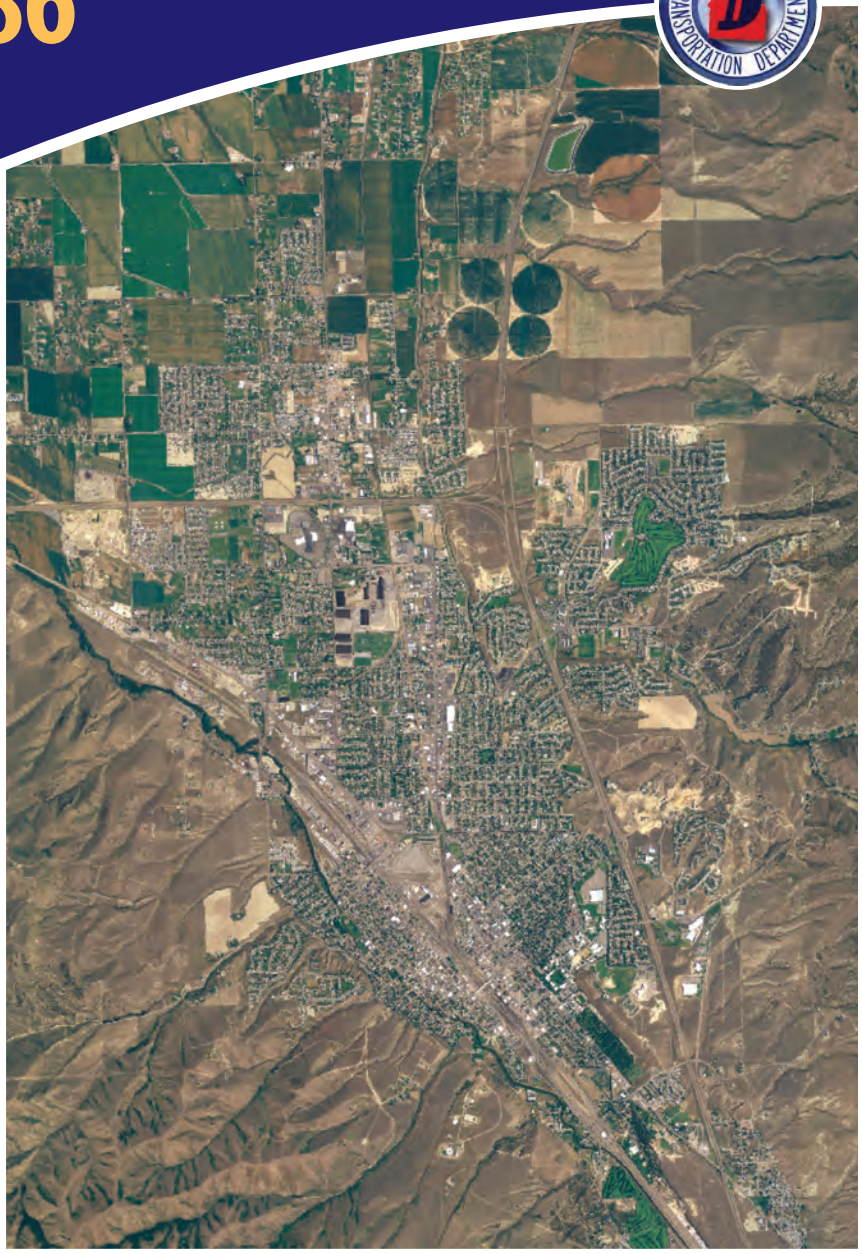
I-15 / I-86
Corridor Plan



Corridor Plan

prepared for: Idaho Transportation Department | March 2011

prepared by: PARSONS BRINCKERHOFF

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1.0 Introduction

The Idaho Transportation Department (ITD) is conducting a corridor planning study of the I-15 and I-86 corridors in eastern Idaho. The I-15 corridor extends from the McCammon/US-30 interchange on the south (Milepost 47) to the York Road interchange on the north (Milepost 113). The I-86 corridor extends from the west American Falls interchange on the west (Milepost 36) to the I-86/I-15 "Wye" junction on the east (Milepost 62). Figure 1-1 shows the general location of the two interstate corridors.

The purpose of the I-15/I-86 Corridor Plan is to develop a comprehensive, long-range transportation plan document that will guide corridor management and project programming in the Idaho Statewide Transportation Improvement Program (STIP) over the next 25 years. The study is being conducted in accordance with Idaho Transportation Department's published guidance for developing transportation corridor management plans.[1]

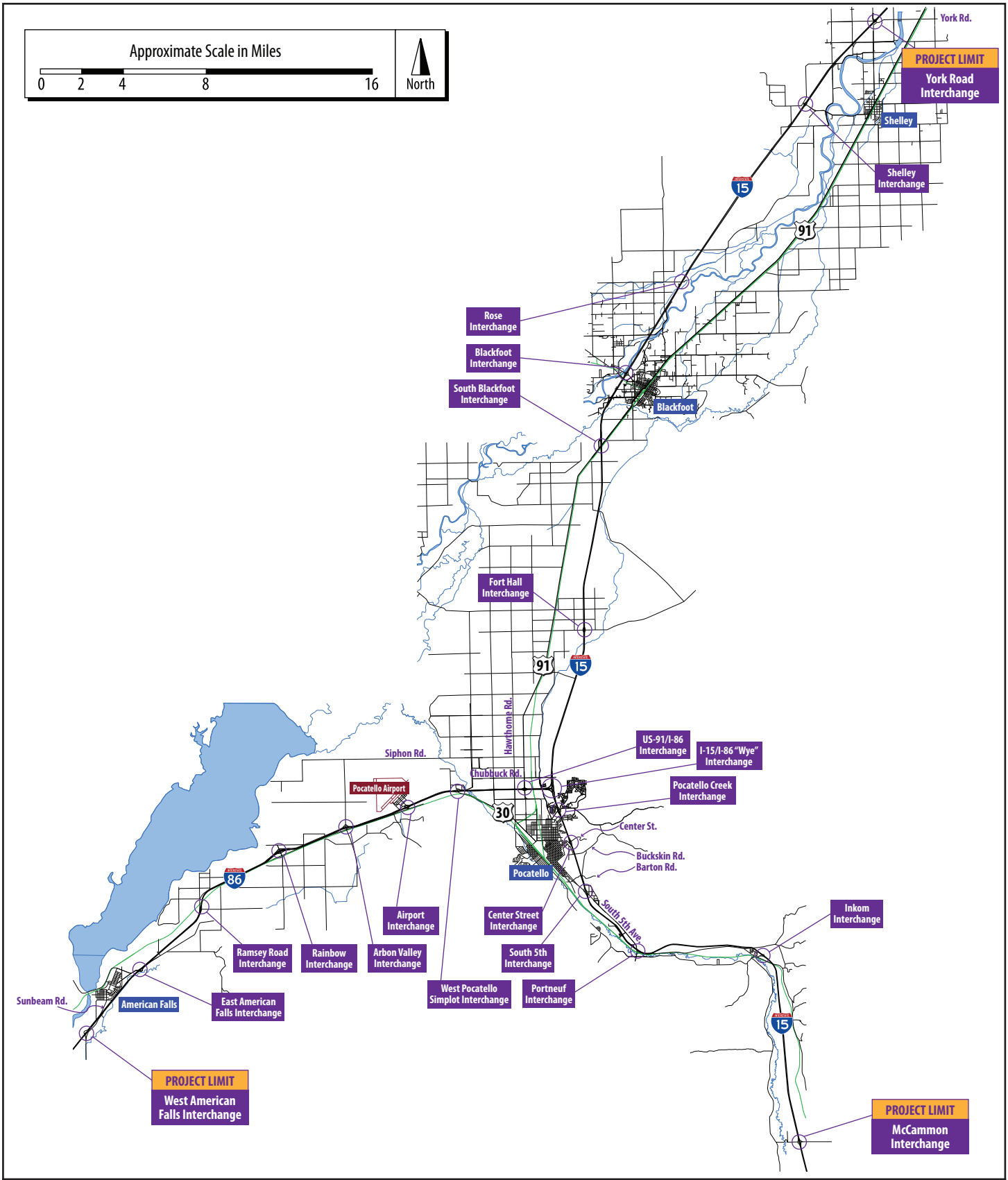
This corridor plan is a study of transportation, highway design, environmental, and land use conditions along the I-15 and I-86 corridors. Information developed from the evaluation is used to establish corridor goals and objectives, identify management strategy and improvement options to address the deficiencies, and to select a recommended set of management strategies and improvements.

This report documents both existing and future transportation conditions, land use and demographics, and an overview of environmental resources. In addition, the report also looks at existing and future transportation operating and infrastructure deficiencies.

It should be noted that the transportation facility deficiencies or needs identified in this report are not necessarily safety hazards. Identification of these deficiencies or needs does not imply that the improvements required to address them will necessarily be constructed. Construction of the improvements identified in this study is dependent on the availability of funding. Preparation of this study by the Idaho Transportation Department does not guarantee that adequate financial resources will be available to implement the improvements.

The I-15 and I-86 Corridors have been broken into geographic segments for analysis purposes. Figure 1-1 shows the corridor map and Figure 1-2 identifies the various geographic segments.

[1] Idaho Transportation Department, Division of Transportation Planning, Idaho Corridor Planning Guidebook. Updated August 2004.



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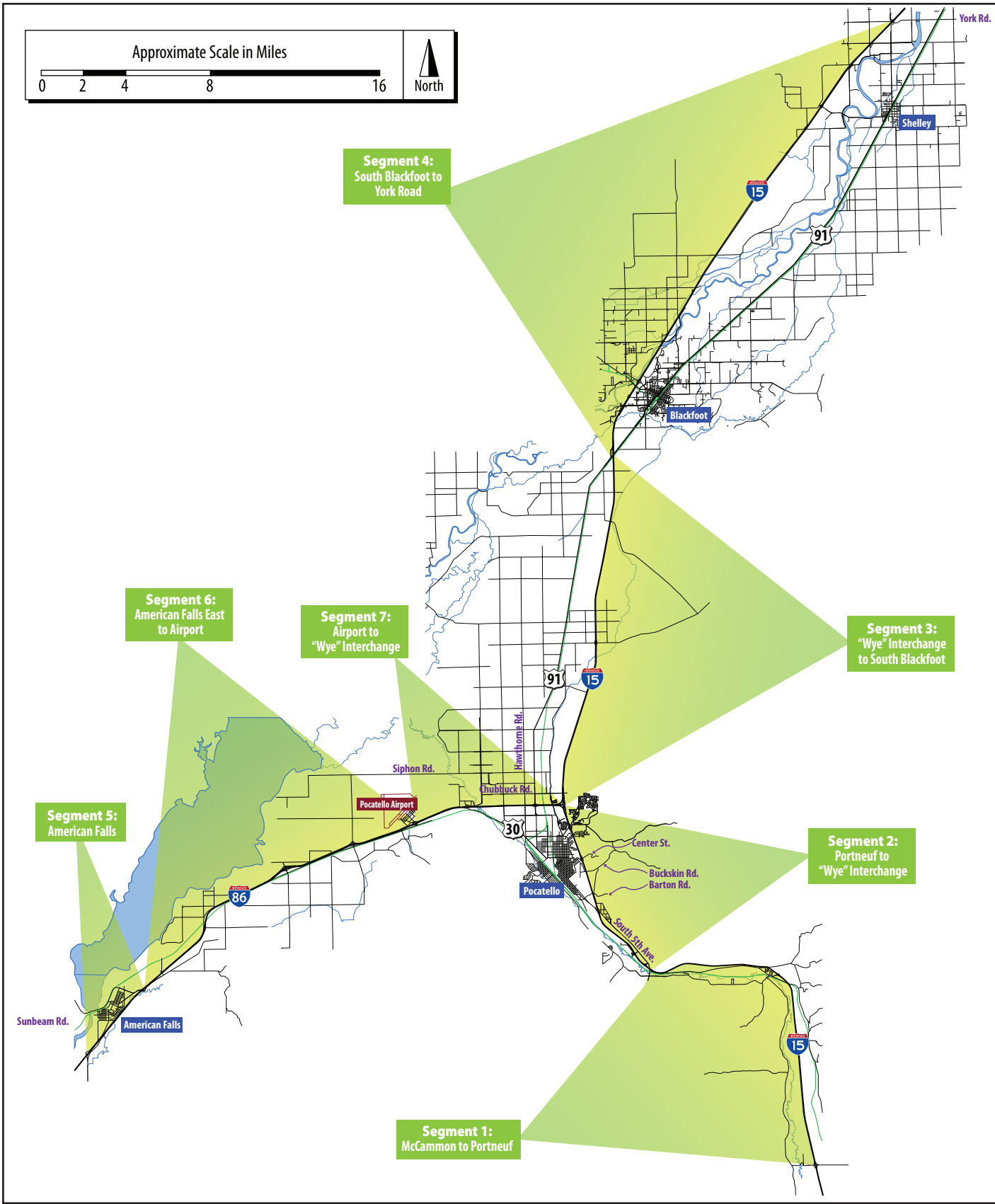
Date	Figure Title	Figure
March 2011	**Vicinity Map**	1-1

I-15 / I-86 Corridor Plan



	Project Number A009(884), Key #09884	**I-15 / I-86 Corridor Plan**
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2.0 Existing Transportation Conditions

This section addresses existing transportation conditions including roadway facilities, traffic conditions (including level-of-service), safety (including accident experience), and other transportation modes. Existing roadway conditions and volumes were compiled from ITD's *2009 Highway Needs Report*[2]. This information will be used to help identify existing deficiencies or substandard roadway elements.

It should be noted that the transportation facility deficiencies or needs identified in this report are not necessarily safety hazards. Identification of these deficiencies or needs does not imply that the improvements required to address them will necessarily be constructed. Construction of any improvements is dependent on the availability of funding.

Current-year (2008) conditions are based on traffic counts, and estimated traffic counts, and other traffic data collected during 2008 from a variety of sources. These include:

- Historic traffic counts and volume estimates from ITD's website (2008).
- New traffic counts for many of the interchange ramp termini;
- Vehicle classification counts from ITD's website for I-15 and I-86 freeways, and new data collection for ramp intersections.
- Existing (2008 base) year traffic estimates from Bannock Planning Organization.
- Crash data came from ITD's crash database.

2.1 Overview of Existing Roadway

I-15 and I-86 are both Interstate highways with two traffic lanes in each direction. Through Pocatello, I-15 has short sections of auxiliary lanes. Table 2-1 summarizes characteristics of the I-15 and I-86 corridors by segment.

Table 2-1: Existing I-15 and I-86 Characteristics

Segment	Begin Milepost to End Milepost	Characteristics
I-15, McCammon to Portneuf	45 to 63	Four-lane rural Interstate highway through rolling and mountainous terrain.
I-15, Portneuf to I-86/I-15 "Wye"	63 to 72	Four-lane urban Interstate highway, with short sections having auxiliary lanes, combination of rolling and flat terrain.
I-15, I-86/I-15 "Wye" to South Blackfoot	72 to 89	Four-lane blend of urban and rural Interstate highway, through mostly flat terrain.
I-15, South Blackfoot to York	89 to 113	Four-lane blend of urban and rural Interstate highway, through mostly flat terrain.
I-86, American Falls area	35 to 40	Four-lane Interstate highway with mostly rural characteristics, through mostly flat terrain.
I-86, East American Falls interchange to Pocatello Airport	40 to 56	Four-lane Interstate highway with mostly rural characteristics, through mostly flat terrain.
Airport to I-15/I-86 "Wye"	56 to 63	Four-lane urban Interstate highway, with a short section at the east end having auxiliary lanes, combination of rolling and flat terrain.

[2] http://itd.idaho.gov/planning/hwyneeds/2009HighwayNeedsReport.pdf

2.2 Existing Traffic Volumes

Traffic volumes are taken from ITD's 2007 Traffic Flow maps as well as automated traffic recorder stations. Existing traffic volumes by geographic segment are summarized in Table 2-2 below. A range of peak hour, peak direction traffic volumes are shown in this table to reflect the variability of volumes in each segment of I-15 and I-86. Truck volumes were taken from ITD's roadway log information, traffic counts, and automated traffic recorders.

I-15 generally has higher traffic volumes than I-86. I-15 carries between 15,000 and 30,000 vehicles per day, while I-86 carries between 7,000 and 19,000 vehicles per day. Traffic volumes are the highest in the Pocatello area. Traffic volumes are measured in vehicles per average day ("average annual daily traffic" or AADT).

Peak hour volumes comprise ten to fifteen percent of the daily traffic in the urban sections of the two corridors, and between eight and ten percent of the daily traffic in the rural sections. Peak hour volumes are highest in the Pocatello area on both corridors.

Volumes fluctuate by season of the year. According to the I-15 automated traffic recorder in North Pocatello, summer volumes tend to be the highest and winter volumes tend to be the lowest. Summer volumes tend to be about ten percent higher than winter volumes.

ITD uses the "30th highest hour" (30HV) volumes for planning, analysis, and design purposes. The 30HV is the hour of the year which ranks 30th out of all the hours of the year. Planning for the highest hours tends to lead toward "over design"; using the 30HV tends to balance mobility with practicality of design, funding, and environmental impacts. The 30HV tends to occur in May or September of each year.

Traffic volumes for all freeway segments and ramps are shown in Figures 2-1 through 2-7 on pages 2-9 to 2-13.

Table 2-2: Existing Traffic Volumes on I-15 and I-86

Segment	Peak Hour/ Peak Direction	Average Daily Traffic	Approximate Percent Large Trucks
I-15 Corridor			
McCammon to Portneuf (MP 45-63)	660-985	12-15,000	21-22
Portneuf to I-86/I-15 "Wye" (MP 63-72)	985-1,810	20-30,000	11
I-86/I-15 "Wye" to South Blackfoot (MP 72-89)	1,035-1,105	22,000	11
South Blackfoot to York (MP 89-113)	1,055-1,080	20,000	13-18
I-86 Corridor			
American Falls area (MP 35-40)	500-670	7,000	30-33
East American Falls interchange to Pocatello Airport (MP 40-56)	670-690	10,000	23-24
Airport to I-15/I-86 "Wye" (MP 56-63)	690 – 1,255	13,000 - 20,000	13-23

2.3 Existing Traffic Control

I-15 and I-86 are both Interstate freeways. Speed limits on I-15 and I-86 by geographic segment are listed in Table 2-3.

All interchange ramp termini are unsignalized outside of the Pocatello urban area, except for the South Blackfoot interchange (I-15 Exit 93). Within Pocatello, all ramp termini are signalized on I-15. On I-86 within Pocatello, only the US-91/Yellowstone Highway ramp termini are signalized.

Table 2-3: Existing Posted Speeds

Segment	Posted Car Speed	Posted Truck Speed
I-15 Corridor		
McCammon to Portneuf	75 mph	65 mph
Portneuf to I-86/I-15 "Wye"	65 mph	65 mph
I-86/I-15 "Wye" to South Blackfoot	65/75 mph	65 mph
South Blackfoot to York	75 mph	65 mph
I-86 Corridor		
American Falls area	75 mph	65 mph
East American Falls interchange to Pocatello Airport	75 mph	65 mph
Pocatello Airport to I-15/I-86 "Wye"	65 mph	65 mph

2.4 Current and Planned Roadway Improvements

The State of Idaho develops a Statewide Transportation Improvement Program (STIP) that establishes an implementation plan for transportation projects throughout the State. Table 2-4 shows programmed improvements in the I-15 and I-86 corridors from the ITD portion of the STIP (ITD's District 5). Only the projects programmed in years 2011-2015 are listed as ITD and FHWA consider only those projects to be included as those funded in the STIP.

Table 2-4: Programmed Improvements in Statewide Transportation Improvement Program

Key #	Project Sponsor	Description	Year(s)
10583	State of Idaho (ITD)	I-15, McCammon Bridge Ramps, Bannock County, intersection improvements/reconstruction	2011
12093	State of Idaho (ITD)	I-86 Chubbuck Bridge Interchange #61	2011-2013

2.5 Existing Intersection Operations

Capacity analysis is the procedure used to compare the carrying capacity of a roadway with existing or forecast traffic volumes. A letter grade is given to each intersection or freeway segment based on the ratio of the volume to the carrying capacity of the roadway location. There are two instances governing the ability of the roadway system to accommodate traffic demand: freeway segments and individual ramp intersections. The key congestion points are generally located at the ramp intersections. Thus, both roadway segment and intersection capacity analysis are principal tools used in traffic engineering to determine the adequacy of a

system to meet traffic demands. Level-of-service (LOS) is defined by the Highway Capacity Manual (Transportation Research Board, 2000) and has separate definitions for freeways, roadway sections, and intersections. LOS definitions are shown in Table 2-5.

Table 2-5: Level-of-Service Definitions from the Highway Capacity Manual

LOS Class	Definition for Freeways	Definition for Ramp Intersections
A	Free flow conditions at the speed limit.	Very little noticeable delay for through or turning traffic; 0-10 seconds of delay per vehicle for either unsignalized or signalized intersections.
B	In the range of stable flow, but the presence of other users in the traffic stream begins to be noticeable.	Minor amount of delay for side street traffic turning onto the main street at unsignalized intersections or minor delays overall at signalized intersections. Between 10 and 15 seconds of delay per vehicle for unsignalized intersections, and 10 and 20 seconds of delay per vehicle for signalized intersections.
C	In the range of stable flow, but marks the beginning of the range of flow in which the operation of individual users becomes significantly affected by interactions with others in the traffic stream.	Moderate and noticeable amount of delay for side street traffic turning onto the main street and for left-turning traffic onto ramps at unsignalized intersections; moderate delays for all traffic at signalized intersections. Between 15 and 25 seconds of delay per vehicle for unsignalized intersections, and 20 and 35 seconds of delay per vehicle for signalized intersections.
D	Represents high-density but stable flow. Speed and freedom to maneuver are severely restricted, and the driver or pedestrian experiences a generally poor level of comfort and convenience.	Substantial delay for side street traffic turning onto the main street and for left-turning traffic onto ramps at unsignalized intersections; substantial delays for all traffic at signalized intersections with some vehicles not able to pass through the intersection on the same green signal phase at which they arrived. Between 25 and 35 seconds of delay per vehicle for unsignalized intersections, and 35 and 55 seconds of delay per vehicle for signalized intersections.
E	Represents operating conditions at or above the capacity level. All speeds are reduced to a low but relatively uniform value.	Extreme delay for side street traffic turning onto the main street and for left-turning traffic onto ramps at unsignalized intersections which often causes drivers to take hazardous risks to make their turns; extreme delays for all traffic at signalized intersections with most vehicles not able to pass through the intersection on the same green signal phase at which they arrived. Between 35 and 50 seconds of delay per vehicle for unsignalized intersections, and 55 and 80 seconds of delay per vehicle for signalized intersections.
F	Stop and go traffic conditions.	Near gridlock conditions; side street traffic unable to enter traffic stream at unsignalized intersections. Over 50 seconds of delay per vehicle for unsignalized intersections, and over 80 seconds of delay per vehicle for signalized intersections.

As noted in Table 2-5, LOS is classified based on traffic flow and delay. Delay is defined as the additional time each vehicle must take to travel through an intersection compared to uncongested traffic conditions (includes stopped time, travel time, and acceleration/deceleration time). Delay is used to calculate roadway and intersection LOS which is then compared to the ITD and local agency LOS standards.

Existing volumes were input into the Highway Capacity software (HCS: McTrans, 2003) to estimate current LOS. Capacity analyses were performed for representative I-15 and I-86 freeway segments and for 38 intersections using the PM peak hour traffic counts or estimates generated using ITD's traffic data.

ITD identifies LOS standards for state highways in the Design Manual Section 335.06, "Level-of-Service". These are based on the American Association of State Highway and Transportation Officials (AASHTO) "A Policy on Geometric Design of Highways and Streets" (otherwise known as the "Green Book"), 2004. Table 2-6 summarizes the ITD LOS standards.

Table 2-6: ITD Level-of-Service Standards

Highway Type	Type of Area and Appropriate Level-of-Service			
	Rural Level	Rural Rolling	Rural Mountainous	Urban/Suburban
Freeway	B	B	C	C
Arterial	B	B	C	C
Collector	C	C	D	D
Local	D	D	D	D

The Bannock Planning Organization has adopted LOS standards for use in the Pocatello metropolitan area. These standards would apply to arterials and ramp intersections that fall under local jurisdiction (non-ITD jurisdiction) as represented in the "2006 Long Range Transportation Plan" (BPO, September 2006). These standards call for:

- Maintain a LOS C on street segments.
- Maintain LOS C for both signalized and unsignalized intersections (LOS D is allowed at specific locations but none are within the Corridor Plan study locations).

All freeway segments and ramp intersections are operating at satisfactory LOS. However, there is noticeable congestion and moderate amounts of ramp queuing at the I-86/US-91 Yellowstone Avenue exit, both for the ramp termini as well as Yellowstone Avenue between I-86 and the Pole Line Road intersection to the south. Periodic traffic slowing due to weaving maneuvers and trucks accelerating onto the Interstate mainline has been observed on I-15 between Center Street through the Pocatello Creek Road and also through the I-86 Wye interchange.

Table 2-7 summarizes freeway segment LOS, while Tables 2-8 and 2-9 summarize ramp intersection LOS and delay for the I-15 and I-86 corridors, respectively. Figures 2-1 to 2-7 graphically show LOS and traffic volumes for each freeway geographic section and interchange on the corridor maps[3].

[3] The "worst case" LOS for each of the ramp intersections is shown in he figures for each interchange.

Table 2-7: Existing (2008) Freeway Level-of-Service

Segment	Peak Hour/Peak Direction Volume	Level-of-Service	Peak Hour Average Speed
I-15 Corridor			
McCammon to Portneuf	660-985	A	75
Portneuf to I-86/I-15 "Wye"	985-1,810	B/C	70-75
I-86/I-15 "Wye" to South Blackfoot	1,035-1,105	A/B	60-70
South Blackfoot to York	1,055-1,080	A/B	75
I-86 Corridor			
American Falls area	500-670	A	75
East American Falls interchange to Pocatello Airport	670-690	A	75
Airport to I-15/I-86 "Wye"	690-1,255	A/B	60-70

Table 2-8: I-15 Corridor Existing (2008) Intersection Level-of-Service

	Intersection	Context	LOS	Delay	ITD LOS Standard	Substandard
McCammon Interchange (Exit 47)	Highway 30 and I-15 NB ramps	Rural	B	10	C	No
	Highway 30 and I-15 SB ramps	Rural	B	12	C	No
Inkom Interchange (Exit 57)	Old Highway 91 - directional ramps	Rural	A	N/A[4]	N/A	N/A
Inkom Interchange (Exit 58)	Grand Avenue & Old Highway 91 and I-15 SB ramp	Rural	A	9	C	No
Portneuf Interchange (Exit 63)	Old Highway 91/Portneuf Road NB Ramps	Rural	A	10	C	No
	Old Highway 91/Portneuf Road SB Ramps	Rural	A	9	C	No
South 5th Interchange (Exit 67)	South 5th Avenue NB Ramps*	Urban	B	13	C	No
	South 5th Avenue SB Ramps*	Urban	B	11	C	No
Center Street Interchange (Exit 69)	Center Street NB Ramps*	Urban	B	15	C	No
	Center Street SB Ramps*	Urban	C	21	C	No

[4] Not Applicable. Ramps are directional and free-flowing. Traditional Highway Capacity manual intersection LOS does not apply.

	Intersection	Context	LOS	Delay	ITD LOS Standard	Substandard
Pocatello Creek Interchange (Exit 71)	Pocatello Creek Road NB Ramps*	Urban	B	17	C	No
	Pocatello Creek Road SB Ramps*	Urban	C	32	C	No
Fort Hall Interchange (Exit 80)	Fort Hall road and NB ramps	Rural	B	13	C	No
	Fort Hall Road and SB ramps	Rural	B	11	C	No
South Blackfoot Interchange (Exit 89)	Highway 91 and NB ramps	Rural	C	16	C	No
	Highway 91 and SB ramps	Rural	B	13	C	No
Blackfoot Interchange (Exit 93)	Bergener Blvd and NB ramps*	Urban	A	8	C	No
	Bergener Blvd and SB ramps*	Urban	B	14	C	No
Rose Interchange (Exit 98)	River Road and NB ramps	Rural	A	9	C	No
	River Rd. and SB ramps	Rural	A	9	C	No
Shelly Interchange (Exit 108)	E 1250 North and NB ramps	Rural	A	9	C	No
	E 1250 North and SB ramps	Rural	A	10	C	No
York Road Interchange (Exit 113)	York Road and NB ramps	Rural	B	12	C	No
	York Road and SB ramps	Rural	C	22	C	No

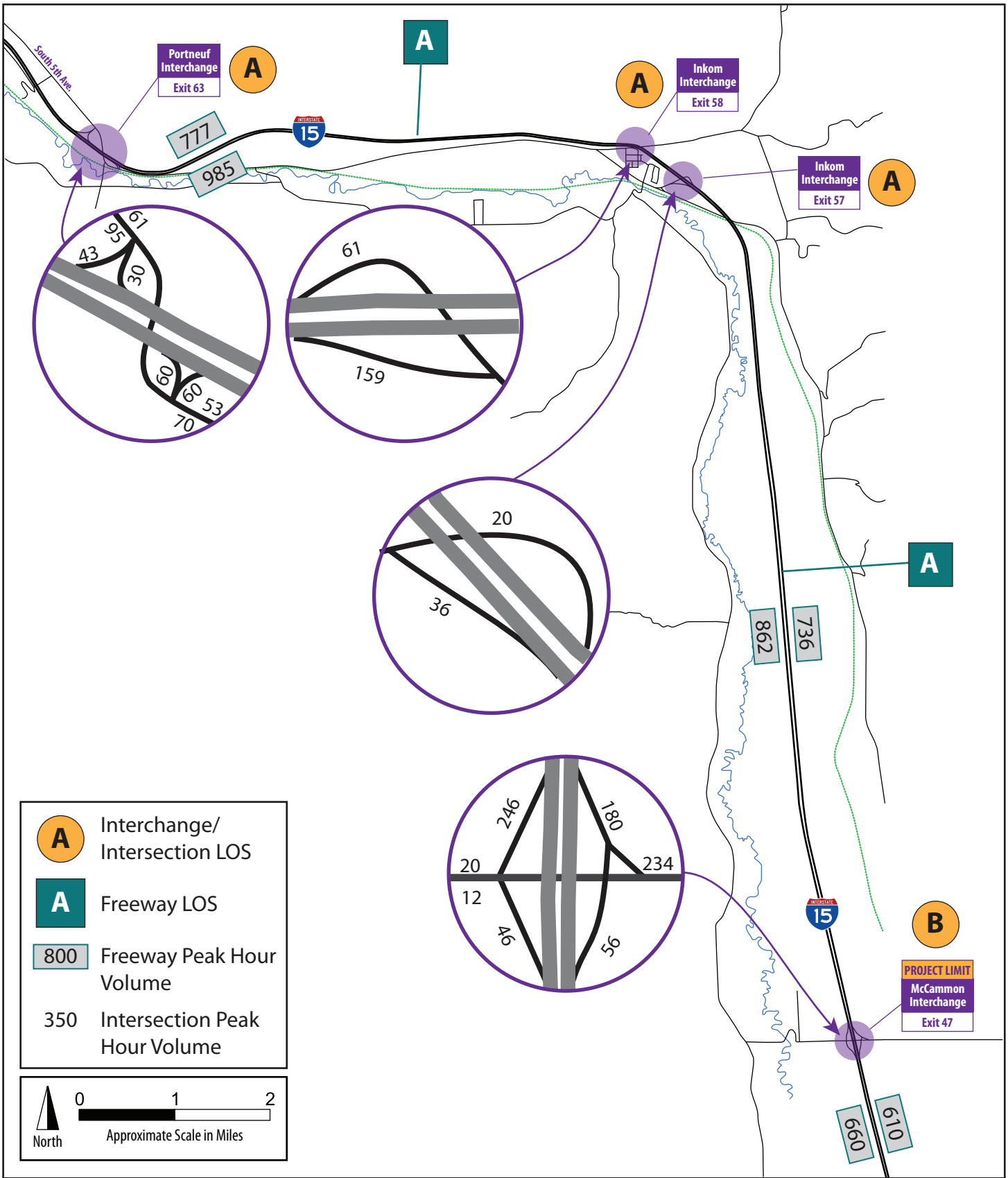
* Signalized Intersections (LOS was determined based on the side street's worst traffic movement LOS). All LOS is measured based on Highway Capacity Manual techniques.

Table 2-9: I-86 Corridor Existing (2008) Intersection Level-of-Service

	Intersection	Context	LOS	Delay	ITD LOS Standard	Substandard
West American Falls Interchange (Exit 36)	I-86 Business Loop and EB ramps	Rural	A	10	C	No
	I-86 Business Loop and WB ramps	Rural	A	10	C	No
East American Falls Interchange (Exit 40)	Pocatello Ave and EB ramps	Urban	B	14	C	No
	Pocatello Ave and WB ramps	Urban	B	10	C	No
Ramsey Road Interchange (Exit 44)	Ramsey Road and EB ramps	Rural	A	9	C	No

	Intersection	Context	LOS	Delay	ITD LOS Standard	Substandard
	Ramsey Road and WB ramps	Rural	A	0	C	No
Rainbow Interchange (Exit 49)	Gas Plant Road and EB ramps	Rural	A	9	C	No
	Gas Plant Road and WB ramps	Rural	A	8	C	No
Arbon Valley Interchange (Exit 53)	Pocatello Airport and EB ramps	Rural	A	9	C	No
	Pocatello Airport and WB ramps	Rural	A	9	C	No
West Pocatello Interchange (Exit 58)	West Pocatello Road and EB ramps	Rural	B	10	C	No
	West Pocatello Road and WB ramps	Rural	B	12	C	No
US 91/I-86 Interchange (Exit 61)	US 91 and EB ramps*	Urban	C	29	C	No
	US 91 and WB ramps*	Urban	B	14	C	No

* Signalized Intersections (LOS was determined based on the side street's worst traffic movement LOS). All LOS is measured based on Highway Capacity Manual techniques.



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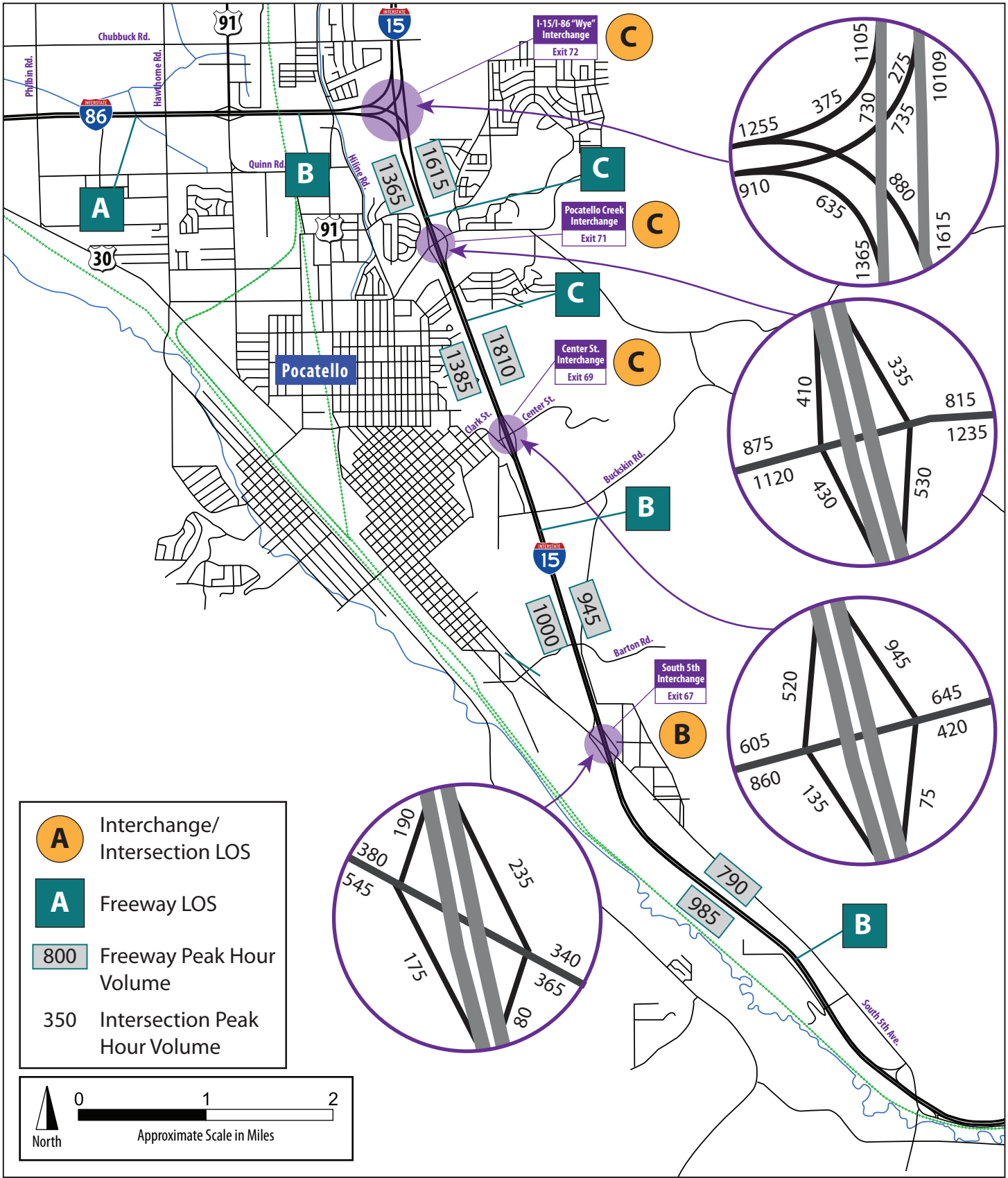
Date	Figure Title	Figure Number
March 2011	**I-15 | 2008 LEVEL-OF-SERVICE & TRAFFIC VOLUMES** PM PEAK SERVICE HOUR **McCammon-Portneuf**	2-1



Project Number A009(884), Key #09884

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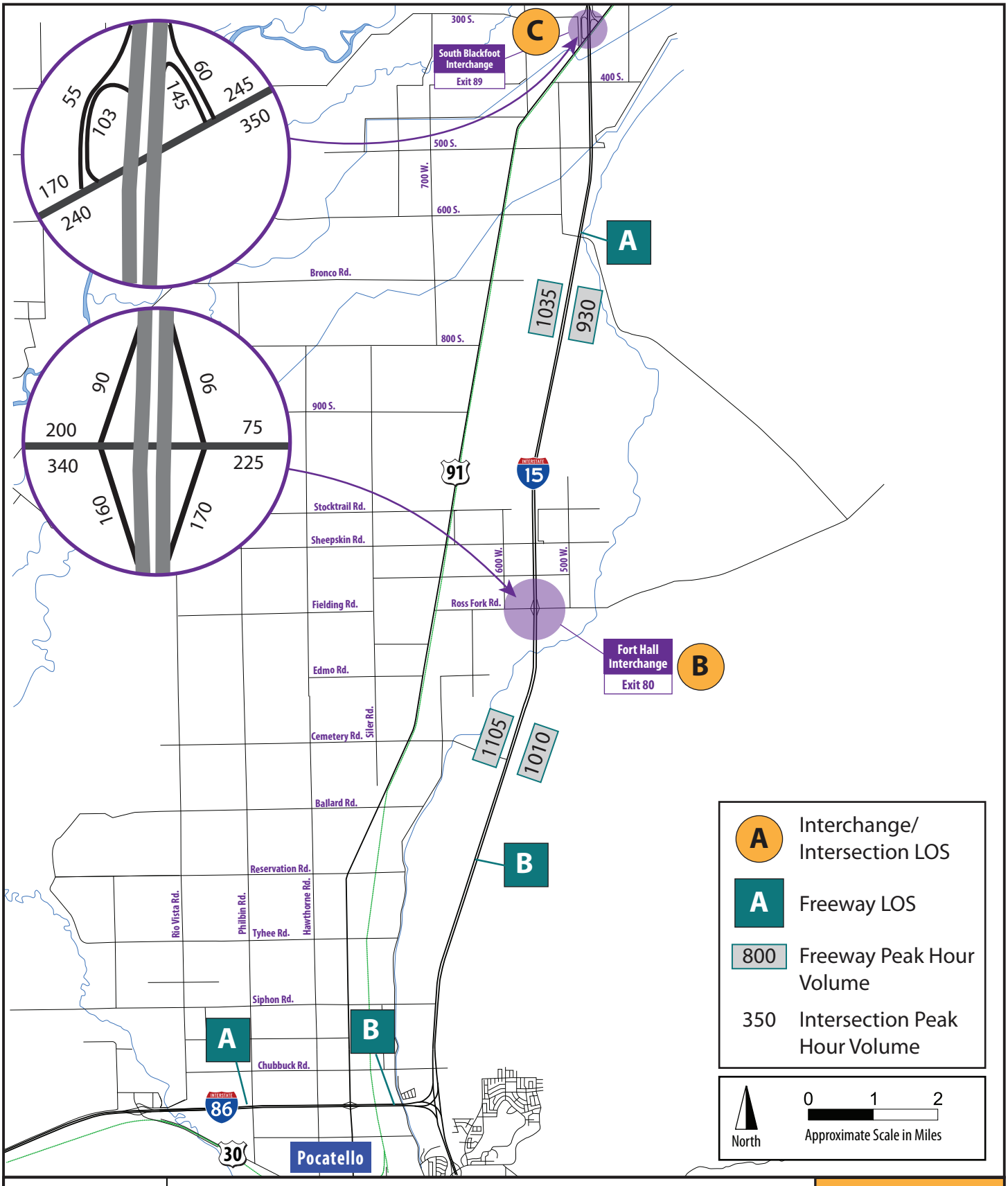
Date	Figure Title	Figure Number
March 2011	**I-15 | 2008 LEVEL-OF-SERVICE & TRAFFIC VOLUMES** PM PEAK SERVICE HOUR **Portneuf to "Wye" Interchange**	2-2



