SOUTH JORDAN CITY PLANNING COMMISSION STAFF REPORT

MEETING DATE: April 22, 2025

FILE OVERVIEW		
Item Name	Conditional Use Permit: Restaurants with Drive Through Lanes	
Address	10983 S. Redwood Road	
File Number	PLCUP202500041	
Applicant	Clayton Kitterman; Element Design Co.	
Owner of Record	Noble Reality Group, LLC.	
Staff Contact	Andrew McDonald, AICP Planner II	
PROPERTY OVERVIEW		
Total Acreage	1.56	
Current Zoning	C-C (Commercial-Corridor)	
Subdivision	Falcons Plaza (Commercial) Subdivision, Lot 2	
Adjacent Properties	*Current Zone*	*Current Use*
North	C-C	Office Building
East	R-M-6 (Residential-Multifamily; 6 Units per Acre)	Single-Family Housing; Crystal Cove Subdivision
South	MU-V (Mixed-Use Village)	Commercial / Single-Family Housing
West	A-5 (Agricultural; 5 Units per Acre)	South Jordan City Park / Public Works

ITEM SUMMARY

This Application is associated with Site Plan application PLSPR202400192. The proposed project is to construct a new commercial building located at 10983 S. Redwood Road. The building will have eight tenant units. Units 1 and 8 will have drive through lanes. The middle units are meant for a mix of office and retail. It is still unknown as to what businesses will locate in the building. The current zoning (C-C) permits restaurant, office, and retail uses. The inclusion of drive through facilities is permitted with the approval of a conditional use permit (CUP) by the Planning Commission. Attachment A provides an overview of the subject property and proposed project.

SOUTH JORDAN UTAH

REPORT ANALYSIS

Drive through lanes increase the potential for negative impacts. Typically, restaurants in South Jordan are designed with one drive-through lane. This application proposes two, one for each corner unit. This is unprecedented in the City.

Pursuant to City Code § 17.18.040 (Attachment E), the Applicant provided the required Impact Control Measures listed below, and included as Attachments B, C, and D. These measures apply when the context or scale of a project increases the potential for negative impacts (e.g., increase in traffic generation, sound levels, site access and circulation). The purpose of the attached documents is to demonstrate that the design of the project and operation of the two drive through lanes will adequately address the project's potential negative impacts.

1. **Traffic Study:** Traffic Studies are prepared by licensed professional engineers. The purpose of the study is to evaluate the increase in traffic that the project will generate, and the impact on the level of service of the adjacent roads. The project will generate an increase in traffic during peak hours on the adjacent roads: Redwood Road, 11010 south, and Beckstead Lane. The Study concludes, on page 17, that the proposed project (with two drive through lanes) will have little to no impact on the adjacent roads existing level of service (LOS), and that all studied intersections and access points will perform at an acceptable LOS.

2. **Circulation & Access Plan:** Circulation & Access Plans identify the potential impacts that the project's traffic will generate from the projects access points (Redwood Road, 11010 south, and Beckstead Lane). Attachment C reflects the adjacent roads, bike routes, pedestrian paths, and drive through stacking and queuing capacity. The Circulation & Access Plan does not demonstrate potential traffic conflicts generated from these access points.

3. **Sound Study:** A sound study is prepared by members of the national acoustical association or qualified, expert consultants. These studies evaluate the increase in sound levels expected from the proposed use (i.e., the two drive through lane menu speakers). The study compares the project's expected sound levels with exiting drive through lanes in the vicinity, and reviews the likelihood of compliance with Salt Lake County Health Department Nosie Regulation #21. The Sound Study concludes, on page 5, that the drive-through lane speakers will have sound levels within regulation limits, and be in compliance with regulation #21.

FINDINGS AND RECOMMENDATION

Findings:

- The Engineering and Planning Departments reviewed and agree with the conclusions listed in traffic and sound studies.
- The anticipated changes to the adjacent road's level of service does not significantly change the existing level of service for Redwood Road, 11010 south, and Beckstead Lane.
- A deceleration lane provides access to the site from Redwood Road.
- The drive through lanes are positioned so that cars do not interfere with the traffic flow on the adjacent roads.
- The drive through lanes have the capacity to keep cars from interfering with circulation through the parking lot.
- The two drive through lanes will comply with the County Noise Regulation.
- The Building buffers the drive through noise from the residential subdivision to the east.

Conclusions:

Staff finds the application in conformance with all requirements of City Code. Staff did not identify potential detrimental effects created by this application.

Recommendation:

Staff recommends the Planning Commission approve the application based on the report analysis, findings, and conclusions listed above.

PLANNING COMMISSION ACTION

Required Action:

Final Decision

Scope of Decision:

This is an administrative decision to be decided by the Planning Commission.

Standard of Approval:

The Planning Commission shall approve a conditional use permit application if reasonable conditions are proposed, or can be imposed, to mitigate the reasonably anticipated detrimental effects of the proposed conditional use in accordance with applicable standards.

The Planning Commission may deny a conditional use permit application if the reasonably anticipated detrimental effects cannot be substantially mitigated with reasonable conditions of approval to achieve compliance with applicable standards.

SOUTH JORDAN
UTAH

Motion Ready:

I move that the Planning Commission approve file PLCUP202500041, a Conditional Use Permit to allow a drive through lanes at 10938 S. Redwood Road.

Alternatives:

1. Approve the application with reasonable conditions of approval that mitigate reasonably anticipated detrimental effects
2. Deny the application if a reasonably anticipated detrimental effect cannot be reasonably mitigated with reasonable conditions of approval
3. Motion to table for further investigation

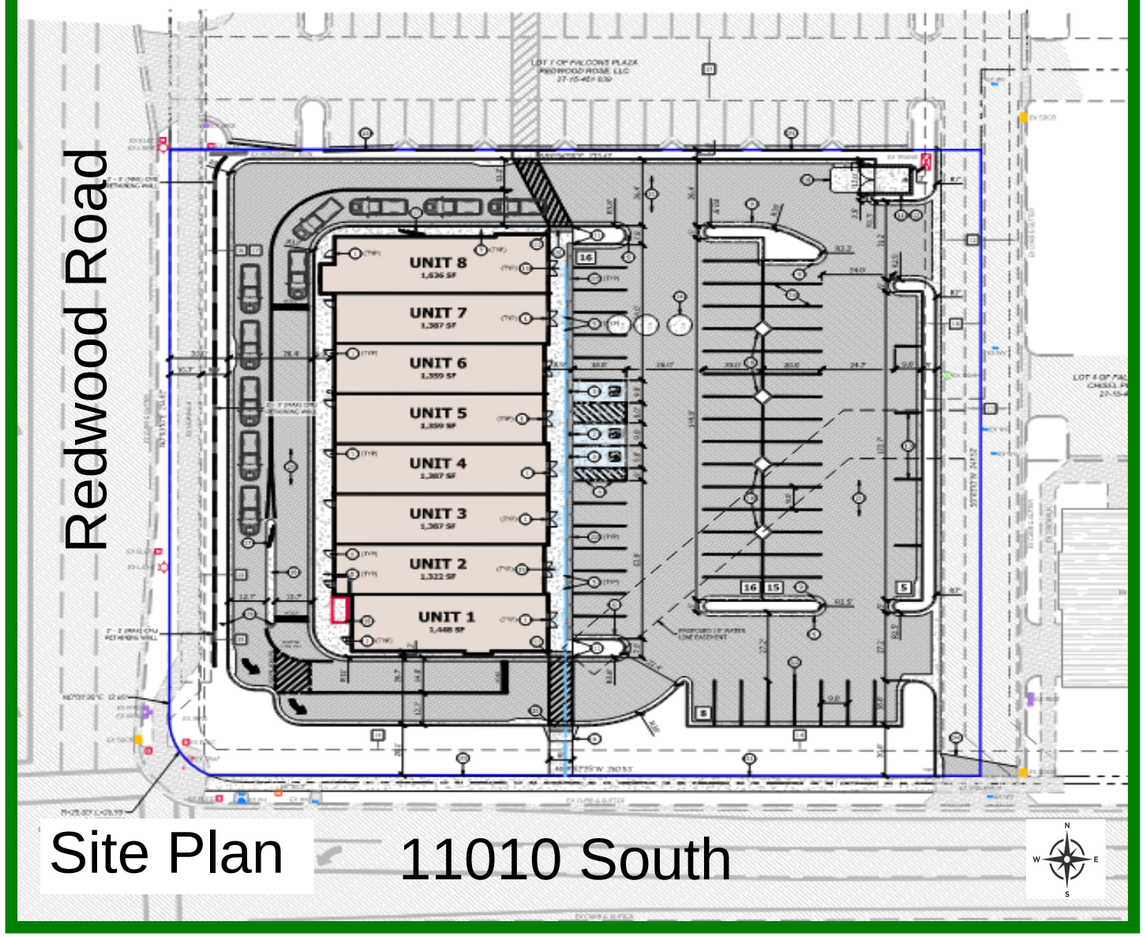
SUPPORTING MATERIALS

1. Attachment A, Project Overview
2. Attachment B, Traffic Study
3. Attachment C, Circulation & Access Plan
4. Attachment D, Sound Study
5. Attachment E, City Code § 17.18.040 “Impact Control Measures”

SOUTH JORDAN UTAH

Attachment A

Project Overview



Site Plan

11010 South

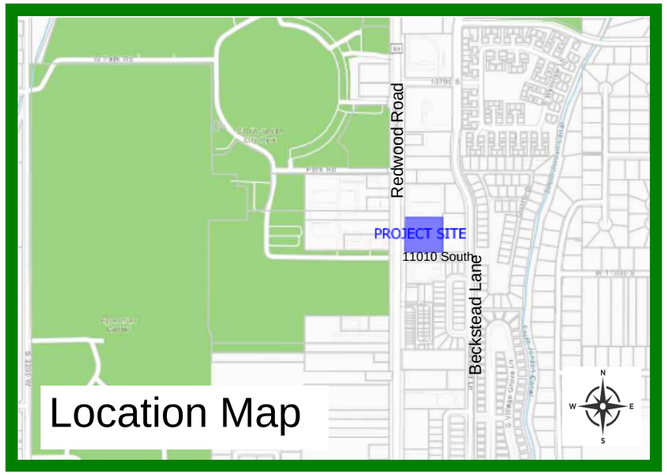
North-East Elevation

North-West Elevation

South-West Elevation

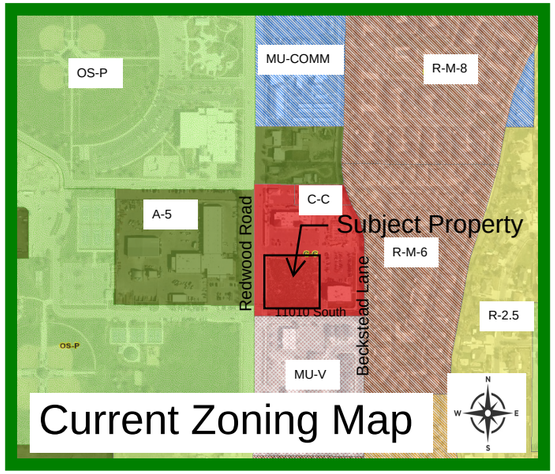
Elevation Renderings

South-East Elevation



Location Map

Existing Site



Current Zoning Map

Attachment B

South Jordan Retail

Traffic Impact Analysis

Prepared for:

South Jordan City
1600 West Towne Center Drive
South Jordan, UT 84095
801-446-4357

Prepared by:

Hunt Day
3445 Antelope Drive St 200
Syracuse, UT 84075
801.664.4724
Thomas Hunt, PE

HUNT · DAY
CIVIL ENGINEERING

February 12, 2025

South Jordan City
1600 West Towne Center Drive
South Jordan, UT 84095
801-446-4357

RE: South Jordan Retail – Traffic Impact Analysis

The proposed South Jordan Retail development is located on the northeast corner of Redwood Road and 11010 South Street in South Jordan, UT. The proposed development will not be creating a new access on either public roadway, but utilizing the existing private roadway to the east of the development. Redwood Rd/11010 South Street is a full signalized intersection and the majority of the traffic entering the development will utilize this intersection. With this in mind, a traffic impact study is required at this intersection and the private accesses on Redwood Rd and 11010 South Street to verify if any mitigation measures are needed to continue safe traffic conditions.

To perform this report, manual traffic counts were obtained on multiple days during the AM and PM peak hours on multiple days in January and February 2025. The highest peak traffic counts during the field observations were used in this study to determine how the existing intersection and accesses currently function; this includes the AM and PM peak hours. With this information, we can project the trip distribution from this development to determine the impact this project has on traffic.

It is my professional opinion that upon completion of this project, it will not significantly alter the existing traffic patterns and should be permitted per the traffic data and improvements contained within this report.

If you have any questions, or if we can be of further assistance, please let us know.

Regards,

Thomas Hunt

Thomas Hunt
Principal Engineer & Planner

Email: Thomas@HuntDay.co
Phone: (801) 664 - 4724
3445 Antelope Drive, St 200
Syracuse UT 84075

Table of Contents – South Jordan Retail

South Jordan, UT

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South Jordan, UT

Introduction and Summary

The South Jordan Retail development is proposing a multi-tenant building on the northeast corner of Redwood Road and 11010 South Street in South Jordan, UT. The site is currently undeveloped. There is currently a private shared cross access easement on the north side of the development along Redwood Road and another private shared cross access easement to the east that is accessed via 11010 South Street. There will be no additional curb cuts/accesses along the public roadways with this development.

The purpose of this study is to complete a Traffic Impact Analysis by:

- Assess the existing traffic flow and Level of Service in the AM and PM Peak hours
- Distribute the new trip generation from the project and determine the roadway's level of service.
- Project the traffic to the end of the build out year (2025) on the accesses and surrounding developments to determine the roadway's level of service.
- Determine if any mitigation measures may be needed.

