Surface Transportation Block Grant Program – Urban (STBG-U)
Project Application and Ranking Process - Roadway Reconstruct/Expansion

Due: February 3, 2021

Project Name, Location and Brief Description: **Ammon Road Reconstruction, Expansion of Ammon Road between 1st St and 17th from a 3 lane to a 5 lane roadway. Two lanes in either direction and a center two-way turn lane. Only Asphalt will be replaced on the current 3-lane roadway and an additional lane will be added on either side. There will also be installation of sidewalk and curb and gutter along the entire stretch. At the intersection with John Adams a traffic signal will be installed.**

Attachment 2435 Form

A) Congestion Relief and System Operations (0-25 points)

When assigning points consider how well the project provides immediate and long term congestion relief at an intersection, roadway or the network as a whole.

How congested is the intersection or roadway segment currently and projected to be in the future?
The Current v/c ratio is at 1.07, which means that it already is operating above it's capacity. Existing undeveloped parcels along Ammon Road and locations both north and south will continue to grow and Ammon will see a steady growth rate for the next few years.

1) Current v/c ratio: **1.07**
2) Projected no-build v/c ratio: **1.80**

To what degree is the project expected to improve capacity, not only on the roadway itself but elsewhere in the transportation system?
Construction of this project will result in reducing the initial roadway level from Failure to Uncongested and the roadway will experience major congestion in the 2040 design year. Other North/South routes, including Hitt Road and 45th may see a reduced demand as motorist make adjustments to their driving behavior.

3) Projected build v/c ratio*: **0.93**

Location:	Transportation system v/c ratios*:	
4) **17th Street to 1st Street**	No-build v/c ratio: **1.07**	Build v/c ratio: **0.55**
5)	No-build v/c ratio:	Build v/c ratio:
6)	No-build v/c ratio:	Build v/c ratio:
7)	No-build v/c ratio:	Build v/c ratio:
8)	No-build v/c ratio:	Build v/c ratio:

*may require additional model runs to determine traffic projections under build conditions. Contact BMPC

'Capacity Worksheet

B) Safety (0-25 points)

When assigning points consider how well the project addresses high accident locations by including safety improvements to mediate the primary causes of crashes.

What location(s) exist within the projects scope that are considered to have a high degree of accidents? Why are they deemed to be critical accident locations that need attention? **Most crashes on this roadway occur on the south leg of the intersection of 1st and Ammon Rd. Ammon Road is over capacity and tends to back up significantly in the peak hours sometimes half way down the block near the intersection with 1st Street. This situation causes a lot of rear-end collisions to occur near the intersection. The intersection with 17th is wider with two through lanes and has a lower number of these types of crashes.**

Accident Location and Rates:

1)South leg of intersection with 1st street			
Crash: 0.67	Severity: 1.09	Density: 4.20	Overall: 1.67
2)			
Crash:	Severity:	Density:	Overall:
3)			
Crash:	Severity:	Density:	Overall:

'Accident Worksheet

What are the primary causes of accidents and contributing circumstances from crash reports? **About 50% of crashes in this area are due to rear-ends brought about by inattention and following too close when traffic is backed up at the intersection. This can be attributed to the fact that Ammon Rd is over capacity and needs capacity improvements to alleviate the congestion and the accidents that result from the back-up of traffic.**

Identify project design elements/counter measures implemented to address primary causes of accidents. Include related crash reduction factor:

Crash reduction counter measures:	Crash reduction factor:
1) Add an additional lane (all crash types)	25 (CMF 8335)
2)	
3)	

C) System Preservation (0-20 points)

When assigning points consider how well the project preserves or enhances the transportation system.

What is the current pavement condition? **Current pavement conditions on Ammon Rd. include some failing patches at various locations along the project area. However, there is very little to no rutting on this section of Ammon Rd.**

Pavement surface rating: **8**

Pavement Rating System (for more information regarding surface rating)

What traffic control devices, if any, will be added or upgraded? **A signal will be added at the intersection with John Adams Parkway.**

What bridges in poor condition, if any, will be replaced (deck, superstructure, and/or substructure or culvert) as part of this project? What bridges in fair or poor condition, if any, will be rehabilitated as part of this project? **No bridges will be replaced as part of this project.**

D) Multi-modal and Accessibility (0-10 points)

When scoring points consider if the project includes multi-modal facilities for improved accessibility, connectivity and safety.

