

**Bonneville Metropolitan Planning Organization** 

# Sunnyside Road Access Plan

January 2014

KELLER associates

# SUNNYSIDE ROAD ACCESS PLAN

# OLD BUTTE ROAD TO SNAKE RIVER BRIDGE

# Submitted to:



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# Submitted by:



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# January 2014

On January 15, 2014, the Bonneville Metropolitan Planning Organization Policy Board approved the Sunnyside Road Access Plan and Recommended Option 2B, with the condition that the Sidehill Canal bridge over Sunnyside Road (approximately 175' west of the 1/16<sup>th</sup> line) be considered for adjustment of the traffic signal location.

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# 1.0 Introduction

# 1.1 Background and Objectives

Sunnyside Road in Idaho Falls between I-15 and Yellowstone Highway is designated as US Highway 26 as well as the Interstate 15 Business Loop, under the jurisdiction of the Idaho Transportation Department (ITD). The Sunnyside Road corridor in the vicinity of the I-15 interchange has been under considerable development pressure and rapidly increasing traffic volumes since its construction in 2007. Sunnyside Road was also recently identified in the Bonneville Metropolitan Planning Organization (BMPO) *Transportation System Alternatives Study* as one leg of the proposed Inner Beltway around Idaho Falls. As such, its functional classification will change from principal arterial to strategic arterial. West of the I-15 interchange to a future extension of Old Butte Road, widening is expected from the current two-lane section to four lanes with a median, as well as limited access along the entire corridor. However, neither funding nor a construction year for the project has yet been identified.

The planned improvement to extend Old Butte Road southward from its current terminus at Pancheri Drive to Sunnyside Road will construct another leg of the future Inner Beltway. Funding for the Old Butte Road Extension is currently programmed<sup>1</sup> in the Idaho Transportation Improvement Program (ITIP) as follows: design in FY2014, right-of-way acquisition in FY2017 and construction in Preliminary Development (FY2019 or later)

In order to manage and plan for access to this important regional corridor, BMPO and its member agencies requested this traffic study and access plan. Several traffic impact studies (TIS's) have been completed within the area in the last 10 years for individual, isolated developments. The first objective of this study is to consider previous TIS's within the area and their cumulative effects on the Sunnyside corridor. The second and primary objective of this study is to gain agreement on the specific locations and types of access points along the Sunnyside Road corridor.

# 1.2 Study Approach

This study is not intended to serve as a detailed TIS for future, individual developments throughout the study area. The scope of this study is limited to:

- gathering existing data from previous TIS's and from the participating agencies;
- preparing generalized trip generations for unknown development areas;
- formulating alternative street configurations for presentation to the public; and
- preparing recommendations for public road access points and locations of future signalized intersections along Sunnyside Road.

Trip generations from those areas without a current TIS were not distributed to the roadway network, and detailed new intersection analyses were not performed. The recommendations in this report are based on information gathered, ITD requirements, feedback received from the public open house, and traffic engineering judgment.

<sup>&</sup>lt;sup>1</sup> Source: Idaho Transportation Department, Draft FY 2014-2018 ITIP, 2013



# 2.0 Traffic Volumes

The recommendations presented in this study are based on existing and future traffic volumes for the Sunnyside Road intersections of Outlet Blvd/Bellin Road, I-15 Southbound Ramps, I-15 Northbound Ramps, Pioneer Road and Snake River Parkway. Several TIS's that have been conducted recently for approval by the City of Idaho Falls have presented traffic data pertinent to these intersections. Instead of replicating this information, these studies are referenced for existing and projected traffic volumes.

#### 2.1 Previous Studies

This study references several studies that have been developed in the project area in the last decade:

- <u>Eagle Ridge Traffic Impact Study</u>, by Fehr & Peers Associates for Ball Ventures, July 11, 2003
- <u>Sunnyside Crossroads Center Traffic Impact Study</u>, by Dobie Engineering for the City of Idaho Falls, July 31, 2007
- <u>Traffic Impact Study Update for the Sunnyside Crossroads Center in Idaho Falls</u>, by Keller Associates for the City of Idaho Falls, March 12, 2013
- <u>Idaho Falls Event Center Traffic Impact Studies</u>, by Horrocks Engineers for the Idaho Falls Auditorium District, November 8, 2012 & February 19, 2013
- <u>Traffic Impact Study Review for the Idaho Falls Event Center</u>, by Keller Associates for the City of Idaho Falls, May 7, 2013

Existing and projected traffic data presented by these traffic studies was compiled in determining the future traffic in the corridor.

The following planning and management documents were also used in preparation of this study:

- <u>I-15, Sunnyside Interchange to I-15B Project Environmental Assessment</u>, by Idaho Transportation Department for U.S. Department of Transportation, Federal Highway Administration, March 2002
- <u>Transportation System Alternatives Study</u>, by DKS Associates and CHS Consulting Group for Bonneville Metropolitan Planning Organization, May 2011
- <u>BMPO Access Management Plan</u>, by Transpo Group for Bonneville Metropolitan Planning Organization, July 2012
- <u>Idaho Administrative Procedure Act (IDAPA) Rule 39, Title 03, Chapter 42</u>, "Rules Governing Highway Right-of-Way Encroachments on State Rights-of-Way", Updated October 2012

# 2.2 Existing Traffic Volumes

As the intent of this study is to analyze only the worst-case scenario, this report will present only PM Peak Hour traffic volumes<sup>2</sup>. PM Peak traffic counts at the study

<sup>&</sup>lt;sup>2</sup> PM Peak volumes were higher than the AM Peak in all cases studied. Also, the Event Center TIS only analyzed the PM Peak Hour.



intersections were performed for the Sunnyside Crossroads TIS Update study in 2012 and for the Idaho Falls Event Center TIS Review study in 2013. The 2012 counts were increased by 1% to estimate growth in the area to 2013. Existing 2013 PM Peak Hour Turning Movement Counts are shown in **FIGURE 1**.

# 2.3 Future Background Traffic

New 2018 and 2023 background traffic for the Sunnyside Road corridor was calculated for this study. This background traffic does not include the traffic estimated to be generated by the remaining phases of the Snake River Landing development, the Sunnyside Crossroads Center, or the Idaho Falls Event Center.