Principal Findings & Conclusion

Existing 2025 Traffic Conditions:

- Redwood Road/11010 South Street (signalized) functions at a Level of Service A/B on Redwood Road and Level of Service C on 11010 South in both peak hours.
- Redwood Road Access (unsignalized) functions at a Level of Service A on Redwood Road and Level of Service D/E exiting at the Access in both peak hours.
- 11010 South Street Access (unsignalized) functions at a Level of Service A/B in all locations in both peak hours.

Proposed 2025 Traffic Conditions:

- Redwood Road/11010 South Street (signalized) functions at a Level of Service A/B on Redwood Road and Level of Service C on 11010 South in both peak hours.
- Redwood Road Access (unsignalized) functions at a Level of Service A on Redwood Road and Level of Service D/E exiting at the Access in both peak hours.
- 11010 South Street Access (unsignalized) functions at a Level of Service A/B in all locations in both peak hours.
- All existing and proposed intersections/accesses will function at an acceptable level of service in both peak hours with a slight increase in delay with the new development.

Recommendations

Our principal findings from our traffic impact analysis have determined that during the AM and PM peak hours, all studied intersections and accesses operate at an acceptable Level of Service and should be permitted with no mitigation measures recommended.

Proposed Development

The South Jordan Retail development is proposing a multi-tenant building on the northeast corner of Redwood Road and 11010 South Street in South Jordan, UT. The site is currently undeveloped. It is proposed that the building that consists of 9,153 SF of retail and 3,084 SF of restaurant/drive-thru services. There is currently a private shared cross access easement on the north side of the development along Redwood Road and another private shared cross access easement to the east that is accessed via 11010 South Street. There will be no additional curb cuts/accesses along the public roadways with this development.

This project will be completed in one phase and is anticipated to open in late-2025.

Study Area Conditions

The study areas are:

- Redwood Road/11010 South Street intersection (signalized)
- Redwood Rd/Access (unsignalized)
- 11010 South Street/Access (unsignalized)

This report addresses the impacts based on Level of Service (LOS) values calculated by delay.

A Vicinity Map has been provided in Figure #1 that shows this location, and a Study Area exhibit has been provided in Figure #2.

Figure #1 Vicinity Map
Redwood Road & 11010 South Street | South Jordan, UT

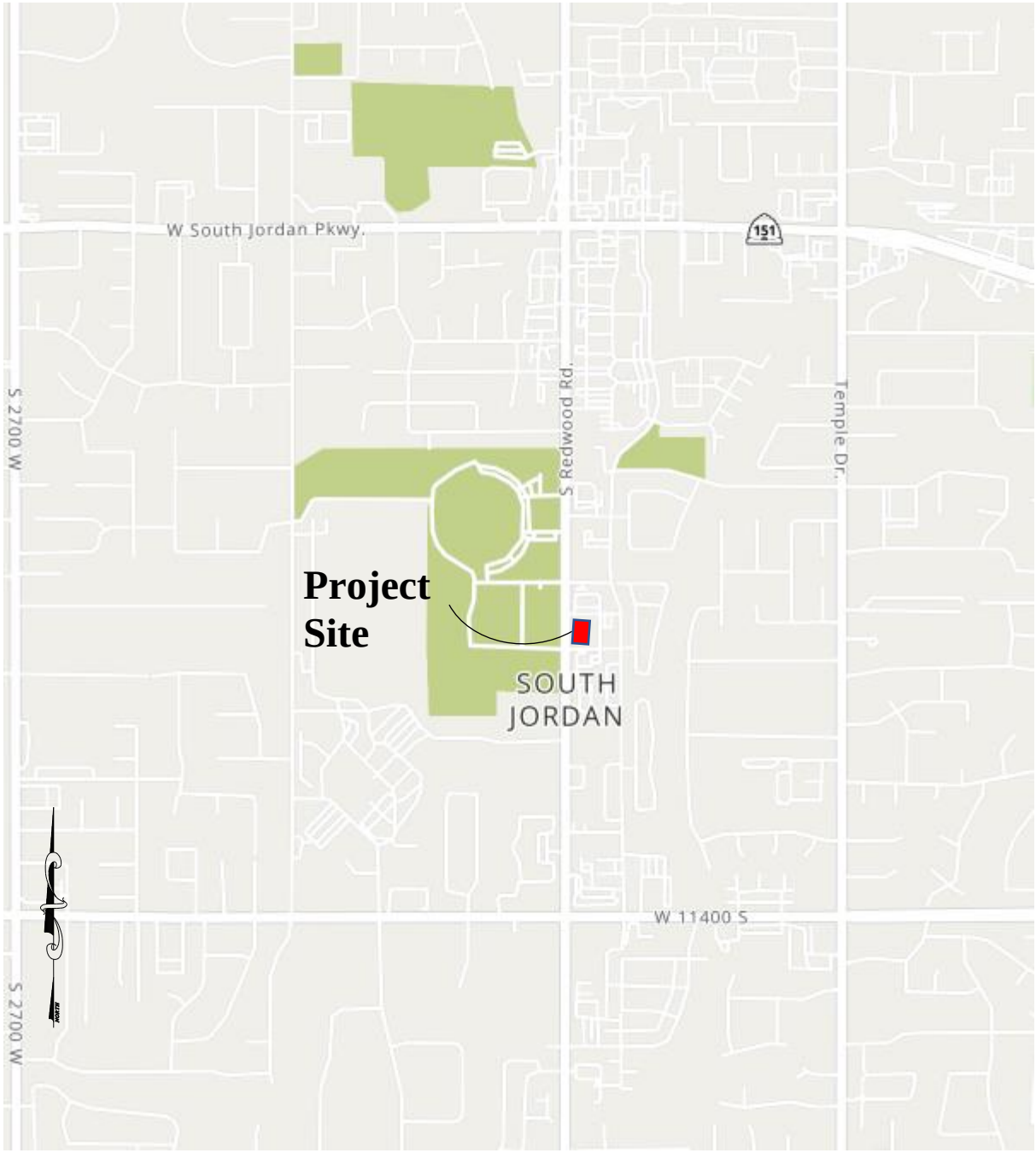
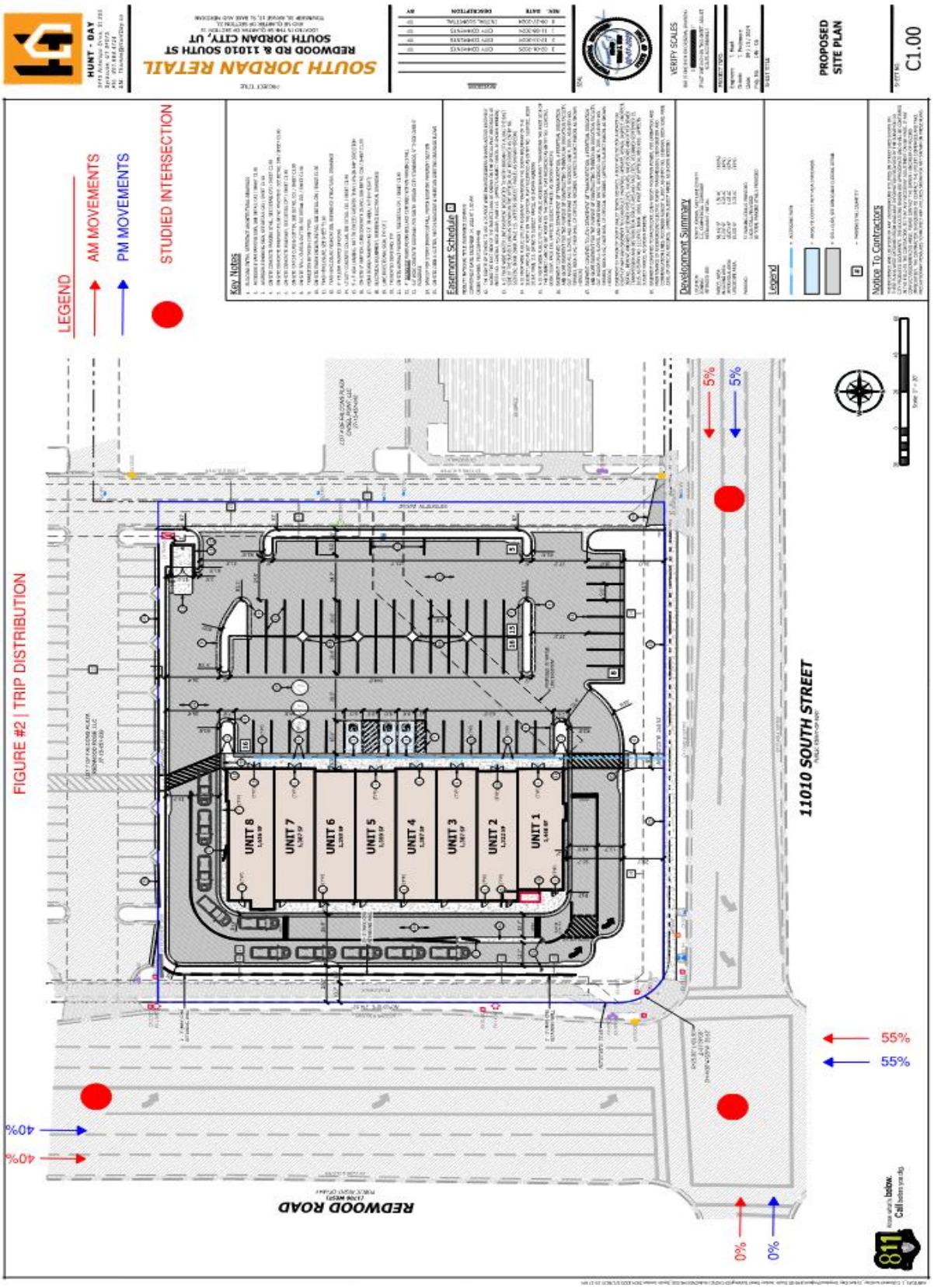


Figure #2 Study Area Map
Redwood Rd & 11010 South Street | South Jordan, UT



Analysis of Existing Conditions

Physical Characteristics

Redwood Road/11010 South Street is a signalized 4-way intersection. Redwood Road northbound and southbound has 4 lanes. Both directions have a dedicated left turn lane, two dedicated thru lanes, and one shared thru/right turn lane. The speed limit is 45 mpg in both directions. 11010 South Street is has a dedicated left turn lane and shared thru/right turn lane in both directions. There is not a posted speed limit, but it is assumed to be 25 mph.

Redwood Road/Access is a 3-legged non-signalized intersection. Redwood road is the major roadway with a speed limit of 45 mph. Northbound has two thru lanes and a shared thru/right turn lane. The roadway is widening for a right turn lane, but not a full lane width. Southbound has three thru-lanes and a center two way left turn lane. The access is not striped, but has room for a right turn out, left turn out and enter.

11010 South Street/Access is a 4-legged non signalized intersection. 11010 South Street has a speed limit of 25 mph. Eastbound and Westbound have a single thru lane and a shared center two way left turn lane. Southbound and Northbound have a shared left/right turn lane and an entrance lane with an assumed speed limit of 25 mph.

The roadway intersection geometrics, turn lanes, driveways, traffic control devices, stop signs etc. are shown in Figures below.

Level of Service Analysis

For this traffic impact study, the LOS was determined by calculating the average delay time per vehicle in seconds using Synchro 11. Each LOS is associated with a designated range of delay times in seconds per vehicle. Table 1 (below) is used to determine the LOS for a signalized intersection based on the delay in seconds per vehicle. Table 2 (below) is used to determine the LOS for an unsignalized intersection based on the delay in seconds per vehicle. According to the Highway Capacity Manual, most facilities are designed for a service flow rate at LOS D or better to ensure acceptable operating conditions to users.

Table 1 - Signalized Intersections Level of Service

LOS	*Intersection Delay per Vehicle (sec/veh)*	*General Description*
A	**≤ 10**	**Free Flow**
B	**> 10 - 20**	**Stable Flow (slight delays)**
C	**> 20 - 35**	**Stable Flow (acceptable delays)**
D	**> 35 - 55**	**Approaching unstable (tolerable delay)**
E	**> 55 - 80**	**Unstable Flow (intolerable delay)**
F	**> 80**	**Forced Flow (congested and failure)**

Source: Highway Capacity Manual (HCM) 2022.

Table 2 - Unsignalized Intersections Level of Service

LOS	*Intersection Delay per Vehicle (sec/veh)*	*General Description*
A	**≤ 10**	**Free Flow**
B	**> 10 - 15**	**Stable Flow (slight delays)**
C	**> 15 - 25**	**Stable Flow (acceptable delays)**
D	**> 25 - 35**	**Approaching unstable (tolerable delay)**
E	**> 35 - 50**	**Unstable Flow (intolerable delay)**
F	**> 50**	**Forced Flow (congested and failure)**

Source: Highway Capacity Manual (HCM) 2022.

Existing Traffic Volumes

Data collection was obtained in accordance with the latest edition of the Institute of Transportation Engineers "Manual of Transportation Engineering Studies".

Traffic counts were obtained in 15-minute increments to determine if any atypical PHF exists – none were determined. Daily AM and PM peak hour traffic volumes were obtained at all turning movements at the studied intersection and accesses were obtained. These existing traffic volumes can be found in Figures 3 and 4 below.

Crash Data

No crashes were observed during traffic data collection. It is anticipated that this development will not create any accidents.

AM Existing
South Jordan Retail

Figure #3
02/26/2025

Hunt Day

PM Existing
South Jordan Retail

Figure #4
02/26/2025

Hunt Day

Existing Study Area Level of Service

The existing intersection was analyzed using Synchro 11. The results, indicating the current level of service, are shown in Table 3 and the appendix.

