NOTICE OF A REGULAR
PLANNING COMMISSION MEETING
September 3, 2025, at 6:00 PM

PUBLIC NOTICE is hereby given that the Vineyard Planning Commission will hold a regularly scheduled Planning Commission meeting on Wednesday, September 3, 2025, at 6:00 PM, in the City Council Chambers at City Hall, 125 South Main Street, Vineyard, UT. This meeting can also be viewed on our live stream page.

1. **CALL TO ORDER/INVOCATION/INSPIRATIONAL THOUGHT/PLEDGE OF ALLEGIANCE**

2. **PRESENTATIONS/RECOGNITIONS/AWARDS/PROCLAMATIONS**

3. **PUBLIC COMMENTS PC**
   Time dedicated for public comment. Comments will be limited to three (3) minutes. No actions may be taken by the Planning Commission due to the need for proper public noticing.

4. **CONSENT ITEMS**
   4.1. Approval of the August 20th, 2025 Planning Commission Meeting Minutes

5. **BUSINESS ITEMS**
   5.2. PUBLIC HEARING: Transportation Master Plan

   5.3. PLAN25-0015 Conditional Use permit 191 W Sycamore Ln. - Preschool
   A new preschool in Vineyard is seeking approval of a conditional use permit to allow for up to 10 students per session in its operations.

6. **WORK SESSION**
   6.4. Station Area Plan (SAP)

   6.5. Vineyard Regional Trail Enhancement Project
   Presentation of the Vineyard Regional Trail Enhancements Project, including the proposed intersection at 400 South & 620 East, a Center Street HAWK crossing, and a regional trail connection, with MAG funding.

7. STAFF AND COMMISSION REPORTS

8. ADJOURNMENT

The next regularly scheduled meeting is on September 17th, 2025

The public is invited to participate in all Planning Commission meetings. In compliance with the Americans with Disabilities Act, individuals needing special accommodations during this public meeting should notify Madison Reed, Planning Technician, at least 24 hours prior to the meeting by calling (801) 226-1929 or email at madisonr@vineyardutah.org.

The foregoing notice and agenda were posted on the Utah Public Notice Website and Vineyard Website, posted at Vineyard City Hall, and delivered electronically to city staff and each member of the Planning Commission.

AGENDA NOTICING COMPLETED ON: August 29th, 2025

CERTIFIED (NOTICED) BY: /s/. Madison Reed
Madison Reed, Planning Technician

MINUTES OF A REGULAR
PLANNING COMMISSION MEETING
August 20, 2025, at 6:00 PM

ATTENDANCE:

COMMISSIONERS PRESENT: Chair Nathan Steele, Brad Fagg, David Pearce, Graden Ostler, Caden Rhoton

STAFF PRESENT: Morgan Brim, Community Development Director; Cache Hancey, Senior Planner; Anthony Fletcher, Planner; Madison Reed, Planning Technician; Naseem Ghandour, Public Works Director and City Engineer

OTHERS PRESENT: Jane Pearce, David Lauret, Matt Phillips

1. CALL TO ORDER/INVOCATION/INSPIRATIONAL THOUGHT/PLEDGE OF ALLEGIANCE

Chair Nathan Steele called the meeting to order at 6:00pm. Commissioner Brad Fagg led the invocation and pledge of allegiance.

2. PRESENTATIONS/RECOGNITIONS/AWARDS/PROCLAMATIONS

There were no items.

3. PUBLIC COMMENTS PC

There were no public comments.

4. CONSENT ITEMS

4.1. Approval of the August 6th, 2025 Planning Commission Meeting Minutes

Motion: COMMISSIONER DAVID PEARCE MOTIONED TO APPROVE THE AUGUST 6TH, 2025 PLANNING COMMISSION MINUTES AT 6:01PM. COMMISSIONER GRADEN OSTLER SECONDED. ALL IN FAVOR VOTED YES: FAGG, PEARCE, STEELE, AND OSTLER. THE VOTE CARRIED UNANIMOUSLY.

5. BUSINESS ITEMS

5.2. Allied Sign Site Plan Amendment

Senior Planner Cache Hancey provided context on the application and discussed the compliance with the city code.

Commissioner Caden Rhoton arrived at 6:02pm.

Matt Phillips, the applicant, arrived at 6:03pm.

Chair Steele requested locational context.

Discussion ensued.

Mr. Phillips noted his intention and the purpose for the amendment.

Chair Steele asked about screening.

Mr. Phillips noted that they will likely put up fencing.

Discussion ensued.

Public Works Director and City Engineer Naseem Ghandour entered at 6:08pm.

There were no public comments.

Chair Steele asked about code for screening.

Senior Planner Hancey responding explaining no.

Motion: COMMISSIONER RHOTON MOTOIONED TO APPROVE THE SITE PLAN AMENDMENT AS PRESENTED AT 6:09PM. COMMISSIONER FAGG SECONDED. ALL IN FAVOR VOTED YES: FAGG, PEARCE, STEELE, RHOTON, AND OSTLER. THE VOTE CARRIED UNANIMOUSLY.

6. WORK SESSION

No work items were submitted.

7. STAFF AND COMMISSION REPORTS

Community Development Director Morgan Brim brought up the Utah APA conference.

Planning Technician Madison Reed noted the dates for the conference: October 9th and 10th.

8. ADJOURNMENT

The meeting was adjourned at 6:11pm.

MINUTES CERTIFIED COMPLETE ON:

CERTIFIED (NOTICED) BY: /s/. Madison Reed
Madison Reed, Planning Technician

DRAFT

VINEYARD PLANNING COMMISSION STAFF REPORT

Meeting Date: September 3, 2025
Agenda Item: PUBLIC HEARING: Transportation Master Plan
Department: Public Works
Presenter: Patrick James

Background/Discussion:
Vineyard City has worked with Hales Engineering to develop a new Transportation Master Plan (TMP) along with other guiding transportation planning documents. The TMP is a comprehensive, long-range planning document developed to guide Vineyard City's transportation infrastructure through 2033. The plan supports safe and efficient multi-modal transportation while coordinating with regional growth and development projections.

To reinforce the goals of the TMP, three supplemental documents were prepared:
1. Traffic Calming Guidelines – addresses residential traffic safety.
2. Transportation Impact Study (TIS) Guidelines – sets development traffic analysis standards.
3. Access Management Manual – regulates access control and connectivity.

These policies were developed in coordination with engineering standards, UDOT guidance, and best practices.

SUMMARY OF DOCUMENTS
1. Transportation Master Plan (TMP)
- Identifies existing and future transportation needs based on projected growth.
- Establishes a functional classification system for roadways (arterial, collector, local).
- Sets Level of Service (LOS) thresholds to prioritize traffic flow and pedestrian safety.
- Recommends six capital improvement projects eligible for impact fee funding by 2033.
- Coordinates with future developments including Utah City, Vineyard Connector, and UTA Frontrunner.

2. Traffic Calming Guidelines
- Defines traffic calming as physical measures that reduce vehicle speeds and discourage cut-through traffic.
- Includes measures such as speed humps, chicanes, narrowing lanes, and signage.
- Emphasizes balancing neighborhood livability with emergency response and maintenance needs.

3. Transportation Impact Study (TIS) Guidelines
- Outlines when a TIS is required based on project size and land use type.
- Standardizes analysis methodology for consistency in reviewing development impacts.
- Ensures that proposed developments mitigate impacts to intersections, corridors, and overall network performance.

4. Access Management Manual

- Promotes safe and efficient access to properties while preserving road capacity.
- Recommends spacing of driveways, intersections, and corner clearances based on roadway classification.
- Includes cross-access provisions, visibility triangle requirements, and variance procedures.
- Supports the TMP by limiting congestion and preserving capital investments.

The purpose of this action is to adopt the updated Vineyard City Transportation Master Plan and its three supporting transportation policy documents. These collectively guide future transportation improvements, enhance mobility and safety, and establish review standards for development impacts.

Fiscal Impact:
Adoption of the TMP and related policies provides a basis for capital project planning, impact fee assessments, and external grant applications. No immediate budget allocations are proposed with this adoption.

Recommendation:
Staff recommends the Planning Commission forward a positive recommendation to the City Council to adopt the Vineyard City Transportation Master Plan and the supporting Traffic Calming Guidelines, TIS Guidelines, and Access Management Manual.

Sample Motion:
"I move to recommend approval of the Vineyard City Transportation Master Plan and the supporting Traffic Calming Guidelines, TIS Guidelines, and Access Management Manual."

Attachments:
1. Vineyard Transportation Master Plan 202508
2. Vineyard - Traffic Calming Guidelines 202506
3. Vineyard - TIS Guidelines 202506
4. Vineyard - Access Management Manual 202506

VINEYARD

Transportation Master Plan

August 2025

VINEYARD
STAY CONNECTED

HALES ENGINEERING
innovative transportation solutions

ACKNOWLEDGEMENTS

Vineyard City

Naseem Ghandour, Public Works/Engineering Director

Morgan Brim, Community Development Director

Eric Ellis, City Manager

Vineyard Mayor & City Council

Julie Fullmer, *Mayor*

Brett Clawson, *City Council*

Jacob Holdaway, *City Council*

Mardi Sifuentes, *City Council*

Sara Cameron, *City Council*

Vineyard Planning Commission

Steve Anderson, Commissioner

Bryce Brady, Commissioner

Christopher Bramwell, Commissioner

Brad Fagg, Commissioner

Graden Ostler, Commissioner

Nathan Steele, Commissioner

Consultant Team

Josh Gibbons, PE, PTOE, RSP1

Jordi Berrett, PE, PTOE

Ryan Hales, PE, PTOE, AICP

Jeremy Titensor

Mike Brown, PE, PTOE

TABLE OF CONTENTS

Acknowledgements i

TABLE OF CONTENTS ii

LIST OF TABLES iii

LIST OF FIGURES iv

Introduction 1

- Overview 2
- Demographics 4
- Land Use 5
- Travel Demand Forecasting 8
- Public Engagement 8

Roadway Network 12

- Purpose 13
- Functional Classification 13
- Level of Service Analysis 14
- Existing Conditions 22
- Future (2033) Conditions 29
- Future (2050) Conditions 34

Public Transit & Active Transportation 42

- Purpose 43
- Public Transit 43
- Active Transportation 43

Safety 47

- Purpose 48
- Safety Hotspots 48

Conclusion 50

- Overview 51
- Next Steps 51

LIST OF TABLES

Table 1: Vineyard TAZ summary 5
Table 2: Topics and Comments from the Public Input Meeting 10
Table 3: Roadway Classifications 13
Table 4: Level of Service Descriptions 18
Table 5: Roadway Capacities 21
Table 6: Intersection LOS Criteria 22
Table 7: Recommended Phase 1 Improvement Projects 23
Table 8: Existing Evening Peak Hour Intersection Level of Service 28
Table 9: Future (2033) No-Build Evening Peak Hour Level of Service 29
Table 10: Recommended Phase 2 Improvement Projects 31
Table 11: Future (2033) Build Evening Peak Hour Build LOS 32
Table 12: Future (2050) No-Build Evening Peak Hour Level of Service 34
Table 13: Recommended Phase 3 Improvement Projects 38
Table 14: Future (2050) Build Evening Peak Hour Level of Service 38

LIST OF FIGURES

Figure 1: Vicinity map 3
Figure 2: Vineyard mode split 5
Figure 3: Vineyard Household Growth 6
Figure 4: Vineyard Employment Growth 7
Figure 5: Community Survey Locations 11
Figure 6: Arterial cross-sections 15
Figure 7: Collector cross-sections 16
Figure 8: Local street cross-section 17
Figure 9: Visual representation of LOS 19
Figure 10: Data Collection Locations 20
Figure 11: Existing (2023) Roadway Network and Intersection Control 24
Figure 12: Existing (2023) Roadway Jurisdiction 25
Figure 13: Existing (2023) Roadway Volumes and LOS 27
Figure 14: Future (2033) No-Build Roadway Volumes and LOS 30
Figure 15: Future (2033) Projects 33
Figure 16: Future (2033) Build Roadway Volumes and LOS 35
Figure 17: Future (2050) No-Build Roadway Volumes and LOS 37
Figure 18: Future (2050) Projects 39
Figure 19: Future (2050) Roadway Network and Intersection Control 40
Figure 20: Future (2050) Build Roadway Volumes and LOS 41
Figure 21: Public transit route map 45
Figure 22: Active Transportation 46
Figure 23: Crash Analysis Heat Map 49