The Sunnyside Road area is projected to see substantial growth in the near future. The process to forecast future background traffic conditions was conducted utilizing BMPO's QRS II travel demand model, with certain revisions and modifications. The detailed process was as follows:

- 1. Modify the link geometry of the existing BMPO 2020 TIP QRS II model to create two new models: 1) 2020 with Bellin, and 2) 2020 with Bellin and Old Butte. *The existing 2020 TIP model had neither a Bellin connection nor an Old Butte connection to Sunnyside.*
- 2. Modify the Traffic Analysis Zone (TAZ) centroid attributes of the new models to account for the Sunnyside Crossroads Center (SCRC), Idaho Falls Event Center (IFEC) and Snake River Landing (SRL) developments being forecast separately—demographics representing these developments (employment) were removed from the affected TAZs.
- 3. Run the new models to determine directional roadway link Average Daily Traffic (ADT) forecasts, with the new Bellin and Old Butte Road geometries but without the SCRC, IFEC and SRL developments.
- 4. Compare the new model output to BMPO's Calibration model, to get annual ADT increment increases (not percentage growth) on each link and in each direction. *This is done because by their nature, travel demand models are much better at forecasting <u>changes</u> in traffic volumes, than in exactly matching corresponding ground counts.*
- 5. Obtain expected peak hour percentages of daily traffic ("K" factors) from ITD's nearby Sunnyside Road automatic traffic recorder.
- 6. Using the annual ADT increment increases and the K factors, prepare peak hour link increases for 2018 PM (from the Bellin-only model) and 2023 PM (from the Bellin and Old Butte model).
- 7. Using the forecast peak hour link increases, use a Furness-method iterative procedure to modify the existing 2013 Turning Movement Counts (TMCs) into 2018 and 2023 peak hour TMC forecasts.

PM Peak Hour Background Traffic without Development for 2018 and 2023 are presented in **FIGURES 2 and 3**, while further detail of the modeling and Furnessmethod iterative process results is presented in **APPENDIX A**.









# 2.4 Projected Traffic

Potential traffic from currently-undeveloped land within the study area falls into two general categories: Previously-Submitted Development Plans and Unstudied Development.

# 2.4.1 Previously-Submitted Development Plans

The three developments that provided TIS's to the City of Idaho Falls included trip generations, distributions, and assignments for those developments. The site-generated project traffic from the following TIS's were used in this study:

- Eagle Ridge (Snake River Landing) TIS Pods 1 & 2 only;
- Sunnyside Crossroads Center TIS Update; and
- TIS Review for the Idaho Falls Event Center.

For purposes of this study, it was assumed that the recommendations presented herein will not affect the trip distributions in the previous traffic studies. The combination of project traffic projections from these three studies is presented in **APPENDIX B.** 

# 2.4.2 Unstudied Development

There is almost 700 acres of developable land adjacent to the study area between Pancheri Drive and York Road not represented by completed traffic studies that would likely contribute to traffic on Sunnyside:

- 36 acres of land within City Limits north of Sunnyside near I-15—it was assumed that the 20-acre storm retention pond owned by the City of Idaho Falls would not be developed, leaving 16 acres for development;
- Approximately 223 acres of land outside of City Limits north of Sunnyside between I-15 and Snake River Landing; and
- Approximately 427 acres of land outside City Limits south of Sunnyside between I-15 and the river.

Detailed information about potential land uses for the unstudied development areas was not available. In order to facilitate this study and solely for estimated trip generation purposes, it was assumed that these previously-unstudied areas would be developed similarly to the mixed-use Snake River Landing. Further details regarding this new trip generation are presented in a technical memorandum found in **APPENDIX C**.

PM Peak Background Traffic <u>with</u> Development for 2018 and 2023 are presented in **FIGURES 4 and 5**. The traffic generated by the unstudied areas is represented on these figures by a large arrow, indicating that it was not distributed to the roadway system. The precise distribution of this future traffic will vary, depending on which access option is eventually implemented and on the configuration of collector road networks north and south of Sunnyside Road.





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# 3.0 Previously Identified Corridor Improvements

The City of Idaho Falls and Bonneville County both have plans for development adjacent to the Sunnyside Road corridor. One of the goals of this study is to bring these various plans together, along with ITD's standards and direction, and determine which improvements are feasible in order to define the access along the future corridor.

### 3.1 City of Idaho Falls Improvements

The traffic impact studies mentioned previously each included suggested system improvements along the Sunnyside corridor:

#### Eagle Ridge (Snake River Landing) TIS — 2003

- Signalize both I-15 Ramp intersections
- Signalize Pioneer Drive (formerly South Bellin Road) intersection
- Signalize Pioneer Road intersection
- Signalize Snake River Parkway intersection
- Construct a right turn-lane on the I-15 Northbound Ramp
- Construct an extension of Pioneer Lane, north of and parallel to Sunnyside Road eastward to Snake River Parkway
- Construct the "Pioneer Connection," south of and parallel to Sunnyside Road between Pioneer Drive and Pioneer Road



Source: Fehr & Peers Associates, Eagle Ridge Traffic Impact Study, 2003

#### Sunnyside Crossroads Center TIS Update — March 2013

- Signalize both I-15 Ramp intersections
- Construct a right turn lane on the I-15 Northbound Ramp
- Construct turn lanes on Sunnyside at Outlet Blvd/Bellin Road
- Restrict left-turn access at Outlet Blvd, when Old Butte Road Extension and accompanying connector roads from Outlet/Bellin to Old Butte are built



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#### Idaho Falls Event Center TIS Review — May 2013

- Signalize Snake River Parkway intersection
- Restrict access at Pioneer Drive to right-in/right-out and relocate the Public Road access to a new signalized intersection ¼ mile to the east

#### 3.2 Bonneville County Improvements

Bonneville County Planning & Zoning has been working with developers in the study area to devise a plan for expanding the County's road network adjacent to Sunnyside. The County has proposed construction of a new north-south roadway that would access Sunnyside Road about 750 feet east of Pioneer Drive. They also propose to restrict access at Pioneer Drive to right-in/right-out.



Source: Robert Meikle, Public Open House Comments, September 2013

The developer of the southeast corner at Pioneer Drive is currently constructing a new car dealership which will access Pioneer Drive upon opening. As part of this development, the County has approved a subdivision plat that includes a public road easement along the east border of the development for a potential future connection to Sunnyside Road.

However, in the public hearings for both the rezoning of the north property and the subdivision plat for the south property, ITD notified the County that access to Sunnyside Road at this location had neither been permitted nor approved. The letters submitted by ITD to the public hearing comments are included in **APPENDIX D**.



# 4.0 Access Management

## 4.1 Principles of Access Management

One of the most fundamental concepts in access management is that movement of traffic and access to property are mutually exclusive; no facility can move traffic very well and provide unlimited access at the same time. A hierarchy of road types is needed to delineate which roadways will focus on moving traffic and which roadways will focus on property access. The illustration below is the classic diagram showing the relationship between mobility, access, and the functional hierarchy of streets.



Source: Bonneville MPO, Access Management Plan, July 2012

Access management attempts to balance good mobility for through traffic with the requirements for reasonable access to adjacent land uses. Symptoms of poor access management include a higher collision rate than what would be considered normal as well as higher traffic congestion due to disorderly movements from driveways and side streets. An effective access management program can reduce crashes as much as 50 percent, increase roadway capacity by 23 to 45 percent, and reduce travel time and delay as much as 40 to 60 percent<sup>3</sup>.