Table 3 – Existing Level of Service for Study Area

Intersection	*Approach*	*Existing AM*		*Existing PM*	
		Delay	*LOS*	*Delay*	*LOS*
Redwood Rd / 11010 South	*EBL*	*30.6*	*C*	*35.0*	*D*
	EBT/R	*29.8*	*C*	*35.2*	*D*
	WBL	*32.7*	*C*	*37.7*	*D*
	WBT/R	*30.0*	*C*	*35.2*	*D*
	NBL	*13.3*	*B*	*13.3*	*B*
	NBT	*5.5*	*A*	*5.9*	*A*
	NBR	*6.0*	*A*	*6.4*	*A*
	SBL	*9.4*	*A*	*13.1*	*B*
	SBT	*5.8*	*A*	*5.7*	*A*
	SBL	*6.3*	*A*	*6.2*	*A*
Redwood Rd / Access	*WBL*	*33.3*	*D*	*38.6*	*E*
	WBR	*18.9*	*C*	*21.4*	*C*
	SBL	*26.0*	*D*	*31.5*	*D*
11010 S / Access	*NBL*	*9.4*	*A*	*9.9*	*A*
	EBL	*7.4*	*A*	*7.4*	*A*
	WBL	*7.4*	*A*	*7.4*	*A*
	SBL	*9.1*	*A*	*8.9*	*A*

Source: Delay times and LOS determined using Synchro 11.

Summary of Existing Conditions

Based upon the existing traffic conditions in the AM and PM peak hours, Level of Service at all studied intersections perform at an acceptable level of service. For a detailed report the results of the study can be found in the Appendix.

Proposed Traffic

Trip Generation

The number of new trips generated for the proposed development was determined using trip generation figures obtained from ITE Trip Generation Manual 11th Edition.

The number of new trips generated for the proposed South Jordan retail development was determined using the ITE figures below:

ITE Land Use Code 934 – 3,084 SF of Fast Food with Drive Thru Window
ITE Land Use Code 814 – 9,150 SF of General Variety Retail Store

The calculations for this can be found in the Appendix. These results can be seen in Table 4 below.

Table 4 – Project Trip Generation

Land Use	*Weekday Trips Entering*	*Weekday Trips Exiting*	*AM Trips Entering*	*AM Trips Exiting*	*PM Trips Entering*	*PM Trips Exiting*
Fast Food Restaurant w/Drive Thru	720	720	81	75	80	77
Variety/General Retail	291	291	21	20	34	34
Total	**1011**	**1011**	**102**	**95**	**114**	**111**

The proposed new trips were added to the traffic represented opening day of this project based upon the trip distribution found in Figure 2 above and the Project Trip Generation found in Table 4 above. The proposed combined vehicle movements are shown in Figure 5 and 6 below.

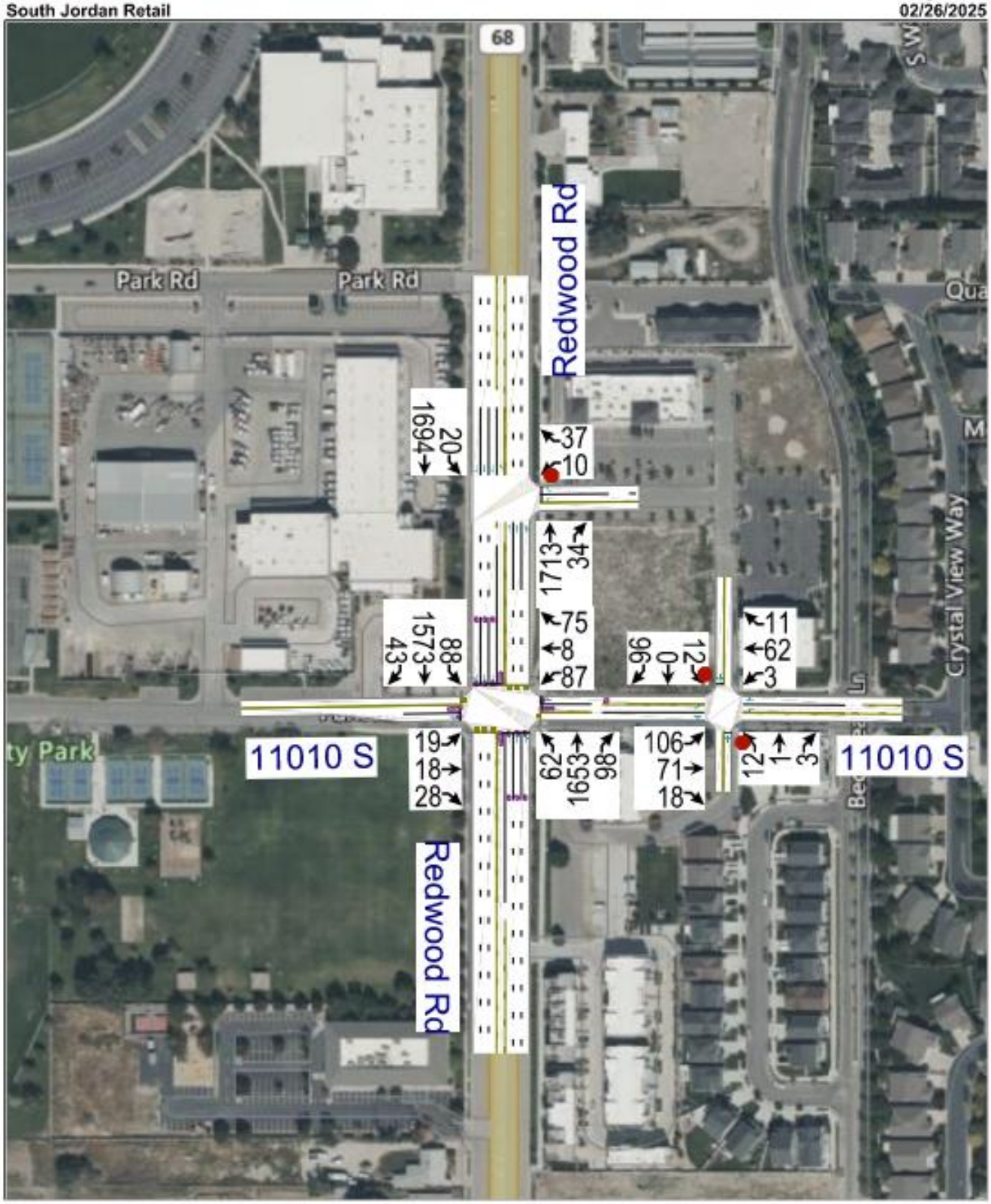
AM Proposed
South Jordan Retail

Figure #5
02/26/2025

Hunt Day

pM Proposed
South Jordan Retail

Figure #6
02/26/2025



Hunt Day

Results (2025)

Based on current conditions, combined with the generated traffic flows from the proposed development, and the proposed right turn/left turn deceleration lanes, we have prepared a study of the studied intersection and new accesses. The results of the study are shown in Table 5 below.

Table 5 – Proposed (2025) Level of Service for Study Area

Intersection	*Approach*	*Existing AM*		*Proposed AM*		*Existing PM*		*Proposed PM*	
		Delay	*LOS*	*Delay*	*LOS*	*Delay*	*LOS*	*Delay*	*LOS*
Redwood Rd / 11010 South	*EBL*	*30.6*	*C*	*32.5*	*D*	*35.0*	*D*	*36.3*	*D*
	EBT/R	*29.8*	*C*	*32.8*	*D*	*35.2*	*D*	*36.6*	*D*
	WBL	*32.7*	*C*	*34.8*	*D*	*37.7*	*D*	*39.5*	*D*
	WBT/R	*30.0*	*C*	*32.2*	*D*	*35.2*	*D*	*37.7*	*D*
	NBL	*13.3*	*B*	*13.3*	*B*	*13.3*	*B*	*13.4*	*B*
	NBT	*5.5*	*A*	*5.6*	*A*	*5.9*	*A*	*6.1*	*A*
	NBR	*6.0*	*A*	*6.1*	*A*	*6.4*	*A*	*6.7*	*A*
	SBL	*9.4*	*A*	*13.4*	*B*	*13.1*	*B*	*18.7*	*C*
	SBT	*5.8*	*A*	*5.8*	*A*	*5.7*	*A*	*5.8*	*A*
	SBL	*6.3*	*A*	*6.3*	*A*	*6.2*	*A*	*6.2*	*A*
Redwood Rd / Access	*WBL*	*33.3*	*D*	*37.6*	*E*	*38.6*	*E*	*39.3*	*E*
	WBR	*18.9*	*C*	*21.4*	*C*	*21.4*	*C*	*24.6*	*C*
	SBL	*26.0*	*D*	*27.8*	*D*	*31.5*	*D*	*32.5*	*D*
11010 S / Access	*NBL*	*9.4*	*A*	*11.3*	*B*	*9.9*	*A*	*12.6*	*B*
	EBL	*7.4*	*A*	*7.5*	*A*	*7.4*	*A*	*7.6*	*A*
	WBL	*7.4*	*A*	*7.4*	*A*	*7.4*	*A*	*7.4*	*A*
	SBL	*9.1*	*A*	*9.3*	*A*	*8.9*	*A*	*9.6*	*A*

Source: Delay times and LOS determined using Synchro 11.

Summary of Proposed Development (2025)

Based upon the proposed traffic conditions in the AM and PM peak hours, the overall Level of Service at all studied intersections and accesses perform at an acceptable level of service. The private access out onto Redwood Road begins to have a higher level of service than would be liked, but if there is a delay, vehicles would naturally drive to the access on 11010 South and then the signalized intersection.

Conclusions

A full Traffic Analysis was performed to determine the impact that the proposed South Jordan Retail Development would have on the existing traffic during the opening year (2025).

Based upon the traffic analysis, the proposed development will have little to no impact on the existing level of service. The existing exit from the private access onto Redwood Road has a slightly poor level of service, but if congested, there is easy access to the side road that will direct traffic to the signalized intersection.

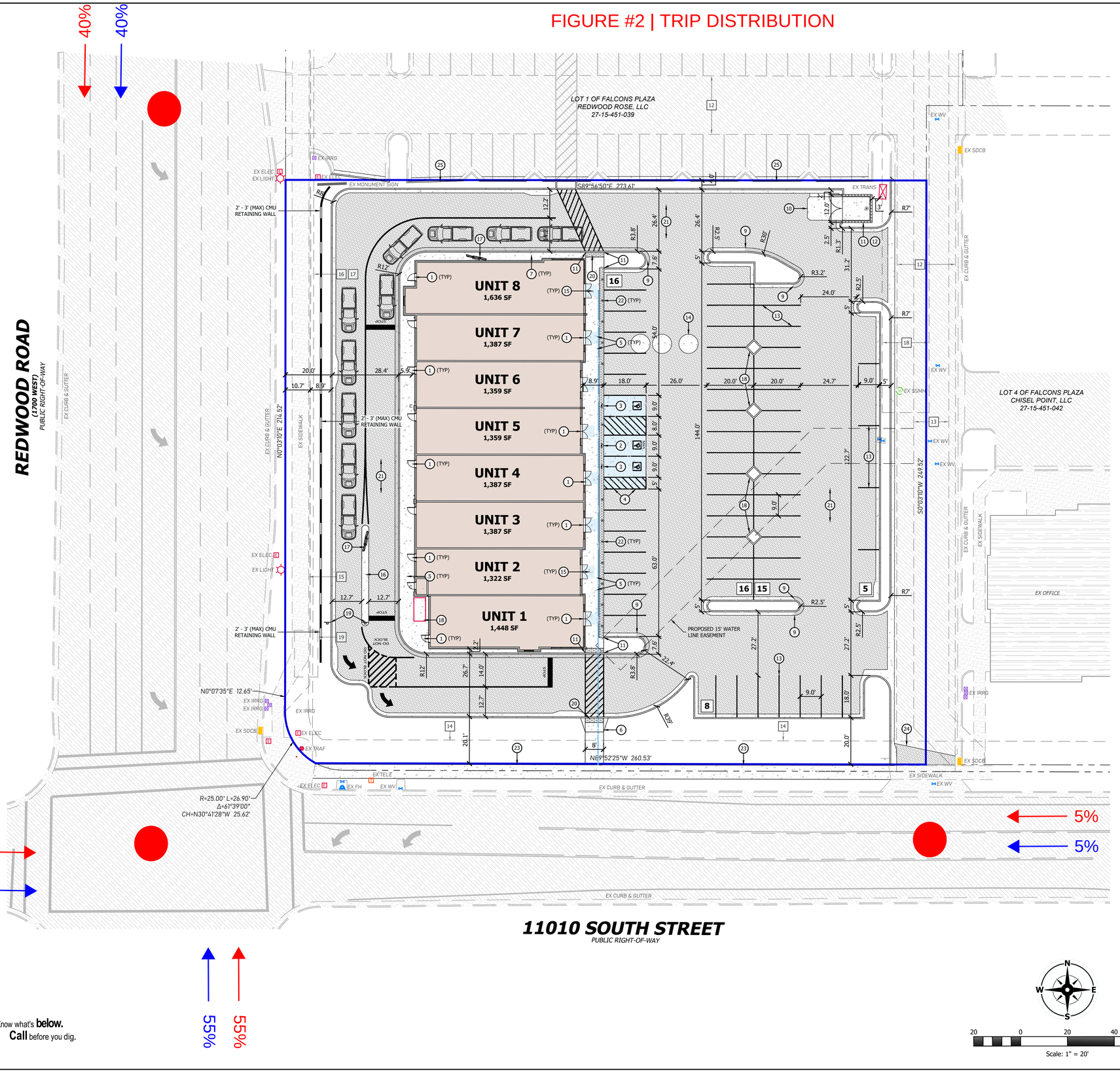
Therefore, after a full analysis of these roadways, intersections, accesses and this proposed development, the overall Level of Service in the AM and PM peak hours at all studied intersections and accesses will perform at an acceptable level of service.