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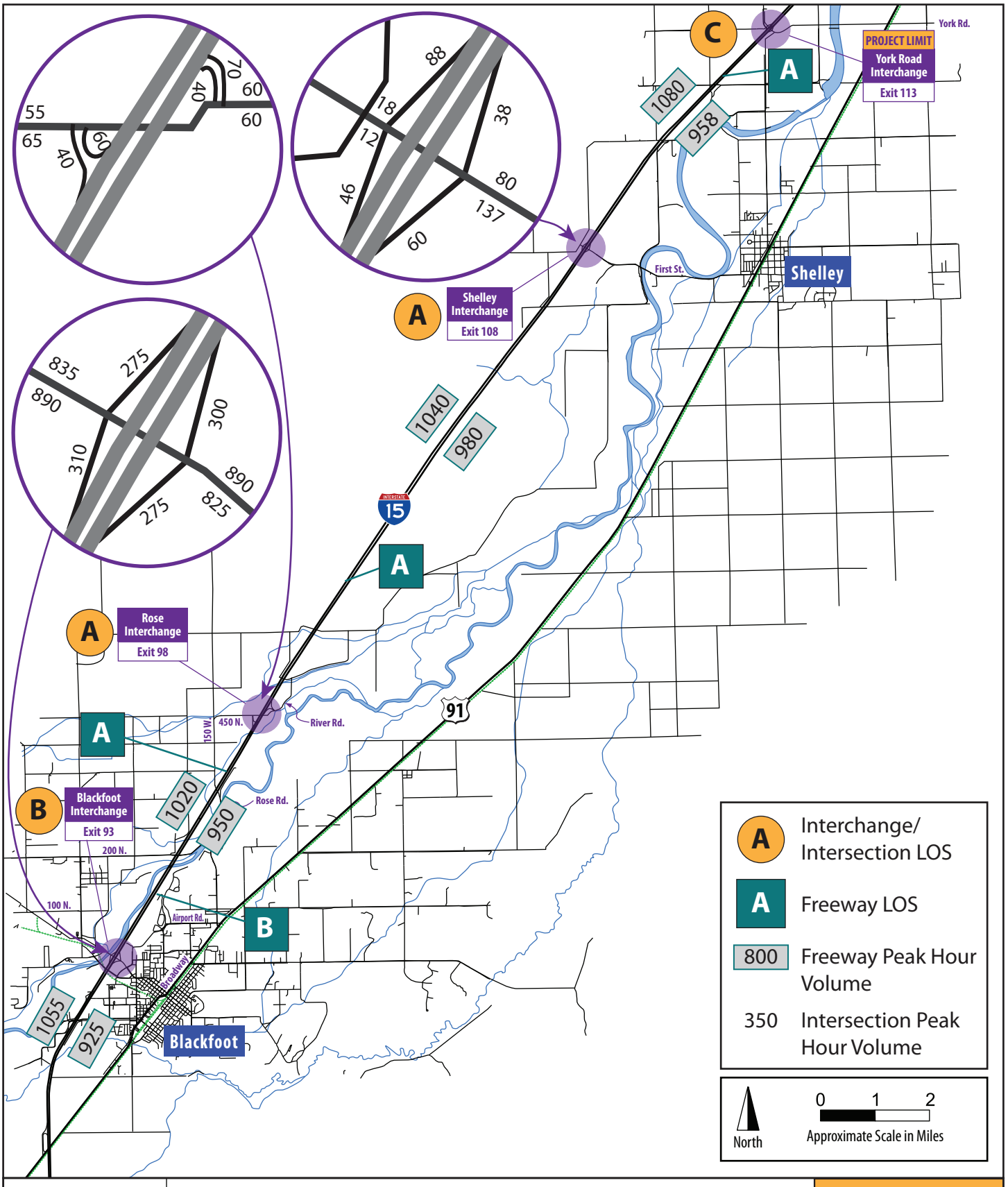
Date	Figure Title	Figure Number
March 2011	**I-15 | 2008 LEVEL-OF-SERVICE & TRAFFIC VOLUMES** PM PEAK SERVICE HOUR **"Wye" Interchange to South Blackfoot**	2-3



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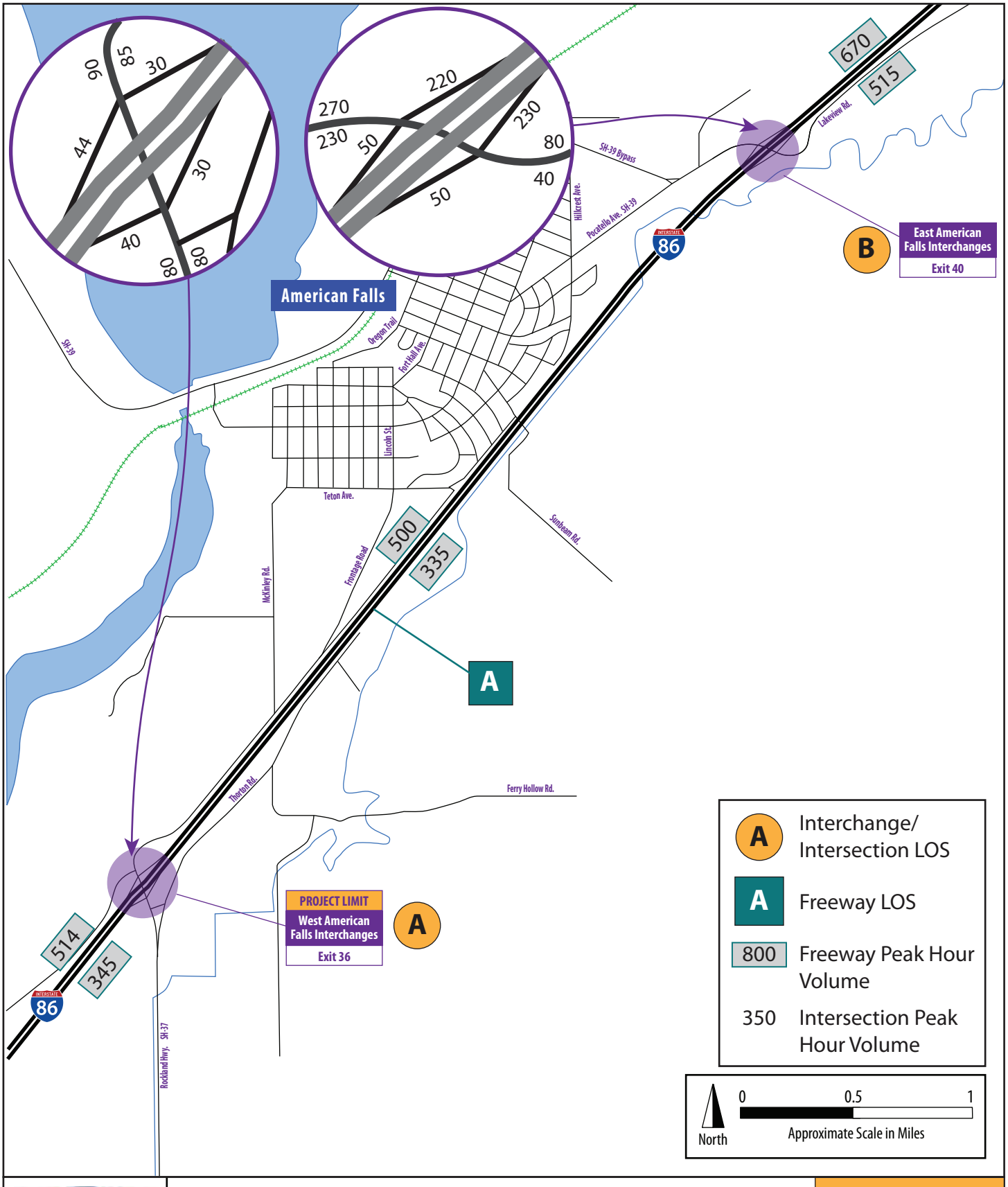
Date	Figure Title	Figure Number
March 2011	**I-15 | 2008 LEVEL-OF-SERVICE & TRAFFIC VOLUMES** PM PEAK SERVICE HOUR **South Blackfoot to York Road**	2-4



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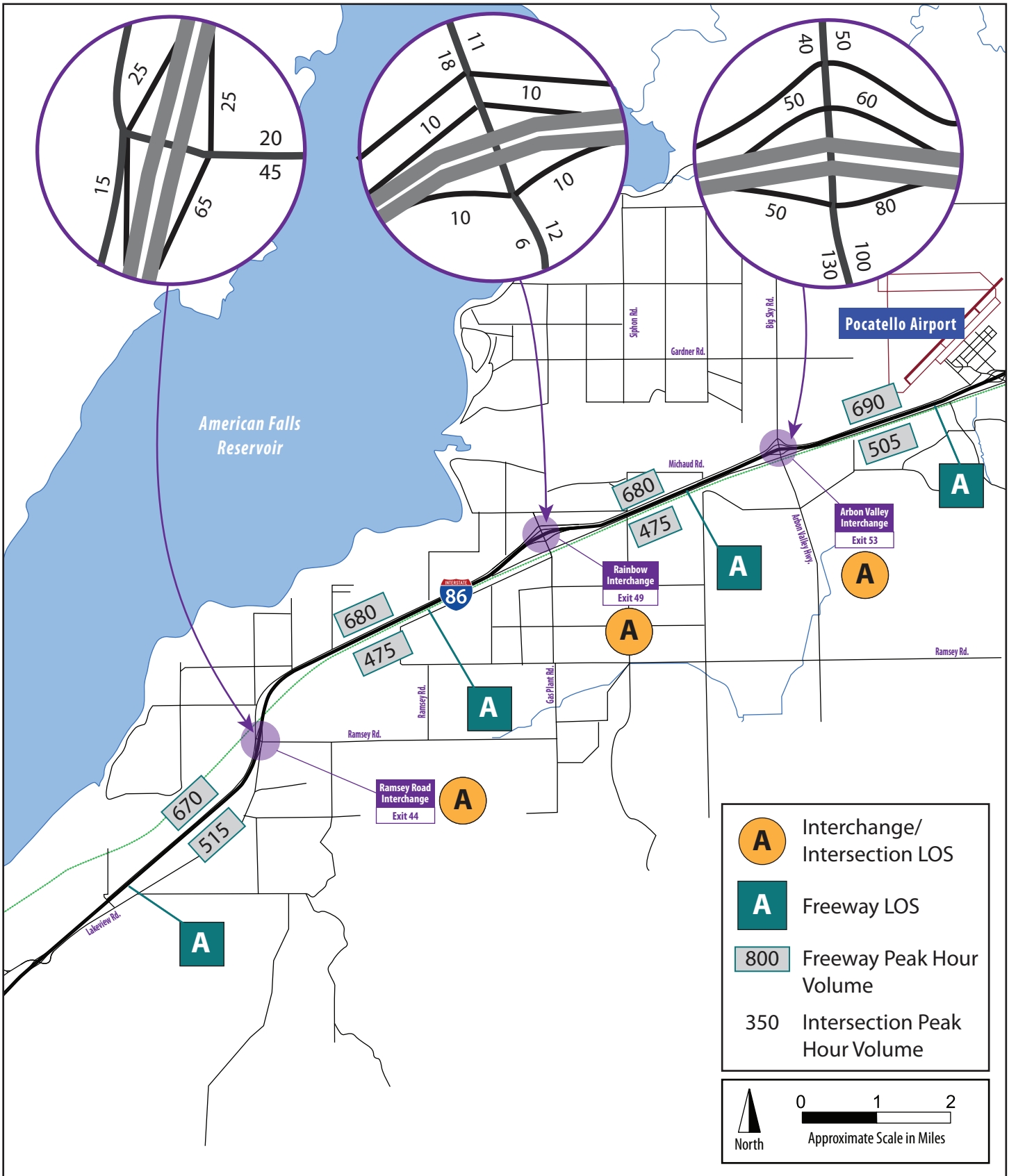
Date	Figure Title	Figure Number
March 2011	**I-86 | 2008 LEVEL-OF-SERVICE & TRAFFIC VOLUMES** PM PEAK SERVICE HOUR **American Falls**	2-5



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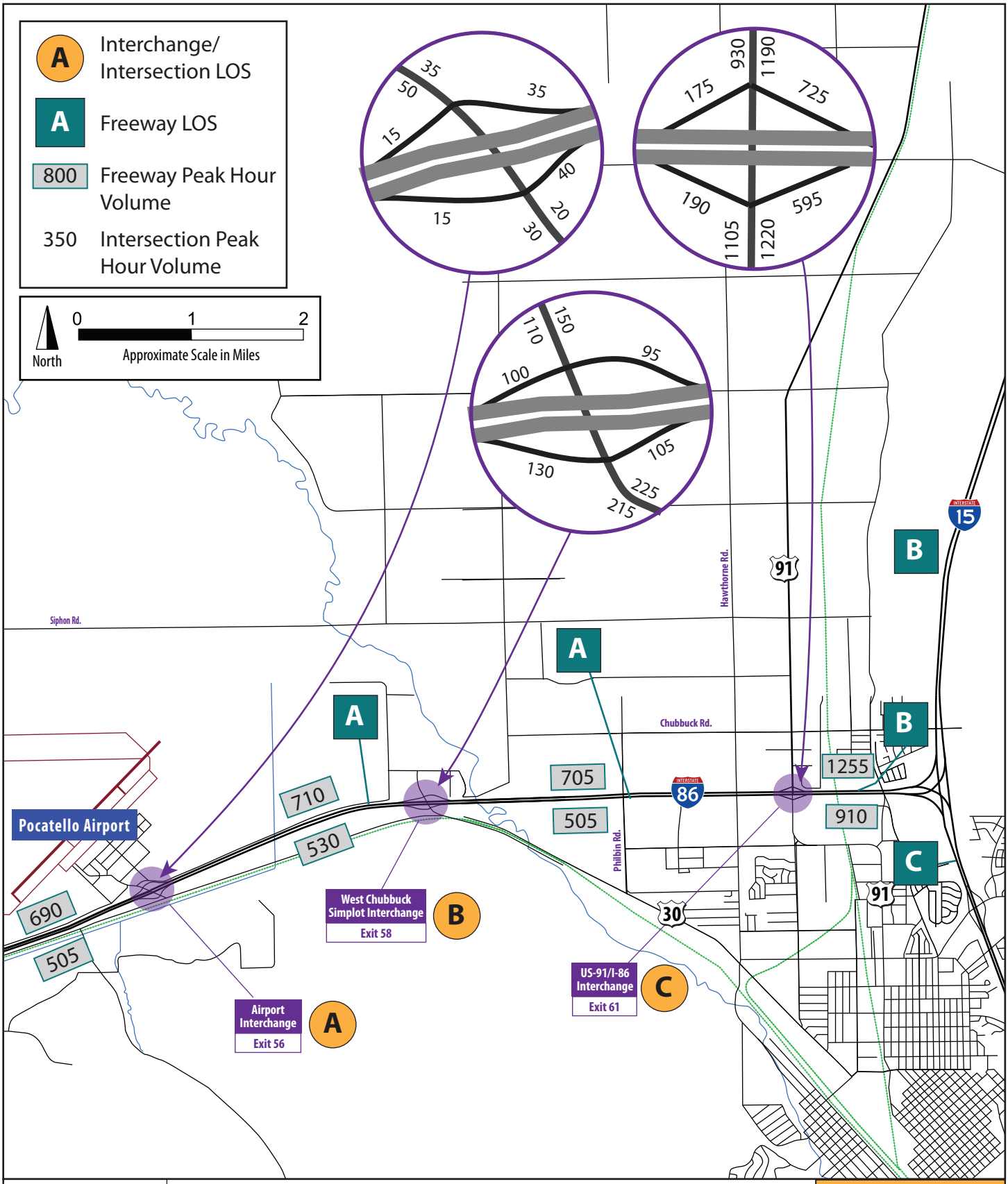
Date	Figure Title	Figure Number
March 2011	**I-86 | 2008 LEVEL-OF-SERVICE & TRAFFIC VOLUMES** PM PEAK SERVICE HOUR	2-6

East American Falls Interchange to Airport



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Date	Figure Title	Figure Number
March 2011	**I-86 | 2008 LEVEL-OF-SERVICE & TRAFFIC VOLUMES** PM PEAK SERVICE HOUR **Airport to "Wye" Interchange**	2-7

2.6 Turn Lane Warrants

This section examines existing intersection traffic volumes and identifies whether or not the intersection may require additional left- or right-turn lanes based on LOS and traffic turning movements.

Existing intersection traffic operations were examined for the corridor. This analysis included a review of LOS, intersection safety including crash history, and existing numbers of left-turning and right-turning vehicles. ITD's turning lane "warrants" were used to identify locations where existing volumes warrant a right-turn or left-turn lane. ITD's warrants for left- and right-turn lanes are found in Section 450.00 of the ITD Design Manual. These warrants are applied on the state highway at side approaches (public roads or private driveways). For the I-15/I-86 Corridor Plan, these warrants will be applied to the roadway corridor at each rural interchange. Interchanges which already have a left-turn lane onto the ramp will be noted as such. For urban interchanges without intersecting roadway left-turn lanes, and for the ramps themselves, turn lane needs will be based on LOS, delay, and ramp queues.

The warrants are specific to each situation and take design speed, through traffic volumes, turning traffic volumes and other factors into consideration. As such the warrant volumes shown in Tables 2-10 through 2-13 vary, depending on location.

For left turn warrants, Section 451.02 of the Design Manual is referenced (and the same section in the Traffic Manual). Unless noted by an asterisk (*), all intersecting rural roadways are assumed to have a posted speed limit of 45-65 mph. The ITD Design Manual states "in most cases, left-turn lanes should be provided where there are more than 12 left turns per peak hour". Table 2-10 summarizes existing left-turn lane needs and deficiencies for the I-15 corridor while Table 2-11 summarizes them for the I-86 corridor.

Right-turn lane warrants are found in Section 452.02 of the Traffic Manual. They are based on peak hour right-turning volumes, hourly volume of the highway, and posted speed. The Traffic Manual also states "where the existing shoulder is of adequate width, it may be possible to adjust the pavement markings to provide a sufficient right-turn lane without widening the road". Table 2-12 summarizes existing right-turn lane needs and deficiencies for the I-15 corridor while Table 2-13 summarizes them for the I-86 corridor.

Table 2-10: I-15 Existing Intersection PM Peak Hour Left-Turn Lane Summary

Intersection	I-15 Northbound				I-15 Southbound			
	Existing Left Turn Volume	Existing Through Lane Volume	Left Turn Lane Volume Warrant	Turn Lane Warranted?	Existing Left Turn Volume	Existing Through Lane Volume	Left Turn Lane Volume Warrant	Turn Lane Warranted?
McCammon Interchange (Exit 47)	178	56	12	No	42	12	25	Yes
Inkom Interchange (Exit 57)	1	33	25	No	N/A	NA	N/A	N/A
Inkom Interchange (Exit 58)	1	46	25	No	N/A	NA	N/A	N/A
Portneuf Interchange (Exit 63)	41	93	14	Yes	28	62	22	Yes
South 5th Interchange (Exit 67)	122	240	12	Yes	122	354	12	Yes
Center Street Interchange (Exit 69)*	582	392	---	LT lane exists	60	254	---	LT lane exists
Pocatello Creek Interchange (Exit 71)	190	917	---	LT lane exists	215	713	---	LT lane exists
Fort Hall Interchange (Exit 80)	60	175	12	Yes	25	140	12	Yes
South Blackfoot Interchange (Exit 89)	53	255	12	Yes	15	230	12	Yes
Blackfoot Interchange (Exit 93)	153	739	---	LT lane exists	149	732	---	LT lane exists
Rose Interchange (Exit 98)	10	25	25	No	25	40	25	Yes
Shelley Interchange (Exit 108)	8	91	14	No	45	14	25	Yes
York Road Interchange (Exit 113)	35	284	---	LT lane exists	144	56	---	LT lane exists

*Signalized intersection, urban area.

N/A = not applicable (intersection or the specific left turn does not exist).

Table 2-11: I-86 Existing Intersection – Left Turn Lane Summary

Intersection	I-86 Eastbound				I-86 Westbound			
	Existing Left Turn Volume	Existing Through Lane Volume	Left Turn Lane Volume Warrant	Turn Lane Warranted?	Existing Left Turn Volume	Existing Through Lane DHV	Left Turn Lane Volume Warrant	Turn Lane Warranted?
West American Falls Interchange (Exit 36)	10	77	17	No	14	184	12	Yes
East American Falls Interchange (Exit 40)	40	40	25	Yes	35	200	12	Yes
Ramsey Road Interchange (Exit 44)	15	37	25	No	5	63	17	No
Rainbow Interchange (Exit 49)	7	5	25	No	3	7	25	No
Airport Interchange (Exit 56)	53	24	25	No (but close)	4	15	25	No
West Pocatello Interchange (Exit 58)	45	175	12	Yes	101	102	12	Yes
US 91/I-86 Interchange (Exit 61)	223	989	---	LT lane exists	100	815	---	LT lane exists

Table 2-12: I-15 Right Turn Lane Warrants

Intersection	I-15 Northbound				I-15 Southbound			
	Existing Right Turn Volume	Existing Through Lane Volume	Right Turn Lane Volume Warrant	Turn Lane Warranted?	Existing Right Turn Volume	Existing Through Lane Volume	Right Turn Lane Volume Warrant	Turn Lane Warranted?
McCammon Interchange (Exit 47)	2	240	7	Yes (Channelized turn exists)	4	8	20	No
Inkom Interchange (Exit 57)	3	35	20	No	58	33	18	Yes
Inkom Interchange (Exit 58)	2	103	9	No	N/A	NA	N/A	N/A
Portneuf Interchange (Exit 63)	2	93	17	No	1	27	20	No
South 5th Interchange (Exit 67)	128	245	---	No*	165	383	---	No*
Center Street Interchange (Exit 69)*	365	278	---	RT lane exists	74	784	---	RT lane exists
Pocatello Creek Interchange (Exit 71)	158	711	---	RT lane exists	208	891	---	Yes
Fort Hall Interchange (Exit 80)	30	45	20	Yes	135	205	5	Yes
South Blackfoot Interchange (Exit 89)	5	255	8	Yes	101	166	8	Yes
Blackfoot Interchange (Exit 93)*	149	739	---	RT lane exists	162	727	---	No*
Rose Interchange (Exit 98)	30	30	20	Yes	15	50	15	Yes
Shelley Interchange (Exit 108)	30	50	13	Yes	1	11	25	No
York Road Interchange (Exit 113)	176	193	5	Yes	12	93	9	Yes

*In this table and in the table below, for urban, signalized intersections, LOS is used instead of volumes to determine if a turn land is warranted. In these cases, the LOS meets ITD standards and thus a turn lane is not warranted.

Table 2-13: I-86 Right Turn Lane Warrants

Intersection	I-86 Eastbound				I-86 Westbound			
	Existing Right Turn Volume	Existing Through Lane Volume	Right Turn Lane Volume Warrant	Turn Lane Warranted?	Existing Right Turn Volume	Existing Through Lane DHV	Right Turn Lane Volume Warrant	Turn Lane Warranted?
West American Falls Interchange (Exit 36)	18	60	15	Yes	30	60	14	Yes
East American Falls Interchange (Exit 40)	15	55	20	No	5	45	20	No
Ramsey Road Interchange (Exit 44)	10	10	20	No	10	52	15	No
Rainbow Interchange (Exit 49)	2	10	20	No	7	11	20	No
Airport Interchange (Exit 56)	11	17	20	No	5	65	14	No
West Pocatello Interchange (Exit 58)	59	175	6	Yes	8	105	8	Yes
US 91/I-86 Interchange (Exit 61)	371	846	---	Yes	69	860	---	No

*In this table and in the table below, for urban, signalized intersections, LOS is used instead of volumes to determine if a turn land is warranted. In these cases, the LOS meets ITD standards and thus a turn lane is not warranted.

2.7 Safety

This section addresses the crash history and characteristics of the I-15 and I-86 corridors. The collision history is based on records provided by the Office of Highway Safety for the period of January 1, 2003 through December 31, 2007. The crash analysis is used to identify existing and potential safety problems within the corridors.

Crash severity has been grouped into three categories for this assessment, as follows:

- Property damage: Reportable property damage in excess of $750
- Injury/Possible Injury: this includes three classes of injury crashes as measured by ITD:
  - A-Injury: Incapacitating injury which prevents the injured person from normally continuing the activities the person was capable of performing before the injury occurred, including severe lacerations, broken or distorted limbs, and skull or chest injuries.
  - B-Injury: Non-incapacitating injury which is evident to observers at the scene. Includes bumps, bruises, and minor lacerations.
  - C-Injury: Possible injury that includes claim of injuries not evident, limping, complaint of pain, nausea, hysteria.
- Fatal: Fatality on-scene or in-transport to a hospital, or injury results in death within 30 days of when injury occurred.

2.7.1 Existing Crash History

There were a total of 1,378 crashes in the I-15 corridor over the five-year period, and 399 crashes in the I-86 corridor. Overall, neither the I-15 nor the I-86 corridors are experiencing conditions that are considered "high accident corridors". I-15 has an overall accident rate of 0.65 crashes per million vehicles miles, and I-86 has a crash rate of 0.64. Neither of the corridors has high crash rates or conditions.

More than a third of the crashes occurring on I-15 are attributable to vehicles traveling at high rates of speed or exceeding the posted speed limit, which accounts for a high number of overturns and collisions with roadside object crashes. The South Blackfoot to York segment has experienced the highest rate of speed-related crashes, 47 percent.

On I-86, the three segments vary dramatically with regard to speed being a factor in the crashes. The American Falls Area segment has the highest speed-related crash rate (53 percent), while the urban segment from Pocatello Airport to the I-15/I-86 Wye has the lowest rate (26 percent) of any of the I-86 segments.

Not surprisingly, the rural sections of I-15 tend to have a higher number of crashes involving animals/wildlife than the urban sections. The number and percentage of animal/wildlife crashes on I-86 are lower than on I-15, potentially reflecting the presence of less wildlife along the I-86 corridor.

Approximately six to eight percent of all collisions on I-15 include impaired or drowsy driving. The South Blackfoot-to-York segment experiences the highest rate of impaired collisions, 10 percent of all the collisions occurring in that segment. The I-86 corridor has a higher overall impaired/drowsy percentage than I-15 (approximately 10-11 percent overall), with the segment from American Falls to Pocatello Airport having the highest rate of any of the segments, 13 percent.

Table 2-14: Crashes by Segment and Severity

Segment	Property Damage Only	Injury / Possible Injury	Fatal	TOTAL	Accident Rate
I-15 Corridor					
McCammon to Portneuf (MP 45-63)	262	119	4	385	***0.79***
Portneuf to I-86/I-15 "Wye" (MP 63-72)	173	100	4	277	0.57
I-86/I-15 "Wye" to South Blackfoot (MP 72-89)	173	126	6	305	0.45
South Blackfoot to York (MP 89-113)	318	83	10	411	0.50
TOTAL	926	428	24	1,378	
I-86 Corridor					
American Falls area (MP 35-40)	52	30	3	85	***1.08***
East American Falls interchange to Pocatello Airport (MP 40-56)	97	65	6	168	0.61
Airport to I-15/I-86 "Wye" (MP 56-63)	94	50	2	146	0.61
TOTAL	243	145	11	399	0.64

Accidents summarized for 2003-2007. *Accidents per million vehicle miles.

The average Interstate crash rate in Idaho in 2007 was 0.67 crashes per million vehicle miles traveled.[5] Values in ***italicized bold*** in Table 2-14 exceed the statewide average for Interstate highways.

Table 2-15: Crashes by Type

Segment	Animal / Wildlife	Roadside Object / Bridge Rail	Rear End / Sideswipe	Overturn	Other
I-15 Corridor					
McCammon to Portneuf (MP 45-63)	72	102	44	125	42
Portneuf to I-86/I-15 "Wye" (MP 63-72)	21	62	50	102	42
I-86/I-15 "Wye" to South Blackfoot (MP 72-89)	12	71	60	100	62
South Blackfoot to York (MP 89-113)	57	144	80	80	50
I-86 Corridor					
American Falls area (MP 35-40)	11	10	12	37	15
East American Falls interchange to Pocatello Airport (MP 40-56)	3	18	15	93	39
Airport to I-15/I-86 "Wye" (MP 56-63)	7	25	30	44	40

Accidents summarized for 2003-2007.

[5] (http://itd.idaho.gov/ohs/2007data/07RoadClass.pdf).

2.7.2 High Crash Locations

Based on the 1996 Idaho Highway Plan, there are two recognized high accident locations in the corridor: I-15 from I-86 to Center Street in Pocatello, and I-15 at the US-26 interchange in Blackfoot. Both of these locations have had improvements in the 12 years since that list was generated. The overall crash rates as shown in Table 2-14 would indicate that although two segments have accident rates above the statewide average, neither the I-15 nor the I-86 corridors are considered high crash locations.

Two corridor segments have crash rates which exceed the statewide average: I-15 from McCammon to Portneuf, and I-86 in the American Falls area. Both of these segments experience severe weather during the year, including fog, ice, and snow, which may contribute to the above-average accident condition. Comments received from stakeholders at a Power County Highway District meeting in October 2008 commented that I-86 has several areas that are susceptible to icy conditions.

In the "Inkom Curves" section between MP 57 and 58, identified through discussions with ITD as a location with frequent crashes occurring, there were 50 total crashes over the five-year analysis period. Of these, 28 occurred when the roadway was snow or ice covered. Although not a high accident location, the Inkom curve will be examined in the alternatives development phase of this corridor planning process to identify potential ways to reduce crash occurrences.

2.8 Functional Classifications and Access Control

I-15 and I-86 are Interstate Highways and are included on the National Highway System. Both are classified as interstate facilities and therefore have the most restrictive access control requirements and characteristics.

AASHTO describes access control as "regulating access … through the regulation of public access rights to and from properties abutting the highway facilities. These regulations generally are categorized as full control of access, partial control of access, access management, and driveway/entrance regulations. The principal advantages of controlling access are the preservation or improvement of service and safety." The advantage of providing access control is the management of the interference with through traffic.

ITD's access control categories are defined in Table 2-16.

Table 2-16: ITD's Access Control Table

Greater Control	ACCESS TYPE	RURAL FUNCTIONAL CLASS	URBAN FUNCTIONAL CLASS	Higher Function
	I	Minor Collector, Major Collector		
	II	Minor Arterial	Collector, Minor Arterial	
	III	Principal Arterial	Principal Arterial	
	IV	Principal Arterial (*multiple-lane)	Principal Arterial (*multiple-lane)	
	V	Interstate	Interstate	
	*Multiple-lane implies two or more through lanes in the same direction of travel. The highway may or may not be divided.			

Source: ITD Administrative Policy A-12-01, November 27, 2002.

I-15 and I-86 are both classified as Type V access classifications by ITD, the highest category of access control. Table 2-17 lists the functional classifications of intersecting roadways for each of the interchanges in the I-15 and I-86 corridors from querying ITD's state highway log. In some cases, cities or counties may have jurisdiction over an intersecting roadway; in those cases, ITD may not list an ITD Access Control category. Where these instances occur, the table lists an assumed category based on the functional classification and ITD's access control policy.

Table 2-17: Functional Classification of Cross Streets

Intersection	Functional Classification	ITD Access Control Category
McCammon Interchange (Exit 47)	Major Collector/NHS	IV
Inkom Interchange(Exit 57)	Rural Collector	None listed (Category I assumed)
Inkom Interchange (Exit 58)	Rural Collector	None listed (Category I assumed)
Portneuf Interchange (Exit 63)	Rural Collector	None listed (Category I assumed)
South 5th Interchange (Exit 67)	Rural Collector	IV
Center Street Interchange (Exit 69)	Urban Minor Arterial	None listed (Category II assumed)
Pocatello Creek Interchange (Exit 71)	Urban Principal Arterial	None listed (Category IV assumed)
Fort Hall Interchange (Exit 80)	Rural Collector	None listed (Category I assumed)
South Blackfoot Interchange (Exit 89)	Rural Major Collector	None listed (Category I assumed)
Blackfoot Interchange (Exit 93)	Urban Arterial	None listed (Category III assumed)
Shelley Interchange (Exit 108)	Rural Collector	None listed (Category I assumed)
York Road Interchange (Exit 113)	Rural Collector	None listed (Category I assumed)
West American Falls Interchange (Exit 36)	Major Collector	IV
East American Falls Interchange (Exit 40)	Minor Arterial	IV
Ramsey Road Interchange (Exit 44)	Rural Collector	None listed (Category I assumed)
Rainbow Interchange (Exit 49)	Rural Collector	None listed (Category I assumed)
Airport Interchange (Exit 56)	Major Arterial	None listed (Category I assumed)
West Pocatello Interchange (Exit 58)	Major Collector	IV
US 91/I-86 Interchange (Exit 61)	Principal Arterial	IV

2.9 Freight Facilities

I-15 and I-86 are major truck routes that service regional, national traveling and freight movements also. I-15 plays an important international role in freight movement. As part of the CANAMEX Corridor, I-15 is a nationally designated high priority route traversing the states of Arizona, Nevada, Utah, Idaho and Montana, linking to the Canadian Province of Alberta and the Mexican States of Sonora, Sinaloa, Nayarit and Jalisco. Organizationally the development of the Corridor is advanced through a multi-state coalition including public and private sector representatives selected by the Governors of the five U.S. states. The intention is to strategically invest in infrastructure and technology to advance a focused agenda to increase competitiveness in global trade, create jobs and maximize economic potential within the five-state region.

ITD operates the Inkom Port of Entry at Milepost 59, approximately eight miles south of Pocatello. There are rover ports of entry in Pocatello and Idaho Falls that can supplement the Inkom facility.

2.10 Transit Services

The I-15 and I-86 corridors are used by several private and public transit operators that primarily provide bus service between communities and to various employers and schools. Additionally, several local government entities address alternative travel modes though goals and objectives in comprehensive or general plan documents or provide carpool matching services.

There is no high capacity transit in either corridor, nor is there intercity passenger rail service. The Pocatello area has a bus system but there is no current service that uses I-15 or I-86 for any extended route length.

2.10.1 Transit Planning

The State of Idaho is undertaking a program called "Idaho's Mobility and Access Pathway" (IMAP). This program "outlines the vision and scope within a new paradigm for working and furthering public transportation in Idaho, through an approach called 'Mobility Management' ". In this program, Mobility Management is defined as "networks (which) provide accessible and seamless services in an efficient, effective, and intelligent manner". IMAP is ITD's program to create a new vision for Idaho's public transportation system as part of Idaho's Transportation Vision (2004-2034). IMAP is a planning document; however, no specific projects or programs have been identified for the I-15 or I-86 corridors yet.[6]

Of the seventeen IMAP networks in the State of Idaho, the I-15 and I-86 corridors fall within three of the established networks: Network 5A that includes Bingham County, Network 5D that includes Power County and Bannock Counties, and Network 6B that includes Bonneville County. The mobility management plans for these networks, issued in March 2009, provide thorough descriptions of the full complement of available transit services within the network areas. The descriptions in the next section are based on those plans.

2.10.2 Existing Transit Providers

Pocatello Regional Transit

Pocatello Regional Transit (PRT) operates fixed routes in Pocatello and door-to-door rural services in other areas of ITD District 5. In addition, PRT, as required by Title II of the Americans with Disabilities Act, provides complimentary paratransit services at all hours that the fixed route operates. PRT has five fixed routes; all routes have loop service that starts and ends at or near Idaho State University. None of the

[6] Information on IMAP can be found at http://itd.idaho.gov/publictransportation/imap/imapfinal.pdf.

routes use I-15 or I-86 for travel.

Idaho State University Commuter Express (ISUCE)

Idaho State University (ISU) offers service for students, faculty and staff to the university in Pocatello, called the Idaho State University Commuter Express (ISUCE). The ISUCE operates a fleet of over-the-road coaches. Service is provided to outlying communities on scheduled fixed-routes and at peak times with morning pick-up between 6:00 and 8:00 a.m. and an afternoon return from ISU between 1:15 and 5:15 p.m. A pass must be purchased by a student from ISU, and used for the purpose of traveling to and from the University exclusively. The ISU bus stops in Blackfoot, Shelley, and Idaho Falls and runs only while school is in session. The service uses I-15, including Exit 113 York Road interchange. It also provides MOTOR POOL which is a service that offers 15 Passenger Van rentals for University staff and faculty.

Idaho National Lab

The Idaho National Lab (INL) provides transportation services to the employees and contract employees that work at their lab site and at the Idaho Falls facilities. It has a fleet of 103 buses, providing regional peak-hour service from the cities of Pocatello, Blackfoot, Idaho Falls, and Rexburg to their lab sites. Shuttle service is available throughout the day from the lab to the communities along I-15.

Primary and Secondary Schools

Local school districts provide school bus service for children in the school system from kindergarten through grade twelve. These buses may use I-15 and I-86 for short distances for their morning and afternoon routes, which generally terminate in the communities where schools are located and service the surrounding rural areas.

RideLink

RideLink is managed by Mobility Idaho; ITD is a coordinator of the program. It is an organization tool to create carpools based upon proximity to the start and ending points of personal trips. It can also be used as a free informational tool to understanding the local transit system.

Intercity Bus

Greyhound operates intercity bus service that connects Pocatello to other cities in Idaho. Greyhound operates a route north and south along I-15, and east and west along I-84 to the south. Stations are located in central Pocatello and also north of the corridor in Idaho Falls. Travelers desiring to travel west to Twin Falls and Boise need to transfer in Ogden, Utah using the north-south I-15 route.

Others

The Southeast Idaho Community Action Agency provides bus service to senior citizens through its system of volunteers on an as-needed basis. The Blackfoot Senior Citizens Center offers a similar service. The Fort Hall Community Resources office provides transportation for daily meals to Shoshone-Bannock Tribes tribal members. The City of Pocatello has ten taxi providers.

2.11 Other Transportation Services

2.11.1 Commercial Air Service

Commercial air service in the I-15 and I-86 corridors is provided at two public use airports: Pocatello Regional Airport just north of I-86 (at the Airport Interchange), and at Idaho Falls Regional Airport, located north of the study area in the City of Idaho Falls. Additional public use airports include McCarley Field

adjacent to I-15 south of the City of Blackfoot, and the American Falls Airport off the East American Falls interchange. Both interstate highways provide important access points for these four airports.

2.11.2 Rail Service

The Union Pacific Railroad tracks parallel the I-15 corridor, running along US-91 for much of the corridor north of Pocatello. Union Pacific provides regular rail service to industries in the project area but does not provide passenger service. The nearest public rail transportation is Amtrak in Salt Lake City, Utah.

2.11.3 Rest Areas

ITD operates only one rest area in the corridor plan area, the North Blackfoot rest area at Milepost 101. Two other rest areas are just outside the corridor planning area: the Malad Summit rest area on I-15 at Milepost 25, and one at Milepost 31 on I-86 west of American Falls.

2.12 Existing Interstate Corridor Roadway Geometrics

The existing physical design characteristics of I-15 and I-86 were assessed as one input to identifying any existing and potential future needs. Baseline data was obtained from a review of the existing as-built drawings housed at the ITD District 5 offices as well as from ITD's on-line data. The existing geometry of the two interstate highways and their associated interchanges were compared to the current highway design standards for interstate facilities contained in the American Association of State Highway and Transportation Officials (AASHTO), Greenbook: A Policy on Geometric Design of Highways and Streets, 5th Edition, 2004.

