

Skylodge Hotel

Traffic Impact Study



Weber County, Utah

January 10, 2023

UT22-2393



EXECUTIVE SUMMARY

This traffic impact study (TIS) addresses the traffic impacts associated with the proposed Skylodge Hotel development located in Weber County, Utah. The development is located on the north side of the Powder Ridge Road adjacent to the Powder Mountain Ski Resort with the existing Skylodge property.

The purpose of this TIS is to analyze traffic operations at key intersections for existing (2022) and future (2027) conditions with and without the proposed project and to recommend mitigation measures as needed. The morning and afternoon peak hour level of service (LOS) results are shown in Table ES-1. A site plan of the project is provided in Appendix A.

Table ES-1: Peak Hour Level of Service Results

Intersection		Level of Service							
		Existing (2022)				Future (2027)			
		Background		Plus Project		Background		Plus Project	
		AM	PM	AM	PM	AM	PM	AM	PM
1	Powder Ridge Road / S.R. 158	a	a	a	a	a	a	a	a
2	Hidden Lake Access / Powder Ridge Road	a	a	a	a	a	a	a	a
1. Intersection LOS values represent the overall intersection average for roundabout, signalized, and all-way stop-controlled (AWSC) intersections (uppercase letter) and the worst movement for all other unsignalized intersections (lowercase letter) 2. BG = Background (without project traffic), PP = Plus Project (with project traffic) Source: Hales Engineering, January 2023									

SUMMARY OF KEY FINDINGS & RECOMMENDATIONS

Project Conditions

- The development will consist of a resort hotel, café, bar, and gear rental store.
- The project is anticipated to generate approximately 474 weekday daily trips, including 23 trips in the morning peak hour, and 42 trips in the evening peak hour
- The project will share the existing parking lot with the other nearby land uses including the ski lift. Based on County parking code, the shared daily parking demand at the project site is not anticipated to exceed 262 stalls. Therefore, it is anticipated that the planned supply of 281 stalls will be sufficient for the development.

2022	Background	Plus Project
Assumptions	• Traffic counts increased by 70% to account for a peak ski day	• None
Findings	• Acceptable LOS	• Acceptable LOS
2027	Background	Plus Project
Assumptions	• 4% annual growth rate	• None
Findings	• Acceptable LOS	• Acceptable LOS

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I. INTRODUCTION

A. Purpose

This study addresses the traffic impacts associated with the proposed Skylodge Hotel development located in Weber County, Utah. The proposed project is located the north side of the Powder Ridge Road adjacent to the Powder Mountain Ski Resort with the existing Skylodge property. Figure 1 shows a vicinity map of the proposed development.

The purpose of this traffic impact study is to analyze traffic operations at key intersections for existing (2022) and future (2027) conditions with and without the proposed project and to recommend mitigation measures as needed.



Figure 1: Vicinity map showing the project location in Weber County, Utah

B. Scope

The study area was defined based on conversations with the development team. This study was scoped to evaluate the traffic operational performance impacts of the project on the following intersections:

- Hidden Lakes Access / Powder Ridge Road
- Powder Ridge Road / S.R. 158

C. Analysis Methodology

Level of service (LOS) is a term that describes the operating performance of an intersection or roadway. LOS is measured quantitatively and reported on a scale from A to F, with A representing the best performance and F the worst. Table 1 provides a brief description of each LOS letter designation and an accompanying average delay per vehicle for both signalized and unsignalized intersections.







The *Highway Capacity Manual* (HCM), 7th Edition, 2022 methodology was used in this study to remain consistent with “state-of-the-practice” professional standards. This methodology has different quantitative evaluations for signalized and unsignalized intersections. For signalized, roundabout, and all-way stop-controlled (AWSC) intersections, the LOS is provided for the overall intersection (weighted average of all approach delays). For all other unsignalized intersections, LOS is reported based on the worst movement.

Using Synchro/SimTraffic software, which follow the HCM methodology, the peak hour LOS was computed for each study intersection. Multiple runs of SimTraffic were used to provide a statistical evaluation of the interaction between the intersections. The detailed LOS reports are provided in Appendix C. Hales Engineering also calculated the 95th percentile queue lengths for the study intersections using SimTraffic. The detailed queue length reports are provided in Appendix D.

D. Level of Service Standards

For the purposes of this study, a minimum acceptable intersection performance for each of the study intersections was set at LOS D. If levels of service E or F conditions exist, an explanation and/or mitigation measures will be presented. A LOS D threshold is consistent with “state-of-the-practice” traffic engineering principles for urbanized areas.

Table 1: Level of Service Description

LOS	Description of Traffic Conditions	Average Delay (seconds/vehicle)	
		Signalized Intersections	Unsignalized Intersections
A	 Free Flow / Insignificant Delay	≤ 10	≤ 10
B	 Stable Operations / Minimum Delays	> 10 to 20	> 10 to 15
C	 Stable Operations / Acceptable Delays	> 20 to 35	> 15 to 25
D	 Approaching Unstable Flows / Tolerable Delays	> 35 to 55	> 25 to 35
E	 Unstable Operations / Significant Delays	> 55 to 80	> 35 to 50
F	 Forced Flows / Unpredictable Flows / Excessive Delays	> 80	> 50

Source: Hales Engineering Descriptions, based on the *Highway Capacity Manual (HCM)*, 7th Edition, 2022 Methodology (Transportation Research Board)

II. EXISTING (2022) BACKGROUND CONDITIONS

A. Purpose

The purpose of the background analysis is to study the intersections and roadways during the peak travel periods of the day with background traffic and geometric conditions. Through this analysis, background traffic operational deficiencies can be identified, and potential mitigation measures recommended. This analysis provides a baseline condition that may be compared to the build conditions to identify the impacts of the development.

B. Roadway System

The primary roadways that will provide access to the project site are described below:

S.R. 158 – is a state-maintained roadway (classified by UDOT access management standards as a “Community – Rural Importance” facility, or access category 7 roadway). The roadway has one travel lane in each direction. As identified and controlled by UDOT, this roadway has minimum signalized intersection spacing of one-quarter mile (1,320 feet), minimum unsignalized street spacing of 300 feet, and minimum driveway spacing of 150 feet. The advisory speed limit is 25 mph in the study area.

Powder Ridge Road – is a county-maintained roadway which is classified by the Weber County General Plan (August 2016) as a Local Road. The roadway has one travel lane in each direction. The posted advisory speed is 25 mph in the study area.

C. Traffic Volumes

Turning movement count (TMC) data was collected for 18 hours (4:00 a.m. to 10:00 p.m.) on a peak ski day at the Hidden Lake Access / Powder Ridge Road intersection. TMC data was also collected during two two-hour peak periods (8:00 - 10:00 a.m. & 1:00 - 3:00 p.m.) at the Powder Ridge Road / S.R. 158 intersection.

The counts were performed on Saturday, December 10, 2022. The morning peak hour was determined to be between 8:30 and 9:30 a.m., and the afternoon peak hour was determined to be between 2:00 and 3:00 p.m. The morning peak hour volumes were approximately 18% higher than the afternoon peak hour volumes. Both the morning and afternoon peak hour volumes were used in the analysis. Detailed count data are included in Appendix B.

Hales Engineering made seasonal adjustments to the observed traffic volumes based on other traffic counts. These counts were collected on Saturday, February 19, 2022 (President’s Day weekend) and show that volumes on Powder Ridge Road were approximately 70% higher than those collected December 10th. The observed traffic volumes were adjusted accordingly to determine turning movement counts at the study intersections during a peak Saturday ski day.

Anticipated traffic from the nearby Sundown Condos development which is currently under development was accounted for and added to the observed traffic volumes.

Figure 2 shows the existing morning and afternoon peak hour volumes as well as intersection geometry at the study intersections.

D. Level of Service Analysis

Hales Engineering determined that all study intersections are currently operating at acceptable levels of service during the morning and afternoon peak hours, as shown in Table 2. These results serve as a baseline condition for the impact analysis of the proposed development during existing (2022) conditions.

Table 2: Existing (2022) Background Peak Hour LOS

Intersection		LOS (Sec. Delay / Veh.) / Movement ¹	
Description	Control	Morning Peak	Evening Peak
Powder Ridge Road / S.R. 158	NB Stop	a (6.1) / NBL	a (7.2) / NBL
Hidden lake Access / Powder Ridge Road	SWB Stop	a (2.2) / SWR	a (4.7) / SWL

1. Movement indicated for unsignalized intersections where delay and LOS represents worst movement. SBL = Southbound left movement, etc.

2. Uppercase LOS used for signalized, roundabout, and AWSC intersections. Lowercase LOS used for all other unsignalized intersections.

Source: Hales Engineering, January 2023

E. Queuing Analysis

Hales Engineering calculated the 95th percentile queue lengths for each of the study intersections. No significant queuing was observed during the morning and afternoon peak hours.

F. Mitigation Measures

No mitigation measures are recommended.









III. PROJECT CONDITIONS

A. Purpose

The project conditions discussion explains the type and intensity of development. This provides the basis for trip generation, distribution, and assignment of project trips to the surrounding study intersections defined in Chapter I.

B. Project Description

The proposed Skylodge Hotel development is located on the north side of the Powder Ridge Road adjacent to the Powder Mountain Ski Resort with the existing Skylodge property. The development will consist of a hotel with detached cabins, bar, café, lounge area, and gear rental store. A concept plan for the proposed development is provided in Appendix A. The proposed land use for the development has been identified in Table 3.

Table 3: Project Land Uses

Land Use	Intensity
Resort Hotel	62 Rooms
Drinking Place	4,650 sq. ft.
Retail	1,400 sq. ft.

C. Trip Generation

Trip generation for the development was calculated using trip generation rates published in the Institute of Transportation Engineers (ITE), *Trip Generation*, 11th Edition, 2021. Where Saturday rates were not available, weekday data was used with relation to the available Saturday data to estimate the missing rates. It is anticipated that most of the customers using the café, bar, and gear rental facilities will come from either hotel guests or Powder Mountain patrons instead of new trips to the Skylodge. Therefore, an internal capture reduction of 75% was applied to these land uses. Trip generation for the proposed project is included in Table 4.

The total trip generation for the development is as follows:

- Daily Trips: 474
- Morning Peak Hour Trips: 23
- Evening Peak Hour Trips: 42

Table 4: Trip Generation

Trip Generation Weber County - Skyldodge Hotel											
Land Use ¹	# of Units	Unit Type	Trip Generation					Reductions	New Trips		
			Total	% In	% Out	In	Out	Internal Capture	In	Out	Total
Saturday Daily											
Resort Hotel (330)	62	Rooms	350	50%	50%	175	175	0%	175	175	350
Drinking Place (975)	5	KSF	418	50%	50%	209	209	75%	53	52	105
Strip Retail Plaza, <40k (822)	1.4	KSF	76	50%	50%	38	38	75%	9	10	19
TOTAL			844			422	422		237	237	474
Saturday Morning Peak Hour											
Resort Hotel (330)	62	KSF	22	72%	28%	16	6	0%	16	6	22
Drinking Place (975)	5	KSF	0	50%	50%	0	0	75%	0	0	0
Strip Retail Plaza, <40k (822)	1.4	KSF	4	60%	40%	2	2	75%	0	1	1
TOTAL			26			18	8		16	7	23
Saturday Afternoon Peak Hour											
Resort Hotel (330)	62	KSF	26	43%	57%	11	15	0%	11	15	26
Drinking Place (975)	5	KSF	42	66%	34%	28	14	75%	7	4	11
Strip Retail Plaza, <40k (822)	1.4	KSF	20	50%	50%	10	10	75%	2	3	5
TOTAL			88			49	39		20	22	42

1. Land Use Code from the Institute of Transportation Engineers (ITE) *Trip Generation*, 11th Edition, 2021.
SOURCE: Hales Engineering, January 2023

D. Trip Distribution and Assignment

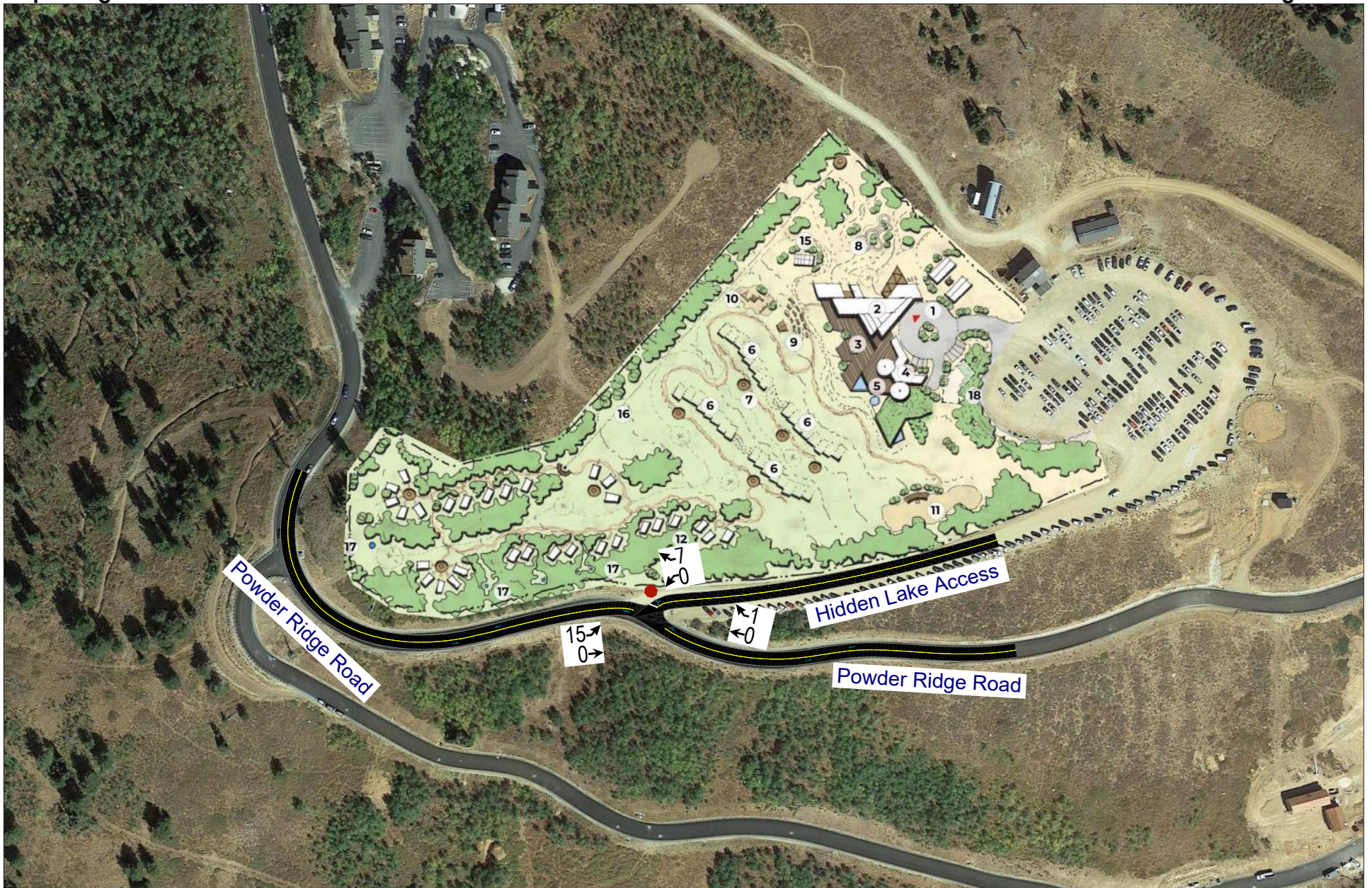
Project traffic is assigned to the roadway network based on the type of trip and the proximity of project access points to major streets, high population densities, and regional trip attractions. Existing travel patterns observed during data collection also provide helpful guidance to establishing these distribution percentages, especially near the site. The resulting distribution of project generated trips during the morning and afternoon peak hour is shown in Table 5.

