Rural Task Force Region Four
Road Project Application

.

Section 1. Applicant Information			
Agency Name	Van Buren County Road Commission		
Contact Name	Larry Hummel	Title	Engineer - Manager
Phone Number	269-674-8011	Email	larryhummel@vbcrc.org

Section 2. Project Information			
Project Name/Road Name	CR 681		
Township/City/Village	Lawrence Township		
Project Limits (e.g. Napier Ave. to Britain Ave.)	M-51 to CR 352		
Project Length (nearest hundredth of a mile)	2.16	Proposed Year of Funding	2020
Primary Work Type	☐ Reconstruct ☒ Restore & Rehabilitate ☐ Roadside Facility ☐ Resurface ☐ Traffic Operations/Safety ☐ Transit ☐ Other		
Project Description (Please provide major work items including sidewalks, utility work, ADA upgrades etc.)	Trench, widen, crush and shape, HMA paving, drainage, and pavement markings		

Section 3. Project Funding	
Federal STBG Requested	$ 1,052,000
State D	$
CTF	$
Local Funds	$ 263,000
Total	$ 1315,000
Match Percentage (match/total cost)	20%
Does your agency have the financial capacity to Advance Construct (AC) all or part of this project if necessary? If yes, what is the maximum dollar amount your agency is willing to Advance Construct (AC)?	☒ Yes ☐ No Maximum Dollar Amount you can AC? $ 500,000

Section 4. System Preservation

PASER rating	6
Current state of drainage	☐ Adequate ☐ Minor and tolerable drainage problems ☒ Occasional drainage problems with some maintenance required ☐ Inadequate drainage, frequent flooding, excessive maintenance required
Expected increase in Remaining Service life (RSL)	☐0-3 years ☐4-6 ☐7-9 ☒10-14 ☐15-20 Use MDOT's *Guidelines for Geometrics on Local Projects*
What guidelines does the project conform to?	☐ Reconstruction (4R) ☒ Resurfacing, restoration, and Rehabilitation (3R) ☐Preventative Maintenance (PM)

Section 5. Safety

Please list the number and severity of crashes within the proposed project limits over the last 5 yrs. (2013-2017) (see Michigan Crash Facts for crash data)

Total Crashes	32	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	Widening shoulder and sign upgrade.

Section 6. Non-motorized Improvements

Please explain any pedestrian and/or bicycle improvements are included	
Does this project connect to an existing pedestrian/bicycle facility or one that is planned to be completed from 2020-2023?	☐Yes ☒No If yes, please provide a map of the connecting facilities

Section 7. Regional Connectivity

What is the most current daily traffic count for the limits of this project?	☒Less than 2000 ☐2000-5000 ☐ 5000-10,000 ☐Above 10,000 Year of count: 2013 Source: VBCRC
National Functional Classification (NFC) for this roadway	Maj Coll
Is the project on an All Season Road	☒Yes ☐No ☐Not Sure

Section 8. Strategic Planning & Investment	
Is the project identified in a Asset Management Plan, or Capital Improvement Plan	☐ Yes ☒ No If yes, please cite the plan and page number:
Is the project identified in another planning documents such as a master plan or parks and recreation plan	☐ Yes ☒ No If yes, please cite the plan and page number:
Does the project cross jurisdictional boundaries?	☐ Yes ☒ No
If yes, will it be bid as a single project?	☐ Yes ☐ No ☐ NA
Will this project coordinate with other infrastructure projects (i.e. utility, water, sewer, etc.)	☐ Yes ☒ No If yes, please indicate the project type and construction year:
How many water main breaks have you had at this location in the past five years?	
Is there a completed a utilities assessment that included televising the sewers in the project area?	☐ Yes ☒ No
Will this project require environmental mitigation, purchase of Right of Way (ROW), or railroad permits?	☐ Yes ☒ No ☐ Not Sure If yes, which items are required:
Does this project perform Resurfacing, Reconstruction, or Preventative Maintenance on a segment adjacent to a segment where a federally-funded project was done during the 2017-https://www.swmpc.org/downloads/rtf_region4_20172020_project_list.pdf2020 RTF cycle?	☐ Yes ☒ No What segment was the PREVIOUS project done on?

Section 9. Existing and Proposed Roadway Design

	Existing			Proposed		
Number of Vehicle Lanes	Through Traffic Lanes	Center Turn Lane	On Street Parking	Through Traffic Lanes	Center Turn Lane	On Street Parking
	2	0	☐ Yes ☒ No	2	0	☐ Yes ☒ No
Shoulder Surface	☐ Paved ☒ Unpaved	Width (ft.) 4		☒ Paved ☒ Unpaved		Width (ft.) 6
Sidewalk/ path information	**Placement** ☐ One Side ☐ Both Sides ☐ Intermittent ☒ None	Width (ft.)		**Placement** ☐ One Side ☐ Both Sides ☐ Intermittent ☒ None		Width (ft.)
On road bicycle facilities	☐ Bike Lane ☐ Other (specify) _____ ☐ Sharrows ☐ Wide Shoulders ☒ None			☐ Bike Lane ☐ Other (specify) _____ ☐ Sharrows ☐ Wide Shoulders ☒ None		
Utilities, Sewer and Water	☐ Utilities Upgrades Needed ☐ Sewer and water work needed			☐ Replaced Utilities ☐ Relocating Utilities ☐ 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						

Section 10. Estimated Project Schedule

Activity	Estimated Date
Resolution of Support for☐ Local Match Submitted to SWMPC	2/2019
Project Application Submitted to MOT	3/2019
Grade Inspection Package Submitted to MDOT	4/2019
Grade Inspection Meeting Scheduled	6/2019
Final Plan and Estimate to MDOT	7/2019
Right of Way (ROW) certified*	NA
Rail Road Permits*	NA
Environmental Mitigation*	NA
Project Obligated	9/2019
Project Letting	11/2019
Construction Start☐	4/2020
Project Completion	7/2020

*Enter NA if these items will not be required.

	Proposed Improvement	% Reduction	Associated Crash Types
	SEGMENT CRASH REDUCTION FACTORS		
	Geometric Safety Enhancements		
☐	**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*
☐	**Right-Turn Lane -** *Construct*	65%	Rear-End Right-Turn
		30%	Angle
		15%	Rear-End
		10%	Other*
☐	**Horizontal Curve Flattening**	30%	Lane Departure***
☐	**Shoulders -** *Widen to Standard Width (add **1'** each side)*	5%	Lane Departure***
☒	**Shoulders -** *Widen to Standard Width (add **2'** each side)*	10%	Lane Departure***
☐	**Shoulders -** *Widen to Standard Width (add **3'** each side)*	15%	Lane Departure***
☐	**Shoulders -** *Widen to Standard Width (add **4'** each side)*	20%	Lane Departure***
☐	**Shoulders -** *Widen to Standard Width (add **5'** each side)*	25%	Lane Departure***
☐	**Shoulders -** *Widen to Standard Width (add **6'** each side)*	30%	Lane Departure***
☐			
☐	**Shoulders -** *Widen to Standard Width (add **7'** each side)*	35%	Lane Departure***
☐	**Vertical Curve Modification**	20%	All Applicable Crash Types +++
	General Segment Enhancements		
☐	**Access Management -** *Improve*	15%	Drive-way Related Applicable Crashes
☐	**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
☐	**High Friction Surface Treatment -** *Install*	35%	Wet Crashes
		20%	All Other Applicable Crashes
☐	**Recessed Durable Pavement Markings**	5%	All Applicable Crashes
☐	**Pedestrian Refuge -** *Install*	50%	Pedestrian Crashes (Review NCHRP Report 841)
☐	**Road Diet (4-3 Lane Conversion)** - *Install*	50%	Suburban - All Applicable Crashes
☐	**Shoulder Rumble Strips**	20%	Run-Off the Road Right Crashes
☒	**Signing/Delineation on Horizontal Curves (Including Recessed Durable Pavement Markings) -** *Install*	20%	Lane Departure***
☐	**Safety Edge Improvement**	13%	All non-intersection crashes (CMF Clearing House ID 8658)

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

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

Rural Task Force Region Four
Road Project Application

.

