian Crashes
<input type="checkbox"/>	Slope Flattening	15%	Fixed-Object, Overturn Applicable Crashes
<input type="checkbox"/>	Living Snow Fence	20%	Crashes due to wintry surface conditions
<input type="checkbox"/>	Lighting - <i>install on segment</i>	20%	Dark Unlighted Crashes
INTERSECTION CRASH REDUCTION FACTORS			
Pedestrian / Bicycle Enhancements			
<input type="checkbox"/>	Bump Out / Curb Extension - <i>Remove Parking / Install</i>	30%	All Crashes
<input type="checkbox"/>	Bicycle Lanes - Install per standards	25%	Bicycle Crashes
<input type="checkbox"/>	Sidewalk for Pedestrians - <i>Construct</i>	85%	Pedestrian Crashes
<input type="checkbox"/>	Intersection Lighting - <i>install</i>	75%	Pedestrian Fatal - Dark Unlighted Crashes
		40%	Pedestrian A-Injury - Dark Unlighted Crashes
		30%	All Applicable Dark Unlighted Crashes
<input type="checkbox"/>	Rectangular Rapid Flashing Beacons	47%	Pedestrian Crashes
<input type="checkbox"/>	Ped. Countdown Signals - <i>Install new Pedestrian signal</i>	30%	Pedestrian Crashes
<input type="checkbox"/>	Ped. Countdown Signals - <i>Upgrade from existing Pedestrian signal</i>	25%	Pedestrian Crashes
Signal Timing / Hardware Enhancements			
<input type="checkbox"/>	Multiple Low-Cost Improvements	3%	Rear-End
		12%	Right-Angle
		3%	Nighttime
<input type="checkbox"/>	Install Reflectorized Backplates	15%	All Applicable Crashes
<input type="checkbox"/>	Add All-Red Clearance Interval - <i>Add per ITE</i>	20%	Head-On Left-Turn, Angle
<input type="checkbox"/>	Yellow-Change Interval - <i>Increase</i>	10%	All Crash Types
<input type="checkbox"/>	Box Span Signal - <i>Upgrade from Stop Control</i>	65%	Angle
		-25%	Rear-End (Increases Crashes)
		20%	All Other Non Rear-End Crashes
<input type="checkbox"/>	Box Span Signal - <i>Upgrade from Diagonal Span</i>	10%	All Applicable Crashes+
<input type="checkbox"/>	Protected Left-Turn Signal Phase - <i>Add</i>	30%	Left-Turn
<input type="checkbox"/>	Signal Head Size - <i>Increase to 12 "</i>	10%	All Applicable Crashes +
<input type="checkbox"/>	Signal Optimization & Timing Updates	10%	All Applicable Crashes +
<input type="checkbox"/>	Removing Night Flash from Signal Timing	50%	Nighttime Flash mode Related Crashes

Intersection Geometric Enhancements			
<input type="checkbox"/>	Center Left-Turn Lane - Construct	80%	Rear-End Left-Turn
		50%	Head-On Left-Turn
		20%	Head-On, Angle, Other
		15%	Non Left-Turn Rear-End
<input type="checkbox"/>	Intersection Improvements (Realignment, Sight-Distance Improvements, Radii Improvements, Etc.)	30%	Angle
		15%	Rear-End
		10%	Head-On, Sideswipe, Pedestrian, Bicycle, Left-Turn Related
<input type="checkbox"/>	Offset Left-Turn Lane - Construct	65%	Angle-Turn, Head-On Left-Turn
		20%	Rear-End Left-Turn
<input type="checkbox"/>	Offset Right-Turn Lane - Construct	65%	Angle-Turn
		50%	Other Applicable Crashes
		20%	Rear-End Right Turn
<input type="checkbox"/>	Right-Turn Lane - Construct	65%	Rear-End Right-Turn
		20%	Applicable Rear-End Crashes, Sideswipe Same Direction
<input type="checkbox"/>	Roundabout	78%	Fatal and A-Injury Reduction
		57%	Minor Crash Reduction
<input type="checkbox"/>	Lighting	-	See MDOT Interchange Warranted Lighting Guidance and overall MDOT Lighting Guidance
General Intersection Enhancements (Non-Signalized Intersections)			
<input type="checkbox"/>	All-Way Stop Control - New Installation	60%	All Applicable Crashes
<input type="checkbox"/>	Ground Mounted Flashing Beacons (Red)- Install **	30%	All Crashes On Install Approach
<input type="checkbox"/>	Ground Mounted Flashing Beacons(Amber) - Install **	20%	All Crashes On Install Approach
<input type="checkbox"/>	Signing - Improve/Upgrade	30%	Angle, Rear-End Crashes
<input type="checkbox"/>	Pavement Markings - Improve/Upgrade	30%	Angle, Rear-End Crashes
<input type="checkbox"/>	Reflective Sheeting on Sign Posts (lollipops)	15%	All Applicable Crashes

NATS 2024-2026 Road Project Scoring System

Project Name:	White Street – Thompson to Barron Lake	Proposed Year:	2026
Agency:	Cass County Road Commission	Total Points:	11

Criteria	Points	
System Preservation	8 points max	
Most recent PASER rating		
2-3 and Previously applied for	5	
2-3 and not previously applied for	3	3
4	3	
5-6	1	
MDOT Geometric Guidelines		
4 R	3	
3R	2	2
PM	1	
Safety	5 points max	
a. Expected Crash Reduction - Based on MDOT approved Crash Reduction Factors		
Safety counter Measures	Up to 3	0
Addressing High Crash Locations.		
Number of crashes is 20% higher than MPO median	2	
Number of crashes are within 20% of MPO median	1	
Number of crashes is lower than 20% of the MPO median	0	0
Non-motorized Transportation / Complete Streets	5 points max	
Pedestrian and Cycling Facilities		0
Add facilities where none currently exist	3	
Improves upon existing facilities	2	
Currently has facilities but there are no improvements	1	
Non-Motorized Connectivity	0	0
Any added ped/bike facilities connect to other ped/bike facilities	2	

Criteria	Points	
Regional Connectivity	9 points max	
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	
Functional Classification of the Road		
Principal Arterial	3	
Minor Arterial	2	2
Major Collector	1	
Minor Collector	0	
Strategic Investment/ Project Planning	11 points max	
Identified In an Asset Management Plan	1	
There is an asset management plan covering other utilities along the limits of the project	1	
Agency staff have asset management training	1	1
Project identified in other planning document	1	
Project connects to a road with a PASER of 7 or higher	1	
Additional Local Match		
Agency will proved 40%+ Local Match	2	
Agency will proved 24-40% Local Match	1	
Note: An 18.15% local match is the minimum required		
Project Readiness (no points)	Yes	Y
Coordination with sewer or other infrastructure (no points)	Yes	N
Total Score (out of 33)	11	

Niles-Buchanan-Cass Area Transportation Study 2024-2026 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.

If you need assistance, please contact Brandon Kovnat, SWMPC Associate Planner.

Email kovnatb@swmpc.org or call (269) 925-1137 x 1524

Section 1. Applicant Information

Agency Name	Cass County Road Commission		
Contact Name	Joe Bellina	Title	Head Engineer
Phone Number	269-445-8611	Email	jbellina@casscoroad.com
Engineer/Consultant (If applicable)	Nick Mannon		
Phone Number	269-445-8611	Email	nmannon@casscoroad.com

Section 2. Project Information

Project Name/Road Name	White Street		
Project Limits (e.g. Napier Ave. to Britain Ave.)	Thomson Road to Barron Lake Road		
Project Length (nearest hundredth of a mile)	1.00	Proposed Year of Funding	2026
Primary Work Type	<input type="checkbox"/> Reconstruct <input checked="" type="checkbox"/> Restore & Rehabilitate <input type="checkbox"/> Roadside Facility <input type="checkbox"/> Resurface <input type="checkbox"/> Traffic Operations/Safety <input type="checkbox"/> Other		
Project Description (Please provide major work items including sidewalks, utility work, ADA upgrades etc.)	Crush and Shape HMA Surface and add 4" HMA, 36A, Shoulder Class II and Pavement Marking		
Was this project applied for during the 2020-2023 Call for Projects but not selected	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Was this project awarded funding for the 2020-2023 TIP, but was either canceled or failed to be obligated	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, please explain:		
If you are submitting multiple applications, please rank your applications by priority.	Project Rank: 7		

Section 3. Project Funding

Estimated STBG Participating Cost of the Project	\$ 372863.53
Minimum local match required - 18.15% of the Participating cost	\$ 67674.73
Can your agency supply additional match beyond the minimum required 18.15%. If so how much?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Amount \$
Are there elements of the project that could be eligible for other federal fund sources such as CMAQ, TAP, Bridge etc.	Source: Amount: \$ Explanation:
Will the project have nonparticipating work, such as water, or sewer work?	amount: \$ Explain:
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)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Maximum Dollar Amount you can AC? \$

Section 4. Regional Connectivity

What is the most current daily traffic count for the limits of this project?	AADT: 456 Year of count: 2009 Source: CCRC
National Functional Classification (NFC) for this roadway	Major Collector

Section 5. System Preservation

2021 PASER rating (Available 8-10-21)	2
Current state of drainage	<input checked="" type="checkbox"/> Adequate <input type="checkbox"/> Minor and tolerable drainage problems <input type="checkbox"/> Occasional drainage problems with some maintenance required <input type="checkbox"/> Inadequate, frequent flooding, excessive maintenance required
Expected increase in Remaining Service life (RSL)	17 Use MDOT's Guidelines for Geometrics on Local Projects
What MDOT guidelines does the project conform to?	<input type="checkbox"/> Reconstruction (4R) <input checked="" type="checkbox"/> Resurfacing, restoration, and Rehabilitation (3R) <input type="checkbox"/> Preventative Maintenance (PM)

Section 6. Safety

Please list the number and severity of crashes within the proposed project limits over the last 5 yrs. (2016-2020) (see [Michigan Crash Facts](#) for crash data)

Total Crashes	5	Pedestrian & Bicycle Crashes	0
Fatalities	0	Serious Injuries	0
Using the attached Crash Reduction Factors sheet, please check each safety counter measure that will be included in the project			
Describe any other safety improvements this project will provide			

Section 7. Pedestrian and Bicycle Improvements

Please explain what pedestrian and/or bicycle facilities if any currently exist	
Please explain any additional pedestrian and/or bicycle improvements included in the project.	
Does this project connect to an existing pedestrian/bicycle facility or one that is planned to be completed before 2027	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, please provide a map of the connecting facilities

Section 8. Strategic Planning & Investment

Is the project identified in an approved Asset Management Plan, or Capital Improvement Plan	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, please attach the plan.
Is the project identified in another approved planning document such as a master plan or parks and recreation plan	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, please cite the plan and page number:
Is there an approved asset management plan covering the utilities along the project's limits	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No List utilities covered by the asset management plan:
Will this project coordinate with other infrastructure projects (i.e. utility, water, sewer, etc?)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, please indicate the project type and construction year:
How many water main breaks have you had at this location in the past five years?	None
Is there a completed utilities assessment that includes televising the sewers in the project area?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Do you have a maintenance strategy or Asset Management Plan covering non-motorized facilities?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Has staff received Asset Management training through the Transportation Asset Management Council https://www.michigan.gov/tamc/0,7308,7-356-82158--,00.html	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Has your agency completed the Asset Management Readiness Scale from the Michigan Infrastructure Council (MIC)? https://fcm.ca/en/resources/mamp/tool-asset-management-readiness-scale	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No https://fcm.ca/en/resources/mamp/tool-asset-management-readiness-scale
Does the project cross-jurisdictional boundaries?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
If yes, will it be bid as a single project?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA
Will this project require environmental mitigation, purchase of Right of Way (ROW), or railroad permits?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Sure If yes, which items are required:
If any of the above items are required please explain how they will be addressed	
Does this project perform Resurfacing, Reconstruction, or Preventative Maintenance on a segment adjacent to a segment that currently has a PASER of 7 or higher	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No List the adjacent segments that qualify:

Section 9. Existing and Proposed Roadway Design

	Existing			Proposed		
Include the number of vehicle lanes	Through Traffic Lanes	Center Turn Lane	On Street Parking	Through Traffic Lanes	Center Turn Lane	On Street Parking
	2	0	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	2	0	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Shoulder Surface	<input type="checkbox"/> Paved <input checked="" type="checkbox"/> Unpaved		Width (ft.) 3	<input type="checkbox"/> Paved <input checked="" type="checkbox"/> Unpaved		Width (ft.) 3
Sidewalk/ path information	Placement <input type="checkbox"/> One Side <input type="checkbox"/> Both Sides <input type="checkbox"/> Intermittent <input checked="" type="checkbox"/> None		Width (ft.)	Placement <input type="checkbox"/> One Side <input type="checkbox"/> Both Sides <input type="checkbox"/> Intermittent <input checked="" type="checkbox"/> None		Width (ft.)
On road bicycle facilities	<input type="checkbox"/> Bike Lane <input type="checkbox"/> Other (specify) <input type="checkbox"/> Sharrows <input type="checkbox"/> Wide Shoulders <input checked="" type="checkbox"/> None			<input type="checkbox"/> Bike Lane <input type="checkbox"/> Other (specify) <input type="checkbox"/> Sharrows <input type="checkbox"/> Wide Shoulders <input checked="" type="checkbox"/> None		
Utilities, Sewer and Water	<input type="checkbox"/> Utilities Upgrades Needed <input type="checkbox"/> Sewer and water work needed			<input type="checkbox"/> Replace Utilities <input type="checkbox"/> Relocate Utilities <input type="checkbox"/> Sewer and Water Line Work		
Please describe any improvements being made as part of this project to crosswalks, signage or signals, or streetscape elements not discussed in project description						
Does this project enhance connectivity of pedestrian or bicyclists to fixed route or Dial-A-Ride transit?			<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, how?			

Section 10. Estimated Project Schedule

Activity	Estimated Date
Resolution of Support for <input type="checkbox"/> Local Match Submitted to SWMPC	September 2025
Project Application Submitted to MOT	September 2025
Grade Inspection Package Submitted to MDOT	October 2025
Grade Inspection Meeting Scheduled	November 2025
Final Plan and Estimate to MDOT	December 2025
Right of Way (ROW) certified*	NA
Rail Road Permits*	NA
Environmental Mitigation*	NA
Project Obligated	January 2025
Project Letting	March 2026
Construction Start	May 2026
Project Completion	09/30/2026

*Enter NA if these items will not be required.

Proposed Improvement		% Reduction	Associated Crash Types
SEGMENT CRASH REDUCTION FACTORS			
Geometric Safety Enhancements			
<input type="checkbox"/>	Center Left-Turn Lane - Construct	80%	Rear-End Left-Turn
		50%	Head-On Left-Turn
		20%	Head-On, Angle, Sideswipe*
		15%	Non Left-Turn Rear-End, Other*
<input type="checkbox"/>	Right-Turn Lane - Construct	65%	Rear-End Right-Turn
		30%	Angle
		15%	Rear-End
		10%	Other*
<input type="checkbox"/>	Horizontal Curve Flattening	30%	Lane Departure***
<input type="checkbox"/>	Shoulders - Widen to Standard Width (add 1' each side)	5%	Lane Departure***
<input type="checkbox"/>	Shoulders - Widen to Standard Width (add 2' each side)	10%	Lane Departure***
<input type="checkbox"/>	Shoulders - Widen to Standard Width (add 3' each side)	15%	Lane Departure***
<input type="checkbox"/>	Shoulders - Widen to Standard Width (add 4' each side)	20%	Lane Departure***
<input type="checkbox"/>	Shoulders - Widen to Standard Width (add 5' each side)	25%	Lane Departure***
<input type="checkbox"/>	Shoulders - Widen to Standard Width (add 6' each side)	30%	Lane Departure***
<input type="checkbox"/>			
<input type="checkbox"/>	Shoulders - Widen to Standard Width (add 7' each side)	35%	Lane Departure***
<input type="checkbox"/>	Vertical Curve Modification	20%	All Applicable Crash Types +++
General Segment Enhancements			
<input type="checkbox"/>	Access Management - Improve	15%	Drive-way Related Applicable Crashes
<input type="checkbox"/>	Centerline Rumble Strips - Install	44%	K and A injury Applicable Crashes
		46%	Single Vehicle Run off Road Left Crashes
		43%	Sideswipe Same Crashes
		55%	Sideswipe Opposite Crashes
<input type="checkbox"/>	High Friction Surface Treatment - Install	35%	Wet Crashes
		20%	All Other Applicable Crashes
<input type="checkbox"/>	Recessed Durable Pavement Markings	5%	All Applicable Crashes
<input type="checkbox"/>	Pedestrian Refuge - Install	50%	Pedestrian Crashes (Review NCHRP Report 841)
<input type="checkbox"/>	Road Diet (4-3 Lane Conversion) - Install	50%	Suburban - All Applicable Crashes
<input type="checkbox"/>	Shoulder Rumble Strips	20%	Run-Off the Road Right Crashes
<input type="checkbox"/>	Signing/Delineation on Horizontal Curves (Including Recessed Durable Pavement Markings) - Install	20%	Lane Departure***
<input type="checkbox"/>	Safety Edge Improvement	13%	All non-intersection crashes (CMF Clearing House ID 8658)

Roadside Enhancements			
<input type="checkbox"/>	Bicycle Lanes - Install per standards	50%	Bicycle Crashes
<input type="checkbox"/>	Shared Use Path - <i>Install</i>	33%	Bicycle and Pedestrian Related Crashes
<input type="checkbox"/>	Fixed Objects From Clear zone (Trees, Culverts, Etc.) - <i>Removal</i>	75%	Fixed-Object Applicable Crashes
<input type="checkbox"/>	Guardrail - <i>Install</i>	55%	Lane Departure ***Fatalities and "A" Injury Applicable Crashes
<input type="checkbox"/>	Sidewalk for Pedestrians - <i>Construct</i>	85%	Pedestrian Crashes
<input type="checkbox"/>	Slope Flattening	15%	Fixed-Object, Overturn Applicable Crashes
<input type="checkbox"/>	Living Snow Fence	20%	Crashes due to wintry surface conditions
<input type="checkbox"/>	Lighting - <i>install on segment</i>	20%	Dark Unlighted Crashes
INTERSECTION CRASH REDUCTION FACTORS			
Pedestrian / Bicycle Enhancements			
<input type="checkbox"/>	Bump Out / Curb Extension - <i>Remove Parking / Install</i>	30%	All Crashes
<input type="checkbox"/>	Bicycle Lanes - Install per standards	25%	Bicycle Crashes
<input type="checkbox"/>	Sidewalk for Pedestrians - <i>Construct</i>	85%	Pedestrian Crashes
<input type="checkbox"/>	Intersection Lighting - <i>install</i>	75%	Pedestrian Fatal - Dark Unlighted Crashes
		40%	Pedestrian A-Injury - Dark Unlighted Crashes
		30%	All Applicable Dark Unlighted Crashes
<input type="checkbox"/>	Rectangular Rapid Flashing Beacons	47%	Pedestrian Crashes
<input type="checkbox"/>	Ped. Countdown Signals - <i>Install new Pedestrian signal</i>	30%	Pedestrian Crashes
<input type="checkbox"/>	Ped. Countdown Signals - <i>Upgrade from existing Pedestrian signal</i>	25%	Pedestrian Crashes
Signal Timing / Hardware Enhancements			
<input type="checkbox"/>	Multiple Low-Cost Improvements	3%	Rear-End
		12%	Right-Angle
		3%	Nighttime
<input type="checkbox"/>	Install Reflectorized Backplates	15%	All Applicable Crashes
<input type="checkbox"/>	Add All-Red Clearance Interval - <i>Add per ITE</i>	20%	Head-On Left-Turn, Angle
<input type="checkbox"/>	Yellow-Change Interval - <i>Increase</i>	10%	All Crash Types
<input type="checkbox"/>	Box Span Signal - <i>Upgrade from Stop Control</i>	65%	Angle
		-25%	Rear-End (Increases Crashes)
		20%	All Other Non Rear-End Crashes
<input type="checkbox"/>	Box Span Signal - <i>Upgrade from Diagonal Span</i>	10%	All Applicable Crashes+
<input type="checkbox"/>	Protected Left-Turn Signal Phase - <i>Add</i>	30%	Left-Turn
<input type="checkbox"/>	Signal Head Size - <i>Increase to 12 "</i>	10%	All Applicable Crashes +
<input type="checkbox"/>	Signal Optimization & Timing Updates	10%	All Applicable Crashes +
<input type="checkbox"/>	Removing Night Flash from Signal Timing	50%	Nighttime Flash mode Related Crashes

Intersection Geometric Enhancements			
<input type="checkbox"/>	Center Left-Turn Lane - Construct	80%	Rear-End Left-Turn
		50%	Head-On Left-Turn
		20%	Head-On, Angle, Other
		15%	Non Left-Turn Rear-End
<input type="checkbox"/>	Intersection Improvements (Realignment, Sight-Distance Improvements, Radii Improvements, Etc.)	30%	Angle
		15%	Rear-End
		10%	Head-On, Sideswipe, Pedestrian, Bicycle, Left-Turn Related
<input type="checkbox"/>	Offset Left-Turn Lane - Construct	65%	Angle-Turn, Head-On Left-Turn
		20%	Rear-End Left-Turn
<input type="checkbox"/>	Offset Right-Turn Lane - Construct	65%	Angle-Turn
		50%	Other Applicable Crashes
		20%	Rear-End Right Turn
<input type="checkbox"/>	Right-Turn Lane - Construct	65%	Rear-End Right-Turn
		20%	Applicable Rear-End Crashes, Sideswipe Same Direction
<input type="checkbox"/>	Roundabout	78%	Fatal and A-Injury Reduction
		57%	Minor Crash Reduction
<input type="checkbox"/>	Lighting	-	See MDOT Interchange Warranted Lighting Guidance and overall MDOT Lighting Guidance
General Intersection Enhancements (Non-Signalized Intersections)			
<input type="checkbox"/>	All-Way Stop Control - New Installation	60%	All Applicable Crashes
<input type="checkbox"/>	Ground Mounted Flashing Beacons (Red)- Install **	30%	All Crashes On Install Approach
<input type="checkbox"/>	Ground Mounted Flashing Beacons(Amber) - Install **	20%	All Crashes On Install Approach
<input type="checkbox"/>	Signing - Improve/Upgrade	30%	Angle, Rear-End Crashes
<input type="checkbox"/>	Pavement Markings - Improve/Upgrade	30%	Angle, Rear-End Crashes
<input type="checkbox"/>	Reflective Sheeting on Sign Posts (lollipops)	15%	All Applicable Crashes

NATS 2024-2026 Road Project Scoring System

Project Name: Huntly	Proposed Year: 2026
Agency: Cass County Road Commission	Total Points: 10

Criteria	Points	
System Preservation	8 points max	
Most recent PASER rating		
2-3 and Previously applied for	5	
2-3 and not previously applied for	3	
4	3	2
5-6	1	
MDOT Geometric Guidelines		
4 R	3	
3R	2	2
PM	1	
Safety	5 points max	
a. Expected Crash Reduction - Based on MDOT approved Crash Reduction Factors		
Safety counter Measures	Up to 3	1
Addressing High Crash Locations.		
Number of crashes is 20% higher than MPO median	2	
Number of crashes are within 20% of MPO median	1	
Number of crashes is lower than 20% of the MPO median	0	0
Non-motorized Transportation / Complete Streets	5 points max	
Pedestrian and Cycling Facilities		0
Add facilities where none currently exist	3	
Improves upon existing facilities	2	
Currently has facilities but there are no improvements	1	
Non-Motorized Connectivity	0	0
Any added ped/bike facilities connect to other ped/bike facilities	2	

Criteria	Points	
Regional Connectivity		9 points max
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	
Functional Classification of the Road		
Principal Arterial	3	
Minor Arterial	2	
Major Collector	1	1
Minor Collector	0	
Strategic Investment/ Project Planning		11 points max
Identified In an Asset Management Plan	1	
There is an asset management plan covering other utilities along the limits of the project	1	
Agency staff have asset management training	1	1
Project identified in other planning document	1	
Project connects to a road with a PASER of 7 or higher	1	
Additional Local Match		
Agency will proved 40%+ Local Match	2	
Agency will proved 24-40% Local Match	1	
Note: An 18.15% local match is the minimum required		
Project Readiness (no points)	Yes	Y
Coordination with sewer or other infrastructure (no points)	Yes	N
Total Score (out of 33)	10	

Niles-Buchanan-Cass Area Transportation Study 2024-2026 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.