Plan or study that identifies multi-modal project or need:

What bicycle and pedestrian improvements, if any, are included in the project? **The roadway currently only has sidewalks a few places along this stretch. This project would install sidewalk all the way from 17th to 1st on both sides. Adding sidewalks will create connectivity between the neighborhoods on Ammon Rd to the businesses on 17th.**

What public transportation improvements, if any, are included in the project? **There are no public transportation improvements included in this project.**

E) Support Economic Vitality (0-10 points)

When scoring points consider if the project improves access to housing, jobs, recreation and other areas of economic importance.

What corridor preservation techniques, if any, were implemented in relation to the project? **As an arterial street the expansion of Ammon Rd will help accommodate current and future traffic volumes and keep connectivity within the East Idaho communities.**

Does the project extend an existing roadway or address a gap in the roadway network? **This project will reconstruct the intersection of John Adams Parkway and Ammon Rd and add a traffic signal. This will allow for the future connection of John Adams to Ammon Rd. from the west.**

F) Project Feasibility (0-10 points)

When scoring points consider if the project is good fit for federal funds based on cost and impacts.

Attachment 1150 Form

What is the total estimated cost of the project?**$4,208,000**

What is the estimated cost per mile? **$4,208,000**

Is the project coordinated with other funding sources? **No**

What potential environmental impacts may require remediation?

Roadway Reconstruct/Expansion Application Requirements and Criteria

A) Congestion Relief and System Operations

Project types: adding travel lanes, traffic signals, roundabouts, additional turning lanes, medians, turning restrictions, etc.

Current v/c ratio – to what extent is a roadway segment or intersection currently congested? Typically a higher ratio assumes a higher point value be assigned to this category.

Projected no-build v/c ratio – to what extent is a roadway segment or intersection projected (20-25 years) to be congested if project is not implemented? Typically a higher ratio assumes a higher point value be assigned to this category.

Projected build v/c ratio – to what extent does congestion improve on a roadway segment or intersection when compared to the no build congestion? Typically a greater decrease between the no-build and build ratios assumes a higher point value be assigned to this category.

Transportation system v/c ratios – to what extent does congestion improve on other arterial and collector roadway segments? It should be noted that a roadway segment with added capacity may experience a negligible decrease in v/c ratio. This can be explained, in part, by shifting travel patterns as the added capacity may attract trips from other congested roadways or trips might be attracted because of a transportation network improvement such as a new interchange. This category helps identify if a project provides system wide congestion relief. Typically a greater decrease between the no-build and build ratios on the affected roadway segments assumes a higher point value be assigned to this category.

General congestion measures for v/c ratios:

< .60 Uncongested
.60 to .74 Minor Congestion
.75 to .84 Moderate Congestion
.85 to .99 Major Congestion
1.00 > Failure

Data Needs:

https://static1.squarespace.com/static/5f4818ef31f0ff53d986ae65/t/5f909fe001f962385e5ebd7f/16
https://www.bmpo.org/traffic-counts

B) Safety

Project types: roundabouts, access management techniques, improved traffic signal indication, rumble strips, enhanced delineation, etc.

Accident rates and density - Typically higher rates and density when considered with proven project safety improvements assumes a higher point value be assigned to this category.

- **Crash rate** - compares the number of crashes with the number of vehicles at a location.
- **Severity rate** - identifies the severity of the crashes at the location.
- **Crash density** - identifies the average number of crashes that occur at a location per year.
- **Overall rate** - is the composite of all factors being considered.

Average rates and density based on arterial and collector streets where traffic volumes have been collected:

Crash rate: 0.65

Severity rate: 1.00
Crash density: 5.00
Overall rate: 1.33

Crash reduction counter measure and crash reduction factor - using your experience, area knowledge, and the FHWA Crash Reduction Factor Toolkits or Crash Modification Factors (CMF) Clearinghouse select counter measures and reduction factors for the project areas.