Section 1. Applicant Information			
Agency Name	Van Buren County Road Commission		
Contact Name	Larry Hummel	Title	Engineer - Manager
Phone Number	269-674-8011	Email	larryhummel@vbcrc.org

Section 2. Project Information			
Project Name/Road Name	CR 687		
Township/City/Village	Keeler Township		
Project Limits (e.g. Napier Ave. to Britain Ave.)	CR 342 to 90th Ave		
Project Length (nearest hundredth of a mile)	.44	Proposed Year of Funding	2020
Primary Work Type	☐ Reconstruct ☒ Restore & Rehabilitate ☐ Roadside Facility ☐ Resurface ☐ Traffic Operations/Safety ☐ Transit ☐ Other		
Project Description (Please provide major work items including sidewalks, utility work, ADA upgrades etc.)	Trench and widen, crush and shape, HMA paving, and pavement markings.		

Section 3. Project Funding	
Federal STBG Requested	$ 416,000
State D	$
CTF	$
Local Funds	$ 104,000
Total	$ 520,000
Match Percentage (match/total cost)	20%
Does your agency have the financial capacity to Advance Construct (AC) all or part of this project if necessary? If yes, what is the maximum dollar amount your agency is willing to Advance Construct (AC)?	☒ Yes ☐ No Maximum Dollar Amount you can AC? $ 500,000

Section 4. System Preservation

PASER rating	4
Current state of drainage	☒ Adequate ☐ Minor and tolerable drainage problems ☐ Occasional drainage problems with some maintenance required ☐ Inadequate drainage, frequent flooding, excessive maintenance required
Expected increase in Remaining Service life (RSL)	☐ 0-3 years ☐ 4-6 ☐ 7-9 ☒ 10-14 ☐ 15-20 Use MDOT's *Guidelines for Geometrics on Local Projects*
What guidelines does the project conform to?	☐ Reconstruction (4R) ☒ Resurfacing, restoration, and Rehabilitation (3R) ☐ Preventative Maintenance (PM)

Section 5. Safety

Please list the number and severity of crashes within the proposed project limits over the last 5 yrs. (2013-2017) (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 6. Non-motorized Improvements

Please explain any pedestrian and/or bicycle improvements are included	5 foot paved shoulder that connects CR 342 to Hartford and the Van Buren Trail.
Does this project connect to an existing pedestrian/bicycle facility or one that is planned to be completed from 2020-2023?	☒ Yes ☐ No If yes, please provide a map of the connecting facilities

Section 7. Regional Connectivity

What is the most current daily traffic count for the limits of this project?	☐ Less than 2000 ☒ 2000-5000 ☐ 5000-10,000 ☐ Above 10,000 Year of count: 2013 Source: VBCRC
National Functional Classification (NFC) for this roadway	Maj Coll
Is the project on an All Season Road	☒ Yes ☐ No ☐ Not Sure

Section 8. Strategic Planning & Investment	
Is the project identified in a Asset Management Plan, or Capital Improvement Plan	☐ Yes ☒ No If yes, please cite the plan and page number:
Is the project identified in another planning documents such as a master plan or parks and recreation plan	☐ Yes ☒ No If yes, please cite the plan and page number:
Does the project cross jurisdictional boundaries?	☐ Yes ☒ No
If yes, will it be bid as a single project?	☐ Yes ☐ No ☐ NA
Will this project coordinate with other infrastructure projects (i.e. utility, water, sewer, etc.)	☐ Yes ☒ No If yes, please indicate the project type and construction year:
How many water main breaks have you had at this location in the past five years?	
Is there a completed a utilities assessment that included televising the sewers in the project area?	☐ Yes ☒ No
Will this project require environmental mitigation, purchase of Right of Way (ROW), or railroad permits?	☐ Yes ☒ No ☐ Not Sure If yes, which items are required:
Does this project perform Resurfacing, Reconstruction, or Preventative Maintenance on a segment adjacent to a segment where a federally-funded project was done during the 2017-https://www.swmpc.org/downloads/rtf_region4_20172020_project_list.pdf2020 RTF cycle?	☒ Yes ☐ No What segment was the PREVIOUS project done on? CR 687, 90th Ave north 0.6 miles

Section 9. Existing and Proposed Roadway Design

	Existing			Proposed		
Number of Vehicle Lanes	Through Traffic Lanes	Center Turn Lane	On Street Parking	Through Traffic Lanes	Center Turn Lane	On Street Parking
	2	0	☐ Yes ☒ No	2	0	☐ Yes ☒ No
Shoulder Surface	☐ Paved ☒ Unpaved	Width (ft.) 4		☒ Paved ☒ Unpaved		Width (ft.) 7
Sidewalk/ path information	**Placement** ☐ One Side ☐ Both Sides ☐ Intermittent ☒ None	Width (ft.) 0		**Placement** ☐ One Side ☐ Both Sides ☐ Intermittent ☒ None		Width (ft.) 0
On road bicycle facilities	☐ Bike Lane ☐ Other (specify) ☐ Sharrows ☐ Wide Shoulders ☒ None			☒ Bike Lane ☐ Other (specify) ☐ Sharrows ☐ Wide Shoulders ☐ None		
Utilities, Sewer and Water	☐ Utilities Upgrades Needed ☐ Sewer and water work needed			☐ Replaced Utilities ☐ Relocating Utilities ☐ 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	5 foot paved shoulders for a bike lane.					

Section 10. Estimated Project Schedule

Activity	Estimated Date
Resolution of Support for☐ Local Match Submitted to SWMPC	10/2019
Project Application Submitted to MOT	11/2019
Grade Inspection Package Submitted to MDOT	1/2020
Grade Inspection Meeting Scheduled	2/2020
Final Plan and Estimate to MDOT	3/2020
Right of Way (ROW) certified*	NA
Rail Road Permits*	NA
Environmental Mitigation*	NA
Project Obligated	5/5020
Project Letting	7/2020
Construction Start☐	8/2020
Project Completion	11/2020

*Enter NA if these items will not be required.

