

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: **1st Street Reconstruction, Reconstruct 1st street from Hitt (25th) to Ammon (35th). Widen to five lanes, with two lanes in each direction and a center two-way turn lane. Add curb, gutter, and sidewalk along entire section. Widen the current Sand Creek bridge to five lanes and include sidewalks and add a traffic signal at the Curlew intersection.**

[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 1.41, which indicates that the roadway already is operating above it's capacity. Existing undeveloped fields along 1st street and locations further east will continue to grow and 1st Street will see a steady growth rate for the next few years.**

1) Current v/c ratio: **1.41 (2019)**

2) Projected no-build v/c ratio: **2.36 (2040)**

To what degree is the project expected to improve capacity, not only on the roadway itself but elsewhere in the transportation system?

The roadway currently has two lanes, and the proposal is to include 5 lanes, with the center lane becoming a shared or dedicated left turn lane. This project will not only help 1st Street, but will help alleviate some of the demand on both 17th Street and Lincoln Road. This project will also help reduce some of the cut-thru traffic that is currently occurring in the neighborhoods to the north and south.

3) Projected build v/c ratio*: **0.57 (2019)**

Location:	Transportation system v/c ratios*:	
4) Hitt to Ammon	No-build v/c ratio: 2.36 (2040)	Build v/c ratio: 0.57 (2019)
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? **The main source of crashes along this section of 1st street comes from vehicles attempting to turn left onto or off of 1st street. The main locations for these accidents are Tiebreaker Dr., Church St., and Clary Ln. Left turn related accidents make up about 53% of all crashes on this stretch of 1st street.**

Accident Location and Rates:

1) Intersection of Tiebreaker and 1st			
Crash: .49	Severity: .85	Density: 3.6	Overall: 1.33
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? **Most crashes on this stretch of 1st street involve a vehicle being rear-ended while waiting to either make a left hand turn off of 1st street, or for another vehicle to make the turn. Similarly, there are several crashes where vehicles are attempting a left turn onto 1st street and get hit.**

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) Adding two-way center left turn lane along entire stretch of 1st St. (Only injury crashes)	20 (CMF ID 1292)
2) Dedicated left turn lanes at major intersections	25.2 (CMF ID 7996)
3) Install a traffic signal (all severity angle crashes)	77 (CMF ID 326)

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? **1st street has a portion near Tiebreaker that has several potholes and failing patches.**

Pavement surface rating: **8**

[Pavement Rating System \(for more information regarding surface rating\)](#)

What traffic control devices, if any, will be added or upgraded? **Adding a traffic signal at intersection with Curlew.**

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? **The bridge at the canal crossing will be upgraded to a five lane bridge to match the new roadway and sidewalk width, which will increase pedestrian safety.**

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? **1st street currently only has sidewalks along a small portion of the roadway. This project will install sidewalks along the entire stretch of 1st street to provide better connectivity to Hitt and Ammon for pedestrians. In addition to the sidewalks, the bridge at the canal crossing will be widened to include pedestrian access. The current bridge is too narrow for a pedestrians to safely cross, especially during high traffic volumes.**

What public transportation improvements, if any, are included in the project? **There are no public transportation improvements included in the 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? **There is a current lack in pedestrian infrastructure to connect the neighborhoods on 1st street to the rest of the community. Those wishing to get to businesses along Hitt or Ammon Rd. will either need to use a vehicle or traverse potentially dangerous situations on the shoulder to get there.**

Does the project extend an existing roadway or address a gap in the roadway network? **This project includes a signal at the intersection of Curlew. This new signal will be beneficial for the future connection of Curlew to 1st Street from the south, making a Curlew a through street from 17th to 1st. This project will also complete a gap in the pedestrian network by installing curb, gutter, and sidewalk to existing sidewalk at either end of the project.**

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? **\$5,973,000**

What is the estimated cost per mile? **\$6,095,000**

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

What potential environmental impacts may require remediation? **Sand Creek crosses 1st Street near the west end of the project and two schools with green spaces are located along 1st street.**

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)
<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:

<i>Surface rating</i>	<i>Visible distress*</i>	<i>General condition/ treatment measures</i>
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 1/4").	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 1/4") due to reflection or paving joints. Transverse cracks (open 1/4") 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 1/4"-1/2"), some spaced less than 10'. First sign of block cracking. Slight 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 1/2") 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 (1/2" deep or less).	Significant aging and first signs of need for strengthening. Would benefit from a structural overlay (2" or more).