If you need assistance, please contact Brandon Kovnat, SWMPC Associate Planner.

Email kovnatb@swmpc.org or call (269) 925-1137 x 1524

Section 1. Applicant Information

Agency Name	Cass County Road Commission		
Contact Name	Joe Bellina	Title	Head Engineer
Phone Number	269-445-8611	Email	jbellina@casscoroad.com
Engineer/Consultant (If applicable)	Nick Mannon		
Phone Number	269-445-8611	Email	nmannon@casscoroad.com

Section 2. Project Information

Project Name/Road Name	Huntly Road		
Project Limits (e.g. Napier Ave. to Britain Ave.)	Yankee Street(BR60) to Lake Street		
Project Length (nearest hundredth of a mile)	1.01	Proposed Year of Funding	2026
Primary Work Type	<input type="checkbox"/> Reconstruct <input type="checkbox"/> Restore & Rehabilitate <input type="checkbox"/> Roadside Facility <input checked="" type="checkbox"/> Resurface <input type="checkbox"/> Traffic Operations/Safety <input type="checkbox"/> Other		
Project Description (Please provide major work items including sidewalks, utility work, ADA upgrades etc.)	2.5" Cold Milling HMA Surface replace with 1.5" HMA,36A base course, 1" HMA,36A top course, Shoulder Class II and Pavement Marking		
Was this project applied for during the 2020-2023 Call for Projects but not selected	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Was this project awarded funding for the 2020-2023 TIP, but was either canceled or failed to be obligated	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, please explain:		
If you are submitting multiple applications, please rank your applications by priority.	Project Rank: 6		

Section 3. Project Funding

Estimated STBG Participating Cost of the Project	\$ 271106.81
Minimum local match required - 18.15% of the Participating cost	\$ 49205.89
Can your agency supply additional match beyond the minimum required 18.15%. If so how much?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Amount \$
Are there elements of the project that could be eligible for other federal fund sources such as CMAQ, TAP, Bridge etc.	Source: Amount: \$ Explanation:
Will the project have nonparticipating work, such as water, or sewer work?	amount: \$ Explain:
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)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Maximum Dollar Amount you can AC? \$

Section 4. Regional Connectivity

What is the most current daily traffic count for the limits of this project?	AADT: 2673 Year of count: 2002 Source: CCRC
National Functional Classification (NFC) for this roadway	Major Collector

Section 5. System Preservation

2021 PASER rating (Available 8-10-21)	5,4,3
Current state of drainage	<input checked="" type="checkbox"/> Adequate <input type="checkbox"/> Minor and tolerable drainage problems <input type="checkbox"/> Occasional drainage problems with some maintenance required <input type="checkbox"/> Inadequate, frequent flooding, excessive maintenance required
Expected increase in Remaining Service life (RSL)	12 Use MDOT's Guidelines for Geometrics on Local Projects
What MDOT guidelines does the project conform to?	<input type="checkbox"/> Reconstruction (4R) <input checked="" type="checkbox"/> Resurfacing, restoration, and Rehabilitation (3R) <input type="checkbox"/> Preventative Maintenance (PM)

Section 6. Safety

Please list the number and severity of crashes within the proposed project limits over the last 5 yrs. (2016-2020) (see [Michigan Crash Facts](#) for crash data)

Total Crashes	9	Pedestrian & Bicycle Crashes	1
Fatalities	0	Serious Injuries	2
Using the attached Crash Reduction Factors sheet, please check each safety counter measure that will be included in the project			
Describe any other safety improvements this project will provide	Add 2' of paved shoulders where widths are 1'		

Section 7. Pedestrian and Bicycle Improvements

Please explain what pedestrian and/or bicycle facilities if any currently exist	
Please explain any additional pedestrian and/or bicycle improvements included in the project.	
Does this project connect to an existing pedestrian/bicycle facility or one that is planned to be completed before 2027	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, please provide a map of the connecting facilities

Section 8. Strategic Planning & Investment

Is the project identified in an approved Asset Management Plan, or Capital Improvement Plan	<input type="checkbox"/> Yes <input type="checkbox"/> No If yes, please attach the plan.
Is the project identified in another approved planning document such as a master plan or parks and recreation plan	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, please cite the plan and page number:
Is there an approved asset management plan covering the utilities along the project's limits	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No List utilities covered by the asset management plan:
Will this project coordinate with other infrastructure projects (i.e. utility, water, sewer, etc?)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, please indicate the project type and construction year:
How many water main breaks have you had at this location in the past five years?	None
Is there a completed utilities assessment that includes televising the sewers in the project area?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Do you have a maintenance strategy or Asset Management Plan covering non-motorized facilities?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Has staff received Asset Management training through the Transportation Asset Management Council https://www.michigan.gov/tamc/0,7308,7-356-82158--,00.html	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Has your agency completed the Asset Management Readiness Scale from the Michigan Infrastructure Council (MIC)? https://fcm.ca/en/resources/mamp/tool-asset-management-readiness-scale	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No https://fcm.ca/en/resources/mamp/tool-asset-management-readiness-scale
Does the project cross-jurisdictional boundaries?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
If yes, will it be bid as a single project?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA
Will this project require environmental mitigation, purchase of Right of Way (ROW), or railroad permits?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Sure If yes, which items are required:
If any of the above items are required please explain how they will be addressed	
Does this project perform Resurfacing, Reconstruction, or Preventative Maintenance on a segment adjacent to a segment that currently has a PASER of 7 or higher	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No List the adjacent segments that qualify:

Section 9. Existing and Proposed Roadway Design

	Existing			Proposed		
Include the number of vehicle lanes	Through Traffic Lanes	Center Turn Lane	On Street Parking	Through Traffic Lanes	Center Turn Lane	On Street Parking
	2	0	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	2	0	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Shoulder Surface	<input checked="" type="checkbox"/> Paved <input type="checkbox"/> Unpaved		Width (ft.) 24	<input checked="" type="checkbox"/> Paved <input type="checkbox"/> Unpaved		Width (ft.) 28
Sidewalk/ path information	Placement <input type="checkbox"/> One Side <input type="checkbox"/> Both Sides <input type="checkbox"/> Intermittent <input checked="" type="checkbox"/> None		Width (ft.)	Placement <input type="checkbox"/> One Side <input type="checkbox"/> Both Sides <input type="checkbox"/> Intermittent <input checked="" type="checkbox"/> None		Width (ft.)
On road bicycle facilities	<input type="checkbox"/> Bike Lane <input type="checkbox"/> Other (specify) <input type="checkbox"/> Sharrows <input type="checkbox"/> Wide Shoulders <input checked="" type="checkbox"/> None			<input type="checkbox"/> Bike Lane <input type="checkbox"/> Other (specify) <input type="checkbox"/> Sharrows <input type="checkbox"/> Wide Shoulders <input checked="" type="checkbox"/> None		
Utilities, Sewer and Water	<input type="checkbox"/> Utilities Upgrades Needed <input type="checkbox"/> Sewer and water work needed			<input type="checkbox"/> Replace Utilities <input type="checkbox"/> Relocate Utilities <input type="checkbox"/> Sewer and Water Line Work		
Please describe any improvements being made as part of this project to crosswalks, signage or signals, or streetscape elements not discussed in project description						
Does this project enhance connectivity of pedestrian or bicyclists to fixed route or Dial-A-Ride transit?			<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, how?			

Section 10. Estimated Project Schedule

Activity	Estimated Date
Resolution of Support for <input type="checkbox"/> Local Match Submitted to SWMPC	September 2025
Project Application Submitted to MOT	September 2025
Grade Inspection Package Submitted to MDOT	October 2025
Grade Inspection Meeting Scheduled	November 2025
Final Plan and Estimate to MDOT	December 2025
Right of Way (ROW) certified*	NA
Rail Road Permits*	NA
Environmental Mitigation*	NA
Project Obligated	January 2026
Project Letting	March 2026
Construction Start	May 2026
Project Completion	09/30/

*Enter NA if these items will not be required.

	Proposed Improvement	% Reduction	Associated Crash Types
	SEGMENT CRASH REDUCTION FACTORS		
	Geometric Safety Enhancements		
<input type="checkbox"/>	Center Left-Turn Lane - Construct	80%	Rear-End Left-Turn
		50%	Head-On Left-Turn
		20%	Head-On, Angle, Sideswipe*
		15%	Non Left-Turn Rear-End, Other*
<input type="checkbox"/>	Right-Turn Lane - Construct	65%	Rear-End Right-Turn
		30%	Angle
		15%	Rear-End
		10%	Other*
<input type="checkbox"/>	Horizontal Curve Flattening	30%	Lane Departure***
<input type="checkbox"/>	Shoulders - Widen to Standard Width (add 1' each side)	5%	Lane Departure***
<input checked="" type="checkbox"/>	Shoulders - Widen to Standard Width (add 2' each side)	10%	Lane Departure***
<input type="checkbox"/>	Shoulders - Widen to Standard Width (add 3' each side)	15%	Lane Departure***
<input type="checkbox"/>	Shoulders - Widen to Standard Width (add 4' each side)	20%	Lane Departure***
<input type="checkbox"/>	Shoulders - Widen to Standard Width (add 5' each side)	25%	Lane Departure***
<input type="checkbox"/>	Shoulders - Widen to Standard Width (add 6' each side)	30%	Lane Departure***
<input type="checkbox"/>			
<input type="checkbox"/>	Shoulders - Widen to Standard Width (add 7' each side)	35%	Lane Departure***
<input type="checkbox"/>	Vertical Curve Modification	20%	All Applicable Crash Types +++
	General Segment Enhancements		
<input type="checkbox"/>	Access Management - Improve	15%	Drive-way Related Applicable Crashes
<input type="checkbox"/>	Centerline Rumble Strips - Install	44%	K and A injury Applicable Crashes
		46%	Single Vehicle Run off Road Left Crashes
		43%	Sideswipe Same Crashes
		55%	Sideswipe Opposite Crashes
<input type="checkbox"/>	High Friction Surface Treatment - Install	35%	Wet Crashes
		20%	All Other Applicable Crashes
<input type="checkbox"/>	Recessed Durable Pavement Markings	5%	All Applicable Crashes
<input type="checkbox"/>	Pedestrian Refuge - Install	50%	Pedestrian Crashes (Review NCHRP Report 841)
<input type="checkbox"/>	Road Diet (4-3 Lane Conversion) - Install	50%	Suburban - All Applicable Crashes
<input type="checkbox"/>	Shoulder Rumble Strips	20%	Run-Off the Road Right Crashes
<input type="checkbox"/>	Signing/Delineation on Horizontal Curves (Including Recessed Durable Pavement Markings) - Install	20%	Lane Departure***
<input type="checkbox"/>	Safety Edge Improvement	13%	All non-intersection crashes (CMF Clearing House ID 8658)