Recommendations

No mitigation measures are warranted with the proposed development and it is our professional opinion that this project will not significantly alter the existing traffic patterns at the intersection and should be permitted per the traffic data contained within this report.

Appendix

FIGURE #2 | TRIP DISTRIBUTION



LEGEND

- AM MOVEMENTS
- PM MOVEMENTS
- STUDIED INTERSECTION

Key Notes

1. BUILDING ENTRY, REFERENCE ARCHITECTURAL DRAWINGS
2. ACCESSIBLE VAN PARKING SIGN, SEE DETAIL CA3 / SHEET C1.90
3. ACCESSIBLE PARKING SIGN, SEE DETAIL CA3 / SHEET C1.90
4. ON-SITE CONCRETE PARKING STALL, SEE DETAIL CP3 / SHEET C1.90
5. ON-SITE CONCRETE WALKWAY FLUSH W/ PAVEMENT, SEE DETAIL CP8 / SHEET C1.90
6. ON-SITE CONCRETE WALKWAY, SEE DETAIL CP7 / SHEET C1.90
7. ON-SITE 'CATCH' CURB & GUTTER, SEE DETAIL CG1 / SHEET C1.90
8. ON-SITE 'SPILL' CURB & GUTTER, SEE DETAIL CG1 / SHEET C1.90
9. TRANSITION BETWEEN CURB TYPES.
10. ON-SITE TRASH ENCLOSURE PAD, SEE DETAIL CP6 / SHEET C1.90
11. TRASH ENCLOSURE, SEE SHEET T1.00
12. TRASH ENCLOSURE FOUNDATION, REFERENCE STRUCTURAL DRAWINGS
13. 4" YELLOW PAINTED STRIPING
14. UTILITY CONCRETE COLLAR, SEE DETAIL CU1 / SHEET C1.90
15. 5' x 5' ADA LANDING, NOT TO EXCEED GREATER THAN 1.8% IN ANY DIRECTION
16. ON-SITE 6" VERTICAL CURB CONCRETE ISLAND, SEE DETAIL CG6 / SHEET C1.90
17. MENU BOARD (MAXIMUM 42 S.F. IN AREA / 6.0' IN HEIGHT)
18. ELECTRICAL EQUIPMENT, REFERENCE ELECTRICAL DRAWINGS
19. LANE DIRECTIONAL SIGN, TYP OF 2
20. TRUNCATED DOME PAD, TYP
21. ON-SITE ASPHALT PAVEMENT, SEE DETAIL CP1 / SHEET C1.90
22. 4" SLOWSTOP REBOUNDING BOLLARD CENTERED WITHIN PARKING STALL
23. 6.0' WIDE CONCRETE SIDEWALK PER SOUTH JORDAN CITY STANDARDS, 5" THICK OVER 6" ROADBASE
24. SAWCUT FOR STORM DRAIN OUTFALL, MATCH EXISTING PAVEMENT SECTION
25. ON-SITE CURB & GUTTER, MATCH ADJACENT & MAINTAIN EXISTING DRAINAGE FLOWS

Easement Schedule

FIDELITY NATIONAL TITLE INSURANCE COMPANY
COMMITMENT DATE: DECEMBER 14, 2022 AT 1:00 AM
ORDER NUMBER: FTUT2203949-MB

12. THE RIGHTS OF OTHERS TO USE A 25 FOOT WIDE INGRESS/EGRESS SHARED ACCESS EASEMENT ALONG THE EAST SIDE OF THE SUBJECT LAND AS SHOWN ON THE OFFICIAL PLAT RECORDED AS ENTRY NO. 12287282, BOOK 2016P, PAGE 115. (AFFECTS SUBJECT PARCEL AS SHOWN HEREON)
13. A 15 FOOT WIDE WATER LINE EASEMENT DEDICATED TO SOTH JORDAN CITY ALONG THE EAST SIDE OF THE SUBJECT LAND AS SHOWN ON THE OFFICIAL PLAT RECORDED AS ENTRY NO. 12287282, BOOK 2016P, PAGE 115. (AFFECTS SUBJECT PARCEL AS SHOWN HEREON)
14. A 10 FOOT WIDE PUBLIC UTILITY EASEMENT TRAVERSING THE SOUTH BOUNDARY OF THE SUBJECT LAND AS SET FORTH ON THE OFFICIAL PLAT RECORDED AS ENTRY NO. 12287282, BOOK 2016P, PAGE 115. (AFFECTS SUBJECT PARCEL AS SHOWN HEREON)
15. A 10 FOOT WIDE PUBLIC UTILITY AND PUBLIC ACCESS EASEMENT TRAVERSING THE WEST SIDE OF THE SUBJECT LAND AS SET FORTH ON THE OFFICIAL PLAT RECORDED AS ENTRY NO. 12287282, BOOK 2016P, PAGE 115. (AFFECTS SUBJECT PARCEL AS SHOWN HEREON)
16. EASEMENT CONVEYED TO UTAH DEPARTMENT OF TRANSPORTATION, A PERPETUAL IRRIGATION AND SLOPE EASEMENT FOR THE PURPOSE OF CONSTRUCTING THEREON AN IRRIGATION FACILITY, CUT AND/OR FILL SLOPES, AND APPURTENANT PARTS, RECORDED JUNE 9, 2005, AS ENTRY NO. 9399853, BOOK 9142, PAGE 8461, OF OFFICIAL RECORDS. (AFFECTS SUBJECT PARCEL AS SHOWN HEREON)
17. EASEMENT CONVEYED TO UTAH DEPARTMENT OF TRANSPORTATION, A PERPETUAL IRRIGATION AND SLOPE EASEMENT FOR THE PURPOSE OF CONSTRUCTING THEREON AN IRRIGATION FACILITY, CUT AND/OR FILL SLOPES, AND APPURTENANT PARTS, RECORDED JUNE 9, 2005, AS ENTRY NO. 9399850, BOOK 9142, PAGE 8454, OF OFFICIAL RECORDS. (AFFECTS SUBJECT PARCEL AS SHOWN HEREON)
18. EASEMENT IN FAVOR OF SOUTH VALLEY SEWER DISTRICT, A BODY POLITIC FOR A PERPETUAL RIGHT-OF-WAY AND EASEMENT TO CONSTRUCT, MAINTAIN, OPERATE, REPAIR, INSPECT, PROTECT, INSTALL, REMOVE AND REPLACE SEWER PIPELINES, VALVES, VALVE BOXES AND OTHER SEWER TRANSMISSION AND DISTRIBUTION STRUCTURES AND FACILITIES, RECORDED SEPTEMBER 23, 2015, AS ENTRY NO. 12137472, BOOK 10363, PAGE 8738, OF OFFICIAL RECORDS. (AFFECTS SUBJECT PARCEL AS SHOWN HEREON)
19. EASEMENT CONVEYED TO PACIFICORP, D/B/A ROCKY MOUNTAIN POWER, FOR OPERATION AND MAINTENANCE OF UNDERGROUND ELECTRIC POWER TRANSMISSION, DISTRIBUTION AND COMMUNICATION LINES, RECORDED AUGUST 6, 2007, AS ENTRY NO. 10184999, BOOK 9500, PAGE 2390, OF OFFICIAL RECORDS. (AFFECTS SUBJECT PARCEL AS SHOWN HEREON)

Development Summary

LOCATION:	SOUTH JORDAN, SALT LAKE COUNTY		
ZONING:	C-C, COMMERCIAL CORRIDOR		
INTENDED USE:	RESTAURANT / RETAIL		
PARCEL AREA:	68,142 SF	1.56 AC	(100%)
BUILDING AREA:	12,237 SF	0.28 AC	(18%)
IMPERVIOUS AREA:	45,873 SF	1.05 AC	(67%)
LANDSCAPE AREA:	10,032 SF	0.23 AC	(15%)
PARKING:	57 PARKING STALLS PROVIDED 3 ADA STALL PROVIDED 60 TOTAL PARKING STALLS PROVIDED		

Legend

- ADA = ACCESSIBLE PATH
- = AREAS TO COMPLY WITH ADA STANDARDS
- = SPILL CURB, SEE APPLICABLE CURBING DETAIL
- # = PARKING STALL QUANTITY

Notice To Contractors

THE EXISTENCE AND LOCATION OF ANY UNDERGROUND UTILITIES OR STRUCTURES SHOWN ON THESE PLANS WERE OBTAINED FROM AVAILABLE INFORMATION PROVIDED BY THE SURVEYOR OR CITY PRODUCED DOCUMENTS. THE LOCATIONS SHOWN ARE APPROXIMATE AND SHALL BE CONFIRMED IN THE FIELD BY THE CONTRACTOR, SO THAT ANY NECESSARY ADJUSTMENT CAN BE MADE. IF ANY CONFLICT/DISCREPENCIES ARISE, PLEASE CONTACT THE OWNER / ENGINEER OF RECORD IMMEDIATELY. THE CONTRACTOR IS REQUIRED TO CONTACT THE UTILITY COMPANIES AND TAKE PRECAUTIONARY MEASURES TO PROTECT ANY UTILITIES SHOWN OR NOT SHOWN ON THESE PLANS.

Know what's **below.** **Call** before you dig.

20 0 20 40 60
Scale: 1" = 20'

HUNT · DAY
3445 Antelope Drive, St 200
Syracuse, UT 84075
PH: 801.664.4724
EM: Thomas@HuntDay.co

PROJECT TITLE
SOUTH JORDAN RETAIL
REDWOOD RD & 11010 SOUTH ST
SOUTH JORDAN CITY, UT
LOCATED IN THE SE QUARTER OF SECTION 15
AND NE QUARTER OF SECTION 22,
TOWNSHIP 3S, RANGE 1E, SL BASE AND MERIDIAN

REVISIONS

REV.	DATE	DESCRIPTION	BY
3	02-01-2025	CITY COMMENTS	TP
2	12-23-2024	CITY COMMENTS	TP
1	11-08-2024	CITY COMMENTS	TP
0	09-27-2024	INITIAL SUBMITTAL	TP

SEAL
PROFESSIONAL ENGINEER — 10854388 — THOMAS T. HUNT — 02-01-2025 — STATE OF UTAH

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

PROJECT INFO.
Engineer: T. Hunt
Drawn: T. Pridemore
Date: 09 / 13 / 2024
Proj. No. 146 - 05

SHEET TITLE
PROPOSED SITE PLAN

SHEET NO.
C1.00

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	12	10	18	46	3	28	55	1513	35	30	1615	58
Future Volume (veh/h)	12	10	18	46	3	28	55	1513	35	30	1615	58
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	13	11	20	50	3	30	60	1645	38	33	1755	63
Adj No. of Lanes	1	1	0	1	1	0	1	3	0	1	3	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	269	99	179	272	24	243	224	3845	89	251	3789	136
Arrive On Green	0.17	0.17	0.17	0.17	0.17	0.17	0.75	0.75	0.75	0.75	0.75	0.75
Sat Flow, veh/h	1370	593	1079	1373	146	1459	256	5114	118	292	5040	181
Grp Volume(v), veh/h	13	0	31	50	0	33	60	1090	593	33	1180	638
Grp Sat Flow(s),veh/h/ln	1370	0	1672	1373	0	1605	256	1695	1842	292	1695	1831
Q Serve(g_s), s	0.9	0.0	1.7	3.5	0.0	1.9	12.8	12.9	12.9	5.1	14.6	14.6
Cycle Q Clear(g_c), s	2.8	0.0	1.7	5.3	0.0	1.9	27.4	12.9	12.9	18.1	14.6	14.6
Prop In Lane	1.00		0.65	1.00		0.91	1.00		0.06	1.00		0.10
Lane Grp Cap(c), veh/h	269	0	278	272	0	267	224	2549	1385	251	2549	1376
V/C Ratio(X)	0.05	0.00	0.11	0.18	0.00	0.12	0.27	0.43	0.43	0.13	0.46	0.46
Avail Cap(c_a), veh/h	269	0	278	272	0	267	224	2549	1385	251	2549	1376
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.2	0.0	28.9	31.2	0.0	29.0	10.4	5.0	5.0	8.3	5.2	5.2
Incr Delay (d2), s/veh	0.3	0.0	0.8	1.5	0.0	0.9	2.9	0.5	1.0	1.1	0.6	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	0.9	1.4	0.0	0.9	1.1	6.1	6.8	0.5	6.9	7.7
LnGrp Delay(d),s/veh	30.6	0.0	29.8	32.7	0.0	30.0	13.3	5.5	6.0	9.4	5.8	6.3
LnGrp LOS	C		C	C		C	B	A	A	A	A	A
Approach Vol, veh/h		44			83			1743			1851	
Approach Delay, s/veh		30.0			31.6			5.9			6.0	
Approach LOS		C			C			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		87.2		22.8		87.2		22.8
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5
Max Green Setting (Gmax), s		82.7		18.3		82.7		18.3
Max Q Clear Time (g_c+I1), s		29.4		4.8		20.1		7.3
Green Ext Time (p_c), s		23.1		0.1		25.5		0.2

Intersection Summary	
HCM 2010 Ctrl Delay	7.2
HCM 2010 LOS	A

Intersection	
Int Delay, s/veh	0.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	6	6	1521	18	11	1607
Future Vol, veh/h	6	6	1521	18	11	1607
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	7	7	1653	20	12	1747