Data Needs:
Historical Crash Data - WebCARS Office of Highway Safety Crash Analysis Reporting System
https://www.bmpo.org/traffic-counts

C) System Preservation

Project types: pavement seal coats and overlays, traffic signal improvements (e.g. display, controllers and detection), improved traffic signage, bridge repair, etc.
Pavement condition rating system - Typically roadways with a lower pavement surface rating assumes a higher point value be assigned to this category.

Pavement Surface Ratings:

Surface rating	*Visible distress**	*General condition/ treatment measures*
10 Excellent	None.	New construction.
9 Excellent	None.	Recent overlay. Like new.
8 Very Good	No longitudinal cracks except reflection of paving joints. Occasional transverse cracks, widely spaced (40′ or greater). All cracks sealed or tight (open less than ¼").	Recent sealcoat or new cold mix. Little or no maintenance required.
7 Good	Very slight or no raveling, surface shows some traffic wear. Longitudinal cracks (open ¼") due to reflection or paving joints. Transverse cracks (open ¼") spaced 10′ or more apart, little or slight crack raveling. No patching or very few patches in excellent condition.	First signs of aging. Maintain with routine crack filling.
6 Good	Slight raveling (loss of fines) and traffic wear. Longitudinal cracks (open ¼"–½"), some spaced less than 10′. First sign of block cracking. Sight to moderate flushing or polishing. Occasional patching in good condition.	Shows signs of aging. Sound structural condition. Could extend life with sealcoat.
5 Fair	Moderate to severe raveling (loss of fine and coarse aggregate). Longitudinal and transverse cracks (open ½") show first signs of slight raveling and secondary cracks. First signs of longitudinal cracks near pavement edge. Block cracking up to 50% of surface. Extensive to severe flushing or polishing. Some patching or edge wedging in good condition.	Surface aging. Sound structural condition. Needs sealcoat or thin non-structural overlay (less than 2")
4 Fair	Severe surface raveling. Multiple longitudinal and transverse cracking with slight raveling. Longitudinal cracking in wheel path. Block cracking (over 50% of surface). Patching in fair condition. Slight rutting or distortions (½" deep or less).	Significant aging and first signs of need for strengthening. Would benefit from a structural overlay (2" or more).

3 **Poor**	Closely spaced longitudinal and transverse cracks often showing raveling and crack erosion. Severe block cracking. Some alligator cracking (less than 25% of surface). Patches in fair to poor condition. Moderate rutting or distortion (1" or 2" deep). Occasional potholes.	Needs patching and repair prior to major overlay. Milling and removal of deterioration extends the life of overlay.
2 **Very Poor**	Alligator cracking (over 25% of surface). Severe distortions (over 2" deep) Extensive patching in poor condition. Potholes.	Severe deterioration. Needs reconstruction with extensive base repair. Pulverization of old pavement is effective.
1 **Failed**	Severe distress with extensive loss of surface integrity.	Failed. Needs total reconstruction.

Source: Pavement Surface Evaluation and Rating (PASER) Asphalt Roads Manual

Traffic control devices - a project that replaces or upgrades traffic control devices which improves the operation of an intersection or roadway typically assumes a higher point value be assigned to this
Bridges - in order to qualify for bridge funds the project needs to fall into one of three categories. *Replacement:* Bridge is in poor condition (deck, superstructure, and/or substructure, or culvert. *Rehabilitation:* Bridge is in poor or fair condition. *Preserve:* Bridge is in fair or good condition.

D) Multi-modal and Accessibility

Project types: pedestrian crossing treatments (e.g. grade separation, beacons and signage), bicycle lanes, shared use paths, bus stop improvements (e.g. bus pullouts, curb cuts and ramps near shelters), etc.
Multi-modal plan or study - in order to receive points the project or need must be identified in an approved planning document.
Bicycle and pedestrian improvements - projects that are located near schools or parks, extend or tie together existing facilities, and create a safer condition for bicyclists and pedestrians typically assumes a higher point value be assigned to this category.
Public transportation improvements - projects that improve accessibility and safety related to existing public transportation services typically assumes a higher point value be assigned to this category.

E) Support Economic Vitality

Corridor preservation techniques* - typically assumes a higher point value be assigned to this category when corridor preservation techniques such as land acquisition (e.g. purchase of easements, full title purchase), landowner agreements (e.g. annexation agreements, development agreements), land use regulations (e.g. development exactions, setback ordinances), access management consistent with current BMPA Access Management Plan and Roadway Master Plan (e.g. limiting curb cuts, reverse lot frontage) or other relevant techniques have been implemented.