Roadside Enhancements			
<input type="checkbox"/>	Bicycle Lanes - Install per standards	50%	Bicycle Crashes
<input type="checkbox"/>	Shared Use Path - <i>Install</i>	33%	Bicycle and Pedestrian Related Crashes
<input type="checkbox"/>	Fixed Objects From Clear zone (Trees, Culverts, Etc.) - <i>Removal</i>	75%	Fixed-Object Applicable Crashes
<input type="checkbox"/>	Guardrail - <i>Install</i>	55%	Lane Departure ***Fatalities and "A" Injury Applicable Crashes
<input type="checkbox"/>	Sidewalk for Pedestrians - <i>Construct</i>	85%	Pedestrian Crashes
<input type="checkbox"/>	Slope Flattening	15%	Fixed-Object, Overturn Applicable Crashes
<input type="checkbox"/>	Living Snow Fence	20%	Crashes due to wintry surface conditions
<input type="checkbox"/>	Lighting - <i>install on segment</i>	20%	Dark Unlighted Crashes
INTERSECTION CRASH REDUCTION FACTORS			
Pedestrian / Bicycle Enhancements			
<input type="checkbox"/>	Bump Out / Curb Extension - <i>Remove Parking / Install</i>	30%	All Crashes
<input type="checkbox"/>	Bicycle Lanes - Install per standards	25%	Bicycle Crashes
<input type="checkbox"/>	Sidewalk for Pedestrians - <i>Construct</i>	85%	Pedestrian Crashes
<input type="checkbox"/>	Intersection Lighting - <i>install</i>	75%	Pedestrian Fatal - Dark Unlighted Crashes
		40%	Pedestrian A-Injury - Dark Unlighted Crashes
		30%	All Applicable Dark Unlighted Crashes
<input type="checkbox"/>	Rectangular Rapid Flashing Beacons	47%	Pedestrian Crashes
<input type="checkbox"/>	Ped. Countdown Signals - <i>Install new Pedestrian signal</i>	30%	Pedestrian Crashes
<input type="checkbox"/>	Ped. Countdown Signals - <i>Upgrade from existing Pedestrian signal</i>	25%	Pedestrian Crashes
Signal Timing / Hardware Enhancements			
<input type="checkbox"/>	Multiple Low-Cost Improvements	3%	Rear-End
		12%	Right-Angle
		3%	Nighttime
<input type="checkbox"/>	Install Reflectorized Backplates	15%	All Applicable Crashes
<input type="checkbox"/>	Add All-Red Clearance Interval - <i>Add per ITE</i>	20%	Head-On Left-Turn, Angle
<input type="checkbox"/>	Yellow-Change Interval - <i>Increase</i>	10%	All Crash Types
<input type="checkbox"/>	Box Span Signal - <i>Upgrade from Stop Control</i>	65%	Angle
		-25%	Rear-End (Increases Crashes)
		20%	All Other Non Rear-End Crashes
<input type="checkbox"/>	Box Span Signal - <i>Upgrade from Diagonal Span</i>	10%	All Applicable Crashes+
<input type="checkbox"/>	Protected Left-Turn Signal Phase - <i>Add</i>	30%	Left-Turn
<input type="checkbox"/>	Signal Head Size - <i>Increase to 12 "</i>	10%	All Applicable Crashes +
<input type="checkbox"/>	Signal Optimization & Timing Updates	10%	All Applicable Crashes +
<input type="checkbox"/>	Removing Night Flash from Signal Timing	50%	Nighttime Flash mode Related Crashes

Intersection Geometric Enhancements			
<input type="checkbox"/>	Center Left-Turn Lane - Construct	80%	Rear-End Left-Turn
		50%	Head-On Left-Turn
		20%	Head-On, Angle, Other
		15%	Non Left-Turn Rear-End
<input type="checkbox"/>	Intersection Improvements (Realignment, Sight-Distance Improvements, Radii Improvements, Etc.)	30%	Angle
		15%	Rear-End
		10%	Head-On, Sideswipe, Pedestrian, Bicycle, Left-Turn Related
<input type="checkbox"/>	Offset Left-Turn Lane - Construct	65%	Angle-Turn, Head-On Left-Turn
		20%	Rear-End Left-Turn
<input type="checkbox"/>	Offset Right-Turn Lane - Construct	65%	Angle-Turn
		50%	Other Applicable Crashes
		20%	Rear-End Right Turn
<input type="checkbox"/>	Right-Turn Lane - Construct	65%	Rear-End Right-Turn
		20%	Applicable Rear-End Crashes, Sideswipe Same Direction
<input type="checkbox"/>	Roundabout	78%	Fatal and A-Injury Reduction
		57%	Minor Crash Reduction
<input type="checkbox"/>	Lighting	-	See MDOT Interchange Warranted Lighting Guidance and overall MDOT Lighting Guidance
General Intersection Enhancements (Non-Signalized Intersections)			
<input type="checkbox"/>	All-Way Stop Control - New Installation	60%	All Applicable Crashes
<input type="checkbox"/>	Ground Mounted Flashing Beacons (Red)- Install **	30%	All Crashes On Install Approach
<input type="checkbox"/>	Ground Mounted Flashing Beacons(Amber) - Install **	20%	All Crashes On Install Approach
<input type="checkbox"/>	Signing - Improve/Upgrade	30%	Angle, Rear-End Crashes
<input type="checkbox"/>	Pavement Markings - Improve/Upgrade	30%	Angle, Rear-End Crashes
<input type="checkbox"/>	Reflective Sheeting on Sign Posts (lollipops)	15%	All Applicable Crashes

NATS 2024-2026 Road Project Scoring System

Project Name: Ironwood	Proposed Year: 2025
Agency: Cass County Road Commission	Total Points: 7

Criteria	Points	
System Preservation	8 points max	
Most recent PASER rating		
2-3 and Previously applied for	5	
2-3 and not previously applied for	3	
4	3	
5-6	1	1
MDOT Geometric Guidelines		
4 R	3	
3R	2	
PM	1	1
Safety	5 points max	
a. Expected Crash Reduction - Based on MDOT approved Crash Reduction Factors		
Safety counter Measures	Up to 3	0
Addressing High Crash Locations.		
Number of crashes is 20% higher than MPO median	2	
Number of crashes are within 20% of MPO median	1	
Number of crashes is lower than 20% of the MPO median	0	0
Non-motorized Transportation / Complete Streets	5 points max	
Pedestrian and Cycling Facilities		0
Add facilities where none currently exist	3	
Improves upon existing facilities	2	
Currently has facilities but there are no improvements	1	
Non-Motorized Connectivity	0	0
Any added ped/bike facilities connect to other ped/bike facilities	2	

Criteria	Points	
Regional Connectivity	9 points max	
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	
Functional Classification of the Road		
Principal Arterial	3	
Minor Arterial	2	
Major Collector	1	1
Minor Collector	0	
Strategic Investment/ Project Planning	11 points max	
Identified In an Asset Management Plan	1	
There is an asset management plan covering other utilities along the limits of the project	1	
Agency staff have asset management training	1	1
Project identified in other planning document	1	
Project connects to a road with a PASER of 7 or higher	1	
Additional Local Match		
Agency will proved 40%+ Local Match	2	
Agency will proved 24-40% Local Match	1	
Note: An 18.15% local match is the minimum required		
Project Readiness (no points)	Yes	Y
Coordination with sewer or other infrastructure (no points)	Yes	N
Total Score (out of 33)	7	

Niles-Buchanan-Cass Area Transportation Study 2024-2026 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.

If you need assistance, please contact Brandon Kovnat, SWMPC Associate Planner.

Email kovnatb@swmpc.org or call (269) 925-1137 x 1524

Section 1. Applicant Information

Agency Name	Cass County Road Commission		
Contact Name	Joe Bellina	Title	Head Engineer
Phone Number	269-445-8611	Email	jbellina@casscoroad.com
Engineer/Consultant (If applicable)	Nick Mannon		
Phone Number	269-445-8611	Email	nmannon@casscoroad.com

Section 2. Project Information

Project Name/Road Name	Ironwood Drive		
Project Limits (e.g. Napier Ave. to Britain Ave.)	Redfield Street to Bell Road		
Project Length (nearest hundredth of a mile)	1.76	Proposed Year of Funding	2025
Primary Work Type	<input type="checkbox"/> Reconstruct <input type="checkbox"/> Restore & Rehabilitate <input type="checkbox"/> Roadside Facility <input checked="" type="checkbox"/> Resurface <input type="checkbox"/> Traffic Operations/Safety <input type="checkbox"/> Other		
Project Description (Please provide major work items including sidewalks, utility work, ADA upgrades etc.)	1.5" HMA, 36A top course overlay, Shoulder Class II and Pavement Marking		
Was this project applied for during the 2020-2023 Call for Projects but not selected	<input type="checkbox"/> Yes <input type="checkbox"/> No		
Was this project awarded funding for the 2020-2023 TIP, but was either canceled or failed to be obligated	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, please explain:		
If you are submitting multiple applications, please rank your applications by priority.	Project Rank: 5		

Section 3. Project Funding

Estimated STBG Participating Cost of the Project	\$ 264434.40
Minimum local match required - 18.15% of the Participating cost	\$ 47994.84
Can your agency supply additional match beyond the minimum required 18.15%. If so how much?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Amount \$
Are there elements of the project that could be eligible for other federal fund sources such as CMAQ, TAP, Bridge etc.	Source: Amount: \$ Explanation:
Will the project have nonparticipating work, such as water, or sewer work?	amount: \$ Explain:
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)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Maximum Dollar Amount you can AC? \$

Section 4. Regional Connectivity

What is the most current daily traffic count for the limits of this project?	AADT: 4124 Year of count: 2019 Source: CCRC
National Functional Classification (NFC) for this roadway	Minor Arterial

Section 5. System Preservation

2021 PASER rating (Available 8-10-21)	6
Current state of drainage	<input checked="" type="checkbox"/> Adequate <input type="checkbox"/> Minor and tolerable drainage problems <input type="checkbox"/> Occasional drainage problems with some maintenance required <input type="checkbox"/> Inadequate, frequent flooding, excessive maintenance required
Expected increase in Remaining Service life (RSL)	7 Use MDOT's Guidelines for Geometrics on Local Projects
What MDOT guidelines does the project conform to?	<input type="checkbox"/> Reconstruction (4R) <input type="checkbox"/> Resurfacing, restoration, and Rehabilitation (3R) <input checked="" type="checkbox"/> Preventative Maintenance (PM)

Section 6. Safety

Please list the number and severity of crashes within the proposed project limits over the last 5 yrs. (2016-2020) (see [Michigan Crash Facts](#) for crash data)

Total Crashes	39	Pedestrian & Bicycle Crashes	1
Fatalities	0	Serious Injuries	0

Using the attached Crash Reduction Factors sheet, please check each safety counter measure that will be included in the project

Describe any other safety improvements this project will provide

Section 7. Pedestrian and Bicycle Improvements

Please explain what pedestrian and/or bicycle facilities if any currently exist

Please explain any additional pedestrian and/or bicycle improvements included in the project.