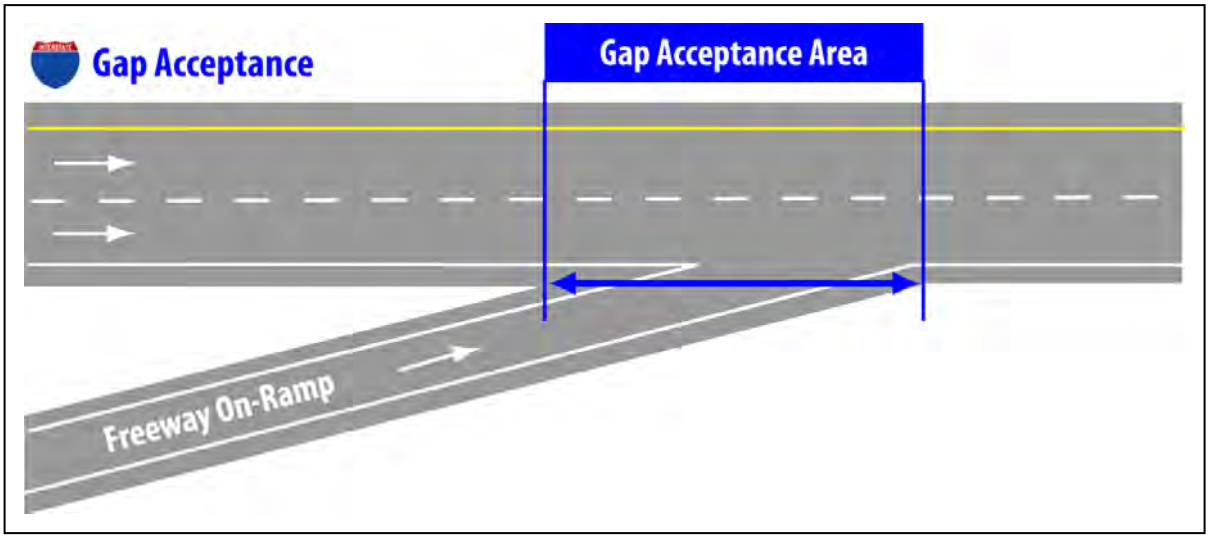
Information was obtained through field observation of both interstate highways and the application of current standard geometric design templates to the aerial photography mapping. Locations where the existing highway horizontal geometry does not meet current design standards were tabulated.[7] Appendix A of this report includes tables that document the location, a description of the horizontal deficiency, a measurement from the aerial photography base, a cross reference to the AASHTO standard, and observations that were made.

2.12.1 Types of Deficiencies

Four general types of highway geometry were identified that do not meet current AASHTO standards: on-ramp gap length, deceleration and acceleration length, tangent length between curves, and weaving distance.

On-ramp gap length or gap acceptance is the distance that a driver has to determine whether there is a sufficient gap in traffic to enter the freeway. It can also be thought of as a chance for a driver to "look over his/her shoulder" to determine whether there is oncoming traffic. Generally, AASHTO standards require a gap acceptance length of over 300 feet. [8] The graphic on the following page illustrates this concept.

[7] Vertical geometry could not be measured from the available aerial photography.
[8] AASHTO Green Book, 2004, page 845.

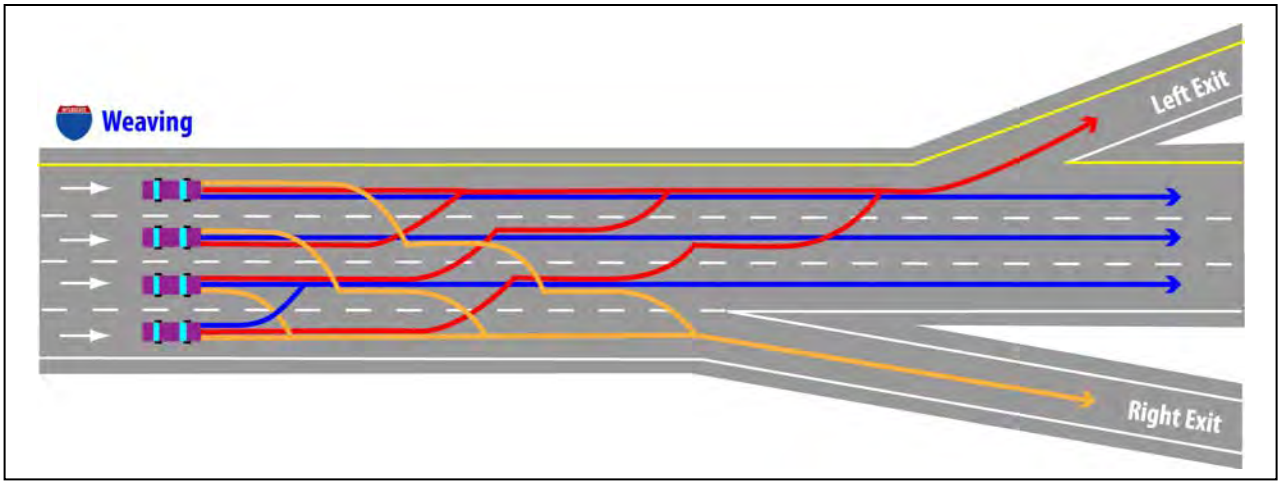


Deceleration length refers to the length of ramp that is available for a vehicle to slow down when exiting the interstate before reaching the cross road.

Acceleration length refers to the ramp length that is available for a vehicle entering the interstate and accelerating up to highway speed.

Tangent length between curves refers to the length of straight roadway between curves. When this length is short, drivers are required to transition from driving on a curve, drive on a short length of straight road, and quickly adjust to enter an additional curve. This affects driver expectancy and can lead to a less smooth ride. Where the curves are in opposite directions, a short tangent length can result in a rougher ride as there is less distance for a smooth transition from super elevation in one direction to shift to the opposite direction.

Weaving length refers to the distance over which a driver can merge across freeway lanes to get into the desired travel lane against both through traffic and other vehicles merging onto the freeway. It applies to both vehicles coming onto and exiting a freeway. The graphic below shows an example of weaving that would occur on a freeway with both a left exit and a nearby right exit, similar to the section of I-15 between the Pocatello Creek interchange and the "Wye" interchange.



2.12.2 Summary of Horizontal Geometric Deficiencies

Based on the tables contained in Appendix A, there are several conclusions that can be made concerning the I-15 and I-86 interchanges and interchange ramps.

I-15 Summary

Only the I-15 mainline section between the Pocatello Creek interchange and the Wye interchange in Pocatello has substandard characteristics, including very close interchange spacing, a left exit from northbound I-15 onto westbound I-86 and associated weaving.

The on-ramps for the McCammon, Inkom, Portneuf, 5th Avenue, Center Street, Pocatello Creek, Fort Hall, South Blackfoot, and Rose interchanges all exhibit on-ramp gap lengths that are below that recommended by AASHTO. Several of the I-15 interchange ramps also have either acceleration or deceleration lengths that are too short by current design standards. This occurs on the Portneuf, 5th Avenue, South Blackfoot, and Rose interchanges.

I-86 Summary

All of the I-86 interchanges have one or more ramps that have gap lengths that are shorter than current standards. In addition, the US-91/Yellowstone Highway, the Seagull Bay, and the East American Falls interchanges have one or more ramps with short acceleration or deceleration lengths.

2.12.3 Recent Mainline Maintenance

Maintenance of the freeway infrastructure is an important component of meeting existing and future travel needs on I-15 and I-86. Recent mainline maintenance activity was obtained from a review of as-built drawings and other files maintained at the ITD District 5 offices. This maintenance activity is shown in Table 2-18.

Table 2-18: Summary of Recent Highway Mainline Maintenance

Milepost	To Milepost	Type of Maintenance Work	Year
I-15 Corridor			
McCammon to Portneuf Interchange			
39.750	46.670	Sealcoat	2003
46.670	63.200	Sealcoat	2007
Portneuf to I-15/I-86 “Wye” Interchange			
63.200	67.200	Sealcoat	2007
67.200	69.378	Sealcoat	1999
69.378	71.019	Mill and inlay	1999
71.598	72.610	Sealcoat	2005
I-15/I-86 “Wye” to South Blackfoot Interchange			
75.182	81.900	Sealcoat	2007
81.900	85.600	Sealcoat	2006
85.600	89.200	Sealcoat	2005
South Blackfoot Interchange to Exit 113 York Road			

Milepost	To Milepost	Type of Maintenance Work	Year
89.200	111.859	Sealcoat	2005
111.859	117.247	Plant mix overlay	2000
I-86 Corridor			
West American Falls			
35.900	40.380	CRABS	2002
East American Falls to Pocatello Airport Interchange			
40.380	58.509	Sealcoat	2005
Airport Interchange to I-15/I-86 "Wye" Interchange			
58.509	62.850	Sealcoat	2005

2.13 Existing Structures

I-15 and I-86 have many existing bridge structures associated with both interchanges and grade separations with other roadways, canals and other water features, and railroad lines. Tables 2-19 and 2-20 summarize the location of the structure, type of material and design type, date of construction, and the sufficiency rating for structures on I-15 and I-86 respectively. (In these tables, "I.C." stands for "interchange"; "GS" stands for "grade separation"; "P/S Con" stands for "pre-stressed concrete".) This information was obtained from the ITD Bridge Section.

The sufficiency rating quantifies the condition of a bridge and its ability to meet current needs. Sufficiency rating is essentially an overall rating of a bridge's fitness for the duty that it performs based on four factors, one of which is its structural evaluation. A low Sufficiency Rating may be due to structural defects, narrow lanes, low vertical clearance, along with many other possible issues.

Each bridge in the State is inspected at least every two years and given a sufficiency rating of 0 to 100, with 100 representing a "perfect" bridge. Bridges with sufficiency ratings below 50 are classified as structurally deficient or functionally obsolete and are eligible for federal replacement funds. Bridges in this category, based on the sufficiency rating only, are highlighted in Tables 2-19 and 2-20.

2.13.1 I-15 Structures

I-15 has 107 structures. Table 2-19 lists these structures by geographic segment, from south to north. Of these, 24 structures are associated with interchanges; 40 structures are canal or river crossings; 39 are grade separations from cross streets or machinery passes; and four are grade separations from railway lines. These four categories are color coded in Table 2-19.

All but 12 of these structures are the original bridges constructed during the original 1959 to 1965 interstate construction program in this area of Southeast Idaho.

Only the structure at the I-15 McCammon interchange has a sufficiency rating of 23.9, which is well below the threshold of 50 for structural deficiency or functional obsolescence. However, replacement of this bridge is programmed for 2011 in the STIP as Project 09883.

2.13.2 I-86 Structures

I-86 has eight structures associated with interchanges and 28 structures that provide grade separation from cross streets, water features, or rail lines. Table -20 lists these structures from west to east. Like I-15, these are the original bridge structures, constructed between 1959 and 1972.

The bridge at the American Falls interchange at milepost 40.110 is deficient with a sufficiency rating of 23.5. This bridge was recently replaced.

Table 2-19: I-15 Structures - Existing Conditions

Milepost	Description	Bridge Key	Material Type	Design Type	Year Built	Sufficiency Rating
I-15 McCammon to Portneuf Segment						
47.160	I-15; McCammon/Lava Hot Springs I.C.	12025	P/S Concrete	Stringer/Girder	1963	23.9
55.612	Portneuf River	11135	P/S Concrete	Stringer/Girder	1963	95.2
55.613	Portneuf River	11140	P/S Concrete	Stringer/Girder	1963	95.2
55.913	STC 1758; UPRR; Inkom	11145	P/S Concrete	Stringer/Girder	1963	78.2
55.914	STC 1762; UPRR; Inkom	11150	P/S Concrete	Stringer/Girder	1963	78.2
56.635	I-15B; South Inkom I.C.	11155	Concrete	Stringer/Girder	1962	96.6
56.636	I-15B; South Inkom I.C.	11160	Concrete	Stringer/Girder	1962	94.5
57.035	Rapid Creek; Inkom	11165	P/S Concrete	Stringer/Girder	1963	95.3
57.036	Rapid Creek; Inkom	11170	P/S Concrete	Stringer/Girder	1963	95.3
57.172	Main Street GS	11175	Concrete	Stringer/Girder	1962	92.7
57.173	Main Street GS	11180	Concrete	Stringer/Girder	1962	92.7
57.685	I-15B;West Inkom I.C.	11185	Concrete	Stringer/Girder	1962	92.0
57.686	I-15B;West Inkom I.C.	11190	Concrete	Stringer/Girder	1962	92.0
61.782	Blackrock Road.GS	11195	Concrete	Frame	1965	92.5
61.783	Blackrock Road.GS	11200	Concrete	Frame	1965	92.5
62.526	I-86WB Ramp	11280	P/S Concrete	Stringer/Girder	1962	66.9
I-15 Portneuf to I-86/I-15 "Wye"						
63.023	STC 1762; Portneuf Road I.C.	11205	P/S Concrete	Stringer/Girder	1963	81.0
63.024	STC 1762; Portneuf Road I.C.	11210	P/S Concrete	Stringer/Girder	1963	81.0
64.010	Hildreth Road GS	11216	Concrete	Frame	1963	92.4
66.781	I-15B; South Pocatello/South 5th I.C.	11225	P/S Concrete	Stringer/Girder	1965	76.8
66.782	I-15B; South Pocatello/South 5th I.C.	11230	P/S Concrete	Stringer/Girder	1965	76.8
67.678	Barton Road GS	11235	Concrete	Stringer/Girder	1964	91.2
67.679	Barton Road GS	11240	Concrete	Stringer/Girder	1964	91.2
68.763	SMA 7461; East Terry Street	11245	Concrete	Stringer/Girder	1964	88.9
68.764	SMA 7461; East Terry Street	11250	Concrete	Stringer/Girder	1964	77.6

Milepost	Description	Bridge Key	Material Type	Design Type	Year Built	Sufficiency Rating
69.385	STP 7341; Center Street I.C. (Clark Street)	11256	P/S Concrete	Multiple Box Beam	2007	95.6
69.385	STP 7341; Center Street I.C.	11261	P/S Concrete	Multiple Box Beam	2007	95.6
70.555	I-15; Monte Vista Avenue GS	22151	Steel Continuous	Stringer/Girder	1997	91.7
70.987	I-15B; Pocatello Creek I.C.	11271	Steel Continuous	Stringer/Girder	1999	93.6
70.988	I-15B; Pocatello Creek I.C.	11276	Steel Continuous	Stringer/Girder	1998	98.0
72.010	I-86 WB Ramp	11280	P/S Concrete	Stringer/Girder	1962	66.9
72.150	I-86 EB Ramp	11285	P/S Concrete	Stringer/Girder	1962	66.9
I-15 "Wye" to South Blackfoot Interchange						
72.611	I-15 SBL; Chubbuck Road.GS	21215	P/S Concrete	Stringer/Girder	1962	80.0
72.612	I-15 NBL; Chubbuck Road GS	21220	P/S Concrete	Stringer/Girder	1962	80.0
75.182	I-15; 2-1/2 Mile Road GS	22155	P/S Concrete	Stringer/Girder	1959	82.8
76.223	Private Road Machine Pass	11305	Concrete	Frame	1959	96.0
76.224	Private Road Machine Pass	11310	Concrete	Frame	1959	96.0
76.613	Private Road Machine Pass	11315	Concrete	Frame	1959	96.0
76.615	Private Road Machine Pass	11320	Concrete	Frame	1959	96.0
79.190	Stock Pass	11325	Concrete	Frame	1960	90.8
79.200	Stock Pass	11330	Concrete	Frame	1960	90.8
79.211	Fort Hall Main Canal	11335	P/S Concrete	Stringer/Girder	1960	72.8
79.212	Fort Hall Main Canal	11340	P/S Concrete	Stringer/Girder	1960	83.1
79.252	Private Road Machine Pass	11345	Concrete	Frame	1960	84.7
79.253	Private Road Machine Pass	11350	Concrete	Frame	1960	84.7
79.817	Ross Fork Creek	11355	Concrete	Frame	1960	96.0
79.818	Ross Fork Creek	11360	Concrete	Frame	1960	96.0
79.903	I-15 NB-SBL; Fort Hall IC	22160	P/S Concrete	Stringer/Girder	1960	67.9
79.905	*Bannock/Bingham County Line*					
80.140	Town Lateral Canal	11370	Concrete	Frame	1960	93.4
80.150	Town Lateral Canal	11375	Concrete	Frame	1960	94.4
80.770	I-15 NB-SB; Gay Branch GS	23080	Steel	Stringer/Girder	1960	
80.907	I-15; Sheepskin Road GS	23085	P/S Concrete	Stringer/Girder	1960	84.8
81.400	Fort Hall IC to Truchot Rd (includes Blackfoot RA and Machine pass at 83.343)					
81.930	Burns Road; 900 South	11390	Concrete	Frame	1960	86.9
81.931	Burns Road; 900 South	11395	Concrete	Frame	1960	86.9

Milepost	Description	Bridge Key	Material Type	Design Type	Year Built	Sufficiency Rating
83.343	I-15; Machine Pass GS	23090	P/S Concrete	Stringer/Girder	1960	76.9
85.638	I-15; Truchot Road GS	23095	P/S Concrete	Stringer/Girder	1959	80.1
87.011	I-15; Ferry Butte Road GS	23100	P/S Concrete	Stringer/Girder	1959	79.1
87.038	Gibson Canal	11415	Concrete	Frame	1959	93.2
87.039	Gibson Canal	11420	Concrete	Frame	1959	95.2
88.025	I-15; Willie Road GS	23105	P/S Concrete	Stringer/Girder	1959	77.2
88.470	North Canal	11430	Concrete	Frame	1959	95.2
88.480	North Canal	11435	Concrete	Frame	1959	95.2
88.728	I-15B; UPRR; South Blackfoot I.C.	11440	P/S Concrete	Stringer/Girder	1961	69.1
88.729	I-15B; UPRR; South Blackfoot I.C.	11445	P/S Concrete	Stringer/Girder	1961	69.1
I-15 South Blackfoot Interchange to Exit 113 York Road						
90.341	Blackfoot River	11450	P/S Concrete	Stringer/Girder	1962	84.8
90.342	Blackfoot River	11455	P/S Concrete	Stringer/Girder	1962	84.8
91.172	I-15; Riverton Road GS	21720	P/S Concrete	Stringer/Girder	1962	76.8
92.206	W.BRIDGE ST.GS; UPRR OP	11465	P/S Concrete	Stringer/Girder	1962	95.1
92.207	W.BRIDGE ST.GS; UPRR OP	11470	P/S Concrete	Stringer/Girder	1962	94.0
92.510	US 26; West Blackfoot IC	11475	Concrete	Stringer/Girder	1962	93.8
92.511	US 26; West Blackfoot IC	11480	Concrete	Stringer/Girder	1962	93.8
94.371	Snake River; Blackfoot Bridge	11486	P/S Concrete Continuous	Stringer/Girder	2003	96.6
94.372	Snake River; Blackfoot Bridge	11491	P/S Concrete Continuous	Stringer/Girder	2002	97.1
94.582	Danskin Canal	11495	Concrete	Stringer/Girder	1962	96.3
94.583	Danskin Canal	11500	Concrete	Stringer/Girder	1962	96.3
94.722	I-15; W.Porterville RD.GS	23125	P/S Concrete	Stringer/Girder	1962	74.2
95.020	Riverside Canal	11510	Concrete	Frame	1962	91.3
95.030	Riverside Canal	11515	Concrete	Frame	1962	96.0
95.787	Riverside Canal	11520	Concrete	Frame	1962	96.3
95.788	Riverside Canal	11525	Concrete	Frame	1962	96.3
96.107	I-15 SB-NB; Rose Road GS	19226	P/S Concrete Continuous	Stringer/Girder	2000	99.1
97.285	Riverside Canal	11535	Concrete	Tee Beam	1962	81.7
97.286	Riverside Canal	11540	Concrete	Tee Beam	1962	83.7
97.681	I-15; Rose Road I.C.	23130	P/S Concrete	Stringer/Girder	1962	58.6
98.301	Aberdeen Springfield Cnl	11550	Concrete	Stringer/Girder	1962	82.0
98.302	Aberdeen Springfield Cnl	11555	Concrete	Stringer/Girder	1962	82.0
98.336	Peoples Canal	11560	Concrete	Stringer/Girder	1962	82.0

Milepost	Description	Bridge Key	Material Type	Design Type	Year Built	Sufficiency Rating
98.337	Peoples Canal	11565	Concrete	Stringer/Girder	1962	82.0
98.370	15 West Road	11570	Concrete	Frame	1962	72.4
98.380	15 West Road	11575	Concrete	Frame	1962	72.4
99.410	Lava Side Canal	11580	Concrete	Frame	1962	95.3
99.420	Lava Side Canal	11585	Concrete	Frame	1962	95.3
99.488	I-15 NB-SB; Hiatt Road GS	23135	P/S Concrete	Stringer/Girder	1962	77.8
101.500	Lava Beds to Truchot Rd					
103.880	I-15; Sunnyside IC	21614	Steel Continuous	Stringer/Girder	2007	98.0
	Lava Beds to Bonneville Co.					
104.263	Sidehill Canal	21616	Concrete	Frame	2007	96.1
104.821	Snake River	21618	Steel Continuous	Stringer/Girder	2007	96.1
105.047	Private Rd; Machine Pass	11595	Concrete	Frame	1962	80.9
105.048	Private Rd; Machine Pass	11600	Concrete	Frame	1962	92.2
106.686	I-15 NB-SB; Baseline GS	23170	P/S Concrete	Stringer/Girder	1962	78.5
107.990	I-15 SB-NB; S. Shelly IC	19265	P/S Concrete	Stringer/Girder	1962	86.2
108.450	Great Western Canal	11615	Concrete	Frame	1962	96.3
108.460	Great Western Canal	11620	Concrete	Frame	1962	96.3
109.533	Drainage Ditch	11625	Concrete	Frame	1962	94.3
109.534	Drainage Ditch	11630	Concrete	Frame	1962	96.3
110.410	I-15 NB-SB; Woodville GS	23175	P/S Concrete	Stringer/Girder	1962	75.9
110.797	Woodville Canal	11640	Concrete	Culvert	1962	95.0
110.798	Woodville Canal	11645	Concrete	Culvert	1962	95.0
111.642	I-15 NB-SB; CO. Line Rd.GS	23180	P/S Concrete	Stringer/Girder	1962	78.6
111.859	*Bingham/Bonneville County Line*					
113.210	I-15 SB-NB; North Shelley IC	12096	P/S Concrete Continuous	Multiple Box Beam	1996	98.0

Table 2-20: I-86 Structures - Existing Conditions

Milepost	Description	Bridge Key	Material Type	Design Type	Year Built	Sufficiency Rating
I-86 American Falls Segment						
36.123	I-86 EB-WB; Rockland I.C.	10920	P/S Concrete	Slab	1959	88.8
38.581	Sunbeam Road GS	10765	Concrete	Stringer/Girder	1959	90.5
38.582	Sunbeam Road GS	10770	Concrete	Stringer/Girder	1959	90.5
39.283	Private Road. Machine Pass	10775	Concrete	Frame	1959	97.4
39.284	Private Road Machine Pass	10780	Concrete	Frame	1959	97.4

Milepost	Description	Bridge Key	Material Type	Design Type	Year Built	Sufficiency Rating
I-86 East American Falls to Pocatello Airport						
40.110	I 86 EB-WB American Falls I.C.	10925	P/S Concrete	Stringer/Girder	1959	23.5
41.050	Sunbeam Creek	10787	Steel	Culvert	1959	81.9
41.323	Kopp Road GS	10790	Concrete	Frame	1959	93.0
41.324	Kopp Road GS	10795	Concrete	Frame	1959	93.0
42.498	Leyshon Road GS	10800	Concrete	Frame	1959	93.0
42.499	Leyshon Road GS	10805	Concrete	Frame	1959	93.0
44.316	County Road; Seagull Bay I.C.	10810	Concrete	Stringer/Girder	1963	93.2
44.317	County Road; Seagull Bay I.C.	10815	Concrete	Stringer/Girder	1963	93.2
44.610	UPRR Igo Overpass	10820	P/S Concrete	Stringer/Girder	1963	62.3
44.611	UPRR Igo Overpass	10825	P/S Concrete	Stringer/Girder	1963	62.3
49.152	I-86 EB-WB; Rainbow Road GS	23635	P/S Concrete Continuous	Multiple Box Beam	1972	100.0
51.992	Bannock Creek	10835	P/S Concrete	Stringer/Girder	1972	96.3
52.000	Bannock Creek	10840	P/S Concrete	Stringer/Girder	1972	96.3
52.491	I-86; Truckerville I.C.	19110	P/S Concrete Continuous	Single/Spread Box	1972	98.0
55.127	UPRR Pocatello Airport	10850	P/S Concrete	Stringer/Girder	1968	92.2
55.128	UPRR; Pocatello Airport	10855	P/S Concrete	Stringer/Girder	1968	92.2
55.551	I-86 EB-WB; Airport IC	23645	P/S Concrete	Stringer/Girder	1968	85.5
Pocatello Airport to I-15/I-86 "Wye"						
58.087	I-86; West Pocatello I.C.	13690	P/S Concrete	Stringer/Girder	1968	84.8
58.498	Portneuf River	10870	Concrete	Stringer/Girder	1968	96.0
58.499	Portneuf River	10875	Concrete	Stringer/Girder	1968	96.0
59.769	I 86 EB-WB; Philbin Road GS	22105	P/S Concrete	Stringer/Girder	1968	76.0
60.576	SMA 7031; Hawthorne Road.GS	10885	P/S Concrete	Stringer/Girder	1968	78.5
60.577	SMA 7031; Hawthorne Road.GS	10890	P/S Concrete	Stringer/Girder	1968	78.5
61.268	I-86 EB-WB. US-91/Chubbuck I.C.	17495	P/S Concrete	Stringer/Girder	1964	95.0
61.639	UPRR; Chubbuck Overpass	10900	Steel	Stringer/Girder	1963	92.8
61.640	UPRR; Chubbuck Overpass	10905	Steel	Stringer/Girder	1963	92.8
62.032	Hiline Road GS; Fort Hall Canal	10910	P/S Concrete	Stringer/Girder	1963	82.3
62.033	Hiline Road GS; Fort Hall Canal	10915	P/S Concrete	Stringer/Girder	1963	80.3
62.412	I-15 NB to I-86 WB Ramp	10935	P/S Concrete	Stringer/Girder	1963	87.0

3.0 Land Use and Demographics

Land use and transportation are linked because a solid understanding of existing and future land use is fundamental to identifying existing and future transportation needs. This section documents existing and planned future land use, and current and expected population and employment characteristics. This information was used in the development of a future travel demand forecasting model that will help identify travel demand deficiencies in the existing transportation network that serves the project area.

3.1 Existing Land Use

Generalized land use assessment along the corridor was completed to better understand current areas of traffic demand and to field check the 2008 population, housing unit, and employment inventory. This land use overview and field check of the demographic inventory was accomplished using both aerial photography of the corridor and on-site observations. The regional context of both interstate corridors is primarily rural agricultural, with fully urbanized nodes at the Cities of American Falls area, Chubbuck, Pocatello, and Blackfoot. A significant portion of the lands adjacent to I-86 and I-15 in Bannock and Bingham Counties fall within the Fort Hall Reservation, home to the Shoshone-Bannock Tribes.

3.1.1 I-86 Corridor: West American Falls Interchange (MP 36) to the I-15 Interchange (MP 63)

The I-86 corridor begins at MP 36 west of American Falls where the general land use is agricultural. Land use changes to a mix of light industrial, storage areas, and a high school on the western edge of American Falls. North of the interstate, land use in American Falls is predominantly residential. There are small nodes of commercial activity at each of the American Falls interchanges, with agricultural land south of the interstate. The American Falls airport is located on the east side of the city.

Eastward from MP 53, land use is agricultural with some ancillary activities such as storage. The Pocatello airport and several light industrial uses are located north of the interstate at MP 56. Land use along the next section of the interstate is agricultural. The J R Simplot site, a large heavy industrial development, is located at MP 58, south of the interstate. Another short section of agricultural land follows before entering the urbanized areas of Chubbuck and Pocatello. From the western edge of the two cities to the segment's end at the Interstate 15 Interchange, land is heavily urbanized, with residential, commercial, service, some warehousing, and office uses. A large center of retail sales and services is located at MP 61, the I-86/Yellowstone Highway or Chubbuck interchange. This interchange provides access to the major commercial shopping area for the region. East of this interchange and extending to I-15, the land use on the south side of I-86 is commercial, office and retail. The majority of land use on the north side is residential.

3.1.2 I-15 Corridor: McCammon Interchange (MP 47) to South Idaho Falls Interchange (MP 113)

The Interstate 15 portion of the corridor begins in McCammon at MP 47. This is the interchange between US-30, providing access eastward toward eastern Idaho and Wyoming. A major truck stop and other highway commercial uses are adjacent to the interchange. From McCammon to MP 57 at Inkom, the main land use on both sides of I-15 is agricultural. The City of Inkom's land use is predominantly low density residential with some commercial and industrial uses.

From the Inkom interchange to the Portneuf interchange at MP 63, the land use again is predominantly agricultural, with associated low density single family housing. At the interchange, land use becomes more

urban transitional; characterized by the Century High School campus, mixed residential use, the Idaho Transportation Department District 5 offices and yard, some light manufacturing, and storage units.

Approaching the 5th Avenue interchange at MP 67, land west of I-15 and the interchange is vacant. East of the 5th Avenue interchange is a concentration of mixed density residential development.

I-15 from the 5th Avenue interchange to the I-15/I-86 "Wye" interchange at MP 72 is within the fully urbanized area of the City of Pocatello. Between the 5th Avenue interchange and the Center Street interchange, the campus of Idaho State University and the Stephens Performing Arts Center are major developments west of the interstate. The predominant land use west of the Center Street interchange is residential. East of I-15 at Center Street is an area that is developing with several medical facilities, including the Portneuf Medical Center and the Idaho Kidney Institute.

The area east of the Pocatello Creek Interchange (MP 71) is characterized by a concentrated area of highway commercial, including lodging, restaurants, service stations, and quick stop convenience stores. This activity node is surrounded by primarily single-family residential housing development.

Between the Pocatello Creek interchange and the "Wye" interchange, land use is primarily residential. However, a large undeveloped parcel is located in the southwest quadrant of the interchange. The Bannock County Fairgrounds are directly east of the "Wye" interchange.

Northward from the "Wye" there are residential developments within the Chubbuck area, extending nearly to Siphon Road and the southern boundary of the Shoshone-Bannock Tribes' Fort Hall Reservation. North and east of this area, land use is primarily agricultural interspersed with several large lot residential developments. Much of the adjacent land along this section of I-15 is within the Fort Hall Reservation. At MP 80, the Fort Hall interchange, the Tribes' museum, retail outlet, and casino are all located. West of this Fort Hall development, very low density residential development typifies the land use.

Between the Fort Hall interchange and the South Blackfoot interchange (MP 89), agricultural land use predominates the tribal lands. Between MP 89 and Riverton Road, agricultural also is the primary land use.

I-15 enters the urbanized area of the City of Blackfoot just north of Riverton Road. There is limited light industrial development between I-15 and the Snake River to the west of I-15. Lower density residential, warehousing and light industrial are typical land uses on the east side of I-15.

The interchange at MP 89 provides the main access to the City of Blackfoot. This interchange provides access to major highway commercial, retail and office development, as well as to the residential land uses along the corridor. MP 89 also is the intersection with US 26 which connects to the Idaho National Laboratory (INL) location to the west. Just north of the City of Blackfoot, the Blackfoot Municipal Airport is located on the east side of I-15.

From the Blackfoot Airport extending to the MP 113 at York Road, land use is primarily agricultural. A section of I-15 travels through a large area of historic volcanic flow in this segment. There are no urbanized areas along I-15 in this segment of approximately 20 miles. At York Road, the existing highway commercial node on the east side of I-15 has been augmented by recent additions of warehousing, light industrial, some retail, and long haul trucking facilities around the interchange.

3.2 Comprehensive Plans, Stakeholder Interviews and Other Planning Documents

The I-15 and I-86 corridors provide access to and serve several city and county jurisdictions within the study area. The approved comprehensive plans and the expectations of local planners and other stakeholders provide useful information on the level of growth, the type of growth, and its distribution. This information provides one basis for developing future population and employment projections, using identified areas for future growth.

3.2.1 Stakeholder Interviews

Interviews were conducted with local land use planners, engineers, elected officials, and other individuals familiar with the area's economy. These interviews occurred in late 2008 and early 2009. The purpose of the interviews was to obtain firsthand information concerning the study area's local economy and employment and current land use patterns. Potential areas and types of future development which may impact future travel demand on the corridor also were discussed. In addition, county and city comprehensive land use plans were reviewed to determine development policies.

The following entities were contacted and staff members from the organizations were interviewed, primarily in face-to-face meetings where possible, when in person interviews were not possible, this process was supplemented using telephone discussions:

- American Falls Building Administrator
- Bannock County Planning and Development Services
- Bannock Development Corporation
- Bannock Transportation Planning Organization
- Bingham County Planning and Zoning Department
- Bingham Economic Development Corporation
- Blackfoot Public Works
- City of Chubbuck
- Greater Pocatello Chamber of Commerce
- Grow Idaho Falls
- Idaho Department of Labor
- Southeast Idaho Council of Governments
- City of Pocatello
- Power County Building Administrator

3.2.2 Summary of Comprehensive Plans and Stakeholder Comments

The review of existing comprehensive plans was undertaken to better understand how the areas around I-15 and I-86 are slated to develop. Taken in concert with input from the stakeholder interviews, areas of anticipated future population and employment growth were clarified.

Bannock County

Bannock County encompasses the southern portion of the I-15 corridor and the Cities of Pocatello and Chubbuck. Bannock County's comprehensive plan was adopted in 2008. The comprehensive plan recommends that most future residential development occur with defined Urban Service Areas and within the "Areas of City Impact (ACIs)." It also recommends that commercial and non-farming employment uses be concentrated in the cities and in the ACIs. It promotes continuing agricultural uses, rural economic activities, and very low density development outside of the cities and ACIs. This approach is emphasized in the population, growth and land use goals contained within the plan. The comprehensive plan provides a blueprint to focus development and discourage urban sprawl that is not supported by current or planned municipal water and sewer.

Past development in Bannock County has been at a low level, but had been steadily increasing until the recent national economic downturn. Development had proceeded at a slow, but steady pace in both the unincorporated and incorporated areas of the county.

In the unincorporated portion of Bannock County, there has been some interest in recreational property development around Lava Hot Springs near the southern portion of the corridor study area, which is an allowed use. This area is accessed by US-30 and is linked to I-15 at the McCammon interchange.

City of Pocatello

The City of Pocatello 2003 Comprehensive Plan includes a key concept that is consistent with the Bannock County Comprehensive Plan. It incorporates the use of an Urban Service Boundary (USB) that indicates where the city plans to grow over the next 20 years. It is generally consistent with the County's ACI and is partially tied to where municipal services will be placed. The plan contains a number of employment and housing objectives and supporting analyses that were taken into account in the development of this corridor plan's future population and employment inputs.

Stakeholder input indicates that future areas of residential development would be south of the main urbanized area of Pocatello City and to the east of I-15 near the I-15/I-86 "Wye" interchange. That input was consistent with the assumptions used in preparing the most recent demographic forecast for the metropolitan planning area.

City of Chubbuck

The City of Chubbuck 2001 Comprehensive Plan also uses the concept of an Urban Service Boundary to identify and plan for growth, consistent with where services will be extended in the future and avoids environmentally sensitive or lands considered to be unsuitable for building (due to slope or other considerations). The future land use designation map shows a planned continuance of commercial development along the US-91 "Yellowstone" corridor, and the commercial, mixed use and residential development along the I-86 corridor.

Future development in the City of Chubbuck will generally occur in the northeastern portion of the city. In the City of Pocatello the main potential areas for growth are the northeast portion of the city, and the southern portion, where large undeveloped areas of land still exist. The city requires that a developer install utilities to support a particular new development.

Bingham County

Bingham County's most current comprehensive plan (March, 2005) is defined as "a document guiding the future development of the county, based on stated long range goals of the county". The plan is a "guide for making land use changes" and serves as a guide for "the rate, timing and location of future growth".

The purpose of the plan is to promote orderly development in the county. Its goals call for discouraging "fragmentation of agricultural land and leapfrog residential development". The county's policy for residential development is to encourage that type of development "to take place where public infrastructure, services and facilities are available or where they are planned and will be provided in the near future".

Within the I-15 corridor, Bingham County includes the Fort Hall Reservation and the City of Blackfoot. Bingham County has not experienced a significant level of non-residential development recently. Most of the county is zoned agricultural, with development allowed by a special use permit. Immediate future development along the corridor in the county is not anticipated.

Most of the new residential development in unincorporated Bingham County has occurred around the City of Shelley, outside of the corridor study area along US-91. The residential development of the City of Shelley mainly has been on non-productive agricultural land. Recent development activity has been for simple subdivisions of existing large parcels. The Shoshone-Bannock Tribes anticipate significant redevelopment of their lands, both at the existing Fort Hall interchange and at a new satellite casino site located near MP 89.

City of Blackfoot

The most current comprehensive plan for the City of Blackfoot was adopted in 2008. The plan "calls for a pattern of urban containment and the preservation of highly productive agricultural land, with a circulation and urban service pattern that will reinforce the present compact pattern of urban development." It also calls for "directed growth in a manner which will allow maintenance of high levels of public service at reasonable cost".

A portion of the plan's land use goal is to "foster a development pattern that is compact rather than scattered in order to discourage urban sprawl, reduce the extent and cost of public services and preserve open space surrounding and within the city". Plan objectives call for a compact form of development by encouraging infill development and encouraging economic activities in commercial areas.

Development in the City of Blackfoot slowed toward the end of 2005. No new development has occurred recently along the corridor. Most of the new residential subdivisions are proposed west of I-15. The city also wants to locate a sewage treatment plant in the same vicinity. Currently, the city has a backlog of residential building permits that have been issued, but not yet constructed.

Power County

Power County's comprehensive plan was adopted in the late 1970's. The county is in the process of updating that plan with an emphasis on preserving agricultural land. Providing updated maps and mapping capability is another emphasis of the update. Currently about 90 percent of the land in the county is zoned agricultural, with development allowed by special use permit.

Past development in Power County was described as being at a low level but at a constant level. Development has proceeded at a slow, but steady pace.

In the unincorporated county there has been some interest in development around Fairground Road near the American Falls airport. This area is zoned for heavy industrial uses. There has been some discussion about a 350 bed prison facility in that same area. Future areas of residential development would be south of the two American Falls interchanges and to the north of the American Falls Airport. A conditional use permit has been granted for a proposed coal gasification plant southwest of American Falls, across the Snake River from Exit 36 on I-86. The current focus of that project is to secure investors and financing.

City of American Falls

American Falls City comprehensive plan was revised in early 2009. In its introduction, the plan calls for " a pattern of urban containment and the production of highly productive agricultural land, with a circulation and urban service pattern that will reinforce the present compact pattern of urban development, arrest the sprawl development that is beginning, and provide for future growth consistent with the current environmental quality of the city." Future development in the City of American Falls will generally occur east of the city and toward the City of Pocatello. The city requires that a developer install utilities to support any new development. The city has seen some interest in future commercial development, but there is a limited

supply of vacant land with services and utilities available. Like Power County, development in American Falls has been at a low but constant level.

The plan's land use goal seeks to establish proper relationships among land uses. It encourages future compact development to reduce costs and preserve open spaces. More specific policies include locating shopping areas on arterials, allowing mixed use development, developing infill strategies, revitalizing the downtown area, and preserving and maintaining open space.

3.3 Current and Future Demographics

Understanding the current population and employment characteristics of the study area and predicting the future population and employment is a critical step in analyzing the transportation needs associated with both existing and projected growth. Consistent with Idaho Transportation Department's corridor planning process, the future is defined as approximately 20 years into the future. The year 2030 therefore is being used for this I-15/I-86 corridor planning process.

2008 County Inventory

Population, Housing Units, and Employment

The I-15 and I-86 corridors are located in the more developed portions of Bannock, Bingham, and Power Counties, Idaho. In 2008, the three county population was about 131,500 with more than 79,000 persons living in Bannock County (Table 3-1). The population of the three county area increased by slightly more than five percent since the year 2000.

In 2008 there were nearly 50,000 housing units in the three counties. More than 31,000 of those housing units were located in Bannock County. The area's housing stock increased by almost eight percent since the 2000 census count of housing units.

3.3.1 Countywide Assessment

Nearly 74,000 full and part-time persons were employed in the three-county area in 2008. Bannock County constitutes almost two-thirds of the area's total employment. Employment in the three county area increased by nearly nine percent since 2000.

Table 3-1: 2008 County Population, Housing Units, and Employment[9]

County	Population	Housing Units	Employment
Bannock	79,151	31,320	47,468
Bingham	44,631	15,544	21,909
Power	7,685	3,064	4,609
Total	131,467	49,928	73,986

2030 County Population Forecasts and Projections

Population Forecast

Population in the total three-county area has been forecast to reach more than 171,000 residents by 2030, up from about 131,000 in 2008 (Table 3-2). The area's population was forecast to increase by more than

[9] Intermountain Demographics, U. S. Census Bureau

39,000, a gain of more than 30 percent. More than two-thirds of the population gain has been forecast to occur in Bannock County.