	Proposed Improvement	% Reduction	Associated Crash Types
	SEGMENT CRASH REDUCTION FACTORS		
	Geometric Safety Enhancements		
☐	**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*
☐	**Right-Turn Lane -** *Construct*	65%	Rear-End Right-Turn
		30%	Angle
		15%	Rear-End
		10%	Other*
☐	**Horizontal Curve Flattening**	30%	Lane Departure***
☐	**Shoulders -** *Widen to Standard Width (add **1'** each side)*	5%	Lane Departure***
☒	**Shoulders -** *Widen to Standard Width (add **2'** each side)*	10%	Lane Departure***
☐	**Shoulders -** *Widen to Standard Width (add **3'** each side)*	15%	Lane Departure***
☐	**Shoulders -** *Widen to Standard Width (add **4'** each side)*	20%	Lane Departure***
☐	**Shoulders -** *Widen to Standard Width (add **5'** each side)*	25%	Lane Departure***
☐	**Shoulders -** *Widen to Standard Width (add **6'** each side)*	30%	Lane Departure***
☐			
☐	**Shoulders -** *Widen to Standard Width (add **7'** each side)*	35%	Lane Departure***
☐	**Vertical Curve Modification**	20%	All Applicable Crash Types +++
	General Segment Enhancements		
☐	**Access Management -** *Improve*	15%	Drive-way Related Applicable Crashes
☐	**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
☐	**High Friction Surface Treatment -** *Install*	35%	Wet Crashes
		20%	All Other Applicable Crashes
☐	**Recessed Durable Pavement Markings**	5%	All Applicable Crashes
☐	**Pedestrian Refuge -** *Install*	50%	Pedestrian Crashes (Review NCHRP Report 841)
☐	**Road Diet (4-3 Lane Conversion)** - *Install*	50%	Suburban - All Applicable Crashes
☐	**Shoulder Rumble Strips**	20%	Run-Off the Road Right Crashes
☐	**Signing/Delineation on Horizontal Curves (Including Recessed Durable Pavement Markings) -** *Install*	20%	Lane Departure***
☐	**Safety Edge Improvement**	13%	All non-intersection crashes (CMF Clearing House ID 8658)

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

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

Rural Task Force Region Four
Road Project Application

.

Section 1. Applicant Information			
Agency Name	Van Buren County Road Commission		
Contact Name	Larry Hummel	Title	Engineer - Manager
Phone Number	269-674-8011	Email	larryhummel@vbcrc.org

Section 2. Project Information			
Project Name/Road Name	CR 652		
Township/City/Village	Porter Township		
Project Limits (e.g. Napier Ave. to Britain Ave.)	CR 354 to 72nd Ave		
Project Length (nearest hundredth of a mile)	1.04	Proposed Year of Funding	2021
Primary Work Type	☐ Reconstruct ☒ Restore & Rehabilitate ☐ Roadside Facility ☐ Resurface ☐ Traffic Operations/Safety ☐ Transit ☐ Other		
Project Description (Please provide major work items including sidewalks, utility work, ADA upgrades etc.)	Trench and widen, cold milling top course, HMA paving, and pavement markings.		

Section 3. Project Funding	
Federal STBG Requested	$ 340,000
State D	$
CTF	$
Local Funds	$ 85,000
Total	$ 425,000
Match Percentage (match/total cost)	20%
Does your agency have the financial capacity to Advance Construct (AC) all or part of this project if necessary? If yes, what is the maximum dollar amount your agency is willing to Advance Construct (AC)?	☒ Yes ☐ No Maximum Dollar Amount you can AC? $ 500,000

Section 4. System Preservation

PASER rating	7
Current state of drainage	☒ Adequate ☐ Minor and tolerable drainage problems ☐ Occasional drainage problems with some maintenance required ☐ Inadequate drainage, frequent flooding, excessive maintenance required
Expected increase in Remaining Service life (RSL)	☐ 0-3 years ☐ 4-6 ☒ 7-9 ☐ 10-14 ☐ 15-20 Use MDOT's *Guidelines for Geometrics on Local Projects*
What guidelines does the project conform to?	☐ Reconstruction (4R) ☒ Resurfacing, restoration, and Rehabilitation (3R) ☐ Preventative Maintenance (PM)

Section 5. Safety

Please list the number and severity of crashes within the proposed project limits over the last 5 yrs. (2013-2017) (see Michigan Crash Facts for crash data)

Total Crashes	1	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 6. Non-motorized Improvements

Please explain any pedestrian and/or bicycle improvements are included	
Does this project connect to an existing pedestrian/bicycle facility or one that is planned to be completed from 2020-2023?	☐ Yes ☒ No If yes, please provide a map of the connecting facilities

Section 7. Regional Connectivity

What is the most current daily traffic count for the limits of this project?	☒ Less than 2000 ☐ 2000-5000 ☐ 5000-10,000 ☐ Above 10,000 Year of count: 2013 Source: VBCRC
National Functional Classification (NFC) for this roadway	Maj Coll
Is the project on an All Season Road	☒ Yes ☐ No ☐ Not Sure

Section 8. Strategic Planning & Investment	
Is the project identified in a Asset Management Plan, or Capital Improvement Plan	☐ Yes ☒ No If yes, please cite the plan and page number:
Is the project identified in another planning documents such as a master plan or parks and recreation plan	☐ Yes ☒ No If yes, please cite the plan and page number:
Does the project cross jurisdictional boundaries?	☐ Yes ☒ No
If yes, will it be bid as a single project?	☐ Yes ☐ No ☐ NA
Will this project coordinate with other infrastructure projects (i.e. utility, water, sewer, etc.)	☐ Yes ☒ No If yes, please indicate the project type and construction year:
How many water main breaks have you had at this location in the past five years?	
Is there a completed a utilities assessment that included televising the sewers in the project area?	☐ Yes ☒ No
Will this project require environmental mitigation, purchase of Right of Way (ROW), or railroad permits?	☐ Yes ☒ No ☐ Not Sure If yes, which items are required:
Does this project perform Resurfacing, Reconstruction, or Preventative Maintenance on a segment adjacent to a segment where a federally-funded project was done during the 2017-https://www.swmpc.org/downloads/rtf_region4_20172020_project_list.pdf2020 RTF cycle?	☐ Yes ☒ No What segment was the PREVIOUS project done on?

Section 9. Existing and Proposed Roadway Design

	Existing			Proposed		
Number of Vehicle Lanes	Through Traffic Lanes	Center Turn Lane	On Street Parking	Through Traffic Lanes	Center Turn Lane	On Street Parking
	2	0	☐ Yes ☒ No	2	0	☐ Yes ☒ No
Shoulder Surface	☒ Paved ☒ Unpaved	Width (ft.) 6		☒ Paved ☒ Unpaved	Width (ft.) 6	
Sidewalk/ path information	**Placement** ☐ One Side ☐ Both Sides ☐ Intermittent ☒ None	Width (ft.) 0		**Placement** ☐ One Side ☐ Both Sides ☐ Intermittent ☒ None	Width (ft.) 0	
On road bicycle facilities	☐ Bike Lane ☐ Other (specify) _____ ☐ Sharrows ☐ Wide Shoulders ☒ None			☐ Bike Lane ☐ Other (specify) _____ ☐ Sharrows ☐ Wide Shoulders ☒ None		
Utilities, Sewer and Water	☐ Utilities Upgrades Needed ☐ Sewer and water work needed			☐ Replaced Utilities ☐ Relocating Utilities ☐ 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						

Section 10. Estimated Project Schedule

Activity	Estimated Date
Resolution of Support for☐ Local Match Submitted to SWMPC	9/2020
Project Application Submitted to MOT	11/2020
Grade Inspection Package Submitted to MDOT	12/2020
Grade Inspection Meeting Scheduled	2/2021
Final Plan and Estimate to MDOT	3/2021
Right of Way (ROW) certified*	NA
Rail Road Permits*	NA
Environmental Mitigation*	NA
Project Obligated	4/2021
Project Letting	5/2021
Construction Start☐	7/2021
Project Completion	11/2021

*Enter NA if these items will not be required.