<sup>&</sup>lt;sup>3</sup> Source: Transportation Research Board, Access Management Manual, 2003



Poor network and land use planning can also make access management difficult. If properties have no viable alternative other than direct access to major streets, then access management policies would likely be overridden. Or, when major streets or highways must also serve local circulation trips, traffic congestion is a higher probability. Good access management practices along major streets include:

- 1. Limit the number of conflict points at driveway locations. Conflict points are good indicators of the potential for accidents. The more conflict points that occur at an intersection, the higher the potential for vehicular crashes. When left turns and cross street through movements are restricted, the number of conflict points is significantly reduced.
- 2. **Separate conflict areas.** Intersections created by public streets and driveways represent basic conflict areas. Adequate spacing between intersections allows drivers to react to one intersection at a time, and reduces the potential for conflicts.
- 3. **Reduce the interference of through traffic**. Through traffic often needs to slow down for vehicles exiting, entering, or turning across the roadway. Providing turning lanes, designing driveways with appropriate turning radii, and restricting turning movements in and out of driveways allows turning traffic to get out of the way of through traffic.
- 4. **Provide sufficient spacing for at-grade, signalized intersections**. Good spacing of signalized intersections reduces conflict areas and increases the potential for smooth traffic progression.
- 5. **Provide adequate off-street circulation and storage**. The design of good internal vehicle circulation in parking areas and on local streets and collectors reduces the number of driveways that businesses need for access to the major roadway.

# 4.2 Functional Classification

Roadway functional classification is primarily based on vehicular travel and vehicular access to adjacent properties<sup>4</sup>. Freeways and arterials are meant to operate at higher operating speeds and traffic volumes. In contrast, collector and local streets are meant to provide more access to adjacent properties and operate at lower speeds. All vehicle trips start and end at specific properties, and nearly all transition between higher speed arterials and lower speed local streets over the length of the typical trip. The following illustration shows the functional classifications used in the BMPO Access Management Plan, which are very similar to those used by ITD.

<sup>&</sup>lt;sup>4</sup> Source: AASHTO, Policy on Geometric Design of Highways and Streets, 2011



Classification	Definition Major roadways that provide vehicle access via interchanges only and serve regional through traffic.				
Freeways					
Expressways	Like Freeways, except vehicle access may include at-grade intersections.				
Strategic Arterials	Like Principal Arterials, except vehicle access is even more restricted with raised medians and longer intersection spacing to better serve through traffic.				
Principal Arterials	Major roadways that are intended to primarily serve through traffic, so access abutting properties is restricted.				
Minor Arterials	Like Principal Arterials, except vehicle access is less restricted.				
Major Collectors	Roadways that provide local circulation over moderate distances and link arterials to local streets. Except for individual residences, they may provide direct access to abutting properties.				
Residential Collectors	Like Major Collectors, except provide local circulation over short distances and provide direct access to individual residences.				
Local Streets	Roadways that are intended to provide access to abutting properties and serve very little to no through vehicle traffic.				

Source: Bonneville MPO, Access Management Plan, July 2012

Currently, roads in the study area are classified by BMPO and ITD as follows: Sunnyside Road and the proposed Old Butte Road Extension as a principal arterials, Snake River Parkway as a minor arterial, and Pioneer Road and Bellin Road as major collectors. In addition, Sunnyside Road and Old Butte Road were recently identified in the BMPO *Transportation System Alternatives Study* as two legs of the proposed Inner Beltway around Idaho Falls. As such, their future functional classification will change from principal arterial to strategic arterial.

#### Legend

Functional	Classification
	Freeway
	Freeway (Proposed)
	Strategic Arterial
	Strategic Arterial (Proposed)
	Principal Arterial
	Principal Arterial (Proposed)
	Minor Arterial
	Minor Arterial (Proposed)
	Major Collector
	Major Collector (Proposed)
	Residential Collector
	Local Street
	Beltways (Proposed)
	City of Ammon
	City of Idaho Falls



Source: Bonneville MPO, Access Management Plan, July 2012



# 4.3 Optimal Traffic Signal Spacing

Traffic signal coordination and vehicle progression are very important reasons for the establishment of minimum traffic signal spacing. The following two tables illustrate the interrelationship between vehicle speeds, signal cycle length, and signal spacing:

# **TABLE 9-1** Spacing of Signalized Intersections for Various ProgressionSpeeds and Cycle Lengths

Cycle				Speed (mph)	0		
Length	25	30	35	40	45	50	55
(s)			Si	gnal Spacing	(ft)		
60	1100	1320	1540	1760	1980	2200	2420
70	1280	1540	1800	2050	2310	2570	2820
80	1470	1760	2050	2350	2640	2930	3230
90	1630	1980	2310	2640	2970	3300	3630
$120^{b}$	2200	2640	3080	3520	3960	4400	4840

<sup>a</sup> Distances below the line are undesirably long spacings.

<sup>b</sup>Longest recommended cycle length.

# **TABLE 9-2** Progression Speed as a Function of Signal Spacing andCycle Length

		Spa	ncing	
Cycle	1/8 mi	1/4 mi	1/3 mi	1/2 mi
Length	(660 ft)	(1,320 ft)	(1,760 ft)	(2,640 ft)
(s)	and the Calendaria	Progression	Speed (mph)	
60	15	30	40	60
70	13	26	34	51
80	11	22	30	45
90	10	20	27	40
100	9	18	24	36
110	8	16	22	33
120	7.5	15	20	30

Source: Transportation Research Board, Access Management Manual, 2003

In this relationship between speed, cycle length, and spacing, the traffic signal spacing is fixed once constructed—cycle length and vehicle speeds are the only things that can change. As side-street traffic volumes increase, a traffic signal's cycle length must increase to accommodate all movements without excessive delay. And as cycle lengths increase, the speed of vehicles progressing along a "green band" of coordinated timing must decrease. In order to maintain the arterial function of Sunnyside, higher speeds of 45 to 50 mph should be the goal. Maximizing and equalizing the spacing between signals is the only way to preserve this function.

In addition to the progression speed along a corridor, optimal, or near-optimal, spacing of signals is essential in reducing the number of vehicle stops. A uniform spacing, based on the optimal location, permits a through band equal to the green time<sup>5</sup> If the signals

<sup>&</sup>lt;sup>5</sup> The through bandwidth indicates the amount of traffic that can pass through a series of signals during the green phase.



are placed away from the optimum location, there is a corresponding reduction in the through band, or time during which the progression is maintained. Thus, not all drivers who make it through the green on the first signal will make it through the green on the second signal.

# 5.0 Sunnyside Road Access

# 5.1 Existing Corridor Access

Currently, Sunnyside Road (I-15B/US-26) traffic flows freely between New Sweden School Road (South 35<sup>th</sup> West) and Yellowstone Highway (I-15B/US-26/US-91). The study area for this report consists of six public road intersections: Bellin Road/Outlet Blvd, I-15 Northbound and Southbound Ramps, Pioneer Drive, Pioneer Road, and Snake River Parkway. Each of the intersections is currently two-way stop control with sidestreet traffic having to stop at Sunnyside. Traffic flows very well along Sunnyside Road, but as development in the area continues and as traffic entering Sunnyside from the side roads increases, future conditions will become a safety and mobility concern.