Table 3-2: 2008 and 2030 County Population Forecast[10]

County	2008 Population	2030 Population	# Change	% Change
Bannock	79,151	105,933	26,782	33.8%
Bingham	44,631	56,435	11,804	26.4%
Power	7,685	8,703	1,018	13.2%
Total	131,467	171,071	39,604	30.1%

Population was projected for each county using the cohort-survival forecasting technique and combined for a three county total. In that methodology, the county's current population was forecast by using birth and survival rates applied to the existing population. The population moving into the county also was considered during the forecast period. Birth and survival rates and migration information were based on historical trends for each county.

Population, housing unit and employment forecasts for Bannock County were based on the Bannock Transportation Planning Organization (BTPO) demographic update which forecast those variables to 2020 and 2030. The BTPO analysis was completed in March, 2007.

Housing Unit Forecast

More than 13,600 additional housing units will be added to the 2008 housing inventory to accommodate the area's population gain (Table 3-3). The total housing stock in the three-county area will increase by about 27 percent from 2008 to 2030. The largest numerical and percentage changes will occur in Bannock County where more than 9,500 units will be added to the housing inventory during the forecast period.

Table 3-3: 2008 and 2030 County Housing Unit Forecast[11]

County	2008 Housing Units	2030 Housing Units	# Change	% Change
Bannock	31,320	40,838	9,518	30.4%
Bingham	15,544	19,254	3,710	23.9%
Power	3,064	3,518	454	14.8%
Total	49,928	63,610	13,682	27.4%

Housing unit forecasts for the individual counties in the region were prepared based on the population forecasts for each county. The population change for a five year period was divided into occupied units by using a 'persons per household' rate for that same time period. That preliminary total, or household gain, was factored by a vacancy rate to produce the total housing unit gain in five year intervals for the forecast period.

[10] Sources: Intermountain Demographics, U. S. Census Bureau
[11] Sources: Intermountain Demographics, U. S. Census Bureau

Employment Forecast

Total employment in the region was forecast to increase by almost 16 percent from 2008 to 2030 (Table 3-4). By 2030, employment will reach about 85,600 and increase more than 11,600 from the beginning of the forecast period. Bannock County will experience the largest gain, increasing by more than 11,600.

Table 3-4: 2008 and 2030 County Employment Forecast[12]

County	2008 Employment	2030 Employment	# Change	% Change
Bannock	47,468	54,347	6,879	14.5%
Bingham	21,909	25,105	3,196	14.6%
Power	4,609	6,201	1,592	34.5%
Total	73,986	85,653	11,667	15.8%

Employment forecasts for Bingham and Power Counties were generated for 2008, 2010, 2020, and 2030. Employment forecasts were prepared using three year moving averages of employment change for a series of long term and short range annualized employment trends. The forecasts were smoothed to account for peaks and valleys in the future economy in order to produce the most stable forecast.

3.4 Corridor and Traffic Zone Assessment

The above analysis considers the entire three county area. As not all of each county contributes to travel on I-15 and I-86, an allocation of the countywide data to the study area was undertaken. The I-15/I-86 transportation corridor study area was defined as those U.S. Census Bureau block groups which were adjacent to the interstates in Bingham and Power Counties. The corridor was expanded in Bingham County to include those block groups adding significant levels of traffic to the interstate highways. In Bannock County the corridor area considered included the traffic analysis zones in the metropolitan planning area.

3.4.1 2008 Population, Housing Units, and Employment

More than 100,000 persons resided in the transportation corridor in 2008 and accounted for more than 75 percent of the total three-county population (Table 3-5). Almost 72,000 persons lived in the Bannock County portion of the corridor. The corridor also contained nearly 39,000 housing units in 2008. Slightly more than 56,000 were employed in the corridor in 2008, with the largest concentration of the employees (about 75 percent) working in the Bannock County portion of the corridor.

Table 3-5: 2008 Corridor Population and Housing Units[13]

Corridor Segment	Population	Housing Units	Employment
Bannock	71,925	28,267	42,490
Bingham	21,584	7,517	29,101
Power	7,451	2,851	10,302
Total	100,960	38,635	81,893

[12] Sources: Intermountain Demographics, U. S. Census Bureau
[13] Sources: Intermountain Demographics, U. S. Census Bureau

Population and housing unit estimates for 2008 census block groups were provided by CLARITAS, a national company specializing in providing demographic information annually between the gathering of the decennial census data. Those estimates were field checked and compared to aerial photography for the region. Minor adjustments were made in some areas.

Block group employment data was obtained from the U. S. Census Bureau (LED Origin-Destination Data Base). That employment data included the number of full time employees for each block group in 2006. It was updated to the 2008 inventory by applying 2006 to 2008 county employment trends. Part-time employees also were added to the 2008 block group inventory using countywide full-time to part-time employment ratios.

3.4.2 2030 Corridor Forecast

Population Forecast

Population has been forecast to reach more than 130,000 persons in the corridor by 2030, nearly a 30 percent gain (Table 3-6). About 30,000 additional persons will be added to the corridor's 2008 population. The strongest population gains were forecast in the Bannock County portion of the corridor.

Table 3-6: 2008 and 2030 Corridor Population Forecast[14]

Segment	2008 Population	2030 Population	# Change	% Change
Bannock	71,925	95,366	23,411	32.5%
Bingham	21,584	27,089	5,505	25.5%
Power	7,451	8,388	937	12.6%
Total	100,960	130,843	29,853	29.6%

Housing Unit Forecast

More than 11,000 housing units will be needed to accommodate the corridor's 2008 to 2030 population gain (Table 3-7). By 2030, the corridor was forecast to reach nearly 50,000 housing units, an increase of about 30 percent. Housing unit increases were greatest in Bannock County where population gains also were the largest.

Table 3-7: 2008 and 2030 Corridor Housing Unit Forecast[15]

Segment	2008 Housing Units	2030 Housing Units	# Change	% Change
Bannock	28,267	37,163	8,896	31.5%
Bingham	7,517	9,242	1,725	22.9%
Power	2,851	3,269	418	14.7%
Total	38,635	49,674	11,039	28.6%

Employment Forecast

Total employment in the corridor has been forecast to increase by almost 25 percent during the 2008 to 2030 time period (Table 3-8). Total employment has been forecast to reach nearly 70,000 by 2030,

[14]Sources: Intermountain Demographics, U. S. Census Bureau
[15] Sources: Intermountain Demographics, U. S. Census Bureau

increasing by more than 13,000 employees. Again, the largest gains were forecast for the Bannock County portion of the corridor.

Table 3-8: 2008 and 2030 Corridor Employment Forecast[16]

Segment	2008 Employment	2030 Employment	# Change	% Change
Bannock	42,490	53,265	10,775	25.4%
Bingham	10,117	11,548	1,431	14.1%
Power	3,618	5,013	1,395	38.6%
Total	56,225	69,826	13,601	24.2%

Methodology

In the Bingham and Power County portions of the corridor, the general methodology to allocate county wide population, housing unit, and employment forecasts to the corridor was to use a "step-down" approach. It generally was assumed that the demographics in the corridor would stay at the same proportion to the county's demographics throughout the forecast period. Some exceptions were made based on interviews with individuals familiar with development patterns and trends and potential future development in the Bingham and Power County portions of the corridor. Forecasts in the Bannock County portion of the corridor also were those used in the March, 2007 demographic update for the BTPO.

Retail and Non-Retail Employment

Total employment forecasts in the corridor have been divided into retail and non-retail employment for transportation modeling (Table 3-9). That division was made to account for different trip generation rates for those two employment types. The retail and non-retail forecasts have been based on county forecasts stepped down to the corridor level of detail. "Corridor level" of detail for retail and non-retail forecasts also were developed for Bannock County in its March 2007 demographic update.

Table 3-9: 2008 and 2030 Corridor Retail and Non-Retail Employment Forecast[17]

Employment Type	2008 Employment	2030 Employment	# Change	% Change
Retail	10,637	13,528	2,891	27.2%
Non-Retail	45,588	56,298	10,710	23.5%
Total	56,225	69,826	13,601	24.2%

The final step in the analysis was to allocate corridor wide population, housing units, and employment forecasts to the individual block groups within the county portion of the corridor. That allocation was made based on past development trends, current levels of employment, interviews with local development officials, and on policies contained in local comprehensive plans. The traffic zone level of detail forecasts for Bannock County were also completed during the 2007 update.

[16] Sources: Intermountain Demographics, U. S. Census Bureau
[17] Sources: Intermountain Demographics, U. S. Census Bureau

4.0 Future Transportation Conditions

This section discusses the future 2030 needs for the I-15 and I-86 corridors in eastern Idaho. It outlines a methodology to develop 2030 traffic projections, defines the future baseline transportation conditions, the 2030 baseline intersection operations, and discusses the operations deficiencies and safety along the I-15 and I-86 corridors.

4.1 Methodology to Develop Year 2030 Traffic Projections

There is no travel demand model that covers the entire I-15 and I-86 corridors being considered in this planning process. The Bannock Planning Organization (BPO) regional travel demand model covers the urbanized Pocatello area only with Year 2020 as its planning horizon year. Year 2030 travel projections were developed by using current and year 2030 land use projections, BPO modeling, traffic growth trends over the past 10-20 years, and the "I-15 Pocatello Environmental Study" (CH2M Hill, 2005)[18] examining a potential new interchange north of the I-86 interchange (with a preferred new interchange location at I-15 and Syphon Road) which contained 2030 projections.

To develop Year 2030 travel projections for the I-15 and I-86 corridors, a composite methodology was developed and applied to provide a defensible planning tool and data. Based on the land use projections developed for this corridor plan, there are no major expansions of urbanized areas foreseen for either corridor.

For Power County, it was assumed that all I-86 interchanges, except for the Airport interchange, would see traffic growth commensurate with land use growth, as measured by population and employment growth, between 2008 and 2030. The county's population and employment growth are summarized in the Land Use and Demographics section of this document. The results of the land use projection process indicate that the projected growth rate in Power County for employment would be 38% compared to the projected growth rate for population at 15%.

Based on the land use and demographic analysis conducted for this corridor plan and in consultation with Power County planning staff, anecdotal evidence indicates a trip interaction exists between the east American Falls interchange and the west portion of the Pocatello urban area. Traffic growth is therefore a function of land use growth for both Power County and the western portion of the Pocatello metropolitan area. The Pocatello area is expected to have a higher growth rate, in part due to future growth plans for the City of Chubbuck.

The resulting growth rates for each I-86 interchange were a composite of census block group growth surrounding the interchange and growth in the western Pocatello area. This resulted in the following growth rates by interchange:

- West American Falls (Exit 36): 30 percent
- East American Falls (Exit 40): 25percent
- Ramsey Road (Exit 44): 47 percent
- Rainbow (Exit 49): 35 percent
- Arbon Valley (Exit 52): 35 percent
- Airport (Exit 56): 35 percent

[18] http://itd.idaho.gov/Projects/D5/i15EnvironmentalStudy/

Volumes from the Airport interchange (Exit 56) to the I-15/I-86 "Wye" interchange were developed using the Pocatello area methodology summarized below.

For the portion of the I-15 corridor in Bingham County (from Milepost 89 northward), land use projections indicated that population would grow by approximately 26 percent and employment by 15 percent. Current and future trip making patterns along this part of the corridor appear to be related to growth in Pocatello as well as in Bonneville County and Idaho Falls. Growth rates in southern Bonneville County and in the north end of the I-15 corridor near Idaho Falls approach 40 percent between 2008 and 2030. The resultant traffic growth rate from 2008 to 2030 is estimated to be 40 percent.

Between Pocatello and the McCammon interchange, traffic growth was assumed to be directly correlated to traffic growth on the I-15. The employment base is small in this rural portion of Bannock County and is not expected to increase. For interchanges and the I-15 corridor from Milepost 60 southward, the 2008 to 2030 growth rate is estimated as 15 percent.

For Pocatello, most of the area is covered by the BPO travel demand model. However, the model has a 2020 planning horizon year, not 2030 as used for this corridor plan. To account for this difference, the traffic projections for the greater Pocatello area are a blend of two estimates: projected population and employment growth, applied to the arterial system and ramp intersections; and historic traffic count trends over the last 10 to 20 year period for both I-15 and I-86 freeway mainlines. The traffic volumes were then balanced to remove differences in projections that these two methods yielded.

The resultant 2030 traffic projections were then checked against the 2020 traffic projections from the BPO model, as well as 2030 projections from the I-15/Pocatello Environmental Study, to assess consistency and reasonableness. The resultant growth rates differ by interchange or location in the corridor for the greater Pocatello area. On average, the growth rate is expected to be about 35 percent between 2008 and 2030.

Traffic volumes were entered into interchange Synchro models (Trafficware, 2007) and a Pocatello-area VISSIM model (PTV Corporation, 2008) to analyze traffic operations including traffic flow and LOS.

4.2 Future Baseline Transportation Conditions

This section addresses Year 2030 future baseline transportation conditions including roadway facilities, traffic conditions including LOS, and safety, including accident risk assessment. This information was used to identify future-year operating deficiencies.

4.2.1 Overview of Future Roadway

I-15 and I-86 are both interstate highways with two traffic lanes in each direction. Through Pocatello, I-15 has sections with auxiliary lanes. Based on the 2009-2013 State Transportation Implementation Plan (STIP), there are very few capacity improvements planned in the corridor. The planned improvements would be considered major safety improvements. The only capacity improvement programmed is an auxiliary lane project which adds a continuous lane between I-86 at US-91/Chubbuck eastbound through the I-15/I-86 Wye, with the lane continuing onto I-15 southbound and ending at Pocatello Creek Road. This project is under construction.

Other improvements included in the baseline 2030 network include:

- Reconstruction of the east American Falls interchange (Pocatello Avenue).
- Revisions to the I-15/McCammon interchange (Exit 47).

Most of the STIP improvements are roadway pavement and structural preservation projects that are unlikely to affect LOS or accident rate.

4.2.2 Future Traffic Volumes

Using the methodology described above, year 2030 PM peak hour and daily traffic projections were developed for the Baseline traffic analysis. Resultant 2030 PM peak traffic projections are found in Figures 4-1 through 4-7 on pages 4-10 through 4-16.

Traffic patterns and vehicle mix (vehicle classifications) are expected to be similar to today's operating characteristics:

- I-15 will continue to have higher traffic volumes than I-86. Daily traffic volumes will continue to be highest in the Pocatello area.
- Peak hour volumes comprise 10 to15 percent of the daily traffic in the urban sections of the two corridors, and between 8 and 10 percent of the daily traffic in the rural sections. Peak hour volumes are highest in the Pocatello area on both corridors.
- Volumes will continue to fluctuate by season of the year. Summer volumes will continue to be the highest and winter volumes will continue to be the lowest. Summer volumes tend to be about 10% higher than winter volumes.
- Truck percentages, as a share of the total traffic stream, will be similar to today's.
- I-15 will carry between 17,000 and 40,000 vehicles per day, while I-86 will carry between 9,500 and 30,000 vehicles per day. Traffic volumes are measured in vehicles per average day ("average annual daily traffic" or AADT).

Table 4-1 shows the 2030 traffic volumes on I-15 and I-86 by segment; these volumes are also shown in Figures 4-1 through 4-7. The geographic segments are shown in Figure 1-2 of this report. Table 4-2 shows a more detailed breakout for the Pocatello area. The volume shown is the peak hour for a given direction.

A "sensitivity analysis" was conducted for the Pocatello area. This examined the potential impacts of higher traffic growth rates than assumed in the initial baseline traffic forecasts. The sensitivity analysis increased the baseline traffic volumes by 20 percent and 40 percent and was conducted only for the PM peak hour. Those volumes are shown in Table 4-3.

Table 4-1: I-15 and I-86 – Year 2030 Baseline Traffic Volumes

Segment	PM Peak Hour Volumes for the Peak Direction	Average Daily Traffic	Approximate Percent Large Trucks
I-15 Corridor			
McCammon to Portneuf (MP 45-63)	1,025-1,180	15-17,000	21-22%
Portneuf to I-86/I-15 "Wye" (MP 63-72)	1,190-2,430	25-40,000	11%
I-86/I-15 "Wye" to South Blackfoot (MP 72-89)	1,245-2,160	25-30,000	11%
South Blackfoot to York Road (MP 89-113)	1,150-1,215	22-24,000	13-18%
I-86 Corridor			
American Falls area (MP 35-40)	555-670	9,500	30-33%
East American Falls interchange to Airport (MP 40-56)	870-890	13,000	23-24%
Airport to I-15/I-86 "Wye" (MP 56-63)	890-1,185[19]	16,000 - 22,000	13-23%

Table 4-2: Pocatello Metropolitan Area - Year 2030 Baseline Traffic Volumes

Segment	PM Peak Hour Volumes for the Peak Direction	Average Daily Traffic	Approximate Percent Large Trucks
I-15 Corridor			
Portneuf to South 5th Ave (MP 63-67)	1,190	25,000	11-13%
South 5th Ave to Center Street (MP 67-69)	1,220	26,000	11%
Center Street to I-15/I-86 "Wye" (MP 69-72)	2,230	40,000	11%
I-15/I-86 "Wye" to new Siphon Road interchange (MP 72-73)	2,160	26,000	11-13%
I-86 Corridor			
Airport to West Pocatello (MP 56-58)	915	16,300	23-24%
West Pocatello to US-91/Yellowstone Ave. (MP 58-61)	910	16,000	20-23%
US-91 to I-15/I-86 "Wye" (MP 61-63)	1,185	22,000	13-23%

[19] This volume is slightly less than current volumes on the section between I-15 and Yellowstone Avenue, reflecting he Siphon Road interchange diverting traffic away from this segment.

Table 4-3: Pocatello Metropolitan Area – Year 2030 Sensitivity Analysis PM Peak Traffic Volumes

Segment	Baseline PM Peak	PM Peak plus 20%	PM Peak plus 40%
I-15 Corridor			
Portneuf to South 5th Ave (MP 63-67)	1,190	1,430	1,670
South 5th Ave to Center Street (MP 67-69)	1,220	1,460	1,710
Center Street to I-15/I-86 "Wye" (MP 69-72)	2,230	2,680	3,120
I-15/I-86 "Wye" to new Siphon Road interchange (MP 72-73)	2,160	2,600	3,020
I-86 Corridor			
Airport to West Pocatello (MP 56-58)	915	1,100	1,280
West Pocatello to US-91/Yellowstone Ave. (MP 58-61)	910	1,090	1,270
US-91 to I-15/I-86 "Wye" (MP 61-63)	1,185	1,420	1,660

4.3 Year 2030 Baseline Intersection Operations

4.3.1 Future Level-of-Service

Existing volumes were input into the Highway Capacity software (HCS: McTrans, 2003) to estimate current LOS. Capacity analyses were performed for representative I-15 and I-86 freeway segments and for 38 intersections using the PM peak hour traffic counts or estimates generated using ITD's traffic data.

Freeway Level-of-Service Methodology

Freeway LOS was measured by applying results of the VISSIM and Highway Capacity Software modeling to Highway Capacity Manual (HCM 2000, Transportation Research Board. 2000) lookup tables. Freeway LOS is based on overall traffic volumes and presence of trucks, RVs and buses in the traffic stream; roadway characteristics including lane widths, grades, and shoulder widths; vehicle densities (vehicles per lane per hour for each freeway mile studied), and free-flow speeds (roughly, the posted speed limit). The HCM 2000 lookup tables factor in resultant speed and density from the traffic models to estimate LOS.

Ramp Intersection LOS Methodology

Intersection LOS is based on overall traffic volumes and several other factors, including: presence of trucks, RVs and buses in the traffic stream, intersection characteristics, signalization, pedestrians, bike usage, turning lanes and geometry including lane widths, grades, and shoulder widths, and amount of traffic entering the intersection from each direction.

HCM 2000 LOS for ramp intersections is based on delay in seconds per vehicle (called "control delay"); LOS categories are defined differently depending on whether the intersection is signalized or not. The Synchro/SimTraffic traffic models were used to evaluate ramp intersection LOS and queuing for the ramps and the intersecting roadways. For unsignalized intersections, the two-way stop control methodology was used since all of the unsignalized ramp intersections utilize this traffic control (as opposed to all-way stop or roundabout control).

Queuing is the line of vehicles waiting at an intersection. Queuing was measured using the 95th percentile queue reports from Synchro and its traffic simulation companion, SimTraffic. The 95th percentile queue refers to the maximum traffic queue length for 95 percent of the time during a one-hour period. Traffic engineers use the 95th percentile queue to design turn lane lengths to ensure that most of the time (95

percent) the turn lane will adequately store the expected traffic queue without intruding onto the freeway or arterial mainline of traffic.

For freeway off-ramps, the ramp and any corresponding deceleration lanes need to be long enough so that a vehicle exiting the freeway at the posted speed can decelerate to a stop without running into the back of the traffic queue.

Results of the Analysis – Freeways

A VISSIM traffic simulation model was developed for the I-15 and I-86 corridor segments through the Pocatello area. The model was run using 2030 PM baseline peak hour volumes and as those included in the sensitivity analysis. The operations analysis resulted in the following:

- Freeway near the I-86/US-91 interchange will experience traffic operations issues due to ramp queuing at the off-ramps to US-91.
- Some traffic congestion exists in the I-15 corridor from the South 5th Avenue interchange north to the I-15/I-86 "Wye" interchange. This is due to high volumes of entering vehicles, many of which are trucks, entering the I-15 mainline without standard acceleration tapers or auxiliary lanes.
- Between Pocatello Creek Road and the "Wye" a high number of weaving vehicles adds to traffic congestion.

I-86 west of the Pocatello Airport will continue to operate at near free-flow speeds in the 2030 peak periods. Between the Pocatello Airport and Yellowstone Avenue, congestion will increase and speeds will decrease; however, the freeway will continue to operate at LOS B conditions. Between Yellowstone Avenue and the "Wye" speeds will decrease (LOS C) due to higher traffic volumes and vehicles maneuvering on I-86 to either take I-15 north or south at the "Wye". The current project to add an auxiliary lane in each direction to I-86 in the segment between I-15 and US-91/Yellowstone Avenue will relieve traffic congestion. Without this project, it is likely congestion would worsen to LOS D conditions. There is some noticeable queuing on the US-91 eastbound and westbound off-ramps that spills back toward the I-86 mainline, impacting traffic operations on I-86 approaching both off-ramps. This situation is worse in the eastbound direction as the current project will not improve I-86 approaching the eastbound off-ramp to US-91/Yellowstone Avenue.

Table 4-4 summarizes future freeway segment LOS and each segment is shown in Figures 4-1 through 4-7.

Table 4-4: Future Baseline (2030) Freeway LOS

Segment	Peak Hour Speed	Vehicle Density	LOS
I-15 Corridor			
McCammon to Portneuf (MP 45-63)	71	12	A-B
Portneuf to South 5th Ave (MP 63-67)	66	12	B
South 5th Ave to Center Street (MP 67-69)+	63	17	C
Center Street to I-15/I-86 "Wye" (MP 69-72)+	46-50	25-40	D
I-15/I-86 "Wye" to new Siphon Road interchange (MP 72-73)+	63	18-20	C
Siphon Road to South Blackfoot (MP 73-89)	66-70	15	A-B
South Blackfoot to York Road (MP 89-113)	66-72	15	B

Segment	Peak Hour Speed	Vehicle Density	LOS
I-86 Corridor			
American Falls area (MP 35-40)	71-75	6	A
East American Falls interchange to Airport (MP 40-56)	66-70	8	A
Airport to West Pocatello (MP 56-58)+	64-66	17-20	B
West Pocatello to US-91/Yellowstone Ave. (MP 58-61)+	64-65	15-21	B
US-91 to I-15/I-86 "Wye" (MP 61-63)+	54-62	21-27	C

+LOS based on speeds and densities resulting from VISSIM modeling.

Table 4-5 summarizes ramp intersection levels of service for the I-15 and I-86 corridors. These are also shown in Figures 4-1 through 4-7[20].

Table 4-5: Future Baseline (2030) Intersection Levels of Service – I-15 and I-86 Corridors

Interchange	Intersection	Context	LOS	Delay (Sec/Veh)	ITD LOS Standard	Deficient?
Segment #1 (I-15)						
McCammon Interchange (Exit 47)	Highway 30 and I-15 NB ramps	Rural	B	11	C	No
	Highway 30 and I-15 SB ramps (McCammon Interchange Exit 47)	Rural	B	12	C	No
Inkom Interchange (Exit 57)	Old Highway 91 directional ramps	Rural	A	N/A[21]	N/A	N/A
Inkom Interchange (Exit 58)	Grand Avenue & Old Highway 91 and I-15 SB ramp	Rural	A	9	C	No
Portneuf Interchange (Exit 63)	Old Highway 91/Portneuf Road NB Ramps	Rural	B	10	C	No
	Old Highway 91/Portneuf Road SB Ramps	Rural	A	9	C	No
Segment #2 (I-15)						
South 5th Interchange (Exit 67)	South 5th Avenue NB Ramps	Urban	E	38	C	Yes (1)
	South 5th Avenue SB Ramps	Urban	C	21	C	Yes (1)
Center Street Interchange (Exit 69)*	Center Street NB Ramps	Urban	C	22	C	No
	Center Street SB Ramps	Urban	B	19	C	No

[20] The "worst case" LOS for each of the ramp intersections is shown in the figures for each interchange.

[21] Not Applicable. Ramps are direction and free-flowing. Traditional Highway Capacity manual intersection LOS does not apply.

Interchange	Intersection	Context	LOS	Delay (Sec/Veh)	ITD LOS Standard	Deficient?
Pocatello Creek Interchange (Exit 71)*	Pocatello Creek Road NB Ramps	Urban	B	18	C	No
	Pocatello Creek Road SB Ramps	Urban	C	21	C	Queuing (2)
(New) Syphon Road Interchange (Exit 73)*	Syphon Road NB Ramps	Urban	C	25	C	No
	Syphon Road SB Ramps	Urban	C	23	C	Queuing (2)
Segment #3 (I-15)						
Fort Hall Interchange (Exit 80)	Fort Hall road and NB ramps	Rural	C	20	C	Queuing (2)
	Fort Hall Road and SB ramps	Rural	B	13	C	No
South Blackfoot Interchange (Exit 89)	Highway 91 and NB ramps	Rural	E	47	C	Yes
	Highway 91 and SB ramps	Rural	C	17	C	No
Segment #4 (I-15)						
Blackfoot Interchange (Exit 93)*	Bergener Blvd and NB ramps	Urban	B	11	C	No
	Bergener Blvd and SB ramps	Urban	C	26	C	Queuing (2)
Rose Interchange (Exit 98)	River Road and NB ramps	Rural	A	10	C	No
	River Road and SB ramps	Rural	A	10	C	No
Shelley Interchange (Exit 108)	E 1250 North and NB ramps	Rural	A	10	C	No
	E 1250 North and SB ramps	Rural	B	11	C	No
York Road Interchange (Exit 113)	York Road and NB ramps	Rural	C	16	C	No
	York Road and SB ramps	Rural	F	117	C	Yes
Segment #5 (I-86)						
West American Falls Interchange (Exit 36)	I-86 Business Loop and EB ramps	Rural	B	12	C	No
	I-86 Business Loop and WB ramps	Rural	B	12	C	No
East American Falls Interchange (Exit 40)	Pocatello Ave and EB ramps (Exit 40)	Urban	C	17	C	No
	Pocatello Ave and WB ramps (Exit 40)	Urban	B	11	C	No
Segment #6 (I-86)						
Ramsey Road Interchange (Exit 44)	Ramsey Road and EB ramps	Rural	A	9	C	No
	Ramsey Road and WB ramps	Rural	A	10	C	No
Rainbow Interchange (Exit 49)	Gas Plant Road and EB ramps	Rural	A	9	C	No
	Gas Plant Road and WB ramps	Rural	A	9	C	No
Arbon Valley Interchange (Exit 53)	Arbon Valley Road and EB ramps	Rural	A	9	C	No
	Arbon Valley Road and WB ramps	Rural	A	9.8	C	No

Interchange	Intersection	Context	LOS	Delay (Sec/Veh)	ITD LOS Standard	Deficient?
Segment #7 (I-86)						
Airport Interchange (Exit 56)	Pocatello Airport and EB ramps	Rural	A	9	C	No
	Pocatello Airport and WB ramps	Rural	A	9	C	No
West Pocatello Interchange (Exit 58)*	US 30 and EB ramps	Rural	B	12	C	No
	US 30 and WB ramps	Rural	B	15	C	No
US 91/I-86 Interchange (Exit 61)*	US 91 and EB ramps	Urban	C	29	C	Ramp queuing (3)
	US 91 and WB ramps	Urban	C	26	C	Ramp queuing (3)

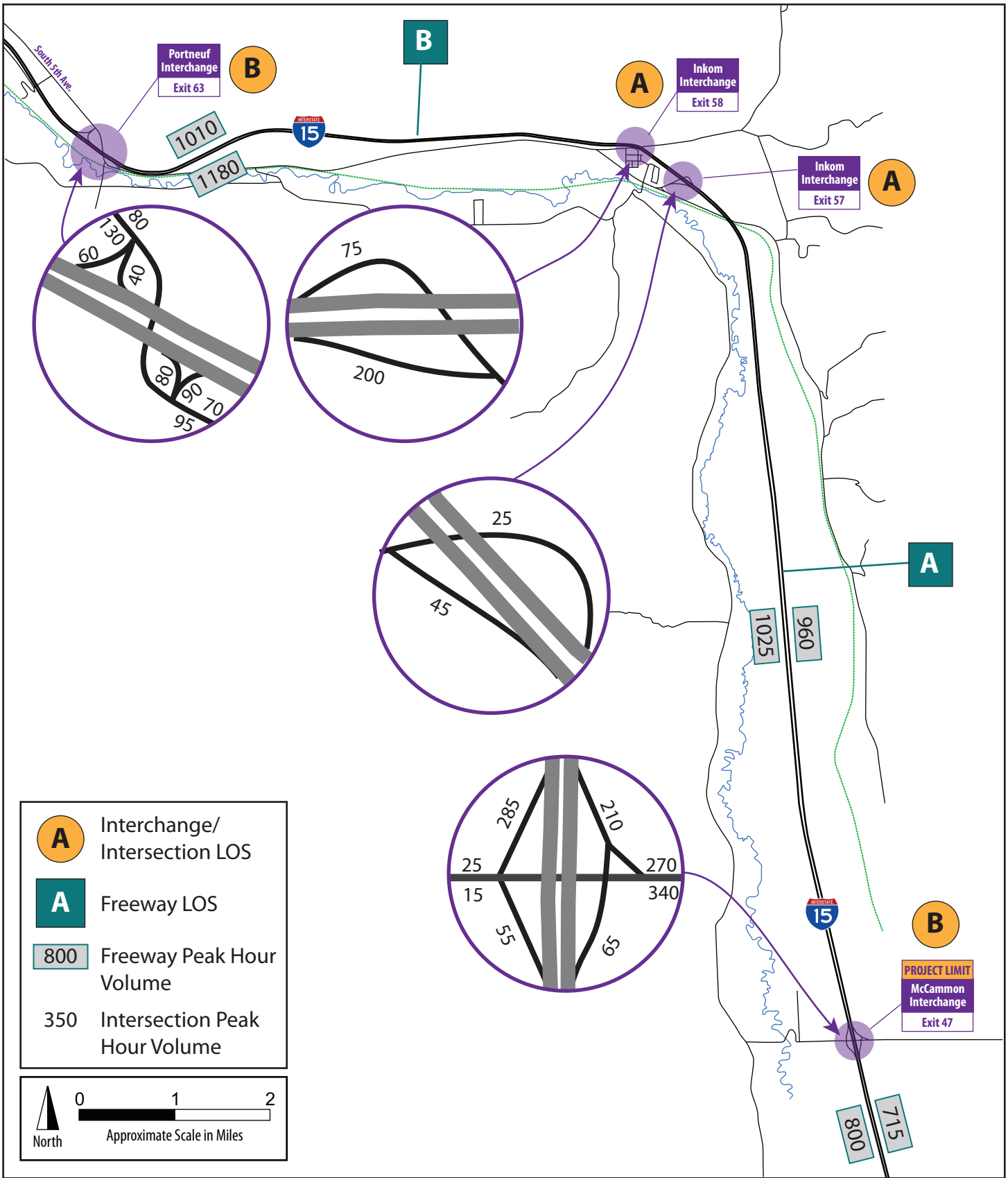
* Signalized intersections are noted with an asterisk. All other intersections are unsignalized. Their LOS is recorded based on the nearest side intersection's worst movement LOS.

N/A = Directional ramps which are free-flowing; intersection LOS does not apply.

(1) Will likely be deficient in the AM peak period due to level-of-service.

(2) Although the LOS is not deficient, the traffic simulation model indicates the off-ramp will queue toward the I-15 mainline, resulting in substandard stopping distance for vehicles exiting I-15 and trying to stop before meeting the end of the queue.

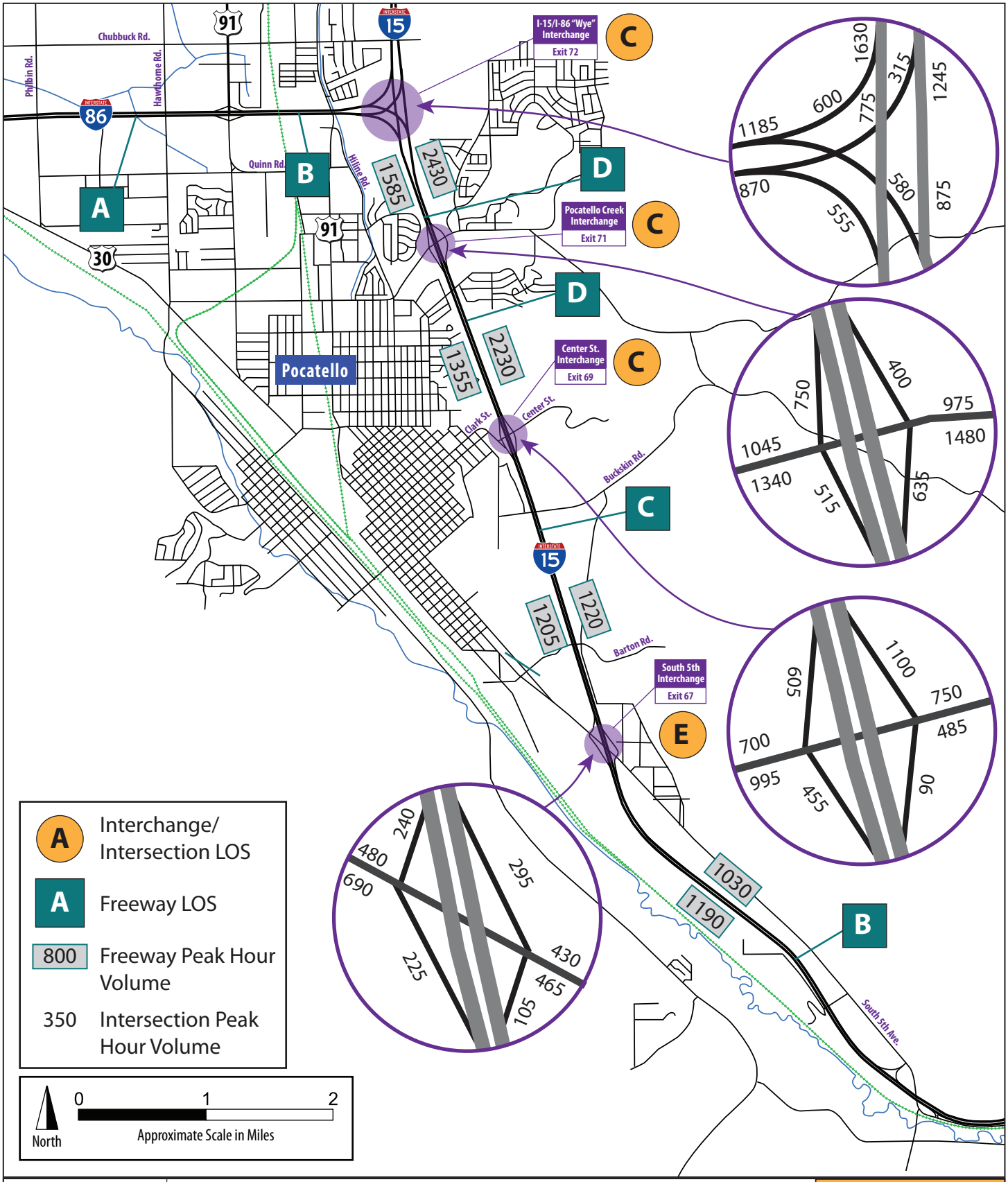
(3) Although the LOS is not deficient, the traffic simulation model indicates the off-ramp will queue toward the I-86 mainline, resulting in substandard stopping distance for vehicles exiting I-86 and trying to stop before meeting the end of the queue.