Table 5: Trip Distribution

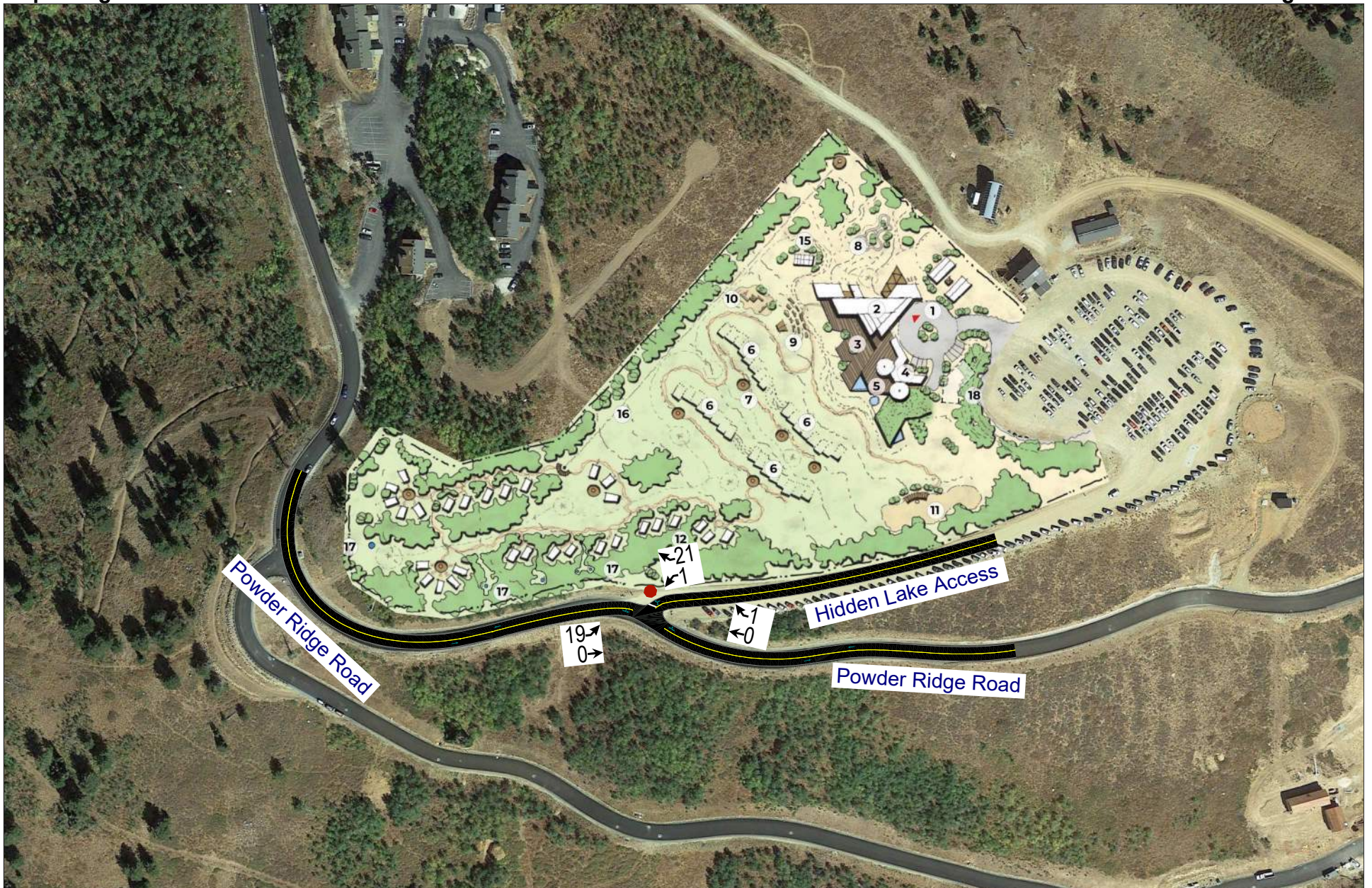
Direction	% To/From Project
West	85%
East	15%

These trip distribution assumptions were used to assign the morning and afternoon peak hour trip generation at the study intersections to create trip assignment for the proposed development. Trip assignment for the development is shown in Figure 3.









E. Access

The proposed access for the site will be gained at the following locations:

Powder Ridge Road:

- Hidden Lake Access will be a shared access with the other existing land uses. It is located approximately 1.25 miles (6,600 feet) south of the Powder Ridge Road / S.R. 158 intersection. It will access the project on the north side of Powder Ridge Road. It is anticipated that the access will be stop-controlled.

F. Auxiliary Lanes

Auxiliary lanes are deceleration (ingress) or acceleration (egress) turn lanes that provide for safe turning movements that have less impact on through traffic. These lanes are sometimes needed at accesses or roadway intersections if right- or left-turn volumes are high enough.

Deceleration (ingress) lanes are generally needed when there are at least 50 right-turn vehicles or 25 left-turn vehicles in an hour. These guidelines were used for the County roadways in the study area.

Based on these guidelines and the anticipated project traffic, no auxiliary lanes are recommended.

G. Parking Analysis

According to the site plan, a supply of approximately 281 stalls is planned to be shared with all uses in the area.

The Weber County code specifies parking rates for various land use types. The required parking rates found in the County code for the new land uses are shown in Table 6. The calculations for the parking required by the County are shown in Table 7. As shown, it is anticipated that the County would require 53 additional stalls for the proposed Skylodge Hotel development.

Table 6: County Parking Rates

Land Use	Unit Type	Rate (stalls per unit)
Hotel	Sleeping Unit	.5
Café	Booths	1
Bar	Stools	.33
Retail Store	KSF	5.00

Source: Weber County code, 2013

Table 7: County Parking Calculations

City Parking Calculations Weber County - Skylodge Hotel				
Land Use	# of Units	Unit Type	Rate (stalls per unit)	Total Stalls
Hotel	62	Sleeping Units	0.50	31
Café	11	Booth	1.00	11
Bar	12	Stools	0.33	4
Retail Store	1.4	KSF	5.00	7
TOTAL				53

Source: Weber County code, 2013.

Hales Engineering identified existing parking demand on-site for the existing land uses based on the counts on Saturday, December 10, 2022. A peak demand of 133 parked vehicles was observed on this day. As noted previously, other traffic counts collected in the area on Saturday, February 19, 2022 (President’s Day weekend) show that volumes on Powder Ridge Road were approximately 70% higher than those collected December 10th. Therefore, it was assumed that the peak parking demand could be up to 70% greater at 227 parked vehicles, to account for a peak ski day.

It is unlikely that all land uses in the development would experience peak parking demand during the same hour of the day. For instance, hotel and bar land uses typically experience peak demand during the night, while Café land uses experience a morning peak demand.

Hales Engineering performed a time-of-day analysis based on the Weber County code parking generation rates as well as time-of-day distributions published in the ITE *Parking Generation* (5th Edition, 2019). This analysis is shown in Figure 4. Based on the time-of-day parking demand analysis, the daily parking demand at the project site is not anticipated to exceed 262 stalls. Therefore, it is anticipated that the planned supply of 281 stalls will be sufficient for the proposed Skylodge Hotel development.

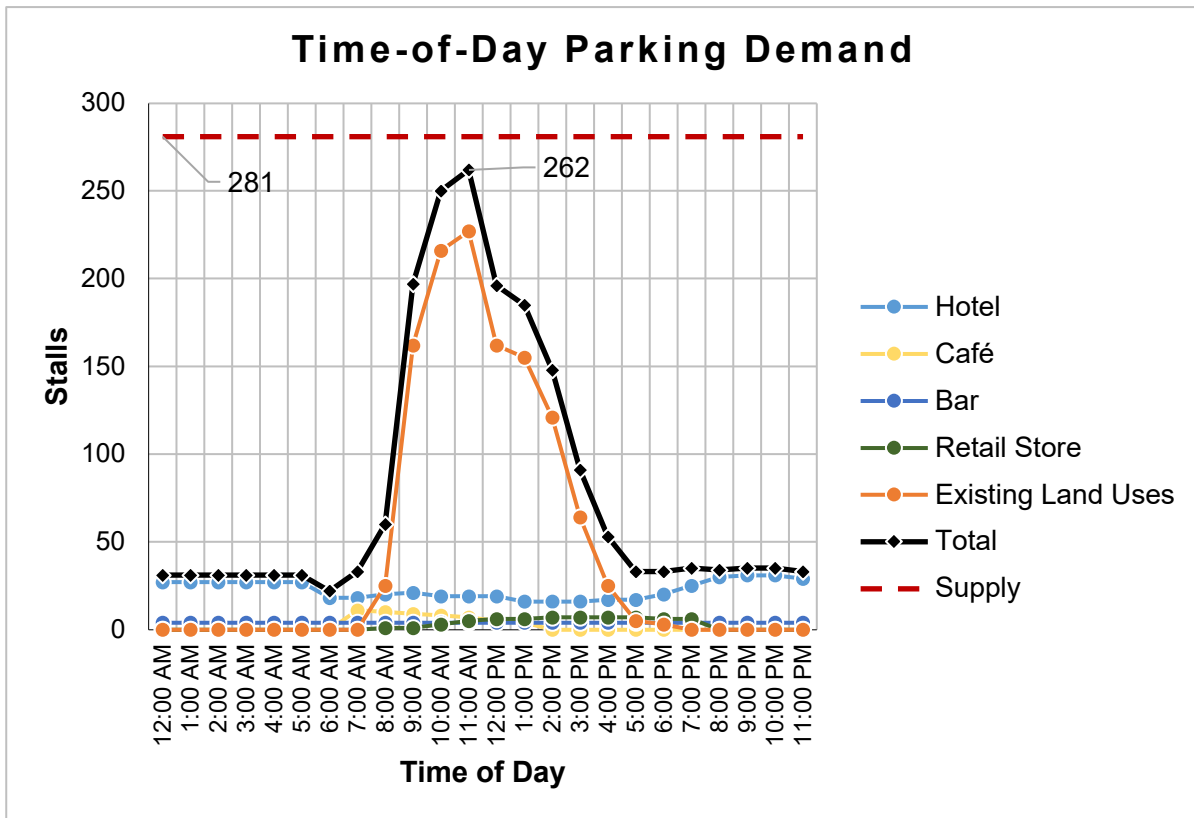


Figure 4: Weber County Code Shared Parking Demand

IV. EXISTING (2022) PLUS PROJECT CONDITIONS

A. Purpose

The purpose of the existing (2022) plus project analysis is to study the intersections and roadways during the peak travel periods of the day for existing background traffic and geometric conditions plus the net trips generated by the proposed development. This scenario provides valuable insight into the potential impacts of the proposed project on background traffic conditions.

B. Traffic Volumes

Hales Engineering added the project trips discussed in Chapter III to the existing (2022) background traffic volumes to predict turning movement volumes for existing (2022) plus project conditions. Existing (2022) plus project morning and afternoon peak hour turning movement volumes are shown in Figure 5.

C. Level of Service Analysis

Hales Engineering determined that all intersections are anticipated to operate at acceptable levels of service during the morning and afternoon peak hours with project traffic added, as shown in Table 8.

Table 8: Existing (2022) Plus Project Peak Hour LOS

Intersection		LOS (Sec. Delay / Veh.) / Movement ¹	
Description	Control	Morning Peak	Evening Peak
Powder Ridge Road / S.R. 158	NB Stop	a (5.7) / NBL	a (7.3) / NBL
Hidden lake Access / Powder Ridge Road	SWB Stop	a (4.2) / SWL	a (4.0) / SWL

1. Movement indicated for unsignalized intersections where delay and LOS represents worst movement. SBL = Southbound left movement, etc.

2. Uppercase LOS used for signalized, roundabout, and AWSC intersections. Lowercase LOS used for all other unsignalized intersections.