<p>3 Poor</p>	<p>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.</p>	<p>Needs patching and repair prior to major overlay. Milling and removal of deterioration extends the life of overlay.</p>
<p>2 Very Poor</p>	<p>Alligator cracking (over 25% of surface). Severe distortions (over 2" deep). Extensive patching in poor condition. Potholes.</p>	<p>Severe deterioration. Needs reconstruction with extensive base repair. Pulverization of old pavement is effective.</p>
<p>1 Failed</p>	<p>Severe distress with extensive loss of surface integrity.</p>	<p>Failed. Needs total reconstruction.</p>

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 bmbo@bmbo.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
	1st Street, Hitt Road to Ammon Road (Including Bridge)			2/3/2021
Location				District
1st Street, Hitt Road to Ammon Road				6
Segment Code	Begin Mile Post	End Mile Post	Length in Miles	
3970	2.47	3.45	0.98	

	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 29 Number of Relocations		\$136,850
3. Utility Adjustments: <input type="checkbox"/> Work <input type="checkbox"/> Materials <input type="checkbox"/> By State <input type="checkbox"/> By Others		\$50,000
4. Earthwork		\$275,000
5. Drainage and Minor Structures		\$398,000
6. Pavement and Base		\$997,467
7. Railroad Crossing: Grade/Separation Structure <u>None</u> At-Grade Signals <input type="checkbox"/> Yes <input type="checkbox"/> No		
8. Bridges/Grade Separation Structures: <input type="checkbox"/> New Structure Length/Width <u>(50'2" long x 88' Wide)</u> Location <u>Sand Creek</u> <input type="checkbox"/> Repair/Widening/Rehabilitation Length/Width _____ Location		\$950,000.00
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)		\$584,900
15. Cost of Constructions (Items 3 through 14)		\$4,210,000
16. Mobilization 10 % of Item 15		\$421,000
17. Construction Engineer and Contingencies 15 % of Items 15 and 16		\$695,000
18. Total Construction Cost (15 + 16 + 17)		\$5,326,000
19. Total Project Cost (1 + 2 + 18)		\$5,973,000
20. Project Cost Per Mile	\$1,000	\$6,095,000

Prepared By: K. Hoops

Local Federal-Aid Project Request



Instructions

- Under Character of Proposed Work, mark appropriate boxes when work includes Bridge Approaches in addition to a Bridge.
- Attach a Vicinity Map showing the extent of the project limits.
- Attach an ITD 1150, Project Cost Summary Sheet.
- 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) City of Ammon			Date 1/29/2021
Project Title (Name of Street or Road) 1 st Street, Hitt to Ammon	F.A. Route Number 7166	Project Length 0.98	Bridge Length 50'-2"

Project Limits (Local Landmarks at Each End of the Project)
Hitt Road to Ammon Road

Character of Proposed Work (Mark Appropriate Items)

<input checked="" type="checkbox"/> Excavation	<input checked="" type="checkbox"/> Bicycle Facilities	<input checked="" type="checkbox"/> Utilities	<input checked="" type="checkbox"/> Sidewalk
<input checked="" type="checkbox"/> Drainage	<input checked="" type="checkbox"/> Traffic Control	<input checked="" type="checkbox"/> Landscaping	<input type="checkbox"/> Seal Coat
<input checked="" type="checkbox"/> Base	<input checked="" type="checkbox"/> Bridge(s)	<input type="checkbox"/> Guardrail	<input type="checkbox"/> _____
<input checked="" type="checkbox"/> Bit. Surface	<input checked="" type="checkbox"/> Curb & Gutter	<input checked="" type="checkbox"/> 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)	\$ 136,850
Construction (ITD 1150, Line 18)	\$ 5,326,000

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	Sand Creek
Federal Lands (Indian, BLM, etc.)	NA
Historical Sites	Homes along 1 st Street may be eligible for historic registry
Schools	Tiebreaker Elementary
Other	