Project Number A009(884), Key #09884

I-15 / I-86 Corridor Plan

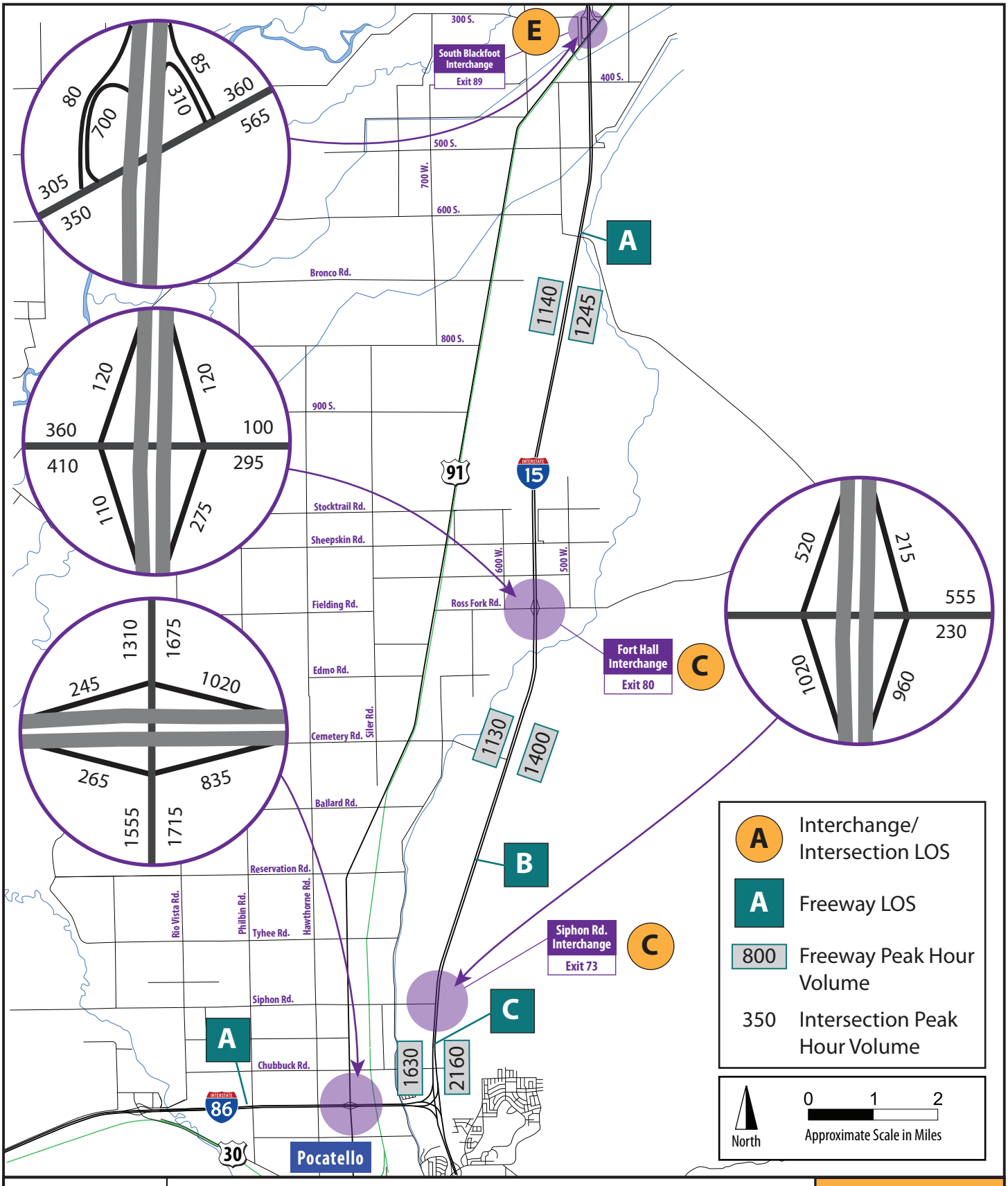
Date	Figure Title	Figure Number
March 2011	**I-15 | 2030 LEVEL-OF-SERVICE & TRAFFIC VOLUMES** PM PEAK SERVICE HOUR **McCammon-Portneuf**	4-1



Project Number A009(884), Key #09884

I-15 / I-86 Corridor Plan

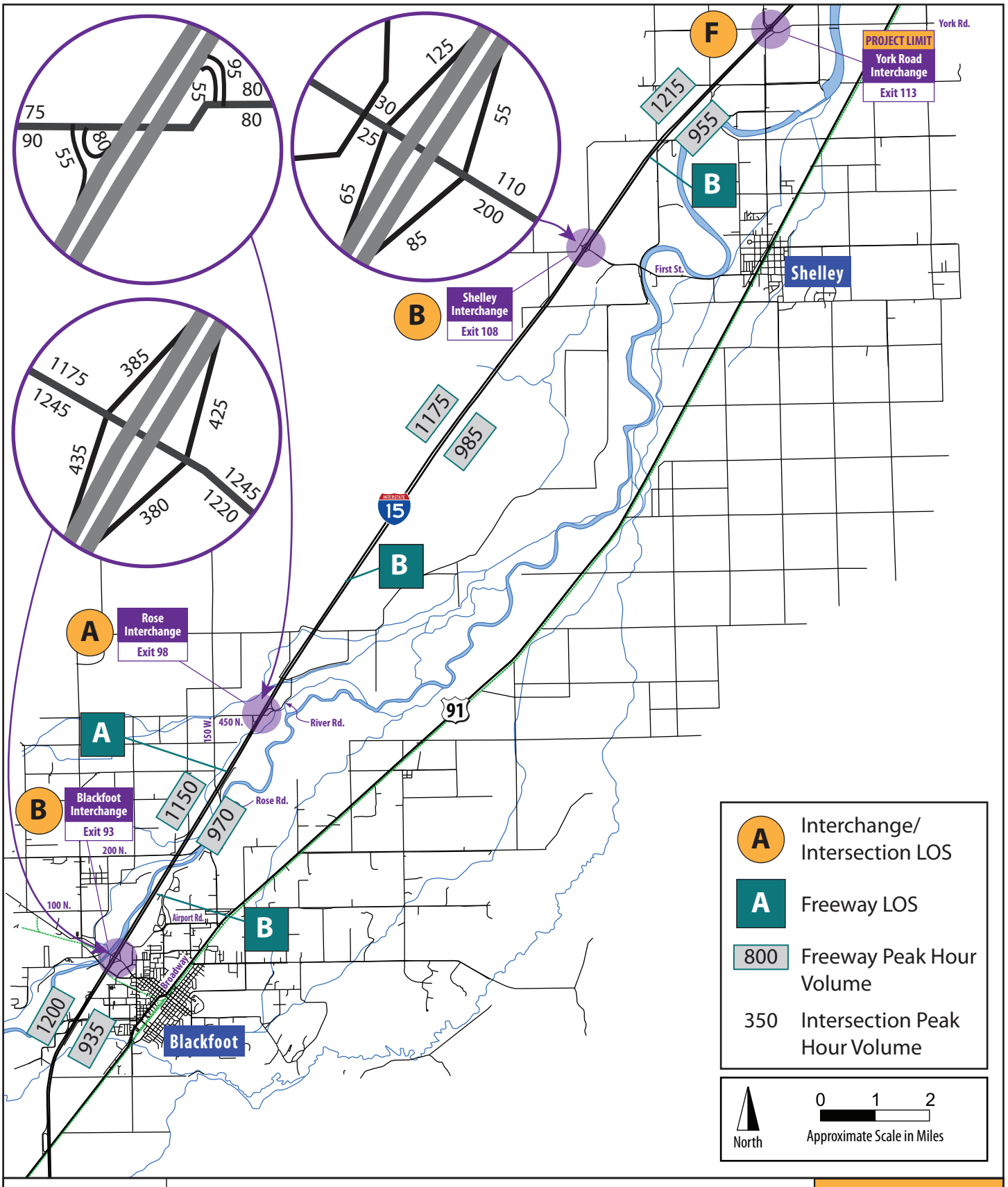
Date	Figure Title	Figure Number
March 2011	**I-15 | 2030 LEVEL-OF-SERVICE & TRAFFIC VOLUMES** PM PEAK SERVICE HOUR **Portneuf to "Wye" Interchange**	4-2



Project Number A009(884), Key #09884

I-15 / I-86 Corridor Plan

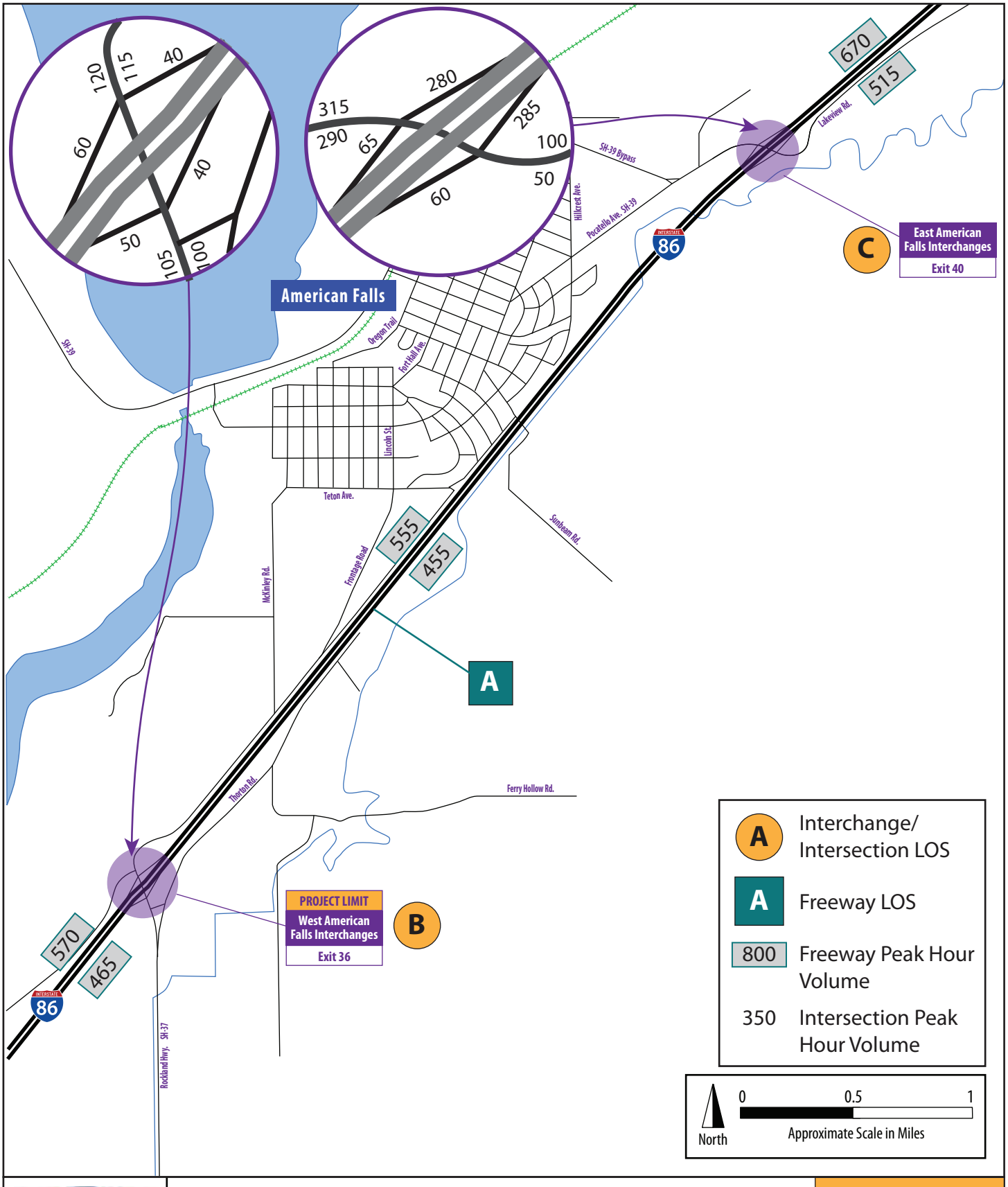
Date	Figure Title	Figure Number
March 2011	**I-15 | 2030 LEVEL-OF-SERVICE & TRAFFIC VOLUMES** PM PEAK SERVICE HOUR **"Wye" Interchange to South Blackfoot**	4-3



Project Number A009(884), Key #09884

I-15 / I-86 Corridor Plan

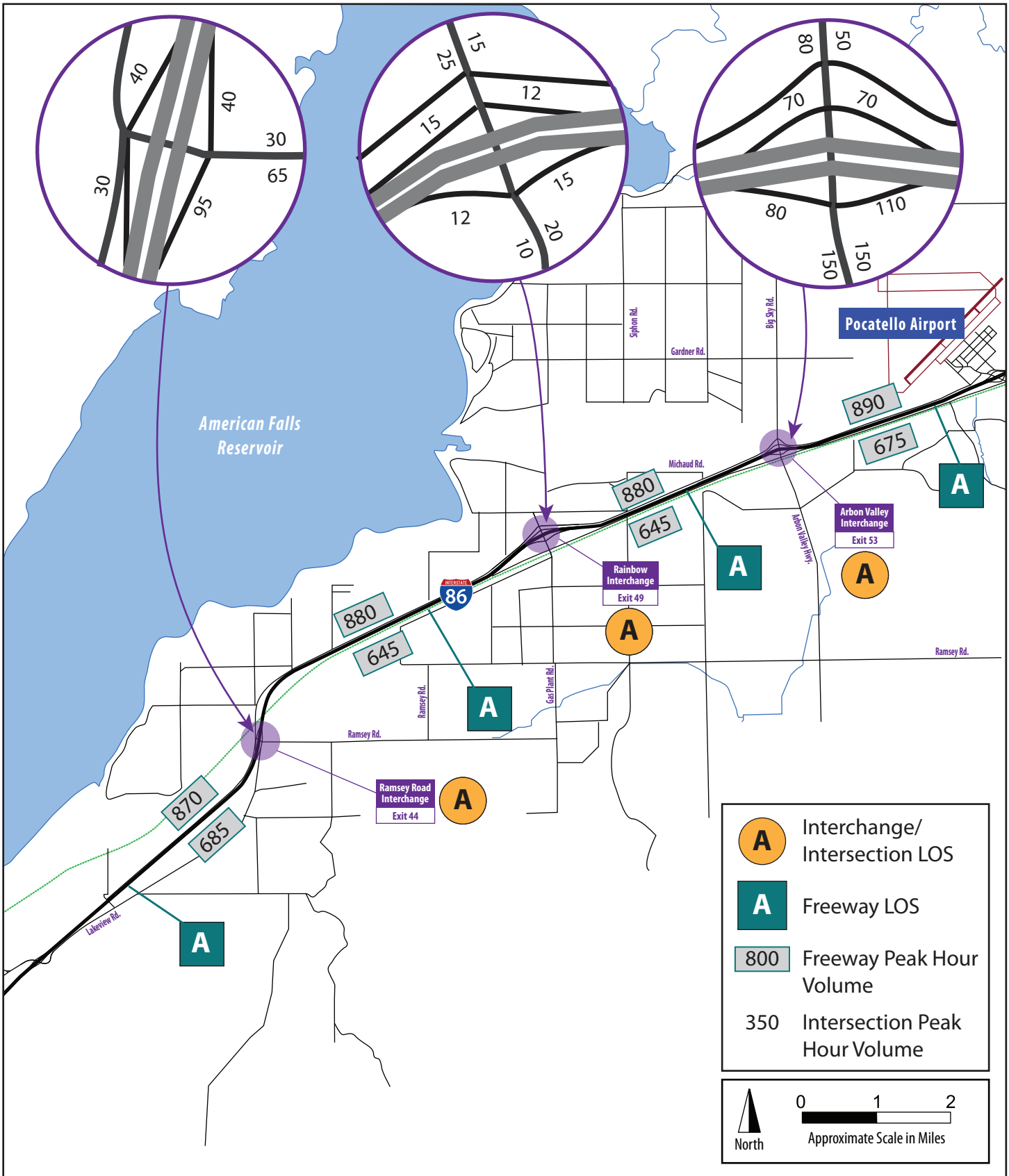
Date	Figure Title	Figure Number
March 2011	**I-15 | 2030 LEVEL-OF-SERVICE & TRAFFIC VOLUMES** PM PEAK SERVICE HOUR **South Blackfoot to York Road**	4-4



Project Number A009(884), Key #09884

I-15 / I-86 Corridor Plan

Date	Figure Title	Figure Number
March 2011	**I-86 | 2030 LEVEL-OF-SERVICE & TRAFFIC VOLUMES** PM PEAK SERVICE HOUR **American Falls**	4-5

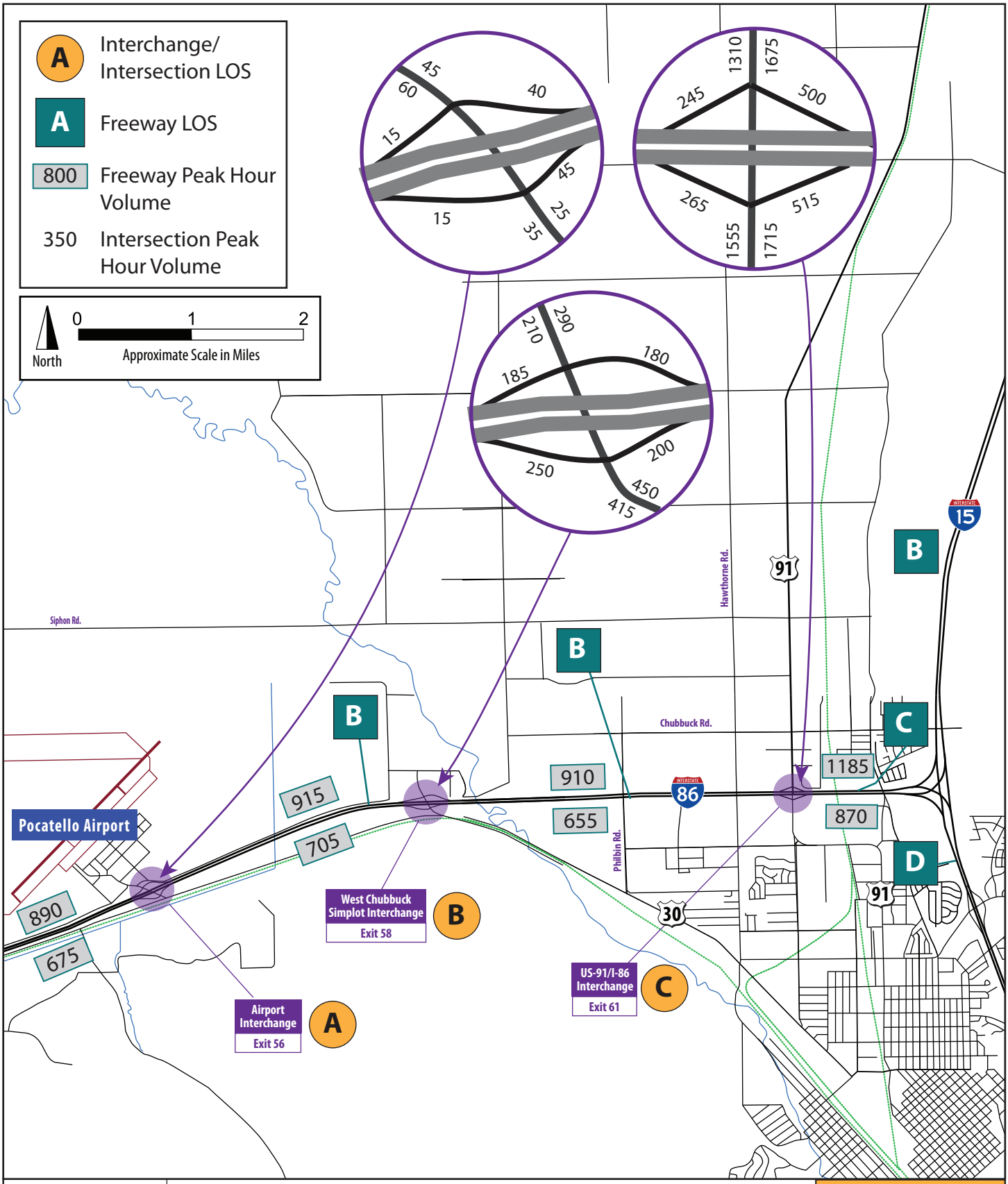


Project Number A009(884), Key #09884

I-15 & I-86 Corridor Plan

Date	Figure Title	Figure Number
March 2011	**I-86 | 2030 LEVEL-OF-SERVICE & TRAFFIC VOLUMES** PM PEAK SERVICE HOUR	4-6

East American Falls Interchange to Airport



Project Number A009(884), Key #09884

I-15 & I-86 Corridor Study

Date	Figure Title	Figure Number
March 2011	**I-86 | 2030 LEVEL-OF-SERVICE & TRAFFIC VOLUMES** PM PEAK SERVICE HOUR **Airport to "Wye" Interchange**	4-7

4.4 Operational Deficiencies

Based on the above analysis, the following freeway segments will exhibit deficient LOS in 2030:

- I-15 in both directions between the South 5th Avenue interchange and the "Wye".
- I-86 approaching the US-91/Yellowstone Avenue off ramps in both eastbound and westbound directions.

Based on the sensitivity analysis under the PM Peak plus 20% volume, the mainline section on I-15 between South 5th Avenue and the "Wye" will be at LOS E conditions.

The following ramp intersections will also fall below ITD's LOS standard by 2030:

- I-15 at the South 5th Avenue interchange (northbound and southbound ramps).
- I-15 northbound ramps at US-91 (South Blackfoot: Exit 89; LOS E during peak hours).
- I-15 southbound ramps at York Road (Exit 113; LOS F during peak hours).

The following ramp intersections will also still meet ITD's LOS standard by 2030. However, the expected ramp queuing (95th percentile) will be long enough that the ramp length (plus deceleration lane length) may not be sufficient to enable a vehicle exiting the freeway to come to a complete stop before potentially running into the back of the queue:

- I-15 southbound off-ramp to Pocatello Creek Road.
- I-15 southbound off-ramp to Syphon Road.
- I-15 northbound ramps at Fort Hall (Exit 80).
- I-15 southbound ramps at Bergener Boulevard (Exit 93).
- I-86 eastbound and westbound ramps at Yellowstone Avenue/US-91 (Exit 61), which also affects I-86 mainline traffic operations near the exit ramps.

4.5 Safety

There are currently no identified high accident corridors on either I-15 or I-86 within the project limits. Based on the review of the Year 2030 traffic operations analysis above, it is unlikely the growth in traffic itself, or the additional congestion that comes with it, would cause any segments of the corridor to become high accident corridors.

However, the specific locations noted above where the ramp LOS, or ramp queuing, were identified as deficient have a moderate potential to become individual high accident locations without improvements to correct those deficiencies. In these instances, ramp queuing could occur that would result in vehicle queues on the ramp itself starting to back up toward the I-86 or I-15 mainline. In these circumstances, studies have shown that longer queues increase the potential for rear-end accidents caused by vehicles exiting the freeway. This is due to vehicles not having sufficient distance to come to a complete stop before running into the back of the traffic queue.

The section of I-15 between Portneuf and the I-15/I-86 "Wye" also has a moderate potential of experiencing an increased accident rate. The freeway mainline in that segment is projected to be LOS D, which impedes the ability of vehicles to enter I-15 from on-ramps, and also constrains the ability to change lanes. This in turn results in a moderate potential of increasing the number of rear-end or sideswipe accidents on I-15.

5.0 Environmental Scan

An environmental scan was conducted for the I-15/I-86 Corridor Plan study area to characterize existing environmental conditions and determine whether there are significant environmental resources that could influence transportation improvement options considered as part of the corridor plan. This chapter discusses many environmental aspects of the corridor

5.1 Climate

The climate of the I-15/I-86 study area is moderate with cold winters, warm summers, and low levels of annual precipitation. The average yearly temperature ranges from about 59° F in the Fort Hall area to 47° F in Pocatello, to 60° F in American Falls and 45° F in McCammon[22]. The average minimum temperature is about 32° F. Average temperatures range from lows of 14 to 15 ° F to 33° F in January, to highs of 88° F in July.

Annual precipitation in the study area is low at 11 inches per year in the Fort Hall area, 16 inches in McCammon and 9 inches in Idaho Falls[23]. Snowfall averages about 23 inches in the Fort Hall and Blackfoot areas but up to 35 inches in the Idaho Falls area at the north end of the corridor and 53 inches in the central area of Pocatello. Average snow depths are between two to five inches.

5.2 Topography and Geology

The study area is dominated by relatively flat topography between McCammon and Inkom, with basalt cliffs and Marsh Creek to the west of I-15, then varied topography with some steep slopes through the central part of the study area through Inkom and the Portneuf River floodplain near I-15. The urbanized area of Pocatello adjacent to I-15 is mostly comprised of gentle to slightly steep elevation changes. It transitions to the relatively flat topography of the Snake River floodplain and terraces formed along the rivers north of Pocatello. West of the "Wye" junction of I-15 and I-86 the project area is gently sloping westward toward American Falls. The southern shore of the American Falls Reservoir roughly parallels I-86 and is approximately .75 to 1.5 miles from I-86 from MP 58 to MP 40.

The elevation across the project ranges from approximately 4,783 feet (above sea level) near McCammon and 4,450 feet at American Falls to 4,462 feet in Pocatello and about 4,700 feet at the northern end of I-15 just south of Idaho Falls.

I-15 in the study area is adjacent to the Portneuf River in the southern portion of the study area, skirts the foothills of the Pocatello Bench roughly along the 4,600 foot contour and crosses north-south at approximately right angles to intermittent drainages through the central portion. I-86 skirts south of the American Falls Reservoir and remnants of the Snake River floodplain in the western portion of the study area. I-15 traverses a river terrace formed generally north of Pocatello toward Idaho Falls, above the present day flood plain on the west bank of the Snake River.[24] This terrace was deposited during the Holocene to Upper Pleistocene periods[25]. The native subsurface soils generally consist of sandy silt or silty

[22] Western Regional Climate Center, www.wrcc.dri.edu
[23] Weatherbase, http://www.weatherbase.com/weather/weather.php3?s=87527&refer
http://www.weatherbase.com/weather/city.php3?c=US&s=ID&refer
[24] Idaho Transportation Department, *Phase 1 Materials Report and Geologic Reconnaissance*, August 2005
[25] Scott, W.E., *Surficial Map of the Eastern Snake River Plain and Adjacent Areas, 111° to 115° West, Idaho and Wyoming*, United States Geological Survey, MAP I-1372, 1982

sand overlying gravel that is covered by basalt bedrock. These soils generally constitute a two to four foot stratum overlying dense gravels and gravelly sand soils.

The Snake River plain is not considered to be seismically active although the areas along its borders have active faults. One mapped active fault is located south of Pocatello within the study area. Scout Mountain Fault is classified as a Lesser Tertiary fault. I-15 only crosses the fault perpendicularly near MP 63[26].

5.3 Soils and Farmlands

Soils within the corridor study area have been characterized by the Natural Resources Conservation Service (NRCS) of the United States Department of Agriculture (USDA). NRCS refers to the portion of the I-15 Corridor study area from the "Wye" to Blackfoot and along I-86 from MP 58 to MP 44 as the Fort Hall Area, encompassing portions of Bannock, Bingham, and Power Counties. Based on a soil survey released in 1977[27], the soils of the Fort Hall Area include large areas of sandy eolian and alluvial deposits on the low plateaus and alluvial fans and terraces in the Fort Hall community and lower Blackfoot River areas. The predominant soils that formed are Quincy, Feltham, Tindahay, and Escalante soils. The sandy materials have been blown from alluvial terraces along the Snake and Blackfoot Rivers and from the areas near the mouth of other streams and creeks. The alluvial deposit consists of thick strata of water worn gravel of mixed lithology underlay or sandy alluvium.

The Bingham Area Soil Survey[28] indicates that soils in the Bingham County area of I-15 also reflect alluvial deposits. The area is bisected by the Snake River and the Blackfoot River. These two rivers have formed smooth, nearly flat alluvial terraces. East and west of the terraces is a mantle of loess covering the irregular basalt flows. Deposits consist of deep beds of water worn gravel, overlain by loamy or sandy alluvium. Bannock, Bock, Hayeston, Heiseton, and Packham series are the main soils whose parent material is mostly of Snake River origin. Soils of Blackfoot, Wapello, Firth and Stan series have been influenced by deposits from the Blackfoot River.

The then Soil Conservation Service of the U.S. Department of Agriculture also conducted a soil survey of the Bonneville County Area in 1977[29]. In the vicinity of I-15, alluvial soils were deposited as wide, nearly level terraces by the Snake River and its tributaries. Most of these deposits are deep beds of water worn gravel that is of mixed origin and is overlain by loamy or sandy alluvium. Typical soils include Bannock, Bock, Harston, Heiseton, and Stan soils deposited by the Snake River.

Prime and unique farmlands are also designated by the Natural Resources Conservation Service. Information obtained from on-line GIS files indicates that much of the lands adjacent to the I-15/I-86 study area are considered prime and unique farmlands. Information was not available for much of the Fort Hall Reservation Area. This area of the I-15/I-86 Corridor likely has soil characteristics similar to those to the prime farmlands that lie immediately adjacent on the east and south sides of Fort Hall Reservation Area.

Should future improvements to I-15 or I-86 impact soils that are classified as prime and unique farmlands or farmlands of local or statewide importance, formal consultation with NRCS will be needed to determine the conversion of these farmlands to a transportation use.

[26] Breckenridge, et. al. *Miocene and Younger Faults in Idaho*. 2003.
[27] Natural Resources Conservation Service (formerly Soil Conservation Service), *Fort Hall, Idaho Soil Survey Report,* March 1977.
[28] Natural Resources Conservation Service (formerly Soil Conservation Service), *Soil Survey Report of Bingham Area*, October 1973.
[29] Soils Conservation Service, U.S. Department of Agriculture, *Soils Survey of the Bonneville Area, Idaho,* July 1981.

5.4 Water Resources

Water resources include floodplains, surface waters, groundwater, wells and wetlands. The possible impacts of improvements to I-15 and I-86 within the study area on water resources are discussed in this section.

5.4.1 Floodplains

Based on FEMA Flood Insurance Rate Maps (FIRMs), within the project area, there are 15 areas along I-15 mapped as "Zone A" floodplains[30]. These areas are within the 100-year floodplain, that is, areas with a probability of flooding greater than 0.01 percent for any given year.

The area between the southern boundary of the Fort Hall Indian Reservation and the Blackfoot River is unmapped for floodplains.

The FEMA Flood Insurance Rate Map (FIRM) shows the extent of the floodplains ending at the eastern edge of the I-15 and I-86 road prisms.

5.4.2 Surface Waters

The I-15/I-86 Corridor study area was historically developed for agriculture and contains an extensive irrigation canal system. I-15 crosses several canals between Pocatello and Idaho Falls. There are also canal crossings along I-86 between MP44 and American Falls (see Figures 5-1 to 5-3). The canals are generally used for irrigation and many are only seasonally inundated. Table 5-1 lists the surface waters (canals) crossed by the project.

Table 5-1: Canal Crossings

Canal	Mile Post (Between)
I-15	
Pocatello Creek	70-71
Fort Hall Main Canal	79-80
Town Lateral	80-81
Trego Lateral	80-81
Gibson Drain/Marlow Lateral	81-82
Gibson Canal	87-88
Ebony Lateral	87-88
North Canal	88-89
Arch Lateral	89-90
Bow Lateral	90-91
Welch Ditch	91-92
Unnamed	91-92
Danskin Canal	94-95

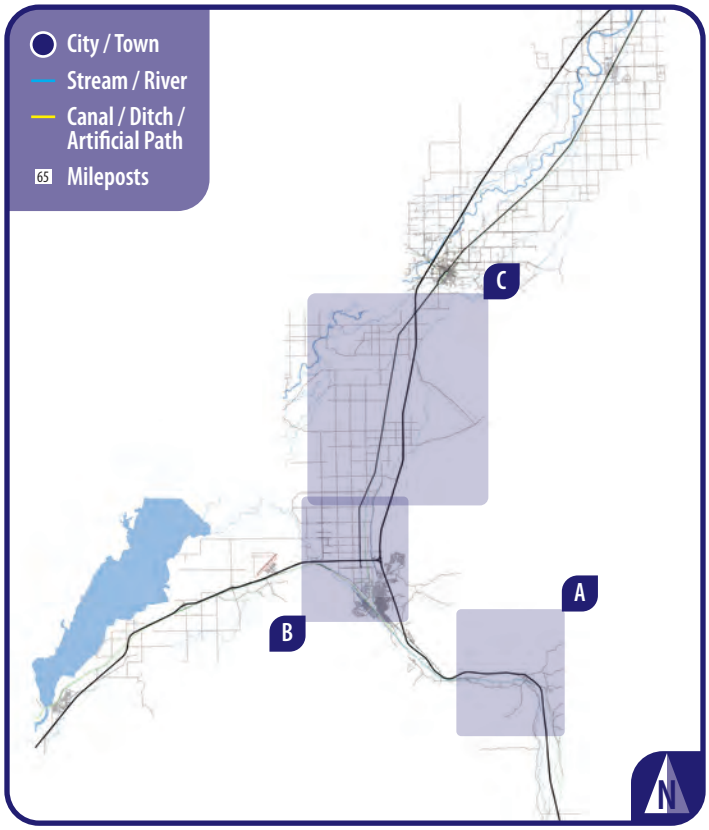
[30] FEMA, Map Service Center. Flood Maps, 1979, 2009

Canal	Mile Post (Between)
New Lavaside Ditch	95-96
Riverside Canal	95-96, 97-98
Aberdeen Springfield Canal	98-99
Peoples Canal	99-100
New Lavaside Ditch	98-99
Great Western Canal	108-109
Unnamed	109-110
Lower Holmes Canal	110-111
Woodville Canal	110-111, 111-112
Unnamed	112-113
I-86	112-113
Fort Hall Main Canal	62
Redman Lateral (2)	61-62, 60-61
Unnamed	59-60
Hayes Lateral	59-60
Targhee Canal	56-57
Unnamed	51-52
Unnamed	43-44
Unnamed	42-43
Unnamed	41-42
Sunbeam Creek	41-42
Main East Canal	39-40
Unnamed	38-39
Unnamed	36-37

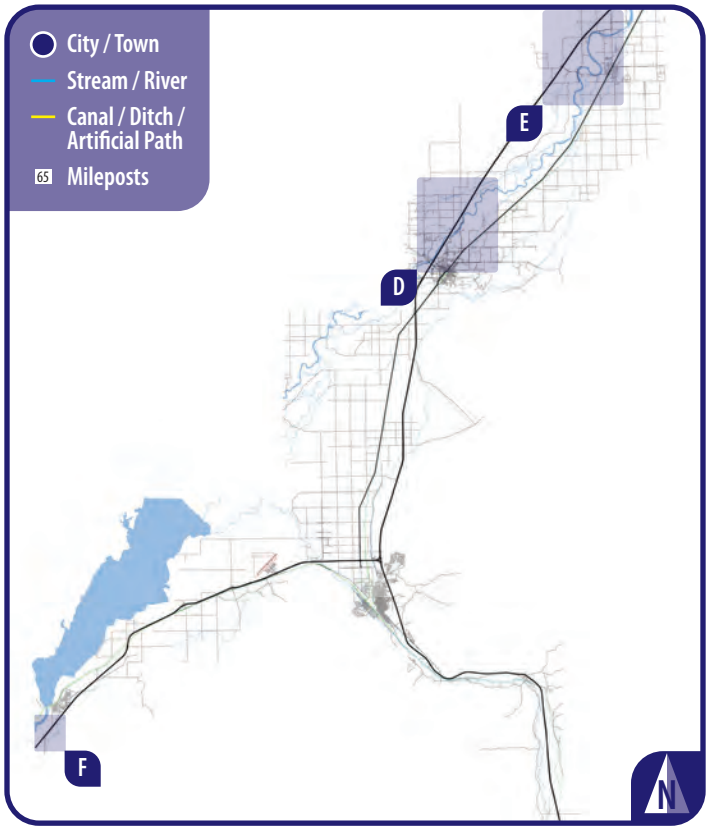
In addition to canals, I-15 and I-86 also cross other surface waters including intermittent and perennial rivers and streams (see Figures 5-1 to 5-3). Those stream crossings are listed in Table 5-2.

Table 5-2: Surface Water Crossings

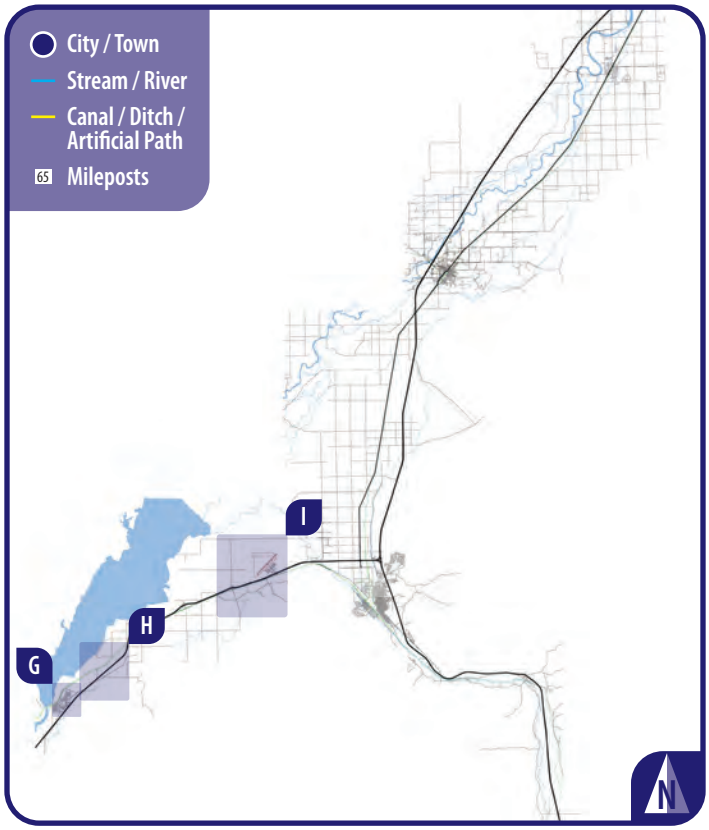
Name	Mile Post (Between)
I-15	
Portneuf River	55-56
Rapid Creek	57-58
Caddy Canyon	59-60
Unnamed	60-61
Blackrock Canyon	61-62
Gully	70-71
Unnamed	72-73
Unnamed	72-73
Little Pocatello Creek	73-74
Buffalo Creek	73-74
Unnamed (2)	74-75
Unnamed	75-76
Unnamed	76-77
Two and a Half Mile Creek	76-77
Ross Creek	79-80
Blackfoot River	90-91
Unnamed	94-95
Snake River	94-95
I-86	
Unnamed	59-60
Portneuf River	58-59
Bannock Creek	51-52
Sunbeam Creek	41-42
Unnamed	38-39



IDAHO TRANSPORTATION DEPARTMENT	*Project Number A009(884), Key #09884*		**I-15 / I-86 Corridor Plan**
	Date March 2011	**Figure Title** SURFACE WATER CROSSINGS Geographic Areas A, B and C	**Figure Number** 5-1



IDAHO TRANSPORTATION DEPARTMENT	*Project Number A009(884), Key #09884*		**I-15 / I-86 Corridor Plan**
	Date March 2011	**Figure Title** SURFACE WATER CROSSINGS Geographic Areas D, E and F	**Figure Number** 5-2



IDAHO TRANSPORTATION DEPARTMENT	*Project Number A009(884), Key #09884*		**I-15 / I-86 Corridor Plan**
Date March 2011	**Figure Title** SURFACE WATER CROSSINGS Geographic Areas G, H and I	**Figure Number** 5-3	

5.4.3 Groundwater

Much of the project area is located in the Eastern Snake River Plain (ESRP) sole source aquifer area[31]. The Snake River flows along part of the southern boundary of the ESRP and is the only drainage that leaves the plain. A high degree of connectivity with the regional aquifer system is displayed over much of the river as it passes through the plain. Regional groundwater flow is to the southwest paralleling the basin[32]. Pocatello and Chubbuck are within the Lower Portneuf River Valley Aquifer.

There are approximately 320 groundwater wells within 0.25 mile of the project (Figure 5-4). These wells are for private, industrial, commercial, irrigation and municipal use.

The City of Pocatello (Public Water System Number 6030043), City of American Falls (Public Water System Number 6390001), City of Chubbuck (Public Water System Number 6030008), City of Blackfoot (Public Water System Number 6060007), City of Idaho Falls (Public Water System Number 7100039), City of Inkom (6030025), and the City of McCammon (6030038)all have community water systems that consists of groundwater source wells located within and around the (the cities) that pump directly into the distribution system.

5.4.4 Wetlands

The U.S. Fish & Wildlife Service's National Wetlands Inventory (NWI) database[33] was the data source for this section. The wetlands identified in Table 5-3 were identified using the NWI data and aerial photography of the project area.

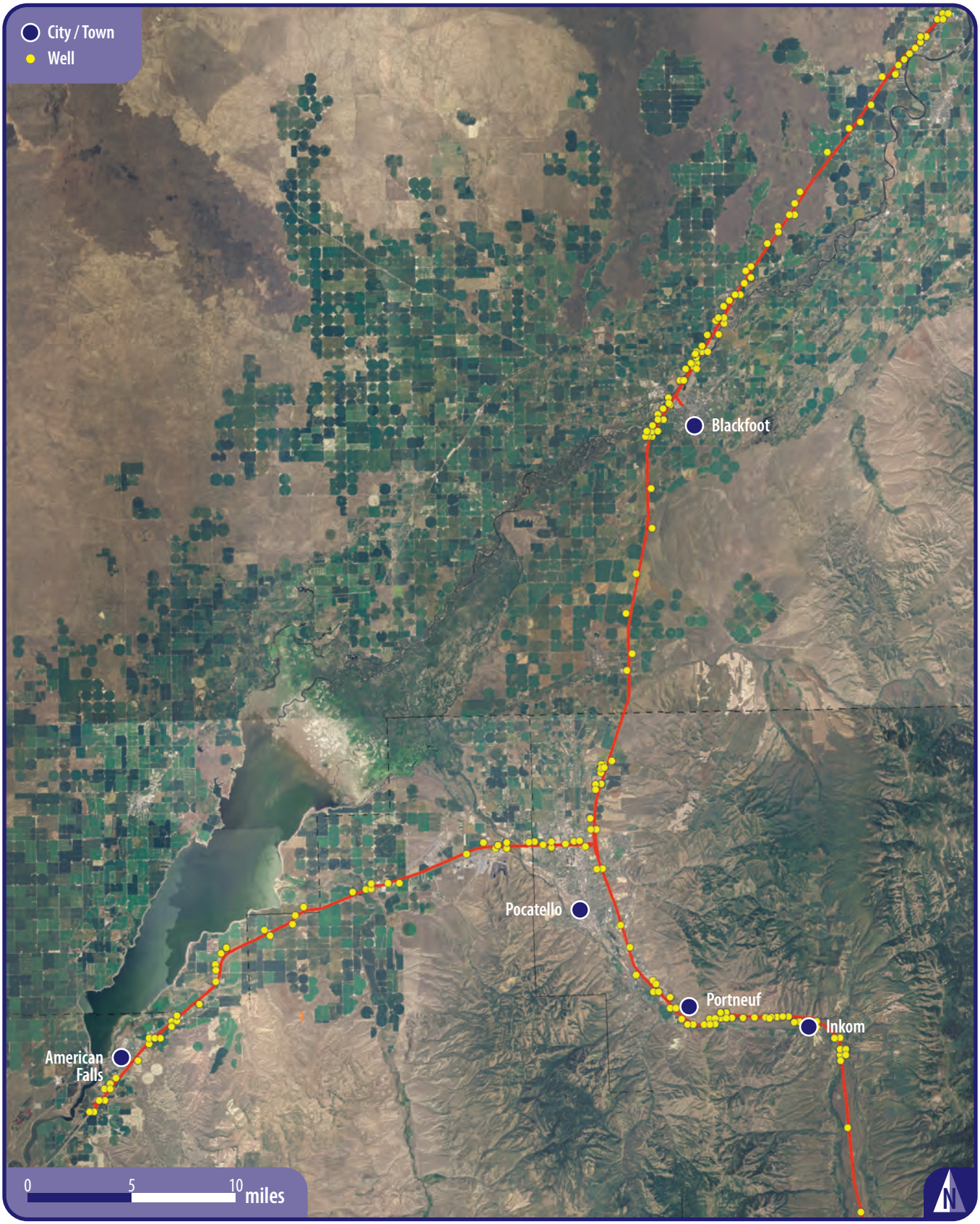
The location of wetlands within approximately 500[34] feet of either side of I-15 and I-86 are shown in Figures 5-5 to 5-8. According to the U.S. Fish and Wildlife Service's (USFWS) National Wetlands Inventory (NWI) database, there are 87 documented wetlands within 500 feet of a road shoulder within the study area. Table 5-3 lists the NWI-documented wetlands from south to north, and west to east, their classification type, and approximate milepost location, size (approximate acres located within 500 feet of road shoulder), and perpendicular distance from either I-15 or I-86.

