Y2 CONSULTANTS

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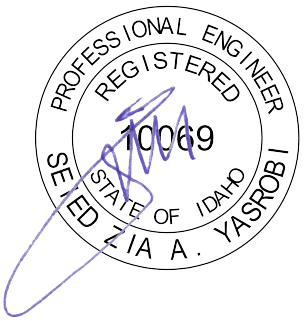
ENGINEERING, SURVEYING & PLANNING
NATURAL RESOURCE SERVICES, GIS

TRAFFIC IMPACT STUDY
OSPREY LANDING SUBDIVISION

SECTION 11, TOWNSHIP 4 NORTH, RANGE 45 EAST, TETON COUNTY, ID



February 6, 2024

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FIGURES

TABLES

Introduction and Summary

Purpose of Report and Study Objectives

The purpose of this Traffic Impact Study (TIS) is to assess the effects of generated traffic from a proposed subdivision in Teton County, Idaho. The objectives are to:

- Quantify existing traffic and provide reasonable traffic projections in the study area.
- Provide reasonable traffic generation rates and assignments to be generated from the proposed development.
- Assess whether the proposed development has a significant detrimental impact on the existing transportation infrastructure.
- Provide solutions if detrimental impact is predicted due to the proposed development.

Executive Summary

Site Location and Study Area

This proposed subdivision is situated on a 30-acre parcel. The parcel identification number (PID) is RP04N45E118401. Please see Figure 1 for the aerial view of the parcel from the Teton County GIS server.

Figure 1: Osprey Landing Aerial View

The Osprey Landing Subdivision is proposed to be developed on the 30-acre parcel in SEC 10 TWP 5N RNG 45E, Teton County, Idaho. The PID is RP05N45E103300. Bordering Osprey Landing to the east is the East Rendezvous subdivision, Teton Saddleback Vistas subdivision is to the south across S 3000 W, Lovers Lane Subdivision and Rocky Road Industrial Park are to the west across SH 33, and to the north are includes what appears to be a construction and landscape rock supplier as well as a church. There is also a 4.9 acre existing property, parcel number RP04N45E118402, between the proposed subdivision and W 3000 S.

Development Description

Osprey Landing is located within the RN-5 Rural Neighborhood – 2.5 – Acre Min. Lot Size Zoning. All proposed lots are 2.5 acres. The property will be accessed by Kingfisher Loop, a 22' gravel road with a 60 foot Right of Way. Each lot will be permitted up to two single family dwelling units.

Principal Findings

Based on our analyses, traffic is currently operating at a LOS of C/D. The potential traffic generated by the proposed subdivision will have no significant impact at the W 3000 S intersection at Idaho State Highway 33.

Conclusions

Capacity analysis suggests that - if current background traffic growth rates continue - the level of service at the W 3000 S intersection will degrade further from level of service "C/D" to "E/F" over the next 10 years. This is not due to the addition of these subdivisions, but to the extensive growth and development throughout Teton County, Idaho.

Recommendations

It is recommended that area road agencies continue to monitor the intersection for compliance with MUTCD signal warrants.

Proposed Development

Off-Site Development

The project site is located between Victor and Driggs, Idaho. Victor is located approximately 5 miles south of the proposed subdivisions. Driggs is located approximately 3 miles to the north. This area has been seeing substantial growth over the last several years, with an average population growth rate of 2.2% from 2012 to 2022[1]. Most years saw growth between 2-5% with the only exception being 2020 which saw a loss of 3%.

There are many rural, undeveloped parcels being subdivided in between the municipalities. Figure 2 shows the location of proposed subdivisions in the area, according to the Teton County GIS. Traffic counts have shown growth rates from 3-5% on roads in the vicinity. Due to these trends and anticipated future development, an annual traffic growth rate of 4% was assigned for the study horizon in this TIS.

[1] https://usafacts.org/data/topics/people-society/population-and-demographics/our-changing population/state/idaho/county/teton-county/?endDate=2022-01-01&startDate=2012-01-01

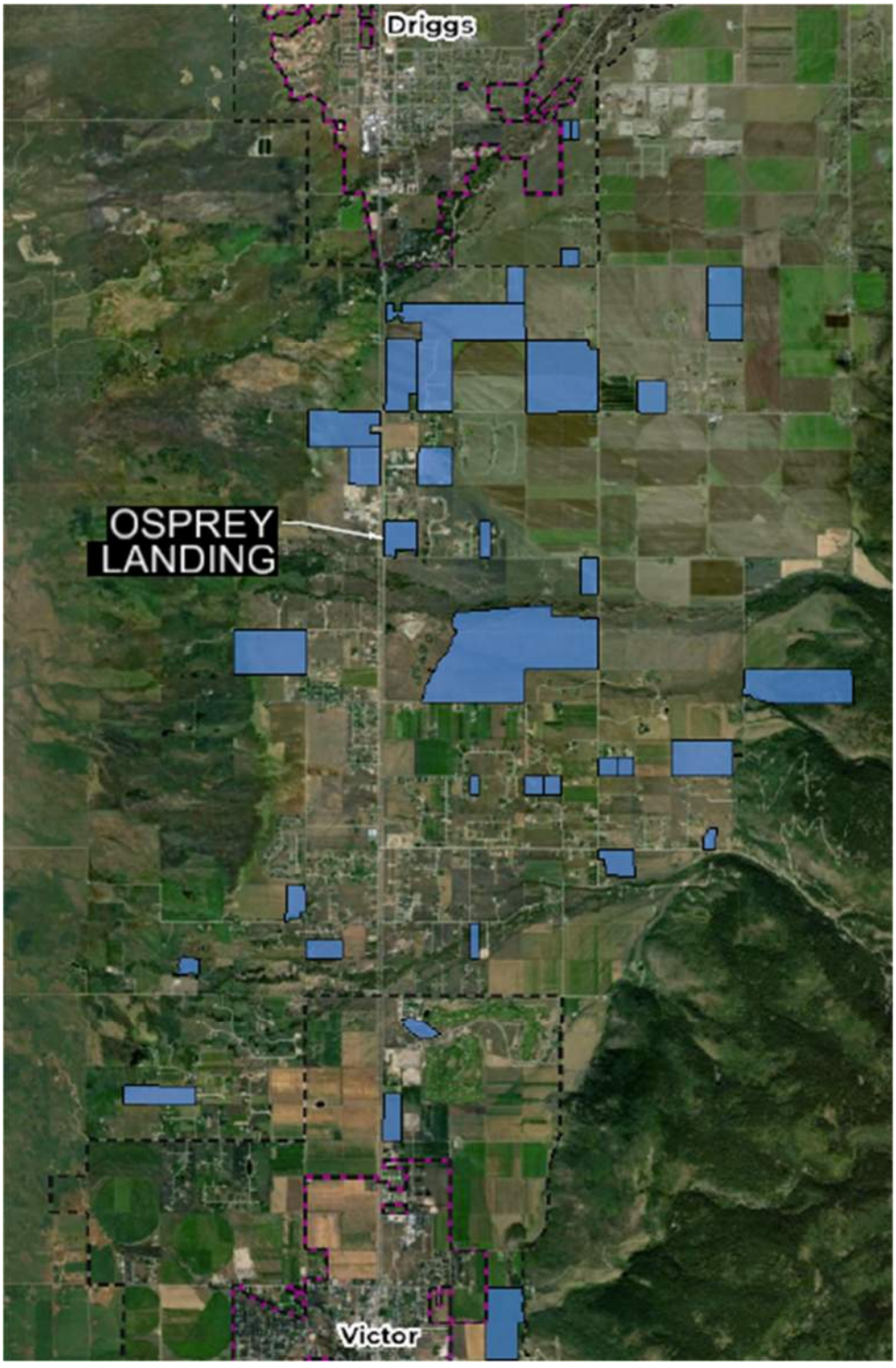


Figure 2: Area Development between Driggs and Victor (proposed subdivisions shown in blue).

Description of On-Site Development

Proposed development for both subdivisions is single family 2.5 acre lots with up to two single-family dwelling units.

LAND USE AND DENSITY

The conceptual plan for this project was submitted and reviewed by Teton County prior to the zoning changes implemented in August of 2022. Prior to the zoning change in 2022, the majority of the lands between Driggs and Victor were zoned for a residential 2.5-acre minimum lot size or Agriculture with a minimum 20-acre lot size.

Figure 3: Project Area Zoning, Pre-August 2022

Post-August 2022, the zoning in Teton County changed in the project area. Please see Figure 4 for the updated zoning districts and associated permitted densities. Much of the land area in between Victor and Driggs will allow for 5-acre lots in the Rural Neighborhood district and 35-acre lots in the Lowland Agricultural district. It should be noted that with the new zoning scheme, growth in the area will decrease, as the 2.5-acre lot density will no longer be allowed.

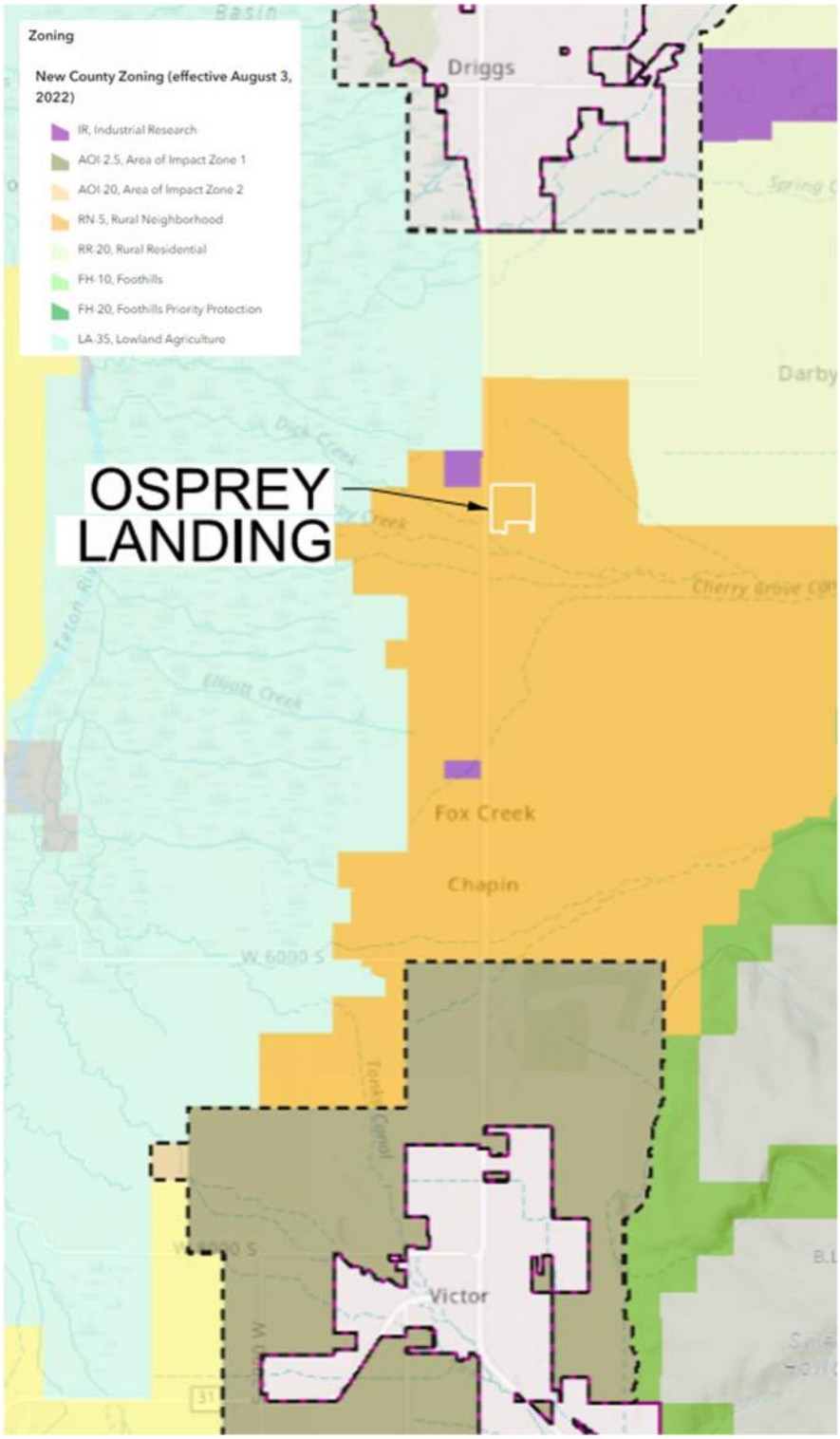


Figure 4: Project Area Zoning, Post August 2022

LOCATION

By Road: The proposed subdivision is located on the north-east corner of the intersection of Idaho State Highway 33 (SH 33) and Teton County Road W 3000 S. The project's location is approximately 5 miles north of downtown Victor, Idaho and 3 miles south of Driggs.

By Lat-Long: Osprey Landing is at Latitude: North 43º 40' 55", Longitude: West 111º 06' 30".

By Township and Range: Osprey Landing is in the SW ¼ of the SE ¼ of Section 11, Township 4 North Range 45 East, in Teton County, Idaho.

SITE PLAN

Size: Osprey Landing is situated on a ¼ mile by ¼ mile parcel, encompassing approximately 30-acres.

Physical Description: The properties are currently grass/rangeland at approximately 6,100 feet in elevation. Please see the following figures for the subdivision site plans with proposed roads and accesses.