	Proposed Improvement	% Reduction	Associated Crash Types
	SEGMENT CRASH REDUCTION FACTORS		
	Geometric Safety Enhancements		
☐	**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*
☐	**Right-Turn Lane -** *Construct*	65%	Rear-End Right-Turn
		30%	Angle
		15%	Rear-End
		10%	Other*
☐	**Horizontal Curve Flattening**	30%	Lane Departure***
☐	**Shoulders -** *Widen to Standard Width (add **1'** each side)*	5%	Lane Departure***
☐	**Shoulders -** *Widen to Standard Width (add **2'** each side)*	10%	Lane Departure***
☐	**Shoulders -** *Widen to Standard Width (add **3'** each side)*	15%	Lane Departure***
☐	**Shoulders -** *Widen to Standard Width (add **4'** each side)*	20%	Lane Departure***
☐	**Shoulders -** *Widen to Standard Width (add **5'** each side)*	25%	Lane Departure***
☐	**Shoulders -** *Widen to Standard Width (add **6'** each side)*	30%	Lane Departure***
☐			
☐	**Shoulders -** *Widen to Standard Width (add **7'** each side)*	35%	Lane Departure***
☐	**Vertical Curve Modification**	20%	All Applicable Crash Types +++
	General Segment Enhancements		
☐	**Access Management -** *Improve*	15%	Drive-way Related Applicable Crashes
☐	**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
☐	**High Friction Surface Treatment -** *Install*	35%	Wet Crashes
		20%	All Other Applicable Crashes
☐	**Recessed Durable Pavement Markings**	5%	All Applicable Crashes
☐	**Pedestrian Refuge -** *Install*	50%	Pedestrian Crashes (Review NCHRP Report 841)
☐	**Road Diet (4-3 Lane Conversion)** - *Install*	50%	Suburban - All Applicable Crashes
☐	**Shoulder Rumble Strips**	20%	Run-Off the Road Right Crashes
☐	**Signing/Delineation on Horizontal Curves (Including Recessed Durable Pavement Markings) -** *Install*	20%	Lane Departure***
☐	**Safety Edge Improvement**	13%	All non-intersection crashes (CMF Clearing House ID 8658)

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

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

Rural Task Force Region Four
Road Project Application

.

Section 1. Applicant Information			
Agency Name	Van Buren County Road Commission		
Contact Name	Larry Hummel	Title	Engineer - Manager
Phone Number	269-674-8011	Email	larryhummel@vbcrc.org

Section 2. Project Information			
Project Name/Road Name	Red Arrow Highway		
Township/City/Village	Lawrence Township		
Project Limits (e.g. Napier Ave. to Britain Ave.)	CR 681 to Lawrence Village limits		
Project Length (nearest hundredth of a mile)	2.19	Proposed Year of Funding	2022
Primary Work Type	☐ Reconstruct ☒ Restore & Rehabilitate ☐ Roadside Facility ☐ Resurface ☐ Traffic Operations/Safety ☐ Transit ☐ Other		
Project Description (Please provide major work items including sidewalks, utility work, ADA upgrades etc.)	Trench and widen, crush and shape, HMA paving, drainage, and pavement markings		

Section 3. Project Funding	
Federal STBG Requested	$ 1,464,000
State D	$
CTF	$
Local Funds	$ 366,000
Total	$ 1,830,000
Match Percentage (match/total cost)	20%
Does your agency have the financial capacity to Advance Construct (AC) all or part of this project if necessary? If yes, what is the maximum dollar amount your agency is willing to Advance Construct (AC)?	☒ Yes ☐ No Maximum Dollar Amount you can AC? $ 500,000

Section 4. System Preservation

PASER rating	3
Current state of drainage	☐ Adequate ☒ Minor and tolerable drainage problems ☐ Occasional drainage problems with some maintenance required ☐ Inadequate drainage, frequent flooding, excessive maintenance required
Expected increase in Remaining Service life (RSL)	☐0-3 years ☐4-6 ☐7-9 ☒10-14 ☐15-20 Use MDOT's *Guidelines for Geometrics on Local Projects*
What guidelines does the project conform to?	☐ Reconstruction (4R) ☒ Resurfacing, restoration, and Rehabilitation (3R) ☐Preventative Maintenance (PM)

Section 5. Safety

Please list the number and severity of crashes within the proposed project limits over the last 5 yrs. (2013-2017) (see Michigan Crash Facts for crash data)

Total Crashes	95	Pedestrian & Bicycle Crashes	0
Fatalities	0	Serious Injuries	5

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	Shoulder widening and sign upgrades

Section 6. Non-motorized Improvements

Please explain any pedestrian and/or bicycle improvements are included	
Does this project connect to an existing pedestrian/bicycle facility or one that is planned to be completed from 2020-2023?	☐Yes ☒No If yes, please provide a map of the connecting facilities

Section 7. Regional Connectivity

What is the most current daily traffic count for the limits of this project?	☐Less than 2000 ☒2000-5000 ☐ 5000-10,000 ☐Above 10,000 Year of count: 2015 Source: VBCRC
National Functional Classification (NFC) for this roadway	Min Art
Is the project on an All Season Road	☒Yes ☐No ☐Not Sure

Section 8. Strategic Planning & Investment	
Is the project identified in a Asset Management Plan, or Capital Improvement Plan	☐ Yes ☒ No If yes, please cite the plan and page number:
Is the project identified in another planning documents such as a master plan or parks and recreation plan	☐ Yes ☒ No If yes, please cite the plan and page number:
Does the project cross jurisdictional boundaries?	☐ Yes ☒ No
If yes, will it be bid as a single project?	☐ Yes ☐ No ☐ NA
Will this project coordinate with other infrastructure projects (i.e. utility, water, sewer, etc.)	☐ Yes ☒ No If yes, please indicate the project type and construction year:
How many water main breaks have you had at this location in the past five years?	
Is there a completed a utilities assessment that included televising the sewers in the project area?	☐ Yes ☒ No
Will this project require environmental mitigation, purchase of Right of Way (ROW), or railroad permits?	☐ Yes ☒ No ☐ Not Sure If yes, which items are required:
Does this project perform Resurfacing, Reconstruction, or Preventative Maintenance on a segment adjacent to a segment where a federally-funded project was done during the 2017-https://www.swmpc.org/downloads/rtf_region4_20172020_project_list.pdf2020 RTF cycle?	☐ Yes ☒ No What segment was the PREVIOUS project done on?