INTRODUCTION

OVERVIEW

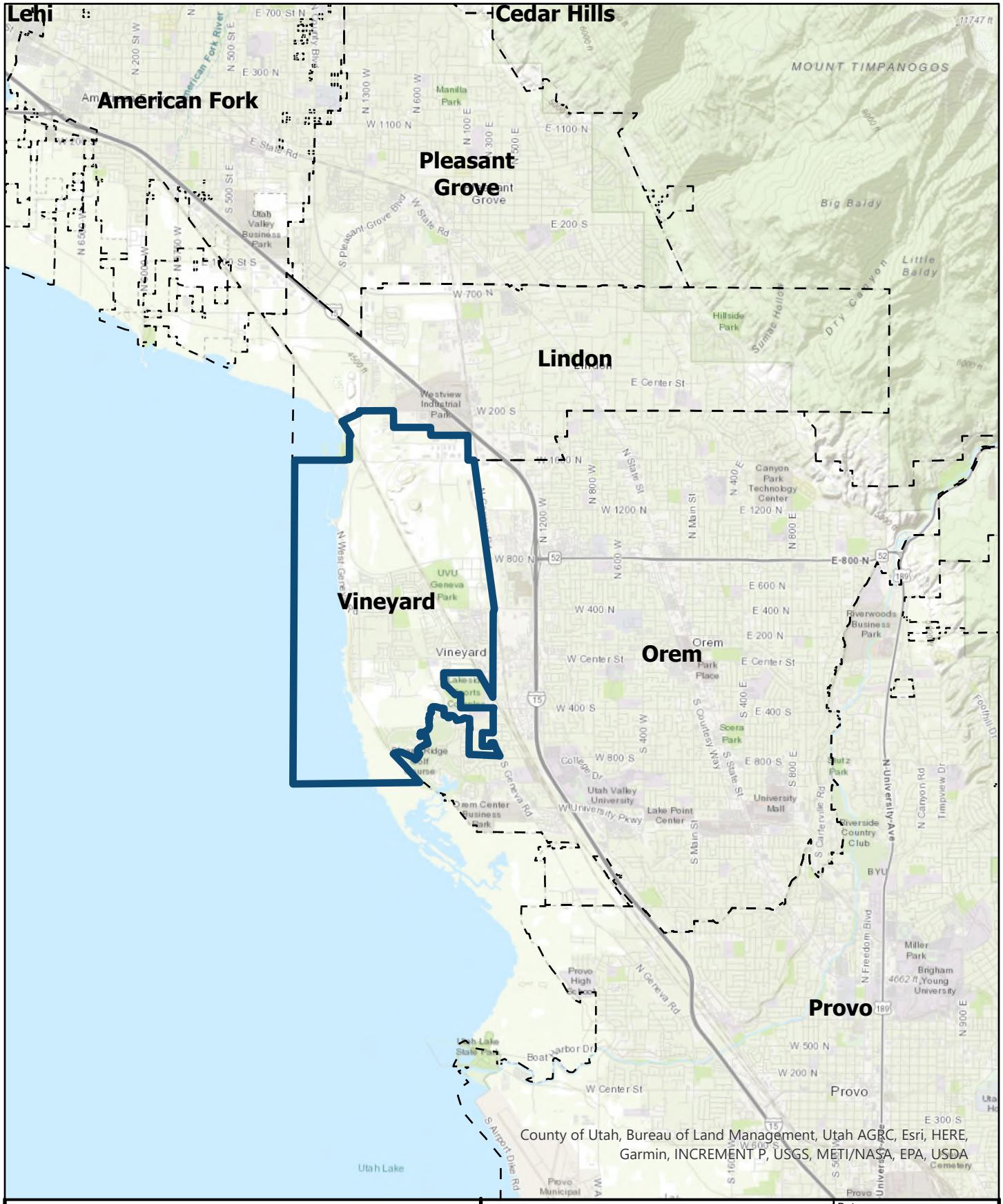
With history back to the 1890s, Vineyard City has most recently experienced rapid growth. The population has increased from 139 residents in 2010, to approximately 14,500 residents in 2023. This growth rate is unmatched in Utah. With this growth comes many challenges and opportunities to provide safe and efficient transportation for the citizens of Vineyard.

The City continues to see rapid growth with the development of Utah City, the Forge, and many other projects in the area. With a high number of residents traveling in and out of the City to commute to work during peak hours, there are existing challenges with transportation in the City. The purpose of this Transportation Master Plan (TMP) is to plan for the multi-modal transportation needs of Vineyard City, accounting for the projected future growth.

Vineyard is in Utah County, Utah, about 9 miles northwest of downtown Provo – bordered by Lindon to the north, Orem to the east, and Utah Lake to the west, as shown in Figure 1.

While numerous traffic studies have been done in or around the Vineyard City, this will be the first edition of the transportation master plan. The Vineyard City TMP is being written with the most current land use plans. Because of large and often unpredictable growth in the City, it will be necessary to update this TMP periodically.

Key to planning for Vineyard's transportation needs is an understanding of the City's goals and policies related to transportation. The other portions of the General Plan include future land use and development plans and goals in the City and how those will be achieved. This TMP provides details regarding the City's transportation needs, including future demand and improvements, to meet the goals outlined by the City. The TMP expands the vision for the General Plan into actionable mobility-related goals and objectives to guide Vineyard's near- and long-term transportation investments.



VINEYARD
STAY CONNECTED
TRANSPORTATION MASTER PLAN

Vicinity Map

Date	3/29/2025
Project	UT23-2453
	Figure 1

DEMOGRAPHICS

This section discusses the demographics of Vineyard City and provides helpful information about how people live, work, and play. These characteristics have a direct impact on the transportation needs of the City. The existing demographics data come primarily from U.S. Census data, including the American Community Survey results.

POPULATION

The population in Vineyard City has grown rapidly in recent years, making it the fastest growing city in Utah. According to the U.S. Census, the population in 2010 was 139. It is estimated that the population in 2023 was approximately 14,500. The median age of the population is approximately 24.8 years, and approximately 29 percent of the population is 18 years or younger.

Population (2023):
14,500

HOUSEHOLDS

Similar growth has occurred for the number of households in Vineyard. According to the U.S. Census, the number of households in Vineyard was 43 in the year 2000. The estimate for households rose to approximately 4,379 in 2023. It is estimated that there are approximately 3.09 persons per household.

Approximately 44 percent of the housing units in the city are owner-occupied with 52 percent of homes being single-family detached units, and the rest being apartments, condos, townhomes, mobile homes, etc. Approximately 98 percent of the residents of Vineyard have moved into the city since 2010. Related to transportation demand, approximately 94 percent of households have at least one vehicle available for use, and approximately one-fourth of households have at least three vehicles.

Households (2023):
4,379

EMPLOYMENT & JOURNEY TO WORK

As of 2023, over 6,100 Vineyard residents were employed, and the median household income was $100,022. Unlike population, the employment opportunities within the City have not seen significant growth until the last few years. Vineyard has seen an increase in regional retail developments along Mill Road between 800 North and 400 North. Data were collected from the U.S. Census American Community Survey results for Vineyard to determine the mode split in the City. The recent mode split in the City based on survey results from 2022 is shown in Figure 2.

As shown, just under three-fourths of workers drive alone in a personal vehicle to work. Approximately 11.5 percent carpool and 3.1 percent ride transit. It is anticipated that as transit, pedestrian, and bicycle facilities improve in the city the percentage of personal vehicle usage for commuting will decrease. The average commute time to work for Vineyard City residents is 20 minutes.

Avg. Commute:
20 min.

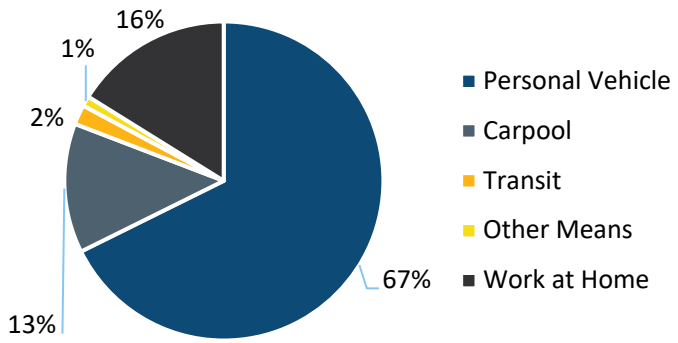


Figure 2: Vineyard mode split

LAND USE

This section discusses plans for existing and future land use in Vineyard City. Land use is a good predictor of transportation trends and demand. Therefore, it is important to identify existing and future land use when planning for transportation needs. There are several parcels within the City limits that are anticipated to experience development in the near future, especially along the Vineyard Connector corridor. Other areas that already have some developed land will experience in-fill development projects that will increase the density of land uses.

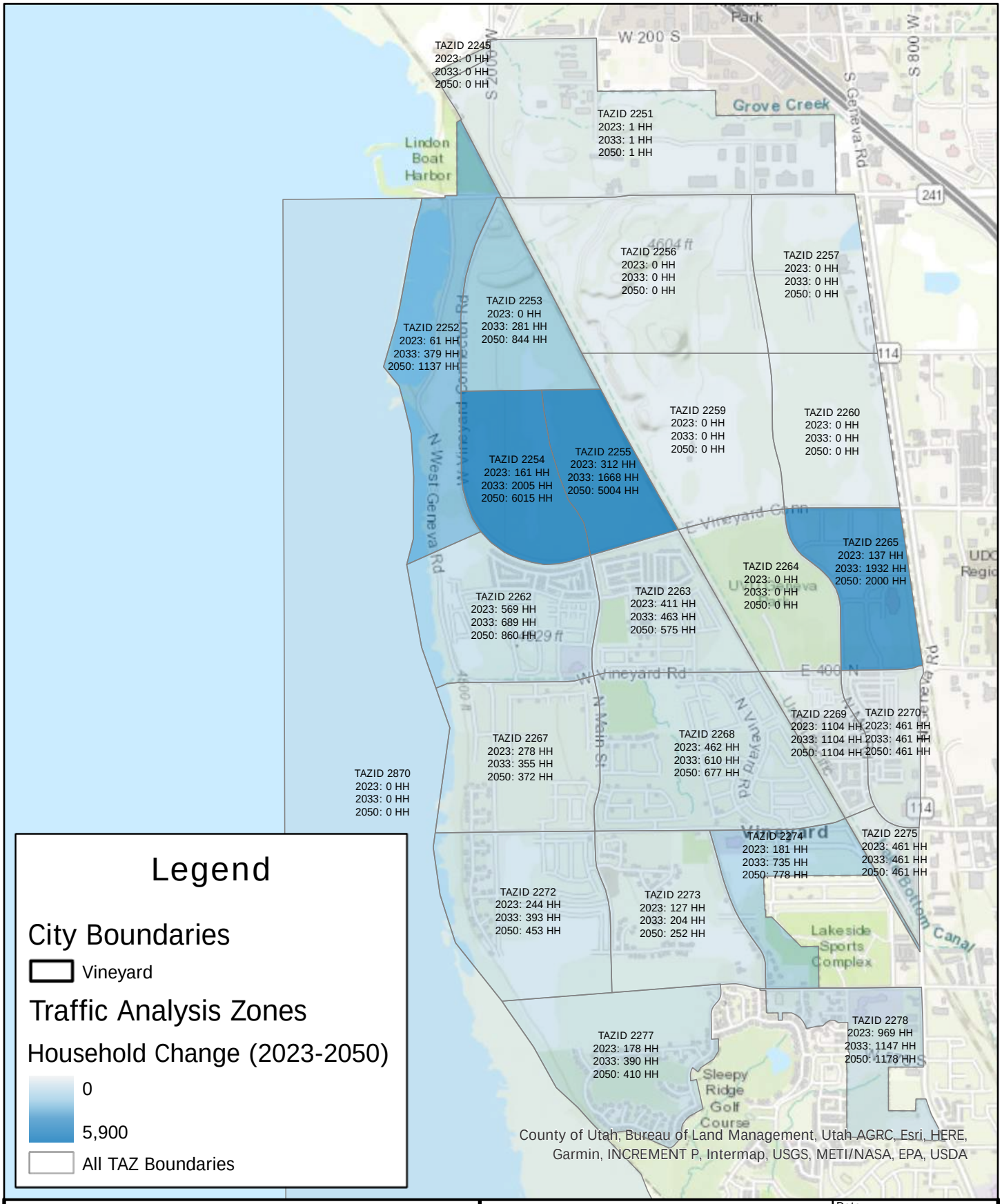
Most of Vineyard City currently consists of residential uses. Existing commercial and office developments are primarily located along the Mill Road corridor. Other land uses that are currently located in the City are K-12 public schools, City buildings, religious buildings, and medical care facilities. In preparation to complete this TMP, Vineyard City staff summarized the projects and land uses that are anticipated to develop in the next twenty years and beyond to help determine future transportation demand in the City.

The baseline (2023) and future job and employment numbers for each traffic analysis zone (TAZ) are summarized in Table 1. Detailed TAZ data is proved in the Appendix. Graphical representations of the household and population growth are provided in Figure 3 and Figure 4.

Table 1: Vineyard TAZ summary

Year	Population	Households	Jobs
2023	17,637	5,583	9,042
2033	36,530	13,278	17,713
2050	56,256	22,582	30,594

Note: Some TAZ's are shared with neighboring cities, so the numbers here will be higher than Vineyard City's own land uses.