Source: Hales Engineering, January 2023

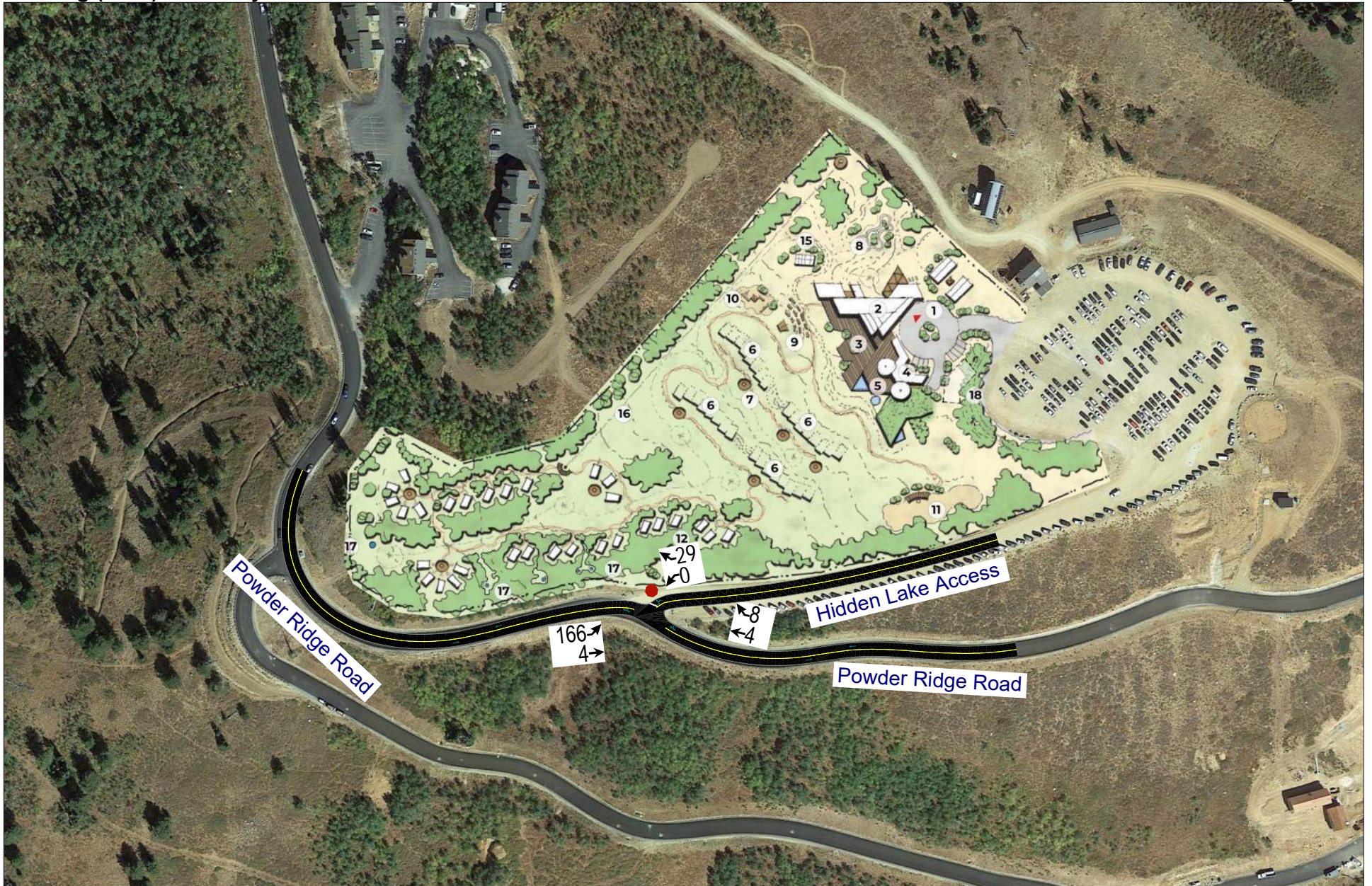
D. Queuing Analysis

Hales Engineering calculated the 95th percentile queue lengths for each of the study intersections. No significant queuing is anticipated during the morning and afternoon peak hours.

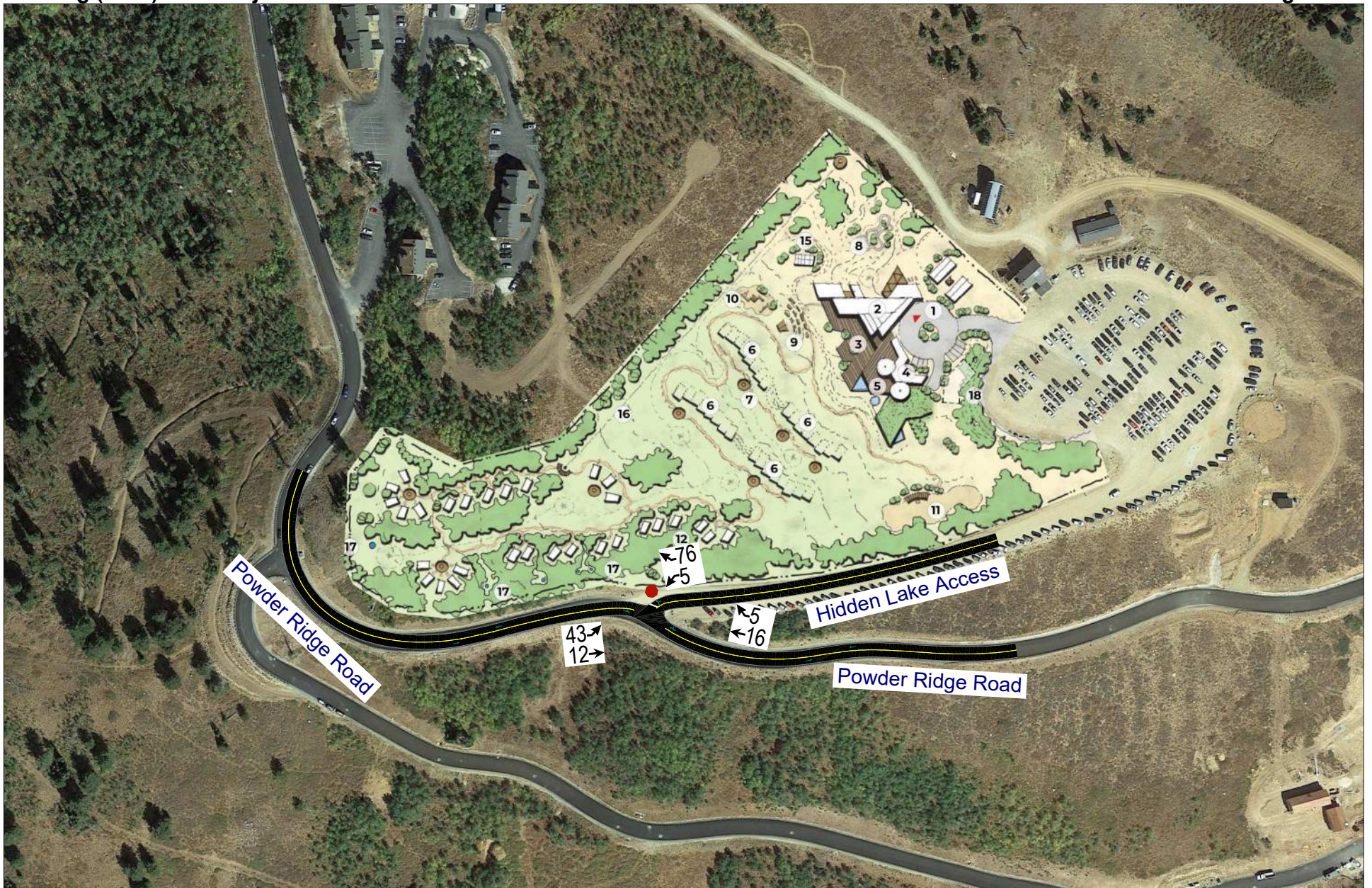
E. Mitigation Measures

No mitigation measures are recommended.









V. FUTURE (2027) BACKGROUND CONDITIONS

A. Purpose

The purpose of the future (2027) background analysis is to study the intersections and roadways during the peak travel periods of the day for future background traffic and geometric conditions. Through this analysis, future background traffic operational deficiencies can be identified, and potential mitigation measures recommended.

B. Roadway Network

According to the UDOT project map found on UDOT's website, there are no projects planned before 2027 in the study area. Therefore, no changes were made to the roadway network for the future (2027) analysis.

C. Traffic Volumes

Hales Engineering estimated future (2027) volumes using historical AADT data on S.R. 158. From 2014 to 2019 it was observed that traffic volumes increased by approximately 20%. This equates to approximately 4% growth per year. Hales Engineering assumed this growth from 2022 to 2027. Future (2027) morning and afternoon peak hour turning movement volumes are shown in Figure 6.

D. Level of Service Analysis

Hales Engineering determined that all study intersections are anticipated to operate at acceptable levels of service during the morning and afternoon peak hours in future (2027) background conditions, as shown in Table 9. These results serve as a baseline condition for the impact analysis of the proposed development for future (2027) conditions.

E. Queuing Analysis

Hales Engineering calculated the 95th percentile queue lengths for each of the study intersections. No significant queuing is anticipated during the morning and afternoon peak hours.

F. Mitigation Measures

No mitigation measures are recommended.









Table 9: Future (2027) Background Peak Hour LOS

Intersection		LOS (Sec. Delay / Veh.) / Movement ¹	
Description	Control	Morning Peak	Evening Peak
Powder Ridge Road / S.R. 158	NB Stop	a (6.9) / NBL	a (9.3) / NBL
Hidden lake Access / Powder Ridge Road	SWB Stop	a (2.3) / SWR	a (4.6) / SWL

1. Movement indicated for unsignalized intersections where delay and LOS represents worst movement. SBL = Southbound left movement, etc.

2. Uppercase LOS used for signalized, roundabout, and AWSC intersections. Lowercase LOS used for all other unsignalized intersections.

Source: Hales Engineering, January 2023

VI. FUTURE (2027) PLUS PROJECT CONDITIONS

A. Purpose

The purpose of the future (2027) plus project analysis is to study the intersections and roadways during the peak travel periods of the day for future background traffic and geometric conditions plus the net trips generated by the proposed development. This scenario provides valuable insight into the potential impacts of the proposed project on future background traffic conditions.

B. Traffic Volumes

Hales Engineering added the project trips discussed in Chapter III to the future (2027) background traffic volumes to predict turning movement volumes for future (2027) plus project conditions. Future (2027) plus project morning and afternoon peak hour turning movement volumes are shown in Figure 7.

C. Level of Service Analysis

Hales Engineering determined that all intersections are anticipated to operate at acceptable levels of service during the morning and afternoon peak hours in future (2027) plus project conditions, as shown in Table 10.

Table 10: Future (2027) Plus Project Peak Hour LOS

Intersection		LOS (Sec. Delay / Veh.) / Movement ¹	
Description	Control	Morning Peak	Evening Peak
Powder Ridge Road / S.R. 158	NB Stop	a (7.3) / NBL	a (9.1) / NBL
Hidden lake Access / Powder Ridge Road	SWB Stop	a (2.3) / SWR	a (3.9) / SWL

1. Movement indicated for unsignalized intersections where delay and LOS represents worst movement. SBL = Southbound left movement, etc.

2. Uppercase LOS used for signalized, roundabout, and AWSC intersections. Lowercase LOS used for all other unsignalized intersections.

Source: Hales Engineering, January 2023

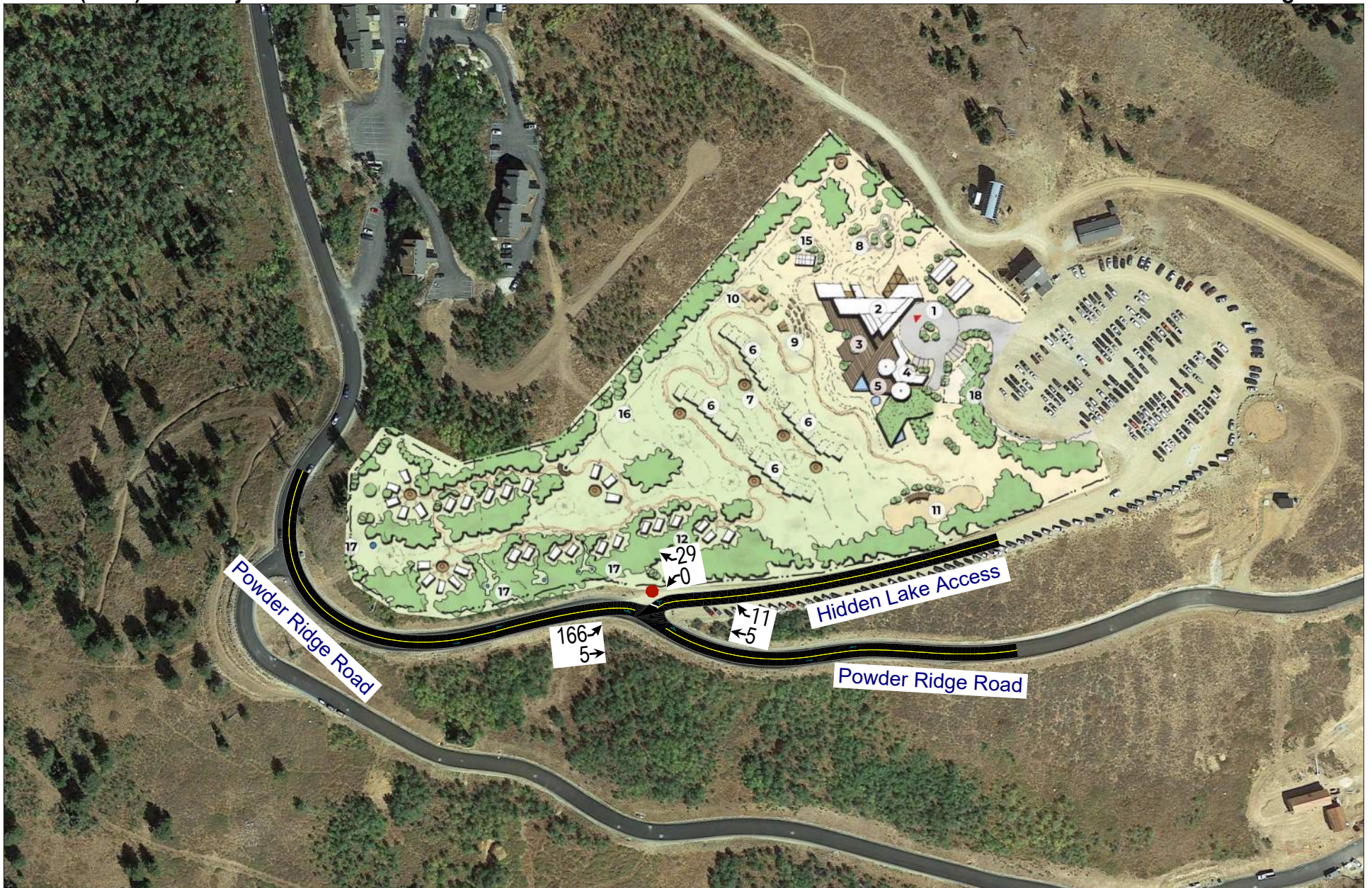
D. Queuing Analysis

Hales Engineering calculated the 95th percentile queue lengths for each of the study intersections. No significant queuing is anticipated during the morning and afternoon peak hours.