Section 9. Existing and Proposed Roadway Design

	Existing			Proposed		
Number of Vehicle Lanes	Through Traffic Lanes	Center Turn Lane	On Street Parking	Through Traffic Lanes	Center Turn Lane	On Street Parking
	2	0	☐ Yes ☒ No	2	0	☐ Yes ☒ No
Shoulder Surface	☒ Paved ☒ Unpaved	Width (ft.) 4		☒ Paved ☒ Unpaved		Width (ft.) 7
Sidewalk/ path information	**Placement** ☐ One Side ☐ Both Sides ☐ Intermittent ☒ None	Width (ft.) 0		**Placement** ☐ One Side ☐ Both Sides ☐ Intermittent ☒ None		Width (ft.) 0
On road bicycle facilities	☐ Bike Lane ☐ Other (specify) ☐ Sharrows ☐ Wide Shoulders ☒ None			☒ Bike Lane ☐ Other (specify) ☐ Sharrows ☐ Wide Shoulders ☐ None		
Utilities, Sewer and Water	☐ Utilities Upgrades Needed ☐ Sewer and water work needed			☐ Replaced Utilities ☐ Relocating Utilities ☐ 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	5 foot paved shoulders for bike lanes.					

Section 10. Estimated Project Schedule

Activity	Estimated Date
Resolution of Support for☐ Local Match Submitted to SWMPC	7/2021
Project Application Submitted to MOT	8/2021
Grade Inspection Package Submitted to MDOT	9/2021
Grade Inspection Meeting Scheduled	11/2021
Final Plan and Estimate to MDOT	1/2022
Right of Way (ROW) certified*	NA
Rail Road Permits*	NA
Environmental Mitigation*	NA
Project Obligated	2/2022
Project Letting	4/2022
Construction Start☐	6/2022
Project Completion	11/2022

*Enter NA if these items will not be required.

	Proposed Improvement	% Reduction	Associated Crash Types
	SEGMENT CRASH REDUCTION FACTORS		
	Geometric Safety Enhancements		
☐	**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*
☐	**Right-Turn Lane -** *Construct*	65%	Rear-End Right-Turn
		30%	Angle
		15%	Rear-End
		10%	Other*
☐	**Horizontal Curve Flattening**	30%	Lane Departure***
☐	**Shoulders -** *Widen to Standard Width (add **1'** each side)*	5%	Lane Departure***
☐	**Shoulders -** *Widen to Standard Width (add **2'** each side)*	10%	Lane Departure***
☒	**Shoulders -** *Widen to Standard Width (add **3'** each side)*	15%	Lane Departure***
☐	**Shoulders -** *Widen to Standard Width (add **4'** each side)*	20%	Lane Departure***
☐	**Shoulders -** *Widen to Standard Width (add **5'** each side)*	25%	Lane Departure***
☐	**Shoulders -** *Widen to Standard Width (add **6'** each side)*	30%	Lane Departure***
☐			
☐	**Shoulders -** *Widen to Standard Width (add **7'** each side)*	35%	Lane Departure***
☐	**Vertical Curve Modification**	20%	All Applicable Crash Types +++
	General Segment Enhancements		
☐	**Access Management -** *Improve*	15%	Drive-way Related Applicable Crashes
☐	**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
☐	**High Friction Surface Treatment -** *Install*	35%	Wet Crashes
		20%	All Other Applicable Crashes
☐	**Recessed Durable Pavement Markings**	5%	All Applicable Crashes
☐	**Pedestrian Refuge -** *Install*	50%	Pedestrian Crashes (Review NCHRP Report 841)
☐	**Road Diet (4-3 Lane Conversion)** - *Install*	50%	Suburban - All Applicable Crashes
☐	**Shoulder Rumble Strips**	20%	Run-Off the Road Right Crashes
☒	**Signing/Delineation on Horizontal Curves (Including Recessed Durable Pavement Markings) -** *Install*	20%	Lane Departure***
☐	**Safety Edge Improvement**	13%	All non-intersection crashes (CMF Clearing House ID 8658)

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

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

Rural Task Force Region Four
Road Project Application

.

Section 1. Applicant Information			
Agency Name	Van Buren County Road Commission		
Contact Name	Larry Hummel	Title	Engineer-Manager
Phone Number	269-674-8011	Email	larryhummel@vbcrc.org

Section 2. Project Information			
Project Name/Road Name	CR 352		
Township/City/Village	Hamilton Township		
Project Limits (e.g. Napier Ave. to Britain Ave.)	CR 215 south to CR 358		
Project Length (nearest hundredth of a mile)	2.00	Proposed Year of Funding	2023
Primary Work Type	☐ Reconstruct ☒ Restore & Rehabilitate ☐ Roadside Facility ☐ Resurface ☐ Traffic Operations/Safety ☐ Transit ☐ Other		
Project Description (Please provide major work items including sidewalks, utility work, ADA upgrades etc.)	Trench and widen, crush and shape, HMA paving, pavement markings and signage.		

Section 3. Project Funding	
Federal STBG Requested	$ 1,232,000
State D	$
CTF	$
Local Funds	$ 308,000
Total	$ 1,540,000
Match Percentage (match/total cost)	20%
Does your agency have the financial capacity to Advance Construct (AC) all or part of this project if necessary? If yes, what is the maximum dollar amount your agency is willing to Advance Construct (AC)?	☒ Yes ☐ No Maximum Dollar Amount you can AC? $ 500,000

Section 4. System Preservation

PASER rating	5
Current state of drainage	☒ Adequate ☐ Minor and tolerable drainage problems ☐ Occasional drainage problems with some maintenance required ☐ Inadequate drainage, frequent flooding, excessive maintenance required
Expected increase in Remaining Service life (RSL)	☐ 0-3 years ☐ 4-6 ☐ 7-9 ☒ 10-14 ☐ 15-20 Use MDOT's *Guidelines for Geometrics on Local Projects*
What guidelines does the project conform to?	☐ Reconstruction (4R) ☒ Resurfacing, restoration, and Rehabilitation (3R) ☐ Preventative Maintenance (PM)

Section 5. Safety

Please list the number and severity of crashes within the proposed project limits over the last 5 yrs. (2013-2017) (see Michigan Crash Facts for crash data)

Total Crashes	12	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	Shoulder widening and sign upgrades.