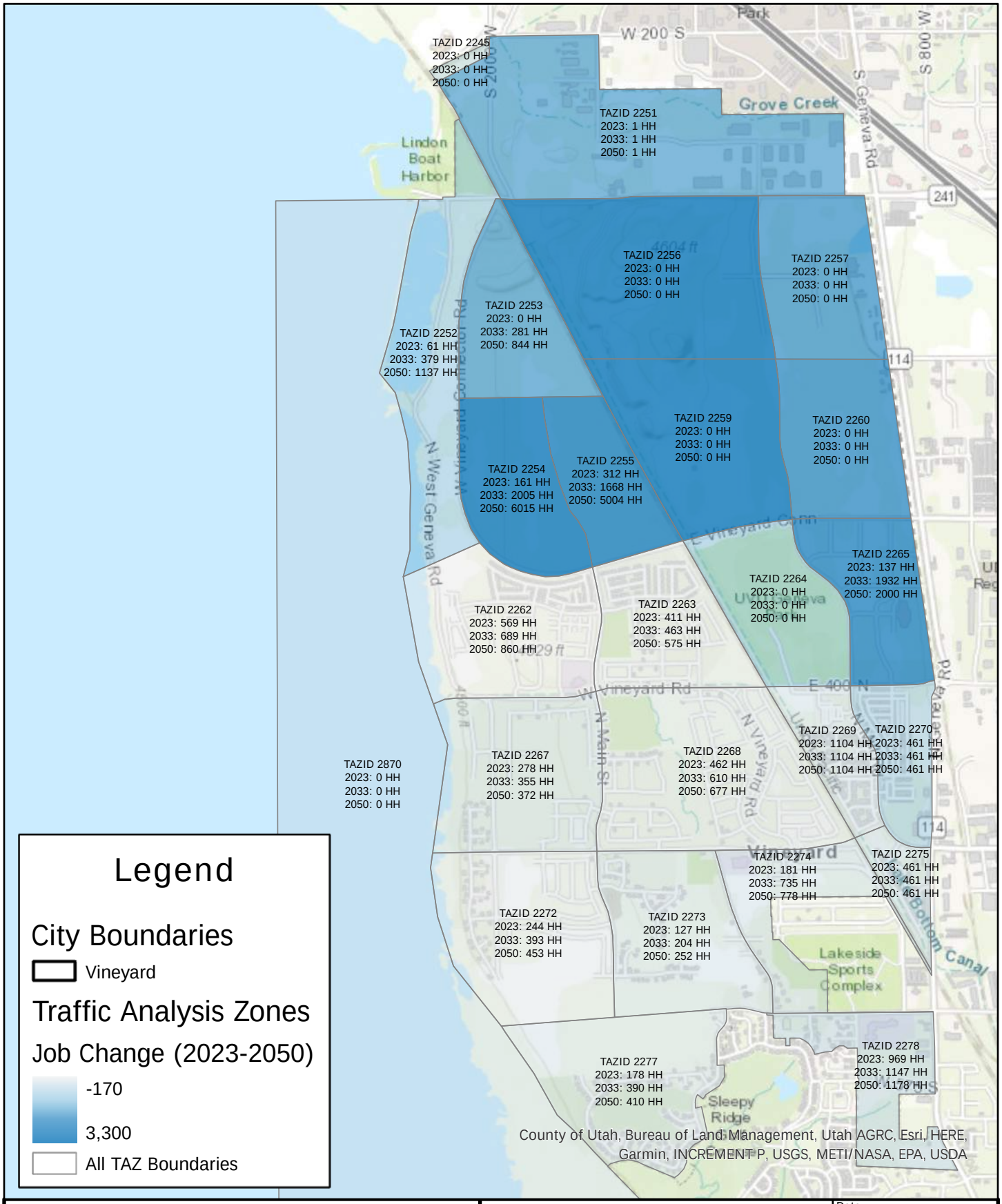
VINEYARD
STAY CONNECTED
TRANSPORTATION MASTER PLAN

Household Heat Map

Date 6/13/2025

Project UT23-2453

Figure 3



VINEYARD
STAY CONNECTED
TRANSPORTATION MASTER PLAN

Employment Heat Map

Date 6/13/2025

Project UT23-2453

Figure 4

TRAVEL DEMAND FORECASTING

Hales Engineering obtained the Mountainland Association of Governments (MAG) Travel Demand Model (v9). Based on the socioeconomic data within that model, various adjustments were made to be in line with the data and assumptions provided by Vineyard City staff. The future land use assumptions, as summarized above in Table 1, were applied to the Vineyard City Travel Demand Model to estimate future roadway volumes throughout the city for future years 2030 and 2050.

Based on the results of the no-build future (2030) and future (2050) volume projections, Hales Engineering determined deficiencies in roadway capacity under no-build conditions, which were then used as a factor in determining future roadway projects. The future travel demand models were then adjusted accordingly based on these projects to obtain future (2033) and future (2050) build conditions. The underlying assumptions, future projects, and results of these analyses are summarized later in this document.

PUBLIC ENGAGEMENT

Local stakeholder involvement and engagement in any TMP is critical to understanding current conditions of the transportation network and to identifying needs for future improvement. Multiple public involvement activities were employed to provide outreach and opportunities for the public to provide input. These activities included one public open house, a community survey, and a web-based story map detailing project development. Additionally, multiple meetings with UDOT, MAG, UTA, Orem City staff, Lindon City staff, and the Vineyard City Council were held to keep key project stakeholders aware of the public input as well as study development.

SOCIAL MEDIA AND ONLINE COMMUNITY SURVEY

Vineyard City hosted a Facebook Live event on Tuesday, April 18, 2023 to educate the public on the TMP process and to spread word of the online survey and upcoming public input meeting and online story map. A basic presentation was given to explain the need for a TMP and the desire for public input to play a crucial road in the outcomes of the study.

An online community survey was created and disseminated via Vineyard City social media channels. The following TMP-related questions were asked in the survey:

1. Which of the following best describes you?
    a. Live, Work, Shop, and/or Recreate in Vineyard
2. How important are the following transportation modes to your personal travel in Vineyard?
    a. Personal Vehicles, Transit, Bicycle, Walking
        i. Five options ranging from “Not Important” to “Very Important”
3. How would you rate your experience with the following modes of transportation?
    a. Personal Vehicles, Transit, Bicycle, Walking
        i. Five options ranging from “Poor” to “Excellent”
4. How would you rate your current travel time in the morning peak hour
    a. “Congested and Slow,” “As Expected,” “Faster than Expected”

5. How would you rate your current travel time in the morning peak hour
    a. "Congested and Slow," "As Expected," "Faster than Expected"
6. How would you improve the Transportation Network in Vineyard
    a. Free Response for
        i. Personal Vehicles, Transit, Bicycle, Walking
7. How long is your commute to work? (optional)
    a. Free response in minutes
8. How often do you currently ride transit?
    a. "3+ days per week," "1-2 days per week," "1-3 days per month," "once every few months," "1-2 days per year," "never"
9. How often would you ride transit if you lived within a 5-minute walking distance of the Vineyard FrontRunner station?
    a. "3+ days per week," "1-2 days per week," "1-3 days per month," "once every few months," "1-2 days per year," "never"
10. From your experience, what is the most congested roadway or intersection during peak hours?
    a. (select on map)
11. What location in Vineyard City do you see as a safety concern for vehicles and/or pedestrians?
    a. (select on map)

A copy of the summarized responses from the online survey is provided in Appendix C. Locations that received comments regarding transportation are shown summarized in the map in Figure 5.

Public Input Meeting

- **Date and Time:** Tuesday April 25, 2023 from 5:30 - 8:30 PM
- **Location:** Freedom Preparatory Academy

An informal open-house style event was held to inform members of the public of the ongoing TMP as well as to obtain crucial public input via the online survey and in-person interactions. Multiple displays were used to convey the goals of the study and to communicate the importance of working with the public to find improvements in the Vineyard City transportation system. A map of the City was printed with markers to allow attendees to write and illustrate their concerns especially. A summary of many of the public comments from this meeting is provided in Table 2.

Table 2: Topics and Comments from the Public Input Meeting

Location	Comments
600 North / Main Street	Excessive eastbound queuing, need for alternative access to Vineyard Connector
600 North	Need more pedestrian crosswalks
Vineyard Loop Road	Speed limit too fast
FrontRunner Tracks	Need for pedestrian connectivity between east and west, potentially at 400 North
Lakeside Sports Park	Excessive congestion during sports season that spills onto Vineyard streets
Vineyard Connector	Need more pedestrian/bike connectivity to connect town to FrontRunner station

City Council Meetings

Date and Time: Wednesday August 30, 2023, 6:00 PM
Location: Vineyard City Hall

An introductory presentation was given, focusing on the elements of the TMP. These included the purpose and goals of the document, existing conditions throughout the city, and a summary of the public input provided to-date, projected future conditions, and potential projects to include to address future transportation-related concerns.

Date and Time: Wednesday March 6, 2024, 6:00 PM
Location: Vineyard City Hall

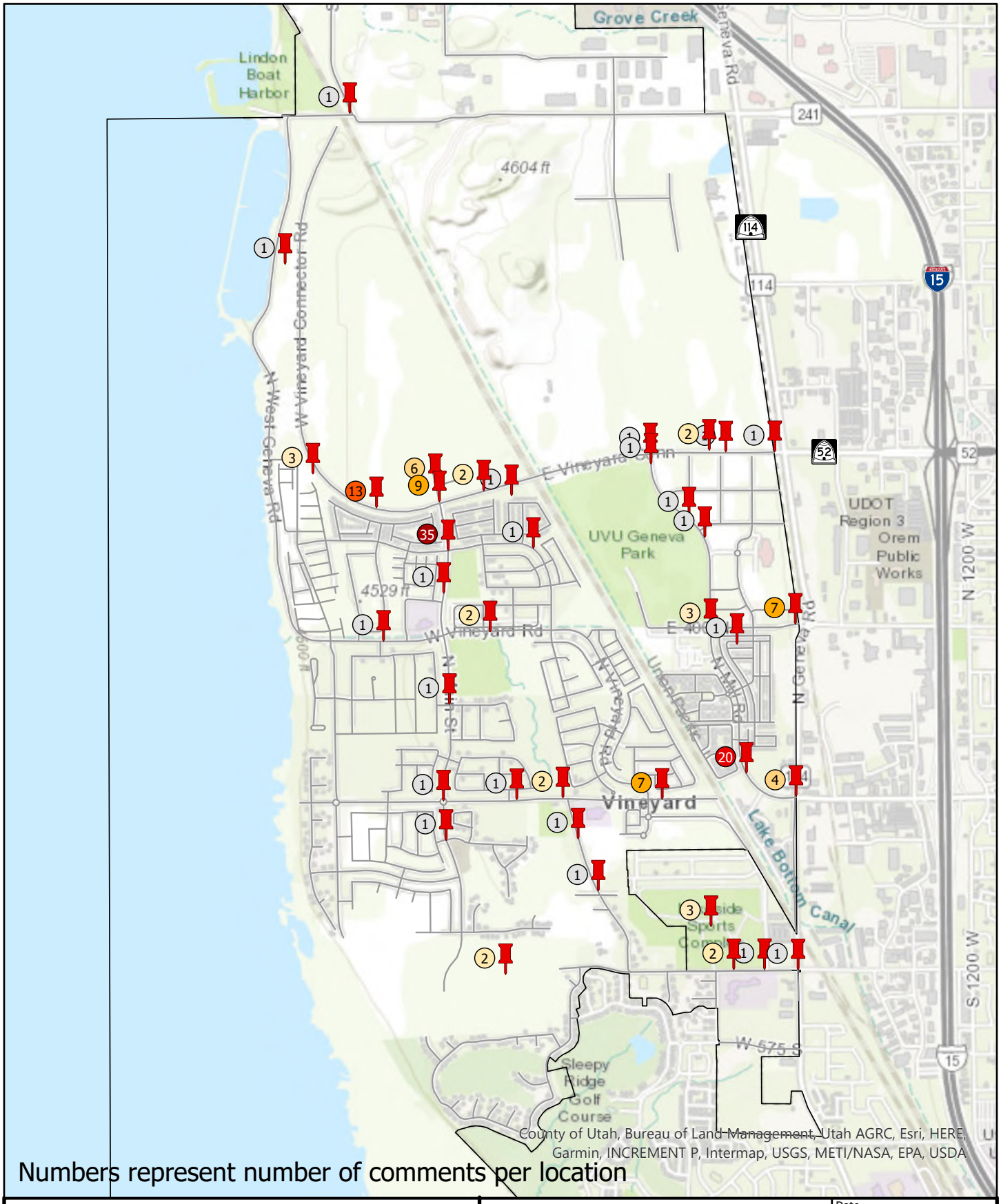
An follow-up presentation was given, focusing on progress of the TMP with emphasis on the future alignment of a proposed expressway/high-capacity arterial connection from Geneva Road to 1600 North, which will relieve congestion on the current Vineyard Connector alignment and provide a true parallel route to I-15. Additionally, level of service results from the future travel demand model projections were provided and discussed in conjunction with this expressway proposal.

Date and Time: Wednesday May 14, 2024, 6:00 PM
Location: Vineyard City Hall

A final transportation master plan presentation to the City Council, including final projects and findings.