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

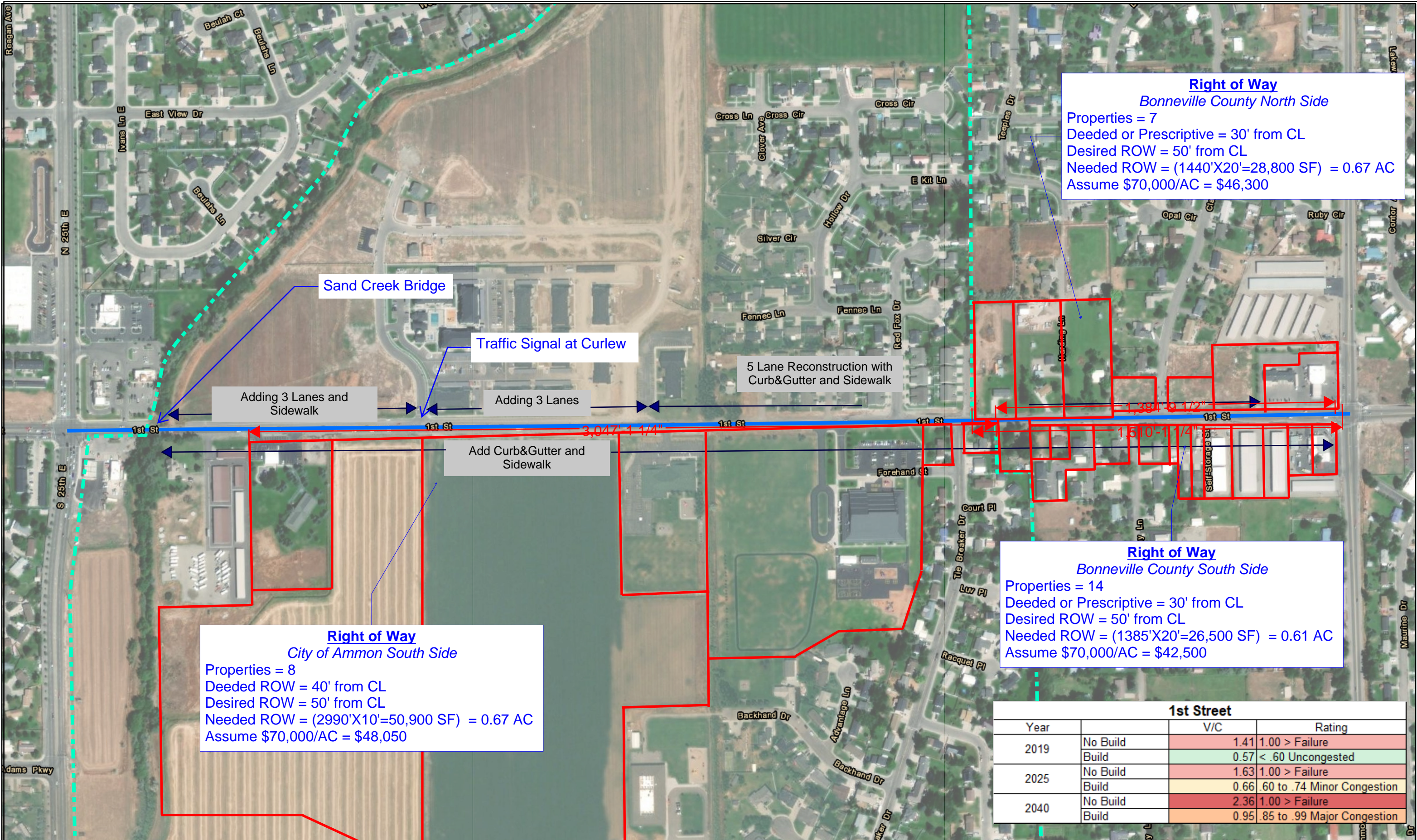
Will any Person or Business be Displaced: Yes No Possibly

Standards	Existing	Proposed	Standards	Existing	Proposed
Number of Lanes	Varies	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 City Engineer/Public Works Director
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Additional Information to be Furnished by the District

Functional Classification	Minor Arterial	Terrain Type	Flat	20 19	ADT/DHV	17,584
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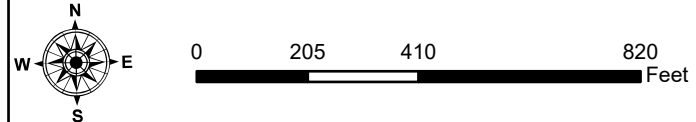


Right of Way
 Bonneville County North Side
 Properties = 7
 Deeded or Prescriptive = 30' from CL
 Desired ROW = 50' from CL
 Needed ROW = (1440'X20'=28,800 SF) = 0.67 AC
 Assume \$70,000/AC = \$46,300

Right of Way
 City of Ammon South Side
 Properties = 8
 Deeded ROW = 40' from CL
 Desired ROW = 50' from CL
 Needed ROW = (2990'X10'=50,900 SF) = 0.67 AC
 Assume \$70,000/AC = \$48,050

Right of Way
 Bonneville County South Side
 Properties = 14
 Deeded or Prescriptive = 30' from CL
 Desired ROW = 50' from CL
 Needed ROW = (1385'X20'=26,500 SF) = 0.61 AC
 Assume \$70,000/AC = \$42,500

1st Street			
Year		V/C	Rating
2019	No Build	1.41	1.00 > Failure
	Build	0.57	< .60 Uncongested
2025	No Build	1.63	1.00 > Failure
	Build	0.66	.60 to .74 Minor Congestion
2040	No Build	2.36	1.00 > Failure
	Build	0.95	.85 to .99 Major Congestion



Project Location
 City Boundary
 World Transportation

1st Street - Hitt to Ammon Road