Section 6. Non-motorized Improvements

Please explain any pedestrian and/or bicycle improvements are included	
Does this project connect to an existing pedestrian/bicycle facility or one that is planned to be completed from 2020-2023?	☐ Yes ☒ No If yes, please provide a map of the connecting facilities

Section 7. Regional Connectivity

What is the most current daily traffic count for the limits of this project?	☒ Less than 2000 ☐ 2000-5000 ☐ 5000-10,000 ☐ Above 10,000 Year of count: 2013 Source: VBCRC
National Functional Classification (NFC) for this roadway	Maj Coll
Is the project on an All Season Road	☒ Yes ☐ No ☐ Not Sure

Section 8. Strategic Planning & Investment	
Is the project identified in a Asset Management Plan, or Capital Improvement Plan	☐ Yes ☒ No If yes, please cite the plan and page number:
Is the project identified in another planning documents such as a master plan or parks and recreation plan	☐ Yes ☒ No If yes, please cite the plan and page number:
Does the project cross jurisdictional boundaries?	☐ Yes ☒ No
If yes, will it be bid as a single project?	☐ Yes ☐ No ☒ NA
Will this project coordinate with other infrastructure projects (i.e. utility, water, sewer, etc.)	☐ Yes ☒ No If yes, please indicate the project type and construction year:
How many water main breaks have you had at this location in the past five years?	0
Is there a completed a utilities assessment that included televising the sewers in the project area?	☐ Yes ☒ No
Will this project require environmental mitigation, purchase of Right of Way (ROW), or railroad permits?	☐ Yes ☒ No ☐ Not Sure If yes, which items are required:
Does this project perform Resurfacing, Reconstruction, or Preventative Maintenance on a segment adjacent to a segment where a federally-funded project was done during the 2017-https://www.swmpc.org/downloads/rtf_region4_20172020_project_list.pdf2020 RTF cycle?	☐ Yes ☒ No What segment was the PREVIOUS project done on?

Section 9. Existing and Proposed Roadway Design

	Existing			Proposed		
Number of Vehicle Lanes	Through Traffic Lanes	Center Turn Lane	On Street Parking	Through Traffic Lanes	Center Turn Lane	On Street Parking
	2	0	☐ Yes ☒ No	2	0	☐ Yes ☒ No
Shoulder Surface	☐ Paved ☒ Unpaved	Width (ft.) 2		☒ Paved ☒ Unpaved		Width (ft.) 6
Sidewalk/ path information	**Placement** ☐ One Side ☐ Both Sides ☐ Intermittent ☒ None	Width (ft.)		**Placement** ☐ One Side ☐ Both Sides ☐ Intermittent ☒ None		Width (ft.)
On road bicycle facilities	☐ Bike Lane ☐ Other (specify) ☐ Sharrows ☐ Wide Shoulders ☒ None			☐ Bike Lane ☐ Other (specify) ☐ Sharrows ☐ Wide Shoulders ☒ None		
Utilities, Sewer and Water	☐ Utilities Upgrades Needed ☐ Sewer and water work needed			☐ Replaced Utilities ☐ Relocating Utilities ☐ 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						

Section 10. Estimated Project Schedule

Activity	Estimated Date
Resolution of Support for☐ Local Match Submitted to SWMPC	11/2021
Project Application Submitted to MOT	12/2021
Grade Inspection Package Submitted to MDOT	2/2022
Grade Inspection Meeting Scheduled	3/2022
Final Plan and Estimate to MDOT	4/2022
Right of Way (ROW) certified*	NA
Rail Road Permits*	NA
Environmental Mitigation*	NA
Project Obligated	8/2022
Project Letting	2/2023
Construction Start☐	4/2023
Project Completion	7/2023

*Enter NA if these items will not be required.

	Proposed Improvement	% Reduction	Associated Crash Types
	SEGMENT CRASH REDUCTION FACTORS		
	Geometric Safety Enhancements		
☐	**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*
☐	**Right-Turn Lane -** *Construct*	65%	Rear-End Right-Turn
		30%	Angle
		15%	Rear-End
		10%	Other*
☐	**Horizontal Curve Flattening**	30%	Lane Departure***
☐	**Shoulders -** *Widen to Standard Width (add **1'** each side)*	5%	Lane Departure***
☐	**Shoulders -** *Widen to Standard Width (add **2'** each side)*	10%	Lane Departure***
☐	**Shoulders -** *Widen to Standard Width (add **3'** each side)*	15%	Lane Departure***
☒	**Shoulders -** *Widen to Standard Width (add **4'** each side)*	20%	Lane Departure***
☐	**Shoulders -** *Widen to Standard Width (add **5'** each side)*	25%	Lane Departure***
☐	**Shoulders -** *Widen to Standard Width (add **6'** each side)*	30%	Lane Departure***
☐			
☐	**Shoulders -** *Widen to Standard Width (add **7'** each side)*	35%	Lane Departure***
☐	**Vertical Curve Modification**	20%	All Applicable Crash Types +++
	General Segment Enhancements		
☐	**Access Management -** *Improve*	15%	Drive-way Related Applicable Crashes
☐	**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
☐	**High Friction Surface Treatment -** *Install*	35%	Wet Crashes
		20%	All Other Applicable Crashes
☐	**Recessed Durable Pavement Markings**	5%	All Applicable Crashes
☐	**Pedestrian Refuge -** *Install*	50%	Pedestrian Crashes (Review NCHRP Report 841)
☐	**Road Diet (4-3 Lane Conversion)** - *Install*	50%	Suburban - All Applicable Crashes
☐	**Shoulder Rumble Strips**	20%	Run-Off the Road Right Crashes
☒	**Signing/Delineation on Horizontal Curves (Including Recessed Durable Pavement Markings) -** *Install*	20%	Lane Departure***
☐	**Safety Edge Improvement**	13%	All non-intersection crashes (CMF Clearing House ID 8658)

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

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

Rural Task Force Region Four
Road Project Application

.

Section 1. Applicant Information			
Agency Name	Van Buren County Road Commission		
Contact Name	Larry Hummel	Title	Engineer - Manager
Phone Number	269-674-8011	Email	larryhummel@vbcrc.org

Section 2. Project Information			
Project Name/Road Name	CR 388		
Township/City/Village	Pine Grove Township / Village of Kendall		
Project Limits (e.g. Napier Ave. to Britain Ave.)	29th St to CR 653 south		
Project Length (nearest hundredth of a mile)	1.5	Proposed Year of Funding	2022
Primary Work Type	☐ Reconstruct ☒ Restore & Rehabilitate ☐ Roadside Facility ☐ Resurface ☐ Traffic Operations/Safety ☐ Transit ☐ Other		
Project Description (Please provide major work items including sidewalks, utility work, ADA upgrades etc.)	Trench widen, crush and shape, HMA paving, curb and gutter, pavement markings, and sign upgrades		

Section 3. Project Funding	
Federal STBG Requested	$ 1,432,000
State D	$
CTF	$
Local Funds	$ 358,000
Total	$ 1,790,000
Match Percentage (match/total cost)	20%
Does your agency have the financial capacity to Advance Construct (AC) all or part of this project if necessary? If yes, what is the maximum dollar amount your agency is willing to Advance Construct (AC)?	☒ Yes ☐ No Maximum Dollar Amount you can AC? $ 500,000

Section 4. System Preservation

PASER rating	2
Current state of drainage	☐ Adequate ☒ Minor and tolerable drainage problems ☐ Occasional drainage problems with some maintenance required ☐ Inadequate drainage, frequent flooding, excessive maintenance required
Expected increase in Remaining Service life (RSL)	☐0-3 years ☐4-6 ☐7-9 ☒10-14 ☐15-20 Use MDOT's *Guidelines for Geometrics on Local Projects*
What guidelines does the project conform to?	☐ Reconstruction (4R) ☒ Resurfacing, restoration, and Rehabilitation (3R) ☐Preventative Maintenance (PM)