Online Story Map

A study-specific online webpage was created in April 2023 as an additional resource through the study process. The public were directed to access the page at the public input meeting and via City social media channels. The story map was hosted at www.vineyardutah.gov. A screenshot of the opening view of the webpage is shown in Figure 5.



Numbers represent number of comments per location

VINEYARD
STAY CONNECTED
TRANSPORTATION MASTER PLAN

Community Input Locations

Date	3/29/2025
Project	UT23-2453
	Figure 5

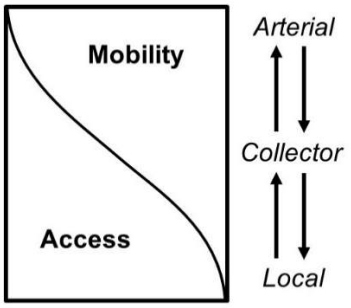
ROADWAY NETWORK

PURPOSE

The purpose of this chapter is to discuss the characteristics and needs of the existing and future roadway networks. Recommendations for future improvements are discussed as well, based on the future projections. The analysis methodologies and models that were used are also discussed.

FUNCTIONAL CLASSIFICATION

Roads are categorized into a hierarchal system and given a functional classification based on right-of-way (ROW) width. The higher a street classification, the more mobility it provides with limited access. Lower street classifications have less mobility, but more access. The four classifications defined in the Vineyard City code are arterials, major collectors, minor collectors, and local streets.



The following are the four typical street classifications for Vineyard City roadways:

- Arterial – Arterials are designed to have greater mobility and connect traffic between population centers and regional attractions. Because of their increased mobility, arterials typically have higher speeds and a high degree of access control, with the exception of some historical sections. Major Arterials have a ROW of 95 or more feet while minor arterials have a ROW of 73 feet.
- Collector – Major collector roads are designed to connect with and augment the arterial system and provide access control. Generally, these streets are intended to carry traffic for shorter distances than arterials and have lower speeds. Major collectors have a ROW of 88 feet. A minor collector road is designed to carry low-speed traffic and provides greater access than major collectors. Minor collector roads are also designed for greater mobility than local streets as they are generally wider and as a result have less side friction with on-street parking. Minor collectors have a ROW of 63 feet.
- Local Street – Local streets are designed for accessibility and have less mobility than any other functional classification. The primary purpose of these is to provide access to surrounding properties and carry low-speed traffic. Some local streets may be designed to discourage through-traffic in neighborhoods. Local streets have a ROW of 55 feet.

A summary of the Vineyard roadway classifications is shown in Table 3. Typical cross-sections were designed for each of the Vineyard street classifications primarily based on the existing City cross-section standards and standard engineering practice. These are shown in Figures 3 through 7. These cross-sections do not necessarily match existing roadway cross-sections but are recommended cross-sections for new and improved roadways in the future. Bike treatments are not included in these concepts and may require additional ROW and/or pavement. The colors shown in Table 3 correspond to colors shown in both the cross-section figures and the roadway network figures shown later in the document. The Principal Arterial classification is being introduced based on future roadway improvement recommendations and has a seven-lane cross-section to accommodate higher demands.

Table 3: Roadway Classifications

Mobility

Access

Vineyard Roadway Classifications		
	Classification	Characteristics
	Major Arterial	ROW: 95+ feet 5 lanes
	Minor Arterial	ROW: 73 feet 2-3 Lanes
	Major Collector	ROW: 88 feet 3 Lanes
	Minor Collector	ROW: 63 feet 2 Lanes
	Local Street	ROW: 58 feet 2 Lanes

LEVEL OF SERVICE ANALYSIS

Level of service (LOS) is a term that describes the operating performance of an intersection or roadway. LOS is measured quantitatively and reported on a scale from A to F, with A representing the best performance and F the worst. Calculating a planning-level LOS for a roadway segment is completed based on volume-to-capacity (v/c) ratios. The volume is the average daily traffic (ADT) for the given roadway segment and the capacity is based on factors such as lane count and traffic signal spacing.

Table 4 provides a brief description of each LOS letter designation and the accompanying range of v/c ratios. A visual representation of the various levels of service is shown in Figure 9.

For the purposes of this TMP, a minimum overall performance for each of the study roadways and intersections was set at the levels of service shown below. These acceptable thresholds for various City roads were set based on discussions with the City to prioritize good flow on lower classification roads while also allowing for some congestion to encourage walkability in the downtown (Utah City) area.

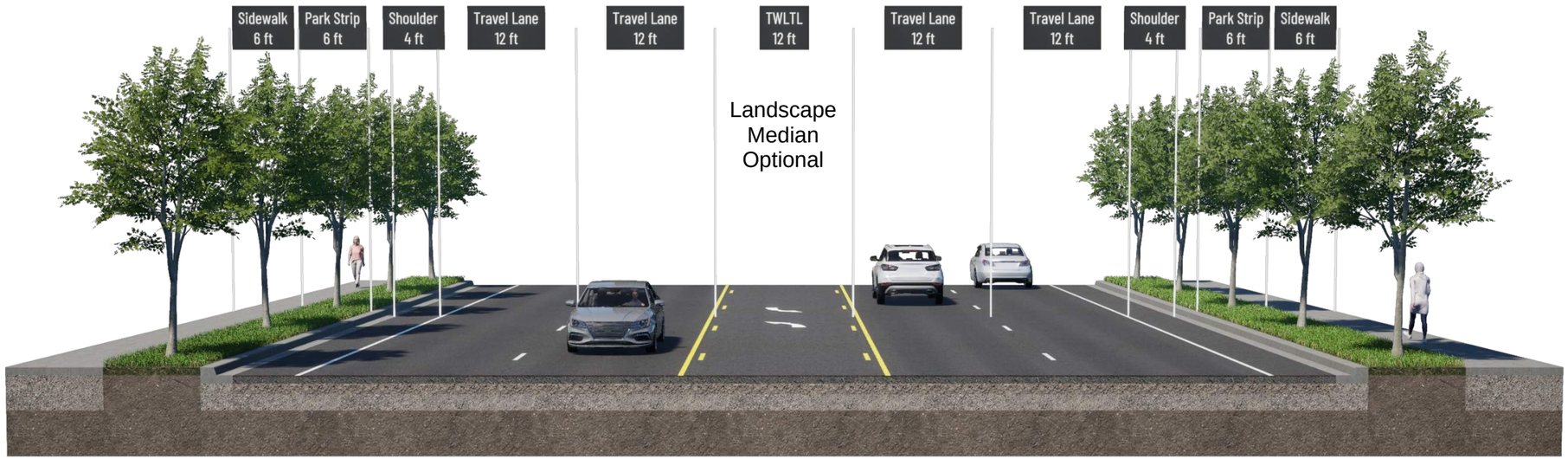
City Road Threshold			
LOS	Local	Collector	Arterial
A			
B	Acceptable		
C		Acceptable	
D			Acceptable
E			
F			

Downtown Road Threshold			
LOS	Local	Collector	Arterial
A			
B			
C	Acceptable		
D			
E		Acceptable	Acceptable
F			

Data was collected utilizing annual daily traffic counts and turning movement counts at key intersection and roads. A map showing the data collection locations is shown in Figure 10.

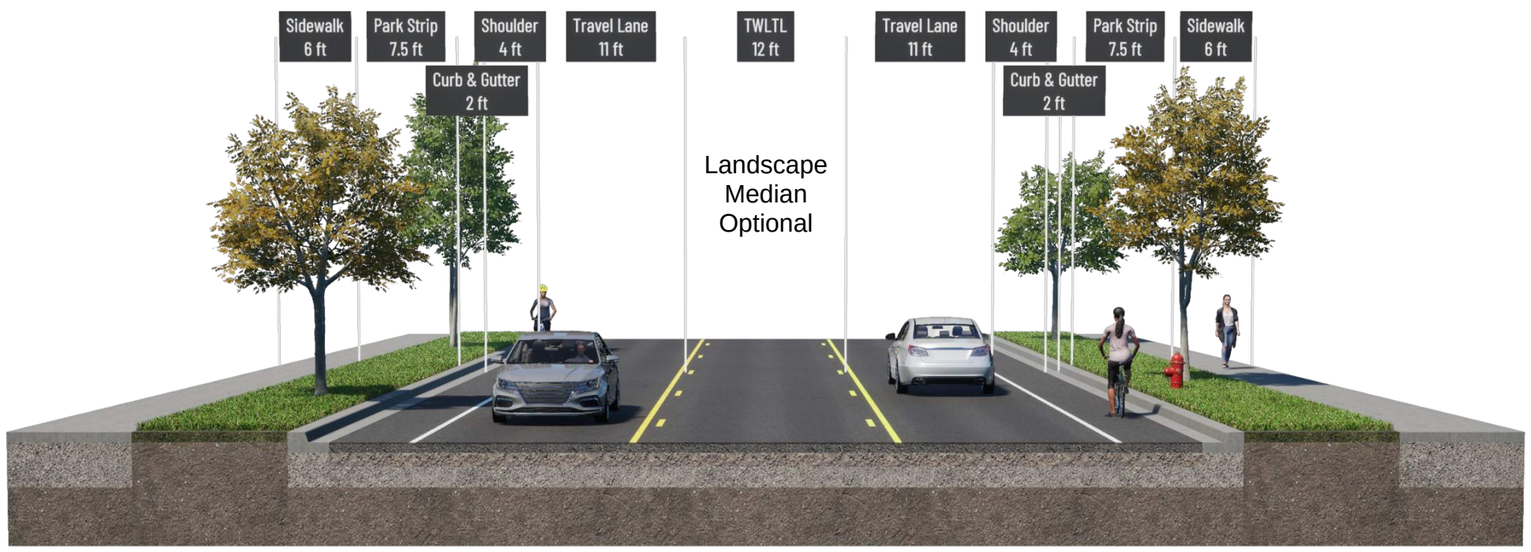
Major Arterial (5 Lanes)

Major Arterial (5 Lanes)
96+' *ROW*



Minor Arterial (3 Lanes)