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2386	837	0	0	1673	0
Stage 1	1663	-	-	-	-	-
Stage 2	723	-	-	-	-	-
Critical Hdwy	5.74	7.14	-	-	5.34	-
Critical Hdwy Stg 1	6.64	-	-	-	-	-
Critical Hdwy Stg 2	6.04	-	-	-	-	-
Follow-up Hdwy	3.82	3.92	-	-	3.12	-
Pot Cap-1 Maneuver	58	266	-	-	183	-
Stage 1	93	-	-	-	-	-
Stage 2	401	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	54	266	-	-	183	-
Mov Cap-2 Maneuver	81	-	-	-	-	-
Stage 1	93	-	-	-	-	-
Stage 2	375	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	32.1	0	0.2
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	81	266	183	-
HCM Lane V/C Ratio	-	-	0.081	0.025	0.065	-
HCM Control Delay (s)	-	-	33.3	18.9	26	-
HCM Lane LOS	-	-	D	C	D	-
HCM 95th %tile Q(veh)	-	-	0.3	0.1	0.2	-

Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	7	56	12	2	67	3	8	1	3	2	0	2
Future Vol, veh/h	7	56	12	2	67	3	8	1	3	2	0	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	150	-	-	150	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	8	61	13	2	73	3	9	1	3	2	0	2

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	76	0	0	74	0	0	164	164	68	165	169	75
Stage 1	-	-	-	-	-	-	84	84	-	79	79	-
Stage 2	-	-	-	-	-	-	80	80	-	86	90	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1523	-	-	1526	-	-	801	729	995	800	724	986
Stage 1	-	-	-	-	-	-	924	825	-	930	829	-
Stage 2	-	-	-	-	-	-	929	828	-	922	820	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1523	-	-	1526	-	-	795	725	995	793	720	986
Mov Cap-2 Maneuver	-	-	-	-	-	-	795	725	-	793	720	-
Stage 1	-	-	-	-	-	-	919	821	-	925	828	-
Stage 2	-	-	-	-	-	-	926	827	-	913	816	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.7	0.2	9.4	9.1
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	830	1523	-	-	1526	-	-	879
HCM Lane V/C Ratio	0.016	0.005	-	-	0.001	-	-	0.005
HCM Control Delay (s)	9.4	7.4	-	-	7.4	-	-	9.1
HCM Lane LOS	A	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	12	10	18	73	4	58	55	1513	85	65	1615	58
Future Volume (veh/h)	12	10	18	73	4	58	55	1513	85	65	1615	58
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	13	11	20	79	4	63	60	1645	92	71	1755	63
Adj No. of Lanes	1	1	0	1	1	0	1	3	0	1	3	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	238	99	179	272	16	250	224	3706	207	239	3789	136
Arrive On Green	0.17	0.17	0.17	0.17	0.17	0.17	0.75	0.75	0.75	0.75	0.75	0.75
Sat Flow, veh/h	1329	593	1079	1373	95	1502	256	4929	275	277	5040	181
Grp Volume(v), veh/h	13	0	31	79	0	67	60	1131	606	71	1180	638
Grp Sat Flow(s),veh/h/ln	1329	0	1672	1373	0	1598	256	1695	1814	277	1695	1831
Q Serve(g_s), s	0.9	0.0	1.7	5.7	0.0	4.0	12.8	13.7	13.7	14.1	14.6	14.6
Cycle Q Clear(g_c), s	5.0	0.0	1.7	7.4	0.0	4.0	27.4	13.7	13.7	27.8	14.6	14.6
Prop In Lane	1.00		0.65	1.00		0.94	1.00		0.15	1.00		0.10
Lane Grp Cap(c), veh/h	238	0	278	272	0	266	224	2549	1364	239	2549	1376
V/C Ratio(X)	0.05	0.00	0.11	0.29	0.00	0.25	0.27	0.44	0.44	0.30	0.46	0.46
Avail Cap(c_a), veh/h	238	0	278	272	0	266	224	2549	1364	239	2549	1376
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.1	0.0	31.9	32.1	0.0	29.9	10.4	5.1	5.1	10.3	5.2	5.2
Incr Delay (d2), s/veh	0.4	0.0	0.8	2.7	0.0	2.3	2.9	0.6	1.1	3.1	0.6	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	0.9	2.4	0.0	1.9	1.1	6.5	7.1	1.3	6.9	7.7
LnGrp Delay(d),s/veh	32.5	0.0	32.8	34.8	0.0	32.2	13.3	5.6	6.1	13.4	5.8	6.3
LnGrp LOS	D		D	D		D	B	A	A	B	A	A
Approach Vol, veh/h		44			146			1797			1889	
Approach Delay, s/veh		32.6			43.6			6.1			6.3	
Approach LOS		D			D			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		87.2		22.8		87.2		22.8
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5
Max Green Setting (Gmax), s		82.7		18.3		82.7		18.3
Max Q Clear Time (g_c+I1), s		29.4		7.0		29.8		9.4
Green Ext Time (p_c), s		24.3		0.1		26.2		0.3

Intersection Summary	
HCM 2010 Ctrl Delay	8.0
HCM 2010 LOS	A

Intersection	
Int Delay, s/veh	0.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	8	36	1551	24	16	1642
Future Vol, veh/h	8	36	1551	24	16	1642
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	9	39	1686	26	17	1785

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2447	856	0	0	1712	0
Stage 1	1699	-	-	-	-	-
Stage 2	748	-	-	-	-	-
Critical Hdwy	5.74	7.14	-	-	5.34	-
Critical Hdwy Stg 1	6.64	-	-	-	-	-
Critical Hdwy Stg 2	6.04	-	-	-	-	-
Follow-up Hdwy	3.82	3.92	-	-	3.12	-
Pot Cap-1 Maneuver	53	259	-	-	175	-
Stage 1	89	-	-	-	-	-
Stage 2	389	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	48	259	-	-	175	-
Mov Cap-2 Maneuver	77	-	-	-	-	-
Stage 1	89	-	-	-	-	-
Stage 2	351	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	28	0	0.3
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	77	259	175	-
HCM Lane V/C Ratio	-	-	0.113	0.151	0.099	-
HCM Control Delay (s)	-	-	37.6	21.4	27.8	-
HCM Lane LOS	-	-	E	C	D	-
HCM 95th %tile Q(veh)	-	-	0.4	0.5	0.3	-

Intersection	
Int Delay, s/veh	4.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	92	56	12	2	67	9	8	1	3	7	0	60
Future Vol, veh/h	92	56	12	2	67	9	8	1	3	7	0	60
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	150	-	-	150	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	100	61	13	2	73	10	9	1	3	8	0	65

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	83	0	0	74	0	0	383	355	68	352	356	78
Stage 1	-	-	-	-	-	-	268	268	-	82	82	-
Stage 2	-	-	-	-	-	-	115	87	-	270	274	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1514	-	-	1526	-	-	575	571	995	603	570	983
Stage 1	-	-	-	-	-	-	738	687	-	926	827	-
Stage 2	-	-	-	-	-	-	890	823	-	736	683	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1514	-	-	1526	-	-	509	533	995	569	532	983
Mov Cap-2 Maneuver	-	-	-	-	-	-	509	533	-	569	532	-
Stage 1	-	-	-	-	-	-	689	642	-	865	826	-
Stage 2	-	-	-	-	-	-	830	822	-	684	638	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	4.3	0.2	11.3	9.3
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	582	1514	-	-	1526	-	-	914
HCM Lane V/C Ratio	0.022	0.066	-	-	0.001	-	-	0.08
HCM Control Delay (s)	11.3	7.5	-	-	7.4	-	-	9.3
HCM Lane LOS	B	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	0.1	0.2	-	-	0	-	-	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	19	18	28	47	8	41	62	1643	45	51	1569	43
Future Volume (veh/h)	19	18	28	47	8	41	62	1643	45	51	1569	43
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	21	20	30	51	9	45	67	1786	49	55	1705	47
Adj No. of Lanes	1	1	0	1	1	0	1	3	0	1	3	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	253	113	170	258	46	228	236	3817	105	220	3816	105
Arrive On Green	0.17	0.17	0.17	0.17	0.17	0.17	0.75	0.75	0.75	0.75	0.75	0.75
Sat Flow, veh/h	1345	674	1011	1349	271	1353	273	5089	140	252	5088	140
Grp Volume(v), veh/h	21	0	50	51	0	54	67	1190	645	55	1136	616
Grp Sat Flow(s),veh/h/ln	1345	0	1684	1349	0	1624	273	1695	1838	252	1695	1838
Q Serve(g_s), s	1.5	0.0	2.8	3.7	0.0	3.1	13.4	14.9	14.9	11.8	13.9	13.9
Cycle Q Clear(g_c), s	4.6	0.0	2.8	6.5	0.0	3.1	27.3	14.9	14.9	26.7	13.9	13.9
Prop In Lane	1.00		0.60	1.00		0.83	1.00		0.08	1.00		0.08
Lane Grp Cap(c), veh/h	253	0	283	258	0	273	236	2543	1379	220	2543	1379
V/C Ratio(X)	0.08	0.00	0.18	0.20	0.00	0.20	0.28	0.47	0.47	0.25	0.45	0.45
Avail Cap(c_a), veh/h	253	0	283	258	0	273	236	2543	1379	220	2543	1379
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.4	0.0	34.8	37.0	0.0	34.4	10.3	5.3	5.3	10.4	5.2	5.2
Incr Delay (d2), s/veh	0.6	0.0	1.4	1.7	0.0	1.6	3.0	0.6	1.1	2.7	0.6	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	1.4	1.5	0.0	1.5	1.2	7.0	7.8	1.0	6.5	7.2
LnGrp Delay(d),s/veh	35.0	0.0	35.2	37.7	0.0	35.2	13.3	5.9	6.4	13.1	5.7	6.2
LnGrp LOS	D		D	D		D	B	A	A	B	A	A
Approach Vol, veh/h		71			105			1902			1807	
Approach Delay, s/veh		35.1			36.3			6.4			6.1	
Approach LOS		D			D			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		87.0		23.0		87.0		23.0
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5
Max Green Setting (Gmax), s		82.5		18.5		82.5		18.5
Max Q Clear Time (g_c+I1), s		29.3		6.6		28.7		8.5
Green Ext Time (p_c), s		26.4		0.2		24.4		0.2

Intersection Summary	
HCM 2010 Ctrl Delay	7.9
HCM 2010 LOS	A

Intersection	
Int Delay, s/veh	0.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	6	12	1679	24	12	1657
Future Vol, veh/h	6	12	1679	24	12	1657
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	7	13	1825	26	13	1801

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2584	926	0	0	1851	0
Stage 1	1838	-	-	-	-	-
Stage 2	746	-	-	-	-	-
Critical Hdwy	5.74	7.14	-	-	5.34	-
Critical Hdwy Stg 1	6.64	-	-	-	-	-
Critical Hdwy Stg 2	6.04	-	-	-	-	-
Follow-up Hdwy	3.82	3.92	-	-	3.12	-
Pot Cap-1 Maneuver	45	232	-	-	149	-
Stage 1	72	-	-	-	-	-
Stage 2	390	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	41	232	-	-	149	-
Mov Cap-2 Maneuver	63	-	-	-	-	-
Stage 1	72	-	-	-	-	-
Stage 2	356	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	32.1	0	0.2
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	63	232	149	-
HCM Lane V/C Ratio	-	-	0.104	0.056	0.088	-
HCM Control Delay (s)	-	-	38.6	21.4	31.5	-
HCM Lane LOS	-	-	E	C	D	-
HCM 95th %tile Q(veh)	-	-	0.3	0.2	0.3	-

Intersection	
Int Delay, s/veh	2.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	16	71	18	3	62	5	12	1	3	4	0	22
Future Vol, veh/h	16	71	18	3	62	5	12	1	3	4	0	22
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	150	-	-	150	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	17	77	20	3	67	5	13	1	3	4	0	24

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	72	0	0	97	0	0	209	199	87	199	207	70
Stage 1	-	-	-	-	-	-	121	121	-	76	76	-
Stage 2	-	-	-	-	-	-	88	78	-	123	131	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1528	-	-	1496	-	-	748	697	971	760	690	993
Stage 1	-	-	-	-	-	-	883	796	-	933	832	-
Stage 2	-	-	-	-	-	-	920	830	-	881	788	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1528	-	-	1496	-	-	723	688	971	749	681	993
Mov Cap-2 Maneuver	-	-	-	-	-	-	723	688	-	749	681	-
Stage 1	-	-	-	-	-	-	873	787	-	923	830	-
Stage 2	-	-	-	-	-	-	896	828	-	867	779	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.1	0.3	9.9	8.9
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	757	1528	-	-	1496	-	-	946
HCM Lane V/C Ratio	0.023	0.011	-	-	0.002	-	-	0.03
HCM Control Delay (s)	9.9	7.4	-	-	7.4	-	-	8.9
HCM Lane LOS	A	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	19	18	28	87	8	75	62	1653	98	88	1573	43
Future Volume (veh/h)	19	18	28	87	8	75	62	1653	98	88	1573	43
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	21	20	30	95	9	82	67	1797	107	96	1710	47
Adj No. of Lanes	1	1	0	1	1	0	1	3	0	1	3	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	219	113	170	258	27	244	235	3682	219	208	3816	105
Arrive On Green	0.17	0.17	0.17	0.17	0.17	0.17	0.75	0.75	0.75	0.75	0.75	0.75
Sat Flow, veh/h	1300	674	1011	1349	159	1448	272	4910	292	236	5088	140
Grp Volume(v), veh/h	21	0	50	95	0	91	67	1240	664	96	1139	618
Grp Sat Flow(s),veh/h/ln	1300	0	1684	1349	0	1607	272	1695	1811	236	1695	1838
Q Serve(g_s), s	1.6	0.0	2.8	7.1	0.0	5.5	13.6	15.9	15.9	29.9	13.9	13.9
Cycle Q Clear(g_c), s	7.1	0.0	2.8	9.9	0.0	5.5	27.5	15.9	15.9	45.8	13.9	13.9
Prop In Lane	1.00		0.60	1.00		0.90	1.00		0.16	1.00		0.08
Lane Grp Cap(c), veh/h	219	0	283	258	0	270	235	2543	1358	208	2543	1379
V/C Ratio(X)	0.10	0.00	0.18	0.37	0.00	0.34	0.29	0.49	0.49	0.46	0.45	0.45
Avail Cap(c_a), veh/h	219	0	283	258	0	270	235	2543	1358	208	2543	1379
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.5	0.0	36.2	35.5	0.0	35.3	10.4	5.4	5.4	14.5	5.2	5.2
Incr Delay (d2), s/veh	0.9	0.0	1.4	4.0	0.0	3.3	3.0	0.7	1.3	7.2	0.6	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	1.4	3.0	0.0	2.7	1.2	7.5	8.2	2.3	6.5	7.3
LnGrp Delay(d),s/veh	36.3	0.0	36.6	39.5	0.0	37.7	13.4	6.1	6.7	18.7	5.8	6.2
LnGrp LOS	D		D	D		D	B	A	A	C	A	A
Approach Vol, veh/h		71			186			1971			1853	
Approach Delay, s/veh		36.5			38.6			6.5			6.7	
Approach LOS		D			D			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		87.0		23.0		87.0		23.0
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5
Max Green Setting (Gmax), s		82.5		18.5		82.5		18.5
Max Q Clear Time (g_c+I1), s		29.5		9.1		47.8		11.9
Green Ext Time (p_c), s		28.0		0.1		21.6		0.4