Section 5. Safety

Please list the number and severity of crashes within the proposed project limits over the last 5 yrs. (2013-2017) (see Michigan Crash Facts for crash data)

Total Crashes	19	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	Shoulder widening and sign upgrades

Section 6. Non-motorized Improvements

Please explain any pedestrian and/or bicycle improvements are included	
Does this project connect to an existing pedestrian/bicycle facility or one that is planned to be completed from 2020-2023?	☐Yes ☒No If yes, please provide a map of the connecting facilities

Section 7. Regional Connectivity

What is the most current daily traffic count for the limits of this project?	☒Less than 2000 ☐2000-5000 ☐ 5000-10,000 ☐Above 10,000 Year of count: 2008 Source: VBCRC
National Functional Classification (NFC) for this roadway	Maj Coll
Is the project on an All Season Road	☒Yes ☐No ☐Not Sure

Section 8. Strategic Planning & Investment	
Is the project identified in a Asset Management Plan, or Capital Improvement Plan	☐ Yes ☒ No If yes, please cite the plan and page number:
Is the project identified in another planning documents such as a master plan or parks and recreation plan	☐ Yes ☒ No If yes, please cite the plan and page number:
Does the project cross jurisdictional boundaries?	☐ Yes ☒ No
If yes, will it be bid as a single project?	☐ Yes ☐ No ☐ NA
Will this project coordinate with other infrastructure projects (i.e. utility, water, sewer, etc.)	☐ Yes ☒ No If yes, please indicate the project type and construction year:
How many water main breaks have you had at this location in the past five years?	
Is there a completed a utilities assessment that included televising the sewers in the project area?	☐ Yes ☒ No
Will this project require environmental mitigation, purchase of Right of Way (ROW), or railroad permits?	☐ Yes ☒ No ☐ Not Sure If yes, which items are required:
Does this project perform Resurfacing, Reconstruction, or Preventative Maintenance on a segment adjacent to a segment where a federally-funded project was done during the 2017-https://www.swmpc.org/downloads/rtf_region4_20172020_project_list.pdf2020 RTF cycle?	☐ Yes ☒ No What segment was the PREVIOUS project done on?

Section 9. Existing and Proposed Roadway Design

	Existing			Proposed		
Number of Vehicle Lanes	Through Traffic Lanes	Center Turn Lane	On Street Parking	Through Traffic Lanes	Center Turn Lane	On Street Parking
	2	0	☐ Yes ☒ No	2	0	☐ Yes ☒ No
Shoulder Surface	☐ Paved ☒ Unpaved	Width (ft.) 2		☒ Paved ☒ Unpaved		Width (ft.) 6
Sidewalk/ path information	**Placement** ☐ One Side ☐ Both Sides ☐ Intermittent ☒ None	Width (ft.) 0		**Placement** ☐ One Side ☐ Both Sides ☐ Intermittent ☒ None		Width (ft.) 0
On road bicycle facilities	☐ Bike Lane ☐ Other (specify) ☐ Sharrows ☐ Wide Shoulders ☒ None			☐ Bike Lane ☐ Other (specify) ☐ Sharrows ☐ Wide Shoulders ☒ None		
Utilities, Sewer and Water	☐ Utilities Upgrades Needed ☐ Sewer and water work needed			☐ Replaced Utilities ☐ Relocating Utilities ☒ 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						

Section 10. Estimated Project Schedule

Activity	Estimated Date
Resolution of Support for☐ Local Match Submitted to SWMPC	3/2021
Project Application Submitted to MOT	4/2021
Grade Inspection Package Submitted to MDOT	6/2021
Grade Inspection Meeting Scheduled	7/2021
Final Plan and Estimate to MDOT	8/2021
Right of Way (ROW) certified*	NA
Rail Road Permits*	NA
Environmental Mitigation*	NA
Project Obligated	10/2021
Project Letting	11/2021
Construction Start☐	4/2022
Project Completion	8/2022

*Enter NA if these items will not be required.

	Proposed Improvement	% Reduction	Associated Crash Types
	SEGMENT CRASH REDUCTION FACTORS		
	Geometric Safety Enhancements		
☐	**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*
☐	**Right-Turn Lane -** *Construct*	65%	Rear-End Right-Turn
		30%	Angle
		15%	Rear-End
		10%	Other*
☐	**Horizontal Curve Flattening**	30%	Lane Departure***
☐	**Shoulders -** *Widen to Standard Width (add **1'** each side)*	5%	Lane Departure***
☐	**Shoulders -** *Widen to Standard Width (add **2'** each side)*	10%	Lane Departure***
☐	**Shoulders -** *Widen to Standard Width (add **3'** each side)*	15%	Lane Departure***
☒	**Shoulders -** *Widen to Standard Width (add **4'** each side)*	20%	Lane Departure***
☐	**Shoulders -** *Widen to Standard Width (add **5'** each side)*	25%	Lane Departure***
☐	**Shoulders -** *Widen to Standard Width (add **6'** each side)*	30%	Lane Departure***
☐			
☐	**Shoulders -** *Widen to Standard Width (add **7'** each side)*	35%	Lane Departure***
☐	**Vertical Curve Modification**	20%	All Applicable Crash Types +++
	General Segment Enhancements		
☐	**Access Management -** *Improve*	15%	Drive-way Related Applicable Crashes
☐	**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
☐	**High Friction Surface Treatment -** *Install*	35%	Wet Crashes
		20%	All Other Applicable Crashes
☐	**Recessed Durable Pavement Markings**	5%	All Applicable Crashes
☐	**Pedestrian Refuge -** *Install*	50%	Pedestrian Crashes (Review NCHRP Report 841)
☐	**Road Diet (4-3 Lane Conversion)** - *Install*	50%	Suburban - All Applicable Crashes
☐	**Shoulder Rumble Strips**	20%	Run-Off the Road Right Crashes
☒	**Signing/Delineation on Horizontal Curves (Including Recessed Durable Pavement Markings) -** *Install*	20%	Lane Departure***
☐	**Safety Edge Improvement**	13%	All non-intersection crashes (CMF Clearing House ID 8658)

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

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

Rural Task Force Region Four
Road Project Application

.

Section 1. Applicant Information			
Agency Name	Van Buren County Road Commission		
Contact Name	Larry Hummel	Title	Engineer - Manager
Phone Number	269-674-8011	Email	larryhummel@vbcrc.org

Section 2. Project Information			
Project Name/Road Name	CR 388		
Township/City/Village	Bloomingdale Township		
Project Limits (e.g. Napier Ave. to Britain Ave.)	CR 384 to Bloomingdale Village limits		
Project Length (nearest hundredth of a mile)	1.11	Proposed Year of Funding	2021
Primary Work Type	☐ Reconstruct ☒ Restore & Rehabilitate ☐ Roadside Facility ☐ Resurface ☐ Traffic Operations/Safety ☐ Transit ☐ Other		
Project Description (Please provide major work items including sidewalks, utility work, ADA upgrades etc.)	Trench and widen, crush and shape, HMA paving, drainage and pavement markings.		