F) Project Feasibility

Costs - the most recent project cost estimate from the ITD 1150 form will be considered under this criterion. Typically lower cost projects per mile assumes a higher point value be assigned to this category.
Funding sources - projects that can be constructed in conjunction with another project or that utilizes additional funding sources typically assumes a higher point value be assigned to this category.
Environmental impacts - projects that are perceived to have a limited number of environmental impacts and therefore may experience lower costs and less delays, typically assumes that a higher point value be assigned to this category.

Data Needs:
https://static1.squarespace.com/static/5f4818ef31f0ff53d986ae65/t/5f909fe001f962385e5ebd7f/16

*There are some ways to acquire key properties within the parameters of NEPA: obtaining a categorical exclusion for right-of-way activities; using information developed during the planning process to demonstrate NEPA compliance for right-of-way authorizations, and possibly even construction authorizations; initiating full NEPA environmental document preparation during the planning process; and using a Tiered Environmental Document approach. Alternatively, local jurisdictions can acquire key properties in the right-of-way of the planned transportation improvement, which is not prohibited by NEPA rules.

Roadway Reconstruct/Expansion Application Deadline:

Completed applications must be submitted electronically to bmpo@bmpo.org by 4:30 p.m. on February 3rd, 2021.

Include attachments:

ITD 1150 and 2435 Forms
Capacity Worksheets used to develop v/c ratios
Accident Worksheets used to develop crash, severity, density and overall rates
Any other maps, data, pictures, etc. that enhances the understanding of the project

Project Cost Summary Sheet

ITD 1150 (Rev. 06-17)
itd.idaho.gov

Round Estimates to Nearest $1,000

Key Number	Project Number	Date
	Ammon Road (17th to 1st)	2/3/2021
Location		District
City of Ammon and Bonneville County		6

Segment Code	Begin Mile Post	End Mile Post	Length in Miles
	0.01	1.01	1

	Previous ITD 1150	Initial or Revise To
1a. Preliminary Engineering (PE)		$10,000
1b. Preliminary Engineering by Consultant (PEC)		$500,000
2. Right-of-Way: Number of Parcels 58 Number of Relocations		$223,000
3. Utility Adjustments: ☐ Work ☐ Materials ☐ By State ☐ By Others		$50,000
4. Earthwork		$275,000
5. Drainage and Minor Structures		$398,000
6. Pavement and Base		$1,028,000
7. Railroad Crossing:		
Grade/Separation Structure None		
At-Grade Signals ☐ Yes ☐ No		
8. Bridges/Grade Separation Structures:		
☐ New Structure Length/Width		
Location		
☐ Repair/Widening/Rehabilitation Length/Width		
Location		
9. Traffic Items (Delineators, Signing, Channelization, Lighting, and Signals)		$480,000
10. Temporary Traffic Control (Sign, Pavement Markings, Flagging, and Traffic Separation)		$75,000
11. Detours		
12. Landscaping		$200,000
13. Mitigation Measures		$200,000
14. Other Items (Roadside Development, Guardrail, Fencing, Sidewalks, Curb and Gutter, C.S.S. Items)		$620,000
15. Cost of Constructions (Items 3 through 14)		$3,326,000
16. Mobilization 10 % of Item 15		$333,000
17. Construction Engineer and Contingencies 15 % of Items 15 and 16		$549,000
18. Total Construction Cost (15 + 16 + 17)		$4,208,000
19. Total Project Cost (1 + 2 + 18)		$4,941,000
20. Project Cost Per Mile	$1,000	$4,941,000

Prepared By:

K. Hoopes

ITD 2435 (Rev. 01-09)

Local Federal-Aid Project Request

Instructions

1. Under Character of Proposed Work, mark appropriate boxes when work includes Bridge Approaches in addition to a Bridge.
2. Attach a Vicinity Map showing the extent of the project limits.
3. Attach an ITD 1150, Project Cost Summary Sheet.
4. Signature of an appropriate local official is the only kind recognized.