ITD recognizes that development in the area will occur. However, they are very protective of the function of this regional corridor and have indicated three requirements in order for them to consider any access changes:

- 1. Must meet IDAPA 39.03.42<sup>6</sup> requirements (outlined in Section 5.3) for spacing of public roads and signalized intersections;
- 2. No new accesses will be granted in the corridor, but an existing access may be traded—if a new access is opened, an existing access must be closed; and
- 3. Accesses must be developed equally across Sunnyside—if a new access is built on the south, a matching access must be built on the north and vice versa.

<sup>&</sup>lt;sup>6</sup> Idaho Administrative Policy Act Rule 39, Title 03, Chapter 42, "Rules Governing Highway Right-of-Way Encroachments on State Rights-of-Way"



## 5.2 ITD Access Policy at the Time of Interchange Construction

In March 2002, ITD and the Federal Highway Administration (FHWA) approved the I-15, Sunnyside Interchange to I-15B Project Environmental Assessment, with a Finding of No Significant Impact (FONSI) following in August 2002. In the Environmental Assessment, access control for the newly constructed corridor was established as Type IV per IDAPA 39.03.42. The text from Section 2.4 of the approved Environmental Assessment is as follows:

# **Access Control**

The Sunnyside project will be constructed and managed with Type IV access control, under the Idaho Administrative Code IDAPA 39.03.42. Type IV access control applies to portions of the State highway system that are classified as principal arterials and have four or more lanes with a median or continuous center turn lane. Public highway connections and new private approaches may be permitted in accordance with Idaho Transportation Department standards. These standards allow for at grade intersection spacing of one intersection every half mile for urban sections of the roadway, and every mile for rural sections of the roadway. No driveway approaches are allowed onto principal arterials.

Source: FHWA and ITD, *I-15, Sunnyside Interchange to I-15B Project Environmental* Assessment, March 2012

Subsequent to environmental approval, ITD prepared an Access Control Determination for the corridor which was approved in April 2003. This document, which identifies the highway's access control and the specific locations where approaches are permitted is still in effect and is presented in **APPENDIX E**.

During the right-of-way acquisition process for the Sunnyside Interchange project, ITD purchased or condemned the land required from the adjacent landowners, including all rights of access to the new highway. The existing public road intersections were permitted based on their locations at that time. Typical language found in Warranty Deeds along the corridor is as follows:

TOGETHER WITH all rights of access belonging to the Grantors, between the herein above described parcel and the right of way of I-15, Project No. IM-NH-15-3(106)113 Highway Survey.

Source: Bonneville County Recorder, Warranty Deed for Parcel RP20N37E266432, July 2003

In the case of condemnations, property rights (including access) were obtained through "Second Judgment and Decree of Condemnation." Typical language is as follows:



2. That the taking of the property and property rights condemned herein, and

hereinafter described, is necessary to and for the construction of that certain public highway

known as I-15, Project No. IM-NH-15-3(106)113.

3. That the hereinafter described property and property rights be, and the same are

condemned and taken by and for the use of the State of Idaho.

Source: Bonneville County Recorder, Instrument #1198644, September 2005

Construction of the project began in July 2004. No traffic signals were constructed, as none were warranted at the time. However, an agreement was recorded between ITD and Sunnyview LLC in March 2004, that the "…Developer agrees to fully fund the design and construction of a traffic signal at the intersection of Sunnyside Road and Eagle Ridge Road [Snake River Parkway] at such time in the future when a traffic signal shall be warranted...A separate agreement will be entered into between the parties at that time for the purpose of implementation." No funds were deposited into escrow for construction of a future traffic signal as part of this agreement. A copy of the agreement is presented in **APPENDIX F**.

#### 5.3 Current ITD Access Policy

Construction of any improvements within the Sunnyside Road right of way must meet the current Idaho codes, rules, and policies. The governing document for access management on state roads in Idaho is the Idaho Administrative Policy Act (IDAPA) Rule 39, Title 03, Chapter 42, "Rules Governing Highway Right-of-Way Encroachments on State Rights-of-Way," which was revised in October 2012.

#### 5.3.1 Highway and Area Types

ITD access spacing is first based on highway type and area type. Sunnyside Road from I-15 to Yellowstone Highway is currently designated as a **Regional Route** in a **Transitional** area type. These designations are defined as follows:

60. Regional Route. A state highway that accommodates trips of moderate length with a lower level of mobility than a Statewide Route and that provides moderate access to communities, to include providing mobility for people and freight through and between communities and major activity centers of the region. (10-1-12)T

78. Transitional. State highway rights-of-way and right-of-way corridors within the area of city impact of any incorporated city, or areas designated as an area of city impact by city or county comprehensive plans. (10-1-12)T

Sources: State of Idaho, IDAPA 39.03.42, October 2012

#### 5.3.2 Traffic Signal and Approach Spacing

Minimum spacing between traffic signals and between approaches are established in order to maintain system capacity, safety and efficiency, maximize



signal progression and minimize delays to the traveling public (see Section 4.3). ITD's specific standards are shown in the following two IDAPA illustrations:

		TABLE	1 - ACCE	SS SPACING*		
HIGHWAY TYPE	AREA TYPE	Signalized Road Spacing	Public Road Spacing (A)	Driveway Distance Upstream From Public Road Intersection (B)	Driveway Distance Downstream From Unsignalized Public Road Intersection (C)	Distance Between Unsignalized Accesses Other Than Public Roads (D)
	Rural	5,280 ft	5,280 ft	1,000 ft	650 ft	650 ft
Statewide	Transitional	5,280 ft	2,640 ft	760 ft	500 ft	500 ft
Route	Urban >35 mph	2,640 ft	1,320 ft	790 ft.	500 ft	500 ft
	Urban ≤35 mph	2,640 ft	1,320 ft	790 ft	250 ft**	250 ft**
	Rural	5,280 ft	2,640 ft	1,000 ft	650 ft	650 ft
Regional	Transitional	2,640 ft	1,320 ft	690 ft	360 ft**	360 ft**
Route	Urban >35 mph	2,640 ft	660 ft	660 ft	360 ft**	360 ft**
	Urban ≤35 mph	2,640 ft	660 ft	660 ft	250 ft**	250 ft**
	Rural	2,640 ft	1,320 ft	760 ft	500 ft	500 ft
District Douts	Transitional	2,640 ft	660 ft	660 ft	360 ft**	360 ft**
District Route	Urban >35 mph	1,320 ft	660 ft	660 ft.	360 ft**	360 ft**
	Urban ≤35 mph	1,320 ft	660 ft	660 ft	250 ft**	250 ft**
			-	+		

\*Distances in table are minimums based on optimal operational and safety conditions such as adequate sight distance and level grade. Definitions of spacing designated by (A), (B), (C), and (D) are represented on Figure 1.