Minor Arterial (3 Lanes)
73' *ROW*



VINEYARD
STAY CONNECTED

HALES ENGINEERING
innovative transportation solutions

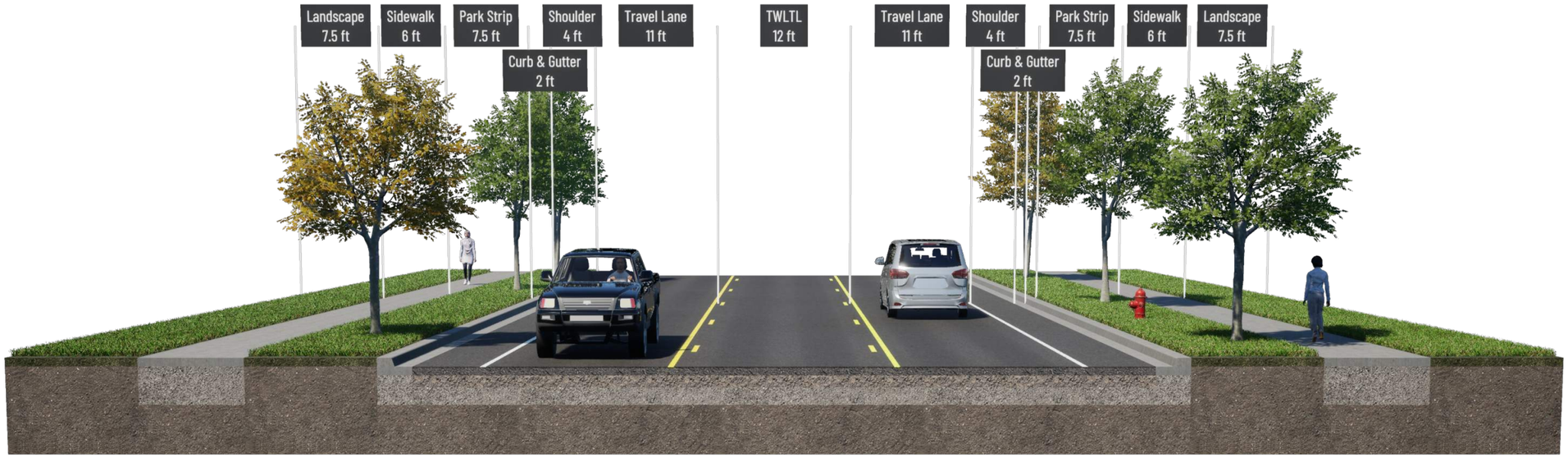
Arterial Cross Sections

Vineyard TMP

DATE	01/17/2025
PROJECT	UT23-2453
	Figure 6

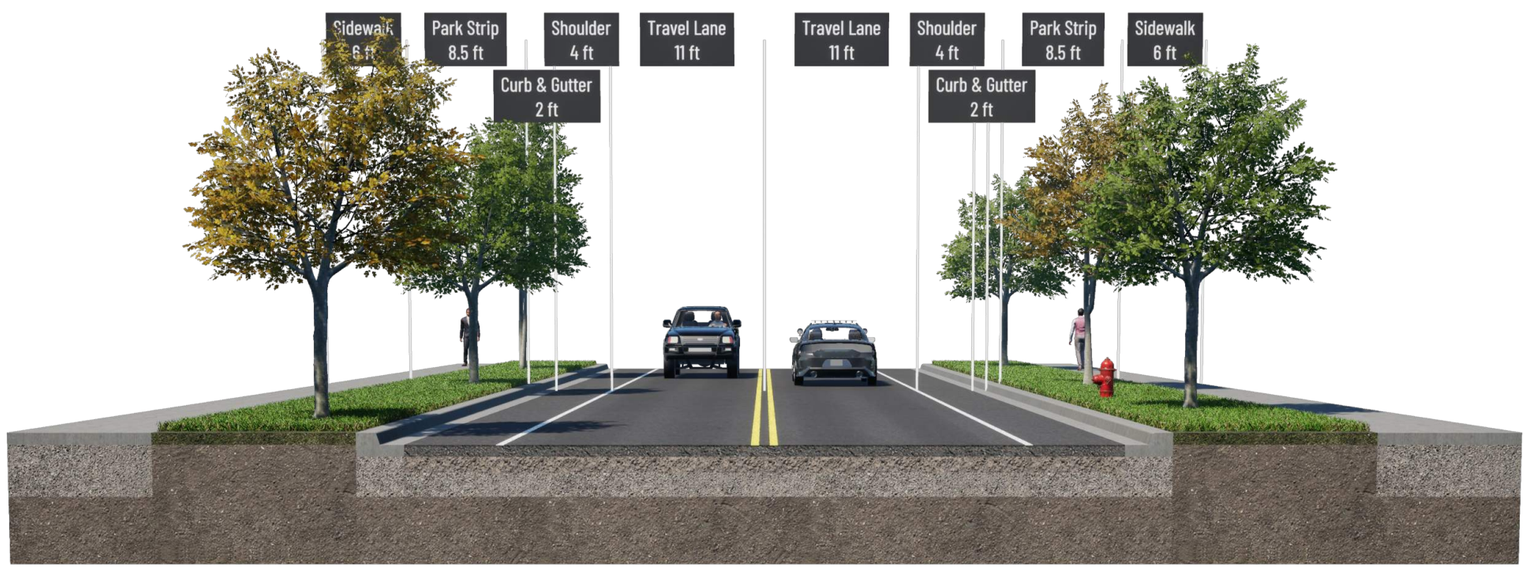
Major Collector (3 Lanes)

Major Collector (3 Lanes)
88' ROW



Minor Collector (2 Lanes)

Minor Collector (2 Lanes)
63' ROW



VINEYARD
STAY CONNECTED

HALES ENGINEERING
innovative transportation solutions

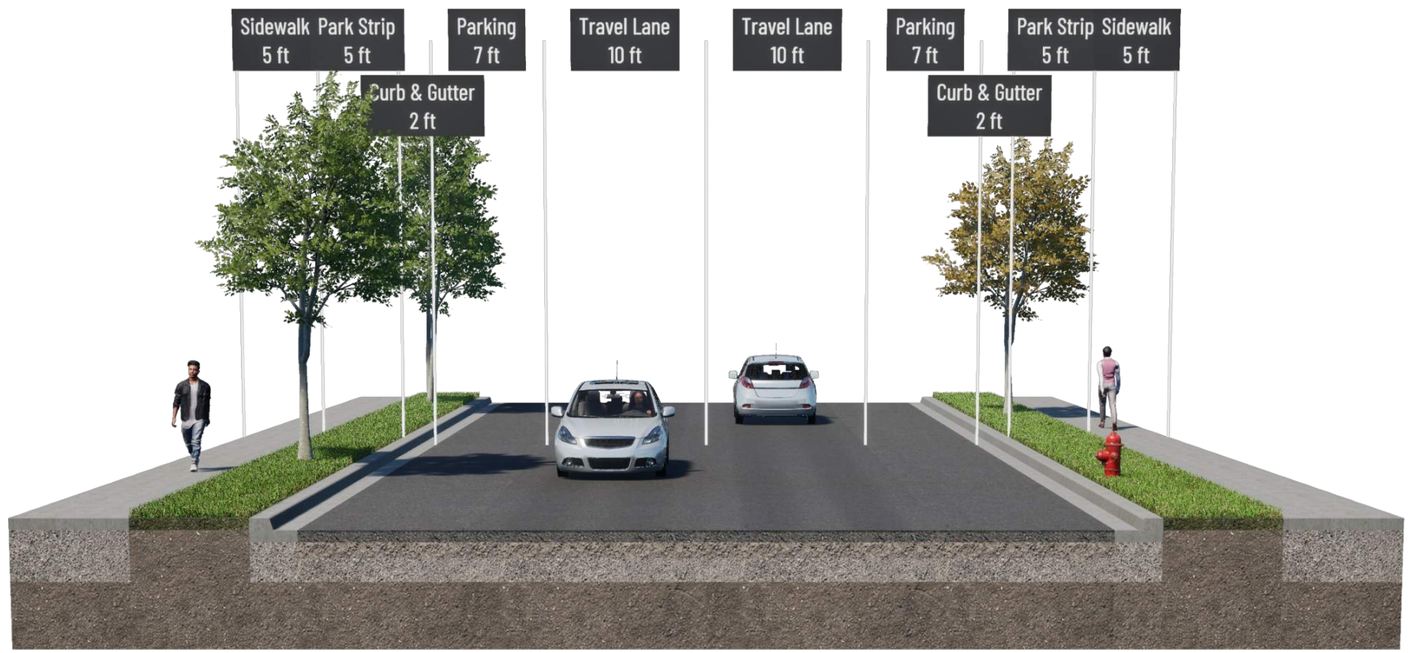
Collector Cross Sections

Vineyard TMP

DATE	01/17/2025
PROJECT	UT23-2453
	Figure 7

Local (2 Lanes)

Local (2 Lanes)
58' *ROW*



VINEYARD
STAY CONNECTED

HALES ENGINEERING
innovative transportation solutions

Local Cross Section

Vineyard TMP

DATE	01/17/2025
PROJECT	UT23-2453
	Figure 8

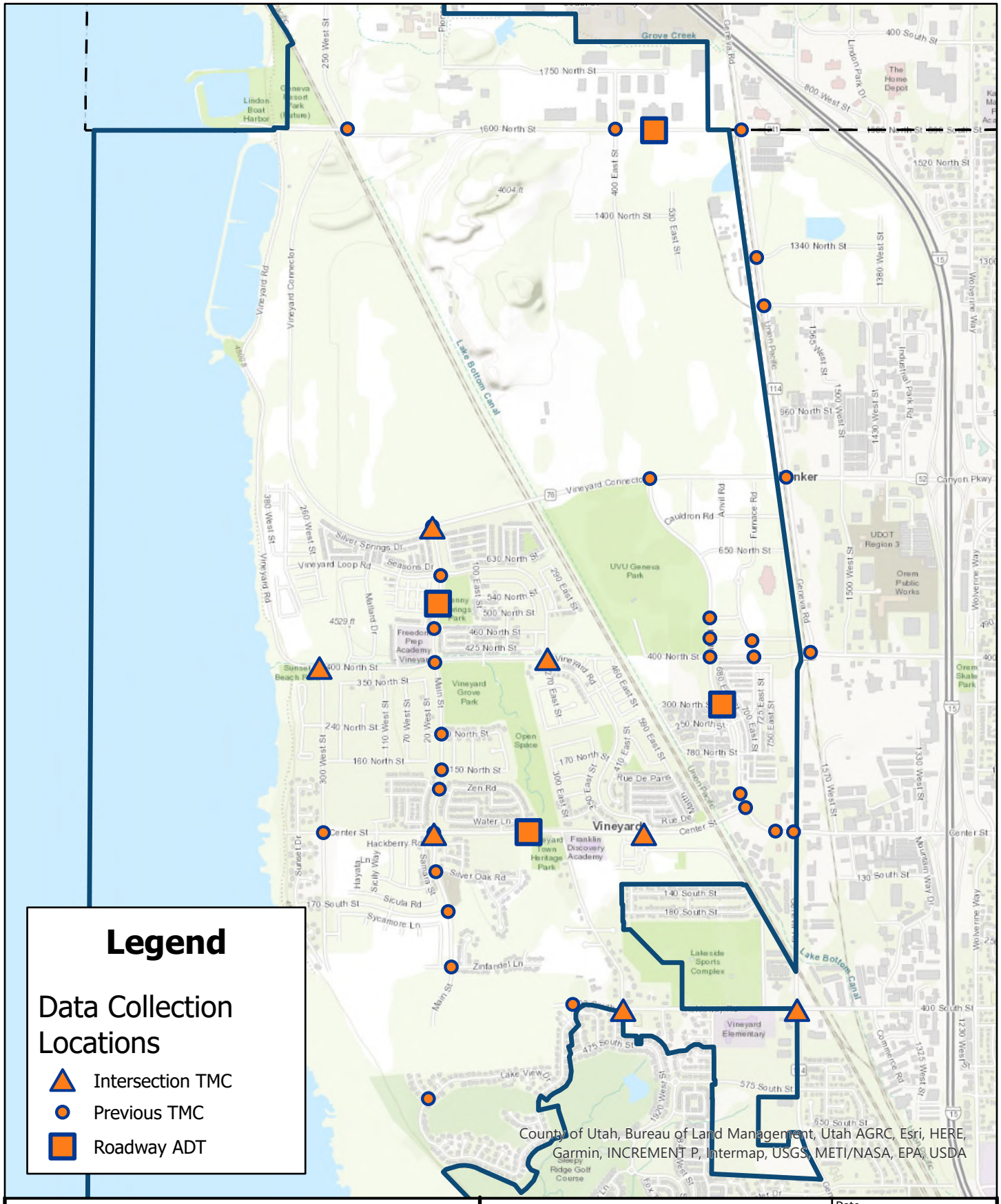
Table 4: Level of Service Descriptions

Level of Service	Description of Traffic Conditions	Volume / Capacity Ratio
A	Extremely favorable progression and a very low level of control (intersection) delay. Individual users are virtually unaffected by others in the traffic stream.	≤ 0.30
B	Good progression and a low level of control delay. The presence of other users in the traffic stream becomes noticeable.	> 0.30 - 0.50
C	Fair progression and a moderate level of control delay. The operation of individual users becomes somewhat affected by interactions with others in the traffic stream.	> 0.50 - 0.75
D	Marginal progression with relatively high levels of control delay. Operating conditions are noticeable more constrained.	> 0.75 - 0.85
E	Poor progression with unacceptably high levels of control delay. Operating conditions are at or near capacity.	> 0.85 - 1.00
F	Unacceptable progression with forced or breakdown operating conditions.	> 1.00

Source: *Highway Capacity Manual* (HCM) 7th edition (Transportation Research Board, 2022).

Level of Service (LOS)
LOS A – Free Flow, Insignificant Delays
LOS B – Stable Flow, Minimum Delays
LOS C – Stable Flow, Acceptable Delays
LOS D – Approaching Unstable Flow, Tolerable Delays
LOS E – Unstable Flow, Significant Delays
LOS F – Forced Flows, Excessive Delays

Figure 9: Visual representation of LOS



VINEYARD
STAY CONNECTED
TRANSPORTATION MASTER PLAN

Data Collection Locations

Date	3/29/2025
Project	UT23-2453
	Figure 10

ROADWAY CAPACITIES

The capacities for each roadway type were identified using Transportation Research Board (TRB) *Highway Capacity Manual,* 7th Edition, 2022 methodologies and based on common practice in Utah. Key factors that influence the capacity of a roadway include the number of travel lanes, presence of a two-way left-turn lane (TWLTL) or turn pockets, level of access management, and signal spacing. The assumed LOS capacity thresholds for Vineyard City roadways are shown in Table 5, reported as vehicles per day (vpd).

Table 5: Roadway Capacities

Functional Classification	Number of Lanes	Capacity (vpd)
Local	2	9,000
Minor Collector	2	11,600
Major Collector	3	13,700
Minor Arterial	3	15,600
Major Arterial	5	31,300

INTERSECTION LOS

Intersection LOS looks at individual intersections and provides a microscopic view of a roadway network. LOS at intersections can be broken down into directions and respective movements (left-turns, through movements, or right-turns). A detailed look at intersections should occur as frequently as necessary since they are a source of bottlenecks. The Highway Capacity Manual has divided intersections into two types, signalized and un-signalized. The methodology to calculate the delay per vehicle at an intersection is outlined in the *Highway Capacity Manual* (HCM), 7th Edition, 2022 and the subsequent delay criteria and corresponding LOS. A LOS D for intersection delay has been determined to be the acceptable limit for Vineyard City. The delay thresholds for each LOS for both signalized and unsignalized intersections can be found in Table 6.

The levels of service for signalized, all-way stop-controlled (AWSC), and roundabout intersections are calculated as a weighted average of all movements. The LOS for a two-way stop-controlled (TWSC) intersection is equal to the LOS of the worst movement. Failing LOS conditions are typically experienced during the peak hours (morning and/or evening). It is not uncommon for a side street or access on busy arterials to experience LOS worse than D during the peak hours due to high traffic volumes on the major roadway. Vehicles generally learn to re-route to signalized intersections in these cases.