Section 3. Project Funding	
Federal STBG Requested	$ 952,000
State D	$
CTF	$
Local Funds	$ 238,000
Total	$ 1,190,000
Match Percentage (match/total cost)	20%
Does your agency have the financial capacity to Advance Construct (AC) all or part of this project if necessary? If yes, what is the maximum dollar amount your agency is willing to Advance Construct (AC)?	☒ Yes ☐ No Maximum Dollar Amount you can AC? $ 500,000

Section 4. System Preservation

PASER rating	2
Current state of drainage	☐ Adequate ☒ Minor and tolerable drainage problems ☐ Occasional drainage problems with some maintenance required ☐ Inadequate drainage, frequent flooding, excessive maintenance required
Expected increase in Remaining Service life (RSL)	☐0-3 years ☐4-6 ☐7-9 ☒10-14 ☐15-20 Use MDOT's *Guidelines for Geometrics on Local Projects*
What guidelines does the project conform to?	☐ Reconstruction (4R) ☒ Resurfacing, restoration, and Rehabilitation (3R) ☐Preventative Maintenance (PM)

Section 5. Safety

Please list the number and severity of crashes within the proposed project limits over the last 5 yrs. (2013-2017) (see Michigan Crash Facts for crash data)

Total Crashes	15	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	Shoulder widening

Section 6. Non-motorized Improvements

Please explain any pedestrian and/or bicycle improvements are included	
Does this project connect to an existing pedestrian/bicycle facility or one that is planned to be completed from 2020-2023?	☐Yes ☒No If yes, please provide a map of the connecting facilities

Section 7. Regional Connectivity

What is the most current daily traffic count for the limits of this project?	☐Less than 2000 ☒2000-5000 ☐ 5000-10,000 ☐Above 10,000 Year of count: 2014 Source: VBCRC
National Functional Classification (NFC) for this roadway	Maj Coll
Is the project on an All Season Road	☒Yes ☐No ☐Not Sure

Section 8. Strategic Planning & Investment	
Is the project identified in a Asset Management Plan, or Capital Improvement Plan	☐ Yes ☒ No If yes, please cite the plan and page number:
Is the project identified in another planning documents such as a master plan or parks and recreation plan	☐ Yes ☒ No If yes, please cite the plan and page number:
Does the project cross jurisdictional boundaries?	☐ Yes ☒ No
If yes, will it be bid as a single project?	☐ Yes ☐ No ☐ NA
Will this project coordinate with other infrastructure projects (i.e. utility, water, sewer, etc.)	☐ Yes ☒ No If yes, please indicate the project type and construction year:
How many water main breaks have you had at this location in the past five years?	
Is there a completed a utilities assessment that included televising the sewers in the project area?	☐ Yes ☒ No
Will this project require environmental mitigation, purchase of Right of Way (ROW), or railroad permits?	☐ Yes ☒ No ☐ Not Sure If yes, which items are required:
Does this project perform Resurfacing, Reconstruction, or Preventative Maintenance on a segment adjacent to a segment where a federally-funded project was done during the 2017-https://www.swmpc.org/downloads/rtf_region4_20172020_project_list.pdf2020 RTF cycle?	☒ Yes ☐ No What segment was the PREVIOUS project done on? W. Kalamazoo St in Village of Bloomingdale scheduled for 2020

Section 9. Existing and Proposed Roadway Design

	Existing			Proposed		
Number of Vehicle Lanes	Through Traffic Lanes	Center Turn Lane	On Street Parking	Through Traffic Lanes	Center Turn Lane	On Street Parking
	2	0	☐ Yes ☒ No	2	0	☐ Yes ☒ No
Shoulder Surface	☐ Paved ☒ Unpaved	Width (ft.) 2		☒ Paved ☒ Unpaved		Width (ft.) 6
Sidewalk/ path information	**Placement** ☐ One Side ☐ Both Sides ☐ Intermittent ☒ None	Width (ft.) 0		**Placement** ☐ One Side ☐ Both Sides ☐ Intermittent ☒ None		Width (ft.) 0
On road bicycle facilities	☐ Bike Lane ☐ Other (specify) ☐ Sharrows ☐ Wide Shoulders ☒ None			☐ Bike Lane ☐ Other (specify) ☐ Sharrows ☐ Wide Shoulders ☒ None		
Utilities, Sewer and Water	☐ Utilities Upgrades Needed ☐ Sewer and water work needed			☐ Replaced Utilities ☐ Relocating Utilities ☐ 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						

Section 10. Estimated Project Schedule

Activity	Estimated Date
Resolution of Support for☐ Local Match Submitted to SWMPC	8/2020
Project Application Submitted to MOT	9/2020
Grade Inspection Package Submitted to MDOT	11/2020
Grade Inspection Meeting Scheduled	12/2020
Final Plan and Estimate to MDOT	1/2021
Right of Way (ROW) certified*	NA
Rail Road Permits*	NA
Environmental Mitigation*	NA
Project Obligated	3/2021
Project Letting	5/2021
Construction Start☐	7/2021
Project Completion	10/2021

*Enter NA if these items will not be required.

	Proposed Improvement	% Reduction	Associated Crash Types
	SEGMENT CRASH REDUCTION FACTORS		
	Geometric Safety Enhancements		
☐	**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*
☐	**Right-Turn Lane -** *Construct*	65%	Rear-End Right-Turn
		30%	Angle
		15%	Rear-End
		10%	Other*
☐	**Horizontal Curve Flattening**	30%	Lane Departure***
☐	**Shoulders -** *Widen to Standard Width (add **1'** each side)*	5%	Lane Departure***
☐	**Shoulders -** *Widen to Standard Width (add **2'** each side)*	10%	Lane Departure***
☐	**Shoulders -** *Widen to Standard Width (add **3'** each side)*	15%	Lane Departure***
☒	**Shoulders -** *Widen to Standard Width (add **4'** each side)*	20%	Lane Departure***
☐	**Shoulders -** *Widen to Standard Width (add **5'** each side)*	25%	Lane Departure***
☐	**Shoulders -** *Widen to Standard Width (add **6'** each side)*	30%	Lane Departure***
☐			
☐	**Shoulders -** *Widen to Standard Width (add **7'** each side)*	35%	Lane Departure***
☐	**Vertical Curve Modification**	20%	All Applicable Crash Types +++
	General Segment Enhancements		
☐	**Access Management -** *Improve*	15%	Drive-way Related Applicable Crashes
☐	**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
☐	**High Friction Surface Treatment -** *Install*	35%	Wet Crashes
		20%	All Other Applicable Crashes
☐	**Recessed Durable Pavement Markings**	5%	All Applicable Crashes
☐	**Pedestrian Refuge -** *Install*	50%	Pedestrian Crashes (Review NCHRP Report 841)
☐	**Road Diet (4-3 Lane Conversion)** - *Install*	50%	Suburban - All Applicable Crashes
☐	**Shoulder Rumble Strips**	20%	Run-Off the Road Right Crashes
☐	**Signing/Delineation on Horizontal Curves (Including Recessed Durable Pavement Markings) -** *Install*	20%	Lane Departure***
☐	**Safety Edge Improvement**	13%	All non-intersection crashes (CMF Clearing House ID 8658)

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

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