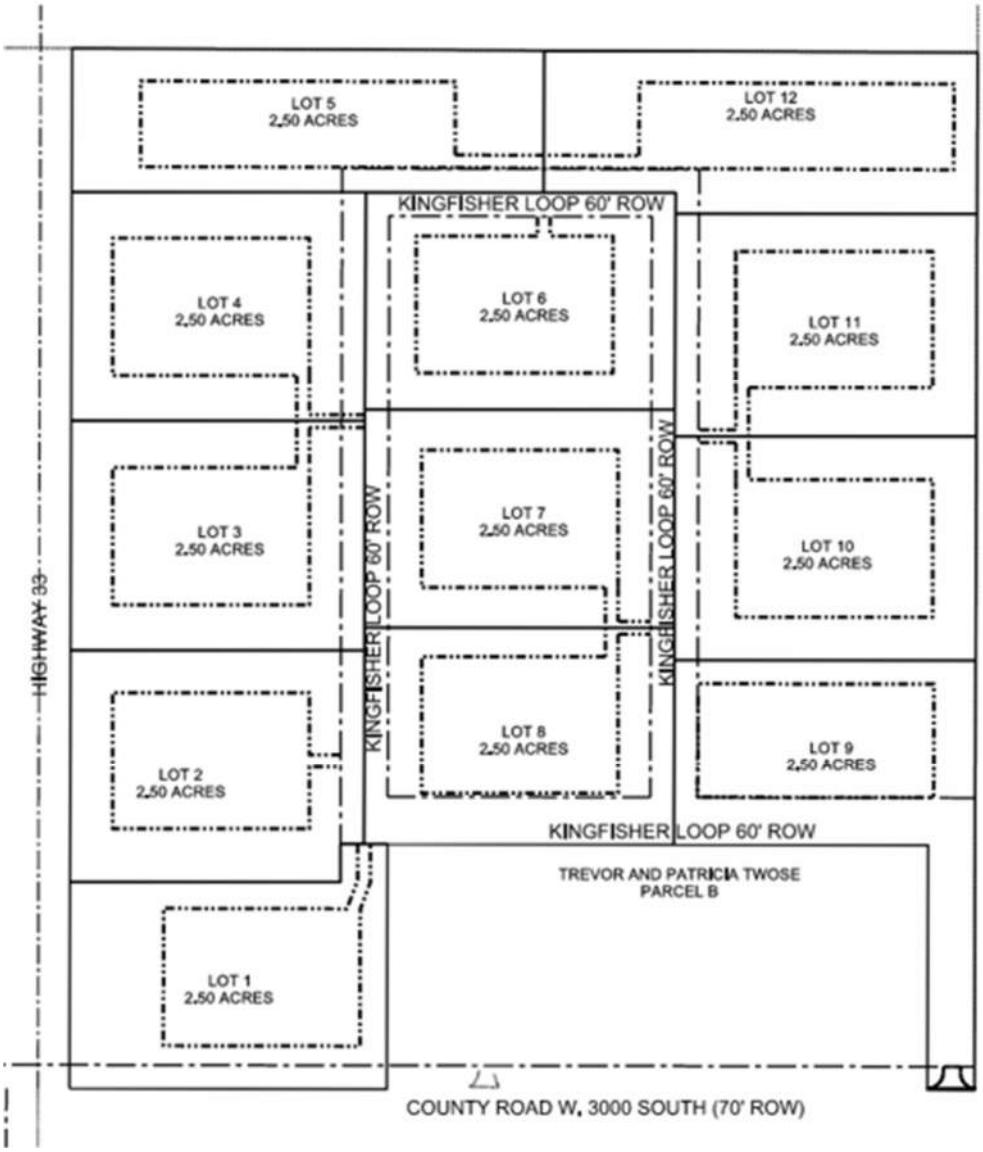


Figure 5: Osprey Landing Site Plan

AREA CONDITIONS

AREA OF SIGNIFICANT TRAFFIC IMPACT

The most significant impact will be on the intersection of SH 33 and W 3000 S since the majority of the traffic generated will pass through that intersection. There are no other existing major intersections within a mile of the subdivisions.

EXISTING LAND USES/ZONING

The current project site use/zoning is Agricultural/Rural Residential.

ANTICIPATED FUTURE DEVELOPMENT

While the area immediately surrounding Osprey Landing is largely developed. It is anticipated that there will be further subdivisions developed in the area.

SITE ACCESSIBILITY

EXISTING

- Idaho SH 33 is an asphalt road with two 12-foot travel lanes and 4-foot shoulders. Approaching W 3000 S, State Highway 33 flares to thirty-six feet wide, with left-turn, through and right-turn lanes.

- Teton County Road W 3000 S bordering the south side of the subdivision is an asphalt road with two 11-foot travel lanes and 4-foot shoulders along the southern boundary of the proposed subdivisions. On the west side, it is a gravel road nominally twenty-one feet wide without shoulders.

Figure 6: Area Roadway System with Proposed Subdivision

Figure 7: Aerial Image of Intersection of W 3000 S at SH 33

FUTURE

Osprey Landing will be accessed by Kingfisher Loop, which will be located approximately ¼ mile east of the intersection of W 3000 S and SH 33.

TRAFFIC VOLUMES AND CONDITIONS

- Traffic counts were obtained on 10/19/2021. The results of these counts are shown in Appendix A.
- Current average daily traffic (ADT) on Idaho State Highway SH 33 is about 6,200 vehicles per day.

PUBLIC TRANSPORTATION SERVICE

Because of the distance to area destinations and lack of public transit, all trips are assumed to take place by private vehicle.

PROJECTED TRAFFIC

SITE TRAFFIC (EACH HORIZON YEAR)

- Year 2021 traffic at existing study intersections was counted October 19, 2021.
- Year 2021 "Build" traffic was calculated to fully model how nearby intersections would change due to growth if the subdivisions were to be fully developed immediately.
- Year 2030 "No-Build" traffic was estimated using growth rates of 4%.
- Year2030 "Build" traffic at study intersections was estimated by adding site-generated traffic to 2030 assuming all of the subdivision lots are fully developed.
- Year 2045 "No-Build" traffic was estimated using annual growth rates of 4%.
- Year 2045 "Build" traffic at study intersections was estimated by adding site-generated traffic to 2045 assuming all of the subdivision lots are fully developed.

- Resulting traffic forecasts are depicted in diagrams in Appendix B.

TRIP GENERATION

The Institute of Transportation Engineers' (ITE) *Trip Generation Manual* was used to generate trips for the proposed subdivisions. The 12 developable lots in Osprey Landing were modeled to have two single-family dwelling units. The single-family home trip generation utilized land use 210 (Single Family Homes), which estimates that each dwelling unit will generate 9.52 vehicle trips per day. During the AM Peak Hour, the single-family home generates 0.75 trips per dwelling, with 25% incoming and 75% outgoing, while the PM Peak Hour generates 1 trip per dwelling, with 63% incoming and 37% outgoing. All traffic generated by the subdivision will be assumed to go west to SH 33 and turn either north or south. Although some traffic may either go east or cross SH 33 and continue west, it would be a very small amount and the given scenario represents the most conservative model for effects on SH 33.

TRIP ASSIGNMENT

Based on field-observed turn movement counts of traffic heading east onto W 3000 S during the AM Peak hour, 28% came from the south and 72% came from the north, with no through traffic coming across from the west. For traffic onto SH 33 from W 3000 S, 50% headed north and 50% headed south. During the PM Peak hour, 39% came from the south, 55% came from the north, and 6% came across from the west. For traffic onto SH 33 from W 3000 S, 52% headed north and 48% headed south. Based on the trip generation estimates and traffic counts, the proposed subdivision will therefore produce the following daily and hourly directional volumes:

Table 1: Generated Traffic Directional Distribution

Road	**Trip Distribution**							
	AM in		**AM out**		**PM in**		**PM out**	
	TOTAL		**TOTAL**		**TOTAL**		**TOTAL**	
Kingfisher Loop	4		14		16		8	
SH 33	**From N**	**From S**	**To N**	**To S**	**From N**	**From S**	**To N**	**To S**
To/From Kingfisher	1	3	7	7	4	12	7	7

Note: Additional traffic flow diagrams are included with the HCS analysis of each intersection included in Appendix C.

THROUGH TRAFFIC (EACH HORIZON YEAR)

NON-SITE TRAFFIC FOR ANTICIPATED DEVELOPMENT IN STUDY AREA

According to the Idaho Transportation Department AADT Application (https://itd.idaho.gov/road-data/), traffic recorded around the intersection of State Highway 33 and W 3000 S has been growing at rates ranging from 3-5% annually. There is some variation from year to year, but for this study, it will be assumed that all traffic will grow at an annual rate of 4%. These rates are typical in a growing suburban residential area. It is projected that these rates will cause the total intersection traffic volume to double by 2040. (See Appendix A for intersection turn movements.)

TRAFFIC ANALYSIS

CAPACITY AND LEVEL OF SERVICE

- The Highway Capacity Software (HCS) was used to estimate the capacity of the Stop-controlled intersections on W 3000 S at Idaho State Highway 33 for the traffic scenarios listed.
- The intersection of Kingfisher Loop and W 3000 S operate at Level of Service (LOS) "A" through 2045 in the build scenario.
- The intersection at W 3000 S currently operates at LOS C/D, indicating that it is already nearing capacity
- For both the AM and PM Peak "No-Build" and "Build" scenarios in 2030, the intersection operates at LOS "E/F." Having both scenarios with the same level of service indicates the traffic generated by the subdivisions is not the main factor, but rather the increase in traffic from overall growth in the area.
- At full build, the subdivision contributes a maximum total of 18 trips to or from SH 33 in the morning and 24 trips in the evening. Compared to an increase in traffic on SH33 of several hundred vehicles from 2021 to 2045 due to overall growth in the region, the contribution from the subdivisions is negligible.
- The following table describes capacity analysis data:

Table 2: Future LOS for "No Build" and "Build" conditions

LOS	2021				2030				2045			
	No Build		Build		No Build		Build		No Build		Build	
LOS @ minor road	AM Peak	PM Peak	AM Peak	PM Peak	AM Peak	PM Peak	AM Peak	PM Peak	AM Peak	PM Peak	AM Peak	PM Peak
W 3000 S @ SH 33	C	D	C	D	E	F	E	F	F	F	F	F
W 3000 S @ Kingfisher Loop	N/A	N/A	A	A	N/A	N/A	A	A	N/A	N/A	A	A

CONCLUSIONS

The W 3000 S / SH 33 intersection LOS is predicted to significantly degrade by the year 2030, although this is almost entirely due to population and traffic growth in the area, not from the subdivision itself.

Construction of the Osprey Landing Subdivisions will not impact mainline operations on W 3000 S. The new approach street intersections will operate at LOS "A" at all times.

RECOMMENDATIONS

Projections show the current 2-Way Stop Controlled intersection is probably on the verge of capacity failure, whether or not the subdivision is built.

Alternatives for consideration include the following:

1. **All-Way Stop:**

The maximum projected side road traffic volume is 5% of the state highway. A four-way stop would require all traffic on the major road (2041 forecast approximately 18,000 ADT) to stop, regardless of whether any traffic is waiting on the minor road. This unnecessary delay would be inefficient and could require widening the state highway to provide two through lanes.

2. **Actuated Signal**

Projected volume on the side road is small (5%) compared to the SH 33 mainline. A fully actuated signal would create gaps for the side road without causing excessive delay on the state highway. We expect this is probably the least cost prohibitive solution to the problem.

3. **Modern Roundabout**

A roundabout at this location would enable gaps for the side road by requiring the major road to yield. This would cause less control delay than an All-Way-Stop, however many gaps would not be used, and it would increase geometric delay on the state highway. This may become a viable solution if increasingly dense land development adds more volume to the side road than is currently projected to occur.

4. **Additional street access to ID SH 33 at a point north of W 3000 S**

Under state DOT policy, the parcel is entitled to public street access north of W 3000 S. An additional access point would enable traffic interacting with Driggs (shopping and school destinations) to make those movements outside of the W 3000 intersection. This would reduce the traffic volumes at the intersection; however it will not serve left turning vehicles entering from the side road, and therefore would not reduce delay significantly at W 3000 S.

No road improvements are necessary to specifically accommodate the traffic generated by the proposed Osprey Landing subdivision.

REFERENCES

Teton County Online Geographic Information System. December 13, 2023. https://tetonidaho.maps.arcgis.com/apps/webappviewer/index.html?id=7cad88173b644a6a8e8c1147e94aa524.

Institute of Transportation Engineers (ITE) Trip Generation Rates, 9th Edition.