Table 6: Intersection LOS Criteria

LOS	LOS Delay Criteria (sec. / vehicle)	
	Signalized Intersections	TWSC, AWSC, & Roundabout Intersections
A	≤ 10	≤ 10
B	> 10 - 20	> 10 - 15
C	> 20 - 35	> 15 - 25
D	> 35 - 55	> 25 - 35
E	> 55 - 80	> 35 - 50
F	> 80	> 50

Source: *Highway Capacity Manuel, 7th Edition, 2022*

EXISTING CONDITIONS

This section discusses the existing roadway and intersection conditions in Vineyard. The current LOS for each of the major roadways and intersections in Vineyard were analyzed. It is important to analyze the existing conditions as this serves as a baseline with which future conditions and alternatives can be compared.

EXISTING ROADWAY NETWORK

Major roadways in Vineyard have been designed on a grid system as is the pattern along much of the Wasatch Front as well. Many north-south and east-west roads are located approximately every 200 to 400 feet.

Main Street and Mill Road are the City's primary arterials through town. Geneva Road (S.R. 114) also serves much of Vineyard City on the eastern edge of town. Other major north-south roadways include Vineyard Road and 380 West. Center Street and Vineyard Connector Road (S.R. 176) are the primary east-west roadways. Other major east-west routes include 400 North and 400 South.

Local roadways in Vineyard are a mixture of grid systems in some areas and unconnected roads with cul-de-sacs in other areas. Discontinuous local road systems can lead to unnecessary congestion and delay on collector and arterial roads, as vehicles are forced to take those routes even for short trips. Therefore, it is recommended that the grid system be followed as much as possible as areas develop.

The functional classifications discussed previously were assigned to the roadways in Vineyard based on existing number of lanes. The existing roadway network map that shows the functional classifications is shown in Figure 11. Most roadways in Vineyard City are maintained by the City. Vineyard Connector Road (S.R. 176) and Geneva Road (S.R. 114) are state roadways maintained by the Utah Department of Transportation (UDOT). State and City

roadway jurisdictions are shown in Figure 12. The locations of traffic signals, stop signs, and other traffic control devices are shown in Figure 11.

Roadway Improvements

Through discussions with the city representatives, several locations around the City were considered phase 1 projects or projects that require immediate work. Phase one projects were mostly based at a few Geneva Road intersections and along Lake Boulevard. A list of phase 1 projects can be found in Table 7.

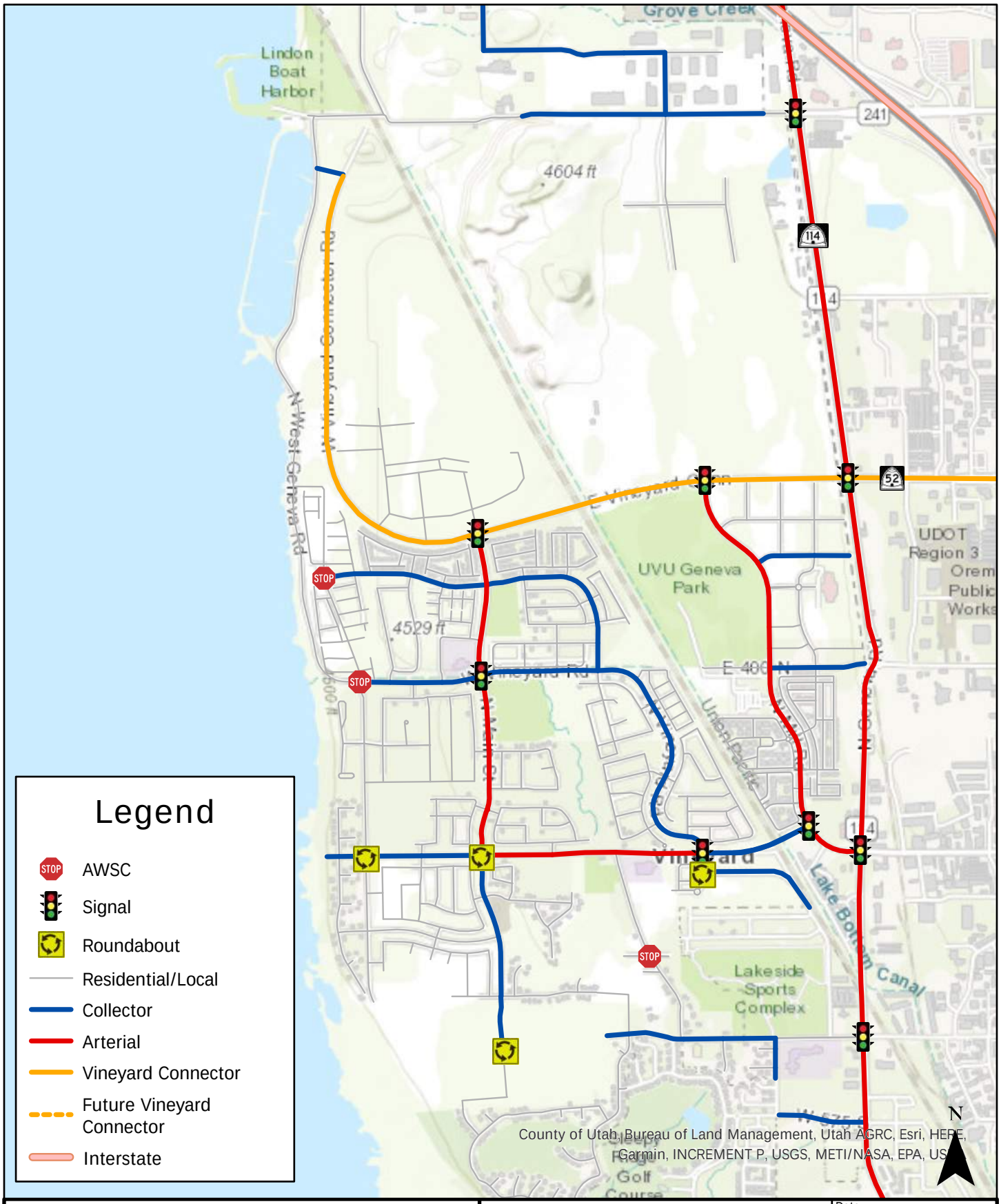
Table 7: Recommended Phase 1 Improvement Projects

#	Location	Type	Description	Jurisdiction
1	Lake Boulevard	Widen	Widen to 2 lanes	Vineyard
2	1600 North / Geneva Road Intersection	Intersection	Increase capacity	UDOT
3	300 West: Lake Boulevard Connection	New	2 lane / roundabout	Vineyard
4	400 North / Geneva Road Intersection	Intersection	Install traffic signal	UDOT
5	Center Street / Geneva Road Intersection	Intersection	NB dual LT lanes	UDOT

It is recommended that Lake Boulevard be widened to a full 2-lane width to accommodate vehicles traveling along the western edge of the City in both the northbound and southbound directions. This is a project that is currently in design at the time of this TMP.

Improvements are recommended at the UDOT-controlled 1600 North / Geneva Road and 400 North Geneva Road intersections. These improvements will take place after removal of the current rail lines on the west side of each intersection. It is also anticipated that the 400 North / Geneva Road intersection will be realigned and signalized when the west leg of the intersection is built, connecting the Vineyard roadway network to Orem at that location.

Dual northbound left-turn lanes are recommended at the Center Street / Geneva Road intersection based on existing deficiencies identified at the intersection in traffic impact studies conducted in the area for private developments. It is recommended that the City coordinate with UDOT on the timing of this improvement in conjunction with future widening plans on Geneva Road.



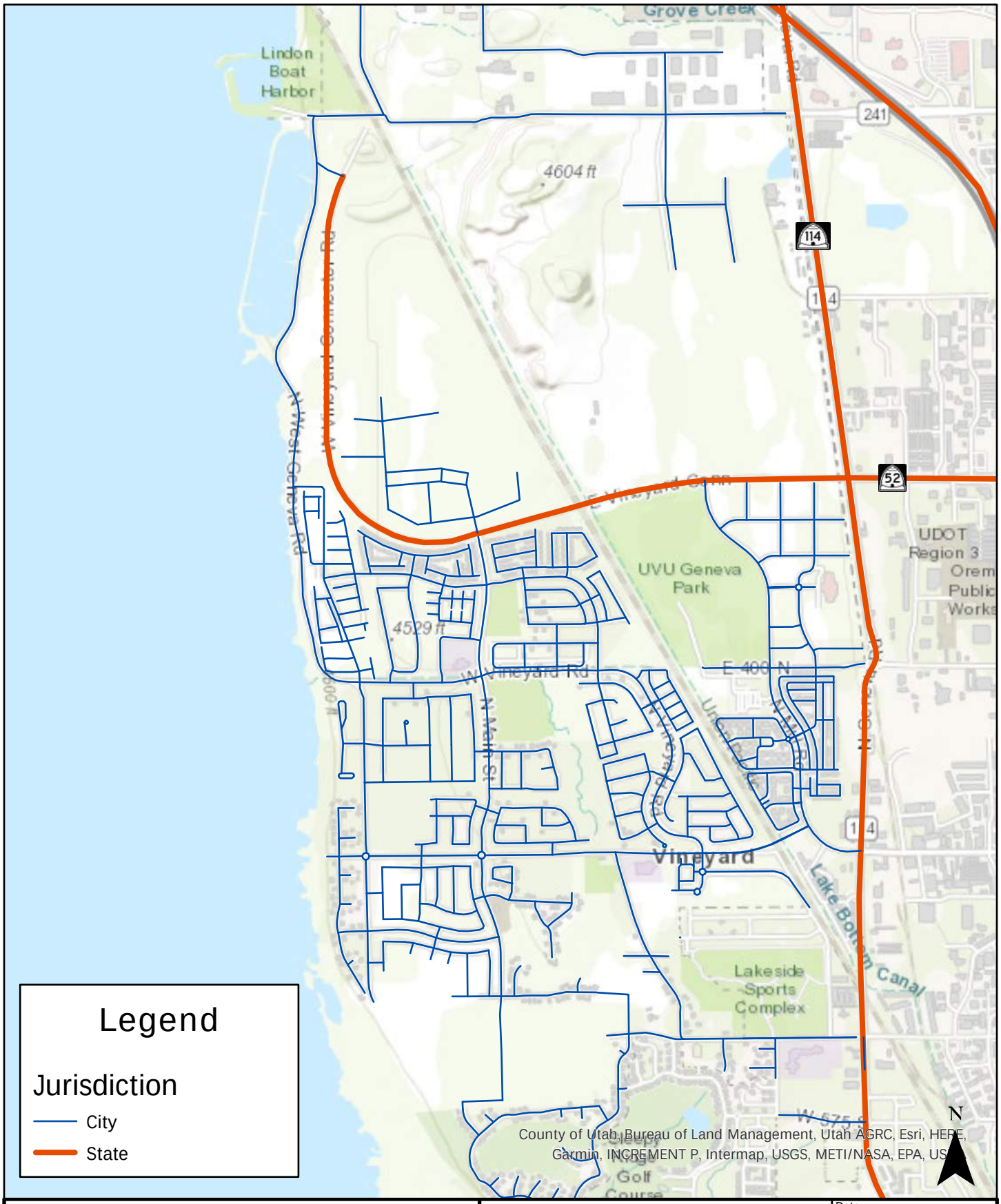
VINEYARD
STAY CONNECTED
TRANSPORTATION MASTER PLAN

Existing (2023) Roadway Network

Date 6/17/2025

Project UT23-2453

Figure 11



VINEYARD
STAY CONNECTED
TRANSPORTATION MASTER PLAN

Existing (2023) Roadway Jurisdiction

Date	6/13/2025
Project	UT23-2453
	Figure 12

EXISTING VOLUMES AND LOS

Roadways

In order to accurately identify existing conditions on the roadway network in Vineyard City, the consultant team gathered traffic data. Existing traffic volumes were obtained from various sources, including the following:

- Consultant Team Data – Where UDOT data were not available, the consultant team used data collected for this and previous projects in the area. These data were collected in the form of two-way roadway counts or turning movement counts at intersections and are included in Appendix B.
- UDOT - Many of the traffic volume values on State roads and other federal aid roads were obtained from UDOT's *Traffic on Utah Highways* database, Automatic Signal Performance Metrics (ATSPM) website, or from previous studies completed on UDOT roads.

The volumes from these sources were compiled to have a comprehensive volume map of all major roadways. LOS values were assigned to each roadway segment based on the volume and the LOS criteria for roadways that was described previously. The existing traffic volumes are reported as ADT in vpd along with the LOS of each roadway segment in Figure 13.

As shown, the roadways in Vineyard are currently operating within capacity, but three of the major intersections are currently operating at a poor LOS. These intersections include the 600 North / Main Street, 400 North / Geneva Road, and Mill Road / Geneva Road intersections.