Intersection Summary	
HCM 2010 Ctrl Delay	9.0
HCM 2010 LOS	A

Intersection	
Int Delay, s/veh	0.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	10	37	1713	34	20	1694
Future Vol, veh/h	10	37	1713	34	20	1694
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	40	1862	37	22	1841

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2661	950	0	0	1899	0
Stage 1	1881	-	-	-	-	-
Stage 2	780	-	-	-	-	-
Critical Hdwy	5.74	7.14	-	-	5.34	-
Critical Hdwy Stg 1	6.64	-	-	-	-	-
Critical Hdwy Stg 2	6.04	-	-	-	-	-
Follow-up Hdwy	3.82	3.92	-	-	3.12	-
Pot Cap-1 Maneuver	41	224	-	-	141	-
Stage 1	68	-	-	-	-	-
Stage 2	374	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	35	224	-	-	141	-
Mov Cap-2 Maneuver	59	-	-	-	-	-
Stage 1	68	-	-	-	-	-
Stage 2	316	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	34.2	0	0.4
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	59	224	141	-
HCM Lane V/C Ratio	-	-	0.184	0.18	0.154	-
HCM Control Delay (s)	-	-	39.3	24.6	32.5	-
HCM Lane LOS	-	-	E	C	D	-
HCM 95th %tile Q(veh)	-	-	0.6	0.6	0.5	-

Intersection	
Int Delay, s/veh	5.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	106	71	18	3	62	11	12	1	3	12	0	96
Future Vol, veh/h	106	71	18	3	62	11	12	1	3	12	0	96
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	150	-	-	150	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	115	77	20	3	67	12	13	1	3	13	0	104

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	79	0	0	97	0	0	448	402	87	398	406	73
Stage 1	-	-	-	-	-	-	317	317	-	79	79	-
Stage 2	-	-	-	-	-	-	131	85	-	319	327	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1519	-	-	1496	-	-	521	537	971	562	534	989
Stage 1	-	-	-	-	-	-	694	654	-	930	829	-
Stage 2	-	-	-	-	-	-	873	824	-	693	648	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1519	-	-	1496	-	-	438	495	971	526	492	989
Mov Cap-2 Maneuver	-	-	-	-	-	-	438	495	-	526	492	-
Stage 1	-	-	-	-	-	-	641	604	-	859	827	-
Stage 2	-	-	-	-	-	-	779	822	-	637	599	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	4.1	0.3	12.6	9.6
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	492	1519	-	-	1496	-	-	901
HCM Lane V/C Ratio	0.035	0.076	-	-	0.002	-	-	0.13
HCM Control Delay (s)	12.6	7.6	-	-	7.4	-	-	9.6
HCM Lane LOS	B	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	0.1	0.2	-	-	0	-	-	0.4

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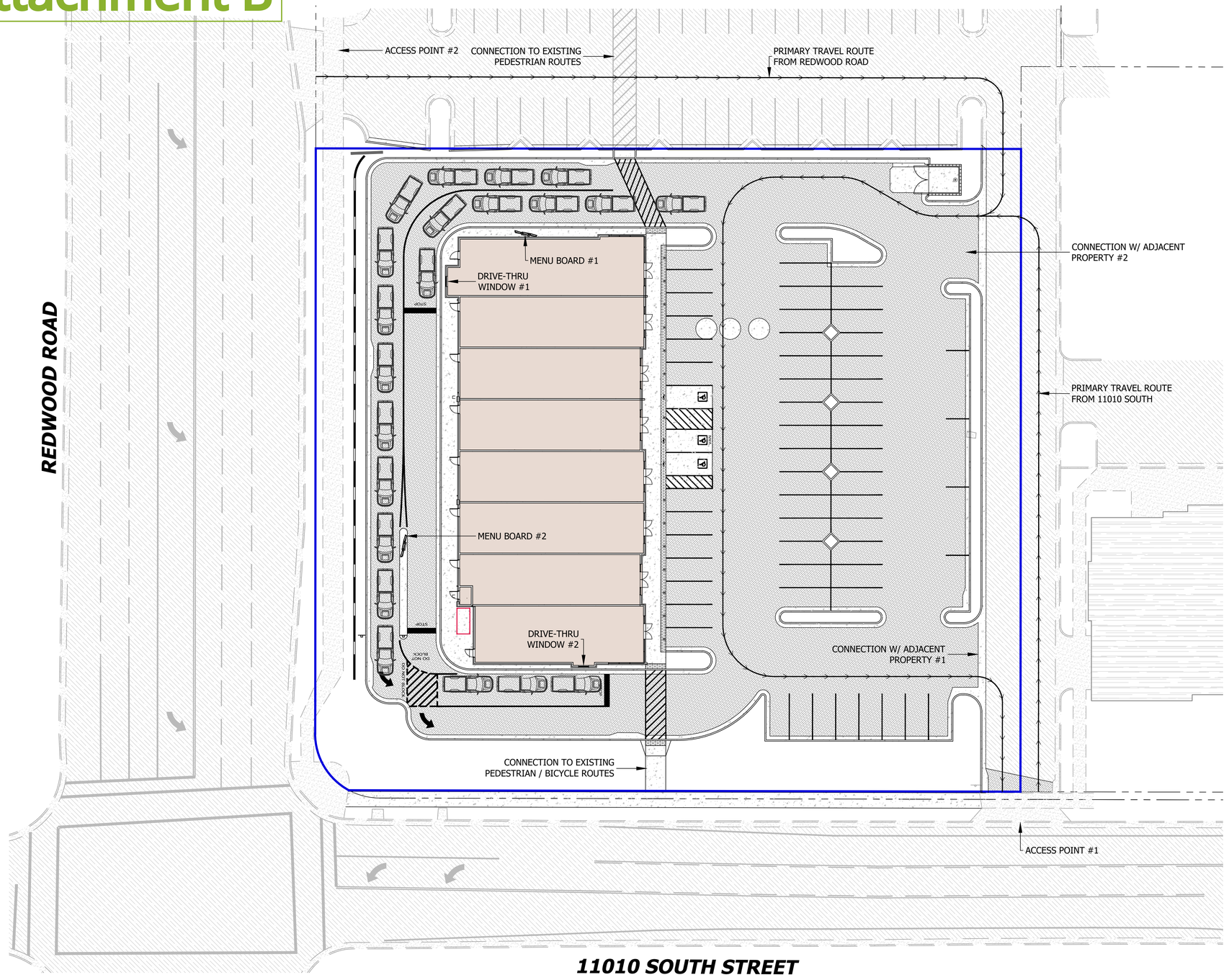
801.664.4724

Attachment B



Circulation & Access Plan Notes

1. NO BICYCLE ROUTES EXIST NEAR THIS DEVELOPMENT. CONNECTION TO THE EXISTING ROUTES WITHIN THE 11010 SOUTH R.O.W. AND THE EXISTING DEVELOPMENT TO THE NORTH HAVE BEEN PROVIDED ALONG THE FRONT OF THE STORE.

ADJACENT ROADS:
- REDWOOD ROAD
- 11010 SOUTH STREET

PROVIDED ACCESS POINTS:
- REDWOOD ROAD
- 11010 SOUTH STREET

PRIMARY TRAVEL ROUTES:
- SEE PLAN

DROP-OFF & PICK-UP AREAS:
- NOT APPLICABLE

STACKING & QUEUING AREAS:
- SEE PLAN

CONNECTION WITH ADJACENT PROPERTIES:
- 2 TOTAL PROVIDED

PEDESTRIAN & BICYCLE ROUTES:
- 2 TOTAL CONNECTIONS PROVIDED

HUNT · DAY
3445 Antelope Drive, St 200
Syracuse, UT 84075
PH: 801.664.4724
EM: Thomas@HuntDay.co

PROJECT TITLE

SOUTH JORDAN RETAIL

REDWOOD RD & 11010 SOUTH ST
SOUTH JORDAN CITY, UT

LOCATED IN THE SE QUARTER OF SECTION 15
AND NE QUARTER OF SECTION 22,
TOWNSHIP 3S, RANGE 1E, SL BASE AND MERIDIAN

REVISIONS

REV.	DATE	DESCRIPTION	BY
3	02-01-2025	CITY COMMENTS	TP
2	12-23-2024	CITY COMMENTS	TP
1	11-08-2024	CITY COMMENTS	TP
0	09-27-2024	INITIAL SUBMITTAL	TP

SEAL

PROFESSIONAL ENGINEER
THOMAS F. HUNT
03-20-2025
STATE OF UTAH

VERIFY SCALES

BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"

IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

PROJECT INFO.

Engineer:	T. Hunt
Drawn:	T. Pridemore
Date:	09 / 13 / 2024
Proj. No.	146 - 05

SHEET TITLE

CIRCULATION AND ACCESS PLAN

SHEET NO.

F1

Attachment D

SPECTRUM ENGINEERS
Lighting Design
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February 28, 2025

Element Design Collective
Clayton Kitterman
470 North 500 West
Bountiful, UT 84010
(801) 698-6685
clayton@element-design.co

10983 S REDWOOD ROAD RETAIL NOISE STUDY

We appreciate the opportunity to work on the noise study for the 10983 S Redwood Road project in South Jordan, UT. The following report documents sound measurements for analysis of the noise impact to the adjacent properties, including residential neighbors. Site observations and sound level measurements were made on Wednesday February 12 and Thursday, February 13, 2025.

NOISE ORDINANCE

As shown in Appendix A, South Jordan requires a sound study for projects that include drive-through facilities. This requirement refers to the Salt Lake County Health Department Health Regulation #21[1] for setting the maximum permissible environmental noise levels based on sound characteristics and neighboring property zoning classification.

Figure 1 shows the project site and zoning classifications of all adjacent sites. According to the Salt Lake County classifications, both the Village Mixed Use and Multiple Family Residential zones fall into the Type B Noise Area, having the most restrictive limits, and the following maximum sound levels apply:

Table 1: Maximum allowable levels, Lp re 20 x 10^{-6} Pa

Time	**Daytime** (7:00 AM to 10:00 PM)	**Nighttime** (10:00 PM to 7:00 AM)
Equivalent Sound Pressure Level **Leq**	10 dBA above ambient sound not to exceed **65** dBA L_{eq}	5 dBA above ambient sound not to exceed **55** dBA L_{eq}
Maximum Sound Pressure Level **Lmax**	**100** dBA	**70** dBA

[1] Salt Lake County Health Department Health Regulation #21, *Community Noise Pollution Control*, Amended October 3, 2019, Under Authority of Section 26A-1-114, Utah Code Ann.

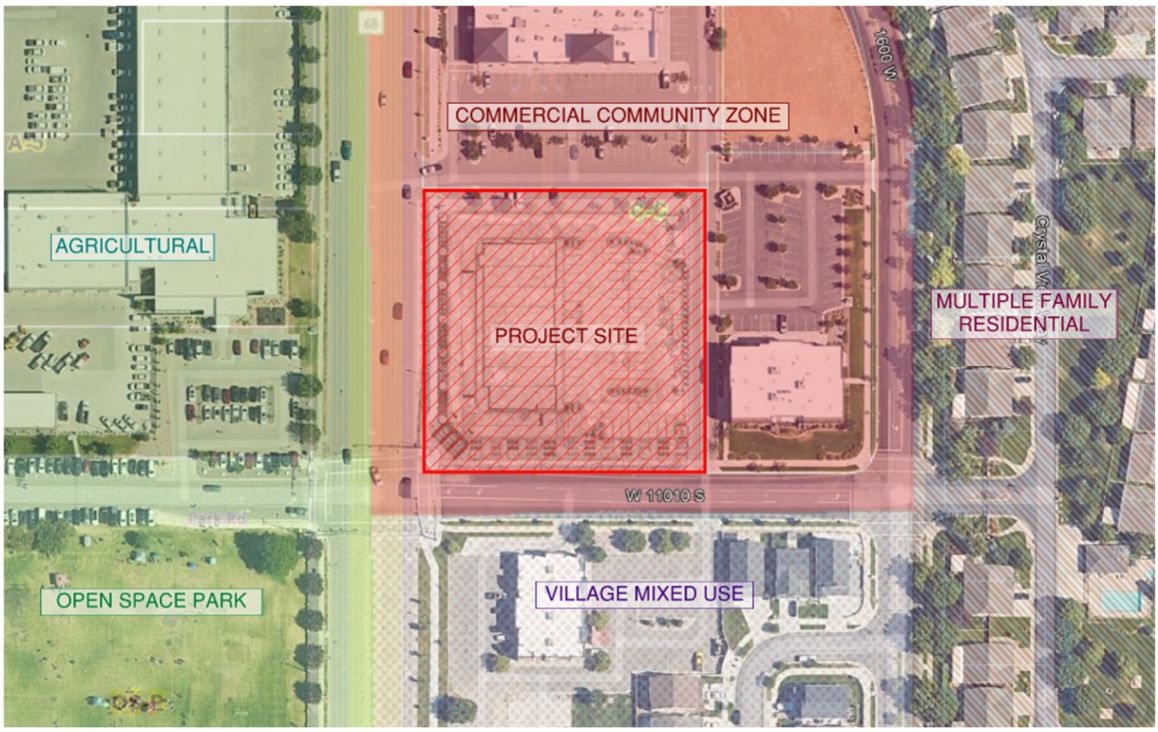


Figure 1: Project and adjacent sites zoning classification

EXISTING CONDITIONS

The site is currently empty, and at essentially the same elevation of all adjacent sites. There is a gradual decrease of approximately 7' in elevation from Redwood Road to the east project property line. There is a commercial building immediately north of the project that includes a drive-through facility (Beans & Brews), as shown in Figure 2:

Figure 2: Beans & Brews location adjacent to project site

Redwood Road and local access traffic were observed as the the main sources of environmental noise throughout the area.