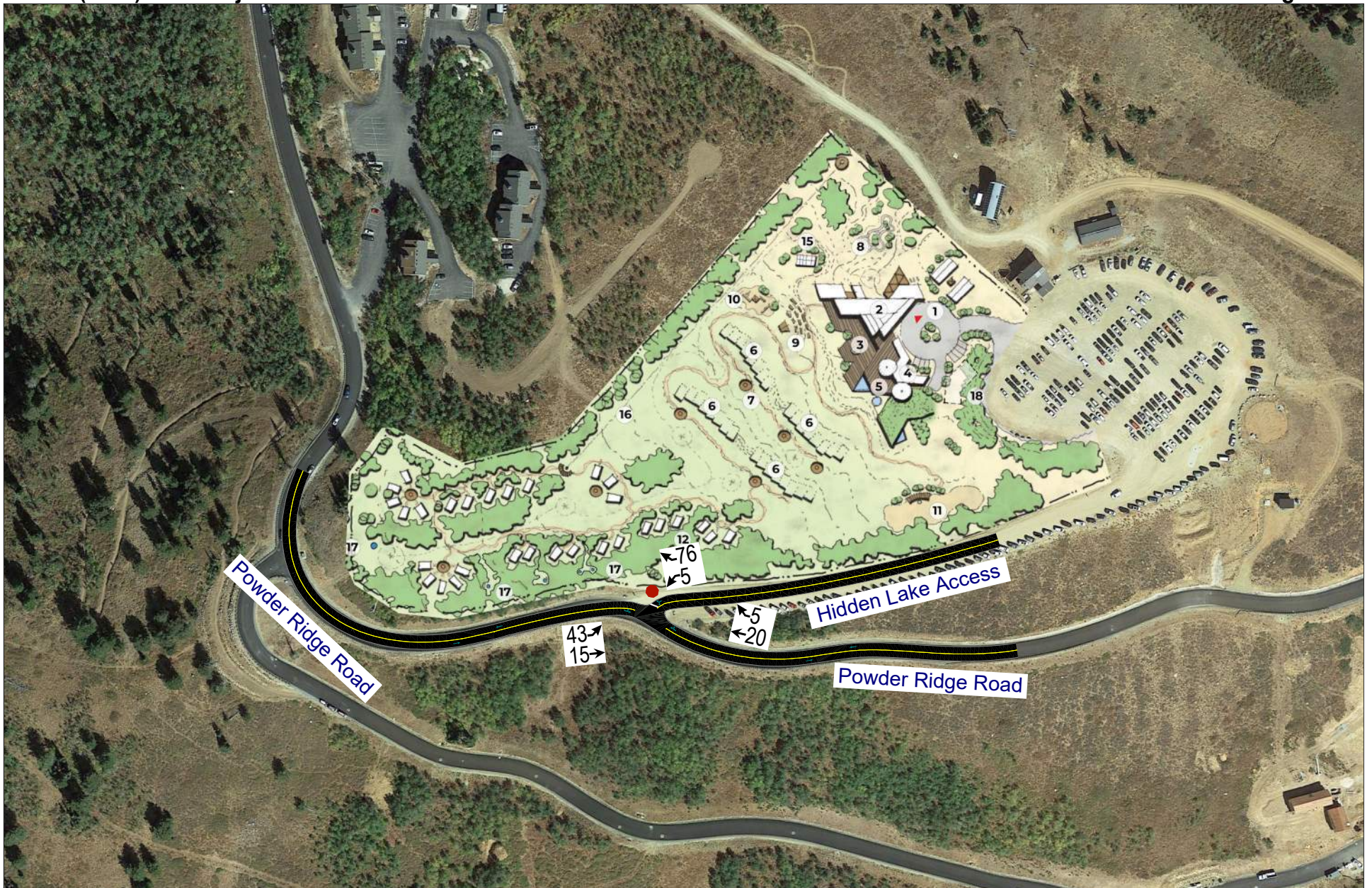
E. Mitigation Measures

No mitigation measures are recommended.









APPENDIX A

Site Plan





- 1 DROP OFF
- 2 MAIN BUILDING
- 3 AMENITY DECK
- 4 SKYLODGE
- 5 SKYLODGE TERRACE
- 6 GUESTROOMS BUILDINGS
- 7 FIRE PITS
- 8 PUMP TRACK
- 9 AMPHITHEATRE
- 10 PLAYGROUND
- 11 DOG PARK
- 12 CABINS
- 13 HIDDEN LAKE SKI LIFT
- 14 PARKING
- 15 GREEN HOUSE
- 16 ROPE TOW (SURFACE LIFT)
- 17 OUTDOOR JACUZZIS & SAUNAS
- 18 FUTURE MEETING SPACE



SKYLODGE HOTEL MASTER PLAN

APPENDIX B

Turning Movement Counts

L2 Data Collection

L2DataCollection.com

Idaho (208) 860-7554 Utah (801) 413-2993

Study: HALE0070
 Intersection: SR-158 & Powder Ridge Rd
 City, State: Powder Mountain, Utah
 Control: Stop Sign

File Name : SR-158 & Powder Ridge Road
 Site Code : 00000000
 Start Date : 12/10/2022
 Page No : 1

Groups Printed- General Traffic

Start Time	SR-158 (Powder Mountain Road) From Southwest				SR-158 (Powder Mountain Road) From Northeast				Powder Ridge Road From Southeast				Int. Total
	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	
08:00 AM	6	21	0	27	8	10	0	18	1	0	0	1	46
08:15 AM	8	13	0	21	7	3	0	10	4	0	0	4	35
08:30 AM	29	20	0	49	8	4	0	12	0	1	0	1	62
08:45 AM	27	15	0	42	5	1	0	6	2	3	1	6	54
Total	70	69	0	139	28	18	0	46	7	4	1	12	197
09:00 AM	11	27	0	38	2	7	0	9	1	4	4	9	56
09:15 AM	14	24	0	38	4	1	0	5	3	1	0	4	47
09:30 AM	9	15	0	24	3	3	0	6	4	1	0	5	35
09:45 AM	6	18	0	24	3	3	0	6	0	3	0	3	33
Total	40	84	0	124	12	14	0	26	8	9	4	21	171

01:00 PM	7	13	0	20	14	2	0	16	3	4	0	7	43
01:15 PM	2	9	0	11	16	0	0	16	1	13	0	14	41
01:30 PM	5	11	0	16	14	2	0	16	1	8	1	10	42
01:45 PM	3	7	0	10	16	1	0	17	3	12	0	15	42
Total	17	40	0	57	60	5	0	65	8	37	1	46	168
02:00 PM	9	11	0	20	16	1	0	17	0	6	0	6	43
02:15 PM	3	7	0	10	12	4	0	16	3	5	0	8	34
02:30 PM	2	7	0	9	27	1	0	28	4	8	0	12	49
02:45 PM	3	13	0	16	26	1	0	27	7	5	0	12	55
Total	17	38	0	55	81	7	0	88	14	24	0	38	181
Grand Total	144	231	0	375	181	44	0	225	37	74	6	117	717
Apprch %	38.4	61.6	0		80.4	19.6	0		31.6	63.2	5.1		
Total %	20.1	32.2	0	52.3	25.2	6.1	0	31.4	5.2	10.3	0.8	16.3	

L2 Data Collection

L2DataCollection.com

Idaho (208) 860-7554 Utah (801) 413-2993

Study: HALE0070

Intersection: SR-158 & Powder Ridge Rd

City, State: Powder Mountain, Utah

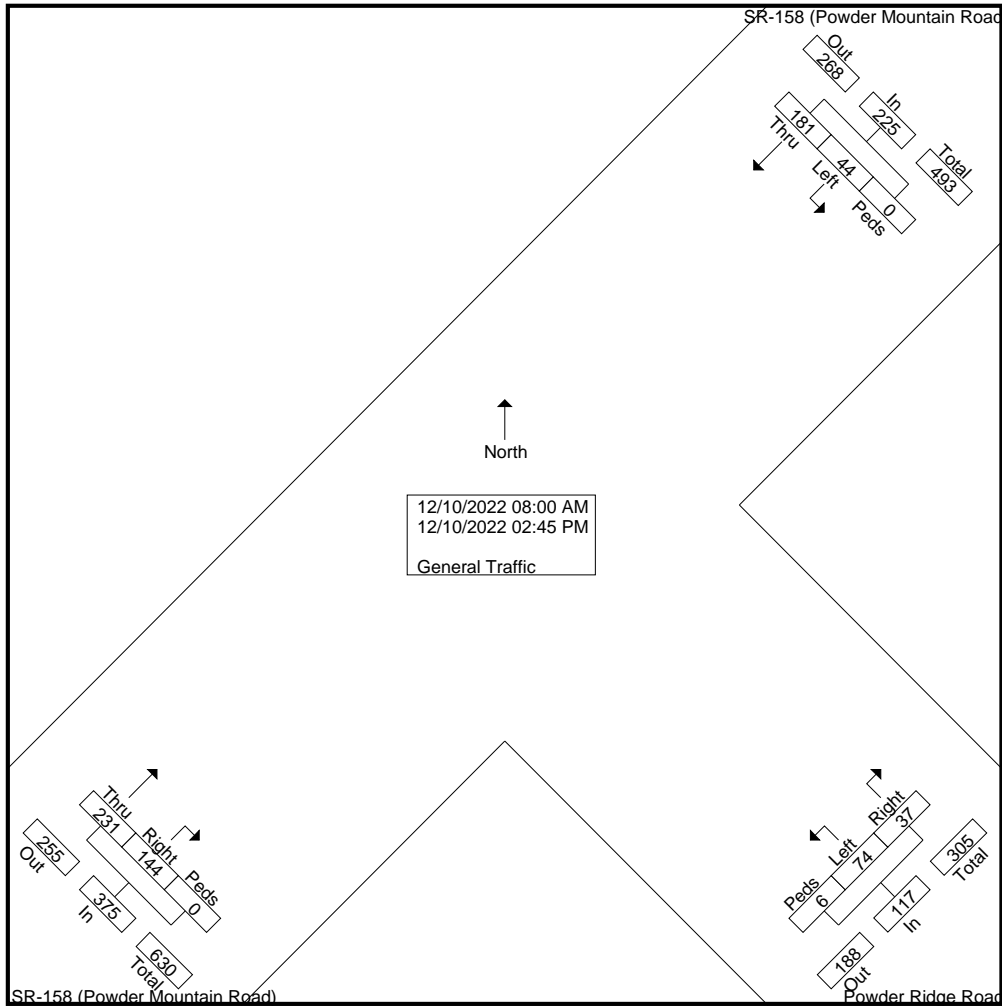
Control: Stop Sign

File Name : SR-158 & Powder Ridge Road

Site Code : 00000000

Start Date : 12/10/2022

Page No : 2



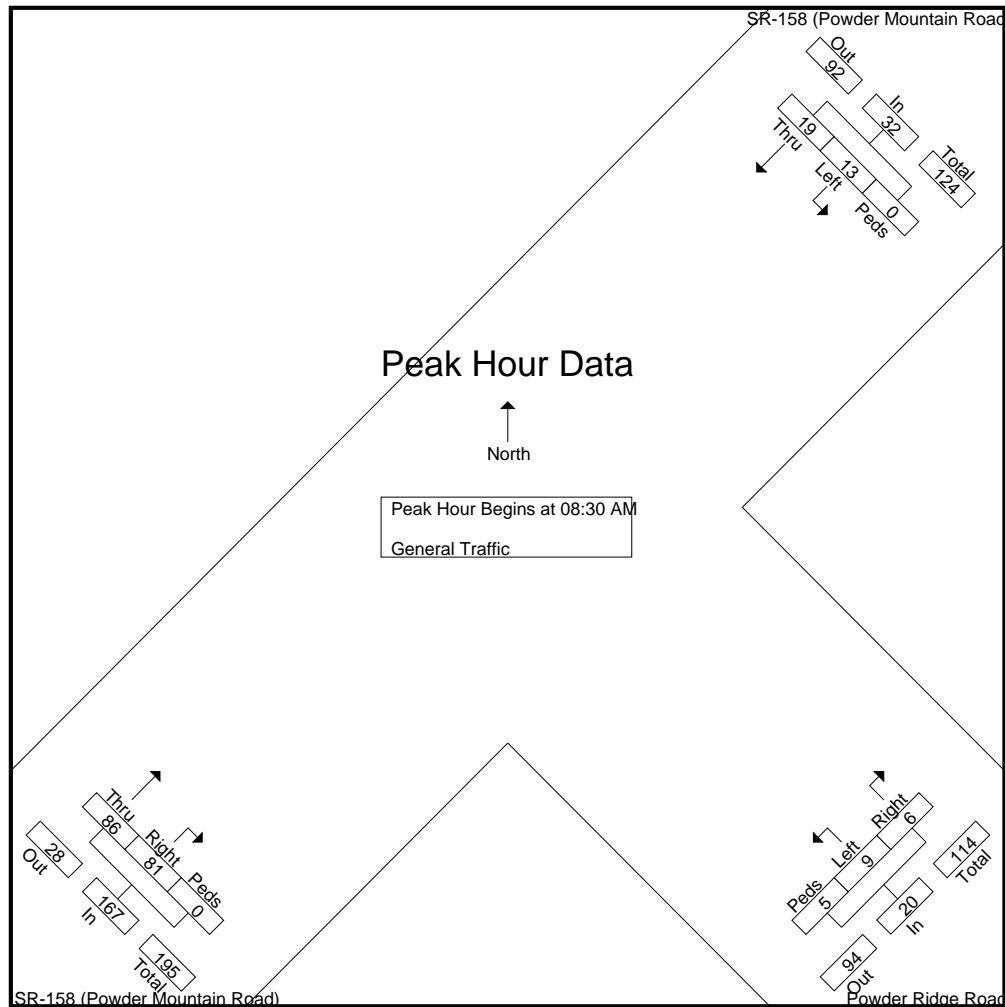
L2 Data Collection

L2DataCollection.com
 Idaho (208) 860-7554 Utah (801) 413-2993

Study: HALE0070
 Intersection: SR-158 & Powder Ridge Rd
 City, State: Powder Mountain, Utah
 Control: Stop Sign

File Name : SR-158 & Powder Ridge Road
 Site Code : 00000000
 Start Date : 12/10/2022
 Page No : 3