\*\* Where the public road intersection or private access intersection is signalized, the distances in the table are for driveways restricted to right-in/right-out movements only. For unrestricted driveways the minimum distance shall be 500 feet from a signalized intersection.

(10-1-12)T



Source: State of Idaho, IDAPA 39.03.42, October 2012



# 5.3.3 District Engineer Authority

Section 400 of IDAPA 39.03.42 gives the ITD District Engineer the authority to:

- Deny an encroachment permit or require the applicant to provide a Traffic Impact Study when an on-site review indicates that the optimal conditions (such as sight distance and queue length) assumed in IDAPA Table 1 do not exist and that operational or safety problems may result from the encroachment spacing.
- Approve a decrease in the minimum access spacing distances in IDAPA Table 1, provided that the basis for any exception is justified and documented.

The basis for an exception may include "overriding economic opportunity considerations." Any exception that would result in a decrease in access spacing of more than 10% of the distances in IDAPA Table 1 would require a Traffic Impact Study to determine whether auxiliary lanes or other appropriate mitigation must be included in the permit's conditions.

Traffic Impact Studies are also required when a new or expanded development seeks direct access to a state highway, and at full build out will generate one hundred (100) or more new trips during the peak hour, the new volume of trips will equal or exceed one thousand (1000) vehicles per day, or when certain land use thresholds are exceeded.

When required, the Traffic Impact Study must document access needs and impacts and whether any highway modifications are necessary to accommodate the new traffic volumes generated by the development. Such modifications could include, for example, turn lanes, additional through lanes, acceleration or deceleration lanes, medians, traffic signals, removal and/or consolidation of existing approaches, approaches limited to right-in/right-out access only, etc.

If the ITD District Engineer denies an encroachment permit application, the denial may be appealed to the Idaho Transportation Board. The Board or its delegates have the authority to approve exceptions to the access and signal spacing distances in IDAPA Table 1 if they determine that overriding economic considerations cause the exceptions to be in the best interests of the public.

# 5.4 BMPO Access Guidelines

BMPO access spacing guidelines are similar to those of ITD and would apply to roads other than State Highways, specifically Sunnyside Road west of I-15. This western section of Sunnyside Road to the Old Butte Road Extension is classified by BMPO as a Principal Arterial with Shared Priority<sup>7</sup>. However, as mentioned previously, this classification will change to Strategic Arterial as part of the future Inner Beltway. The specific BMPO guidelines for intersection and traffic signal spacing are shown in the following two illustrations:

<sup>&</sup>lt;sup>7</sup> In addition to Functional Classification, BMPO uses a Travel Context Classification which includes Truck/Auto Priority, Bicycle/Pedestrian Priority, Transit Priority, or Rural Context.



Functional Classification <sup>1</sup>	Travel Context Classification	Typical Number of Vehicle Lanes	Typical Speeds	Major Intersection Spacing 0.25 mile (1,320 feet) <sup>2</sup>	
Strategic Arterials	Truck/Auto	5-7 lanes	40 to 45 mph		
	Shared	5-7 lanes	40 to 45 mph	0.25 mile (1,320 feet) <sup>2</sup>	
Principal Arterials	Truck/Auto	5 lanes	35 to 45 mph	660 feet <sup>3</sup>	
	Shared	5 lanes	35 to 45 mph	660 feet <sup>3</sup>	
	Rural Context	2 lanes	45 to 55 mph	0.25 mile (1,320 feet)	
Minor Arterials	Truck/Auto	3-5 lanes	35 to 45 mph	660 feet	
	Bicycle/Pedestrian	3 lanes	35 mph	660 feet	
	Shared	3-5 lanes	35 mph	660 feet	
	Rural Context	2 lanes	45 to 55 mph	0.25 mile (1,320 feet)	
Major Collectors	Truck/Auto	3 lanes	35-40 mph	300 feet	
	Bicycle/Pedestrian	3 lanes	30 mph	300 feet	
	Shared	3 lanes	35-40 mph	300 feet	
	Rural Context	2 lanes	45 mph	660 feet	
Residential Collectors	Bicycle/Pedestrian	2 lanes	25 mph	300 feet	

Sources: BMPO, Access Management Manual (Transportation Research Board, 2003)

1. Only functional classifications that are relevant to major intersection spacing are shown.

2. For strategic arterials, major intersections without traffic signals would have restricted left-turn movements into and/or out of the side streets or driveways.

3. For principal arterials, major intersections without traffic signals may have restricted left-turn movements into and/or out of the side streets or driveways.

Table 5. Signalized Intersection Spacing by Classification						
Functional Classification <sup>1</sup>	Travel Context Classification	Typical Number of Vehicle Lanes	Typical Speeds	Signalized Intersection Spacing <sup>2</sup>		
Strategic Arterials	Truck/Auto	5-7 lanes	40 to 45 mph	0.5 mile (2,640 feet)		
	Shared	5-7 lanes	40 to 45 mph	0.5 mile (2,640 feet)		
Principal Arterials	Truck/Auto	5 lanes	35 to 45 mph	0.5 mile (2,640 feet)		
	Shared	5 lanes	35 to 45 mph	0.33 mile (1,760 feet)		
	Rural Context	2 lanes	40 to 55 mph	1 mile (5,280 feet)		
Minor Arterials	Truck/Auto	3-5 lanes	35 to 45 mph	0.5 mile (2,640 feet)		
	Bicycle/Pedestrian	3 lanes	35 mph	0.33 mile (1,760 feet)		
	Shared	3-5 lanes	35 to 40 mph	0.33 mile (1,760 feet)		
	Rural Context	2 lanes	40 to 55 mph	1 mile (5,280 feet)		

Sources: BMPO, Access Management Manual (Transportation Research Board, 2003)

1. Only functional classifications that are relevant to signalized intersection spacing are shown.

2. Signalized intersection spacing represents minimum spacing. However, spacing of signals should be as uniform as possible

through a corridor for efficient signal timing practices.

Source: Bonneville MPO, Access Management Plan, July 2012

The BMPO Access Management Plan has been approved by its Policy Board. However, among the member agencies, only the City of Ammon has officially adopted the AMP at the present time.



# 6.0 Stakeholder Input

#### 6.1 Agency Interviews

As part of this study, interviews with the agencies (ITD, Bonneville County, and City of Idaho Falls) directly affected by Sunnyside Road were held July 30 & 31, 2013. As each of the agencies has their own individual goals and expectations for the corridor, it was important that this study address each agency's needs and requests. Following are summaries of the results of those interviews.