MEASURED SOUND LEVELS

Current ambient sound level data for the area was obtained through long-term sound measurements at the site, at approximately 246' from Redwood Road centerline – by the existing sign, as shown in Figure 3.

The microphone was mounted on a tripod at 5' from the ground, with the sound level meter enclosed in a weather-proof case.

Results for this location are summarized in Figure 4, along with calculated values at 80' from Redwood Road centerline – coinciding with the planned location of the west facing menu board.

All measurement equipment used is listed in Appendix B, and long-term measurement details for both days are in Appendix C.

Figure 3: Long term ambient sound measurement location

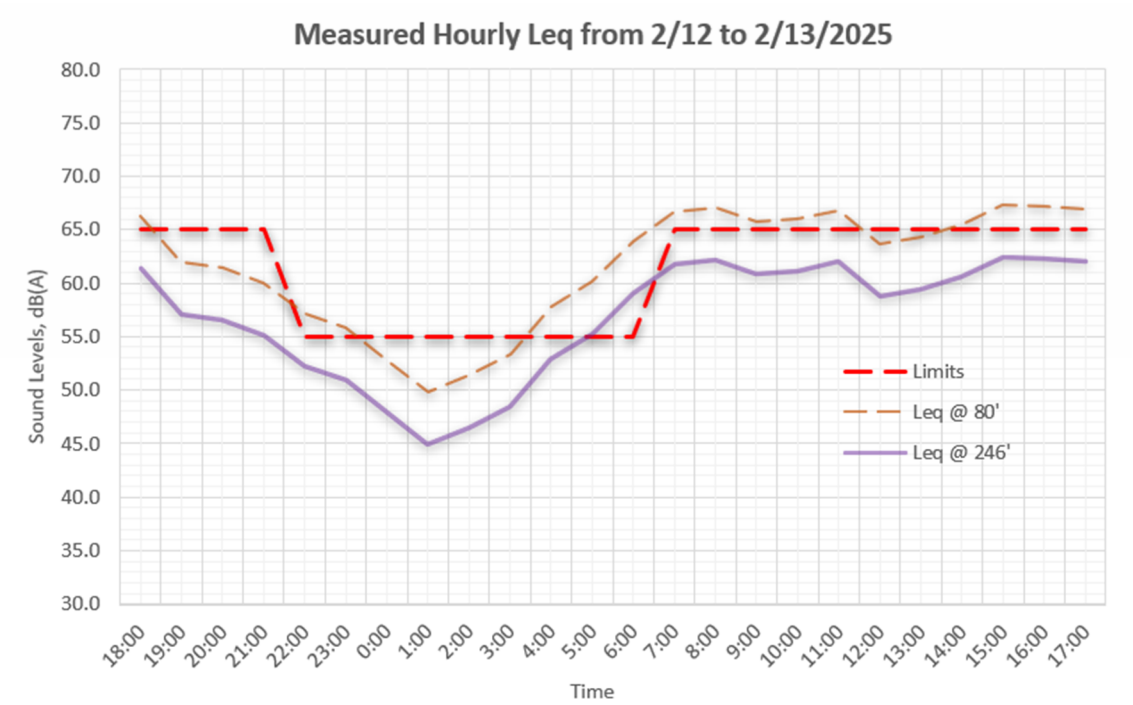


Figure 4: Measured ambient sound pressure levels, Lp re $20x10^{-6}$ Pa

Sound levels from local drive-through activities were measured in the evening of February 12, 2025 between 6:30 pm and 7:30 pm. The locations were the adjacent Beans & Brews and the nearest McDonald's (with two ordering lanes) at 10600 South and Redwood Road. The sound level meter was held at approximately 4' from the ground, through a car window, representing typical ordering height. Both sets of measurements were taken at 25' from the menu boards, approx. 45 degrees ahead in the direction of the ordering lanes.

Continuous 15 min. measurements[2] resulted in an average sound level of 62 dB(A) Leq at the Beans and Brews location and 62.5 dB(A) Leq at the McDonald's location – even with several orders. This data was used as reference for projecting the expected noise impact for the future drive through facilities, as illustrated in Figure 5.

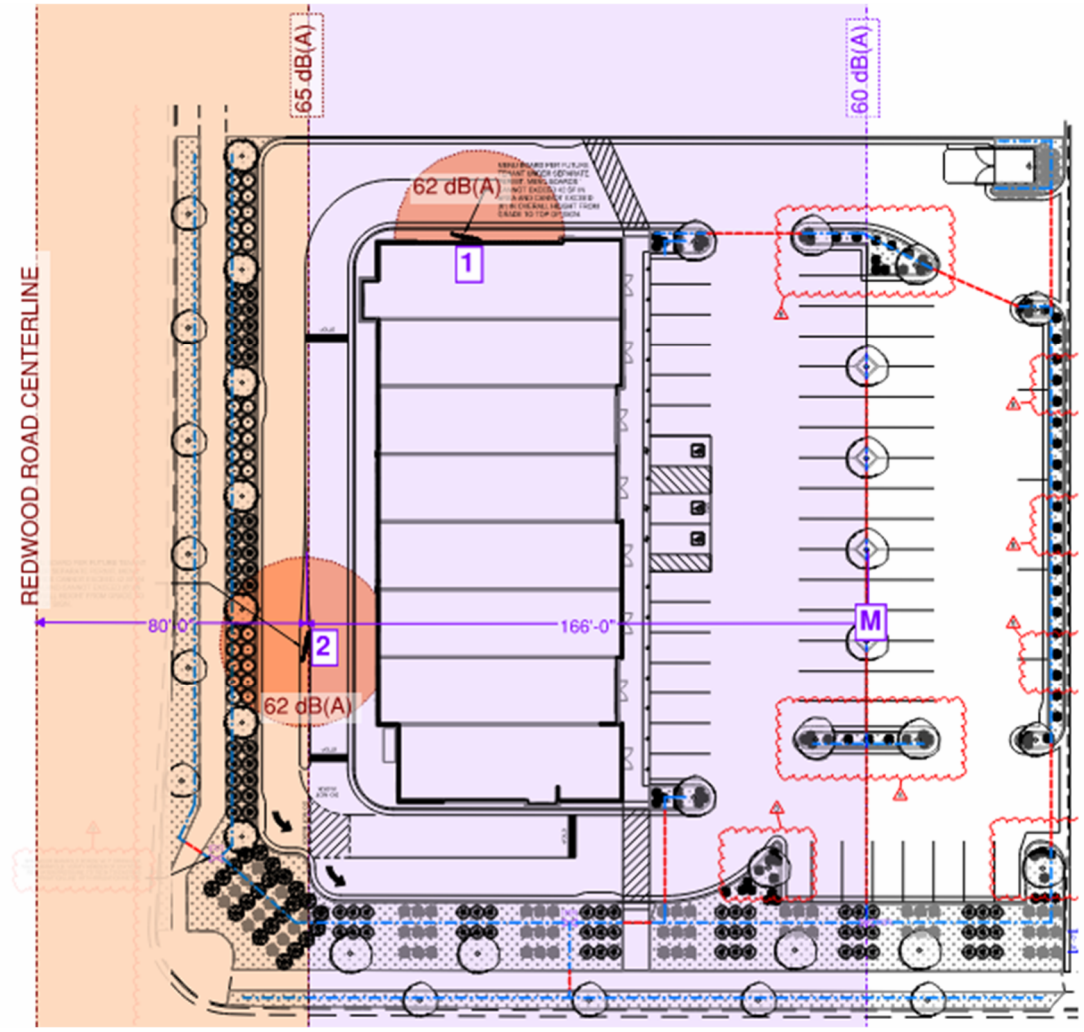


Figure 5: Ambient sound levels and projected drive through noise impact

[2] See Appendix D

The project south property line is directly adjacent to a Village Mixed Use Zone (Type B Noise Area), making this the closest neighboring site for which the sound level limits need to be applied.

Table 2 lists the expected equivalent sound levels (Leq) directly south of the west menu board (labeled "2" in Figure 5):

Table 2: Projected sound pressure levels Leq re 20 x 10^{-6} Pa

Distance from menu board	Ambient sound levels	Drive-through activity sound levels	Total projected sound levels
100'	65 dB(A)	50 dB(A)	65 dB(A)

CONCLUSIONS

Current vehicle traffic noise is the dominant factor in the overall ambient sound levels at all visited locations. We expect that future drive-through activity will have sound levels within regulation limits, as long as their menu boards have typical setup, equivalent to the menu boards at the reference locations described in this report.

We can provide additional information if necessary. Please call if there are further questions.

Sincerely,

SPECTRUM ENGINEERS, INC.

Margot Dallinga, M. Eng.
Acoustician

Appendix A: City of South Jordan Municipal Code – Chapter 17.18

Sec. 17.18.040: IMPACT CONTROL MEASURES

D. Sound Study: The purpose of a sound study is to determine the potential for detrimental effects from sound generated by the proposed use or project. A sound study shall be commissioned, at the expense of the applicant, from a member of a national acoustical association (i.e., National Council of Acoustical Consultants, Acoustical Society of America, or Institute of Noise Control Engineering) or an expert consultant with demonstrated experience and capacity as determined by the Planning Director. The sound study shall include sufficient information to determine the **likelihood of compliance with Salt Lake County Health Department noise regulations** and the requirements of this title. All uses that meet any of the following criteria shall provide a sound study:

1. Initial establishment of uses identified in the required impact control measures table in subsection H of this section.
2. All nonresidential uses that anticipate using outdoor speakers or public address systems.
3. Initial establishment of the following uses shall require a sound study when located within three hundred feet (300') of a property line of a Residential Zone, an existing dwelling unit, a religious assembly use, or an elementary, secondary education use:
    1. Outdoor animal activities associated with nonresidential uses, including kennels, runs and corrals.
    2. **Drive-through facilities**.
    3. Car washes or car vacuums.

https://southjordan.municipalcodeonline.com/book?type=ordinances#name=17.18.040:_IMPACT_CONTROL_MEASURES

Appendix B: Sound Measurement Equipment

Description	Manufacturer	Model	Serial Number
Type 1 Logging Sound Level Meter	Larson Davis	SoundExpert LxT	0004099
Type 1 Microphone	Larson Davis	377B02	151292
Type 1 Preamp	Larson Davis	PRMLxT1L	035971
Calibrator	Bruel & Kjaer	4231	2725454
Type 1 Sound Level Meter	Bruel & Kjaer	2270	2706584
Type 1 Microphone	Bruel & Kjaer	4966	3241608
Type 1 Preamp	Bruel & Kjaer	ZC 0032	30288

SPECTRUM ENGINEERS

SoundExpert 821 Summary: 2025-02-27 14:54:19

User: MFD

Location: 10983 S Redwood Rd

Job Description: Retail Sound Study

Notes: Noise impact to neighbors

Appendix C:

Meter General Information

	Model	Serial
Meter	SoundExpert 821	40197
Preamp	PRM821	001549
Microphone	377B02	354421
Unique File Id	00C:00009D05:67ACECA4:0000405E	

Overall Measurement

Start Date & Time	2025-02-12 18:47:00		
Stop Date & Time	2025-02-13 00:00:00		
Run Time	05:13:00		
Pre-Calibration Deviation (Cal Lvl)	-0.12 dB(114.0 dB)	2024-03-14 15:59:25	
Pre-Sensitivity	-25.55 dB re 1V/Pa		
Post-Calibration Deviation (Cal Lvl)	---(---)	---	
Post-Sensitivity	---		
L_{AIeq}	60.2 dB		
	A	C	Z
L_{weq}	57.7	66.1	71.4
L_{wpk}	114.2 dB	112.6 dB	117.2 dB
	2025-02-12 18:49:05	2025-02-12 18:49:05	2025-02-12 18:49:05
L_{wSmin}	39.3 dB	54.1 dB	57.7 dB
	2025-02-12 23:46:19	2025-02-12 21:57:00	2025-02-12 23:58:07
L_{wSmax}	86.0 dB	87.6 dB	90.8 dB
	2025-02-12 19:13:45	2025-02-12 19:31:48	2025-02-12 18:49:06
L_{wFmin}	38.5 dB	52.2 dB	55.3 dB
	2025-02-12 23:46:10	2025-02-12 23:47:44	2025-02-12 21:56:53
L_{wFmax}	88.3 dB	88.6 dB	95.8 dB
	2025-02-12 19:13:44	2025-02-12 19:31:46	2025-02-12 18:49:06
L_{wImin}	40.4 dB	56.3 dB	60.5 dB
	2025-02-12 23:46:19	2025-02-12 21:56:52	2025-02-12 23:56:50
L_{wImax}	90.5 dB	91.2 dB	98.7 dB
	2025-02-12 18:49:05	2025-02-12 19:31:41	2025-02-12 18:49:05

w = frequency weighting (A, C or Z)