Start Time	SR-158 (Powder Mountain Road) From Southwest				SR-158 (Powder Mountain Road) From Northeast				Powder Ridge Road From Southeast				Int. Total
	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	
Peak Hour Analysis From 08:00 AM to 11:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 08:30 AM													
08:30 AM	29	20	0	49	8	4	0	12	0	1	0	1	62
08:45 AM	27	15	0	42	5	1	0	6	2	3	1	6	54
09:00 AM	11	27	0	38	2	7	0	9	1	4	4	9	56
09:15 AM	14	24	0	38	4	1	0	5	3	1	0	4	47
Total Volume	81	86	0	167	19	13	0	32	6	9	5	20	219
% App. Total	48.5	51.5	0		59.4	40.6	0		30	45	25		
PHF	.698	.796	.000	.852	.594	.464	.000	.667	.500	.563	.313	.556	.883



L2 Data Collection

L2DataCollection.com
 Idaho (208) 860-7554 Utah (801) 413-2993

Study: HALE0070
 Intersection: SR-158 & Powder Ridge Rd
 City, State: Powder Mountain, Utah
 Control: Stop Sign

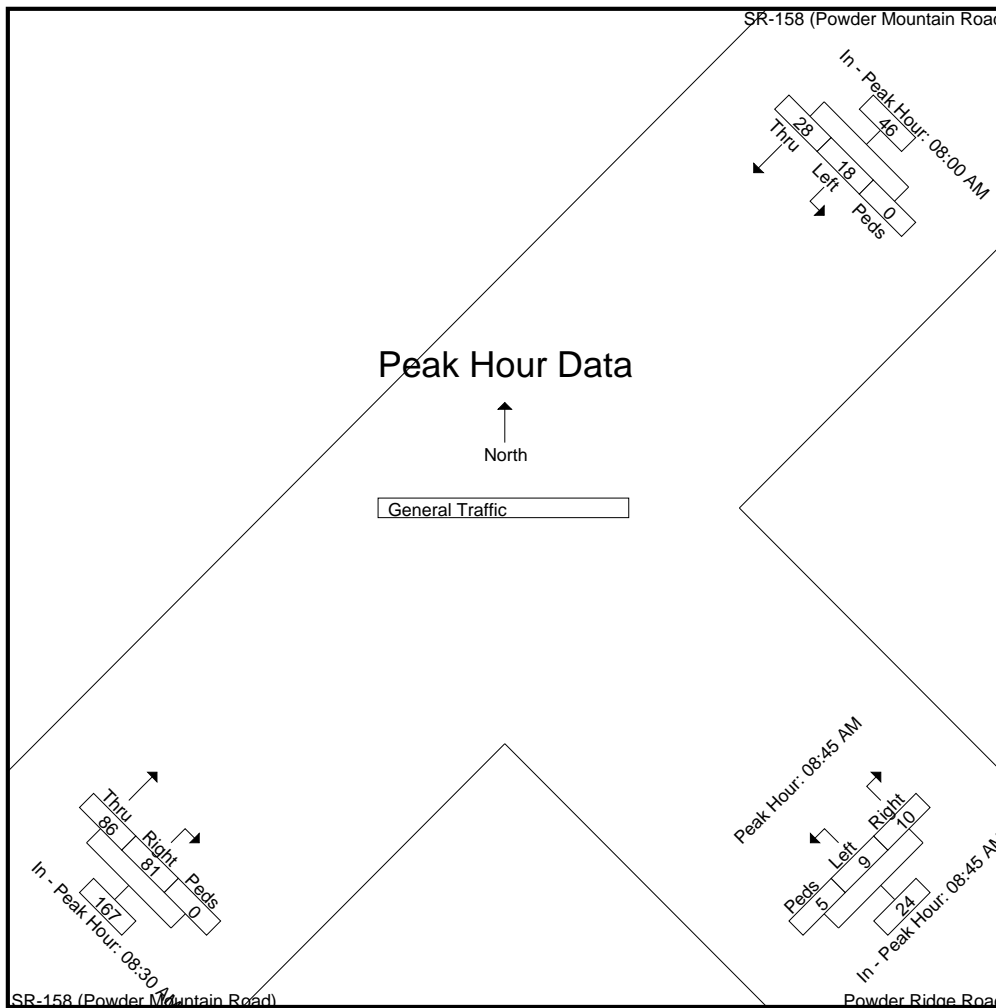
File Name : SR-158 & Powder Ridge Road
 Site Code : 00000000
 Start Date : 12/10/2022
 Page No : 4

Start Time	SR-158 (Powder Mountain Road) From Southwest				SR-158 (Powder Mountain Road) From Northeast				Powder Ridge Road From Southeast				Int. Total
	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	

Peak Hour Analysis From 08:00 AM to 11:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	08:30 AM				08:00 AM				08:45 AM			
+0 mins.	29	20	0	49	8	10	0	18	2	3	1	6
+15 mins.	27	15	0	42	7	3	0	10	1	4	4	9
+30 mins.	11	27	0	38	8	4	0	12	3	1	0	4
+45 mins.	14	24	0	38	5	1	0	6	4	1	0	5
Total Volume	81	86	0	167	28	18	0	46	10	9	5	24
% App. Total	48.5	51.5	0		60.9	39.1	0		41.7	37.5	20.8	
PHF	.698	.796	.000	.852	.875	.450	.000	.639	.625	.563	.313	.667



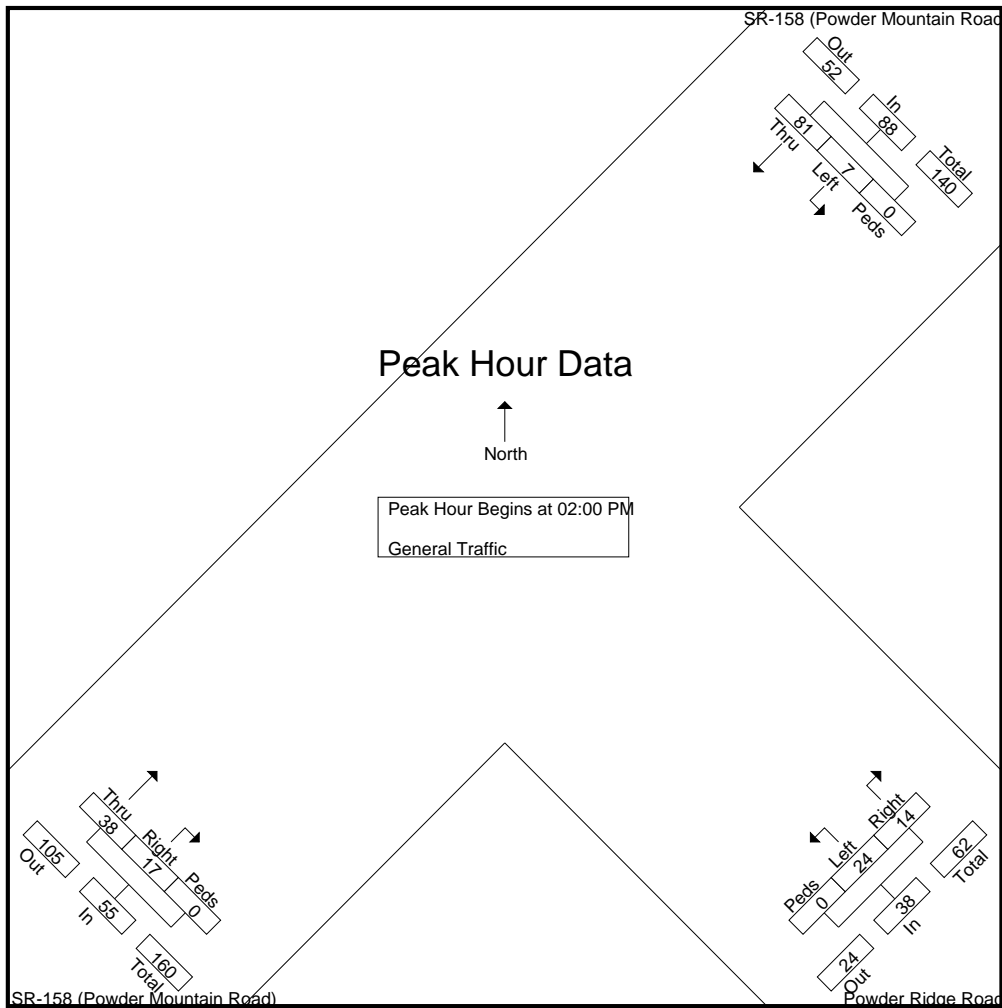
L2 Data Collection

L2DataCollection.com
 Idaho (208) 860-7554 Utah (801) 413-2993

Study: HALE0070
 Intersection: SR-158 & Powder Ridge Rd
 City, State: Powder Mountain, Utah
 Control: Stop Sign

File Name : SR-158 & Powder Ridge Road
 Site Code : 00000000
 Start Date : 12/10/2022
 Page No : 5

Start Time	SR-158 (Powder Mountain Road) From Southwest				SR-158 (Powder Mountain Road) From Northeast				Powder Ridge Road From Southeast				Int. Total
	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	
Peak Hour Analysis From 12:00 PM to 02:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 02:00 PM													
02:00 PM	9	11	0	20	16	1	0	17	0	6	0	6	43
02:15 PM	3	7	0	10	12	4	0	16	3	5	0	8	34
02:30 PM	2	7	0	9	27	1	0	28	4	8	0	12	49
02:45 PM	3	13	0	16	26	1	0	27	7	5	0	12	55
Total Volume	17	38	0	55	81	7	0	88	14	24	0	38	181
% App. Total	30.9	69.1	0		92	8	0		36.8	63.2	0		
PHF	.472	.731	.000	.688	.750	.438	.000	.786	.500	.750	.000	.792	.823



L2 Data Collection

L2DataCollection.com
 Idaho (208) 860-7554 Utah (801) 413-2993

Study: HALE0070
 Intersection: SR-158 & Powder Ridge Rd
 City, State: Powder Mountain, Utah
 Control: Stop Sign

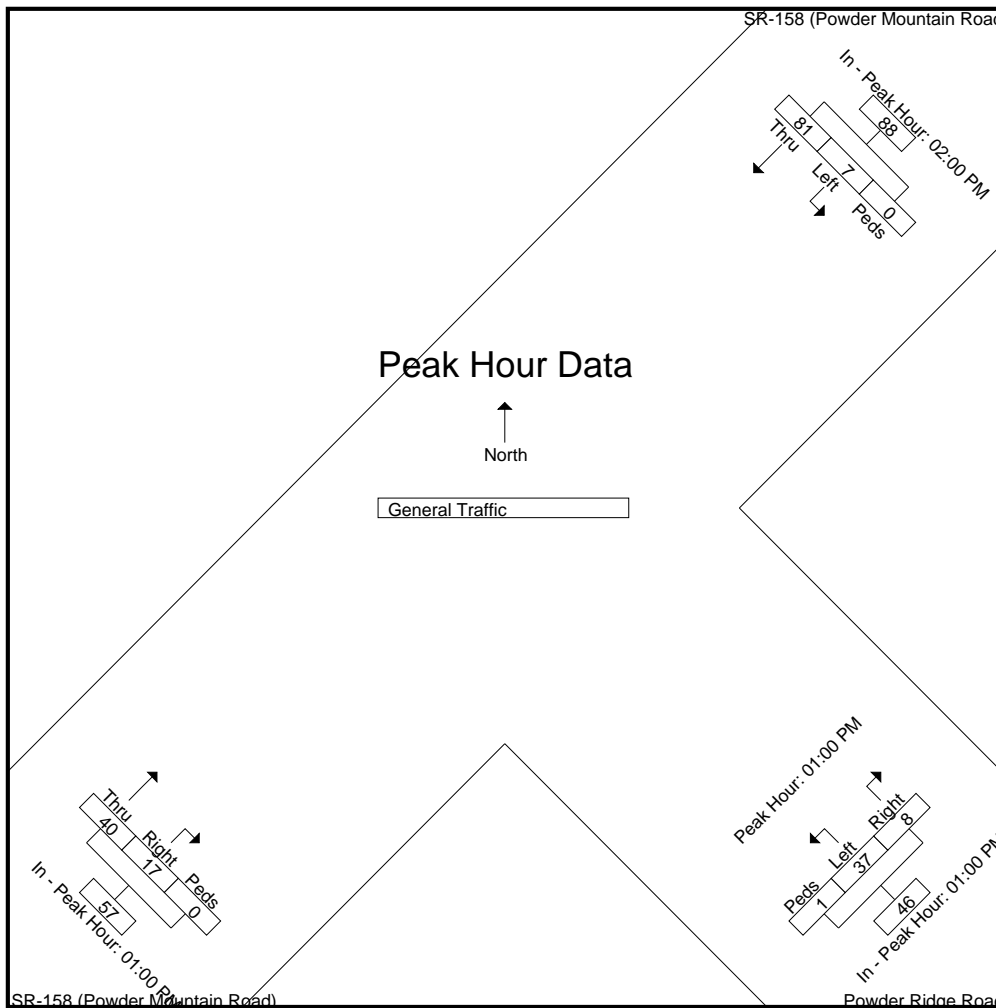
File Name : SR-158 & Powder Ridge Road
 Site Code : 00000000
 Start Date : 12/10/2022
 Page No : 6

Start Time	SR-158 (Powder Mountain Road) From Southwest				SR-158 (Powder Mountain Road) From Northeast				Powder Ridge Road From Southeast				Int. Total
	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	

Peak Hour Analysis From 12:00 PM to 02:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	01:00 PM				02:00 PM				01:00 PM			
+0 mins.	7	13	0	20	16	1	0	17	3	4	0	7
+15 mins.	2	9	0	11	12	4	0	16	1	13	0	14
+30 mins.	5	11	0	16	27	1	0	28	1	8	1	10
+45 mins.	3	7	0	10	26	1	0	27	3	12	0	15
Total Volume	17	40	0	57	81	7	0	88	8	37	1	46
% App. Total	29.8	70.2	0		92	8	0		17.4	80.4	2.2	
PHF	.607	.769	.000	.713	.750	.438	.000	.786	.667	.712	.250	.767