APPENDIX A

TURN COUNTS

Turn Movement Counts: ID SH 33 @ Teton Co W 3000 S

Project # 21089													
Tuesday, October 19, 2021													
AM Peak Traffic	**Northbound SH 33**			**Southbound SH 33**			**EASTBOUND 3000**			**WESTBOUND 3000**			**Total**	**PHF**
Time	**LEFT**	**THROUGH**	**RIGHT**	**LEFT**	**THROUGH**	**RIGHT**	**LEFT**	**THROUGH**	**RIGHT**	**LEFT**	**THROUGH**	**RIGHT**		**0.818**
07:00 - 07:15	0	45	0	1	97	1	0	0	2	1	1	0	**148**	
07:15 - 07:30	1	59	0	2	106	0	2	0	2	0	0	1	**173**	
07:30 -07:45	2	96	0	2	88	1	0	0	0	3	0	1	**193**	
07:45 - 08:00	**0**	**223**	**2**	**2**	**85**	**0**	**0**	**0**	**0**	**1**	**0**	**5**	**318**	832
08:00 - 08:15	**2**	**147**	**1**	**4**	**95**	**0**	**4**	**0**	**4**	**7**	**0**	**5**	**269**	953
08:15 - 08:30	**1**	**121**	**0**	**3**	**120**	**0**	**1**	**0**	**1**	**1**	**0**	**4**	**252**	1032
08:30 - 08:45	**2**	**76**	**2**	**2**	**105**	**0**	**2**	**0**	**2**	**4**	**1**	**5**	**201**	**1040**
08:45 - 09:00	2	79	2	2	84	0	5	0	5	2	0	0	**181**	903
TOTAL	**10**	**846**	**7**	**18**	**780**	**2**	**14**	**0**	**16**	**19**	**2**	**21**	**1735**	
	1.2%	98.0%	0.8%	2.3%	97.5%	0.3%	46.7%	0.0%	53.3%	45.2%	4.8%	50.0%		
AM PEAK VOLUMES	**5**	**567**	**5**	**11**	**405**	**-**	**7**	**-**	**7**	**13**	**1**	**19**		
19-Oct-21														
Midday Traffic	**Northbound SH 33**			**Southbound SH 33**			**EASTBOUND 3000**			**WESTBOUND 3000**			**Total**	**PHF**
Time	**LEFT**	**THROUGH**	**RIGHT**	**LEFT**	**THROUGH**	**RIGHT**	**LEFT**	**THROUGH**	**RIGHT**	**LEFT**	**THROUGH**	**RIGHT**		**0.960**
11:00 - 11:15	3	70	1	0	66	2	2	0	0	1	0	1	**146**	
11:15 - 11;30	**1**	**89**	**3**	**1**	**82**	**2**	**0**	**0**	**1**	**2**	**0**	**0**	**181**	
11:30 - 11:45	**0**	**84**	**0**	**1**	**69**	**0**	**1**	**0**	**1**	**1**	**0**	**1**	**158**	
11:45 - 12:00	**0**	**99**	**1**	**1**	**73**	**1**	**0**	**0**	**2**	**0**	**0**	**2**	**179**	664
12:00 - 12:15	**0**	**80**	**3**	**3**	**84**	**0**	**1**	**0**	**1**	**1**	**0**	**4**	**177**	**695**
12:15 - 12:30	1	67	1	2	70	0	2	0	1	0	0	2	**146**	660
12:30 - 12:45	0	81	2	1	82	4	1	0	0	3	0	0	**174**	676
12:45 - 13:00	2	75	2	1	91	0	1	0	4	4	0	2	**182**	679
TOTAL	**7**	**645**	**13**	**10**	**617**	**9**	**8**	**0**	**10**	**12**	**0**	**12**	**1343**	**3374**
	1.1%	97.0%	2.0%	1.6%	97.0%	1.4%	44.4%	0.0%	55.6%	50.0%	0.0%	50.0%		
MIDDAY PEAK VOLUMES	**1**	**352**	**7**	**6**	**308**	**3**	**2**	**-**	**5**	**4**	**-**	**7**		
19-Oct-21														
PM Peak Traffic	**Northbound SH 33**			**Southbound SH 33**			**EASTBOUND 3000**			**WESTBOUND 3000**			**Total**	**PHF**
Time	**LEFT**	**THROUGH**	**RIGHT**	**LEFT**	**THROUGH**	**RIGHT**	**LEFT**	**THROUGH**	**RIGHT**	**LEFT**	**THROUGH**	**RIGHT**		**0.829**
16:30 - 16:45	0	102	0	0	92	2	1	1	1	3	0	2	**204**	
16:45 - 17:00	3	128	0	3	90	2	0	1	0	0	1	4	**232**	
17:00 - 17:15	**2**	**138**	**6**	**1**	**100**	**1**	**1**	**0**	**1**	**1**	**1**	**0**	**252**	
17:15 - 17:30	**3**	**179**	**1**	**4**	**119**	**0**	**2**	**0**	**1**	**2**	**0**	**0**	**311**	999
17:30 - 17:45	**0**	**232**	**2**	**3**	**100**	**1**	**0**	**0**	**0**	**2**	**0**	**3**	**343**	1138
17:45 - 18:00	**2**	**256**	**0**	**2**	**130**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**391**	**1297**
18:00 - 18:15	0	144	1	0	88	1	0	0	0	1	0	2	**237**	1282
18:15 - 18:30	1	136	3	5	105	1	1	0	0	2	0	1	**255**	1226
TOTAL	**11**	**1315**	**13**	**18**	**824**	**8**	**5**	**2**	**3**	**11**	**2**	**13**	**2225**	**5942**
	0.8%	98.2%	1.0%	2.1%	96.9%	0.9%	50.0%	20.0%	30.0%	42.3%	7.7%	50.0%		
PM PEAK VOLUMES	**7**	**805**	**9**	**10**	**449**	**2**	**3**	**0**	**2**	**5**	**1**	**4**		

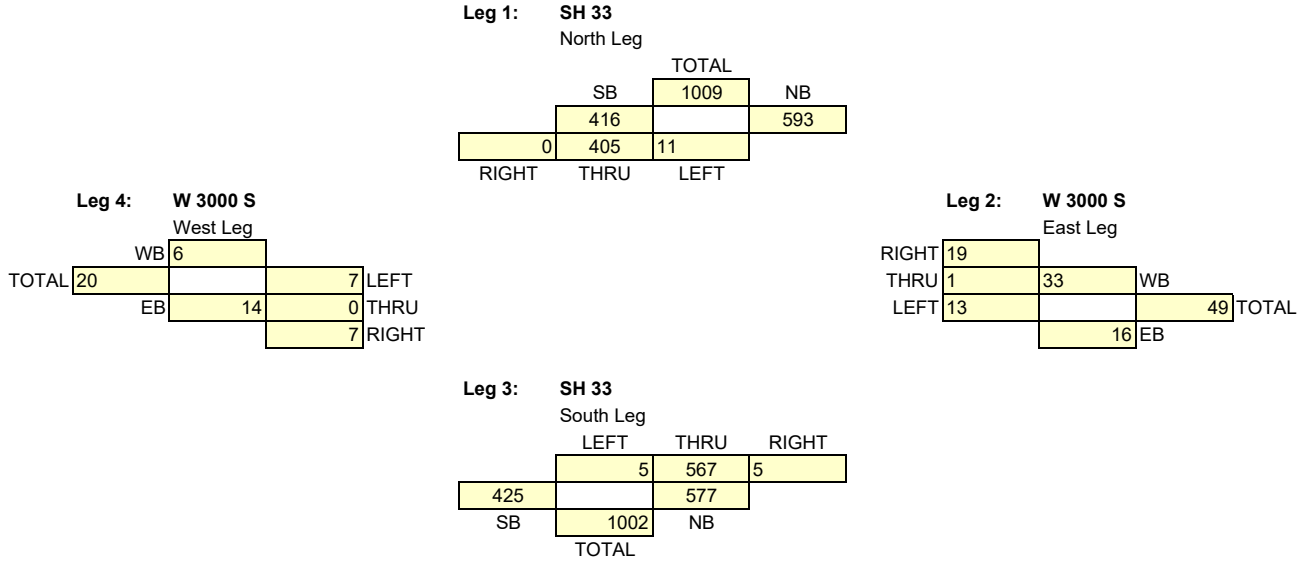
APPENDIX B

TURN MOVEMENTS

W 3000 S at SH 33

Crossroad Diagram:

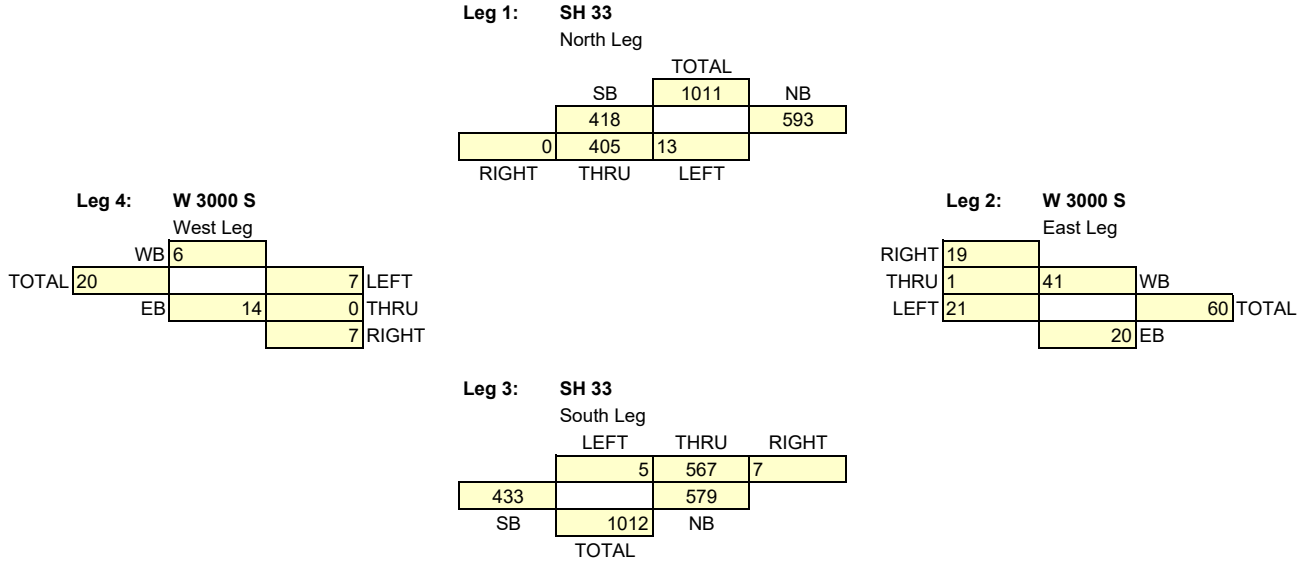
2021 AM PEAK NO BUILD



W 3000 S at SH 33

Crossroad Diagram:

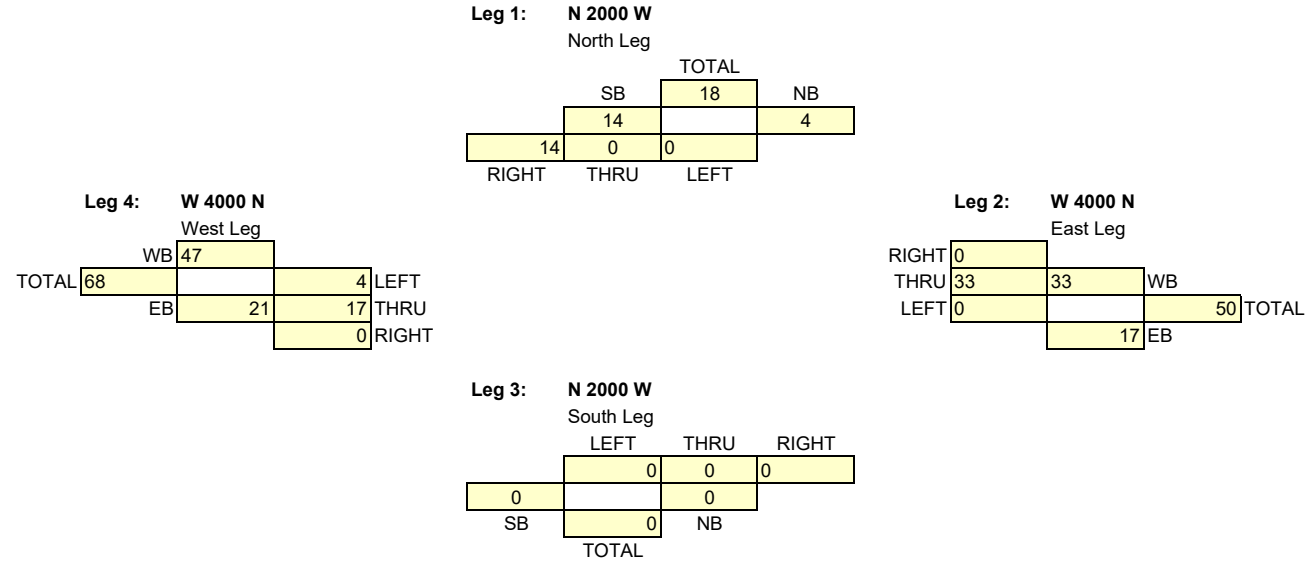
2021 AM PEAK BUILD



Kingfisher Loop at W 3000 S

Crossroad Diagram:

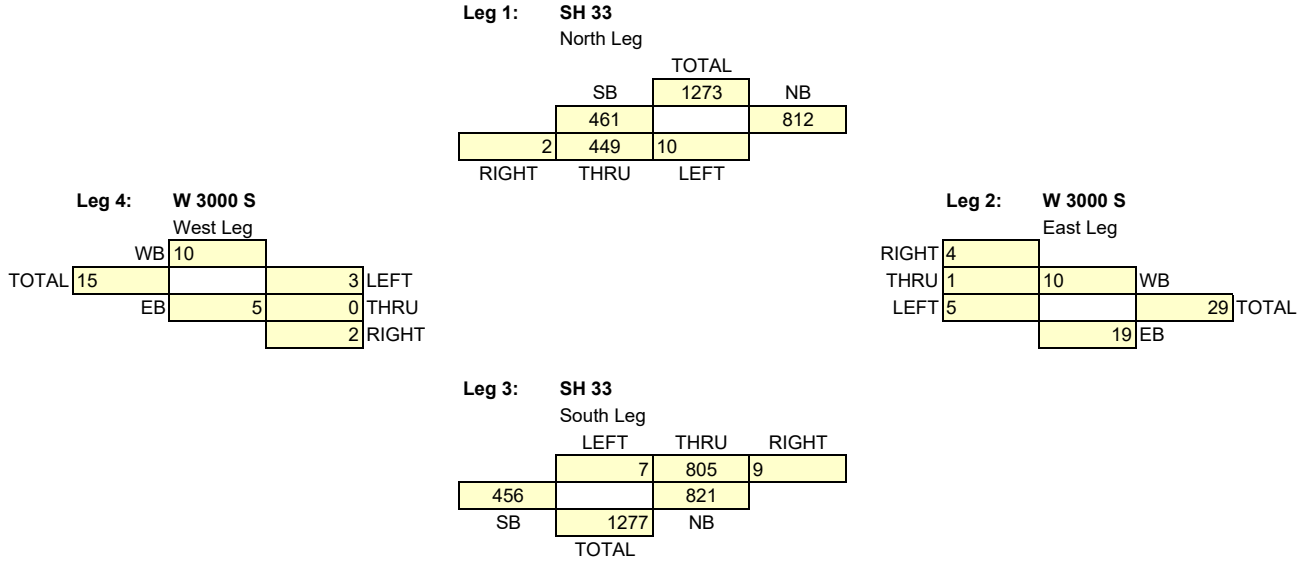
2021 AM PEAK BUILD



W 3000 S at SH 33

Crossroad Diagram:

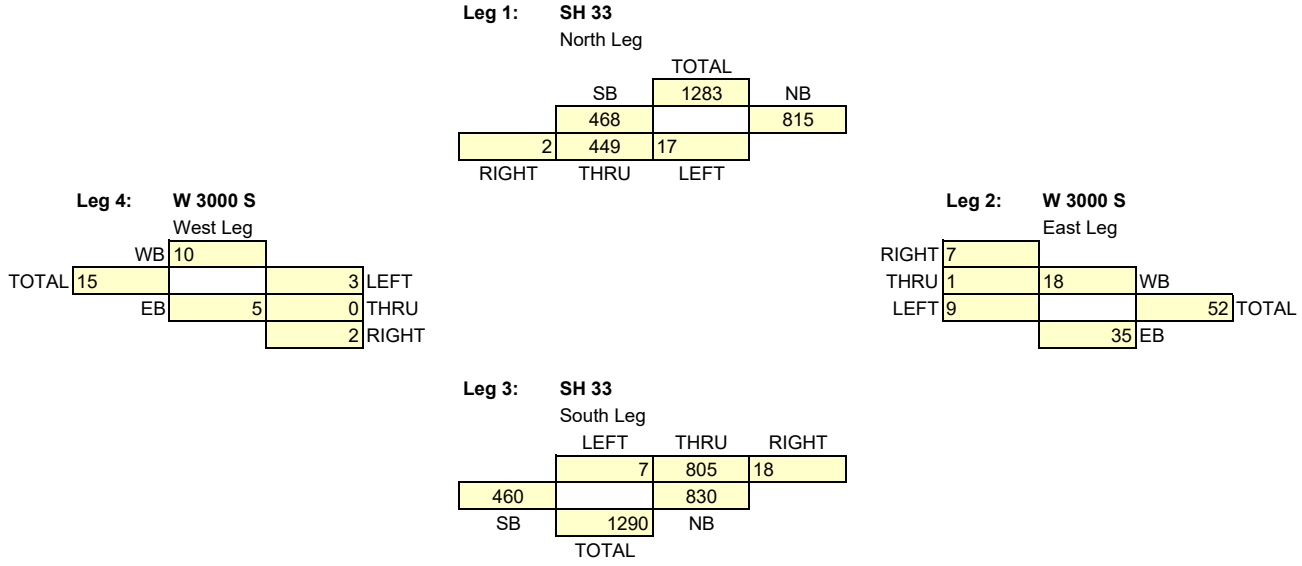
2021 PM Peak No Build



W 3000 S at SH 33

Crossroad Diagram:

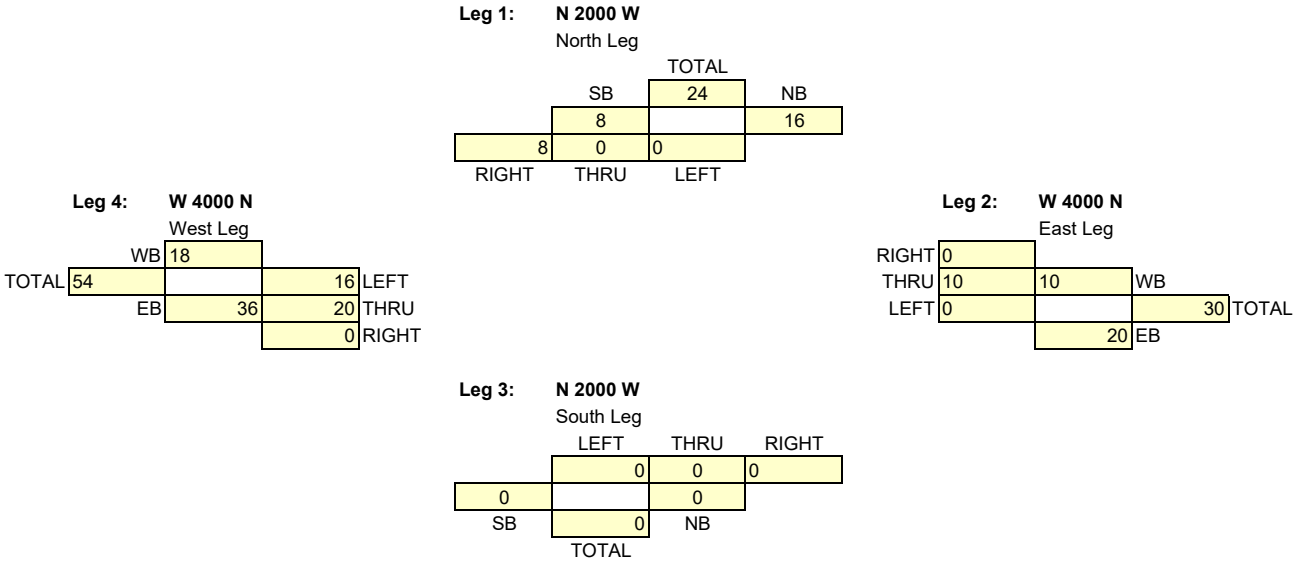
2021 PM PEAK BUILD



Kingfisher Loop at W 3000 S

Crossroad Diagram:

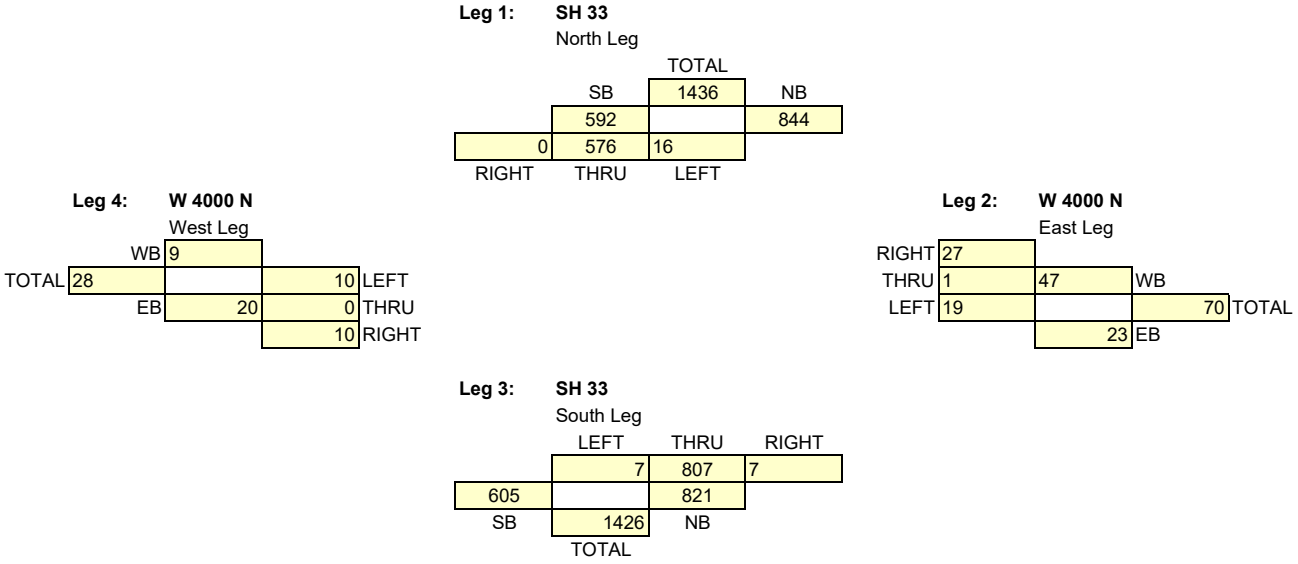
2021 PM PEAK BUILD



W 3000 S at SH 33

Crossroad Diagram:

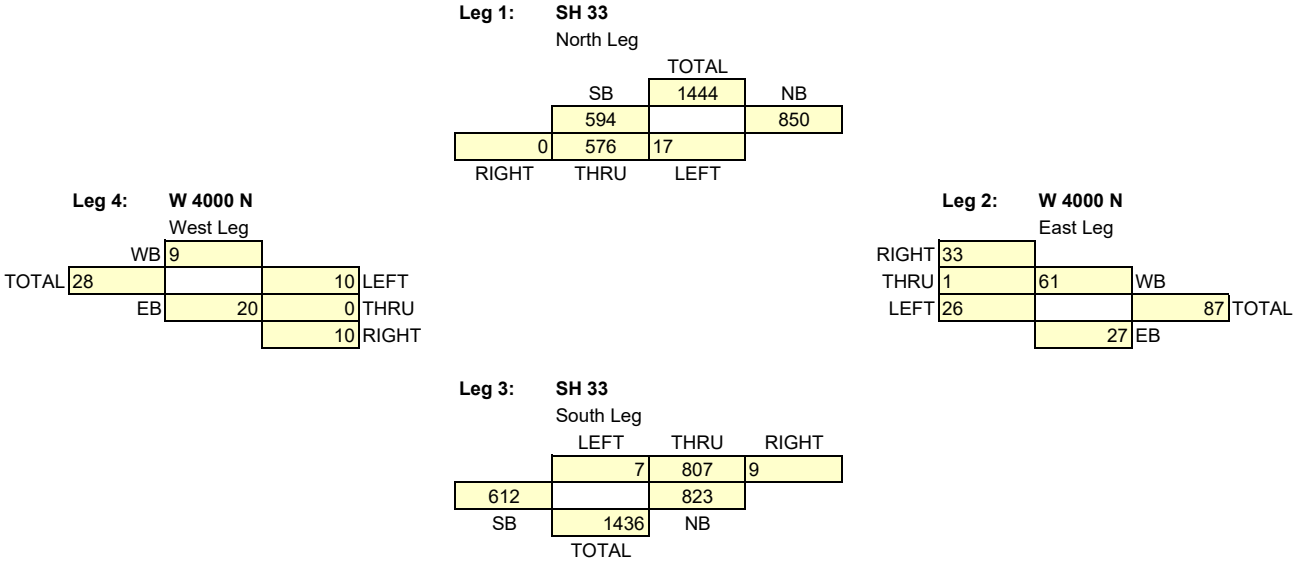
2030 AM Peak No Build



W 3000 S at SH 33

Crossroad Diagram:

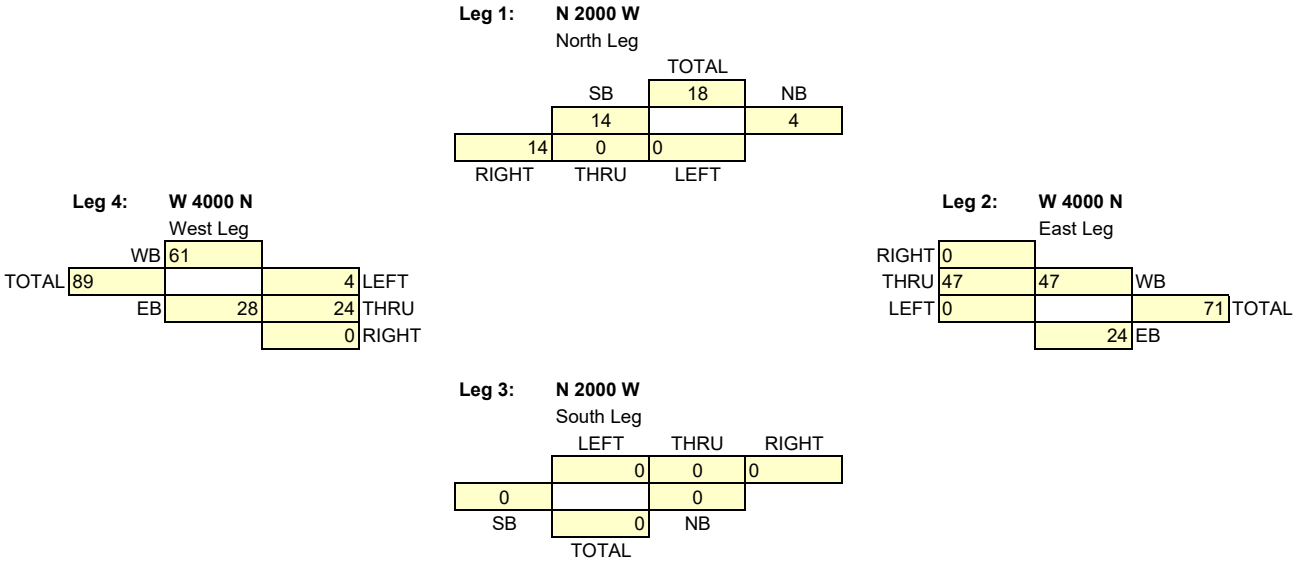
2030 AM Peak Build



Kingfisher Loop at W 3000 S

Crossroad Diagram:

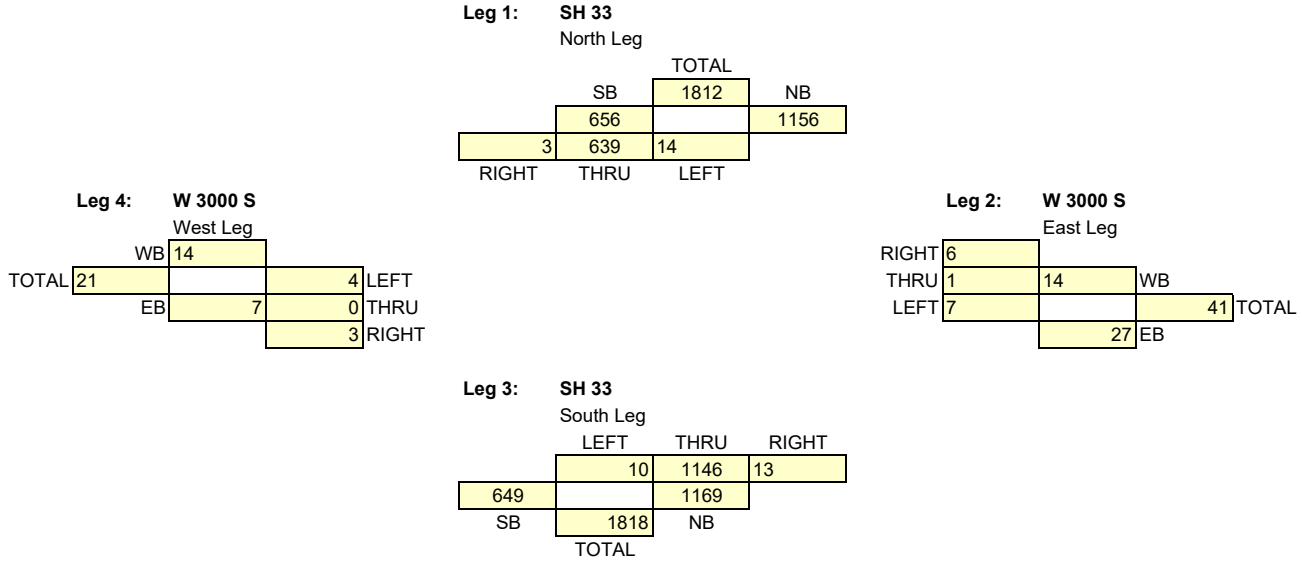
2030 AM PEAK BUILD



W 3000 S at SH 33

Crossroad Diagram:

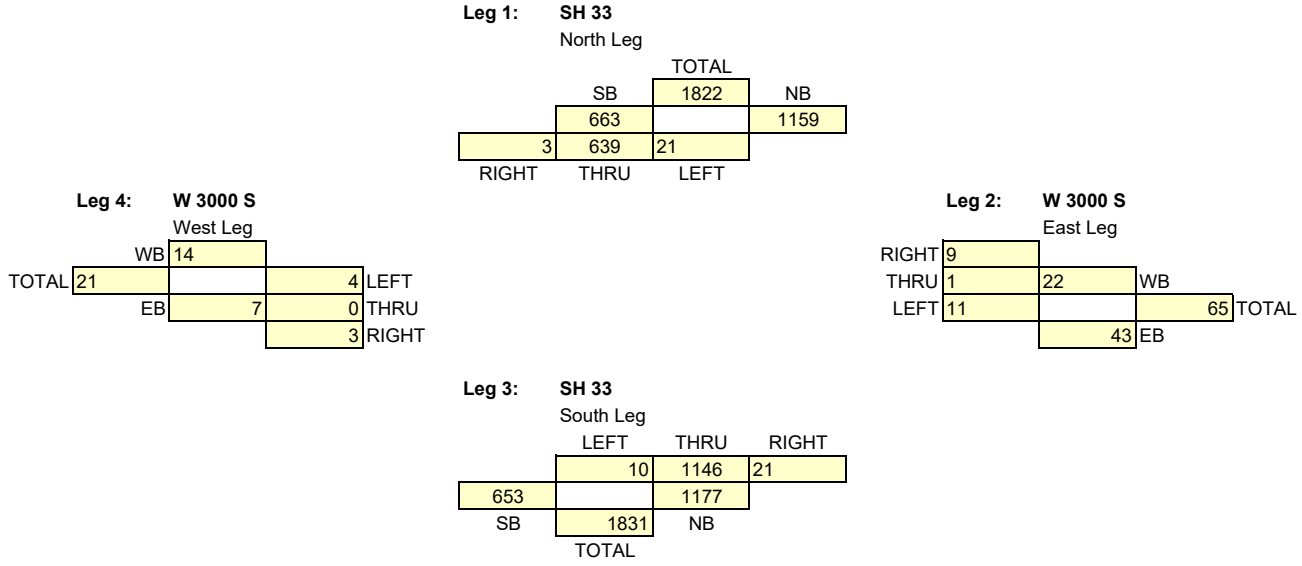
2030 PM Peak No Build



W 3000 S at SH 33

Crossroad Diagram:

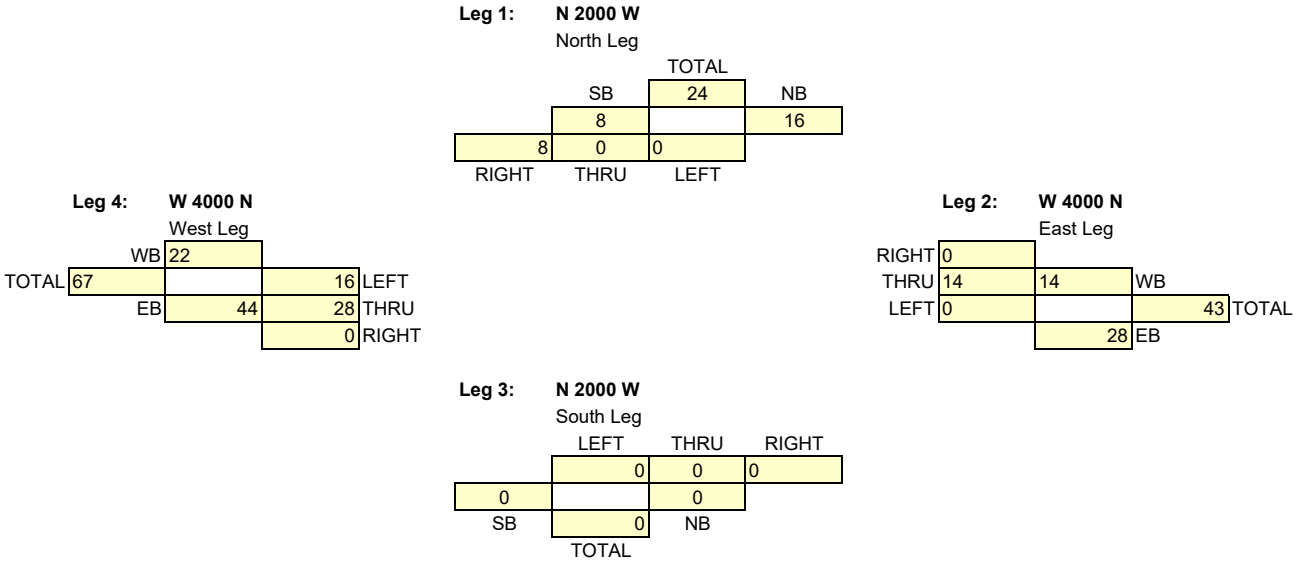
2030 PM Peak Build



Kingfisher Loop at W 3000 S

Crossroad Diagram:

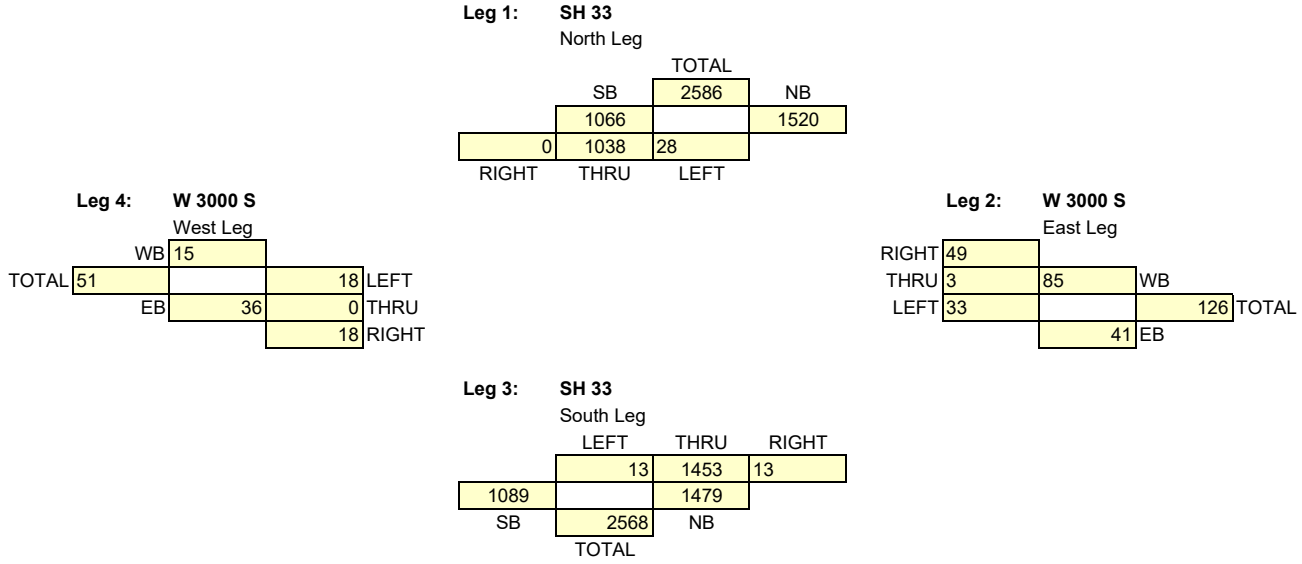
2030 PM PEAK BUILD



W 3000 S at SH 33

Crossroad Diagram:

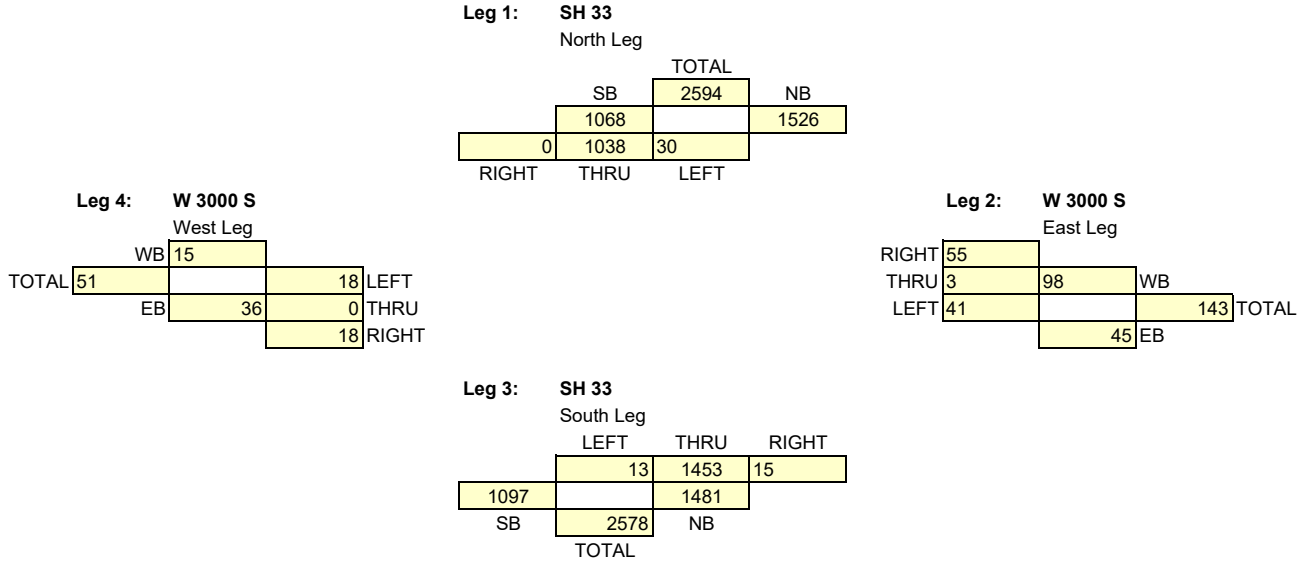
2045 AM Peak No Build



W 3000 S at SH 33

Crossroad Diagram:

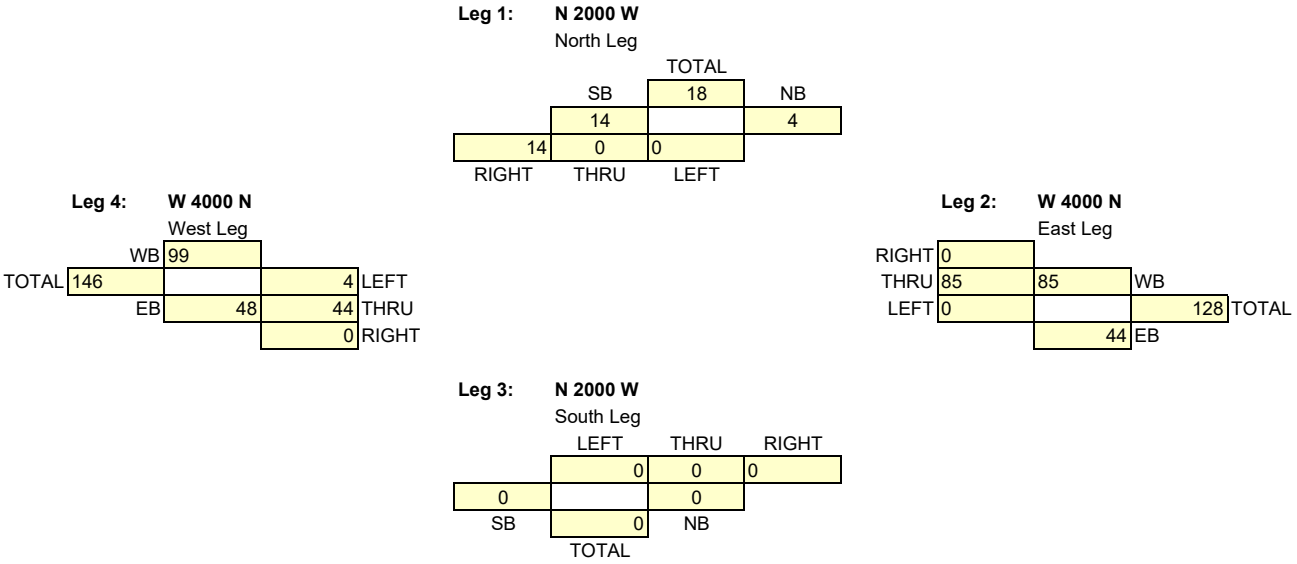
2045 AM Peak Build



Kingfisher Loop at W 3000 S

Crossroad Diagram:

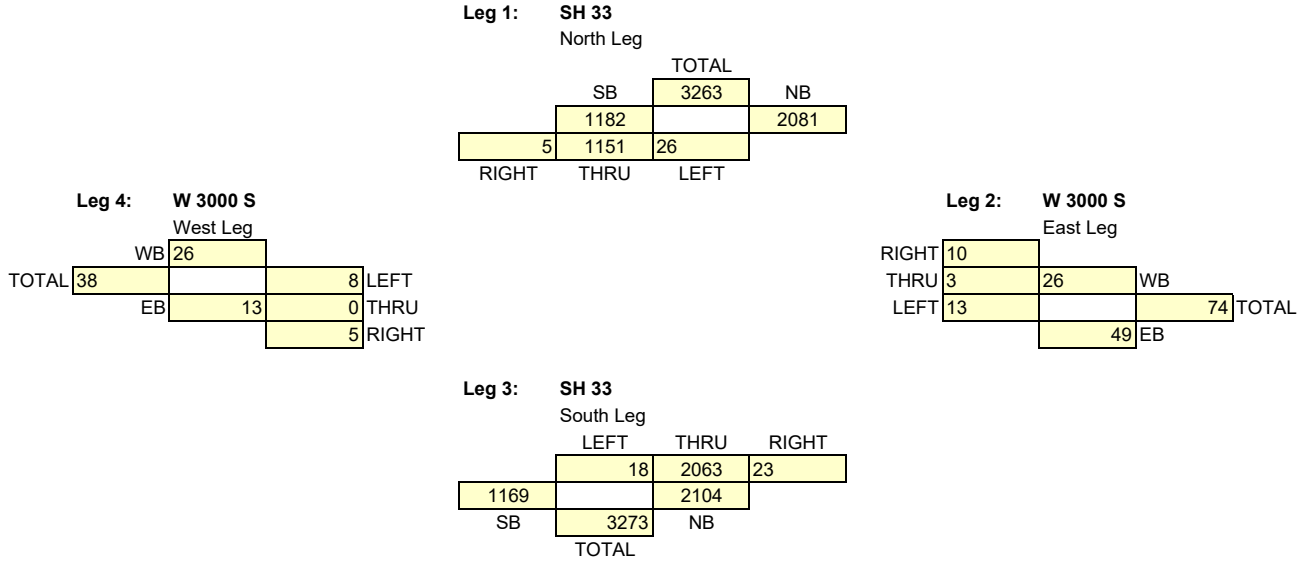
2045 AM PEAK BUILD



W 3000 S at SH 33

Crossroad Diagram:

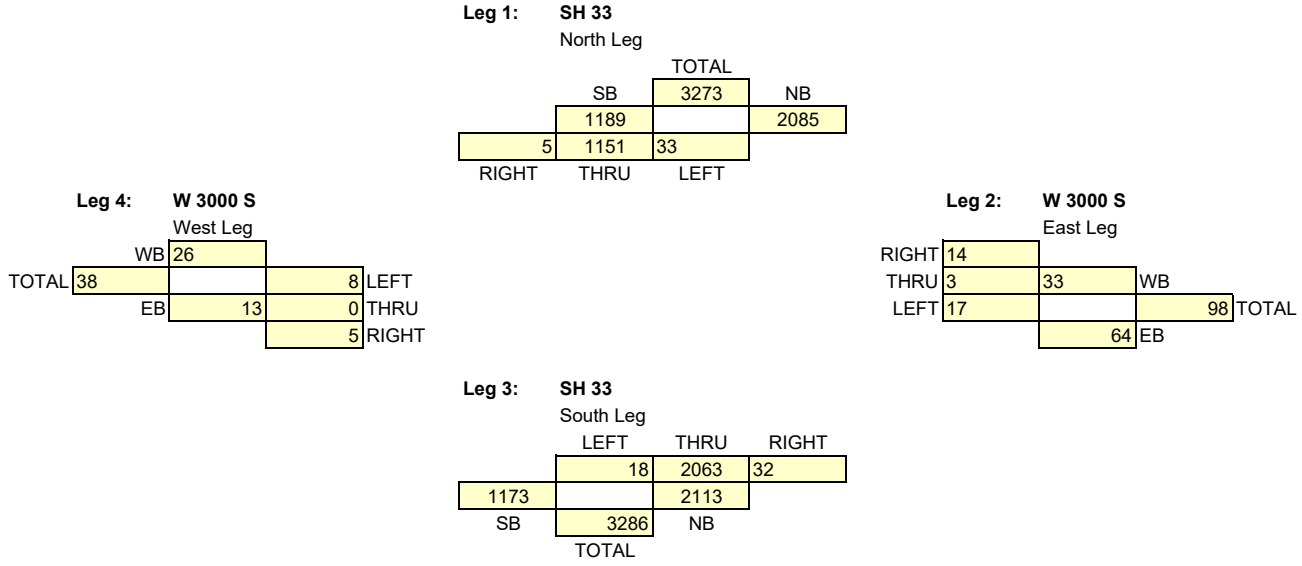
2045 PM PEAK NO BUILD



W 3000 S at SH 33

Crossroad Diagram:

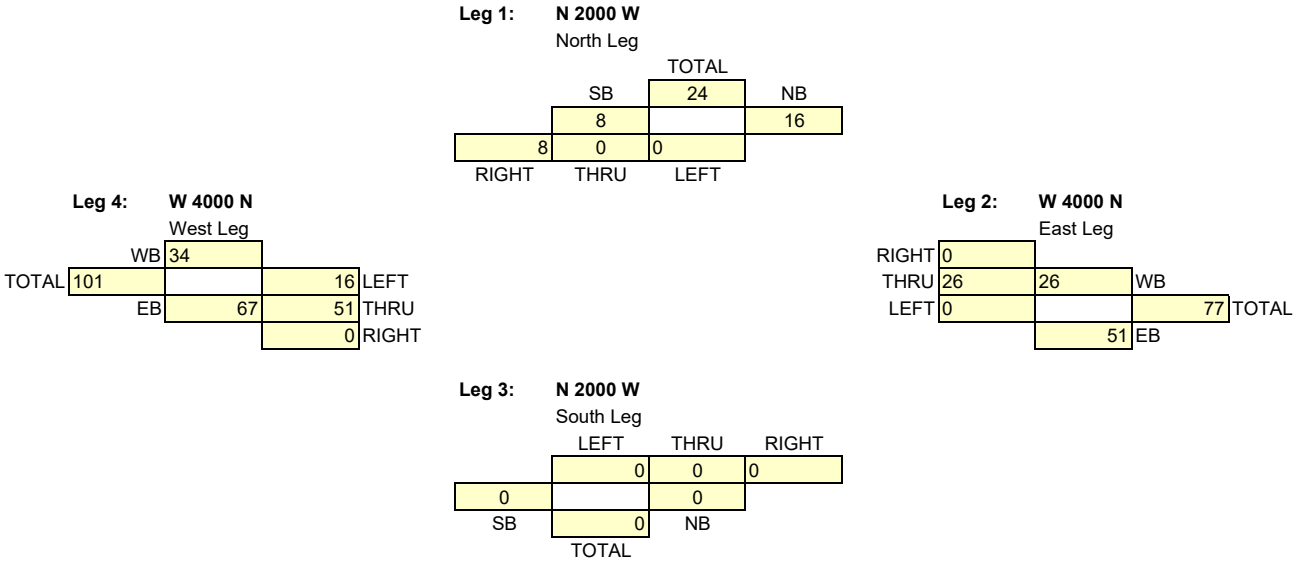
2045 PM PEAK BUILD



Kingfisher Loop at W 3000 S

Crossroad Diagram:

2045 PM PEAK BUILD



APPENDIX C

HCS DOCUMENTS

HCS Two-Way Stop-Control Report

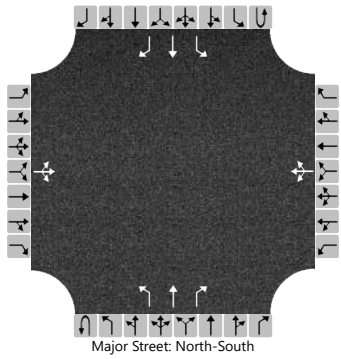
General Information

Analyst	Elizabeth Gallegos
Agency/Co.	Y2 Consultants
Date Performed	12/20/2023
Analysis Year	2021
Time Analyzed	2021 AM Peak No Build
Intersection Orientation	North-South
Project Description	

Site Information

Intersection	Idaho SH 33 and W 3000 S
Jurisdiction	
East/West Street	W 3000 S
North/South Street	Idaho SH 33
Peak Hour Factor	0.92
Analysis Time Period (hrs)	1.00

Lanes


Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	0	0	1	1	1	0	1	1	1
Configuration			LTR				LTR			L	T	R		L	T	R
Volume (veh/h)		7	0	7		13	1	19		5	567	5		11	405	0
Percent Heavy Vehicles (%)		3	3	3		3	3	3		3				3		
Proportion Time Blocked																
Percent Grade (%)		0				0										
Right Turn Channelized										No				No		
Median Type | Storage		Undivided														

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1	6.5	6.2		7.1	6.5	6.2		4.1				4.1		
Critical Headway (sec)		7.13	6.53	6.23		7.13	6.53	6.23		4.13				4.13		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2				2.2		
Follow-Up Headway (sec)		3.53	4.03	3.33		3.53	4.03	3.33		2.23				2.23		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			15				36			5				12		
Capacity, c (veh/h)			273				289			1114				954		
v/c Ratio			0.06				0.12			0.00				0.01		
95% Queue Length, Q_{95} (veh)			0.2				0.4			0.0				0.0		
Control Delay (s/veh)			19.0				19.2			8.2				8.8		
Level of Service (LOS)			C				C			A				A		
Approach Delay (s/veh)		19.0				19.2				0.1				0.2		
Approach LOS		C				C				A				A		

HCS Two-Way Stop-Control Report

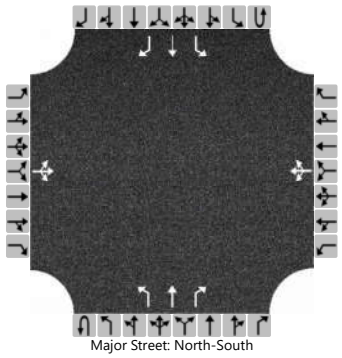
General Information

Analyst	Elizabeth Gallegos
Agency/Co.	Y2 Consultants
Date Performed	12/20/2023
Analysis Year	2021
Time Analyzed	2021 AM Peak Build
Intersection Orientation	North-South
Project Description	

Site Information

Intersection	Idaho SH 33 and W 3000 S
Jurisdiction	
East/West Street	W 3000 S
North/South Street	Idaho SH 33
Peak Hour Factor	0.92
Analysis Time Period (hrs)	1.00

Lanes



Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	0	0	1	1	1	0	1	1	1
Configuration			LTR				LTR			L	T	R		L	T	R
Volume (veh/h)		7	0	7		21	1	19		5	567	7		13	405	0
Percent Heavy Vehicles (%)		3	3	3		3	3	3		3				3		
Proportion Time Blocked																
Percent Grade (%)	0				0											
Right Turn Channelized									No				No			
Median Type | Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1	6.5	6.2		7.1	6.5	6.2		4.1				4.1		
Critical Headway (sec)		7.13	6.53	6.23		7.13	6.53	6.23		4.13				4.13		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2				2.2		
Follow-Up Headway (sec)		3.53	4.03	3.33		3.53	4.03	3.33		2.23				2.23		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			15				45			5				14		
Capacity, c (veh/h)			271				259			1114				952		
v/c Ratio			0.06				0.17			0.00				0.01		
95% Queue Length, Q_{95} (veh)			0.2				0.6			0.0				0.0		
Control Delay (s/veh)			19.1				21.8			8.2				8.8		
Level of Service (LOS)			C				C			A				A		
Approach Delay (s/veh)	19.1				21.8				0.1				0.3			
Approach LOS	C				C				A				A			

HCS Two-Way Stop-Control Report

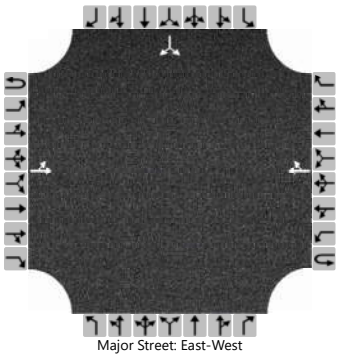
General Information

Analyst	Elizabeth Gallegos
Agency/Co.	Y2 Consultants
Date Performed	12/20/2023
Analysis Year	2021
Time Analyzed	2021 AM Peak Build
Intersection Orientation	East-West
Project Description	

Site Information

Intersection	Idaho SH 33 and W 3000 S
Jurisdiction	
East/West Street	W 3000 S
North/South Street	Idaho SH 33
Peak Hour Factor	0.92
Analysis Time Period (hrs)	1.00

Lanes


Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		0	0	0		0	1	0
Configuration		LT						TR							LR	
Volume (veh/h)		4	25				46	4						14		0
Percent Heavy Vehicles (%)		3												3		3
Proportion Time Blocked																
Percent Grade (%)														0		
Right Turn Channelized																
Median Type | Storage					Undivided											

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1												7.1		6.2
Critical Headway (sec)		4.13												6.43		6.23
Base Follow-Up Headway (sec)		2.2												3.5		3.3
Follow-Up Headway (sec)		2.23												3.53		3.33

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		4													15	
Capacity, c (veh/h)		1544													908	
v/c Ratio		0.00													0.02	
95% Queue Length, Q_{95} (veh)		0.0													0.1	
Control Delay (s/veh)		7.3	0.0												9.0	
Level of Service (LOS)		A	A												A	
Approach Delay (s/veh)		1.0												9.0		
Approach LOS		A												A		

HCS Two-Way Stop-Control Report

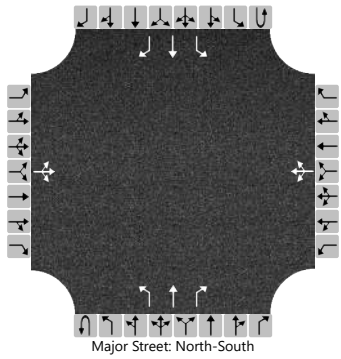
General Information

Analyst	Elizabeth Gallegos
Agency/Co.	Y2 Consultants
Date Performed	12/20/2023
Analysis Year	2021
Time Analyzed	2021 PM Peak No Build
Intersection Orientation	North-South
Project Description	

Site Information

Intersection	Idaho SH 33 and W 3000 S
Jurisdiction	
East/West Street	W 3000 S
North/South Street	Idaho SH 33
Peak Hour Factor	0.92
Analysis Time Period (hrs)	1.00

Lanes


Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	0	0	1	1	1	0	1	1	1
Configuration			LTR				LTR			L	T	R		L	T	R
Volume (veh/h)		3	0	2		5	1	4		7	805	9		10	449	2
Percent Heavy Vehicles (%)		3	3	3		3	3	3		3				3		
Proportion Time Blocked																
Percent Grade (%)	0				0											
Right Turn Channelized									No				No			
Median Type | Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1	6.5	6.2		7.1	6.5	6.2		4.1				4.1		
Critical Headway (sec)		7.13	6.53	6.23		7.13	6.53	6.23		4.13				4.13		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2				2.2		
Follow-Up Headway (sec)		3.53	4.03	3.33		3.53	4.03	3.33		2.23				2.23		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			5				11			8				11		
Capacity, c (veh/h)			164				159			1068				761		
v/c Ratio			0.03				0.07			0.01				0.01		
95% Queue Length, Q_{95} (veh)			0.1				0.2			0.0				0.0		
Control Delay (s/veh)			27.7				29.2			8.4				9.8		
Level of Service (LOS)			D				D			A				A		
Approach Delay (s/veh)	27.7				29.2				0.1				0.2			
Approach LOS	D				D				A				A			