#### <u>6.1.1 Idaho Transportation Department</u> – District Engineering Manager, Traffic Engineer

As owner of Sunnyside Road between I-15 and the Yellowstone Highway, ITD's interest in this project is making sure that whatever solutions are recommended meet Idaho Rules and Codes, ITD Policies, and preserve the function of the highway. The District Traffic Engineer receives encroachment permit requests. He then reviews them and recommends either approval or denial to the District Engineer. The District Engineer has the authority to approve or deny the request. Any appeals of the District Engineer's decision would go to the Idaho Transportation Board.

The District Engineer has indicated that ITD has three goals for protecting this important corridor: 1) No new accesses will be granted; 2) Accesses must meet the IDAPA 39.03.42 spacing standard (signals ½ mile, public road approaches ¼ mile); and 3) approaches on the north and the south must line up.

ITD provided a copy of an agreement between ITD and Sunnyview LLC. The agreement was entered into March 2004, and it addressed the construction of the existing Snake River Parkway approach during the construction of Sunnyside Road. ITD agreed to allow the approach to be constructed within the State right of way, and the developers agreed to pay for the design and construction of the approach, as well as for the construction of a traffic signal if one became warranted in the future. As mentioned previously, this Agreement is shown in **APPENDIX F**.

# <u>6.1.2</u> Bonneville County – Public Works Director, Planning & Zoning Administrator

The County would like to move the Pioneer Drive to the east to avoid the problems that will occur with a heavy-traffic intersection, as they are currently experiencing on 65<sup>th</sup> South. The current Pioneer Drive intersection is unsuitable for the anticipated traffic.

The County Planning & Zoning Department has been working with property owners in the study area to coordinate development of their property and the County road system in the area. The Administrator was not able to provide any information about what specific types of developments are currently being considered in the area, other than to allude to one or two possibilities.



They were able to discuss one plat that was in the process of approval. The WATS subdivision plat (SE corner of Sunnyside and Pioneer Road) has proposed construction of a new car dealership. The developer has deeded half of the right of way for existing Pioneer Road. An easement for a new road along the east side of their property was also part of the plat approved by the County. County staff indicated that because ITD had not yet approved the location of the intersection at Sunnyside, the road was platted as a public road easement instead of as right of way, in order to be able to abandon the easement in the event that the approach location is not approved as platted.

The Administrator also indicated that although plans are not available for the undeveloped area within the study area outside of City Limits, it would be reasonable to assume that all of it will be developed in the next ten to twenty years. Much of the land is now zoned Commercial.

The County's primary need is a signalized intersection on Sunnyside Road that will access properties to the south. Safe and functional access to Sunnyside will be required when the area develops.

# <u>6.1.3</u> City of Idaho Falls – Public Works Director, Assistant Public Works Director, City Engineer, Planning and Zoning Director and Assistant Director

City officials indicated that the traffic studies referenced previously reflect the known current plans within city limits in the study area. One landowner south of Sunnyside has also been discussing potential development plans with the City, but no information is currently available for that parcel.

The City's approved traffic studies indicate plans for an internal road network within Snake River Landing. The City has recommended that the developers plan for another east-west road connecting Snake River Parkway and Pioneer Drive closer to Sunnyside, as well.

Extending Snake River Parkway south of Sunnyside would not be feasible due to the City's Ryder Park Master Plan, as well as the rugged topography of the area along the Snake River.

#### 6.2 Public Open House

A public open house was held on September 11, 2013, at Sunnyside Elementary School in Idaho Falls. Preliminary information was presented, along with three alternate roadway configurations that would meet the requirements of the project and a few options that were found to be infeasible prior to the meeting. A copy of the presentation boards is included in **APPENDIX G** of this report.

# 6.2.1 Options Presented for Comment

**Option 1** utilizes existing access and maintains current stop control except at Snake River Parkway and I-15 Southbound Ramps, where signals would be installed.



**Option 2** would also add a signal at Snake River Parkway and the I-15 Southbound Ramps, but additionally proposes closing access to Pioneer Drive and replacing that access with a new signalized access west of Teton Toyota.

**Option 3** would reconfigure the I-15 Northbound Ramps to combine the ramps with a north-south parallel frontage road system. Option 3 would also require a new east-west road network

# 6.2.2 Options Presented as Not Feasible

At the time of the public open house, there were four additional options that had been considered, but were found to be not feasible for various reasons:

**Extension of Snake River Parkway** – constructing a full intersection and extending Snake River Parkway southward would provide signalized access to the south properties. However, it was found to be not feasible because the City of Idaho Falls has a master plan for Ryder Park that extends into that area. It would also be difficult topography for construction of a road.

**Traffic Signal at Pioneer Road** – a traffic signal at Pioneer Road and extension of Pioneer Road to the south would provide the signalized access required for development to the south. However, a traffic signal at Snake River Parkway was considered committed by agreement. A signal at both intersections would be too close for ITD requirements.

**Sunnyside Frontage Roads** – roads constructed parallel to Sunnyside would still provide properties with reasonable frontage to Sunnyside while limiting the number of accesses that would be needed onto Sunnyside. This was found not feasible due to the proximity of the roads to Sunnyside and the significant impact they would cause to the existing properties on both sides of Sunnyside.

**Traffic Signal at Pioneer Drive** – installation of a traffic signal at Pioneer Drive would provide a signalized access to the properties just east of I-15. However, it would not be feasible because it would be too close to the I-15 Ramp intersection and it would not meet ITD requirements.

# 6.2.3 Public Comments Received

Comments were gathered from many of the attendees at the open house, as well as from those who sent them after the meeting. The complete sign-in sheet, comments, and attachments are included in **APPENDIX H**.

The majority of the comments recognized that none of the options presented were the perfect solution.

Option 2 had the most response, both positive and negative. Comments indicated that this is probably the most reasonable solution presented, but that the property owners in the area cannot agree on the best location for the road. Some of the property owners have indicated that they have been working with the County for several years on providing a road near this location but further west. The western location was not presented as an option at the first open house, because it does not meet ITD standards, but it will be addressed



**later on in this study as new Option 2A**. Also, Option 2 as presented would essentially landlock at least one property on the southwest corner of the Pioneer Drive intersection, affecting drastically the value of that property. On the other hand, several comments were also received that disagreed with what the developers have proposed and they would like further investigation into the best location for the road.

Option 1 had the second highest response, both positive and negative. Comments indicated that this would be the least expensive solution, but that it would not function well when the area develops. It would also allow the existing approaches to remain in place, avoiding any changes in valuable access.

Many comments requested that a signal be constructed at Pioneer Road instead of Snake River Parkway, even though this option was presented as not feasible. A signal at Pioneer Road and an extension of Pioneer Road southward would provide the access needed to the south and allow the existing accesses to remain otherwise unchanged. Due to the number of favorable responses to this option, it has been added as a new Option 4.

Option 3 had very little support due to the major impacts to the surrounding properties, the cost, and the indirect access to Sunnyside.

# 7.0 Alternative Solutions

After gathering the information presented thus far in the report, several feasible solutions were developed to address the access needs along the study corridor. These include the three options presented at the public meeting as well as two new options that came from the public meeting and subsequent comments received from the interested public.