L2 Data Collection

L2DataCollection.com

Idaho (208) 860-7554 Utah (801) 413-2993

Study: HALE0070

Intersection: SR-158 & Powder Ridge Rd

City, State: Powder Mountain, Utah

Control: Stop Sign

File Name : SR-158 & Powder Ridge Road

Site Code : 00000000

Start Date : 12/10/2022

Page No : 7

Image 1



L2 Data Collection

L2DataCollection.com

Idaho (208) 860-7554 Utah (801) 413-2993

Study: HALE0070
 Intersection: Powder Ridge & Hidden Lake
 City, State: Powder Mountain, Utah
 Control: Stop Sign

File Name : Powder Ridge Road & Hidden Lake Lodge
 Site Code : 00000000
 Start Date : 12/10/2022
 Page No : 1

Groups Printed- General Traffic

Start Time	Powder Ridge Road From Northwest				Hidden Lake Lodge Parking Area From East				Powder Ridge Road From Southeast				Int. Total
	Thru	Bear Left	Peds	App. Total	Bear Right	Hard Left	Peds	App. Total	Hard Right	Thru	Peds	App. Total	
04:00 AM	0	0	1	1	0	0	0	0	0	0	0	0	1
04:15 AM	0	0	1	1	0	0	0	0	0	0	0	0	1
04:30 AM	1	0	0	1	0	0	0	0	0	0	0	0	1
04:45 AM	0	0	0	0	0	0	0	0	0	1	0	1	1
Total	1	0	2	3	0	0	0	0	0	1	0	1	4
05:00 AM	1	0	0	1	0	0	0	0	0	1	0	1	2
05:15 AM	1	0	0	1	0	0	0	0	0	0	0	0	1
05:30 AM	0	0	0	0	0	0	0	0	0	1	0	1	1
Total	2	0	0	2	0	0	0	0	0	2	0	2	4
06:15 AM	1	1	0	2	0	0	0	0	0	0	0	0	2
06:30 AM	1	0	0	1	0	0	0	0	0	0	0	0	1
06:45 AM	0	1	0	1	0	0	0	0	0	1	0	1	2
Total	2	2	0	4	0	0	0	0	0	1	0	1	5
07:00 AM	0	0	0	0	1	1	0	2	0	1	0	1	3
07:15 AM	1	0	0	1	0	0	0	0	0	1	0	1	2
07:30 AM	2	2	0	4	1	0	0	1	0	0	0	0	5
07:45 AM	0	3	0	3	0	0	0	0	0	0	0	0	3
Total	3	5	0	8	2	1	0	3	0	2	0	2	13
08:00 AM	2	12	0	14	1	0	0	1	0	0	0	0	15
08:15 AM	2	13	0	15	3	1	0	4	0	1	0	1	20
08:30 AM	0	28	0	28	0	0	0	0	1	1	0	2	30
08:45 AM	0	29	0	29	3	0	0	3	1	1	0	2	34
Total	4	82	0	86	7	1	0	8	2	3	0	5	99
09:00 AM	1	18	0	19	5	0	0	5	1	0	0	1	25
09:15 AM	1	14	0	15	5	0	0	5	1	0	0	1	21
09:30 AM	1	9	0	10	3	0	0	3	0	2	0	2	15
09:45 AM	2	9	0	11	1	0	0	1	0	1	0	1	13
Total	5	50	0	55	14	0	0	14	2	3	0	5	74
10:00 AM	0	11	0	11	4	0	0	4	1	1	0	2	17
10:15 AM	0	9	0	9	7	0	0	7	2	0	0	2	18
10:30 AM	0	6	0	6	9	0	0	9	0	0	0	0	15
10:45 AM	1	11	0	12	5	0	0	5	0	0	0	0	17
Total	1	37	0	38	25	0	0	25	3	1	0	4	67
11:00 AM	2	7	0	9	12	0	0	12	0	1	0	1	22
11:15 AM	1	7	0	8	13	1	0	14	1	3	0	4	26
11:30 AM	0	4	0	4	9	0	0	9	0	1	0	1	14
11:45 AM	1	3	0	4	19	1	0	20	0	0	0	0	24
Total	4	21	0	25	53	2	0	55	1	5	0	6	86
12:00 PM	3	3	0	6	5	3	0	8	0	4	0	4	18
12:15 PM	0	5	0	5	4	2	0	6	0	2	0	2	13
12:30 PM	2	6	0	8	9	1	0	10	3	1	0	4	22
12:45 PM	2	4	0	6	6	0	0	6	0	2	0	2	14
Total	7	18	0	25	24	6	0	30	3	9	0	12	67

L2 Data Collection

L2DataCollection.com

Idaho (208) 860-7554 Utah (801) 413-2993

Study: HALE0070
 Intersection: Powder Ridge & Hidden Lake
 City, State: Powder Mountain, Utah
 Control: Stop Sign

File Name : Powder Ridge Road & Hidden Lake Lodge
 Site Code : 00000000
 Start Date : 12/10/2022
 Page No : 2

Groups Printed- General Traffic

Start Time	Powder Ridge Road From Northwest				Hidden Lake Lodge Parking Area From East				Powder Ridge Road From Southeast				Int. Total
	Thru	Bear Left	Peds	App. Total	Bear Right	Hard Left	Peds	App. Total	Hard Right	Thru	Peds	App. Total	
01:00 PM	3	3	0	6	3	0	0	3	0	0	0	0	9
01:15 PM	0	1	0	1	10	1	0	11	0	1	0	1	13
01:30 PM	0	4	0	4	10	0	0	10	1	0	0	1	15
01:45 PM	2	5	0	7	11	0	0	11	0	1	0	1	19
Total	5	13	0	18	34	1	0	35	1	2	0	3	56
02:00 PM	1	4	0	5	3	1	0	4	0	1	0	1	10
02:15 PM	5	7	0	12	8	1	0	9	1	2	0	3	24
02:30 PM	0	2	0	2	7	0	0	7	0	4	0	4	13
02:45 PM	1	1	0	2	14	0	0	14	1	2	0	3	19
Total	7	14	0	21	32	2	0	34	2	9	0	11	66
03:00 PM	1	1	0	2	12	4	0	16	0	0	0	0	18
03:15 PM	1	1	0	2	9	0	0	9	0	0	0	0	11
03:30 PM	1	1	0	2	5	0	0	5	0	1	0	1	8
03:45 PM	1	2	0	3	9	1	0	10	0	0	0	0	13
Total	4	5	0	9	35	5	0	40	0	1	0	1	50
04:00 PM	0	4	0	4	6	1	0	7	0	4	0	4	15
04:15 PM	0	2	0	2	4	0	0	4	1	0	0	1	7
04:30 PM	0	1	0	1	5	3	0	8	1	2	0	3	12
04:45 PM	0	0	0	0	3	0	0	3	0	3	0	3	6
Total	0	7	0	7	18	4	0	22	2	9	0	11	40
05:00 PM	2	1	0	3	3	0	0	3	0	2	0	2	8
05:15 PM	0	1	0	1	0	0	0	0	0	0	0	0	1
05:30 PM	0	1	0	1	1	0	0	1	0	0	0	0	2
05:45 PM	0	0	0	0	1	0	0	1	0	0	0	0	1
Total	2	3	0	5	5	0	0	5	0	2	0	2	12
06:00 PM	0	0	0	0	1	0	0	1	0	0	0	0	1

06:30 PM	1	0	0	1	1	0	0	1	0	0	0	0	2
06:45 PM	0	1	0	1	0	0	0	0	0	0	0	0	1
Total	1	1	0	2	2	0	0	2	0	0	0	0	4
07:00 PM	0	0	0	0	1	0	0	1	0	0	0	0	1

07:30 PM	0	1	0	1	0	0	0	0	0	0	0	0	1
07:45 PM	0	0	0	0	1	0	0	1	0	0	0	0	1
Total	0	1	0	1	2	0	0	2	0	0	0	0	3

08:30 PM	0	0	0	0	0	0	0	0	0	2	0	2	2

Total	0	0	0	0	0	0	0	0	0	2	0	2	2

09:45 PM	0	1	0	1	1	0	0	1	0	0	0	0	2
Total	0	1	0	1	1	0	0	1	0	0	0	0	2
Grand Total	48	260	2	310	254	22	0	276	16	52	0	68	654
Apprch %	15.5	83.9	0.6		92	8	0		23.5	76.5	0		
Total %	7.3	39.8	0.3	47.4	38.8	3.4	0	42.2	2.4	8	0	10.4	

L2 Data Collection

L2DataCollection.com

Idaho (208) 860-7554 Utah (801) 413-2993

Study: HALE0070

Intersection: Powder Ridge & Hidden Lake

City, State: Powder Mountain, Utah

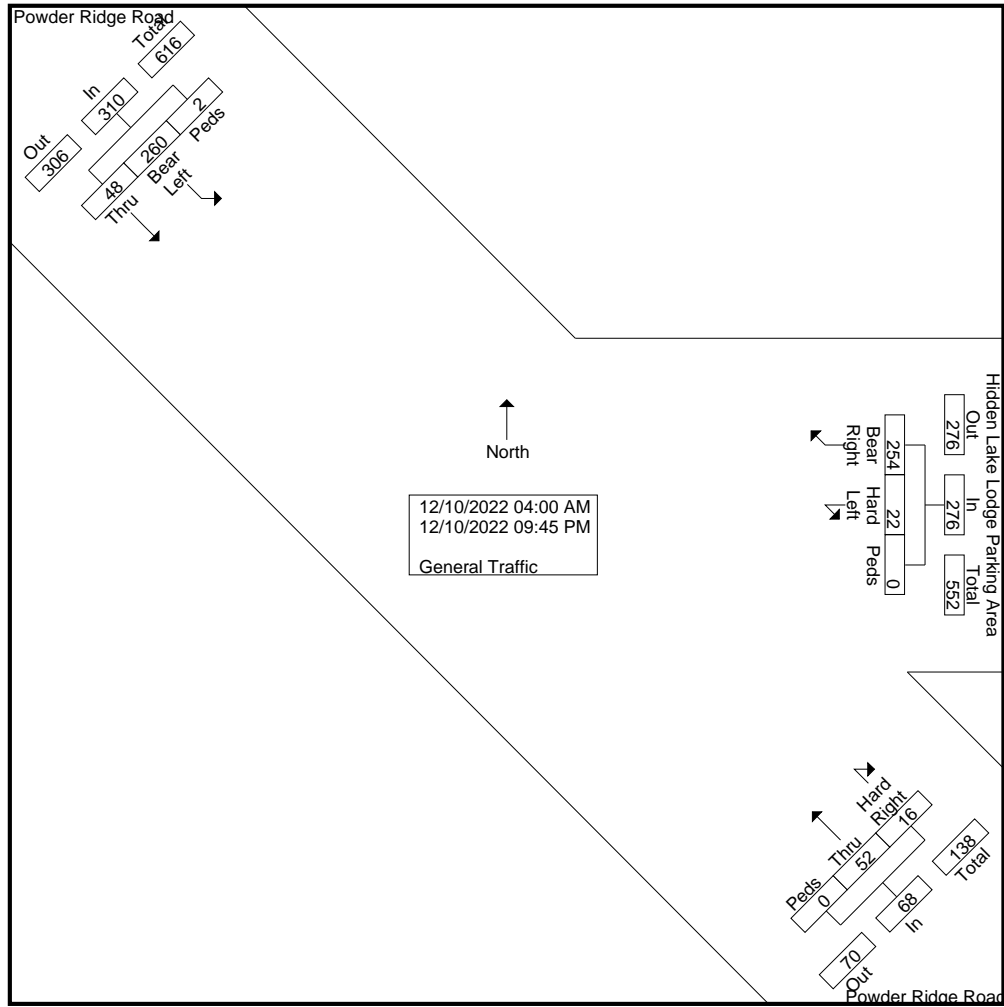
Control: Stop Sign

File Name : Powder Ridge Road & Hidden Lake Lodge

Site Code : 00000000

Start Date : 12/10/2022

Page No : 3



L2 Data Collection

L2DataCollection.com

Idaho (208) 860-7554 Utah (801) 413-2993

Study: HALE0070

Intersection: Powder Ridge & Hidden Lake

City, State: Powder Mountain, Utah

Control: Stop Sign

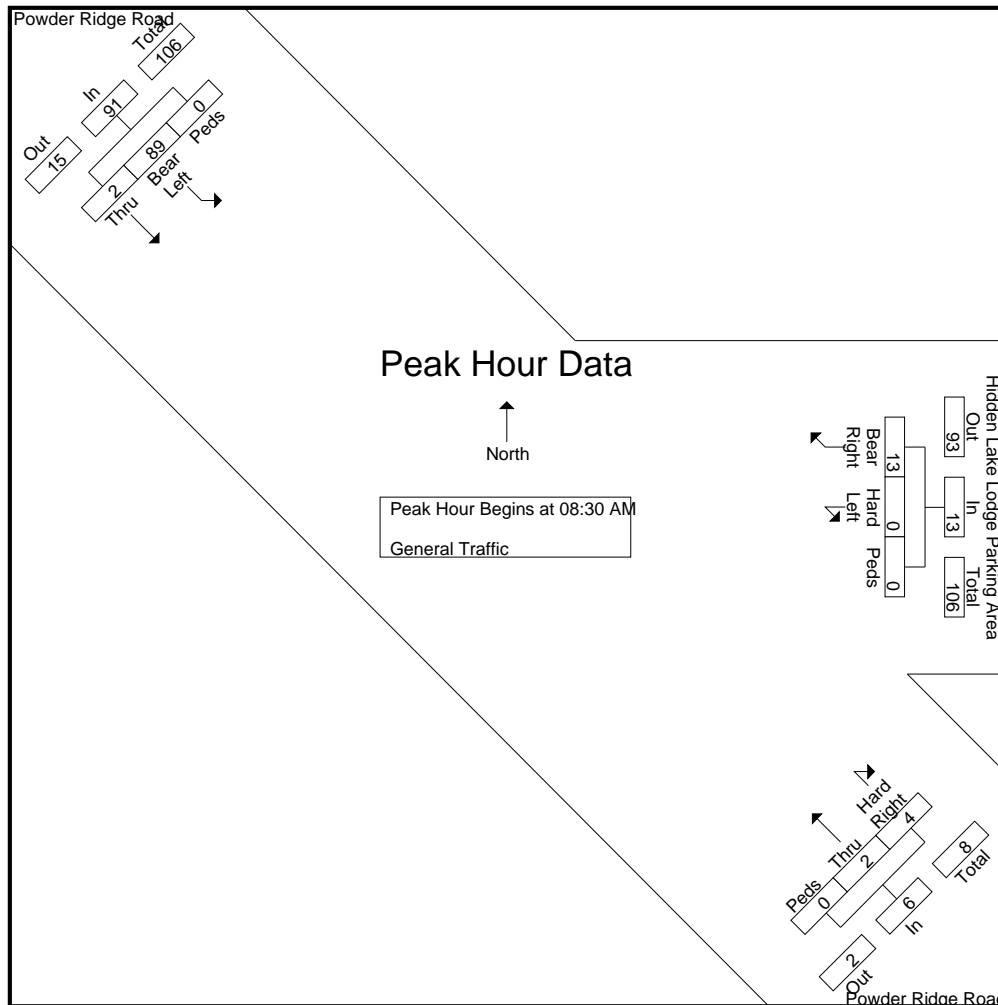
File Name : Powder Ridge Road & Hidden Lake Lodge