Does this project connect to an existing pedestrian/bicycle facility or one that is planned to be completed before 2027

☐ Yes ☒ No

If yes, please provide a map of the connecting facilities

Section 8. Strategic Planning & Investment

Is the project identified in an approved Asset Management Plan, or Capital Improvement Plan	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, please attach the plan.
Is the project identified in another approved planning document such as a master plan or parks and recreation plan	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, please cite the plan and page number:
Is there an approved asset management plan covering the utilities along the project's limits	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No List utilities covered by the asset management plan:
Will this project coordinate with other infrastructure projects (i.e. utility, water, sewer, etc?)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, please indicate the project type and construction year:
How many water main breaks have you had at this location in the past five years?	None
Is there a completed utilities assessment that includes televising the sewers in the project area?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Do you have a maintenance strategy or Asset Management Plan covering non-motorized facilities?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Has staff received Asset Management training through the Transportation Asset Management Council https://www.michigan.gov/tamc/0,7308,7-356-82158--,00.html	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Has your agency completed the Asset Management Readiness Scale from the Michigan Infrastructure Council (MIC)? https://fcm.ca/en/resources/mamp/tool-asset-management-readiness-scale	<input type="checkbox"/> Yes <input type="checkbox"/> No https://fcm.ca/en/resources/mamp/tool-asset-management-readiness-scale
Does the project cross-jurisdictional boundaries?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
If yes, will it be bid as a single project?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA
Will this project require environmental mitigation, purchase of Right of Way (ROW), or railroad permits?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Sure If yes, which items are required:
If any of the above items are required please explain how they will be addressed	
Does this project perform Resurfacing, Reconstruction, or Preventative Maintenance on a segment adjacent to a segment that currently has a PASER of 7 or higher	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No List the adjacent segments that qualify:

Section 9. Existing and Proposed Roadway Design

	Existing			Proposed		
Include the number of vehicle lanes	Through Traffic Lanes	Center Turn Lane	On Street Parking	Through Traffic Lanes	Center Turn Lane	On Street Parking
	2	0	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	2	0	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Shoulder Surface	<input checked="" type="checkbox"/> Paved <input type="checkbox"/> Unpaved		Width (ft.) 2	<input checked="" type="checkbox"/> Paved <input type="checkbox"/> Unpaved		Width (ft.) 2
Sidewalk/ path information	Placement <input type="checkbox"/> One Side <input type="checkbox"/> Both Sides <input type="checkbox"/> Intermittent <input checked="" type="checkbox"/> None		Width (ft.)	Placement <input type="checkbox"/> One Side <input type="checkbox"/> Both Sides <input type="checkbox"/> Intermittent <input checked="" type="checkbox"/> None		Width (ft.)
On road bicycle facilities	<input type="checkbox"/> Bike Lane <input type="checkbox"/> Other (specify) <input type="checkbox"/> Sharrows <input type="checkbox"/> Wide Shoulders <input checked="" type="checkbox"/> None			<input type="checkbox"/> Bike Lane <input type="checkbox"/> Other (specify) <input type="checkbox"/> Sharrows <input type="checkbox"/> Wide Shoulders <input checked="" type="checkbox"/> None		
Utilities, Sewer and Water	<input type="checkbox"/> Utilities Upgrades Needed <input type="checkbox"/> Sewer and water work needed			<input type="checkbox"/> Replace Utilities <input type="checkbox"/> Relocate Utilities <input type="checkbox"/> Sewer and Water Line Work		
Please describe any improvements being made as part of this project to crosswalks, signage or signals, or streetscape elements not discussed in project description						
Does this project enhance connectivity of pedestrian or bicyclists to fixed route or Dial-A-Ride transit?			<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, how?			

Section 10. Estimated Project Schedule

Activity	Estimated Date
Resolution of Support for <input type="checkbox"/> Local Match Submitted to SWMPC	September 2024
Project Application Submitted to MOT	September 2024
Grade Inspection Package Submitted to MDOT	October 2024
Grade Inspection Meeting Scheduled	November 2024
Final Plan and Estimate to MDOT	December 2024
Right of Way (ROW) certified*	NA
Rail Road Permits*	NA
Environmental Mitigation*	NA
Project Obligated	January 2025
Project Letting	March 2025
Construction Start	May 2025
Project Completion	09/30/2025

*Enter NA if these items will not be required.

	Proposed Improvement	% Reduction	Associated Crash Types
	SEGMENT CRASH REDUCTION FACTORS		
	Geometric Safety Enhancements		
<input type="checkbox"/>	Center Left-Turn Lane - Construct	80%	Rear-End Left-Turn
		50%	Head-On Left-Turn
		20%	Head-On, Angle, Sideswipe*
		15%	Non Left-Turn Rear-End, Other*
<input type="checkbox"/>	Right-Turn Lane - Construct	65%	Rear-End Right-Turn
		30%	Angle
		15%	Rear-End
		10%	Other*
<input type="checkbox"/>	Horizontal Curve Flattening	30%	Lane Departure***
<input type="checkbox"/>	Shoulders - Widen to Standard Width (add 1' each side)	5%	Lane Departure***
<input type="checkbox"/>	Shoulders - Widen to Standard Width (add 2' each side)	10%	Lane Departure***
<input type="checkbox"/>	Shoulders - Widen to Standard Width (add 3' each side)	15%	Lane Departure***
<input type="checkbox"/>	Shoulders - Widen to Standard Width (add 4' each side)	20%	Lane Departure***
<input type="checkbox"/>	Shoulders - Widen to Standard Width (add 5' each side)	25%	Lane Departure***
<input type="checkbox"/>	Shoulders - Widen to Standard Width (add 6' each side)	30%	Lane Departure***
<input type="checkbox"/>			
<input type="checkbox"/>	Shoulders - Widen to Standard Width (add 7' each side)	35%	Lane Departure***
<input type="checkbox"/>	Vertical Curve Modification	20%	All Applicable Crash Types +++
	General Segment Enhancements		
<input type="checkbox"/>	Access Management - Improve	15%	Drive-way Related Applicable Crashes
<input type="checkbox"/>	Centerline Rumble Strips - Install	44%	K and A injury Applicable Crashes
		46%	Single Vehicle Run off Road Left Crashes
		43%	Sideswipe Same Crashes
		55%	Sideswipe Opposite Crashes
<input type="checkbox"/>	High Friction Surface Treatment - Install	35%	Wet Crashes
		20%	All Other Applicable Crashes
<input type="checkbox"/>	Recessed Durable Pavement Markings	5%	All Applicable Crashes
<input type="checkbox"/>	Pedestrian Refuge - Install	50%	Pedestrian Crashes (Review NCHRP Report 841)
<input type="checkbox"/>	Road Diet (4-3 Lane Conversion) - Install	50%	Suburban - All Applicable Crashes
<input type="checkbox"/>	Shoulder Rumble Strips	20%	Run-Off the Road Right Crashes
<input type="checkbox"/>	Signing/Delineation on Horizontal Curves (Including Recessed Durable Pavement Markings) - Install	20%	Lane Departure***
<input type="checkbox"/>	Safety Edge Improvement	13%	All non-intersection crashes (CMF Clearing House ID 8658)

Roadside Enhancements			
<input type="checkbox"/>	Bicycle Lanes - Install per standards	50%	Bicycle Crashes
<input type="checkbox"/>	Shared Use Path - <i>Install</i>	33%	Bicycle and Pedestrian Related Crashes
<input type="checkbox"/>	Fixed Objects From Clear zone (Trees, Culverts, Etc.) - <i>Removal</i>	75%	Fixed-Object Applicable Crashes
<input type="checkbox"/>	Guardrail - <i>Install</i>	55%	Lane Departure ***Fatalities and "A" Injury Applicable Crashes
<input type="checkbox"/>	Sidewalk for Pedestrians - <i>Construct</i>	85%	Pedestrian Crashes
<input type="checkbox"/>	Slope Flattening	15%	Fixed-Object, Overturn Applicable Crashes
<input type="checkbox"/>	Living Snow Fence	20%	Crashes due to wintry surface conditions
<input type="checkbox"/>	Lighting - <i>install on segment</i>	20%	Dark Unlighted Crashes
INTERSECTION CRASH REDUCTION FACTORS			
Pedestrian / Bicycle Enhancements			
<input type="checkbox"/>	Bump Out / Curb Extension - <i>Remove Parking / Install</i>	30%	All Crashes
<input type="checkbox"/>	Bicycle Lanes - Install per standards	25%	Bicycle Crashes
<input type="checkbox"/>	Sidewalk for Pedestrians - <i>Construct</i>	85%	Pedestrian Crashes
<input type="checkbox"/>	Intersection Lighting - <i>install</i>	75%	Pedestrian Fatal - Dark Unlighted Crashes
		40%	Pedestrian A-Injury - Dark Unlighted Crashes
		30%	All Applicable Dark Unlighted Crashes
<input type="checkbox"/>	Rectangular Rapid Flashing Beacons	47%	Pedestrian Crashes
<input type="checkbox"/>	Ped. Countdown Signals - <i>Install new Pedestrian signal</i>	30%	Pedestrian Crashes
<input type="checkbox"/>	Ped. Countdown Signals - <i>Upgrade from existing Pedestrian signal</i>	25%	Pedestrian Crashes
Signal Timing / Hardware Enhancements			
<input type="checkbox"/>	Multiple Low-Cost Improvements	3%	Rear-End
		12%	Right-Angle
		3%	Nighttime
<input type="checkbox"/>	Install Reflectorized Backplates	15%	All Applicable Crashes
<input type="checkbox"/>	Add All-Red Clearance Interval - <i>Add per ITE</i>	20%	Head-On Left-Turn, Angle
<input type="checkbox"/>	Yellow-Change Interval - <i>Increase</i>	10%	All Crash Types
<input type="checkbox"/>	Box Span Signal - <i>Upgrade from Stop Control</i>	65%	Angle
		-25%	Rear-End (Increases Crashes)
		20%	All Other Non Rear-End Crashes
<input type="checkbox"/>	Box Span Signal - <i>Upgrade from Diagonal Span</i>	10%	All Applicable Crashes+
<input type="checkbox"/>	Protected Left-Turn Signal Phase - <i>Add</i>	30%	Left-Turn
<input type="checkbox"/>	Signal Head Size - <i>Increase to 12 "</i>	10%	All Applicable Crashes +
<input type="checkbox"/>	Signal Optimization & Timing Updates	10%	All Applicable Crashes +
<input type="checkbox"/>	Removing Night Flash from Signal Timing	50%	Nighttime Flash mode Related Crashes

Intersection Geometric Enhancements			
<input type="checkbox"/>	Center Left-Turn Lane - Construct	80%	Rear-End Left-Turn
		50%	Head-On Left-Turn
		20%	Head-On, Angle, Other
		15%	Non Left-Turn Rear-End
<input type="checkbox"/>	Intersection Improvements (Realignment, Sight-Distance Improvements, Radii Improvements, Etc.)	30%	Angle
		15%	Rear-End
		10%	Head-On, Sideswipe, Pedestrian, Bicycle, Left-Turn Related
<input type="checkbox"/>	Offset Left-Turn Lane - Construct	65%	Angle-Turn, Head-On Left-Turn
		20%	Rear-End Left-Turn
<input type="checkbox"/>	Offset Right-Turn Lane - Construct	65%	Angle-Turn
		50%	Other Applicable Crashes
		20%	Rear-End Right Turn
<input type="checkbox"/>	Right-Turn Lane - Construct	65%	Rear-End Right-Turn
		20%	Applicable Rear-End Crashes, Sideswipe Same Direction
<input type="checkbox"/>	Roundabout	78%	Fatal and A-Injury Reduction
		57%	Minor Crash Reduction
<input type="checkbox"/>	Lighting	-	See MDOT Interchange Warranted Lighting Guidance and overall MDOT Lighting Guidance
General Intersection Enhancements (Non-Signalized Intersections)			
<input type="checkbox"/>	All-Way Stop Control - New Installation	60%	All Applicable Crashes
<input type="checkbox"/>	Ground Mounted Flashing Beacons (Red)- Install **	30%	All Crashes On Install Approach
<input type="checkbox"/>	Ground Mounted Flashing Beacons(Amber) - Install **	20%	All Crashes On Install Approach
<input type="checkbox"/>	Signing - Improve/Upgrade	30%	Angle, Rear-End Crashes
<input type="checkbox"/>	Pavement Markings - Improve/Upgrade	30%	Angle, Rear-End Crashes
<input type="checkbox"/>	Reflective Sheeting on Sign Posts (lollipops)	15%	All Applicable Crashes

NATS 2024-2026 Road Project Scoring System

Project Name:	Redfield from Elkhart to Ebersole	Proposed Year:	2026
Agency:	Cass County Road Commission	Total Points:	9

Criteria	Points	
System Preservation	8 points max	
Most recent PASER rating		
2-3 and Previously applied for	5	
2-3 and not previously applied for	3	3
4	3	
5-6	1	
MDOT Geometric Guidelines		
4 R	3	
3R	2	
PM	1	1
Safety	5 points max	
a. Expected Crash Reduction - Based on MDOT approved Crash Reduction Factors		
Safety counter Measures	Up to 3	0
Addressing High Crash Locations.		
Number of crashes is 20% higher than MPO median	2	
Number of crashes are within 20% of MPO median	1	
Number of crashes is lower than 20% of the MPO median	0	0
Non-motorized Transportation / Complete Streets	5 points max	
Pedestrian and Cycling Facilities		0
Add facilities where none currently exist	3	
Improves upon existing facilities	2	
Currently has facilities but there are no improvements	1	
Non-Motorized Connectivity	0	0
Any added ped/bike facilities connect to other ped/bike facilities	2	

Criteria	Points	
Regional Connectivity	9 points max	
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	
Functional Classification of the Road		
Principal Arterial	3	
Minor Arterial	2	
Major Collector	1	1
Minor Collector	0	
Strategic Investment/ Project Planning	11 points max	
Identified In an Asset Management Plan	1	
There is an asset management plan covering other utilities along the limits of the project	1	
Agency staff have asset management training	1	1
Project identified in other planning document	1	
Project connects to a road with a PASER of 7 or higher	1	
Additional Local Match		
Agency will proved 40%+ Local Match	2	
Agency will proved 24-40% Local Match	1	
Note: An 18.15% local match is the minimum required		
Project Readiness (no points)	Yes	Y
Coordination with sewer or other infrastructure (no points)	Yes	N
Total Score (out of 33)	9	

Niles-Buchanan-Cass Area Transportation Study 2024-2026 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.