#### 7.1 Option 1 – Existing Intersections

Option 1 utilizes existing access and maintains current stop control except at Snake River Parkway and I-15 Southbound Ramps, where signals would be installed. This option would be the least costly to the public, as developers have already agreed to pay



for a signal at Snake River Parkway when one becomes warranted. However, as Snake River Parkway is a T-intersection with Sunnyside, it does not provide signalized access to the properties on the south side of Sunnyside, nor to the area accessed by Pioneer Road. Several public comments indicated that a signal at Snake River Parkway would be inefficient, and that a signal should be placed instead at the 4-leg intersection of Pioneer Road, which could serve motorists north and south. Option 1 is feasible, but when development increases south of Sunnyside, it will become problematic and eventually unsafe for northbound traffic turning onto Sunnyside.



# 7.2 Option 2 – New Signalized Access at Sidehill Canal

Option 2 would also add a signal at Snake River Parkway and the I-15 Southbound Ramps, but in addition it proposes closing access to Pioneer Drive and replacing that access with a signalized access west of Teton Toyota at the Sidehill Canal crossing. This option provides an additional signalized access between I-15 and Snake River Parkway, increasing mobility and safety for traffic crossing or entering Sunnyside from the south and north. The location is directly on property lines north and south of Sunnyside, which would be of a lesser impact to property owners than if the new road were to bisect a property.

This option adds an additional traffic signal to Sunnyside, lessening the mobility along the corridor, but optimizes the signal spacing by providing nearly ½ mile between signals east of I-15. As it is impossible to get ½ mile between each of the signals, the best case would be to split the spacing between signals; however, that would be infeasible, as it would fall at the existing Teton Toyota dealership. Increasing the spacing between Snake River Parkway and the new signal to ½ mile while maintaining as much space as possible between I-15 Ramps and the new signal would be the best signal spacing that this option could provide.

The biggest issue this option would have is ITD's requirement that if a new access is opened then an existing access must be closed. It is recognized that Pioneer Drive is too close to the I-15 Northbound Ramps for the current configuration to remain safe and accessible once the area is developed. However, closing the access at Pioneer Drive completely, as ITD would require, would eliminate existing access to two properties at Pioneer Drive and Sunnyside, damaging the property values significantly. Significant compensation for the lost access would be necessary.



A reasonable solution would be to provide a cross-access agreement parallel to Sunnyside between the affected property and the property to the east. This would allow access and visibility to the property at Sunnyside and Pioneer Drive and allow the access to Sunnyside to be closed, increasing the mobility along Sunnyside and removing a dangerous situation. However, the County has recently approved a plat from the property owner to the east (the WATS Development Subdivision Plat) that does not allow for parallel cross-access to the southwest property at Sunnyside and Pioneer Drive. Elimination of the southwest property access to Sunnyside without a crossaccess agreement would also be in violation of the County's ordinance for maximum lengths of cul-de-sac streets.



7.3 Option 2A – New Signalized Access at WATS Development

An alternative similar to Option 2 is the proposed intersection from the WATS Development Subdivision Plat. The developer has provided a road easement along the east side of the subdivision, and has committed to construct the portion of the road along his property upon approval of the access location. In order to accommodate the new access, raised median would be constructed along Sunnyside Road between I-15 NB Ramps and the new WATS intersection in order to limit Pioneer Drive to "rightin/right-out" only access. This would relocate the full access intersection eastward and create a limited access intersection at Pioneer Drive.

This alternative does not meet ITD required signal spacing or unsignalized approach spacing between I-15 and the WATS intersection. It also does not meet ITD's requirement that when creating a new access an existing access must be closed. Because it only limits left turns at Pioneer Drive, it would, however, still provide reasonable access to the potentially landlocked properties near the interchange.



BMROcocero

### 7.4 Option 3 – East I-15 Frontage Road



Option 3 addressed the possibility of reconfiguring the northbound ramps to address the substandard approach spacing between the ramps and Pioneer Drive. It proposed reconfiguration of the I-15 Northbound Ramps to incorporate a frontage road system along I-15 that would tie in to a future east-west local road system. As this would be very costly and of high impact to the surrounding properties, feedback from the open house indicated that this would not be a favorable option.

#### 7.5 Option 4 – Pioneer Road Traffic Signal



In spite of the fact that the option of having a signal at Pioneer Road was presented as "Not Feasible" at the Public Open House, significant detailed comments were received requesting that the study consider a signal at Pioneer Road instead of Snake River Parkway. In response to the comments received from the public, as well as similar comments from each of the agencies, Option 4 was added to this study.

Option 4 would utilize the existing accesses but would install a single traffic signal at Pioneer Road. This option would meet all of ITD's requirements, and signal spacing would exceed ½ mile. It would provide a signalized access to the south developments, as well as a direct access to the Idaho Falls Event Center. It would, however, require development of an east-west road north of Sunnyside that could bring left-turning



traffic from Snake River Parkway during peak hours. This road connector was shown in the original Eagle Ridge TIS (see Section 3.1). Having only one signal on Sunnyside east of I-15 would be the best mobility and safety option for the Sunnyside corridor.

An alternative design to Option 4 was proposed by one of the property owners (see **APPENDIX H, ATTACHMENT 5**) that would include constructing a roundabout at Pioneer Drive. This could potentially be a quite feasible option. But further study is needed to determine the roundabout's impact on the I-15 Northbound Ramps, and ITD would have to determine how roundabouts fit within the IDAPA requirements.



Source: Willard Price, Public Open House Comments, September 2013

# 8.0 Conclusions and Recommendations

On October 14, 2013, representatives from all of the agencies involved with this study met to discuss the results of the stakeholder input and conclusions that could be reached. The meeting was very productive and a number of decisions and compromises were reached.

# 8.1 Discussion

A summary of the major points of discussion from this meeting are as follows:

# 8.1.1 General

- All of the agencies agree that there is an advantage to traffic operations by moving the Pioneer Drive access moved eastward away from the interchange, if possible.
- The property owners with frontage along Sunnyside have been unable to reach agreement on any kind of cooperative cross access.



- Private driveways on Sunnyside Road are inconsistent with strategic or principal arterial classification and the goals of this corridor, as identified in BMPO Long Range Transportation Plan.
- ITD has purchased access rights, and no private driveways will be allowed.

# 8.1.2 Option 1

While Option 1 had some limited support from the public and it meets access spacing standards, it does nothing to address impending development to the south that will need a signalized access in the future. Therefore, Option 1 is not recommended as a long-term solution.