Site Code : 00000000

Start Date : 12/10/2022

Page No : 4

Start Time	Powder Ridge Road From Northwest				Hidden Lake Lodge Parking Area From East				Powder Ridge Road From Southeast				Int. Total
	Thru	Bear Left	Peds	App. Total	Bear Right	Hard Left	Peds	App. Total	Hard Right	Thru	Peds	App. Total	
Peak Hour Analysis From 04:00 AM to 10:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 08:30 AM													
08:30 AM	0	28	0	28	0	0	0	0	1	1	0	2	30
08:45 AM	0	29	0	29	3	0	0	3	1	1	0	2	34
09:00 AM	1	18	0	19	5	0	0	5	1	0	0	1	25
09:15 AM	1	14	0	15	5	0	0	5	1	0	0	1	21
Total Volume	2	89	0	91	13	0	0	13	4	2	0	6	110
% App. Total	2.2	97.8	0		100	0	0		66.7	33.3	0		
PHF	.500	.767	.000	.784	.650	.000	.000	.650	1.00	.500	.000	.750	.809



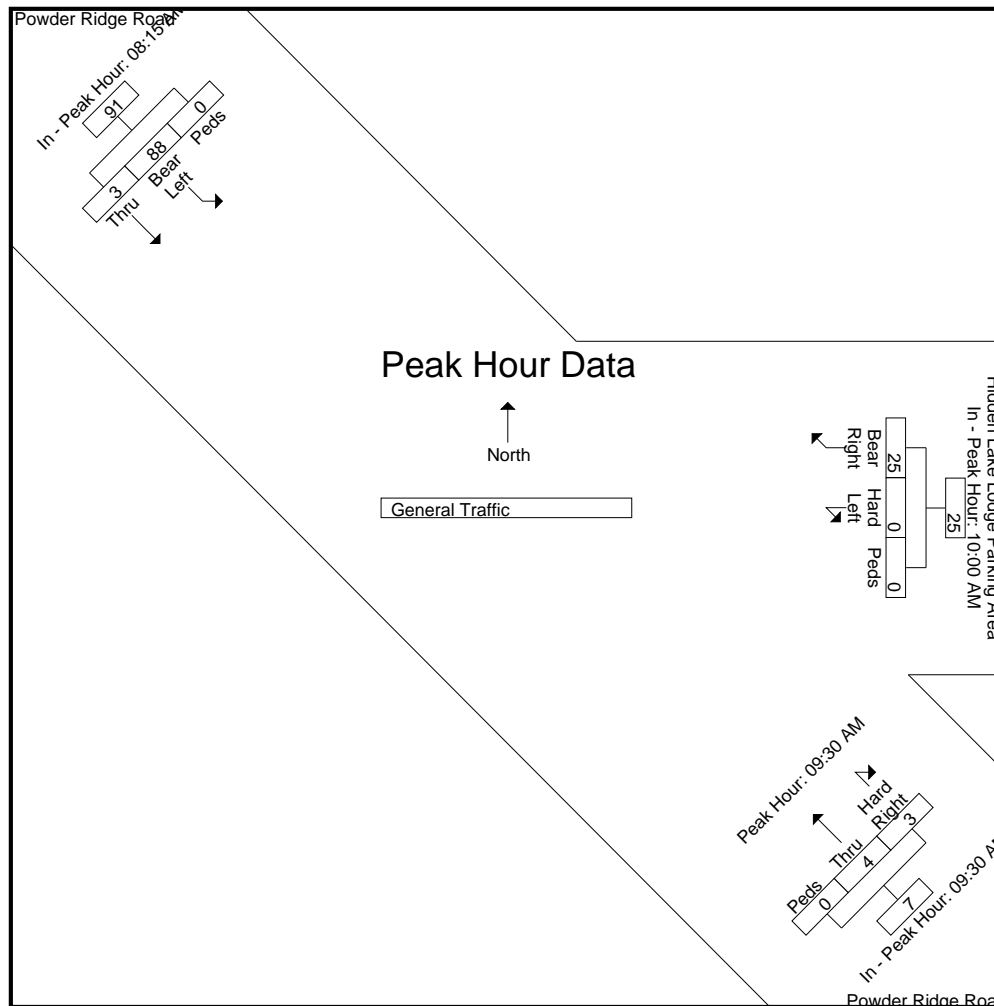
L2 Data Collection

L2DataCollection.com
 Idaho (208) 860-7554 Utah (801) 413-2993

Study: HALE0070
 Intersection: Powder Ridge & Hidden Lake
 City, State: Powder Mountain, Utah
 Control: Stop Sign

File Name : Powder Ridge Road & Hidden Lake Lodge
 Site Code : 00000000
 Start Date : 12/10/2022
 Page No : 5

Start Time	Powder Ridge Road From Northwest				Hidden Lake Lodge Parking Area From East				Powder Ridge Road From Southeast				Int. Total
	Thru	Bear Left	Peds	App. Total	Bear Right	Hard Left	Peds	App. Total	Hard Right	Thru	Peds	App. Total	
Peak Hour Analysis From 04:00 AM to 10:45 AM - Peak 1 of 1													
Peak Hour for Each Approach Begins at:													
	08:15 AM				10:00 AM				09:30 AM				
+0 mins.	2	13	0	15	4	0	0	4	0	2	0	2	
+15 mins.	0	28	0	28	7	0	0	7	0	1	0	1	
+30 mins.	0	29	0	29	9	0	0	9	1	1	0	2	
+45 mins.	1	18	0	19	5	0	0	5	2	0	0	2	
Total Volume	3	88	0	91	25	0	0	25	3	4	0	7	
% App. Total	3.3	96.7	0		100	0	0		42.9	57.1	0		
PHF	.375	.759	.000	.784	.694	.000	.000	.694	.375	.500	.000	.875	



L2 Data Collection

L2DataCollection.com

Idaho (208) 860-7554 Utah (801) 413-2993

Study: HALE0070

Intersection: Powder Ridge & Hidden Lake

City, State: Powder Mountain, Utah

Control: Stop Sign

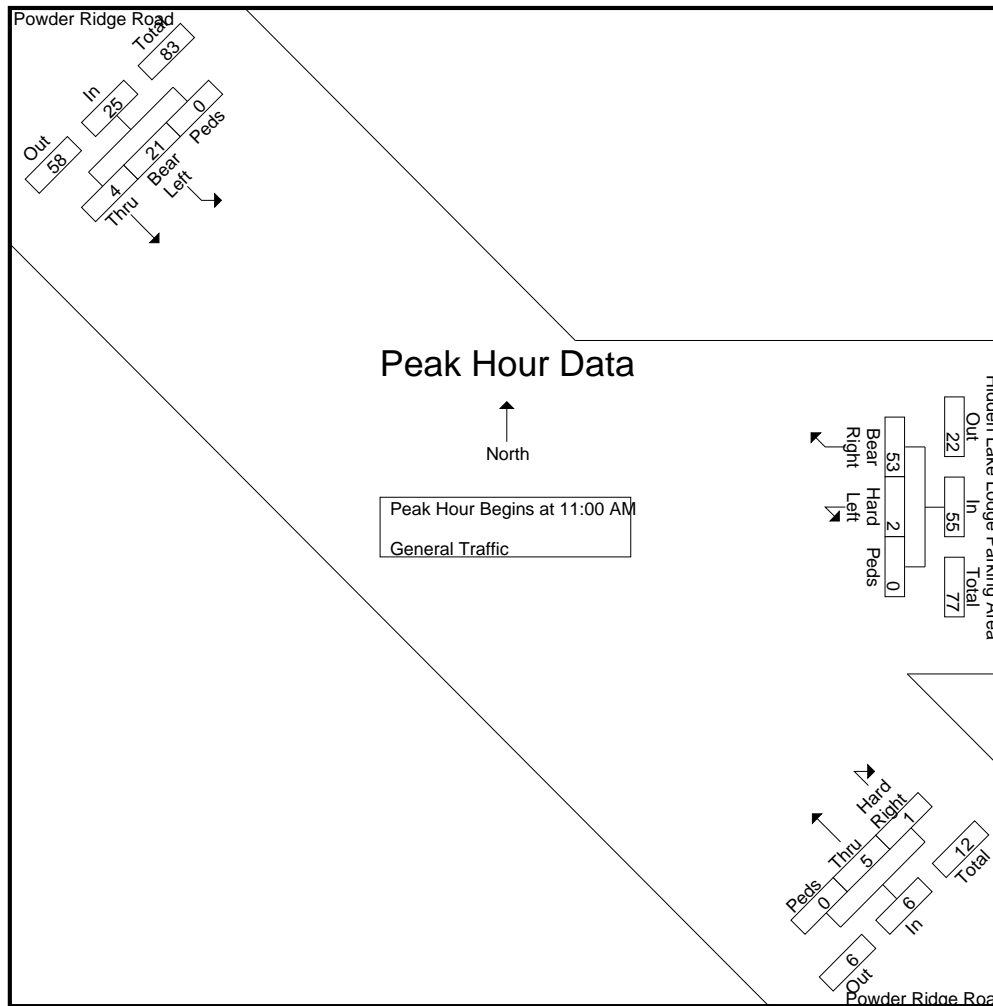
File Name : Powder Ridge Road & Hidden Lake Lodge

Site Code : 00000000

Start Date : 12/10/2022

Page No : 6

Start Time	Powder Ridge Road From Northwest				Hidden Lake Lodge Parking Area From East				Powder Ridge Road From Southeast				Int. Total
	Thru	Bear Left	Peds	App. Total	Bear Right	Hard Left	Peds	App. Total	Hard Right	Thru	Peds	App. Total	
Peak Hour Analysis From 11:00 AM to 03:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 11:00 AM													
11:00 AM	2	7	0	9	12	0	0	12	0	1	0	1	22
11:15 AM	1	7	0	8	13	1	0	14	1	3	0	4	26
11:30 AM	0	4	0	4	9	0	0	9	0	1	0	1	14
11:45 AM	1	3	0	4	19	1	0	20	0	0	0	0	24
Total Volume	4	21	0	25	53	2	0	55	1	5	0	6	86
% App. Total	16	84	0		96.4	3.6	0		16.7	83.3	0		
PHF	.500	.750	.000	.694	.697	.500	.000	.688	.250	.417	.000	.375	.827



L2 Data Collection

L2DataCollection.com
 Idaho (208) 860-7554 Utah (801) 413-2993

Study: HALE0070
 Intersection: Powder Ridge & Hidden Lake
 City, State: Powder Mountain, Utah
 Control: Stop Sign

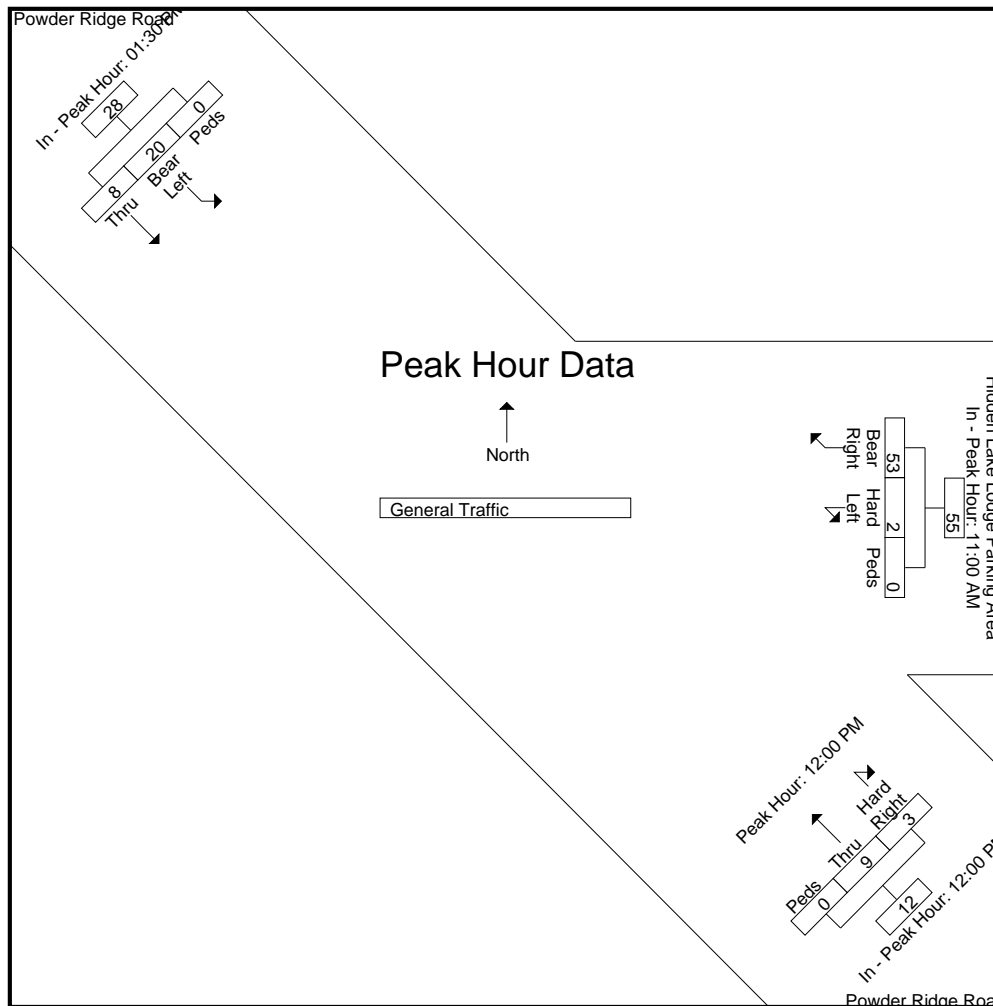
File Name : Powder Ridge Road & Hidden Lake Lodge
 Site Code : 00000000
 Start Date : 12/10/2022
 Page No : 7