[31] Brennan T.S., A.K. Lehmann, A.M. Campbell, I. O'Dell, S.E. Beattie. 2002. Water Resources Data, Idaho, 2002. Volume 1. Great Basin and Snake River Basin above King Hill. Water-Data Report ID-02-1

[32] IDEQ (Idaho Department of Environmental Quality). 2002. City of Shelley (PWS 6060071) Source Water Assessment Final Report.

[33] US Fish and Wildlife Service. National Wetlands Inventory. http://www.fws.gov/wetlands/Data/DataDownload.html.

[34] 500 feet was selected as a conservative distance to account for any GIS inaccuracies and to encompass any possible wetland buffer (300 feet maximum).



IDAHO TRANSPORTATION DEPARTMENT	*Project Number A009(884), Key #09884*		I-15 / I-86 Corridor Plan
	Date March 2011	**Figure Title** GROUNDWATER WELLS WITHIN 1/4 MILE OF CORRIDOR	**Figure Number** 5-4

Table 5-3: National Wetland Inventory Wetlands Recorded within 500 feet of Study Area

NWI Wetland	MP	(Potentially) Associated Waters	Approximate Size (acres)	Approximate Distance from I-15 or I-86 (feet)
I-15				
PEM1F	47	--	0.73	20
PEM1C	47	--	1.52	105
PEM1F	47	--	0.87	230
PEM1F	47	--	1.05	30
PEM1C	47	--	0.41	20
PEM1C	47	--	0.26	250
PEM1C	47	--	0.07	460
PEM1A	54	Marsh Creek	5.56	315
PEM1C	54	Marsh Creek	0.31	440
PSS1A	55	Marsh Creek	3.88	195
PSS1C	56	--	0.11	445
PEM1C	56	--	5.41	30
PUBhx	56	--	4.61	150
PSS1C	56	--	2.25	10
PUBH	56	--	0.18	60
PEM1C	57	--	1.71	160
PSS1A	57	--	1	60
PUBHx	58	--	0.35	10
PEM1C	63	Portneuf River	1.63	200
R3UBH	63	Portneuf River	2.30	195
PUBH	64	--	0.23	380
L2UBH	64	--	13.9	340
PEM1C	76	Unnamed stream	0.67	250
R2UBKH	79	Fort Hall Main Canal	5.16	0
PEM1C	80	Trego Lateral	0.6	150
R2UBKHx	86	Fort Hall Main Canal	5.16	120
PEM1F	90	--	0.95	120
R2UBKHx	90	Blackfoot River	8	0
PFO1C	93	Snake River	6.43	60
R3UBH	93	Snake River	45	0
R3USC	93	Snake River	1.47	330
PFO1A	93	Snake River	8.25	130

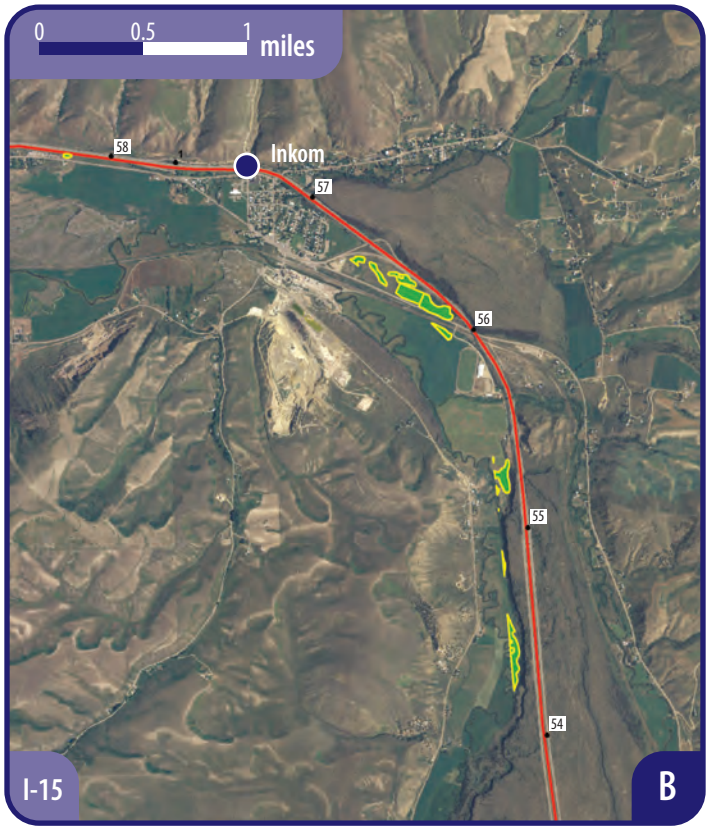
NWI Wetland	MP	(Potentially) Associated Waters	Approximate Size (acres)	Approximate Distance from I-15 or I-86 (feet)
PEM1F	93	Snake River	0.52	290
PUBH	93	Snake River	1.12	0
L1UBHh	93	Snake River	21.05	80
PEM1F	93	Snake River	14.41	0
R3USC	93	Snake River	2.3	340
PUBHh	94	Snake River	3.7	130
PEM1F1	94	Snake River	1.63	117
PEM1C5	94	Snake River	6.22	42
PSS1C	94	Snake River	0.62	0
R3USC	94	Snake River	0.88	370
PUB/EMF1F	94	Snake River	4	75
PSS1C	94	Snake River	1.35	350
R3USA	94	Snake River	3.24	15
R3USA	95	Snake River	1.5	0
R3USA	95	Snake River	0.07	0
PUBF	96	--	0.66	0
R2UBKHx	98	Aberdeen Springfield Canal	2.39	0
PUBFx	98	--	0.19	35
PEM1Fx	106	--	0.37	0
PEM1F	109	--	0.91	70
I-86				
PUBHx	38	Main West Canal	0.71	105
PUBFh	39	Main East Canal	0.32	30
PEM1Ad	43	--	2.43	250
PEM1C	43	--	0.29	85
PEM1F	44	--	0.21	380
PUBHx	44	--	0.04	430
PEM1A	44	--	1.15	210
PEM1F	52	Bannock Creek	1.91	345
PUBF	52	Bannock Creek	0.32	315
PEM1C	52	Bannock Creek	4.96	105
PEM1A	52	Bannock Creek	0.93	195
PEM1C	52	Bannock Creek	7.48	135
PSS1C	52	Bannock Creek	0.55	250
PSS1C	52	Bannock Creek	0.80	190

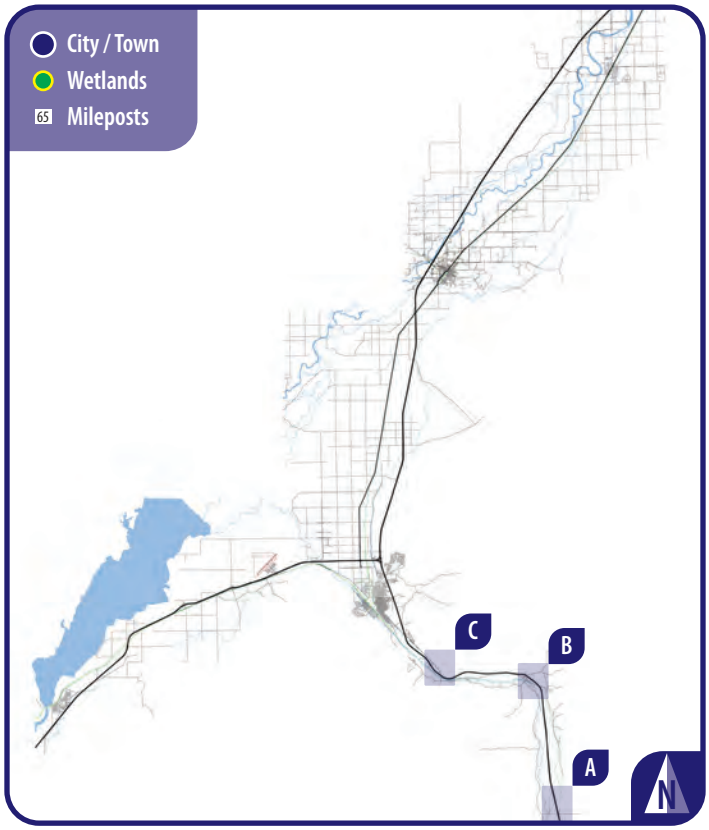
NWI Wetland	MP	(Potentially) Associated Waters	Approximate Size (acres)	Approximate Distance from I-15 or I-86 (feet)
PUBFx	52	Bannock Creek	0.47	410
PEM1C	52	Bannock Creek	2.37	0
PSS1C	58	Portneuf River	0.5	385
PSS1C	58	Portneuf River	0.7	100
PUBKHx	58	Portneuf River	0.8	228
R2UBH	58	Portneuf River	2.74	0
PUBH1x	58	Portneuf River	1.2	30
PSS1A	58	Portneuf River	5.7	230
PFO1A	58	Portneuf River	1.41	140
L1UBKHx	58	Portneuf River	9.01	75

PEM – Palustrine Emergent; 1 – Persistent; A - Temporarily Flooded; F - Semi-Permanently Flooded; C - Seasonally Flooded; R2 - Riverine Lower Perennial; UB - Unconsolidated Bottom; K - Artificially Flooded; H – Permanently Flooded; x – Excavated; F - Semi-Permanently Flooded; h - Diked/Impounded

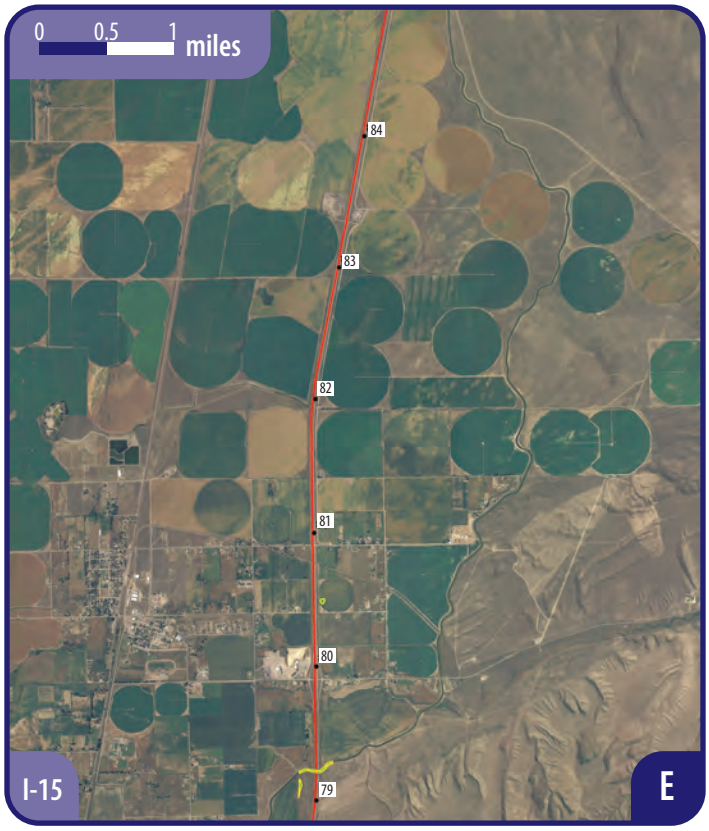
The Idaho Division of Fish and Game submit wetlands data information to the USFWS for incorporation into the NWI database. Any wetland data approved by the USFWS will therefore be included in the NWI database. Additionally, the Idaho Conservation Data Center database contains no known occurrences of special status plants or plant communities either within or adjacent to the study area (see Wildlife Section 5.4).

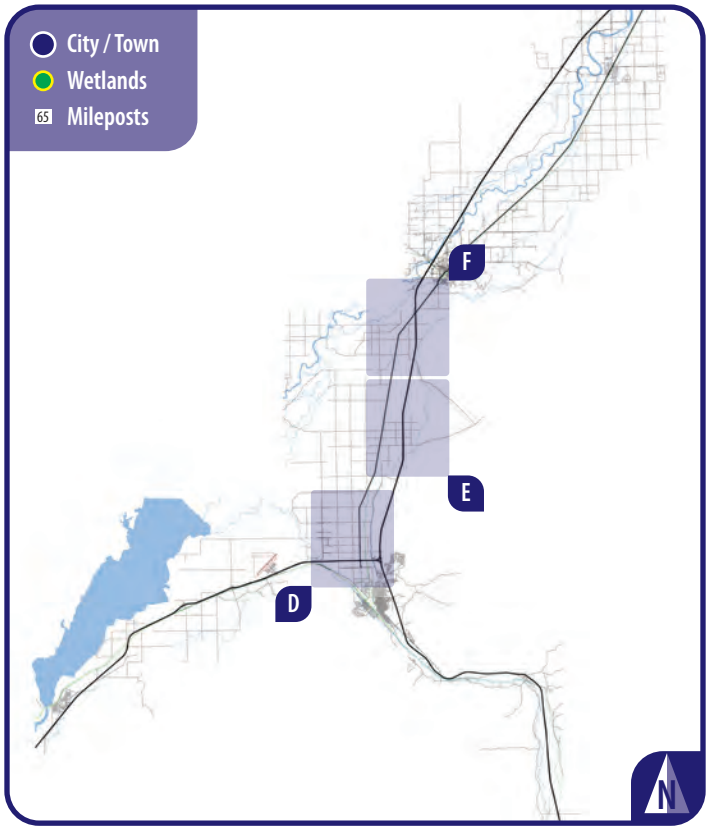
Tables 5-1 and 5-2 indicate that 55 water features are either crossed by I-15 or I-86. Potentially 9 of these features may have associated wetlands. Marsh Creek, which is not crossed but parallels I-15, may have associated wetlands.



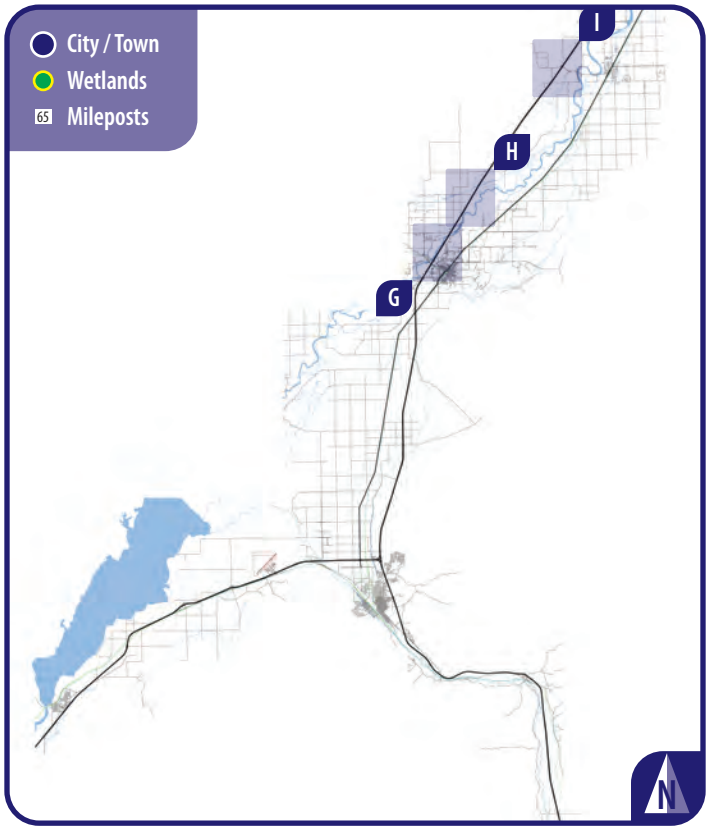


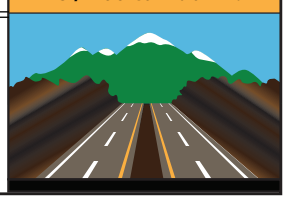
IDAHO TRANSPORTATION DEPARTMENT	*Project Number A009(884), Key #09884*		**I-15 / I-86 Corridor Plan**
Date March 2011	**Figure Title** WETLANDS WITHIN 500 FEET OF CORRIDOR Geographic Areas A, B and C	**Figure Number** 5-5	

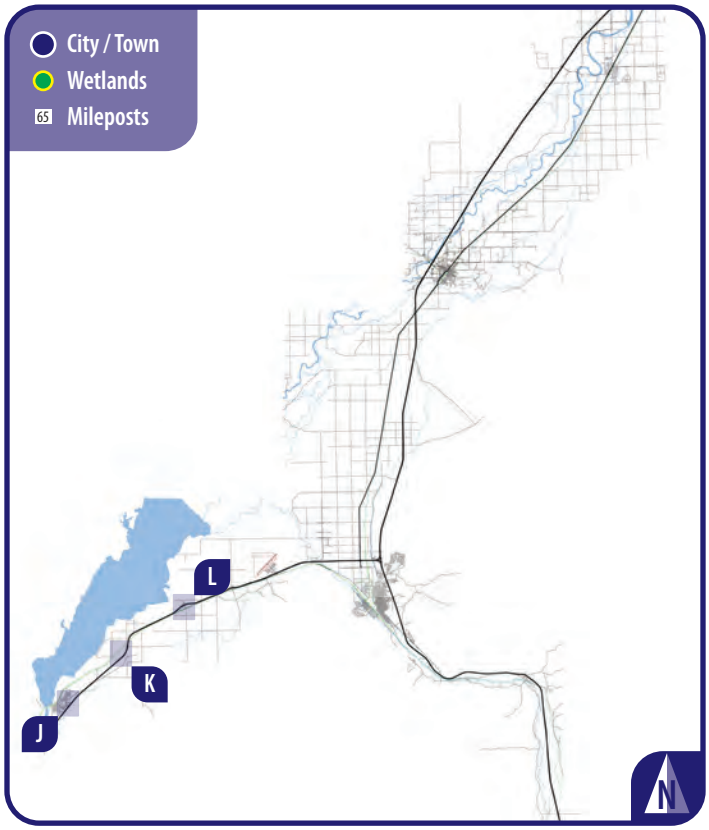




IDAHO TRANSPORTATION DEPARTMENT	*Project Number A009(884), Key #09884*		**I-15 / I-86 Corridor Plan**
Date March 2011	**Figure Title** WETLANDS WITHIN 500 FEET OF CORRIDOR Geographic Areas D, E and F	**Figure Number** 5-6	



IDAHO TRANSPORTATION DEPARTMENT	*Project Number A009(884), Key #09884*		**I-15 / I-86 Corridor Plan**
Date March 2011	**Figure Title** WETLANDS WITHIN 500 FEET OF CORRIDOR Geographic Areas G, H and I	**Figure Number** 5-7	



IDAHO TRANSPORTATION DEPARTMENT	*Project Number A009(884), Key #09884*		**I-15 / I-86 Corridor Plan**
	Date March 2011	**Figure Title** WETLANDS WITHIN 500 FEET OF CORRIDOR Geographic Areas J, K and L	**Figure Number** 5-8

5.5 Wildlife Habitat

Information on wildlife habitat in the project area was obtained through reference to the Idaho Conservation Data Center (ICDC) data for the study area[35].

The majority of the project area contains agricultural lands, primarily cultivated fields. Other habitat types that occur in the project area include sagebrush/bitterbrush habitat, riparian habitat associated with the Blackfoot, Portneuf, and Snake Rivers and with various canals, and areas predominated by grass and herbaceous vegetation.

The majority of the area adjacent to the corridor contains cultivated agricultural fields that have limited value as wildlife habitat. Other wildlife habitats that occur within the project area include areas of grasses and herbaceous habitat, located primarily in narrow strips along the highway edge. In the southern portion of the project area, areas of sage brush/bitter brush habitat are located adjacent to the roadway. Due to the linear nature of the habitat, the habitat value is limited but likely used by small mammals. Riparian habitat with a tree and shrub component occurs in association with the crossing of the Blackfoot River. Additional riparian habitat occurs along canals and is comprised primarily of small shrubs, grasses, and herbaceous vegetation. This habitat is most likely used by small mammals and song birds.

5.6 Threatened and Endangered Species

Information about threatened and endangered species potentially occurring within the project area was derived from the following sources:

- U.S. Fish and Wildlife Service lists of endangered, threatened, proposed, and candidate species in Bannock, Bingham, Bonneville, and Power Counties; and
- Idaho Conservation Data Center data for the project area

Listed species that have the potential to occur in the project area and their listing status are shown in Table 5-4.

Table 5-4: Listed Species with the Potential to Occur in the Project Area and their Listing Status

Common name	Scientific name	Status
Utah valvata snail	*Valvata utahensis*	Endangered
Canada lynx	*Lynx canadensis*	Threatened
Yellow Billed Cuckoo	*Coccyzus americanus*	Candidate Species

No individuals of the species identified as potentially occurring in the project area were observed; however one candidate species, the Yellow-billed cuckoo (*Coccyzus americanus*) was identified as potentially occurring in the project area[36].

[35] Idaho Conservation Data Center. 2009

[36] U.S. Fish and Wildlife Service. Environmental Conservation Online System. 2009

5.6.1 Utah Valvata Snail

The known historic range of the Utah valvata snail extended from the outlet of the American Falls reservoir downstream along the Snake River to Grandview and the recovery area for this species extends from American Falls to approximately Hagerman, with known populations in the Hagerman Valley, near Minidoka Dam, near the Eagle Rock dam, and below American Falls downstream to Burley[37] (Taylor 1987 in USFWS 1995a). The project area is not within the known historic or presently known range of this species.

The Utah valvata snail inhabits areas with a sand and silt/mud substrate in shallow shoreline water and pools adjacent to rapids or perennial flowing waters associated with springs, and avoid rapids and areas with heavy currents[38] (USFWS 1995a). This type of habitat is limited to the crossing of the Blackfoot River within the project area. The Blackfoot River is channelized in the vicinity of the crossing of US-91 and does not contain suitable habitat for this species.

5.6.2 Canada Lynx

Canada lynx occur in moderately moist coniferous forest habitats that have cold, snowy winters and contain an adequate prey base of snowshoe hare. In the northern Rocky Mountains lynx generally occur at elevations ranging from approximately 4,900 feet to 6,500 feet[39] (Ruediger et. al. 2000).

In Idaho, Lynx habitat has been identified and mapped in the mountainous northern and central portion of the State and along the eastern border from approximately State Route 34 north to the Montana border and west along the Caribou Range in Idaho. No lynx habitat occurs in the project area, with the nearest habitat located approximately 25 miles to the east, in the Caribou Range[40]

Linkage zones, defined as areas that provide landscape connectivity between blocks of lynx habitat, have also been identified and mapped. The project area is not located within a linkage zone.

5.6.3 Yellow-billed Cuckoo

The Yellow-billed Cuckoo is rare in the western United States and is associated with forested riparian habitat, particularly areas dominated by western cottonwood and containing an under-story of willow for nesting and foraging[41]. In Idaho, the Yellow-billed Cuckoo is considered a rare visitor and breeder in the Snake River Valley, and has been recorded as occurring in Bonneville, Bingham, and Bannock Counties[42] .

The majority of the project corridor is not located within suitable nesting or foraging habitat for Yellow-billed Cuckoo; however, potential habitat may occur in the area between McCammon and Inkom.

5.7 Historic and Cultural Resources

This section explains the role of cultural resources in corridor planning and environmental documentation for the I-15/I-86 corridor study area, and describes the existing conditions for cultural resources in the project's Area of Potential Effect (APE).

[37] Taylor, D.W., "Thousand Springs Threatened or Endangered Snails". Unpublished report submitted to The Nature Conservancy, 1987
[38] U.S. Fish and Wildlife Service. Snake River Aquatic Species Recovery Plan. Snake River Basin Office, Ecological Services, Boise, Idaho. 1995
[39] Ruediger et. al. Canada Lynx Conservation Assessment and Strategy, 2000
[40] U.S. Forest Service, 2005. Lynx Conservation Agreement, 2005
[41] Federal Register Volume 66, Number 143. Page 38611-38626.
[42] U.S. Fish and Wildlife Service. 1995b. "Yellow-billed cuckoo fact sheet", 1995

Archaeological and architectural inventory records and maps at the Idaho State Historical Society (ISHS) and State Historic Preservation Office (SHPO) in Boise were examined as part of the background research. Additional research was conducted at Idaho State Library in Pocatello, Idaho Falls Public Library, and at Bingham and Bonneville County Courthouses in Blackfoot and Idaho Falls. The Idaho Irrigation District in Idaho Falls was also visited.

Information was collected on previously documented cultural resources within one quarter mile (¼) to each side of the right-of-way of I-15 between McCammon and Pocatello, and between Pocatello and Idaho Falls. In addition a ¼ mile buffer on each side of I-86 between American Falls and Pocatello was studied. According to the SHPO's database, there are at least 58 documented eligible cultural resources within a ¼ mile of either interstate right-of-way. These include eligible sites, those sites that are contributing to a potential district, which, alone may not be eligible but when combined, may be eligible, and those that will be on the National Register at a future date. Additionally, there are at least 55 other cultural resources; either not eligible or of undetermined eligibility. Cultural resources were identified during the reconnaissance level survey within a ¼ mile of the roadway corridor (see Figures 5-9 to 5-12). Table 5-5 lists the previously documented and newly identified cultural resources from south to north (for McCammon to Idaho Falls) and from west to east (for American Falls to Pocatello) and their approximate milepost location and approximate distance from either I-15 or I-86.

Within the project Corridor, there are 23 bridges, all of which are considered historic structures.

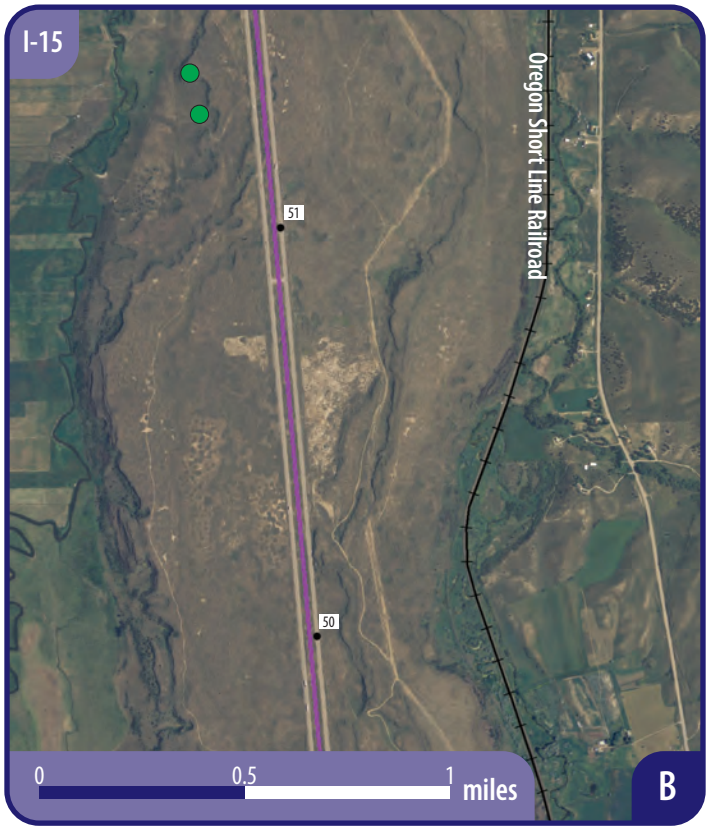
Table 5-5: Inventory of Cultural Resources within 0.5 Mile of the I-15/I-86 Corridor

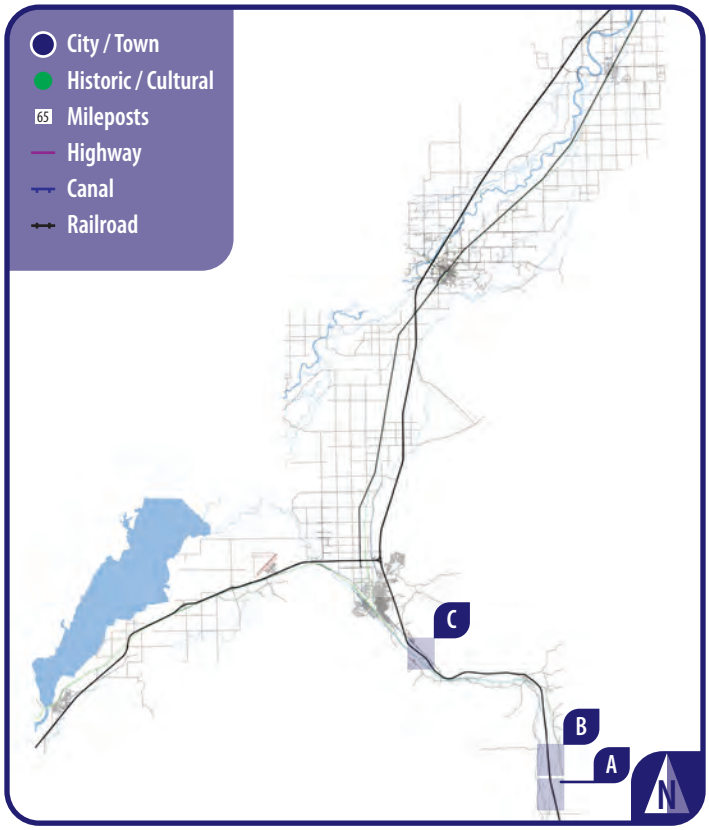
Identification	MP	Site Type	NRHP Eligible	Approximate Distance from I-15 or I-86 (feet)
I-15				
U.S. Highway 30	47-113	Road	Eligible	0
Yellowstone Highway	47	Highway	Eligible	0
Oregon Short Line Railroad	47-72	Railroad	Eligible	0
Indian Rocks Visitor Center Boulders	48	Cultural	CPD	615
Petroglyph	49	Cultural	Eligible	918
Lithic scatter	49	Cultural	CPD	1,127
Lithic scatter	49	Cultural	CPD	397
Lithic scatter	49	Cultural	Eligible	1,044
Lithic scatter	49	Cultural	Eligible	689
Lithic scatter	49	Cultural	Eligible	730
Petroglyph	65	Cultural	Eligible	231
Petroglyph	66	Cultural	Eligible	293
Union Pacific Railroad	69-113	Railroad	Eligible	0

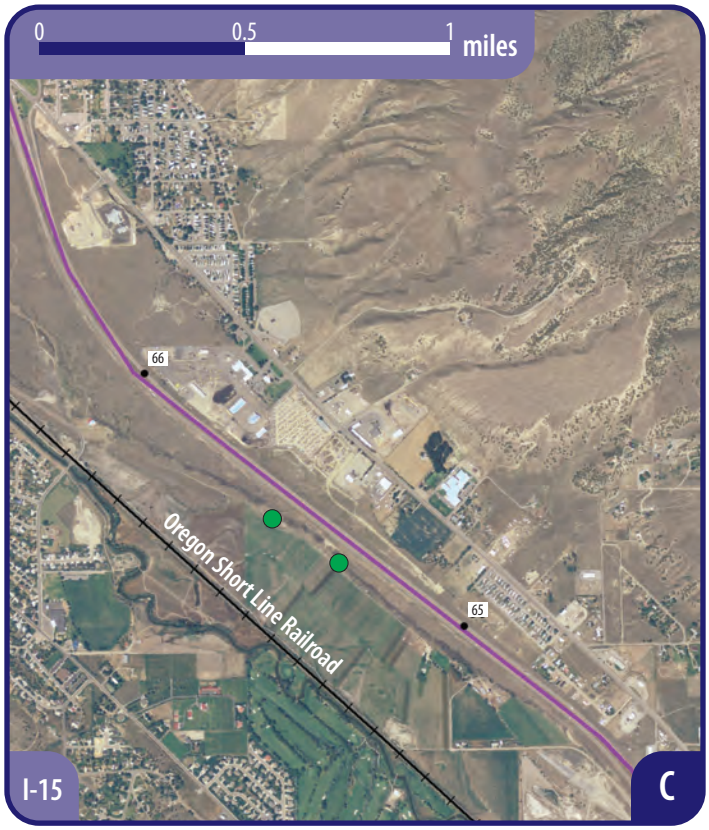
Identification	MP	Site Type	NRHP Eligible	Approximate Distance from I-15 or I-86 (feet)
Fort Hall Main Canal	71-80	Canal	Eligible	0
Pocatello Academy	72	Historic Building	Future Eligibility	946
	73	Historic	CPD	0
I-15 2-½ Mile Road Overpass	75	Historic Structure	CPD	0
I-15 South/Machine Pass Road Overpass NB	76	Historic Structure	CPD	0
I-15 South/Machine Pass Road Overpass SB	76	Historic Structure	CPD	0
I-15 South/North Machine Pass Road Overpass NB	78	Historic Structure	CPD	0
I-15 South/North Machine Pass Road Overpass SB	78	Historic Structure	CPD	0
I-15 Fort Hall Canal Bridge NB	79	Historic Structure	CPD	0
I-15/Fort Hall Canal Bridge SB	79	Historic Structure	CPD	0
I-15/Fort Hall Exchange	80	Historic Structure	CPD	0
I-15/Sheepskin Road Overpass	81	Historic Structure	CPD	0
I-15/Machine Pass Overpass	83	Historic Structure	CPD	0
I-15/Truchot Road Overpass	86	Historic Structure	CPD	0
I-15/Ferry Butte Road Overpass	87	Historic Structure	CPD	0
I-15 Gibson Canal Southbound Overpass	87	Historic Structure	CPD	0
I-15 Gibson Canal Northbound Overpass	87	Historic Structure	CPD	0
I-15/Wille Road Overpass	88	Historic Structure	CPD	0
	91	Historic	CPD	0
Union Pacific Railroad	69-113	Railroad	Eligible	0
	95	Historic	CPD	0
New Lavaside Ditch	96-100	Canal	Eligible	0
	96	Historic	CPD	0
	98	Historic	CPD	0

Identification	MP	Site Type	NRHP Eligible	Approximate Distance from I-15 or I-86 (feet)
	99	Historic	CPD	0
	107	Historic	CPD	0
	108	Historic	CPD	0
	110	Historic	CPD	0
Woodville Canal	111-113	Canal	Eligible	0
	111	Historic	CPD	0
I-86				
I-86 / Rockland Interchange	36	Historic Structure	Future Eligibility	0
I-86 / Machine Pass Bridge - East Bound	39	Historic Structure	CPD	0
I-86 / Machinery Pass Bridge - West Bound	39	Historic Structure	CPD	0
I-86 / American Falls Interchange	40	Historic Structure	CPD	0
I-86 / County Road Bridge - East Bound	41	Historic Structure	CPD	0
I-86 / County Road Bridge - West Bound	41	Historic Structure	CPD	0
I-86 / County Road Bridge - East Bound	42	Historic Structure	CPD	0
I-86 / County Road Bridge - West Bound	42	Historic Structure	CPD	0
J. M. Bistline Farm	62	Historic Building	Eligible	50
Fort Hall Main Canal	62	Canal	Eligible	0

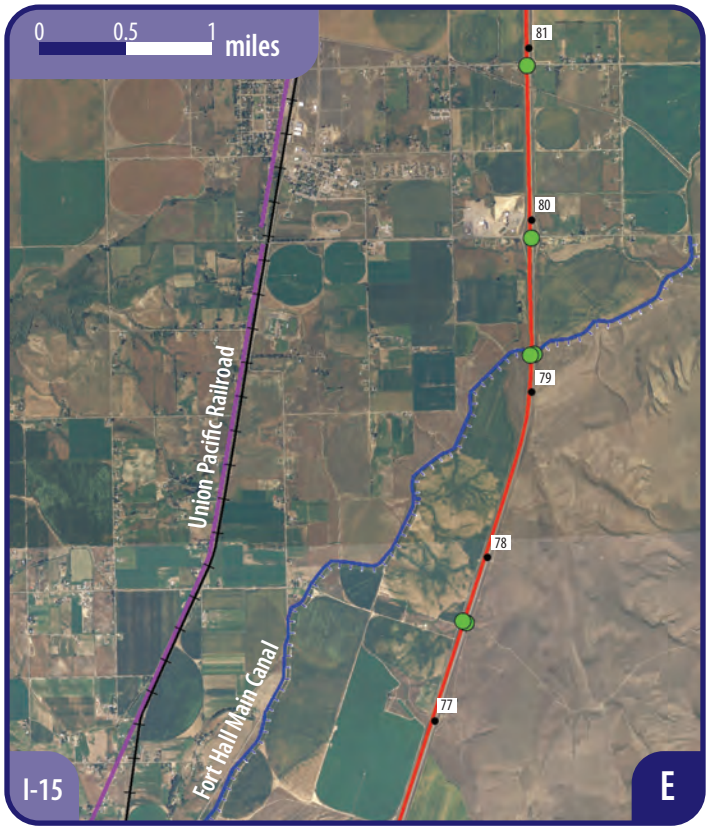
This review of known historic and cultural resources does not suggest that there are areas of high cultural sensitivity, based on the published information available. As I-15 passes through the Fort Hall Reservation, however, any future improvements to the Fort Hall interchange will require close coordination with the Shoshone-Bannock Tribes to identify cultural resources adjacent to I-15 and the existing interchange.