HCS Two-Way Stop-Control Report

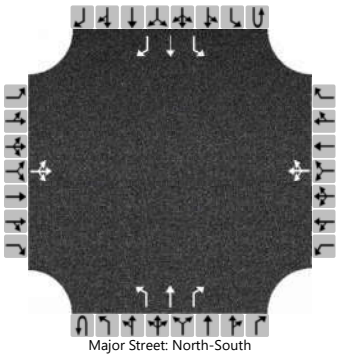
General Information

Analyst	Elizabeth Gallegos
Agency/Co.	Y2 Consultants
Date Performed	12/20/2023
Analysis Year	2021
Time Analyzed	2021 PM Peak Build
Intersection Orientation	North-South
Project Description	

Site Information

Intersection	Idaho SH 33 and W 3000 S
Jurisdiction	
East/West Street	W 3000 S
North/South Street	Idaho SH 33
Peak Hour Factor	0.92
Analysis Time Period (hrs)	1.00

Lanes



Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	0	0	1	1	1	0	1	1	1
Configuration			LTR				LTR			L	T	R		L	T	R
Volume (veh/h)		3	0	2		9	1	7		7	805	18		17	449	2
Percent Heavy Vehicles (%)		3	3	3		3	3	3		3				3		
Proportion Time Blocked																
Percent Grade (%)	0				0											
Right Turn Channelized									No				No			
Median Type | Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1	6.5	6.2		7.1	6.5	6.2		4.1				4.1		
Critical Headway (sec)		7.13	6.53	6.23		7.13	6.53	6.23		4.13				4.13		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2				2.2		
Follow-Up Headway (sec)		3.53	4.03	3.33		3.53	4.03	3.33		2.23				2.23		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			5				18			8				18		
Capacity, c (veh/h)			156				155			1068				754		
v/c Ratio			0.03				0.12			0.01				0.02		
95% Queue Length, Q_{95} (veh)			0.1				0.4			0.0				0.1		
Control Delay (s/veh)			28.9				31.3			8.4				9.9		
Level of Service (LOS)			D				D			A				A		
Approach Delay (s/veh)	28.9				31.3				0.1				0.4			
Approach LOS	D				D				A				A			

HCS Two-Way Stop-Control Report

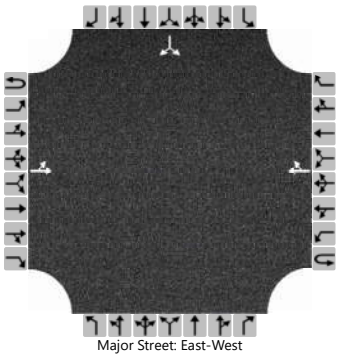
General Information

Analyst	Elizabeth Gallegos
Agency/Co.	Y2 Consultants
Date Performed	12/20/2023
Analysis Year	2021
Time Analyzed	2021 PM Peak Build
Intersection Orientation	East-West
Project Description	

Site Information

Intersection	Kingfisher Loop and W 3000 S
Jurisdiction	
East/West Street	W 3000 S
North/South Street	Kingfisher Loop
Peak Hour Factor	0.92
Analysis Time Period (hrs)	1.00

Lanes


Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		0	0	0		0	1	0
Configuration		LT						TR							LR	
Volume (veh/h)		16	20				10	0						0		8
Percent Heavy Vehicles (%)		3												3		3
Proportion Time Blocked																
Percent Grade (%)														0		
Right Turn Channelized																
Median Type | Storage																
	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1												7.1		6.2
Critical Headway (sec)		4.13												6.43		6.23
Base Follow-Up Headway (sec)		2.2												3.5		3.3
Follow-Up Headway (sec)		2.23												3.53		3.33

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		17													9	
Capacity, c (veh/h)		1602													1067	
v/c Ratio		0.01													0.01	
95% Queue Length, Q_{95} (veh)		0.0													0.0	
Control Delay (s/veh)		7.3	0.1												8.4	
Level of Service (LOS)		A	A												A	
Approach Delay (s/veh)		3.3												8.4		
Approach LOS		A												A		

HCS Two-Way Stop-Control Report

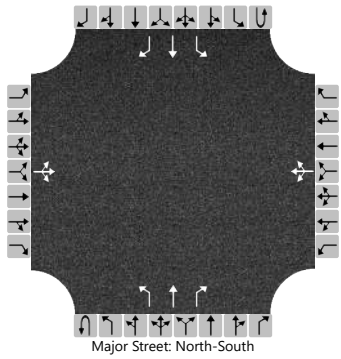
General Information

Analyst	Elizabeth Gallegos
Agency/Co.	Y2 Consultants
Date Performed	12/20/2023
Analysis Year	2030
Time Analyzed	2030 AM Peak No Build
Intersection Orientation	North-South
Project Description	

Site Information

Intersection	Idaho SH 33 and W 3000 S
Jurisdiction	
East/West Street	W 3000 S
North/South Street	Idaho SH 33
Peak Hour Factor	0.92
Analysis Time Period (hrs)	1.00

Lanes


Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	0	0	1	1	1	0	1	1	1
Configuration			LTR				LTR			L	T	R		L	T	R
Volume (veh/h)		10	0	10		19	1	27		7	807	7		16	576	0
Percent Heavy Vehicles (%)		3	3	3		3	3	3		3				3		
Proportion Time Blocked																
Percent Grade (%)	0				0											
Right Turn Channelized									No				No			
Median Type | Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1	6.5	6.2		7.1	6.5	6.2		4.1				4.1		
Critical Headway (sec)		7.13	6.53	6.23		7.13	6.53	6.23		4.13				4.13		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2				2.2		
Follow-Up Headway (sec)		3.53	4.03	3.33		3.53	4.03	3.33		2.23				2.23		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			22				51			8				17		
Capacity, c (veh/h)			134				153			951				761		
v/c Ratio			0.16				0.33			0.01				0.02		
95% Queue Length, Q_{95} (veh)			0.6				1.5			0.0				0.1		
Control Delay (s/veh)			36.9				40.3			8.8				9.8		
Level of Service (LOS)			E				E			A				A		
Approach Delay (s/veh)	36.9				40.3				0.1				0.3			
Approach LOS	E				E				A				A			

HCS Two-Way Stop-Control Report

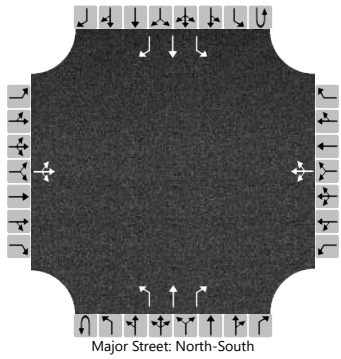
General Information

Analyst	Elizabeth Gallegos
Agency/Co.	Y2 Consultants
Date Performed	12/20/2023
Analysis Year	2030
Time Analyzed	2030 AM Peak Build
Intersection Orientation	North-South
Project Description	

Site Information

Intersection	Idaho SH 33 and W 3000 S
Jurisdiction	
East/West Street	W 3000 S
North/South Street	Idaho SH 33
Peak Hour Factor	0.92
Analysis Time Period (hrs)	1.00

Lanes


Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	0	0	1	1	1	0	1	1	1
Configuration			LTR				LTR			L	T	R		L	T	R
Volume (veh/h)		10	0	10		22	1	31		7	807	8		17	576	0
Percent Heavy Vehicles (%)		3	3	3		3	3	3		3				3		
Proportion Time Blocked																
Percent Grade (%)	0				0											
Right Turn Channelized									No				No			
Median Type | Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1	6.5	6.2		7.1	6.5	6.2		4.1				4.1		
Critical Headway (sec)		7.13	6.53	6.23		7.13	6.53	6.23		4.13				4.13		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2				2.2		
Follow-Up Headway (sec)		3.53	4.03	3.33		3.53	4.03	3.33		2.23				2.23		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			22				59			8				18		
Capacity, c (veh/h)			132				152			951				760		
v/c Ratio			0.16				0.39			0.01				0.02		
95% Queue Length, Q_{95} (veh)			0.6				1.8			0.0				0.1		
Control Delay (s/veh)			37.7				43.4			8.8				9.9		
Level of Service (LOS)			E				E			A				A		
Approach Delay (s/veh)	37.7				43.4				0.1				0.3			
Approach LOS	E				E				A				A			

HCS Two-Way Stop-Control Report

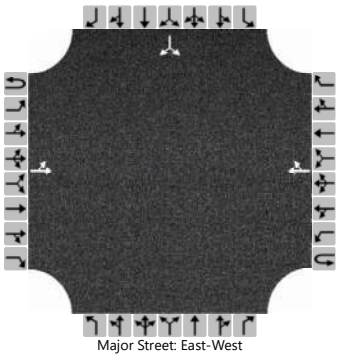
General Information

Analyst	Elizabeth Gallegos
Agency/Co.	Y2 Consultants
Date Performed	12/20/2023
Analysis Year	2030
Time Analyzed	2030 AM Peak Build
Intersection Orientation	East-West
Project Description	

Site Information

Intersection	Kingfisher Loop and W 3000 S
Jurisdiction	
East/West Street	W 3000 S
North/South Street	Kingfisher Loop
Peak Hour Factor	0.92
Analysis Time Period (hrs)	1.00

Lanes


Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		0	0	0		0	1	0
Configuration		LT						TR							LR	
Volume (veh/h)		4	24				47	0						0		14
Percent Heavy Vehicles (%)		3												3		3
Proportion Time Blocked																
Percent Grade (%)														0		
Right Turn Channelized																
Median Type | Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1												7.1		6.2
Critical Headway (sec)		4.13												6.43		6.23
Base Follow-Up Headway (sec)		2.2												3.5		3.3
Follow-Up Headway (sec)		2.23												3.53		3.33

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		4													15	
Capacity, c (veh/h)		1549													1014	
v/c Ratio		0.00													0.02	
95% Queue Length, Q_{95} (veh)		0.0													0.0	
Control Delay (s/veh)		7.3	0.0												8.6	
Level of Service (LOS)		A	A												A	
Approach Delay (s/veh)	1.1												8.6			
Approach LOS	A												A			

HCS Two-Way Stop-Control Report

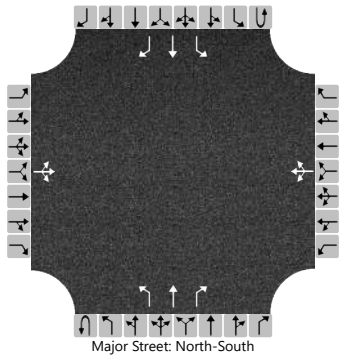
General Information

Analyst	Elizabeth Gallegos
Agency/Co.	Y2 Consultants
Date Performed	12/20/2023
Analysis Year	2030
Time Analyzed	2030 PM Peak No Build
Intersection Orientation	North-South
Project Description	

Site Information

Intersection	Idaho SH 33 and W 3000 S
Jurisdiction	
East/West Street	W 3000 S
North/South Street	Idaho SH 33
Peak Hour Factor	0.92
Analysis Time Period (hrs)	1.00

Lanes


Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	0	0	1	1	1	0	1	1	1
Configuration			LTR				LTR			L	T	R		L	T	R
Volume (veh/h)		4	0	3		7	1	6		10	1146	13		14	639	3
Percent Heavy Vehicles (%)		3	3	3		3	3	3		3				3		
Proportion Time Blocked																
Percent Grade (%)		0				0										
Right Turn Channelized										No				No		
Median Type | Storage		Undivided														

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1	6.5	6.2		7.1	6.5	6.2		4.1				4.1		
Critical Headway (sec)		7.13	6.53	6.23		7.13	6.53	6.23		4.13				4.13		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2				2.2		
Follow-Up Headway (sec)		3.53	4.03	3.33		3.53	4.03	3.33		2.23				2.23		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			8				15			11				15		
Capacity, c (veh/h)			66				67			894				549		
v/c Ratio			0.12				0.23			0.01				0.03		
95% Queue Length, Q_{95} (veh)			0.4				0.9			0.0				0.1		
Control Delay (s/veh)			66.6				74.9			9.1				11.8		
Level of Service (LOS)			F				F			A				B		
Approach Delay (s/veh)		66.6				74.9				0.1				0.3		
Approach LOS		F				F				A				A		

HCS Two-Way Stop-Control Report

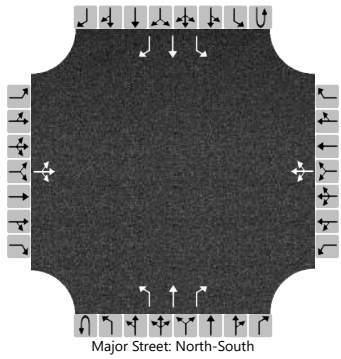
General Information

Analyst	Elizabeth Gallegos
Agency/Co.	Y2 Consultants
Date Performed	12/20/2023
Analysis Year	2030
Time Analyzed	2030 PM Peak Build
Intersection Orientation	North-South
Project Description	

Site Information

Intersection	Idaho SH 33 and W 3000 S
Jurisdiction	
East/West Street	W 3000 S
North/South Street	Idaho SH 33
Peak Hour Factor	0.92
Analysis Time Period (hrs)	1.00

Lanes


Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	0	0	1	1	1	0	1	1	1
Configuration			LTR				LTR			L	T	R		L	T	R
Volume (veh/h)		4	0	3		10	1	9		10	1146	17		19	639	3
Percent Heavy Vehicles (%)		3	3	3		3	3	3		3				3		
Proportion Time Blocked																
Percent Grade (%)	0				0											
Right Turn Channelized									No				No			
Median Type | Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1	6.5	6.2		7.1	6.5	6.2		4.1				4.1		
Critical Headway (sec)		7.13	6.53	6.23		7.13	6.53	6.23		4.13				4.13		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2				2.2		
Follow-Up Headway (sec)		3.53	4.03	3.33		3.53	4.03	3.33		2.23				2.23		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			8				22			11				21		
Capacity, c (veh/h)			63				66			894				546		
v/c Ratio			0.12				0.33			0.01				0.04		
95% Queue Length, Q_{95} (veh)			0.4				1.4			0.0				0.1		
Control Delay (s/veh)			70.0				85.4			9.1				11.8		
Level of Service (LOS)			F				F			A				B		
Approach Delay (s/veh)	70.0				85.4				0.1				0.3			
Approach LOS	F				F				A				A			