## 8.1.3 Options 2 and 2A

- Closing Pioneer Drive would be in violation of the County's cul-de-sac length ordinance; the County would have to grant an exception, as well as provide alternate, indirect access. Vacation of the street is possible through a public hearing process and approval by the County Commissioners.
- Property owners at the public meeting indicated that complete closure of Pioneer Drive would likely lead to litigation.
- ITD indicated that a Right-In-Right-Out (RIRO) at Pioneer Drive would not be acceptable **unless** there were an easily-accessible alternate route to allow left-turning traffic to access Sunnyside without making U-turns. There would have to be a signed connection to the south to a road that would access Sunnyside to the east.
- There would be no need for a Right Out as most motorists would use the signalized intersection.
- RIRO would have to be constructed by installing a raised median on Sunnyside of considerable length—"pork chop" islands at the minor leg access are not effective.
- Federal funds were used to acquire access rights as part of the interchange project. Any new access would likely need to be purchased (if Pioneer Drive were to remain open as RIRO), or potentially swapped without purchase (if the parties involved could agree to close Pioneer Drive). Specific details on how this purchase or exchange would occur will have to be worked out at a later time, not as part of this study.
- The spacing of the western signals in Option 2 is only a 10% reduction from the ITD standard, which the ITD District Engineer can approve without a traffic impact study or exception. The signal spacing of Option 2A is a 28% reduction from the standard.
- The Sidehill Canal location in Option 2 is preferable, as it's the furthest east possible without encroaching significantly on the existing Teton



Toyota business. The extra 480-foot spacing (center to center) of Option 2 over Option 2A will significantly help vehicle weaving maneuvers, traffic signal progression, and signal spacing from the eventual interchange ramp signals.

- ITD stated that this report would serve the purposes of a Traffic Impact Study, regarding the locations of permanent access points and types of traffic control along Sunnyside Road.
- ITD stated that they would be willing to work with adjacent developers in moving the new access eastward.

# 8.1.4 Option 3

Feedback from the public open house indicated that Option 3 would not be a favorable option, and this option had no support among the agencies. Therefore, Option 3 was eliminated from further consideration.

# 8.1.5 Option 4

- A traffic signal could be installed at either Pioneer Road or Snake River Parkway, but not both.
- ITD is not obligated to allow a signal at Snake River Parkway (per the previous access agreement) if the decision were made to install a signal at Pioneer Road.
- The property owners southwest of the Pioneer Road intersection have indicated that they will not be developing that property in the near future. A southern extension of Pioneer Road may not be available for an extended period of time.
- The City indicated that they would not support Option 4, as it does not provide signalized access on Snake River Parkway, the minor arterial road connecting to Pancheri Drive and to Broadway.
- Regarding the Option 4 alternative design, a roundabout at Pioneer Drive would impede through traffic on Sunnyside all the time, which would be undesirable.
- ITD indicated that they would consider a roundabout on the same access level as a traffic signal as it is controlling/interrupting traffic. Therefore an exception to IDAPA spacing would have to be granted, due to the signalized interchange ramps to the west.

# 8.2 Recommended Solution

Based on traffic engineering study and judgment, the best solution for access to Sunnyside Road is Option 2. This solution reasonably combines the need to preserve the arterial function of Sunnyside Road with sufficient and adequately-spaced access for future economic development. The spacing allows for three traffic signals from I-15 to



Snake River Parkway, as opposed to only two, with access for developing properties in the City to the north and in the County to the south.

However, since the complete closure of Pioneer Drive is unfeasible at the present time, the recommended access plan for Sunnyside Road is a hybrid of Options 2 and 2A. Called **Option 2B**, this solution would have a signalized access at the Sidehill Canal on the 1/16<sup>th</sup> section line as shown in Option 2, but would also have a right-in-right-out access at Pioneer Drive as shown in Option 2A. There would also be an east-west collector road south of Sunnyside, connecting Pioneer Drive to the new Sidehill Canal access. This east-west collector would eventually extend eastward to Pioneer Road.



The western signal spacing of Options 2 and 2B are only a 10% reduction from ITD's standard, and the near-equal spacing between traffic signals will allow for easier and more effective signal coordination (see Section 4.3). As noted previously in Section 8.1.3, the extra 480-foot spacing (center to center) over that of Option 2A will significantly help vehicle weaving maneuvers and vehicle progression along the corridor.

On the western end of the corridor, it is recommended that that the future intersection of Old Butte Road be at the ½-mile minimum distance required to accommodate a traffic signal or roundabout.

# 8.3 Future Requirements

As mentioned previously in Section 1.2, the primary purpose of this study is to prepare a recommendation for public road access points and location of future signalized intersections along Sunnyside Road. Future requirements and recommendations for further study include the following:

- It should be the goal of the agencies to ensure that the Pioneer Drive access does not interfere with traffic operations on Sunnyside Road.
- Depending on the type and timing of development, the new Sidehill Canal access may first be constructed unsignalized, followed by the addition of a traffic signal in the future when warranted. The traffic signal should not be constructed



before traffic volumes warrant it. If the intersection is to be constructed first as unsignalized, pole foundations and underground conduit should be installed for the future traffic signal.

- The construction costs of the new approach and traffic signal at Sidehill Canal should be borne by the associated development, as required by IDAPA.
- Preparation of future TIS's related to access on Sunnyside Road should determine specific improvement requirements at the Sidehill Canal intersection, such as deceleration lanes, turn lanes, number of travel lanes, medians, etc.
- The Sunnyside Road center median restricting access at Pioneer Drive should be constructed immediately after the new approach at Sidehill Canal, as part of the same project. The median should be of sufficient length to prevent left turns to and from Pioneer Drive, as determined by the TIS.
- Cross access and land development to the south of Sunnyside Road should be directed to existing public roads, as identified by this study.

# 8.4 Final Public Open House and Policy Board Adoption

On November 13, 2013, both the BMPO Technical Advisory Committee and Policy Board reviewed the draft Sunnyside Road Access Plan, with the Policy Board voting to hold a second public open house to present Options 2A and 2B. This final open house was held December 5, 2013 at the TRPTA Building in Idaho Falls. Comments were received from many of the attendees at the open house and also sent in during the two weeks following the meeting. The complete sign-in sheet, comments, and attachments are included in **APPENDIX I**.

A clear majority of the respondents favored Option 2B over Option 2A. Two comments from the meeting suggested a possible modification of Option 2B, moving the recommended signalized access to the center of the existing Sidehill Canal bridge, approximately 175' west of the 1/16th line. This modified spacing would place the traffic signal 2205' (0.42 mile) east of the I-15 SB Ramps (measured center-to-center). Based on the information presented in Section 4.3, this change would have an effect on traffic signal coordination and vehicle progression; with a 90-second cycle length, expected progression speeds would drop from 36 mph to 33 mph<sup>8</sup>

On January 15, 2014, the Bonneville Metropolitan Planning Organization Policy Board approved the Sunnyside Road Access Plan and Recommended Option 2B, with the condition that the Sidehill Canal bridge over Sunnyside Road be considered for adjustment of the traffic signal location.

<sup>&</sup>lt;sup>8</sup> At a 90-second cycle length, standard ½ mile signal spacing results in a progression speed of 40 mph.