Start Time	Powder Ridge Road From Northwest				Hidden Lake Lodge Parking Area From East				Powder Ridge Road From Southeast				Int. Total
	Thru	Bear Left	Peds	App. Total	Bear Right	Hard Left	Peds	App. Total	Hard Right	Thru	Peds	App. Total	

Peak Hour Analysis From 11:00 AM to 03:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	01:30 PM				11:00 AM				12:00 PM			
+0 mins.	0	4	0	4	12	0	0	12	0	4	0	4
+15 mins.	2	5	0	7	13	1	0	14	0	2	0	2
+30 mins.	1	4	0	5	9	0	0	9	3	1	0	4
+45 mins.	5	7	0	12	19	1	0	20	0	2	0	2
Total Volume	8	20	0	28	53	2	0	55	3	9	0	12
% App. Total	28.6	71.4	0		96.4	3.6	0		25	75	0	
PHF	.400	.714	.000	.583	.697	.500	.000	.688	.250	.563	.000	.750



L2 Data Collection

L2DataCollection.com

Idaho (208) 860-7554 Utah (801) 413-2993

Study: HALE0070

Intersection: Powder Ridge & Hidden Lake

City, State: Powder Mountain, Utah

Control: Stop Sign

File Name : Powder Ridge Road & Hidden Lake Lodge

Site Code : 00000000

Start Date : 12/10/2022

Page No : 8

Image 1



APPENDIX C

LOS Results



SimTraffic LOS Report

Project: Weber County Skylodge Hotel
Analysis Period: Existing (2022) Background
Time Period: Morning Peak Hour **Project #: UT22-2393**

Intersection: Powder Ridge Road & S.R. 158
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	15	15	102	6.1	A
	R	10	11	107	3.5	A
	Subtotal	25	26	104	5.0	A
EB	T	224	215	96	1.0	A
	R	138	145	105	0.5	A
	Subtotal	362	360	99	0.8	A
WB	L	22	24	109	3.4	A
	T	34	35	104	0.3	A
	Subtotal	56	59	105	1.6	A
Total		443	445	100	1.2	A

Intersection: Powder Ridge Road & Hidden Lake Access
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
EB	L	151	150	99	1.6	A
	T	4	5	118	0.6	A
	Subtotal	155	155	100	1.6	A
WB	T	4	3	71	0.0	A
	R	7	8	110	0.0	A
	Subtotal	11	11	100	0.0	A
SW	R	22	21	95	2.2	A
	Subtotal	22	21	95	2.2	A
Total		189	187	99	1.6	A

SimTraffic LOS Report

Project: Weber County Skylodge Hotel
Analysis Period: Existing (2022) Background
Time Period: Afternoon Peak Hour **Project #: UT22-2393**

Intersection: Powder Ridge Road & S.R. 158
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	136	130	96	7.2	A
	R	51	50	99	4.5	A
	Subtotal	187	180	96	6.5	A
EB	T	65	64	99	0.2	A
	R	29	32	110	0.1	A
	Subtotal	94	96	102	0.2	A
WB	L	21	20	96	1.9	A
	T	249	243	97	0.3	A
	Subtotal	270	263	97	0.4	A
Total		550	539	98	2.4	A

Intersection: Powder Ridge Road & Hidden Lake Access
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
EB	L	24	21	88	1.6	A
	T	12	13	108	0.0	A
	Subtotal	36	34	94	1.0	A
WB	T	16	17	105	0.1	A
	R	4	6	141	0.0	A
	Subtotal	20	23	115	0.1	A
SW	L	4	4	94	4.7	A
	R	55	54	98	2.5	A
	Subtotal	59	58	98	2.7	A
Total		116	115	100	1.7	A

SimTraffic LOS Report

Project: Weber County Skylodge Hotel
Analysis Period: Existing (2022) Plus Project
Time Period: Morning Peak Hour **Project #: UT22-2393**

Intersection: Powder Ridge Road & S.R. 158
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	21	22	106	5.7	A
	R	10	10	103	3.7	A
	Subtotal	31	32	103	5.1	A
EB	T	224	219	98	1.2	A
	R	152	161	106	0.6	A
	Subtotal	376	380	101	0.9	A
WB	L	23	23	101	4.2	A
	T	33	34	102	0.4	A
	Subtotal	56	57	102	1.9	A
Total		463	469	101	1.4	A

Intersection: Powder Ridge Road & Hidden Lake Access
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
EB	L	166	169	102	1.7	A
	T	4	5	118	0.7	A
	Subtotal	170	174	102	1.7	A
WB	T	4	4	94	0.1	A
	R	8	8	103	0.0	A
	Subtotal	12	12	100	0.0	A
SW	L	1	1	100	4.2	A
	R	28	31	111	2.2	A
	Subtotal	29	32	110	2.3	A
Total		211	218	103	1.7	A

SimTraffic LOS Report

Project: Weber County Skylodge Hotel
Analysis Period: Existing (2022) Plus Project
Time Period: Afternoon Peak Hour **Project #: UT22-2393**

Intersection: Powder Ridge Road & S.R. 158
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	155	150	97	7.3	A
	R	53	51	96	4.6	A
	Subtotal	208	201	97	6.6	A
EB	T	65	63	97	0.3	A
	R	46	45	97	0.1	A
	Subtotal	111	108	97	0.2	A
WB	L	23	19	84	2.1	A
	T	249	243	97	0.3	A
	Subtotal	272	262	96	0.4	A
Total		591	571	97	2.6	A

Intersection: Powder Ridge Road & Hidden Lake Access
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
EB	L	43	42	98	1.5	A
	T	12	13	108	0.2	A
	Subtotal	55	55	100	1.2	A
WB	T	16	17	105	0.1	A
	R	5	6	114	0.0	A
	Subtotal	21	23	110	0.1	A
SW	L	5	6	114	4.0	A
	R	76	76	100	2.6	A
	Subtotal	81	82	101	2.7	A
Total		158	160	102	1.8	A

SimTraffic LOS Report

Project: Weber County Skylodge Hotel
Analysis Period: Future (2027) Background
Time Period: Morning Peak Hour **Project #: UT22-2393**

Intersection: Powder Ridge Road & S.R. 158
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	20	19	95	6.9	A
	R	15	14	95	4.1	A
	Subtotal	35	33	94	5.7	A
EB	T	275	276	100	1.3	A
	R	170	174	103	0.7	A
	Subtotal	445	450	101	1.1	A
WB	L	30	33	109	4.5	A
	T	45	45	100	0.5	A
	Subtotal	75	78	104	2.2	A
Total		554	561	101	1.5	A

Intersection: Powder Ridge Road & Hidden Lake Access
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
EB	L	151	146	97	1.7	A
	T	5	6	114	0.7	A
	Subtotal	156	152	97	1.7	A
WB	T	5	4	76	0.0	A
	R	10	10	98	0.0	A
	Subtotal	15	14	93	0.0	A
SW	R	22	22	100	2.3	A
	Subtotal	22	22	100	2.3	A
Total		194	188	97	1.6	A

SimTraffic LOS Report

Project: Weber County Skylodge Hotel
Analysis Period: Future (2027) Background
Time Period: Afternoon Peak Hour **Project #: UT22-2393**

Intersection: Powder Ridge Road & S.R. 158
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	170	167	98	9.3	A
	R	65	65	100	5.8	A
	Subtotal	235	232	99	8.3	A
EB	T	80	79	99	0.3	A
	R	40	40	100	0.1	A
	Subtotal	120	119	99	0.2	A
WB	L	30	28	93	2.0	A
	T	305	304	100	0.4	A
	Subtotal	335	332	99	0.5	A
Total		690	683	99	3.1	A

Intersection: Powder Ridge Road & Hidden Lake Access
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
EB	L	24	21	88	1.6	A
	T	15	14	93	0.0	A
	Subtotal	39	35	90	1.0	A
WB	T	20	20	99	0.1	A
	R	4	5	118	0.0	A
	Subtotal	24	25	104	0.1	A
SW	L	4	4	94	4.6	A
	R	55	56	102	2.4	A
	Subtotal	59	60	102	2.5	A
Total		122	120	98	1.6	A

SimTraffic LOS Report

Project: Weber County Skylodge Hotel
Analysis Period: Future (2027) Plus Project
Time Period: Morning Peak Hour **Project #: UT22-2393**

Intersection: Powder Ridge Road & S.R. 158
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	26	24	92	7.3	A
	R	15	17	113	4.2	A
	Subtotal	41	41	100	6.0	A
EB	T	275	276	100	1.3	A
	R	184	187	101	0.8	A
	Subtotal	459	463	101	1.1	A
WB	L	31	32	102	4.5	A
	T	45	46	102	0.4	A
	Subtotal	76	78	103	2.1	A
Total		577	582	101	1.6	A

Intersection: Powder Ridge Road & Hidden Lake Access
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
EB	L	166	163	98	1.7	A
	T	5	6	114	0.8	A
	Subtotal	171	169	99	1.7	A
WB	T	5	5	95	0.0	A
	R	10	11	113	0.0	A
	Subtotal	15	16	107	0.0	A
SW	R	28	29	104	2.3	A
	Subtotal	28	29	104	2.3	A
Total		214	214	100	1.6	A

SimTraffic LOS Report

Project: Weber County Skylodge Hotel
Analysis Period: Future (2027) Plus Project
Time Period: Afternoon Peak Hour **Project #: UT22-2393**

Intersection: Powder Ridge Road & S.R. 158
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	189	187	99	9.1	A
	R	67	66	99	6.1	A
	Subtotal	256	253	99	8.3	A
EB	T	80	76	95	0.4	A
	R	57	58	101	0.2	A
	Subtotal	137	134	98	0.3	A
WB	L	32	31	96	2.2	A
	T	305	299	98	0.4	A
	Subtotal	337	330	98	0.6	A
Total		730	717	98	3.3	A

Intersection: Powder Ridge Road & Hidden Lake Access
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
EB	L	43	42	98	1.6	A
	T	15	14	93	0.2	A
	Subtotal	58	56	97	1.3	A
WB	T	20	21	104	0.1	A
	R	5	7	133	0.0	A
	Subtotal	25	28	112	0.1	A
SW	L	5	6	114	3.9	A
	R	76	78	103	2.6	A
	Subtotal	81	84	104	2.7	A
Total		164	168	102	1.8	A

APPENDIX D

95th Percentile Queue Length Reports



SimTraffic Queueing Report

Project: Weber County Skylodge Hotel

Analysis: Existing (2022) Background

Time Period: Morning Peak Hour

95th Percentile Queue Length (feet) - Rounded Up to Nearest Multiple of 25 ft



Project #: UT22-2393

Intersection	NB	SW	EB		WB
	LR	LR	LT	TR	LT
01: Powder Ridge Road & S.R. 158	50				50
02: Powder Ridge Road & Hidden Lake Access		50			

SimTraffic Queueing Report
Project: Weber County Skylodge Hotel
Analysis: Existing (2022) Background
Time Period: Afternoon Peak Hour
 95th Percentile Queue Length (feet) - Rounded Up to Nearest Multiple of 25 ft

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 innovative transportation solutions

Project #: UT22-2393

Intersection	NB	SW	EB	WB
	LR	LR	LT	LT
01: Powder Ridge Road & S.R. 158	75			
02: Powder Ridge Road & Hidden Lake Access		50		

SimTraffic Queueing Report

Project: Weber County Skylodge Hotel

Analysis: Existing (2022) Plus Project

Time Period: Morning Peak Hour

95th Percentile Queue Length (feet) - Rounded Up to Nearest Multiple of 25 ft



Project #: UT22-2393

Intersection	NB	SW	EB		WB
	LR	LR	LT	TR	LT
01: Powder Ridge Road & S.R. 158	50				50
02: Powder Ridge Road & Hidden Lake Access		50			

SimTraffic Queueing Report

Project: Weber County Skylodge Hotel

Analysis: Existing (2022) Plus Project

Time Period: Afternoon Peak Hour

95th Percentile Queue Length (feet) - Rounded Up to Nearest Multiple of 25 ft



Project #: UT22-2393

Intersection	NB	SW	EB	WB
	LR	LR	LT	LT
01: Powder Ridge Road & S.R. 158	100			
02: Powder Ridge Road & Hidden Lake Access		50		

SimTraffic Queueing Report

Project: Weber County Skylodge Hotel

Analysis: Future (2027) Background

Time Period: Morning Peak Hour

95th Percentile Queue Length (feet) - Rounded Up to Nearest Multiple of 25 ft



Project #: UT22-2393

Intersection	NB	SW	EB		WB
	LR	LR	LT	TR	LT
01: Powder Ridge Road & S.R. 158	50				50
02: Powder Ridge Road & Hidden Lake Access		50			

SimTraffic Queueing Report

Project: Weber County Skylodge Hotel

Analysis: Future (2027) Background

Time Period: Afternoon Peak Hour

95th Percentile Queue Length (feet) - Rounded Up to Nearest Multiple of 25 ft



Project #: UT22-2393

Intersection	NB	SW	EB		WB
	LR	LR	LT	TR	LT
01: Powder Ridge Road & S.R. 158	100				
02: Powder Ridge Road & Hidden Lake Access		50			

SimTraffic Queueing Report

Project: Weber County Skylodge Hotel

Analysis: Future (2027) Plus Project

Time Period: Morning Peak Hour

95th Percentile Queue Length (feet) - Rounded Up to Nearest Multiple of 25 ft



Project #: UT22-2393

Intersection	NB	SW	EB		WB
	LR	LR	LT	TR	LT
01: Powder Ridge Road & S.R. 158	50				50
02: Powder Ridge Road & Hidden Lake Access		50			

SimTraffic Queueing Report

Project: Weber County Skylodge Hotel

Analysis: Future (2027) Plus Project

Time Period: Afternoon Peak Hour

95th Percentile Queue Length (feet) - Rounded Up to Nearest Multiple of 25 ft



innovative transportation solutions

Project #: UT22-2393

Intersection	NB	SW	EB	WB
	LR	LR	LT	LT
01: Powder Ridge Road & S.R. 158	125			50
02: Powder Ridge Road & Hidden Lake Access		50		