Community Noise	**LDN**	**LDay (07:00-22:00)**	**LNight (22:00-07:00)**
	61.5 dB	59.0 dB	53.9 dB
	LDEN	**LDay (07:00-19:00)**	**LEve (19:00-22:00)**	**LNight (22:00-07:00)**
	62.5 dB	60.3 dB	58.9 dB	53.9 dB

L_{Ceq} - L_{Aeq}	8.4 dB		
Overload Count	0		
Overload Duration	00:00:00		
	A	C	Z
Under Range Peak	50.0 dB	50.0 dB	62.0 dB
Under Range Limit	24.0 dB	27.0 dB	37.0 dB
Noise Floor	17.0 dB	18.0 dB	25.0 dB

Ln Percentiles

$L_{AS\ 5.0}$	61.4 dB
$L_{AS\ 10.0}$	60.2 dB
$L_{AS\ 33.3}$	57.0 dB
$L_{AS\ 50.0}$	54.7 dB
$L_{AS\ 66.6}$	52.4 dB
$L_{AS\ 90.0}$	46.8 dB

Exceedances

	Count	**Duration**
L_{ZS} **> 85 dB**	19	70
L_{ZS} **> 95 dB**	0	0
L_{Zpk} **> 135 dB**	0	0
L_{Zpk} **> 137 dB**	0	0
L_{Zpk} **> 140 dB**	0	0

SoundExpert 821 Summary: 2025-02-27 14:52:05

User: MFD

Location: 10983 S Redwood Road

Job Description: Retail Sound Study

Notes: Noise impact to neighbors

Meter General Information

	Model	Serial
Meter	SoundExpert 821	40197
Preamp	PRM821	001549
Microphone	377B02	354421
Unique File Id	00C:00009D05:67AD3600:0000414B	

Overall Measurement

Start Date & Time	2025-02-13 00:00:00		
Stop Date & Time	2025-02-13 19:35:05		
Run Time	19:35:01		
Pre-Calibration Deviation (Cal Lvl)	-0.12 dB(114.0 dB)	2024-03-14 15:59:25	
Pre-Sensitivity	-25.55 dB re 1V/Pa		
Post-Calibration Deviation (Cal Lvl)	---(---)	---	
Post-Sensitivity	---		
L_{AIeq}	64.0 dB		
	A	C	Z
L_{weq}	60.0	84.1	96.3
L_{wpk}	114.4 dB	135.5 dB	139.1 dB
	2025-02-13 19:20:47	2025-02-13 19:21:46	2025-02-13 19:21:46
L_{wSmin}	35.1 dB	51.5 dB	55.2 dB
	2025-02-13 02:44:35	2025-02-13 03:53:47	2025-02-13 03:53:48
L_{wSmax}	83.1 dB	117.0 dB	124.1 dB
	2025-02-13 19:12:58	2025-02-13 19:21:46	2025-02-13 19:21:46
L_{wFmin}	34.1 dB	47.1 dB	52.8 dB
	2025-02-13 02:43:55	2025-02-13 19:33:29	2025-02-13 02:11:59
L_{wFmax}	90.2 dB	124.9 dB	130.1 dB
	2025-02-13 19:20:47	2025-02-13 19:21:46	2025-02-13 19:22:37
L_{wImin}	36.1 dB	54.0 dB	58.2 dB
	2025-02-13 02:44:32	2025-02-13 02:11:31	2025-02-13 03:53:48
L_{wImax}	94.9 dB	128.7 dB	133.6 dB
	2025-02-13 19:20:47	2025-02-13 19:21:46	2025-02-13 19:21:46

Average A-weighed Equivalent Sound Levels used in report

w = frequency weighting (A, C or Z)

Community Noise	**LDN**	**LDay (07:00-22:00)**	**LNight (22:00-07:00)**
	61.5 dB	61.8 dB	50.9 dB
	LDEN	**LDay (07:00-19:00)**	**LEve (19:00-22:00)**	**LNight (22:00-07:00)**
	65.1 dB	61.2 dB	67.2 dB	50.9 dB
$L_{Ceq} - L_{Aeq}$	24.0 dB			
Overload Count	0			
Overload Duration	00:00:00			
	A	C	Z	
Under Range Peak	50.0 dB	50.0 dB	62.0 dB	
Under Range Limit	24.0 dB	27.0 dB	37.0 dB	
Noise Floor	17.0 dB	18.0 dB	25.0 dB	

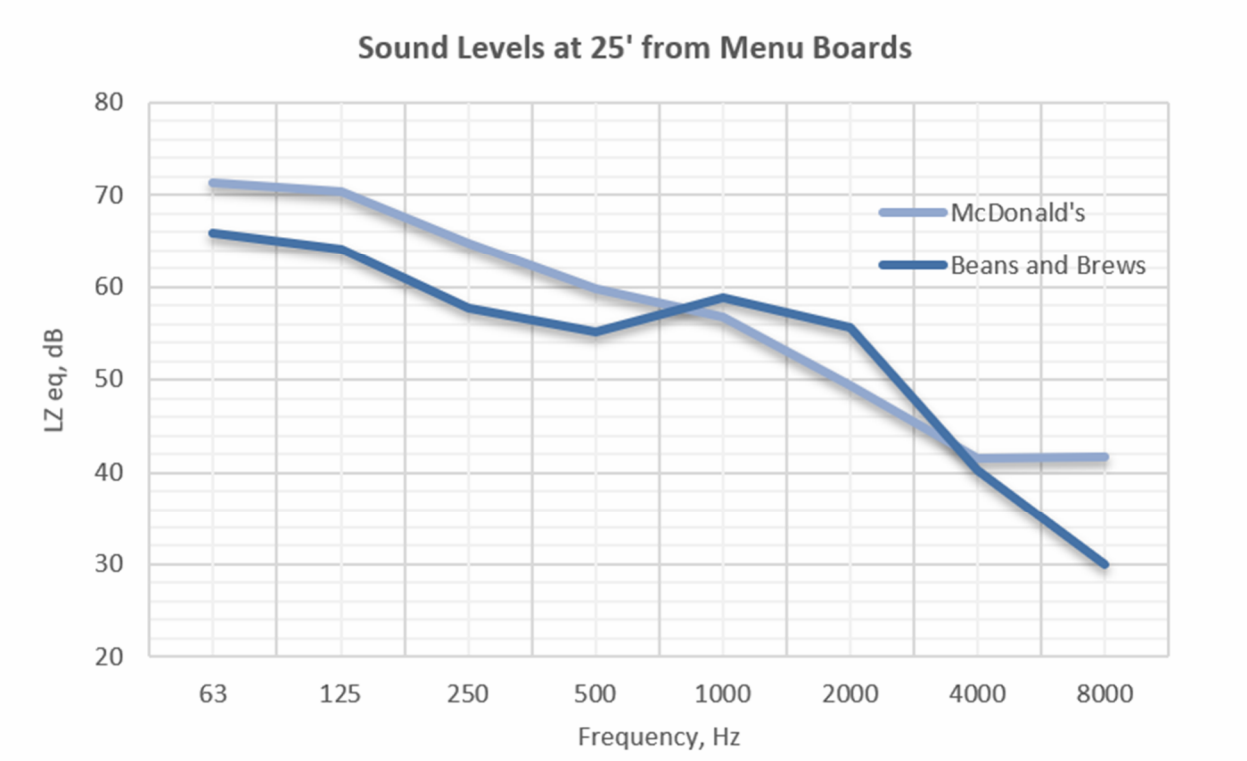
Ln Percentiles

$L_{AS\ 5.0}$	65.1 dB
$L_{AS\ 10.0}$	63.7 dB
$L_{AS\ 33.3}$	59.5 dB
$L_{AS\ 50.0}$	56.7 dB
$L_{AS\ 66.6}$	52.7 dB
$L_{AS\ 90.0}$	39.8 dB

Exceedances

	Count	**Duration**
L_{ZS} **> 85 dB**	1288	46061
L_{ZS} **> 95 dB**	1750	24435
L_{Zpk} **> 135 dB**	2	2
L_{Zpk} **> 137 dB**	2	2
L_{Zpk} **> 140 dB**	0	0

Appendix D: Average Sound Levels (15 min. average) at Drive-Through Locations



Attachment E

17.18.040: IMPACT CONTROL MEASURES

Impact control measures, as explained by this section, generally apply to allowed uses when the context or scale of a proposed project increases the potential for negative impacts (e.g., traffic, sound, hazardous waste, light, vibration, odor, glare, etc.) on surrounding properties or on the public health, safety, and welfare. Additional measures may be required of conditional uses, according to section 17.18.050, "Conditional Uses", of this chapter. Impact control measures do not apply to permitted uses that are accessory to an established residential primary use. The City Engineer and Planning Director may modify the requirements of a required impact control measure upon the applicant's showing of good cause (a reason rationally related to the development) and in the best interest of the City. With all required impact control measures, the applicant shall provide the applicable documentation, at the applicant's expense, and demonstrate that the design of a project and operation of the use will adequately mitigate the contextual impact. If the City Engineer or Planning Director determine that the regulations of this section conflict with other regulations of this Code, the more restrictive regulations shall apply.

A. Traffic Study: The purpose of a traffic study is to identify the extent of traffic impacts generated by a use or project on transportation system capacity, level of service, and safety. At applicant's expense, the City shall commission a traffic study from a licensed professional engineer. The applicant shall pay the fee for the traffic study prior to the commencement of the study. Proposed uses and projects that meet any of the following criteria shall provide a traffic study:

1. Initial establishment of uses identified in the required impact control measures table in this section.
2. Project that may generate more than one hundred (100) trips in a peak hour or one thousand (1,000) total daily trips.
3. New construction project that exceeds ten (10) acres.
4. All uses proposing to access residential streets and that may generate more than twenty five (25) trips in a peak hour or two hundred fifty (250) total daily trips.

B. Circulation And Access Plan: The purpose of a circulation plan is to identify a proposed project's potential traffic conflicts generated by proposed access points and vehicular, pedestrian, and bicycle routes. The circulation plan shall show adjacent roads, access points, primary travel routes, drop off and pick up areas, stacking and queuing areas, connections with adjacent properties, and pedestrian and bicycle routes. All projects that meet any of the following criteria shall provide a circulation and access plan:

1. Initial establishment of uses identified in the required impact control measures table in subsection H of this section.
2. New construction projects proposing the use of a drive-through, car wash, or vehicle bay.
3. Projects that require a traffic study per subsection A of this section.
4. Projects that include proposed private streets in residential areas.

C. Operations Plan: The purpose of an operations plan is to identify the potential sound, vibration, light, glare, odor, crime, hazardous materials, fire, and environmental impacts generated by a use or project based on the operational nature, scale, or practices of an establishment. The operations plan shall include the following information, if applicable: date of commencement of operations; proposed hours and days of operation; a general description of the operation; a projection of the number of persons on site (e.g., employees and customers); types of

accessory uses anticipated; hazardous materials to be used or produced on site; and all other relevant information to describe the nature, scale, practices of the establishment. Initial establishment of uses identified in the required impact control measures table in subsection H of this section shall provide an operations plan.

D. Sound Study: The purpose of a sound study is to determine the potential for detrimental effects from sound generated by the proposed use or project. A sound study shall be commissioned, at the expense of the applicant, from a member of a national acoustical association (i.e., National Council of Acoustical Consultants, Acoustical Society of America, or Institute of Noise Control Engineering) or an expert consultant with demonstrated experience and capacity as determined by the Planning Director. The sound study shall include sufficient information to determine the likelihood of compliance with Salt Lake County Health Department noise regulations and the requirements of this title. All uses that meet any of the following criteria shall provide a sound study:

    1. Initial establishment of uses identified in the required impact control measures table in subsection H of this section.

    2. All nonresidential uses that anticipate using outdoor speakers or public address systems.

    3. Initial establishment of the following uses shall require a sound study when located within three hundred feet (300') of a property line of a Residential Zone, an existing dwelling unit, a religious assembly use, or an elementary, secondary education use:

        a. Outdoor animal activities associated with nonresidential uses, including kennels, runs and corrals.

        b. Drive-through facilities.

        c. Car washes or car vacuums.

E. Rehabilitation And Containment Plan: A containment plan shall be prepared by a qualified expert documenting hazardous materials to be stored, used, or produced in significant quantities and the policies and practices to prevent and contain the accidental or inappropriate discharge of those materials. The plan shall demonstrate that the proposed use will comply with all State and Federal requirements and that the public and the environment will be protected from hazardous conditions. A rehabilitation plan shall also include actions that will be taken upon cessation of activities or uses involving potentially hazardous materials to ensure that the site is free from hazardous materials for future activities or uses. A containment and rehabilitation plan shall be provided for the following uses:

    1. Uses identified in the required impact control measures table in subsection H of this section.

    2. Accessory uses that involve significant quantities of hazardous materials.

F. Additional Notice: The purpose of the additional notice control measure is to ensure that property owners are notified of uses and projects with a greater likelihood for negative impacts on properties beyond the immediate vicinity. Uses and projects requiring additional notice according to this section shall provide notice to all property owners of record within six hundred feet (600') of the boundary of the subject property for any statutorily required public hearing, in addition to other noticing requirements of this Code and State law. The additional notice requirement shall apply to the following uses and projects:

    1. Initial establishment of uses identified in the required impact control measures table in this section.

    2. New construction projects that exceed ten (10) acres.