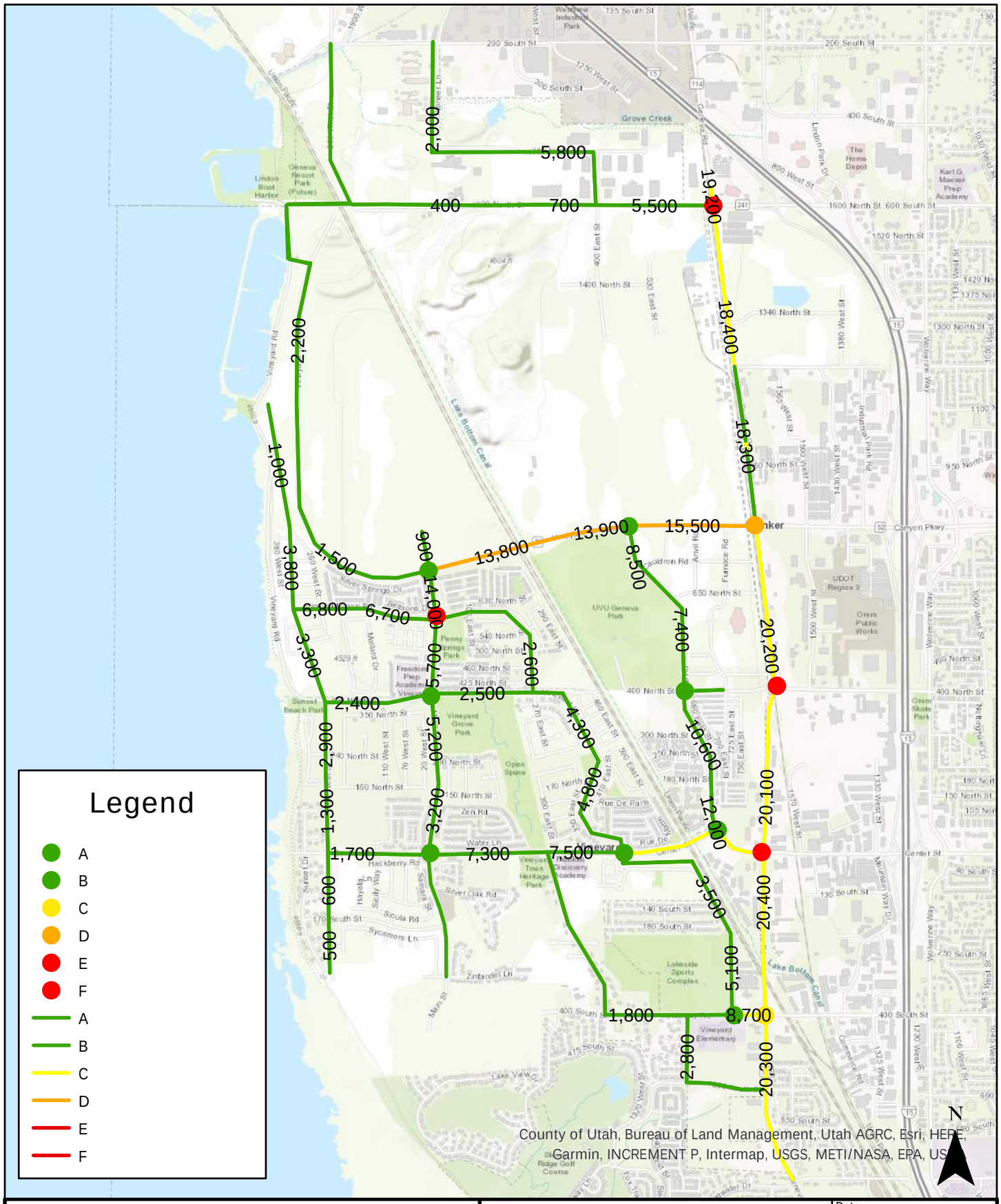
Intersections

Evening peak hour turning movement count data were collected for several major intersections within the City. Hales Engineering completed morning evening peak hour turning movement counts between 7:00 and 9:00 a.m. and 4:00 and 6:00 p.m. at the following intersections on Tuesday, March 7, 2023; Wednesday, March 8, 2023, and Thursday, March 9, 2023:

- Main Street / Center Street
- Main Street / Vineyard Connector
- 300 West / Vineyard Road
- 270 East / Vineyard Road
- Holdaway Road / 400 South (Holdaway Road)
- 400 South / Geneva Road (S.R. 114)
- Vineyard Road / Center Street

Volume data at the following intersections were collected from previous traffic studies or from UDOT's ATSPM website or other databases:

- Center Street (Mill Road) / Geneva Road (S.R. 114)
- 1600 North / Geneva Road (S.R. 114)
- 800 North (Vineyard Connector) / Geneva Road (S.R. 114)



VINEYARD
STAY CONNECTED
TRANSPORTATION MASTER PLAN

Existing (2023) No-Build LOS

Date 8/13/2025

Project UT23-2453

Figure 13

An intersection LOS analysis was completed for all major intersections in the City. This analysis was completed for the evening peak hour using Synchro / SimTraffic traffic modeling and simulation software, which follow HCM methodology. The evening peak hour LOS was computed for each study intersection. Multiple runs of SimTraffic were used to provide a statistical evaluation of the interaction between the intersections. LOS results are provided in Table 8 and visually in Figure 13. LOS and queueing reports are shown in Appendix D.

The major intersections in Vineyard City with three exceptions are all operating at acceptable levels of service during the evening peak hour, as shown in Table 8.

Table 8: Existing Evening Peak Hour Intersection Level of Service

Intersection		Level of Service		
Description	Control	Movement[1]	Aver. Delay (Sec/Veh)	LOS[2]
Mill Road / Center Street	Signal	-	13.8	B
400 North / Main Street	Signal	-	10.1	B
600 North / Main Street	EB/WB Stop	EBL	>50	f
Vineyard Road / Center Street	Signal	-	8.8	A
400 North / Mill Road	EB/WB Stop	EBL	11.4	b
800 North (SR-176) / Main Street	Signal	-	9.1	A
800 North (SR-176) / Geneva Road (SR-114)	Signal	-	51.1	D
400 North / Geneva Road (SR-114)	WB Stop	WBL	>50	f
Mill Road / Geneva Road (SR-114)	Signal	-	>80	F
400 South / Geneva Road (SR-114)	Signal	-	22.8	C
Vineyard Road / 400 South	SB Stop	SBL	9.9	a

1. Movement indicated for unsignalized intersections where delay and LOS represents worst movement. SBL = Southbound left movement, etc.
2. Uppercase LOS used for signalized, roundabout, and AWSC intersections. Lowercase LOS used for non-AWSC unsignalized intersections.

Source: Hales Engineering, January 2025

It is recommended that east-and westbound left-turn movements be restricted at the 600 North / Main Street intersection. This change will take place with the future 300 West / Vineyard connector project, which will provide for alternative access for the neighborhood on the west side of Main Street.

It is also recommended that The 400 North / Geneva Road (SR-114) intersection be realigned and signalized, per future UDOT plans for when the Union Pacific railroad along Geneva Road is removed and the west leg of the intersection constructed.

It is recommended that Vineyard City staff coordinate with UDOT on dual northbound left-turn lanes at the Mill Road / Geneva Road (SR-114) intersection. This will increase capacity at the intersection and allow for better access from Geneva Road into Vineyard City.

FUTURE (2033) CONDITIONS

Future ADT roadway volumes were projected based on the anticipated development in the City. This was done based on future land use plans discussed previously in this report. These tasks were completed to determine roadway ADT volumes, which were then converted to turning movement counts at key intersections. Future traffic volumes were calibrated using existing traffic counts grown according to the Vineyard City Travel Demand model.

NO-BUILD LOS

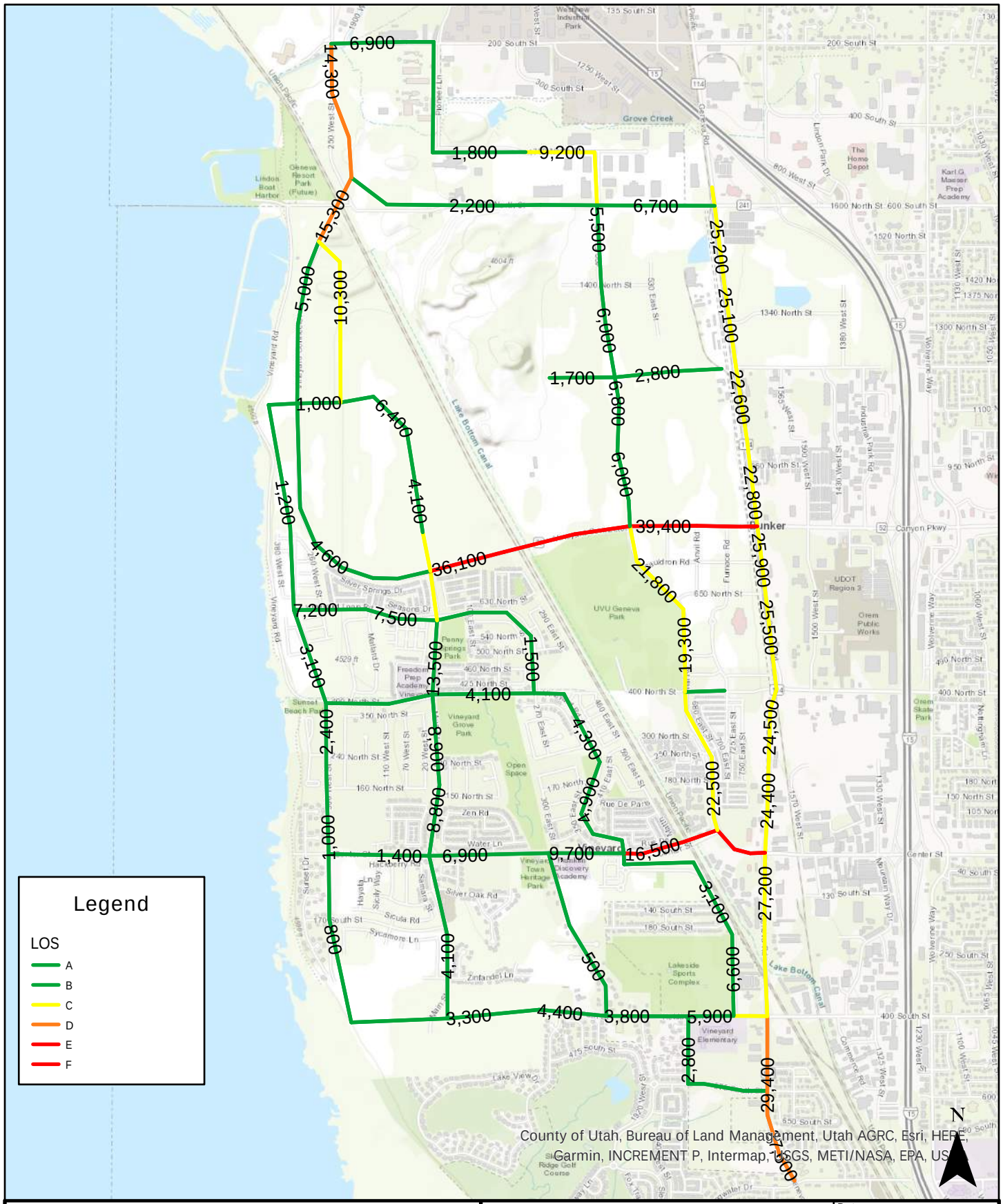
LOS was analyzed for a scenario in which new roads had been constructed to support full development, but existing roads had not been widened (no-build condition). All new roads were assumed to comply with the Vineyard City standard cross sections for each functional classification. The no-build roadway and intersection LOS for future (2033) conditions is shown in Figure 14. Evening Peak Hour intersection LOS results are shown in Table 9. It is anticipated that the 600 North / Main Street intersection will still operate at a poor level of service without any movement restrictions or improvements.

Table 9: Future (2033) No-Build Evening Peak Hour Level of Service

Intersection		Level of Service		
Description	Control	Movement[1]	Aver. Delay (Sec/Veh)	LOS[2]
400 North / Main Street	Signal	-	14.1	B
600 North / Main Street	EB/WB Stop	EBL	>50	f
Vineyard Road / Center Street	Signal	-	34.9	C
400 South / Geneva Road (SR-114)	Signal	-	50.5	D
Vineyard Road / 400 South	SB Stop	SBL	14.4	b

1. Movement indicated for unsignalized intersections where delay and LOS represents worst movement. SBL = Southbound left movement, etc.
2. Uppercase LOS used for signalized, roundabout, and AWSC intersections. Lowercase LOS used for non-AWSC unsignalized intersections.

Source: Hales Engineering, January 2025



VINEYARD
STAY CONNECTED
TRANSPORTATION MASTER PLAN

Future (2033) No-Build LOS

Date 8/13/2025

Project UT23-2453

Figure 14

ROADWAY IMPROVEMENTS

As Vineyard continues to develop, new roads will be constructed to connect developments to arterial streets. Additionally, improvements for future conditions were recommended for roadways that are anticipated to operate at a poor LOS. New roads and recommended improvements on city roadways are listed in Table 10. The recommended phase 2 roadway and intersections projects are shown in Figure 15. These projects were anticipated to be needed in phase 2 but may be constructed on an accelerated timeline. 400 South from Main Street to Lake View Drive is partially built at the time of this master plan.