If you need assistance, please contact Brandon Kovnat, SWMPC Associate Planner.

Email kovnatb@swmpc.org or call (269) 925-1137 x 1524

Section 1. Applicant Information

Agency Name	Cass County Road Commission		
Contact Name	Joe Bellina	Title	Head Engineer
Phone Number	269-445-8611	Email	jbellina@casscoroad.com
Engineer/Consultant (If applicable)	Nick Mannon		
Phone Number	269-445-8611	Email	nmannon@casscoroad.com

Section 2. Project Information

Project Name/Road Name	Redfield Street		
Project Limits (e.g. Napier Ave. to Britain Ave.)	Elkhart Road to Ebersole Road		
Project Length (nearest hundredth of a mile)	1.34	Proposed Year of Funding	2026
Primary Work Type	<input type="checkbox"/> Reconstruct <input type="checkbox"/> Restore & Rehabilitate <input type="checkbox"/> Roadside Facility <input checked="" type="checkbox"/> Resurface <input type="checkbox"/> Traffic Operations/Safety <input type="checkbox"/> Other		
Project Description (Please provide major work items including sidewalks, utility work, ADA upgrades etc.)	1.5" HMA, 36A top course overlay, Shoulder Class II and Pavement Marking		
Was this project applied for during the 2020-2023 Call for Projects but not selected	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Was this project awarded funding for the 2020-2023 TIP, but was either canceled or failed to be obligated	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, please explain:		
If you are submitting multiple applications, please rank your applications by priority.	Project Rank: 8		

Section 3. Project Funding

Estimated STBG Participating Cost of the Project	\$ 207370.66
Minimum local match required - 18.15% of the Participating cost	\$ 34949.36
Can your agency supply additional match beyond the minimum required 18.15%. If so how much?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Amount \$
Are there elements of the project that could be eligible for other federal fund sources such as CMAQ, TAP, Bridge etc.	Source: Amount: \$ Explanation:
Will the project have nonparticipating work, such as water, or sewer work?	amount: \$ Explain:
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)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Maximum Dollar Amount you can AC? \$

Section 4. Regional Connectivity

What is the most current daily traffic count for the limits of this project?	AADT: 2946 Year of count: 2019 Source: CCRC
National Functional Classification (NFC) for this roadway	Major Collector

Section 5. System Preservation

2021 PASER rating (Available 8-10-21)	4
Current state of drainage	<input checked="" type="checkbox"/> Adequate <input type="checkbox"/> Minor and tolerable drainage problems <input type="checkbox"/> Occasional drainage problems with some maintenance required <input type="checkbox"/> Inadequate, frequent flooding, excessive maintenance required
Expected increase in Remaining Service life (RSL)	7 Use MDOT's Guidelines for Geometrics on Local Projects
What MDOT guidelines does the project conform to?	<input type="checkbox"/> Reconstruction (4R) <input type="checkbox"/> Resurfacing, restoration, and Rehabilitation (3R) <input checked="" type="checkbox"/> Preventative Maintenance (PM)

Section 6. Safety

Please list the number and severity of crashes within the proposed project limits over the last 5 yrs. (2016-2020) (see [Michigan Crash Facts](#) for crash data)

Total Crashes	16	Pedestrian & Bicycle Crashes	0
Fatalities	0	Serious Injuries	0

Using the attached Crash Reduction Factors sheet, please check each safety counter measure that will be included in the project

Describe any other safety improvements this project will provide

Section 7. Pedestrian and Bicycle Improvements

Please explain what pedestrian and/or bicycle facilities if any currently exist

Please explain any additional pedestrian and/or bicycle improvements included in the project.

Does this project connect to an existing pedestrian/bicycle facility or one that is planned to be completed before 2027

☐ Yes ☒ No

If yes, please provide a map of the connecting facilities

Section 8. Strategic Planning & Investment

Is the project identified in an approved Asset Management Plan, or Capital Improvement Plan	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, please attach the plan.
Is the project identified in another approved planning document such as a master plan or parks and recreation plan	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, please cite the plan and page number:
Is there an approved asset management plan covering the utilities along the project's limits	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No List utilities covered by the asset management plan:
Will this project coordinate with other infrastructure projects (i.e. utility, water, sewer, etc?)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, please indicate the project type and construction year:
How many water main breaks have you had at this location in the past five years?	None
Is there a completed utilities assessment that includes televising the sewers in the project area?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Do you have a maintenance strategy or Asset Management Plan covering non-motorized facilities?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Has staff received Asset Management training through the Transportation Asset Management Council https://www.michigan.gov/tamc/0,7308,7-356-82158--,00.html	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Has your agency completed the Asset Management Readiness Scale from the Michigan Infrastructure Council (MIC)? https://fcm.ca/en/resources/mamp/tool-asset-management-readiness-scale	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No https://fcm.ca/en/resources/mamp/tool-asset-management-readiness-scale
Does the project cross-jurisdictional boundaries?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
If yes, will it be bid as a single project?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA
Will this project require environmental mitigation, purchase of Right of Way (ROW), or railroad permits?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Sure If yes, which items are required:
If any of the above items are required please explain how they will be addressed	
Does this project perform Resurfacing, Reconstruction, or Preventative Maintenance on a segment adjacent to a segment that currently has a PASER of 7 or higher	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No List the adjacent segments that qualify:

Section 9. Existing and Proposed Roadway Design

	Existing			Proposed		
Include the number of vehicle lanes	Through Traffic Lanes	Center Turn Lane	On Street Parking	Through Traffic Lanes	Center Turn Lane	On Street Parking
	2	0	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	2	0	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Shoulder Surface	<input checked="" type="checkbox"/> Paved <input type="checkbox"/> Unpaved		Width (ft.) 2	<input checked="" type="checkbox"/> Paved <input type="checkbox"/> Unpaved		Width (ft.) 2
Sidewalk/ path information	Placement <input type="checkbox"/> One Side <input type="checkbox"/> Both Sides <input type="checkbox"/> Intermittent <input checked="" type="checkbox"/> None		Width (ft.)	Placement <input type="checkbox"/> One Side <input type="checkbox"/> Both Sides <input type="checkbox"/> Intermittent <input checked="" type="checkbox"/> None		Width (ft.)
On road bicycle facilities	<input type="checkbox"/> Bike Lane <input type="checkbox"/> Other (specify) <input type="checkbox"/> Sharrows <input type="checkbox"/> Wide Shoulders <input checked="" type="checkbox"/> None			<input type="checkbox"/> Bike Lane <input type="checkbox"/> Other (specify) <input type="checkbox"/> Sharrows <input type="checkbox"/> Wide Shoulders <input checked="" type="checkbox"/> None		
Utilities, Sewer and Water	<input type="checkbox"/> Utilities Upgrades Needed <input type="checkbox"/> Sewer and water work needed			<input type="checkbox"/> Replace Utilities <input type="checkbox"/> Relocate Utilities <input type="checkbox"/> Sewer and Water Line Work		
Please describe any improvements being made as part of this project to crosswalks, signage or signals, or streetscape elements not discussed in project description						
Does this project enhance connectivity of pedestrian or bicyclists to fixed route or Dial-A-Ride transit?			<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, how?			

Section 10. Estimated Project Schedule

Activity	Estimated Date
Resolution of Support for <input type="checkbox"/> Local Match Submitted to SWMPC	September 2025
Project Application Submitted to MOT	September 2025
Grade Inspection Package Submitted to MDOT	October 2025
Grade Inspection Meeting Scheduled	Novemeber 2025
Final Plan and Estimate to MDOT	December 2025
Right of Way (ROW) certified*	NA
Rail Road Permits*	NA
Environmental Mitigation*	NA
Project Obligated	January 2026
Project Letting	March 2026
Construction Start	May 2026
Project Completion	09/30/2026

*Enter NA if these items will not be required.

	Proposed Improvement	% Reduction	Associated Crash Types
	SEGMENT CRASH REDUCTION FACTORS		
	Geometric Safety Enhancements		
<input type="checkbox"/>	Center Left-Turn Lane - Construct	80%	Rear-End Left-Turn
		50%	Head-On Left-Turn
		20%	Head-On, Angle, Sideswipe*
		15%	Non Left-Turn Rear-End, Other*
<input type="checkbox"/>	Right-Turn Lane - Construct	65%	Rear-End Right-Turn
		30%	Angle
		15%	Rear-End
		10%	Other*
<input type="checkbox"/>	Horizontal Curve Flattening	30%	Lane Departure***
<input type="checkbox"/>	Shoulders - Widen to Standard Width (add 1' each side)	5%	Lane Departure***
<input type="checkbox"/>	Shoulders - Widen to Standard Width (add 2' each side)	10%	Lane Departure***
<input type="checkbox"/>	Shoulders - Widen to Standard Width (add 3' each side)	15%	Lane Departure***
<input type="checkbox"/>	Shoulders - Widen to Standard Width (add 4' each side)	20%	Lane Departure***
<input type="checkbox"/>	Shoulders - Widen to Standard Width (add 5' each side)	25%	Lane Departure***
<input type="checkbox"/>	Shoulders - Widen to Standard Width (add 6' each side)	30%	Lane Departure***
<input type="checkbox"/>			
<input type="checkbox"/>	Shoulders - Widen to Standard Width (add 7' each side)	35%	Lane Departure***
<input type="checkbox"/>	Vertical Curve Modification	20%	All Applicable Crash Types +++
	General Segment Enhancements		
<input type="checkbox"/>	Access Management - Improve	15%	Drive-way Related Applicable Crashes
<input type="checkbox"/>	Centerline Rumble Strips - Install	44%	K and A injury Applicable Crashes
		46%	Single Vehicle Run off Road Left Crashes
		43%	Sideswipe Same Crashes
		55%	Sideswipe Opposite Crashes
<input type="checkbox"/>	High Friction Surface Treatment - Install	35%	Wet Crashes
		20%	All Other Applicable Crashes
<input type="checkbox"/>	Recessed Durable Pavement Markings	5%	All Applicable Crashes
<input type="checkbox"/>	Pedestrian Refuge - Install	50%	Pedestrian Crashes (Review NCHRP Report 841)
<input type="checkbox"/>	Road Diet (4-3 Lane Conversion) - Install	50%	Suburban - All Applicable Crashes
<input type="checkbox"/>	Shoulder Rumble Strips	20%	Run-Off the Road Right Crashes
<input type="checkbox"/>	Signing/Delineation on Horizontal Curves (Including Recessed Durable Pavement Markings) - Install	20%	Lane Departure***
<input type="checkbox"/>	Safety Edge Improvement	13%	All non-intersection crashes (CMF Clearing House ID 8658)