HCS Two-Way Stop-Control Report

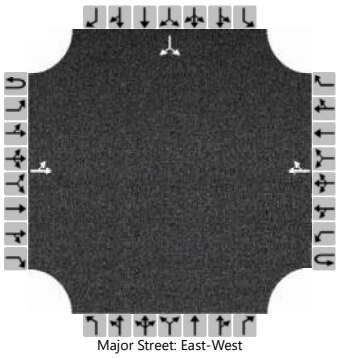
General Information

Analyst	Elizabeth Gallegos
Agency/Co.	Y2 Consultants
Date Performed	12/20/2023
Analysis Year	2030
Time Analyzed	2030 PM Peak Build
Intersection Orientation	East-West
Project Description	

Site Information

Intersection	Kingfisher Loop and W 3000 S
Jurisdiction	
East/West Street	W 3000 S
North/South Street	Kingfisher Loop
Peak Hour Factor	0.92
Analysis Time Period (hrs)	1.00

Lanes


Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		0	0	0		0	1	0
Configuration		LT						TR							LR	
Volume (veh/h)		16	28				14	0						0		8
Percent Heavy Vehicles (%)		3												3		3
Proportion Time Blocked																
Percent Grade (%)														0		
Right Turn Channelized																
Median Type | Storage																
	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1												7.1		6.2
Critical Headway (sec)		4.13												6.43		6.23
Base Follow-Up Headway (sec)		2.2												3.5		3.3
Follow-Up Headway (sec)		2.23												3.53		3.33

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		17													9	
Capacity, c (veh/h)		1596													1061	
v/c Ratio		0.01													0.01	
95% Queue Length, Q_{95} (veh)		0.0													0.0	
Control Delay (s/veh)		7.3	0.1												8.4	
Level of Service (LOS)		A	A												A	
Approach Delay (s/veh)		2.7												8.4		
Approach LOS		A												A		

HCS Two-Way Stop-Control Report

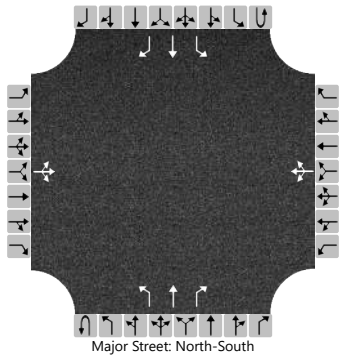
General Information

Analyst	Elizabeth Gallegos
Agency/Co.	Y2 Consultants
Date Performed	12/20/2023
Analysis Year	2045
Time Analyzed	2045 AM Peak No Build
Intersection Orientation	North-South
Project Description	

Site Information

Intersection	Idaho SH 33 and W 3000 S
Jurisdiction	
East/West Street	W 3000 S
North/South Street	Idaho SH 33
Peak Hour Factor	0.92
Analysis Time Period (hrs)	1.00

Lanes


Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	0	0	1	1	1	0	1	1	1
Configuration			LTR				LTR			L	T	R		L	T	R
Volume (veh/h)		18	0	18		33	3	49		13	1453	13		28	1038	0
Percent Heavy Vehicles (%)		3	3	3		3	3	3		3				3		
Proportion Time Blocked																
Percent Grade (%)	0				0											
Right Turn Channelized									No				No			
Median Type | Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1	6.5	6.2		7.1	6.5	6.2		4.1				4.1		
Critical Headway (sec)		7.13	6.53	6.23		7.13	6.53	6.23		4.13				4.13		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2				2.2		
Follow-Up Headway (sec)		3.53	4.03	3.33		3.53	4.03	3.33		2.23				2.23		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			39				92			14				30		
Capacity, c (veh/h)			10				21			615				409		
v/c Ratio			4.05				4.32			0.02				0.07		
95% Queue Length, Q_{95} (veh)			18.0				39.1			0.1				0.2		
Control Delay (s/veh)			6318.8				6364.9			11.0				14.5		
Level of Service (LOS)			F				F			B				B		
Approach Delay (s/veh)	6318.8				6364.9				0.1				0.4			
Approach LOS	F				F				A				A			

HCS Two-Way Stop-Control Report

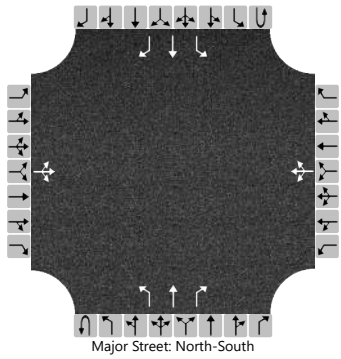
General Information

Analyst	Elizabeth Gallegos
Agency/Co.	Y2 Consultants
Date Performed	12/20/2023
Analysis Year	2045
Time Analyzed	2045 AM Peak Build
Intersection Orientation	North-South
Project Description	

Site Information

Intersection	Idaho SH 33 and W 3000 S
Jurisdiction	
East/West Street	W 3000 S
North/South Street	Idaho SH 33
Peak Hour Factor	0.92
Analysis Time Period (hrs)	1.00

Lanes


Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	0	0	1	1	1	0	1	1	1
Configuration			LTR				LTR			L	T	R		L	T	R
Volume (veh/h)		18	0	18		37	3	53		13	1453	14		30	1038	0
Percent Heavy Vehicles (%)		3	3	3		3	3	3		3				3		
Proportion Time Blocked																
Percent Grade (%)	0				0											
Right Turn Channelized									No				No			
Median Type | Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1	6.5	6.2		7.1	6.5	6.2		4.1				4.1		
Critical Headway (sec)		7.13	6.53	6.23		7.13	6.53	6.23		4.13				4.13		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2				2.2		
Follow-Up Headway (sec)		3.53	4.03	3.33		3.53	4.03	3.33		2.23				2.23		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			39				101			14				33		
Capacity, c (veh/h)			9				21			615				408		
v/c Ratio			4.36				4.86			0.02				0.08		
95% Queue Length, Q_{95} (veh)			18.3				43.6			0.1				0.3		
Control Delay (s/veh)			6929.5				7345.8			11.0				14.6		
Level of Service (LOS)			F				F			B				B		
Approach Delay (s/veh)	6929.5				7345.8				0.1				0.4			
Approach LOS	F				F				A				A			

HCS Two-Way Stop-Control Report

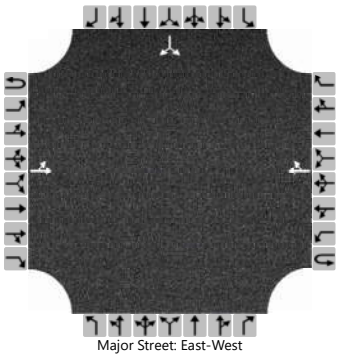
General Information

Analyst	Elizabeth Gallegos
Agency/Co.	Y2 Consultants
Date Performed	12/20/2023
Analysis Year	2045
Time Analyzed	2045 AM Peak Build
Intersection Orientation	East-West
Project Description	

Site Information

Intersection	Kingfisher Loop and W 3000 S
Jurisdiction	
East/West Street	W 3000 S
North/South Street	Kingfisher Loop
Peak Hour Factor	0.92
Analysis Time Period (hrs)	1.00

Lanes


Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		0	0	0		0	1	0
Configuration		LT						TR							LR	
Volume (veh/h)		4	44				85	0						0		14
Percent Heavy Vehicles (%)		3												3		3
Proportion Time Blocked																
Percent Grade (%)														0		
Right Turn Channelized																
Median Type | Storage					Undivided											

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1												7.1		6.2
Critical Headway (sec)		4.13												6.43		6.23
Base Follow-Up Headway (sec)		2.2												3.5		3.3
Follow-Up Headway (sec)		2.23												3.53		3.33

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		4													15	
Capacity, c (veh/h)		1496													962	
v/c Ratio		0.00													0.02	
95% Queue Length, Q_{95} (veh)		0.0													0.0	
Control Delay (s/veh)		7.4	0.0												8.8	
Level of Service (LOS)		A	A												A	
Approach Delay (s/veh)		0.6												8.8		
Approach LOS		A												A		

HCS Two-Way Stop-Control Report

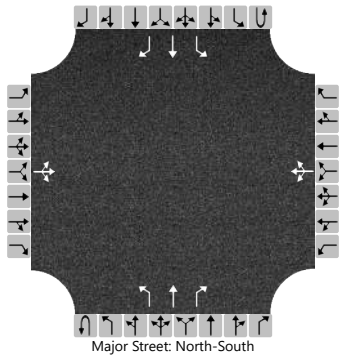
General Information

Analyst	Elizabeth Gallegos
Agency/Co.	Y2 Consultants
Date Performed	12/20/2023
Analysis Year	2045
Time Analyzed	2045 PM Peak No Build
Intersection Orientation	North-South
Project Description	

Site Information

Intersection	Idaho SH 33 and W 3000 S
Jurisdiction	
East/West Street	W 3000 S
North/South Street	Idaho SH 33
Peak Hour Factor	0.92
Analysis Time Period (hrs)	1.00

Lanes


Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	0	0	1	1	1	0	1	1	1
Configuration			LTR				LTR			L	T	R		L	T	R
Volume (veh/h)		8	0	5		13	3	10		18	2063	23		26	1151	5
Percent Heavy Vehicles (%)		3	3	3		3	3	3		3				3		
Proportion Time Blocked																
Percent Grade (%)	0				0											
Right Turn Channelized									No				No			
Median Type | Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1	6.5	6.2		7.1	6.5	6.2		4.1				4.1		
Critical Headway (sec)		7.13	6.53	6.23		7.13	6.53	6.23		4.13				4.13		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2				2.2		
Follow-Up Headway (sec)		3.53	4.03	3.33		3.53	4.03	3.33		2.23				2.23		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			14				28			20				28		
Capacity, c (veh/h)			1				4			550				223		
v/c Ratio			13.98				6.67			0.04				0.13		
95% Queue Length, Q_{95} (veh)			8.9				14.9			0.1				0.4		
Control Delay (s/veh)			30293.9				11974.4			11.8				23.5		
Level of Service (LOS)			F				F			B				C		
Approach Delay (s/veh)	30293.9				11974.4				0.1				0.5			
Approach LOS	F				F				A				A			

HCS Two-Way Stop-Control Report

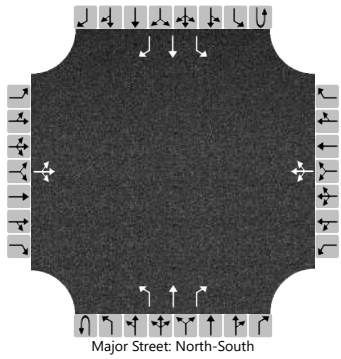
General Information

Analyst	Elizabeth Gallegos
Agency/Co.	Y2 Consultants
Date Performed	12/20/2023
Analysis Year	2045
Time Analyzed	2045 PM Peak Build
Intersection Orientation	North-South
Project Description	

Site Information

Intersection	Idaho SH 33 and W 3000 S
Jurisdiction	
East/West Street	W 3000 S
North/South Street	Idaho SH 33
Peak Hour Factor	0.92
Analysis Time Period (hrs)	1.00

Lanes


Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	0	0	1	1	1	0	1	1	1
Configuration			LTR				LTR			L	T	R		L	T	R
Volume (veh/h)		8	0	5		15	3	13		18	2063	27		30	1151	5
Percent Heavy Vehicles (%)		3	3	3		3	3	3		3				3		
Proportion Time Blocked																
Percent Grade (%)	0				0											
Right Turn Channelized									No				No			
Median Type | Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1	6.5	6.2		7.1	6.5	6.2		4.1				4.1		
Critical Headway (sec)		7.13	6.53	6.23		7.13	6.53	6.23		4.13				4.13		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2				2.2		
Follow-Up Headway (sec)		3.53	4.03	3.33		3.53	4.03	3.33		2.23				2.23		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			14				34			20				33		
Capacity, c (veh/h)			1				4			550				222		
v/c Ratio			17.15				7.90			0.04				0.15		
95% Queue Length, Q_{95} (veh)			9.0				17.6			0.1				0.5		
Control Delay (s/veh)			37517.0				14169.3			11.8				24.0		
Level of Service (LOS)			F				F			B				C		
Approach Delay (s/veh)	37517.0				14169.3				0.1				0.6			
Approach LOS	F				F				A				A			

HCS Two-Way Stop-Control Report

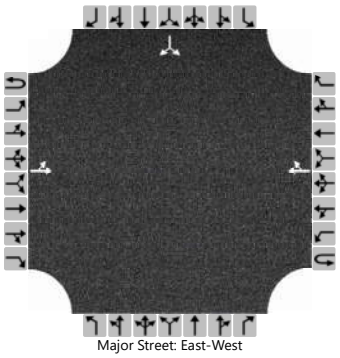
General Information

Analyst	Elizabeth Gallegos
Agency/Co.	Y2 Consultants
Date Performed	12/20/2023
Analysis Year	2045
Time Analyzed	2045 PM Peak Build
Intersection Orientation	East-West
Project Description	

Site Information

Intersection	Kingfisher Loop and W 3000 S
Jurisdiction	
East/West Street	W 3000 S
North/South Street	Kingfisher Loop
Peak Hour Factor	0.92
Analysis Time Period (hrs)	1.00

Lanes


Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		0	0	0		0	1	0
Configuration		LT						TR							LR	
Volume (veh/h)		16	51				26	0						0		8
Percent Heavy Vehicles (%)		3												3		3
Proportion Time Blocked																
Percent Grade (%)														0		
Right Turn Channelized																
Median Type | Storage					Undivided											

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1												7.1		6.2
Critical Headway (sec)		4.13												6.43		6.23
Base Follow-Up Headway (sec)		2.2												3.5		3.3
Follow-Up Headway (sec)		2.23												3.53		3.33

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		17													9	
Capacity, c (veh/h)		1579													1044	
v/c Ratio		0.01													0.01	
95% Queue Length, Q_{95} (veh)		0.0													0.0	
Control Delay (s/veh)		7.3	0.1												8.5	
Level of Service (LOS)		A	A												A	
Approach Delay (s/veh)		1.8												8.5		
Approach LOS		A												A		