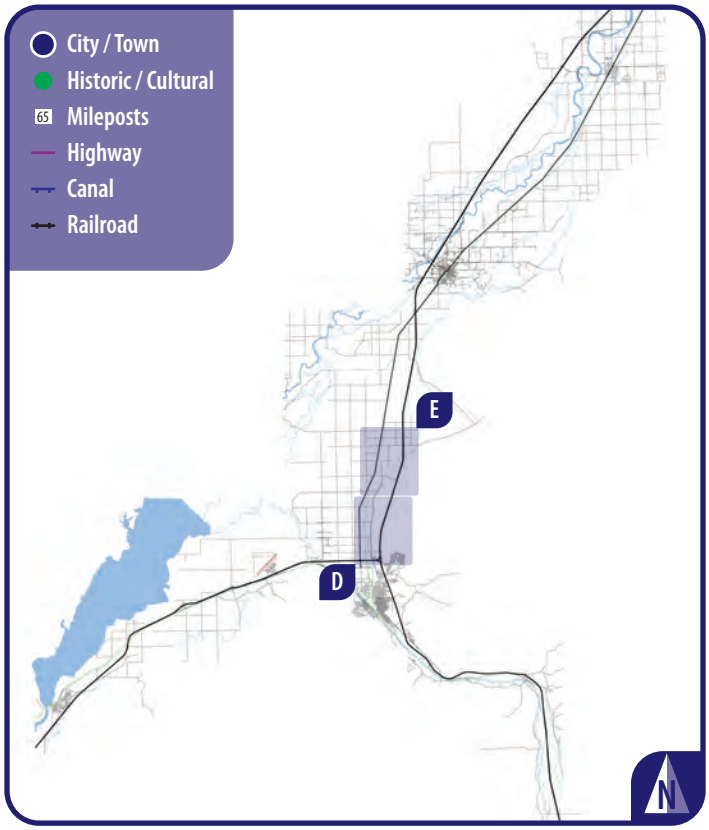






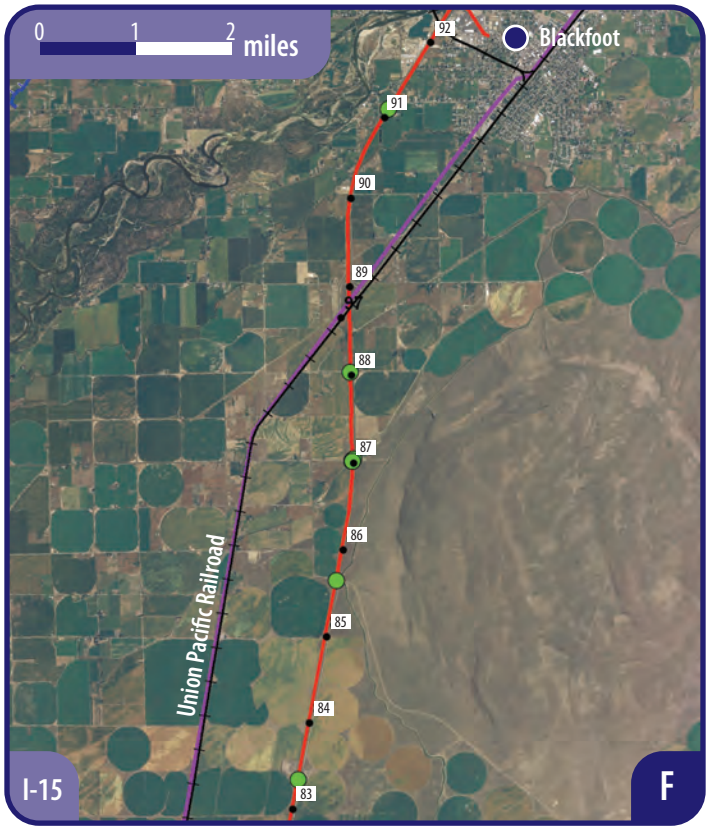
IDAHO TRANSPORTATION DEPARTMENT	*Project Number A009(884), Key #09884*		**I-15 / I-86 Corridor Plan**
	Date March 2011	**Figure Title** GENERAL LOCATION OF HISTORIC AND CULTURAL RESOURCES Geographic Areas A, B and C	**Figure Number** 5-9

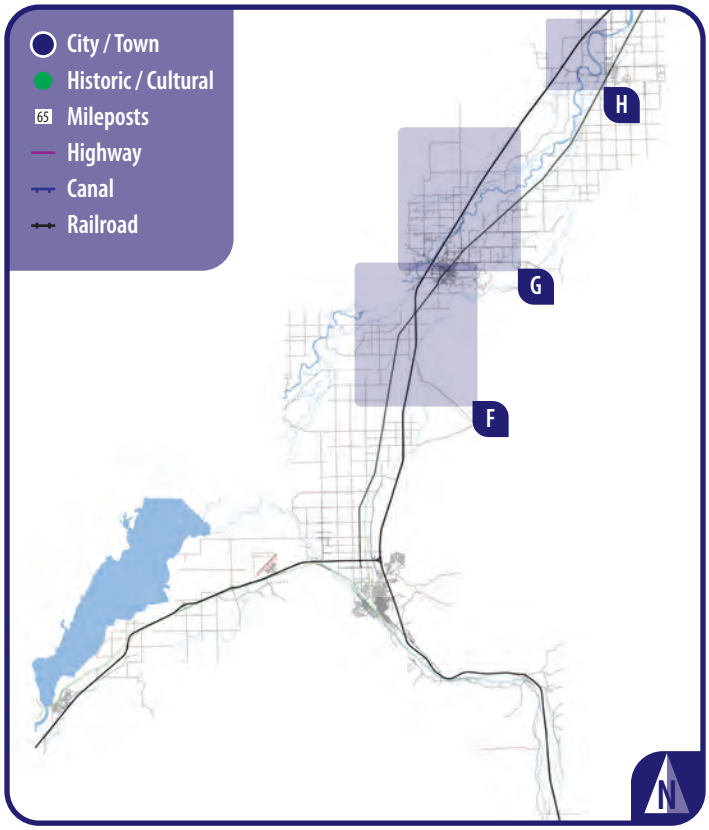


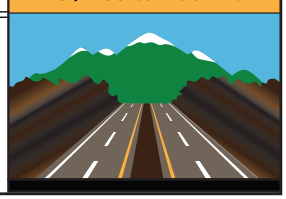


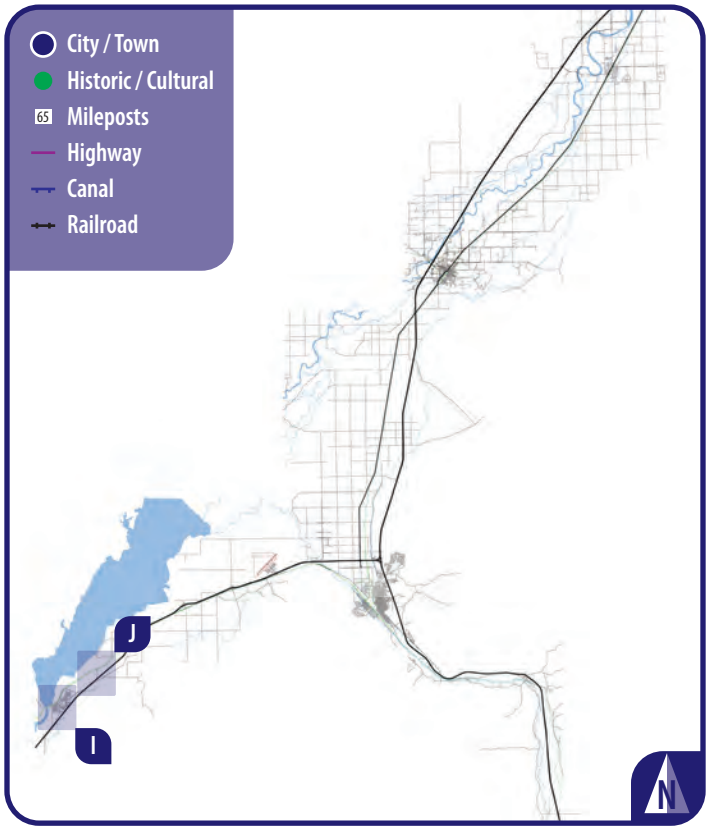
Note: Several I-15 bridges qualify as historic and appear as a ● in the figures.

IDAHO TRANSPORTATION DEPARTMENT	*Project Number A009(884), Key #09884*		I-15 / I-86 Corridor Plan
	Date March 2011	**Figure Title** GENERAL LOCATION OF HISTORIC AND CULTURAL RESOURCES Geographic Areas D and E	**Figure Number** 5-10





IDAHO TRANSPORTATION DEPARTMENT	*Project Number A009(884), Key #09884*		**I-15 / I-86 Corridor Plan**
Date March 2011	**Figure Title** GENERAL LOCATION OF HISTORIC AND CULTURAL RESOURCES Geographic Areas F, G and H	**Figure Number** 5-11	



Note: No historic / cultural resources exist between mileposts 43 and 62.

IDAHO TRANSPORTATION DEPARTMENT	*Project Number A009(884), Key #09884*		I-15 / I-86 Corridor Plan
	Date March 2011	**Figure Title** GENERAL LOCATION OF HISTORIC AND CULTURAL RESOURCES Geographic Areas I and J	**Figure Number** 5-12

5.8 Potential Hazardous Sites

A search and review of public records was conducted to identify potentially hazardous or environmentally contaminated sites along the study corridor. The following databases were reviewed and searched to identify contaminated or hazardous sites:

- Federal American Society of Testing and Materials (ASTM) Standards Records.
- Federal ASTM Supplemental Records.
- State of Idaho ASTM Standard Records.
- State of Idaho ASTM Supplemental Records.
- Environmental Data Resources (EDR) Proprietary Historical Databases.
- Brownfields Databases.

These databases identify the following types of sites:

Federal Databases maintained by US Environmental Protection Agency

- National Priority List (NPL) – the NPL is a subset of CERCLIS and identifies sites for priority cleanup under the Superfund Program.
- Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) – a listing of sites which are either proposed or on the NPL, and sites which are in the screening and assessment phase for possible inclusion on the NPL.
- No Further Remedial Action Planned sites (NFRAP) – a listing of sites that have been removed from the CERCLIS.
- Emergency Response Notification System (ERNS) – ERNS records and stores information on reported releases of oil and hazardous substances.
- Resource Conservation and Recovery Information System (RCRIS) – a listing of sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA).
- Hazardous Materials Information Reporting System (HMIRS) – a listing of hazardous material spill incidents reported to the Department of Transportation (DOT).

State Databases maintained by State of Idaho Department of Health and Welfare

- The State of Idaho does not maintain a State Hazardous Waste Sites (SHWS) list; but refers to the Federal CERCLIS list.
- Solid Waste Landfills (SWF/LF) – a listing of solid waste disposal facilities or landfills.
- Leaking Underground Storage Tank Sites (LUST) – a listing of reported leaking underground storage tank incidents.
- Underground Storage Tank (UST) – a listing of registered underground storage tanks.

Search distances for the width of the two interstate corridors were conducted according to American Society of Testing and Materials (ASTM) Standards for Phase I Environmental Site Assessments. Minimum search distances required by ASTM standards are listed in Table 5-6.

Table 5-6: Minimum Search Distances Required by ASTM Standards

Database	Radius (mile)
NPL	1.0
CERCLIS	0.5
CERC-NFRAP	0.25
ERNS	Target Property
RCRIS-SQG, LQG	0.25
HMIRS	Target Property
SWF/LF	0.5
LUST	0.5
UST	0.25

The search of these public record databases identified 225 potentially hazardous or contaminated sites along the I-15 and I-86 corridors. Potential hazardous sites include areas impacted by previous chemical spills, contaminated hazardous waste sites, and leaking petroleum or gasoline products storage tanks (LUST) sites. The majority of these sites are found within municipal boundaries, largely between Portneuf and Pocatello and in Blackfoot and American Falls. All but seven sites are well outside of the existing right of way. These sites are:

- Eastern Michaud Flats Contamination, Highway 30 near milepost 58 on Interstate 86. This is a Superfund site, listed on the National Priority List in August 1990. The contamination site covers 2,530 acres.
- J.R. Simplot Company Don Plant Northside, 1150 West Highway 30. This is a CERCLIS site located within the Eastern Michaud Flats contamination site. The site produces fertilizer.
- J.R. Simplot Company Don Plant Southside, 1150 West Highway 30. This is a RCRA-TSDF site located within the Eastern Michaud Flats contamination site. The site produces fertilizer.
- Double L Manufacturing Inc., 2698 Lakeview Road, near milepost 42 on Interstate 86. This is a RCRA-SQG site that is a small quantity generator, producing between 100 kg and 1,000 kg of hazardous waste per month.
- Bingham County Road and Bridge Shop, 83 Frontage Road, near milepost 92 on Interstate 15. This is a closed LUST site with a cleanup date of September 20, 2002.
- American Falls Maintenance Yard, 2996 South Frontage Road, near milepost 37 on Interstate 86. This is a closed LUST site with a cleanup date of April 19, 1995.
- Horrocks Ready Mix, 577 Frontage Road, near milepost 92 on Interstate 15. This is a closed Underground Storage Tank site.

Should any improvements to I-86 in the vicinity of the Superfund and the CERCLIS sites be identified as part of this corridor plan, additional site assessment work will be necessary to determine what impact the documented contamination may have on the proposed improvements.

5.9 Air Quality

The I-15/I-86 Corridor Plan study area includes portions of four counties – Bannock, Bingham, Bonneville and Power. Within this area, air quality monitoring stations are located in the City of Pocatello and in the City of Idaho Falls. The majority of Bingham County and all of Bonneville County are in compliance with all National Ambient Air Quality Standards for carbon monoxide, particulate matter, nitrogen oxides, sulfur oxides, ozone and airborne lead[43].

The Environmental Protection Agency (EPA) and the Idaho Department of Environmental Quality have designated the Portneuf Valley as being non-attainment for PM_{10}. This includes 96 square miles of Pocatello, Chubbuck and surrounding areas, primarily within Bannock County. This area was formerly referred to as the Power/Bannock County PM_{10} area. It was split into the Portneuf Valley and federal Fort Hall PM_{10} areas.

EPA also has designated a Fort Hall non-attainment Area for PM_{10}.

[43] Environmental Protection Agency. AirData, 2009.

6.0 Purpose and Need, Goals and Objectives

This chapter establishes the purpose and need for the I-15/I-86 Corridors, and identifies the goals and objectives.

6.1 Transportation Needs

The *I-15/I-86 Corridor Plan Existing and Future Conditions Report*, November 2009, documented existing and expected future traffic operations, roadway deficiencies, land use considerations, and environmental issues for both I-15 and I-86 in the greater Pocatello region. The following discussion is based upon that report and adapts the Federal Highway Administration guidance on preparation of purpose and need statement to the corridor planning phase.

Roadway Deficiencies

Within the study area, four general types of highway geometry were identified that do not meet current AASHTO standards: on-ramp gap length, deceleration and acceleration length, tangent length between curves, and weaving distance. Only the I-15 mainline section between Pocatello Creek and the "Wye" interchange in Pocatello has substandard characteristics. In addition, several on-ramps between the McCammon and Rose interchanges have on-ramp gap lengths that are below AASHTO recommendations. Several I-15 interchange ramps also have insufficient acceleration and/or deceleration lengths. All interchanges on I-86 within the study area have one or more ramps that have gap lengths that are shorter than current standards. A number of other I-86 interchanges also have one or more ramps with short acceleration or deceleration lengths.

Capacity

Currently, the segment of I-15 from the Center Street interchange to the "Wye" interchange is the only segment on either corridor whose peak hour volume functions at an LOS of C. All other segments function at LOS B or above. At the 2030 horizon, this segment will fall to LOS D, at which time accommodations for additional capacity will be required. Additionally, a number of interchanges will be functioning at LOS E and F; these will also require capacity improvements.

Safety

Overall, neither the I-15 nor the I-86 corridors within the study area are experiencing conditions that are considered "high accident corridors". Currently, only two corridor segments have crash rates that exceed the statewide average: I-15 from McCammon to Portneuf, and I-86 in the American Falls area. Both of these segments experience severe weather during the year, including fog, ice, and snow, which may contribute to the above-average accident condition. In addition, the "Inkom Curves" section between mile post (MP) 57 and 58 has been identified as a location with frequent accidents. Although not a high accident location, the Inkom curve will be examined further in this document to identify ways to reduce accident occurrences.

Transportation Demand

By the year 2030, the population surrounding the study area is forecast to increase by more than 30 percent. More than two-thirds of the population gain has been forecast to occur in Bannock County. Total employment in the corridor has been forecast to increase by almost 25 percent by 2030. Again, the largest employment gains were forecast for Bannock County. Both increasing population and employment within the corridor will certainly increase the usage of I-15 and I-86.

6.2 Purpose of Corridor Plan

The purpose of this corridor plan is to identify both near-term and long-range improvement needs, identify alternative ways of meeting those needs, and establish policies to guide the future management of the two interstate corridors. The Plan provides an important early step in the transportation project development process.

6.3 Purpose of I-15 and I-86 Improvements

Address roadway deficiencies

To correct substandard roadway geometry in accordance with ITD and AASHTO standards.

Increase capacity

To increase interstate and intersection capacity to meet LOS C at a minimum through the addition of travel lanes, turn lanes at interchanges, and signalization where warranted.

Improve safety

To improve safety at high risk locations using minor roadway reconstruction and traffic operations management whenever possible. Safety improvements, occurring more widely along the corridor or requiring major reconstruction, will be coordinated with the capacity improvements (see below).

Maintain long term future improvement options

To provide early planning consideration for potential post-2030 improvements.

6.4 Goals and Objectives

The goals and objectives for the US-91 corridor were developed through an analysis of stakeholder input, existing conditions information, and technical data. Strategies to help attain them are proposed.

GOAL I *Address roadway deficiencies.*

OBJECTIVE:

Develop and implement short term and long term strategies to improve safety and functionality of deficient roadway geometry.

Address deficiencies at interchanges and intersections through various methods, including lengthening on and off ramps, adding or widening turn lanes to accommodate future volume, and re-align intersections as necessary.

GOAL II *Ensure freeway capacity will meet or exceed ITD's LOS standards.*

OBJECTIVE:

Monitor LOS, identify congestion, and undertake design and construction improvements to ensure maintenance of ITD's LOS standards. Capacity improvements may include freeway mainline improvements along with interchange and intersection improvements.

GOAL III *Improve User Safety*

OBJECTIVE:

Implement preservation, rehabilitation and new capital improvements that will resolve existing substandard geometry and mitigate future crash and vehicle conflict potential.

GOAL IV *Cooperate and coordinate with local governments, the Bannock Transportation Planning Organization, and the Shoshone-Bannock Tribes to maximize investments, improve safety, and optimize facility operation*.

OBJECTIVES:

Utilize the Bingham County Transportation Coalition and the Bannock Transportation Planning Organization as forums to discuss and coordinate plans and projects.

Collaborate with local governments and tribal governments to ensure that roadways operate consistent with functional classification.

GOAL V *Minimize the environmental and social impacts of highway improvements.*

OBJECTIVE:

Identify, avoid, minimize, and mitigate environmental and social impacts of highway improvements and maintenance projects.

GOAL VI *Enhance sustainability of I-15/I-86 corridor*

OBJECTIVE:

Implement context sensitive solutions that meet the transportation need and enhance communities.

Optimize corridor management consistent with ITD District 5 resources.

Maintain options for future infrastructure development.

GOAL VII *Optimize opportunities to make needed roadway improvements*

OBJECTIVE:

Collaborate with local governments and tribal governments on ways to implement needed improvements through local sponsorship, cost sharing, and in-house forces.

Table 6-1 presents these strategies and the criteria that can be used to evaluate attainment of the goals.

Table 6-1: Goals, Objectives, Strategies and Evaluation Criteria

Goal	Objectives	Strategies
GOAL I Address roadway deficiencies.	Develop and implement short term and long term strategies to improve safety and functionality of deficient roadway geometry. Address deficiencies at interchanges and intersections through various methods, including lengthening on and off ramps, adding or widening turn lanes to accommodate future volume, and re-align intersections as necessary.	- Meet ITD and AASHTO design standards with any highway or structure improvements. - Identify areas with substandard geometry; formulate plans and milestones for improvements. - Formulate options for addressing existing substandard interchanges and roadway geometry.
GOAL II Ensure freeway capacity will meet or exceed ITD's LOS standards.	Monitor LOS, identify congestion, and undertake design and construction improvements to ensure maintenance of ITD's LOS standards. Capacity improvements may include freeway mainline improvements along with interchange and intersection improvements.	- Monitor identified areas of congestion and initiate process for design and implementation of improvements when funding becomes available. - Coordinate with existing county and city transportation and planning committees to identify future local government highway improvement opportunities.
GOAL III Improve User Safety.	Implement preservation, rehabilitation and new capital improvements that will resolve existing substandard geometry and mitigate future crash and vehicle conflict potential.	- Plan first for improvements to address any high accident locations on the interstates or interstate ramp intersections. - Resolve substandard geometry whenever possible through rehabilitation and maintenance projects.
GOAL IV Cooperate and coordinate with local governments, the Bannock Transportation Planning Organization, and the Shoshone-Bannock Tribes to maximize investments, improve safety, and optimize facility operation.	Utilize the Bingham County Transportation Coalition as a forum to discuss and coordinate plans and projects. Collaborate with local governments and tribal governments to ensure that roadways operate consistent with their functional classification. Coordinate with ITD representatives as necessary.	- Coordinate with existing county and city transportation and planning committees to identify future local government highway improvement opportunities. - Coordinate with Shoshone-Bannock Tribes on Fort Hall Reservation roadway improvement plans. - Coordinate with local governments and tribal government to review access control for proposed developments.
GOAL V Minimize the environmental and social impacts of highway improvements.	Identify, avoid, minimize, and mitigate environmental and social impacts of highway improvements and maintenance projects.	- Utilize best management practices to avoid or minimize impacts on the environment. - Employ the National Environmental Policy Act procedures for non-exempt projects. - Look for opportunities to enhance the local environment through project enhancements.
GOAL VI Enhance sustainability of I-15/I-86 corridor	Implement context sensitive solutions that meet the transportation need and enhance communities. Optimize corridor management consistent with ITD District 5 resources. Maintain options for future infrastructure development.	- Provide a high level of pavement maintenance. - Ensure nighttime visibility of all signs. - Provide pavement markings that can be seen in low light and wet weather conditions. - Provide for appropriate utility infrastructure planning and expansion in highway improvement planning, design and construction.
GOAL VII Optimize opportunities to make needed roadway improvements	Maximize opportunities for addressing deficiencies through the State Transportation Improvement Program process. Collaborate with local governments and tribal governments on ways to implement needed improvements through local sponsorship, cost sharing, and in-house forces.	- Preserve right-of-way for needed roadway improvements. - Identify applicable new funding mechanisms and apply to needed improvements where feasible.

7.0 Improvement Options

This chapter identifies which improvements will be needed during the planning horizon taking into account existing and future conditions (Chapters 2 and 4 respectively), land use and demographics (Chapter 3), and goals and objectives (Chapter 6).

It should be noted that the transportation facility deficiencies or needs identified in this report are not necessarily safety hazards. Identification of these deficiencies or needs does not imply that the improvements required to address them will necessarily be constructed. Construction of the improvements identified in this chapter is dependent on the availability of funding. Preparation of this study by the Idaho Transportation Department does not guarantee that adequate financial resources will be available to implement the improvements.

Future Improvements to I-86 and I-15 within the study area are essentially divided into 3 areas: rural sections, metro Pocatello, and Fort Hall. Generally speaking, the rural portions of both corridors do not present level-of-service (LOS) problems. However, a large portion of both corridors does have deficient roadway geometry. These portions will need to be improved to at least meet minimum AASHTO standards. Within the metro Pocatello area, both geometric and LOS deficiencies will need to be addressed.

The following sections present each area along the corridors that require improvements specific to those areas.

7.1 Rural Sections

The study area is largely rural in nature with the exception of the metro Pocatello area. Existing and future conditions along I-86 and I-15 in the rural portions do not show significant deficiencies in LOS.

All of the rural I-86 interchanges have one or more ramps that have gap lengths that are shorter than current standards. In addition, the East American Falls and Seagull Bay interchanges have one or more ramps with short acceleration or deceleration lengths.

Recommended improvements to existing rural interchanges along I-15 and I-86 within the Corridor Plan area are based on considerations of crash history, congestion, traffic operations and a comparison of existing geometric characteristics of each interchange relative to current AASHTO standards.

The analyses documented in Chapters 2 and 4 of this Corridor Plan show that these interchanges do not experience congestion or have significant safety or traffic operational issues. Both I-15 and I-86 in this study area were constructed in the late 1950's and through the 1960's and were designed to a set of standards that was applicable at that time. They do not meet current AASHTO standards.

Engineering concepts for each interchange were therefore developed to show what improvements would be needed to bring these interchanges up to current AASHTO standards. A typical approach to providing ramp geometry that would bring many of the ramps on the rural interchanges into compliance with AASHTO standards includes lengthening the interchange ramps and increasing the gap acceptance area. Appendix B contains improvement concepts for each of the rural interchanges.

It should be noted that other improvements or concepts may be identified during more detailed project development in the future.

7.2 Metro Pocatello

The metro Pocatello area for purposes of this chapter will be defined as the section of I-15 between the South 5th Interchange and the proposed Siphon Road interchange. The metro Pocatello area along I-86 will extend from the "Wye" interchange east to the Airport Interchange at milepost 56. These limits correspond with a traffic simulation model that was developed for the Corridor Plan.

7.2.1 Overview of Future No-Build Operations

The Pocatello area experiences moderate weekday peak hour traffic congestion, typically LOS C conditions, on I-15 between Center Street and the I-15/I-86 Wye interchange. Most of this congestion is due to traffic weaving or changing lanes between the Center Street interchange and Pocatello Creek interchange and between Pocatello Creek interchange and the Wye interchange.

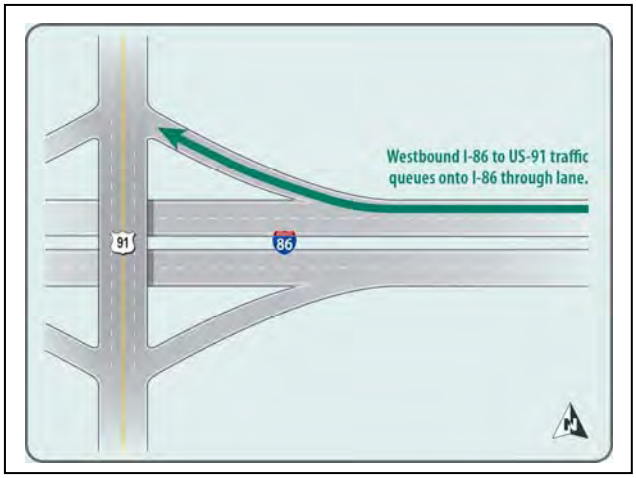
The Bannock Transportation Planning Organization's (BTPO) travel demand model along with future land use projections and a trend analysis were all used to develop Year 2030 traffic projections for the Pocatello area. These were fed into a VISSIM traffic simulation model to analyze no-build and various improvement options. It should be noted that during the initial travel demand projection process, BTPO revised their travel demand projections to the year 2035 for the Long-Range Regional Transportation Plan update effort. To maintain consistency between the Corridor Plan and the BTPO Year 2035 Regional Transportation Plan, the original Year 2030 Corridor Plan travel projections were increased slightly so that they matched or, in some cases, exceeded the BTPO projections. This resulted in average traffic volume increases on the order of 35 to 40 percent along I-15 and I-86 in the Metro Pocatello area between 2010 and 2035.

The future year projections assumed that the planned I-15 at Siphon Road interchange was completed and opened to traffic, consistent with the BTPO 2035 Long Range Transportation Plan.

The resulting traffic projections and VISSIM modeling indicate that the following locations would experience substantial congestion (LOS D and E during peak hours):

- The westbound freeway between the Wye and the I-86/US-91 "Chubbuck" interchange will experience traffic operations issues due to ramp queuing at the off-ramps to US-91, and traffic weaving and lane changing between the Wye and the US-91/Chubbuck interchange. A substantial amount of future-year traffic will be entering I-15 southbound at Siphon Road, accessing I-86 westbound, and then combining with the traffic from I-15 northbound to I-86 westbound. This combined with the I-15 northbound to I-86 westbound traffic volumes will result in substandard traffic operations by the year 2035.
- Some traffic congestion will exist in the I-15 corridor from the South 5th Avenue interchange north to the I-15/I-86 "Wye" interchange. This is due to high volumes of entering vehicles, many of which are trucks, entering the I-15 mainline without standard acceleration tapers or auxiliary lanes to accommodate this traffic mix.
- On I-15 between Pocatello Creek Road and the "Wye" a high number of weaving vehicles adds to traffic congestion. Approximately half of the vehicles entering I-15 northbound from Pocatello Creek are destined for I-86 westbound and must weave across two lanes of I-15 in less than a mile to make that exit.
- The left-hand entrance from I-86 eastbound to I-15 northbound, combined with the right-hand exit at the future I-15/Siphon Road interchange and a high Year 2035 demand for this trip pattern, will result in slowing at the merge point and additional slowing approaching the Siphon Road northbound off-ramp due to lane changing maneuvers.

There are no current high accident locations in either the I-86 or I-15 corridors within metro Pocatello. A risk assessment was made combining observations of existing traffic conditions along with future-year traffic projections. The risk analysis indicates that the current freeway configurations, combined with higher traffic volumes at a number of substandard merge points and weaving areas, will result in a moderate risk of increased rear-end and sideswipe collisions at the following locations:



- Ramp queuing at the I-86 westbound off-ramp to US-91/Yellowstone interchange (see graphic) will likely extend onto the I-86 mainline by 2034, increasing the potential for rear-end accidents caused by vehicles exiting the freeway. This is due to vehicles not having sufficient distance to come to a complete stop before running into the back of the traffic queue. This also could increase the risk of rear-end and sideswipe collisions due to vehicles making last-minute lane changes to either avoid the off-ramp congestion, or to try to merge from flowing traffic into the off-ramp traffic queue.
- The section of I-15 between the I-15/Portneuf Interchange just east of the Century High School and the I-15/I-86 "Wye" also has a moderate potential of experiencing an increased accident rate. The freeway mainline in that segment is projected to be LOS D, which impedes the ability of vehicles to enter I-15 from on-ramps, and also constrains the ability to change lanes. This in turn results in a moderate potential of increasing the number of rear-end or sideswipe accidents on I-15.
- The two-lane "weave" maneuvers on northbound I-15, one between Pocatello Creek Road and the ramp to I-86 westbound, the other between the on-ramp from I-86 eastbound and the Siphon Road off-ramp, will increase the risk for sideswipe collisions in the future.

7.2.2 Potential Improvements

A number of improvement options were tested for Metro Pocatello to respond to the operations and safety issues. These are discussed below.

Advance Signing on I-15 Northbound

At least one mile in advance of the I-15/I-86 Wye junction, diagrammatic signs such as the one shown in Figure 7-1 (a) could be installed indicating that accessing I-86 westbound is a left-hand maneuver. These signs are currently not in place and could yield a slight improvement in traffic operations as vehicles can make their appropriate lane choices ahead of time rather than at the last minute. The VISSIM modeling indicated that this would have an approximate ten percent improvement in speeds and traffic operations; however, it alone is not sufficient to resolve the traffic weaving and congestion issues along the I-15 corridor. Signing is recommended as part of a package of improvements for I-15.

Revising the I-15 Auxiliary Lanes between Pocatello Creek Road and Center Street

Currently, the on-ramps in each direction are two-lane merges, with the left ramp lane merging with the right travel lane, and the right ramp lane continuing to the next interchange as an auxiliary lane. The ramp/through lane merge may be familiar to local traffic, it is unusual elsewhere in the region and state, and may be confusing and unpredictable for out-of-area drivers. As traffic volumes increase, ramp drivers will find it difficult to find gaps in the travel lane.

Figure 7-1a - Recommended Additional I-15 Northbound Signage

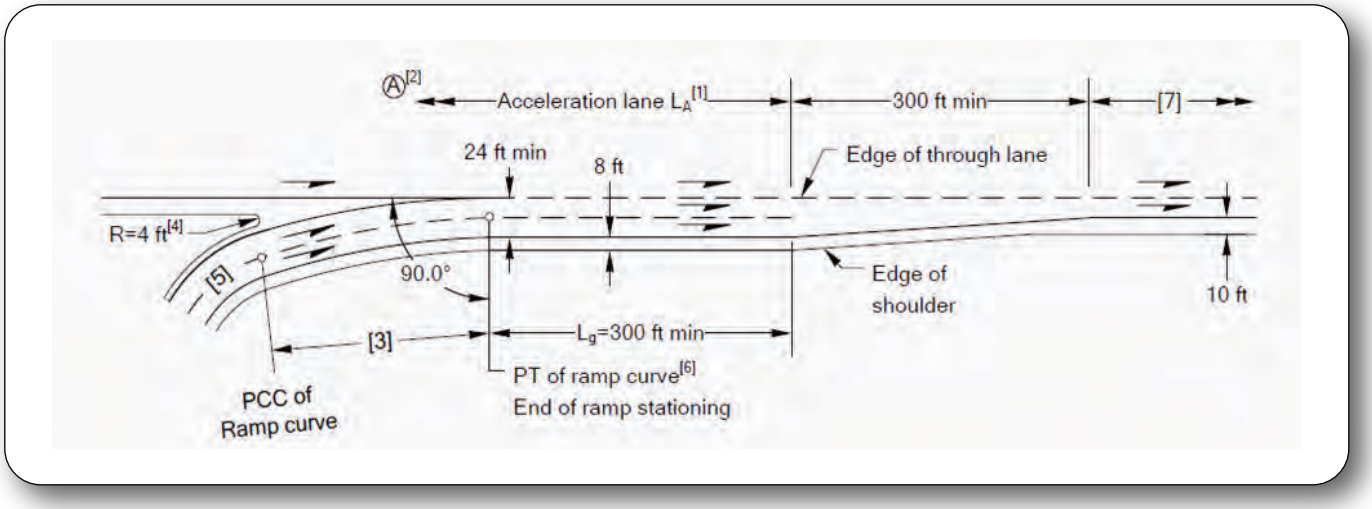


Figure 7-1b - Typical Two-Lane Parallel On-Ramp Concept

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	March 2011	Signing and Ramp Concepts	7-1

This recommended option would revise the on-ramp configurations to a "two-lane parallel merge" condition, whereby the two ramp lanes merge into one lane on the ramp/auxiliary lane itself, with the ramp lane then continuing as an auxiliary lane to the next exit. A sample schematic of this configuration is shown in Figure 7-1(b).

As I-15 through Pocatello is very hilly and many interchange ramps have significant grades, more detailed examination of the impacts of grades and the ability of larger and slower vehicle traffic to navigate the two-lane ramps and merge into through traffic will be needed to confirm that this solution is appropriate in this instance.

Reconfiguring the I-86 Eastbound to I-15 Northbound Ramp to a Right-Side Merge

This would revise the ramp profile and alignment to create a right-hand merge with I-15. Future-year analysis indicates that the existing left-hand merge, which is an abrupt merge, combined with the future right-hand exit at Siphon Road less than a mile to the north, would result in impacts on traffic operations and safety in the future. Extending the left-hand merge with an auxiliary lane or at least an acceleration taper was determined to be impractical as it is constrained by a bridge pier for the Chubbuck Road overpass over I-15, and would require reconstruction of that bridge. Even with the acceleration taper or auxiliary lane, the weaving issue between this point and Siphon Road is not resolved. Thus, options to revise the merge to a right-hand merge were developed.

Initial conceptual review of the "tunnel" for the existing ramp under I-15 southbound indicates that the ramp revisions could be accommodated within the existing tunnel structure. There would also need to be a tunnel underneath I-15 northbound. Retaining walls along the outside of the ramp would be needed in order to provide the right-hand merge while minimizing impacts to adjacent privately-owned land. Two ways to achieve this were examined:

a) One with the ramp being a right-hand merge. This concept is shown in Figure 7-2.
b) One with the ramp continuing to the Siphon Road interchange as an auxiliary lane and the northbound off-ramp being a two-lane exit. This is shown schematically in Figure 7-3.

Traffic analysis indicates that post-2035 traffic volumes would indicate that the off-ramp will need to be a two-lane off-ramp; thus, option (b) above would be the preferred option for the Corridor Plan.

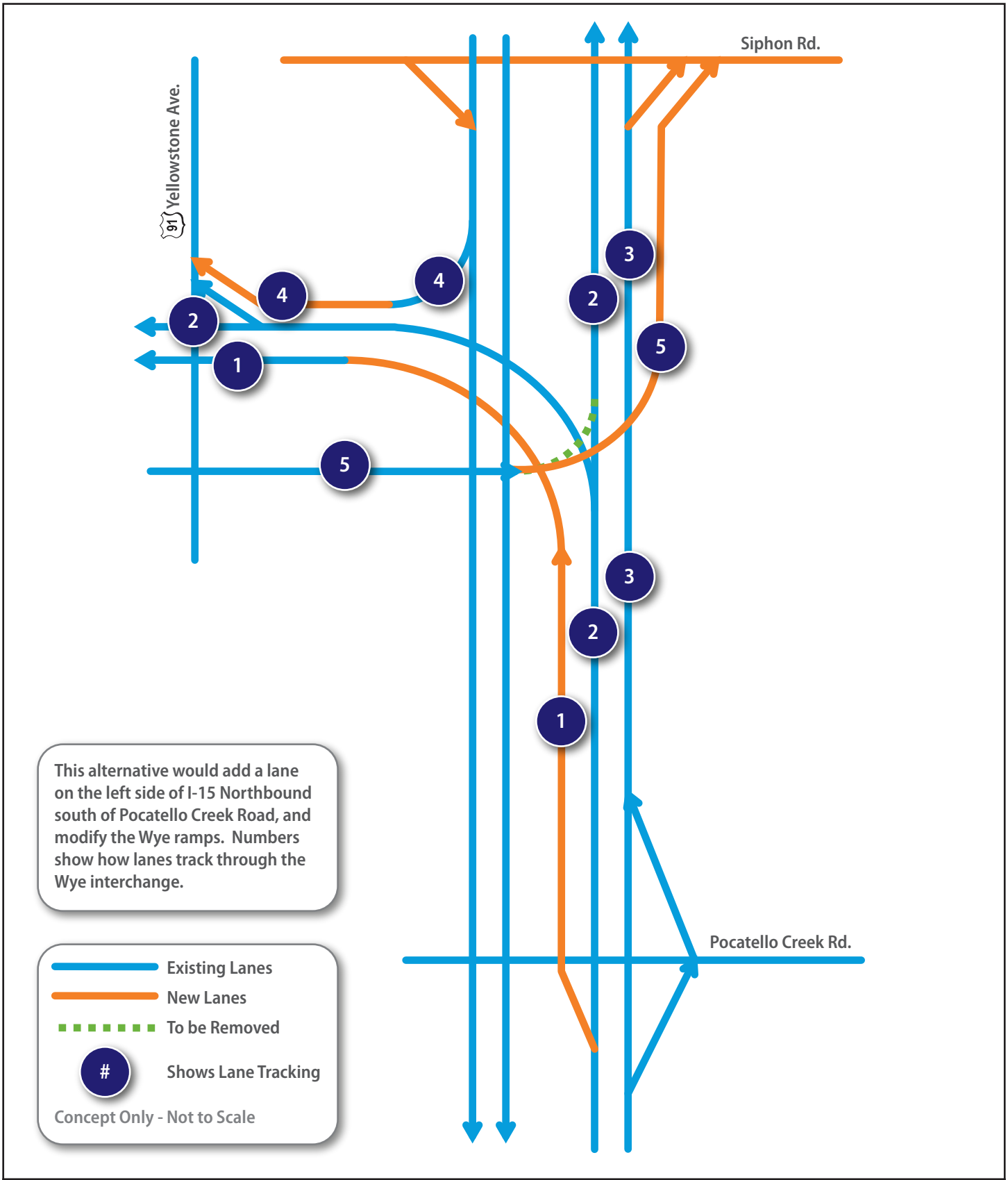
Reconfiguring I-15 Northbound Approaching the Wye

Northbound options focused on reducing the traffic weave between Pocatello Creek and the I-86 westbound ramp. While a reconfiguration to a right-hand I-86 ramp may improve operations, it would likely have substantial impacts to residential development immediately east of the interchange and would result in an expensive rebuild of the interchange.

Another option came from prior work on the I-15/Siphon Road interchange. This option would realign the northbound through lanes of I-15 into the median area, starting south of Pocatello Creek Road, running through the Wye interchange to a point between there and Siphon Road. The existing northbound lanes would become the "local" portion of I-15 for the I-86 diverge and merge points. North of the I-86 interchange the new northbound lanes would shift back to the existing lane alignment prior to Siphon Road.

While this option would result in right-hand diverge and merge operations for northbound I-15 and I-86, construction of this option would require two new lanes plus shoulders for over two miles of freeway, along with new bridge structures at the Wye. The costs of this reconstruction may be prohibitive.

IDAHO TRANSPORTATION DEPARTMENT	*Project Number A009(884), Key #09884*		**I-15 / I-86 Corridor Plan**
Date March 2011	**Figure Title** I-86 Eastbound to I-15 Northbound Right Merge	**Figure Number** 7-2	



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Date	Figure Title	Figure Number
March 2011	Improvement Concept for Wye Operations Option A	7-3

Due to the potential cost and impacts of these concepts, two new concepts were developed and analyzed, both of which would reconstruct the I-15 northbound to I-86 westbound ramp as a two-lane ramp, continuing as two lanes onto the I-86 westbound mainline, matching the existing two westbound through travel lanes. The I-15 southbound to I-86 westbound ramp would continue to be an additional lane, but would become an exit-only lane at the US-91/Yellowstone westbound off ramp (labeled as 4 in Figures 7-3 and 7-4). The off-ramp would be revised to become a two-lane off-ramp.

The first concept would add a northbound lane to I-15 on the left side (labeled as #1 in Figure 7-3) at approximately Pocatello Creek Road, which would become an exit-only lane to I-86 westbound. The center lane (labeled as #2 in Figure 7-3) would then become a choice lane where vehicles could either exit to i-86 westbound or continue northbound on I-15. The right most lane on northbound I-15 (labeled as #3 in Figure 7-3) would remain as a right through lane. As in the existing conditions, Pocatello Creek Road's northbound on-ramp to I-15 would continue to be a merge.

The second concept would be to revise the Pocatello Creek Road northbound on-ramp as an additional lane on I-15 northbound (labeled as #3 in Figure 7-4), and this lane would then continue as a through lane on I-15 northbound. The current leftmost lane on I-15 northbound (labeled as #1 in Figure 7-4) would become an exit-only lane to I-86 westbound, and the current rightmost lane (labeled as #2 in Figure 7-4) would then become a choice lane where vehicles could either exit to I-86 westbound or continue northbound on I-15.