Note: In Applying for a Federal-Aid Project, You are Agreeing to Follow all of the Federal Requirements Which Can Add Substantial Time and Costs to the Development of the Project.

Sponsor (City, County, Highway District, State/Federal Agency)	Date
City of Ammon	1/29/2021

Project Title (Name of Street or Road)	F.A. Route Number	Project Length	Bridge Length
Ammon Road (17th St to 1st St)	7436	1.00	None

Project Limits (Local Landmarks at Each End of the Project)
17th Street to 1st Street

Character of Proposed Work (Mark Appropriate Items)

☒ Excavation	☒ Bicycle Facilities	☒ Utilities	☒ Sidewalk
☒ Drainage	☒ Traffic Control	☒ Landscaping	☐ Seal Coat
☒ Base	☐ Bridge(s)	☐ Guardrail	☐ _____
☒ Bit. Surface	☒ Curb & Gutter	☒ Lighting	

Estimated Costs (Attach ITD 1150, Project Cost Summary Sheet)

Preliminary Engineering (ITD 1150, Line 1)	$ 510,000
Right-of-Way (ITD 1150, Line 2)	$ 223,000
Construction (ITD 1150, Line 18)	$ 4,208,000

Preliminary Engineering By: ☐ Sponsor Forces ☒ Consultant

Checklist (Provide Names, Locations, and Type of Facilities)

Railroad Crossing	NA
Within 2 miles of an Airport	NA
Parks (City, County, State or Federal)	
Environmentally Sensitive Areas	
Federal Lands (Indian, BLM, etc.)	NA
Historical Sites	Homes along Ammon Rd may be eligible for historic registry
Schools	
Other	

Additional Right-of-Way Required: ☐ None ☐ Minor (1-3 Parcels) ☒ Extensive (4 or More Parcels)

Will any Person or Business be Displaced: ☐ Yes ☐ No ☒ Possibly

Standards	Existing	Proposed	Standards	Existing	Proposed
Number of Lanes	3	5	Roadway Width (Shoulder to Shoulder)	Varies ft	65 ft
Pavement Type	HMA	HMA	Right-of-Way Width	Varies ft	100 ft

Sponsor's Signature	Title
Tracy Bowen	City Engineer/Public Works Director

Additional Information to be Furnished by the District

Functional Classification Minor Arterial	Terrain Type Flat	20 19	ADT/DHV 17,718	

Right of Way
Bonneville County North Side
Properties = 16
Deeded ROW = 42.5' from CL
Desired ROW = 50' from CL
Needed ROW = (2305'X7.5'=17,300 SF) = 0.40 AC
Assume $70,000/AC = $27,800

Right of Way
City of Ammon West Side
Properties = 5
Prescriptive Easement = 30' from CL
Desired ROW = 50' from CL
Needed ROW = (2550'X20'=50,900 SF) = 1.17 AC
Assume $70,000/AC = $81,800

Traffic Signal at John Adams

Bonneville County

City of Ammon

Add Curb&Gutter and Sidewalk

Add Curb&Gutter and Sidewalk

Add Curb&Gutter and Sidewalk

Ammon Road Construction
Preserve existing 3 lanes
Add additional 2 lanes

Right of Way
City of Ammon East Side
Properties = 12
Prescriptive Easement = 30' from CL
Desired ROW = 50' from CL
Needed ROW = (2550'X20'=50,900 SF) = 1.17 AC
Assume $70,000/AC = $81,800

Right of Way
Bonneville County South Side
Properties = 25
Deeded ROW = 42.5' from CL
Desired ROW = 50' from CL
Needed ROW = (2543'X7.5'=19,075 SF) = 0.44 AC
Assume $70,000/AC = $30,650

Ammon Road

Year		V/C	Rating
2019	No Build	1.07	1.00 > Failure
	Build	0.55	< .60 Uncongested
2025	No Build	1.24	1.00 > Failure
	Build	0.64	.60 to .74 Minor Congestion
2040	No Build	1.8	1.00 > Failure
	Build	0.93	.85 to .99 Major Congestion

0 250 500 1,000 Feet

Project Location
City Boundary
World Transportation

Ammon Road - 1st Street to 17th Street

CITY OF Ammon
WHERE TOMORROW BEGINS