Roadside Enhancements			
<input type="checkbox"/>	Bicycle Lanes - Install per standards	50%	Bicycle Crashes
<input type="checkbox"/>	Shared Use Path - <i>Install</i>	33%	Bicycle and Pedestrian Related Crashes
<input type="checkbox"/>	Fixed Objects From Clear zone (Trees, Culverts, Etc.) - <i>Removal</i>	75%	Fixed-Object Applicable Crashes
<input type="checkbox"/>	Guardrail - <i>Install</i>	55%	Lane Departure ***Fatalities and "A" Injury Applicable Crashes
<input type="checkbox"/>	Sidewalk for Pedestrians - <i>Construct</i>	85%	Pedestrian Crashes
<input type="checkbox"/>	Slope Flattening	15%	Fixed-Object, Overturn Applicable Crashes
<input type="checkbox"/>	Living Snow Fence	20%	Crashes due to wintry surface conditions
<input type="checkbox"/>	Lighting - <i>install on segment</i>	20%	Dark Unlighted Crashes
INTERSECTION CRASH REDUCTION FACTORS			
Pedestrian / Bicycle Enhancements			
<input type="checkbox"/>	Bump Out / Curb Extension - <i>Remove Parking / Install</i>	30%	All Crashes
<input type="checkbox"/>	Bicycle Lanes - Install per standards	25%	Bicycle Crashes
<input type="checkbox"/>	Sidewalk for Pedestrians - <i>Construct</i>	85%	Pedestrian Crashes
<input type="checkbox"/>	Intersection Lighting - <i>install</i>	75%	Pedestrian Fatal - Dark Unlighted Crashes
		40%	Pedestrian A-Injury - Dark Unlighted Crashes
		30%	All Applicable Dark Unlighted Crashes
<input type="checkbox"/>	Rectangular Rapid Flashing Beacons	47%	Pedestrian Crashes
<input type="checkbox"/>	Ped. Countdown Signals - <i>Install new Pedestrian signal</i>	30%	Pedestrian Crashes
<input type="checkbox"/>	Ped. Countdown Signals - <i>Upgrade from existing Pedestrian signal</i>	25%	Pedestrian Crashes
Signal Timing / Hardware Enhancements			
<input type="checkbox"/>	Multiple Low-Cost Improvements	3%	Rear-End
		12%	Right-Angle
		3%	Nighttime
<input type="checkbox"/>	Install Reflectorized Backplates	15%	All Applicable Crashes
<input type="checkbox"/>	Add All-Red Clearance Interval - <i>Add per ITE</i>	20%	Head-On Left-Turn, Angle
<input type="checkbox"/>	Yellow-Change Interval - <i>Increase</i>	10%	All Crash Types
<input type="checkbox"/>	Box Span Signal - <i>Upgrade from Stop Control</i>	65%	Angle
		-25%	Rear-End (Increases Crashes)
		20%	All Other Non Rear-End Crashes
<input type="checkbox"/>	Box Span Signal - <i>Upgrade from Diagonal Span</i>	10%	All Applicable Crashes+
<input type="checkbox"/>	Protected Left-Turn Signal Phase - <i>Add</i>	30%	Left-Turn
<input type="checkbox"/>	Signal Head Size - <i>Increase to 12 "</i>	10%	All Applicable Crashes +
<input type="checkbox"/>	Signal Optimization & Timing Updates	10%	All Applicable Crashes +
<input type="checkbox"/>	Removing Night Flash from Signal Timing	50%	Nighttime Flash mode Related Crashes

Intersection Geometric Enhancements			
<input type="checkbox"/>	Center Left-Turn Lane - Construct	80%	Rear-End Left-Turn
		50%	Head-On Left-Turn
		20%	Head-On, Angle, Other
		15%	Non Left-Turn Rear-End
<input type="checkbox"/>	Intersection Improvements (Realignment, Sight-Distance Improvements, Radii Improvements, Etc.)	30%	Angle
		15%	Rear-End
		10%	Head-On, Sideswipe, Pedestrian, Bicycle, Left-Turn Related
<input type="checkbox"/>	Offset Left-Turn Lane - Construct	65%	Angle-Turn, Head-On Left-Turn
		20%	Rear-End Left-Turn
<input type="checkbox"/>	Offset Right-Turn Lane - Construct	65%	Angle-Turn
		50%	Other Applicable Crashes
		20%	Rear-End Right Turn
<input type="checkbox"/>	Right-Turn Lane - Construct	65%	Rear-End Right-Turn
		20%	Applicable Rear-End Crashes, Sideswipe Same Direction
<input type="checkbox"/>	Roundabout	78%	Fatal and A-Injury Reduction
		57%	Minor Crash Reduction
<input type="checkbox"/>	Lighting	-	See MDOT Interchange Warranted Lighting Guidance and overall MDOT Lighting Guidance
General Intersection Enhancements (Non-Signalized Intersections)			
<input type="checkbox"/>	All-Way Stop Control - New Installation	60%	All Applicable Crashes
<input type="checkbox"/>	Ground Mounted Flashing Beacons (Red)- Install **	30%	All Crashes On Install Approach
<input type="checkbox"/>	Ground Mounted Flashing Beacons(Amber) - Install **	20%	All Crashes On Install Approach
<input type="checkbox"/>	Signing - Improve/Upgrade	30%	Angle, Rear-End Crashes
<input type="checkbox"/>	Pavement Markings - Improve/Upgrade	30%	Angle, Rear-End Crashes
<input type="checkbox"/>	Reflective Sheeting on Sign Posts (lollipops)	15%	All Applicable Crashes

NATS 2024-2026 Road Project Scoring System

Project Name:	Redfield from Ebersole to Adamsville	Proposed Year:	2026
Agency:	Cass County Road Commission	Total Points:	9

Criteria	Points	
System Preservation	8 points max	
Most recent PASER rating		
2-3 and Previously applied for	5	
2-3 and not previously applied for	3	3
4	3	
5-6	1	
MDOT Geometric Guidelines		
4 R	3	
3R	2	
PM	1	1
Safety	5 points max	
a. Expected Crash Reduction - Based on MDOT approved Crash Reduction Factors		
Safety counter Measures	Up to 3	0
Addressing High Crash Locations.		
Number of crashes is 20% higher than MPO median	2	
Number of crashes are within 20% of MPO median	1	
Number of crashes is lower than 20% of the MPO median	0	0
Non-motorized Transportation / Complete Streets	5 points max	
Pedestrian and Cycling Facilities		0
Add facilities where none currently exist	3	
Improves upon existing facilities	2	
Currently has facilities but there are no improvements	1	
Non-Motorized Connectivity	0	0
Any added ped/bike facilities connect to other ped/bike facilities	2	

Criteria	Points	
Regional Connectivity	9 points max	
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	
Functional Classification of the Road		
Principal Arterial	3	
Minor Arterial	2	
Major Collector	1	1
Minor Collector	0	
Strategic Investment/ Project Planning	11 points max	
Identified In an Asset Management Plan	1	
There is an asset management plan covering other utilities along the limits of the project	1	
Agency staff have asset management training	1	1
Project identified in other planning document	1	
Project connects to a road with a PASER of 7 or higher	1	
Additional Local Match		
Agency will proved 40%+ Local Match	2	
Agency will proved 24-40% Local Match	1	
Note: An 18.15% local match is the minimum required		
Project Readiness (no points)	Yes	Y
Coordination with sewer or other infrastructure (no points)	Yes	N
Total Score (out of 33)	9	

Niles-Buchanan-Cass Area Transportation Study 2024-2026 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.

If you need assistance, please contact Brandon Kovnat, SWMPC Associate Planner.

Email kovnatb@swmpc.org or call (269) 925-1137 x 1524

Section 1. Applicant Information

Agency Name	Cass County Road Commission		
Contact Name	Joe Bellina	Title	Head Engineer
Phone Number	269-445-8611	Email	jbellina@casscoroad.com
Engineer/Consultant (If applicable)	Nick Mannon		
Phone Number	269-445-8611	Email	nmannon@casscoroad.com

Section 2. Project Information

Project Name/Road Name	Redfield Street		
Project Limits (e.g. Napier Ave. to Britain Ave.)	Ebersole Road to Adamsville Road		
Project Length (nearest hundredth of a mile)	1.00	Proposed Year of Funding	2026
Primary Work Type	<input type="checkbox"/> Reconstruct <input type="checkbox"/> Restore & Rehabilitate <input type="checkbox"/> Roadside Facility <input checked="" type="checkbox"/> Resurface <input type="checkbox"/> Traffic Operations/Safety <input type="checkbox"/> Other		
Project Description (Please provide major work items including sidewalks, utility work, ADA upgrades etc.)	1.5" HMA, 36A top course overlay, Shoulder Class II and Pavement Marking		
Was this project applied for during the 2020-2023 Call for Projects but not selected	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Was this project awarded funding for the 2020-2023 TIP, but was either canceled or failed to be obligated	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, please explain:		
If you are submitting multiple applications, please rank your applications by priority.	Project Rank: 9		

Section 3. Project Funding

Estimated STBG Participating Cost of the Project	\$ 121592.61
Minimum local match required - 18.15% of the Participating cost	\$ 22069.06
Can your agency supply additional match beyond the minimum required 18.15%. If so how much?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Amount \$
Are there elements of the project that could be eligible for other federal fund sources such as CMAQ, TAP, Bridge etc.	Source: Amount: \$ Explanation:
Will the project have nonparticipating work, such as water, or sewer work?	amount: \$ Explain:
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)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Maximum Dollar Amount you can AC? \$

Section 4. Regional Connectivity

What is the most current daily traffic count for the limits of this project?	AADT: 3099 Year of count: 2019 Source: CCRC
National Functional Classification (NFC) for this roadway	Major Collector

Section 5. System Preservation

2021 PASER rating (Available 8-10-21)	4
Current state of drainage	<input checked="" type="checkbox"/> Adequate <input type="checkbox"/> Minor and tolerable drainage problems <input type="checkbox"/> Occasional drainage problems with some maintenance required <input type="checkbox"/> Inadequate, frequent flooding, excessive maintenance required
Expected increase in Remaining Service life (RSL)	7 Use MDOT's Guidelines for Geometrics on Local Projects
What MDOT guidelines does the project conform to?	<input type="checkbox"/> Reconstruction (4R) <input type="checkbox"/> Resurfacing, restoration, and Rehabilitation (3R) <input checked="" type="checkbox"/> Preventative Maintenance (PM)

Section 6. Safety

Please list the number and severity of crashes within the proposed project limits over the last 5 yrs. (2016-2020) (see [Michigan Crash Facts](#) for crash data)

Total Crashes	9	Pedestrian & Bicycle Crashes	0
Fatalities	0	Serious Injuries	0
Using the attached Crash Reduction Factors sheet, please check each safety counter measure that will be included in the project			
Describe any other safety improvements this project will provide			

Section 7. Pedestrian and Bicycle Improvements

Please explain what pedestrian and/or bicycle facilities if any currently exist	
Please explain any additional pedestrian and/or bicycle improvements included in the project.	
Does this project connect to an existing pedestrian/bicycle facility or one that is planned to be completed before 2027	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, please provide a map of the connecting facilities