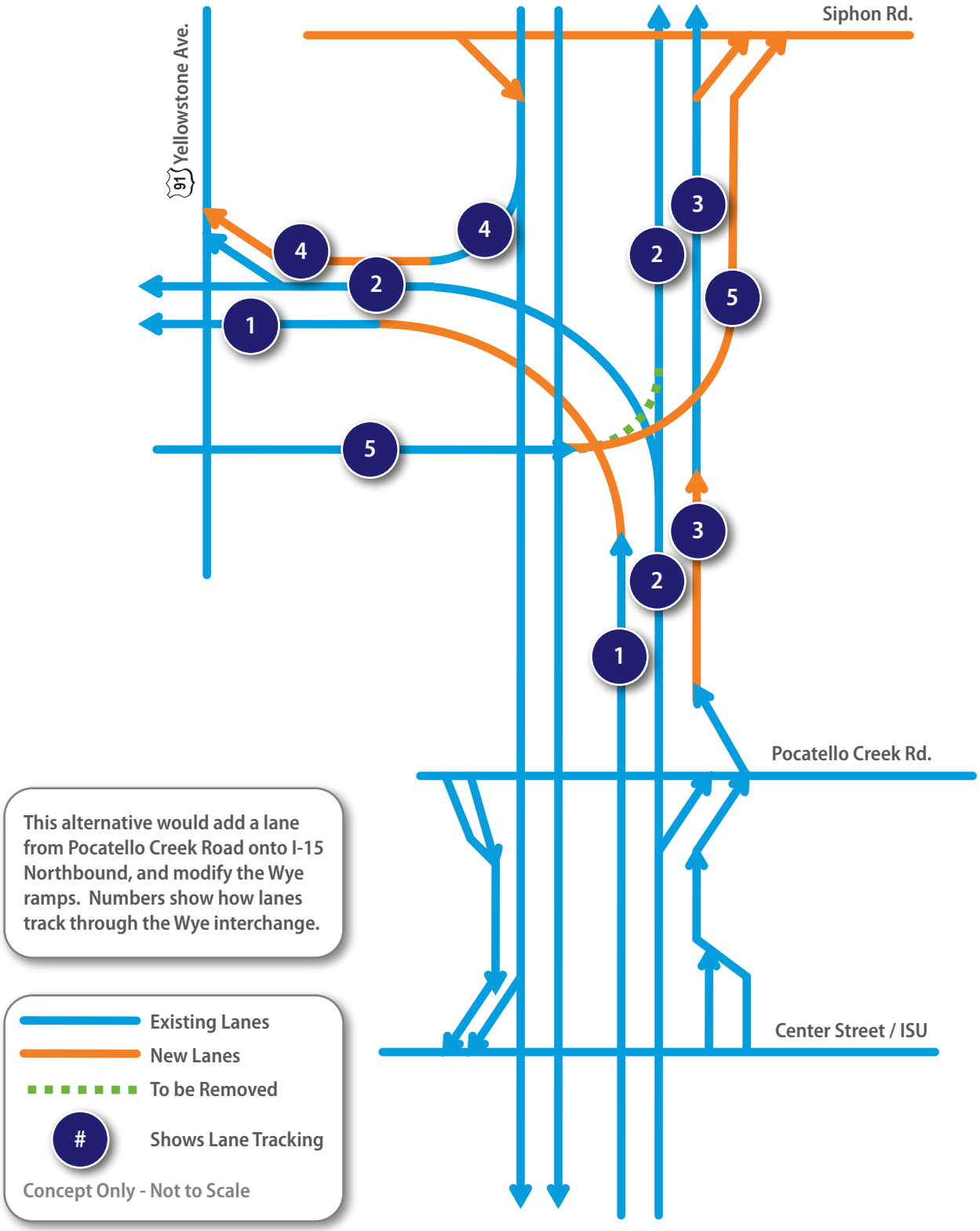
Either of these concepts can be combined with the reconfiguration of the I-86 eastbound to I-15 northbound ramp to a right-hand ramp. In either case, I-15 northbound would be a three-lane cross-section from the I-86 merge point to the Siphon Road off-ramp, which would be a two-lane off-ramp. The rightmost lane would be an exit-only lane (labeled #5 in Figures 7-4 and 7-5).

Both options have merit, in that they reduce the lane changing needed on I-15 northbound between Pocatello Creek and the Wye from two lanes under current conditions two one lane. Both result in improved speeds on the I-15 mainline over "no-build" conditions in the Year 2035. In the no-build, Year 2035 peak period speeds would be below 30 mph, but under either rebuild option, speeds increase to almost 60 mph with less than 3 mph difference between the two options. Both options improve the speeds on I-15 by about 2 mph north of the Wye. This reduction, when combined with the right-hand merge and auxiliary lane to Siphon Road, the amount of traffic changing lanes between no-build and the improvement options is reduced by almost half.

These two options are close enough in improvement results that both should be considered as recommended improvement options in the Corridor Plan, which would allow for multiple design options to be carried forward into a future environmental alternatives analysis process under NEPA.

7.3 US-91/I-86 Chubbuck Interchange

The 2011-2014 State Transportation Improvement Program (STIP) includes a project to replace the bridge structure at the Chubbuck interchange (Key #12093 for 2013 construction). The draft BTPO Long Range Transportation Plan shows capacity needs along US-91/Yellowstone Highway through the interchange and extending both north and south of the interchange. Although I-86 traffic is not congested at this location, traffic exiting I-86 to access US-91 queues out onto I-86 during peak periods.



Project Number A009(884), Key #09884

I-15 / I-86 Corridor Plan

Date	Figure Title	Figure Number
March 2011	Improvement Concept for Wye Operations Option B	7-4

	Project Number A009(884), Key #09884		**I-15 / I-86 Corridor Plan**
	Date	**Figure Title**	**Figure Number**
	March 2011	**Diverging Diamond Interchange (DDI)**	**7-5**

The Idaho Transportation Department is currently designing the interchange for planned start of construction in 2013. A Concept Report was developed for the interchange that considered four options to improve traffic flow and existing and future congestion through the interchange:

- Improved diamond interchanges using a 88-foot 6-inch wide bridge;
- Improved diamond interchange using a 105-foot wide bridge;
- a Single Point Urban Interchange (SPUI); and
- A Diverging Diamond Interchange.

During concept development, the following priorities were evaluated and used to determine a preferred alternative:

- Overall cost of the project,
- Phasing during construction to allow efficient traffic flow during construction activities,
- Interchange LOS in Year 2040,
- Traffic operations impacts to I-86,
- Right-of-way impacts, and
- Environmental issues.

An initial evaluation resulted in the elimination of the Improved Diamond Interchange based on operational issues and the SPUI based on its much higher cost. A performance evaluation of the improved diamond and the diverging diamond interchanges was undertaken and compared to the No-Build. Table 7-1 summarizes these results. Although the improved diamond option generally accommodates Year 2040 traffic, it shows higher ramp queuing, hours of delay, and a lower LOS at the westbound ramp intersection.

As an interchange is a substantial capital investment, an additional criteria was examined to provide additional information beyond the 2040 planning horizon. Through extrapolation of traffic volumes based on the expected growth in rates in population and employment discussed in Section 3.3 of this document, the post-2040 capacity of the improved diamond would have deficient operations in about the Year 2050 timeframe. In comparison, the Diverging Diamond would have a longer life (Year 2050 to 2060) with a four-lane cross-section or Year 2070 to 2080 with a six-lane cross-section.

Either the Improved Diamond or the Diverging Diamond alternative could be constructed with no impacts to I-86, no right-of-way impacts, while maintaining an adequate LOS through the design year (LOS D or better). Both would also allow for future widening of I-86 under the proposed structure with no additional structure modifications required. However, analysis showed that the diverging diamond would be able to maintain adequate LOS for a longer period of time, has a lower cost, and made construction phasing more simple and straightforward. This interchange type also would allow for future expansion of the structures if needed at some point in the future.

After evaluating these options, ITD staff identified the Diverging Diamond Interchange (DDI) as the preferred alternative. The DDI has the lowest cost and superior traffic performance through 2040.

Table 7-1: Evaluation of the Chubbuck Interchange Options

Measure:	Alternative		
	1: Improve Existing Diamond	2: Diverging Diamond Interchange	No-Build
2040 Level-of-Service • Westbound Ramp Intersection • Eastbound Ramp Intersection	 D B	 C B	 F (1) C
2040 PM Peak Hour Yellowstone Avenue Corridor Overall Delay (Vehicle Hours)	795	605	1280
Yellowstone Corridor Speeds (mph) • Average Two-Way Speed North of I-86 • Average Two-Way Speed South of I-86	 15-18 14-17	 16-20 15-18	 14-16 12-15
2040 Off-Ramp Queues (95th Percentile) • Westbound Ramp Intersection • Eastbound Ramp Intersection	 300’ 150’	 200-250’ <100’	 >1,000’ (2) 230’
2040 Left Turn Queues (95th Percentile) • NB to WB • SB to EB	 180’ 175’	 Negligible Negligible	 260’ (3) 310’ (3)
General Interchange Traffic Operations (Simulation Observations)	Good	Good	Poor
Post-2040 Capacity: When Operations Deficient	~2050**	2050-2060 (a)** 2070-2080 (b)**	2020-2030
		(a) = 2 lanes each way on overpass (b) = 3 SB lanes on overpass	
Anticipated Construction Cost ($ Millions)	$12.0 (105’ width) $12.4 (89’ width plus temporary bridge)	$9.9	N/A

The DDI is an innovative approach to solving traffic congestion by crossing traffic over to the opposite sides between ramp terminals to create free-flowing left turn movements onto the ramps. A schematic of this interchange is shown in Figure 7-5. These crossover intersections are located between the left and right turn channelization lanes for the on and off ramps, resulting in free-flow turn movement in all directions for both the on and off ramps. This increases the efficiency of not only the turning movements, but also the through movements, since all of the green time can be allocated to the through movements. This interchange type is especially effective at locations with high left turn movements onto or off of the interchange ramps, which is the situation at this interchange.

A Concept Report, Interchange Modification Report, and appropriate National Environmental Policy Act document are in preparation for the Diverging Diamond alternative.

7.4 Potential Philbin Interchange Analysis

At the May 24, 2010 public open house for the I-15/I-86 Corridor Plan, the Bannock Transportation Planning Organization (BTPO) commented that the Corridor Plan should consider a new I-86/Philbin Interchange.

Neither the current nor the draft Long Range Transportation Plan for the BTPO planning region includes a new I-86/Philbin interchange as a project listed in the Plan. The BTPO clarified that while this interchange is not currently on the Plan, that the City of Chubbuck and BTPO believe that this Corridor Plan is the appropriate time to examine the need for a Philbin interchange and to make a recommendation.

7.4.1 Transportation Analysis

The current planning horizon year for the Corridor Plan is 2030, while the planning horizon year for the updated Long Range Transportation Plan is 2035. Prior Year 2030 analysis conducted as part of the Corridor Plan indicated that the I-86/US-30 ("Simplot") interchange has sufficient capacity to remain at a satisfactory LOS in the year 2030, while the I-86/US-91 "Chubbuck" interchange did not. Section 7.3 above documents the alternative design solutions for the Chubbuck interchange that will meet ITD and regional LOS goals through the year 2030 and beyond.

The BTPO supplied year 2035 regional travel demand model information for three scenarios which were used to establish 2030 and 2040 peak hour forecasts:

- Baseline Year 2035 with no new interchanges on either the I-15 or I-86 corridors;
- With a possible future I-86/Philbin interchange; and
- With both an I-86/Philbin interchange as well as the I-15/Siphon interchange.

Plots of the 2035 traffic assignments were used as input to this analysis. These included "volume difference plots" which showed increases or decreases in projected traffic levels compared. This redistribution of traffic volumes is shown schematically in Figure 7-6.

The traffic implications of four scenarios were modeled:

Option 1:	without either an I-86 Philbin Road or an I-15 Siphon Road interchange;
Option 2:	with an I-15 Siphon Road interchange only;
Option 3:	with only a Philbin Road interchange; and
Option 4:	with both interchanges.

Option 1 – Without Philbin or Siphon Interchanges

The Yellowstone Avenue corridor between Poleline Road and Chubbuck Road will fall below regional LOS standards by 2030.

Option 2 – With an I-15 Siphon Road interchange only

A new I-15/Siphon Road interchange would reduce traffic levels by 15 percent at the Chubbuck interchange. The Yellowstone Avenue corridor, however, would fall below ITD and regional LOS standards at some point after 2030, likely between the years 2040 and 2070.

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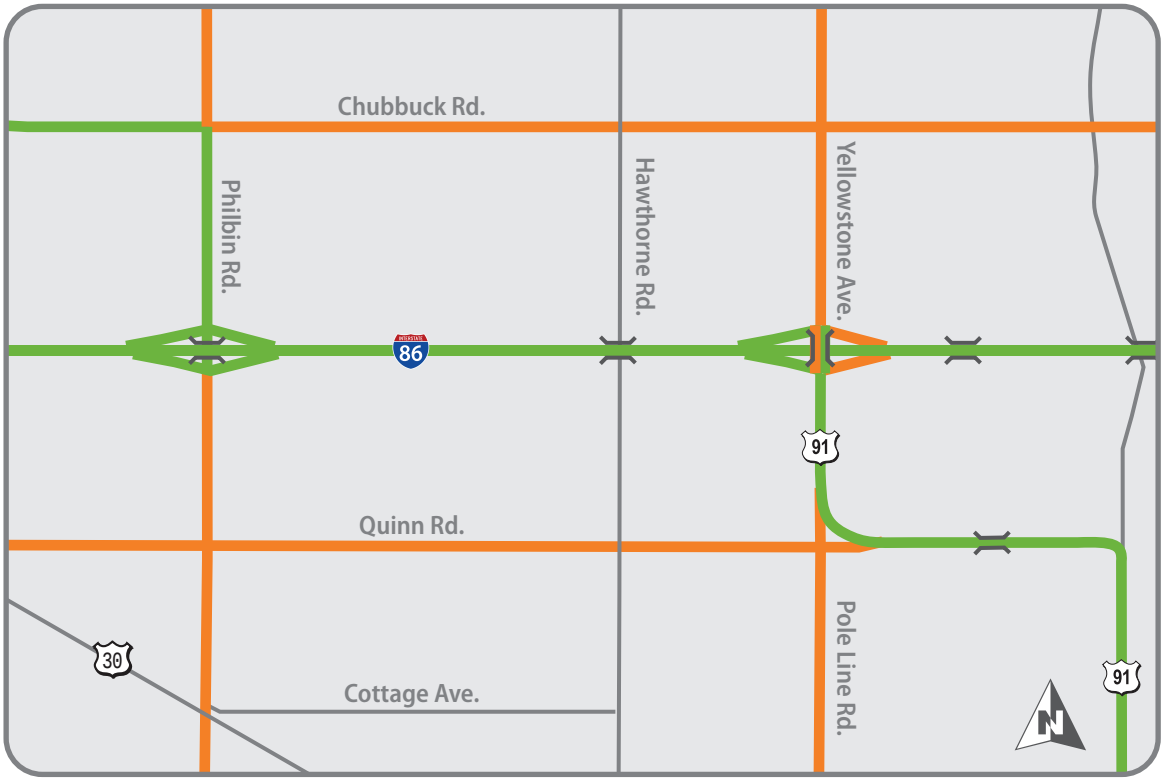


IDAHO TRANSPORTATION DEPARTMENT	*Project Number A009(884), Key #09884*		**I-15 / I-86 Corridor Plan**
Date March 2011	**Figure Title** Philbin Interchange Impact to Traffic Volumes	**Figure Number** 7-6	

Option 2 – With a Philbin Road interchange only

A new I-86/Philbin interchange would reduce traffic levels at the Chubbuck interchange and on the Yellowstone Avenue corridor by between 5 to10 percent by 2030. Some traffic that would be using the Quinn Avenue corridor between Yellowstone and Philbin would shift to I-86 between the Chubbuck and I-86/Philbin interchanges (see Route A in Figure 7-7). This would add some traffic to this interchange

This would be offset by the reduction of the number of vehicles entering/exiting I-86 from the Chubbuck Interchange and traveling east to the I-15/I-86 Wye interchange. These vehicles would instead use the I-86/Philbin interchange (see Route B in Figure 7-7).

The presence of an I-86/Philbin interchange would serve to increase I-86 mainline traffic levels by approximately 500 to 600 peak hour/peak direction vehicles between the US-91 and the I-86/US-30 interchanges, and by approximately 100 to 200 peak hour/peak direction vehicles on US-91. Most of these increases would be the result of vehicles diverting from other interchanges or arterial corridors in the area onto I-86 to make use of the new Philbin interchange.

With a Philbin interchange, the traffic analysis at the Chubbuck interchange indicates that:

- The existing Chubbuck interchange will be at LOS F in 2040 with or without the Philbin interchange.
- The planned Chubbuck Diverging Diamond Interchange will have LOS D/E.
- The US-91/Yellowstone corridor north of I-86 will have an approximately LOS E in the baseline, and will remain at LOS E in the "with Philbin" scenario but average speeds will be approximately 3 to 5 mph higher and delay along the corridor will be approximately 10% less.
- South of I-86, the US-91/Yellowstone Avenue corridor will have a LOS C/D in the baseline, and LOS D in the "with Philbin" interchange scenario.

For the I-86 corridor, assuming three lanes each way between the Wye and Chubbuck interchanges, and two lanes each way west of that interchange, I-86 would operate at LOS B with a 60 mph average peak speed between the Chubbuck interchange and a proposed Philbin interchange. (Without the interchange, the speed and LOS are 61 and LOS B, respectively.)

Option 4 – With both Philbin and Siphon interchanges

Between the Wye and Chubbuck interchanges, I-86 would operate at LOS B/C in the 2040 "baseline" with an approximate 62 mph average peak speed; and LOS B/C in the 2040 "with Philbin" scenario. Adding in the Siphon interchange would improve LOS under either scenario.

7.4.2 Conclusions

If a Philbin interchange were built, there would be no need for auxiliary lanes on I-86 neither between Philbin and the Chubbuck interchange, nor between Philbin and the US-30/Simplot interchange to the west. A Philbin interchange would not have a detrimental impact on I-86 operations or LOS, and would result in a slight improvement on the Chubbuck interchange and the Yellowstone corridor north of I-86. South of I-86, the Philbin interchange would slightly impact US-91/Yellowstone Avenue but would result in a measurable improvement on Quinn Avenue between US-91/Yellowstone and Philbin.

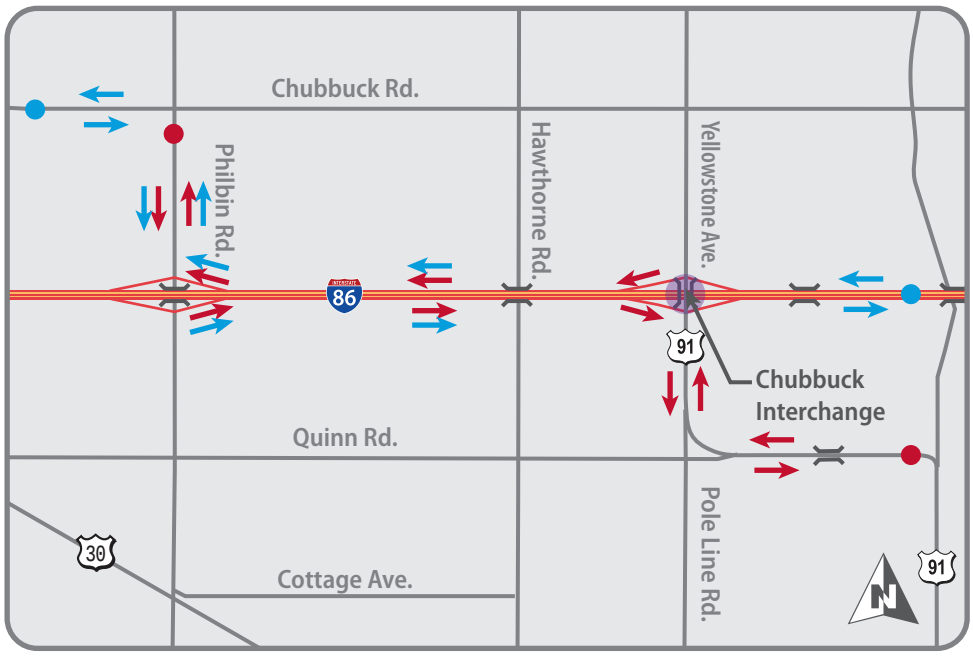


Figure 7-7a - With Philbin Interchange

Route A Origin / Destination Point

Route B Origin / Destination Point

Route A Traffic Flow

Route B Traffic Flow

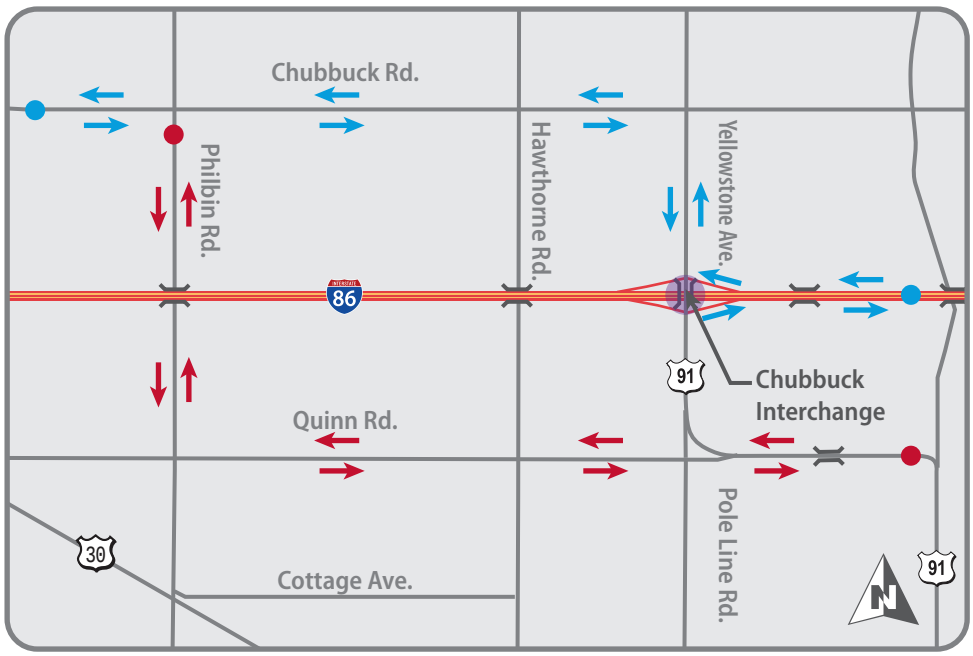


Figure 7-7b - Without Philbin Interchange

Route A Origin / Destination Point

Route B Origin / Destination Point

Route A Traffic Flow

Route B Traffic Flow

IDAHO TRANSPORTATION DEPARTMENT	*Project Number A009(884), Key #09884*		I-15 / I-86 Corridor Plan
	Date	**Figure Title**	**Figure Number**
	March 2011	Traffic Flow With and Without Interchange	7-7

Post-2040, the analysis indicates that the Philbin interchange would not provide a long-term solution to the Chubbuck interchange traffic congestion problems. The proposed I-15/Siphon interchange would have a much more pronounced effect on the Chubbuck Interchange. However, the Yellowstone Corridor and the Chubbuck interchange would eventually be over capacity, even with the Siphon interchange. Post-2040, an I-86/Philbin interchange would serve as a reliever for congestion on the US-91 Corridor.

It is recommended that an I-86/Philbin interchange be included in the I-15/I-86 Corridor Plan as a long term project, and the BPTO Long Range Regional Transportation Plan consider it as a post-2030 improvement.

7.5 Fort Hall Interchange

The need for improvements to the I-15/Fort Hall interchange was identified during the preparation of ITD's US-91 North Corridor Plan. Coordination with the Shoshone-Bannock Tribes during that Corridor Plan process indicated their desire for I-15 access improvements that would accommodate their anticipated future redevelopment of the existing Fort Hall Casino site.

Based on information obtained during and subsequent to the US-91 North Corridor Plan effort, it was assumed that the redevelopment could either occur on the current site just west of I-15 at the Fort Hall interchange, or at a new site along Agency Road just west of I-15. Thus, three alternatives were examined for the Fort Hall interchange area:

1. Improvements to the existing interchange to meet current AASHTO design standards as well as ITD LOS standards;
2. Relocation of the interchange to approximately one-half mile north of the existing interchange along Agency Road with closure of the existing interchange; and
3. Improvements that incorporate a partial interchange that would retain some ramps at the existing interchange in combination with a new interchange one-half mile north of the existing one.

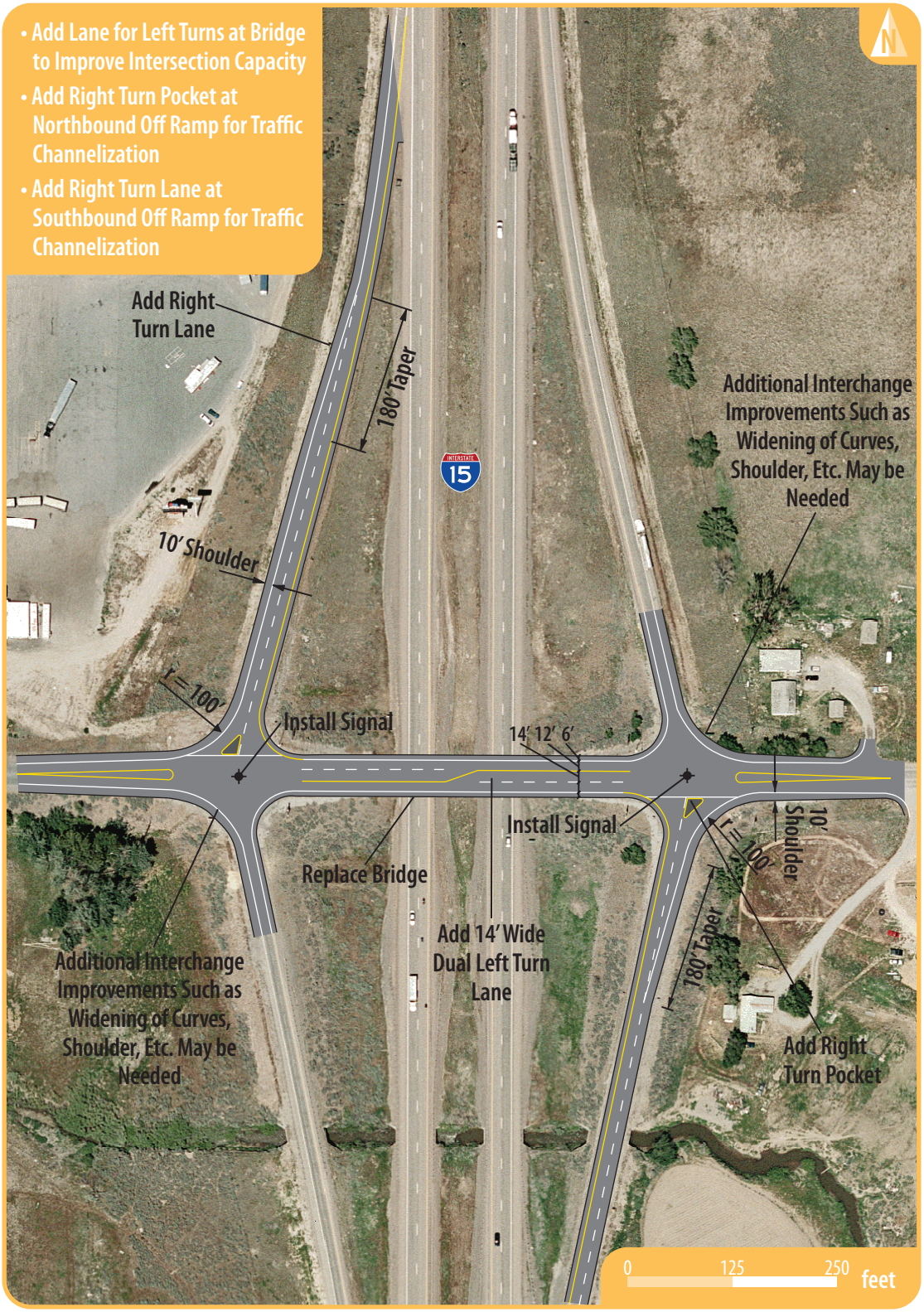
7.5.1 Option 1 - Improvements to Existing Interchange

Analysis of the existing interchange indicates that the existing geometry does not meet current AASHTO standards. The sight distance may be substandard for the off-ramp intersections. The current crash history at this interchange indicates that it is not a high accident location. Figure 7-8 shows the improvements that would bring the existing interchange up to current design and operational standards. It assumes that the access to the Fort Hall Casino and to the Fort Hall reservation would continue at that location.

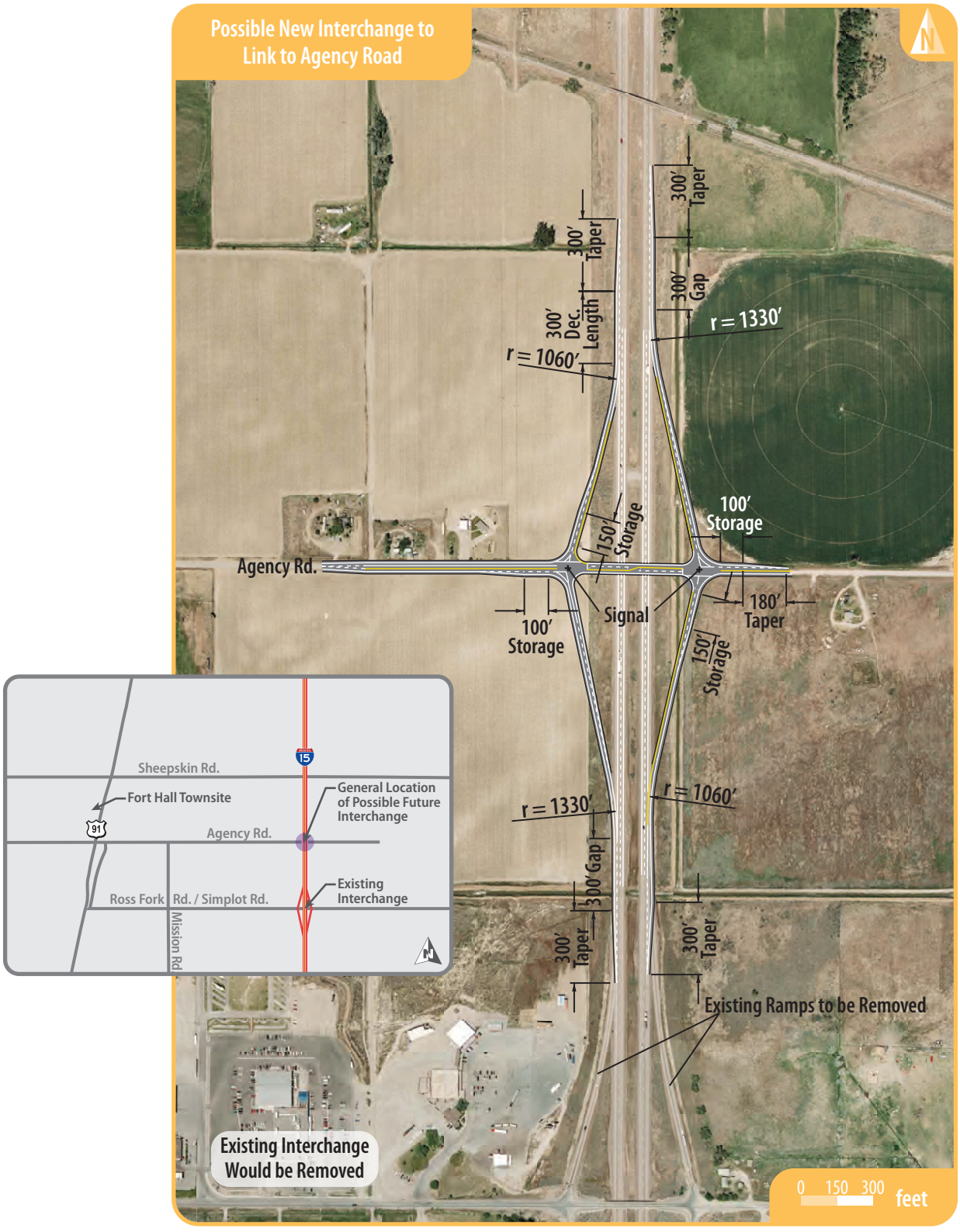
The Year 2030 traffic analysis indicates that the LOS will be deficient under ITD standards (LOS D). Northbound traffic exiting from I-15 onto the interchange off-ramp queues will eventually extend toward the I-15 mainline. This will result in substandard stopping distance to the back of the queue and increasing the risk of rear-end collisions on the ramp.

7.5.2 Option 2 - Possible New Interchange

Figure 7-9 shows the area of the Fort Hall Reservation that is currently served by the Fort Hall interchange, as well as the Fort Hall town site at US-91 and Agency Road. The roadway intersecting I-15 with the existing interchange is interchangeably designated as Ross Fork Road and Simplot Road.



IDAHO TRANSPORTATION DEPARTMENT	*Project Number A009(884), Key #09884*		**I-15 / I-86 Corridor Plan**
Date	**Figure Title**	**Figure Number**	
March 2011	**IMPROVEMENTS OPTION** **Fort Hall Interchange**	**7-8**	



	Project Number A009(884), Key #09884		**I-15 / I-86 Corridor Plan**
	Date	**Figure Title**	**Figure Number**
	March 2011	Fort Hall - Agency Road New Interchange Option	7-9

As redevelopment of the existing Fort Hall area and/or redevelopment along the Agency Road corridor would be the primary justification for a new interchange location, a traffic analysis was conducted to determine future travel demand for the interchange. A doubling of the existing casino size along with development of a hotel and other ancillary uses was assumed, in lieu of having development concepts from the Shoshone-Bannock Tribes. Using this development assumption, the resulting Year 2030 traffic levels would be about sixty percent higher than today's levels.

Figure 7-9 shows an interchange concept that could link a new Fort Hall interchange westward to Agency Road, a concept that was initially brought forth by the Shoshone-Bannock Tribes during the US-91 North Corridor Plan. As the interchange spacing between the existing interchange at milepost 79.9 and the proposed new one at approximately milepost 80.4 would not meet interchange spacing standards, the existing interchange would likely need to be closed as the new one is opened.

As a stand-alone interchange, this concept would provide full access to I-15 in all directions, including to the east along Agency Road. This would include an extension of Agency Road approximately one mile eastward to Bannock Road, and improvements at the Bannock Road/Agency Road intersection as well as at the Simplot Road/Bannock Road intersection, to accommodate existing trips traveling to/from I-15 using Simplot Road to the east of the existing Fort Hall interchange.

7.5.3 Option 3 - Possible Partial Interchanges

A potential third option could use a portion of the existing Fort Hall interchange in combination with a partial new interchange at the I-15/Agency Road schematically shown in Figure 7-9. This would provide for access to and from the north at the new interchange and access to and from the south at the existing interchange. A frontage road connector could be built to the west of I-15, connecting the two partial interchanges. This would provide for improved traffic circulation in this portion of the Fort Hall Reservation while providing full access to and from I-15.

7.5.4 Coordination and Information

Insufficient information was available during this Corridor Plan process to enable full evaluation of these options. The future projected population and employment discussed in Chapter 3 of this Corridor Plan does not provide sufficient justification for a new Fort Hall interchange within the planning horizon of this plan. Reassessment of the need could occur when new information becomes available.

Continued coordination with the Shoshone-Bannock Tribes to obtain specific development information and future travel needs is needed. A specific recommendation for Fort Hall interchange improvements is not included in this corridor plan until such time as input from the Tribes has been received and analyzed, and discussed with the Tribes.

ITD recognizes that any modifications to the existing Fort Hall interchange or consideration of a new interchange and its connections through the Fort Hall Reservation to Agency Road will need coordination with and approval from the Shoshone -Bannock Tribes. When an interchange improvement or replacement project is programmed, the process would also require coordination with both FHWA and ITD through an Interchange Access or Modification Request, pursuant to FHWA and ITD requirements. It is likely that, since tribal development plans would be a driver for this effort, the Bureau of Indian Affairs (BIA) may be included in this process.

8.0 Public Process

The I-15/I-86 North Corridor Plan was developed in consultation with a wide spectrum of public interests and roadway users. The purpose of this consultation was to identify project area issues and transportation needs, and to obtain input on alternative ways to address these. The process was organized and scheduled to correspond with important milestone decisions in the corridor planning process. Based on input from ITD and the Bannock Transportation Planning Organization, a mailing list of stakeholders was compiled. An introductory letter and project fact sheet was mailed to these entities, advising them of the start of the planning process and inviting their participation. The following stakeholders were on this initial list:

- Bannock County
- Bingham County
- Power County
- Oneida County
- Power County Highway District
- City of McCammon
- City of Chubbuck
- City of Pocatello
- City of Blackfoot
- City of Shelley
- City of American Falls
- Bingham Economic Development Corporation
- Blackfoot Chamber of Commerce
- Pocatello Chamber of Commerce
- Idaho Falls Chamber of Commerce
- American Falls School District #381
- Shoshone Bannock Tribes, Fort Hall
- Pocatello Regional Airport
- Pocatello/Chubbuck School District #25
- State of Idaho Labor Department
- Southeast Idaho Council of Governments
- Idaho State University
- Grow Idaho Falls, Inc.
- Greater Pocatello Association of Realtors
- Great Rift Business Development Organization
- J.R. Simplot Company
- Lewis Corporation
- ON Semiconductor
- Premier Properties Real Estate Company
- Steele West Inc.

The following resource agencies were also invited to participate to bring their specific expertise to the planning process and to identify any issues they may have in the I-15/I-86 corridor:

- U.S. Fish and Wildlife Service
- U.S. Environmental Protection Agency
- U.S. Army Corps of Engineers
- U.S. Department of Agriculture Forest Service
- Federal Highway Administration
- Idaho Division of Environmental Quality
- Idaho Fish and Game

8.1 Stakeholder Interviews

The Project Team conducted interviews with 14 entities at the beginning of the corridor planning process. These interviews provided opportunities to familiarize stakeholders with the corridor planning process, obtain their issues with and suggestions for I-15 and I-86, and to identify any other stakeholders that should be involved. Stakeholders were identified from contact information obtained from the Idaho Transportation Department, internet research and recommendations of other project participants. They included representatives from counties, local governments, state agencies, non-governmental entities, and business organizations. The following organizations were interviewed in late October and early November 2008.

- Power County
- City of American Falls
- Bingham County Zoning
- City of Blackfoot Public Works
- Bannock Transportation Planning Organization
- Bannock County
- Idaho Department of Labor
- Bingham Economic Development Corporation
- Bannock Development Corporation
- Southeast Idaho Council of Governments
- Grow Idaho Falls
- Greater Pocatello Chamber of Commerce
- City of Pocatello
- City of Chubbuck

The interviews were conducted using the following questions as a guide to initiating discussion. Discussion was not restricted to the topics represented below:

1. What problems/issues have you experienced with the current I-15 and I-86 highways?
2. What development trends do you see in the future (location and type)?
3. What improvements do you think are needed and where?
4. Who might also be interested in this corridor planning process?

The concerns and issues expressed by these individuals were considered in the development and refinement of I-15 and I-86 improvements.

8.2 Tribal Consultation

Both I-15 and I-86 provide access to the Fort Hall Reservation, home of the Shoshone-Bannock Tribes. The Tribes are a sovereign nation and have jurisdiction over the lands adjacent to US-91 through the reservation. ITD has been coordinating with the Tribes for many years on transportation related issues. Previous coordination has resulted in the approval and funding for improvements to Reservation Road and US-91 and approval for improvements to US-91 and Agency Road through the Fort Hall town site. During the US-91 North Corridor Plan development process, the Tribes had expressed interest in improvements to the I-15/Fort Hall interchange and/or an additional I-15 interchange.

ITD maintained contact with the Shoshone-Bannock Tribes through the corridor planning process to obtain any issues or suggestions they may have for improvements. A meeting with the Tribes Business Council may be held at their request to facilitate discussion of the corridor plan.

8.3 Public Open Houses

A public open house was held at the Idaho Transportation Department District 5 offices on November 13, 2008 to provide an opportunity for interested parties to identify issues and provide suggestions.

Proposed improvements to I-15 and I-86 were available for comment at a May 24, 2010 public open house at the City of Pocatello City Council Chambers.

A public open house on the I-15/I-86 Corridor Plan is planned for April 2011 to provide an opportunity for review and comment on this corridor plan.

8.4 Committee Presentations

ITD has consistently found that project planning and design have benefited from the technical expertise and local knowledge of county and city planners, engineers, public works staff, and other technical personnel. Continued local involvement in the development of this corridor plan was facilitated by attendance of ITD and project staff at meetings with the Power County Highway District, Bingham County Transportation Coalition, and the Bannock Transportation Planning Commission. Formal presentations were given at the following meetings:

- October 6, 2008 Power County Highway District
- October 9, 2008 Bingham County Transportation Corporation
- May 17, 2010 Bannock Transportation Planning Organization
- May 2010 Bingham County Transportation Coalition

ITD also provided project updates at the regularly scheduled meetings of these organizations.

9.0 Implementation Plan

Implementation of the I-15/I-86 Corridor Plan recommendations will require funding and environmental clearance and permitting as required.

9.1 Implementation Strategies

The I-15/I-86 Corridor recommended improvements will require implementation through the following mechanisms:

- Statewide Transportation Improvement Program programming;
- Local government projects;
- State and local government partnerships;
- State and Shoshone-Bannock Tribes partnership; and
- ITD maintenance program.

The structures improvement strategies contained in Appendix C should be considered during the normal programming process.

9.2 Environmental Clearance and Permitting

The need to develop environmental documentation prior to implementation of any of the recommended improvements must be determined, based upon funding source, potential impacts on natural and cultural resources, and federal and state permitting requirements. The following projects are likely to require environmental documents and Federal Highway Administration approval prior to construction:

- Reconstruction of the Chubbuck Interchange (environmental document being prepared)
- I-15 improvements within the Pocatello metropolitan area
- Improvements to the I-15/I-86 “Wye” interchange
- Changes to the I-15 Fort Hall interchange

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