Section 8. Strategic Planning & Investment

Is the project identified in an approved Asset Management Plan, or Capital Improvement Plan	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, please attach the plan.
Is the project identified in another approved planning document such as a master plan or parks and recreation plan	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, please cite the plan and page number:
Is there an approved asset management plan covering the utilities along the project's limits	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No List utilities covered by the asset management plan:
Will this project coordinate with other infrastructure projects (i.e. utility, water, sewer, etc?)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, please indicate the project type and construction year:
How many water main breaks have you had at this location in the past five years?	None
Is there a completed utilities assessment that includes televising the sewers in the project area?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Do you have a maintenance strategy or Asset Management Plan covering non-motorized facilities?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Has staff received Asset Management training through the Transportation Asset Management Council https://www.michigan.gov/tamc/0,7308,7-356-82158--,00.html	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Has your agency completed the Asset Management Readiness Scale from the Michigan Infrastructure Council (MIC)? https://fcm.ca/en/resources/mamp/tool-asset-management-readiness-scale	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No https://fcm.ca/en/resources/mamp/tool-asset-management-readiness-scale
Does the project cross-jurisdictional boundaries?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
If yes, will it be bid as a single project?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA
Will this project require environmental mitigation, purchase of Right of Way (ROW), or railroad permits?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Sure If yes, which items are required:
If any of the above items are required please explain how they will be addressed	
Does this project perform Resurfacing, Reconstruction, or Preventative Maintenance on a segment adjacent to a segment that currently has a PASER of 7 or higher	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No List the adjacent segments that qualify:

Section 9. Existing and Proposed Roadway Design

	Existing			Proposed		
Include the number of vehicle lanes	Through Traffic Lanes	Center Turn Lane	On Street Parking	Through Traffic Lanes	Center Turn Lane	On Street Parking
	2	0	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	2	0	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Shoulder Surface	<input type="checkbox"/> Paved <input checked="" type="checkbox"/> Unpaved		Width (ft.) 3	<input type="checkbox"/> Paved <input checked="" type="checkbox"/> Unpaved		Width (ft.) 3
Sidewalk/ path information	Placement <input type="checkbox"/> One Side <input type="checkbox"/> Both Sides <input type="checkbox"/> Intermittent <input checked="" type="checkbox"/> None		Width (ft.)	Placement <input type="checkbox"/> One Side <input type="checkbox"/> Both Sides <input type="checkbox"/> Intermittent <input checked="" type="checkbox"/> None		Width (ft.)
On road bicycle facilities	<input type="checkbox"/> Bike Lane <input type="checkbox"/> Other (specify) <input type="checkbox"/> Sharrows <input type="checkbox"/> Wide Shoulders <input checked="" type="checkbox"/> None			<input type="checkbox"/> Bike Lane <input type="checkbox"/> Other (specify) <input type="checkbox"/> Sharrows <input type="checkbox"/> Wide Shoulders <input checked="" type="checkbox"/> None		
Utilities, Sewer and Water	<input type="checkbox"/> Utilities Upgrades Needed <input type="checkbox"/> Sewer and water work needed			<input type="checkbox"/> Replace Utilities <input type="checkbox"/> Relocate Utilities <input type="checkbox"/> Sewer and Water Line Work		
Please describe any improvements being made as part of this project to crosswalks, signage or signals, or streetscape elements not discussed in project description						
Does this project enhance connectivity of pedestrian or bicyclists to fixed route or Dial-A-Ride transit?			<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, how?			

Section 10. Estimated Project Schedule

Activity	Estimated Date
Resolution of Support for <input type="checkbox"/> Local Match Submitted to SWMPC	September 2025
Project Application Submitted to MOT	September 2025
Grade Inspection Package Submitted to MDOT	October 2025
Grade Inspection Meeting Scheduled	Novemeber 2025
Final Plan and Estimate to MDOT	December 2025
Right of Way (ROW) certified*	NA
Rail Road Permits*	NA
Environmental Mitigation*	NA
Project Obligated	January 2026
Project Letting	March 2026
Construction Start	May 2026
Project Completion	09/30/2026

*Enter NA if these items will not be required.

	Proposed Improvement	% Reduction	Associated Crash Types
	SEGMENT CRASH REDUCTION FACTORS		
	Geometric Safety Enhancements		
<input type="checkbox"/>	Center Left-Turn Lane - Construct	80%	Rear-End Left-Turn
		50%	Head-On Left-Turn
		20%	Head-On, Angle, Sideswipe*
		15%	Non Left-Turn Rear-End, Other*
<input type="checkbox"/>	Right-Turn Lane - Construct	65%	Rear-End Right-Turn
		30%	Angle
		15%	Rear-End
		10%	Other*
<input type="checkbox"/>	Horizontal Curve Flattening	30%	Lane Departure***
<input type="checkbox"/>	Shoulders - Widen to Standard Width (add 1' each side)	5%	Lane Departure***
<input type="checkbox"/>	Shoulders - Widen to Standard Width (add 2' each side)	10%	Lane Departure***
<input type="checkbox"/>	Shoulders - Widen to Standard Width (add 3' each side)	15%	Lane Departure***
<input type="checkbox"/>	Shoulders - Widen to Standard Width (add 4' each side)	20%	Lane Departure***
<input type="checkbox"/>	Shoulders - Widen to Standard Width (add 5' each side)	25%	Lane Departure***
<input type="checkbox"/>	Shoulders - Widen to Standard Width (add 6' each side)	30%	Lane Departure***
<input type="checkbox"/>			
<input type="checkbox"/>	Shoulders - Widen to Standard Width (add 7' each side)	35%	Lane Departure***
<input type="checkbox"/>	Vertical Curve Modification	20%	All Applicable Crash Types +++
	General Segment Enhancements		
<input type="checkbox"/>	Access Management - Improve	15%	Drive-way Related Applicable Crashes
<input type="checkbox"/>	Centerline Rumble Strips - Install	44%	K and A injury Applicable Crashes
		46%	Single Vehicle Run off Road Left Crashes
		43%	Sideswipe Same Crashes
		55%	Sideswipe Opposite Crashes
<input type="checkbox"/>	High Friction Surface Treatment - Install	35%	Wet Crashes
		20%	All Other Applicable Crashes
<input type="checkbox"/>	Recessed Durable Pavement Markings	5%	All Applicable Crashes
<input type="checkbox"/>	Pedestrian Refuge - Install	50%	Pedestrian Crashes (Review NCHRP Report 841)
<input type="checkbox"/>	Road Diet (4-3 Lane Conversion) - Install	50%	Suburban - All Applicable Crashes
<input type="checkbox"/>	Shoulder Rumble Strips	20%	Run-Off the Road Right Crashes
<input type="checkbox"/>	Signing/Delineation on Horizontal Curves (Including Recessed Durable Pavement Markings) - Install	20%	Lane Departure***
<input type="checkbox"/>	Safety Edge Improvement	13%	All non-intersection crashes (CMF Clearing House ID 8658)

Roadside Enhancements			
<input type="checkbox"/>	Bicycle Lanes - Install per standards	50%	Bicycle Crashes
<input type="checkbox"/>	Shared Use Path - <i>Install</i>	33%	Bicycle and Pedestrian Related Crashes
<input type="checkbox"/>	Fixed Objects From Clear zone (Trees, Culverts, Etc.) - <i>Removal</i>	75%	Fixed-Object Applicable Crashes
<input type="checkbox"/>	Guardrail - <i>Install</i>	55%	Lane Departure ***Fatalities and "A" Injury Applicable Crashes
<input type="checkbox"/>	Sidewalk for Pedestrians - <i>Construct</i>	85%	Pedestrian Crashes
<input type="checkbox"/>	Slope Flattening	15%	Fixed-Object, Overturn Applicable Crashes
<input type="checkbox"/>	Living Snow Fence	20%	Crashes due to wintry surface conditions
<input type="checkbox"/>	Lighting - <i>install on segment</i>	20%	Dark Unlighted Crashes
INTERSECTION CRASH REDUCTION FACTORS			
Pedestrian / Bicycle Enhancements			
<input type="checkbox"/>	Bump Out / Curb Extension - <i>Remove Parking / Install</i>	30%	All Crashes
<input type="checkbox"/>	Bicycle Lanes - Install per standards	25%	Bicycle Crashes
<input type="checkbox"/>	Sidewalk for Pedestrians - <i>Construct</i>	85%	Pedestrian Crashes
<input type="checkbox"/>	Intersection Lighting - <i>install</i>	75%	Pedestrian Fatal - Dark Unlighted Crashes
		40%	Pedestrian A-Injury - Dark Unlighted Crashes
		30%	All Applicable Dark Unlighted Crashes
<input type="checkbox"/>	Rectangular Rapid Flashing Beacons	47%	Pedestrian Crashes
<input type="checkbox"/>	Ped. Countdown Signals - <i>Install new Pedestrian signal</i>	30%	Pedestrian Crashes
<input type="checkbox"/>	Ped. Countdown Signals - <i>Upgrade from existing Pedestrian signal</i>	25%	Pedestrian Crashes
Signal Timing / Hardware Enhancements			
<input type="checkbox"/>	Multiple Low-Cost Improvements	3%	Rear-End
		12%	Right-Angle
		3%	Nighttime
<input type="checkbox"/>	Install Reflectorized Backplates	15%	All Applicable Crashes
<input type="checkbox"/>	Add All-Red Clearance Interval - <i>Add per ITE</i>	20%	Head-On Left-Turn, Angle
<input type="checkbox"/>	Yellow-Change Interval - <i>Increase</i>	10%	All Crash Types
<input type="checkbox"/>	Box Span Signal - <i>Upgrade from Stop Control</i>	65%	Angle
		-25%	Rear-End (Increases Crashes)
		20%	All Other Non Rear-End Crashes
<input type="checkbox"/>	Box Span Signal - <i>Upgrade from Diagonal Span</i>	10%	All Applicable Crashes+
<input type="checkbox"/>	Protected Left-Turn Signal Phase - <i>Add</i>	30%	Left-Turn
<input type="checkbox"/>	Signal Head Size - <i>Increase to 12 "</i>	10%	All Applicable Crashes +
<input type="checkbox"/>	Signal Optimization & Timing Updates	10%	All Applicable Crashes +
<input type="checkbox"/>	Removing Night Flash from Signal Timing	50%	Nighttime Flash mode Related Crashes

Intersection Geometric Enhancements			
<input type="checkbox"/>	Center Left-Turn Lane - Construct	80%	Rear-End Left-Turn
		50%	Head-On Left-Turn
		20%	Head-On, Angle, Other
		15%	Non Left-Turn Rear-End
<input type="checkbox"/>	Intersection Improvements (Realignment, Sight-Distance Improvements, Radii Improvements, Etc.)	30%	Angle
		15%	Rear-End
		10%	Head-On, Sideswipe, Pedestrian, Bicycle, Left-Turn Related
<input type="checkbox"/>	Offset Left-Turn Lane - Construct	65%	Angle-Turn, Head-On Left-Turn
		20%	Rear-End Left-Turn
<input type="checkbox"/>	Offset Right-Turn Lane - Construct	65%	Angle-Turn
		50%	Other Applicable Crashes
		20%	Rear-End Right Turn
<input type="checkbox"/>	Right-Turn Lane - Construct	65%	Rear-End Right-Turn
		20%	Applicable Rear-End Crashes, Sideswipe Same Direction
<input type="checkbox"/>	Roundabout	78%	Fatal and A-Injury Reduction
		57%	Minor Crash Reduction
<input type="checkbox"/>	Lighting	-	See MDOT Interchange Warranted Lighting Guidance and overall MDOT Lighting Guidance
General Intersection Enhancements (Non-Signalized Intersections)			
<input type="checkbox"/>	All-Way Stop Control - New Installation	60%	All Applicable Crashes
<input type="checkbox"/>	Ground Mounted Flashing Beacons (Red)- Install **	30%	All Crashes On Install Approach
<input type="checkbox"/>	Ground Mounted Flashing Beacons(Amber) - Install **	20%	All Crashes On Install Approach
<input type="checkbox"/>	Signing - Improve/Upgrade	30%	Angle, Rear-End Crashes
<input type="checkbox"/>	Pavement Markings - Improve/Upgrade	30%	Angle, Rear-End Crashes
<input type="checkbox"/>	Reflective Sheeting on Sign Posts (lollipops)	15%	All Applicable Crashes