Table 10: Recommended Phase 2 Improvement Projects

#	Location	Type	Description	Jurisdiction
1	Mill Rd: 1600 North to Vineyard Connector	New	Construct 5-lane roadway	Vineyard
2	1200 North: Utah City to Geneva Rd	New	Construct 5-lane roadway	Vineyard/UDOT
3	300 West / Vineyard Connector	New	Roundabout with leg for RT onto Vineyard Connector	Vineyard/UDOT
4	Vineyard Connector: Main St to Geneva Rd	Widen	Widen to 5 lanes	UDOT
5	600 North / Main St	Intersection	Install traffic signal	Vineyard
6	400 North: Rail Bridge to Mill Rd	Widen	Widen to 5 Lanes	Vineyard
7	400 North / Mill Rd Intersection	Intersection	Install traffic signal	Vineyard
8	Main St: Zinfandel Ln to 400 South	New	3-lane road	Vineyard
9	400 South: Main St to Lake View Dr	New	2-lane road	Vineyard
10	620 East / 400 South	Intersection	Install traffic signal	Orem/Vineyard

Hales Engineering recommends a connection to the Vineyard connector at 300 West to allow for an alternate outlet for residents in the surrounding neighborhood. This connection is proposed as a roundabout intersection with its eastern leg connecting to Vineyard connector in an added auxiliary lane that continues eastward until the Main Street / Vineyard Connector intersection. When this project is completed, it is recommended that the failing eastbound and westbound left-turn movements at the 600 North / Main Street intersection be restricted since an alternate outlet from the neighborhood west of Main Street to Vineyard Connector will then be available.

It is anticipated that UDOT will widen Vineyard Connector to a 5-lane cross-section from Main Street to Geneva Road as a phase 2 project. This will allow for increased capacity on Vineyard Connector that will better serve the increased development in the city. To allow for better connectivity on the south side of Vineyard City, it is recommended that Main Street be extended as a 3-lane road from Zinfandel Lane to 400 South. Similarly, it is recommended that 400 South be extended west from Main Street to Lake View Drive as a 2-lane road.

BUILD LOS

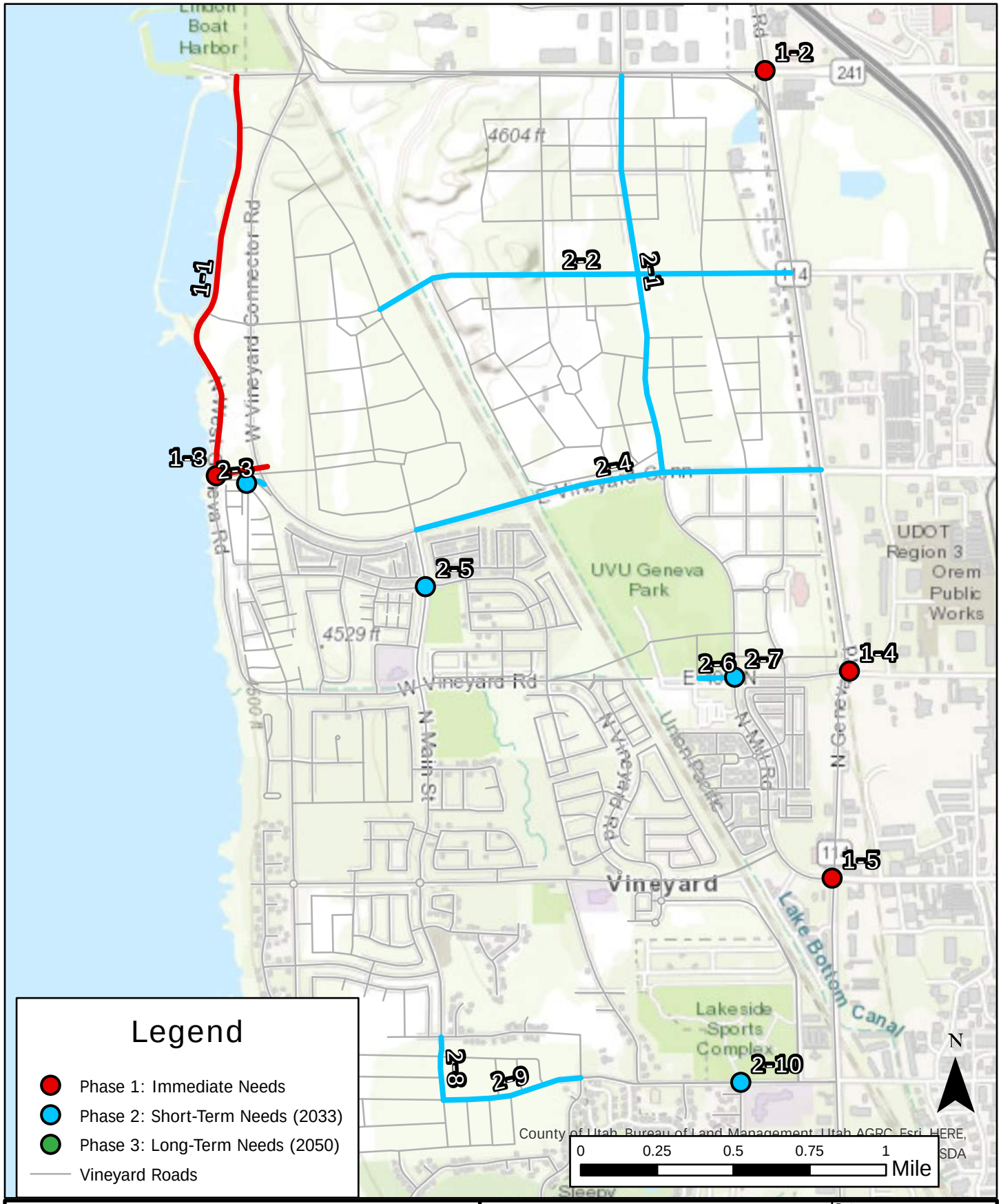
With the proposed improvements, most Vineyard City roadways are anticipated to operate at LOS D or better, as shown in Figure 16. Exceptions to this include Center Street east of Vineyard Road and Mill Road south of Center Street. Future (2033) evening peak hour LOS results are shown in Table 11.

Table 11: Future (2033) Build Evening Peak Hour Build LOS

Intersection		Level of Service		
Description	Control	Movement[1]	Aver. Delay (Sec/Veh)	LOS[2]
400 North / Main Street	Signal	-	26.0	C
600 North / Main Street	Signal	-	13.3	B
Vineyard Road / Center Street	Signal	-	30.0	C
400 South / Geneva Road (SR-114)	Signal	-	54.1	D
Vineyard Road / 400 South	SB Stop	SBL	14.9	b

1. Movement indicated for unsignalized intersections where delay and LOS represents worst movement. SBL = Southbound left movement, etc.
2. Uppercase LOS used for signalized, roundabout, and AWSC intersections. Lowercase LOS used for non-AWSC unsignalized intersections.

Source: Hales Engineering, January 2025



VINEYARD
STAY CONNECTED
TRANSPORTATION MASTER PLAN

Future (2033) Projects

Date 8/15/2025

Project UT23-2453

Figure 15

FUTURE (2050) CONDITIONS

Future ADT roadway volumes were projected based on the anticipated development in the City. This was done based on future land use plans discussed previously in this report. These tasks were completed to determine roadway ADT volumes, which were then converted to turning movement counts at key intersections.

TRAFFIC VOLUMES

Future traffic volumes were calibrated using existing traffic counts grown according to the Vineyard City Travel Demand model.

NO-BUILD LOS

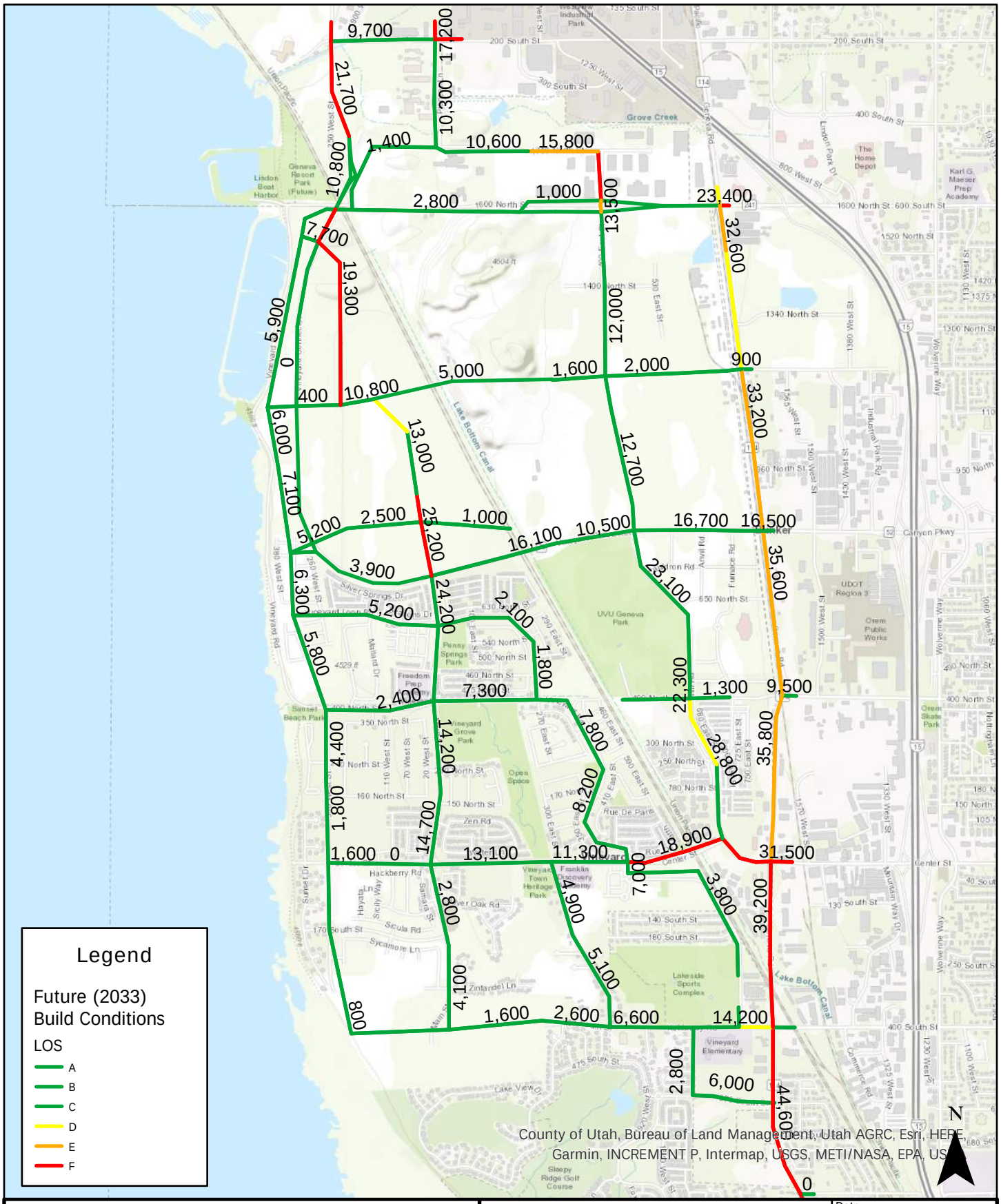
LOS was analyzed for a scenario in which new roads had been constructed to support full development, but existing roads had not been widened (no-build condition). All new roads were assumed to comply with the Vineyard City standard cross sections for each functional classification. The no-build roadway and intersection LOS for future (2050) conditions is shown in Figure 14. Evening Peak Hour intersection LOS results are shown in Table 13. With the restriction of eastbound and westbound left-turns at the 600 North / Main Street intersection, it is anticipated that levels of service will improve on those approaches. However, it may be difficult for northbound left-turning vehicles to find appropriate gaps during the evening peak hour due to the high volume of traffic projected to travel southbound on Main Street.

Table 12: Future (2050) No-Build Evening Peak Hour Level of Service

Intersection		Level of Service		
Description	Control	Movement[1]	Aver. Delay (Sec/Veh)	LOS[2]
400 North / Main Street	Signal	-	36.8	D
600 North / Main Street	EB/WB Stop	NBL	38.0	e
Vineyard Road / Center Street	Signal	-	47.7	D
400 South / Geneva Road (SR-114)	Signal	-	41.9	D
Vineyard Road / 400 South	SB Stop	SBL	21.1	c

1. Movement indicated for unsignalized intersections where delay and LOS represents worst movement. SBL = Southbound left movement, etc.
2. Uppercase LOS used for signalized, roundabout, and AWSC intersections. Lowercase LOS used for non-AWSC unsignalized intersections.

Source: Hales Engineering, February 2025



VINEYARD
STAY CONNECTED
TRANSPORTATION MASTER PLAN

Future (2033) Build LOS

Date 8/13/2025

Project UT23-2453

Figure 16

Roadway Improvements

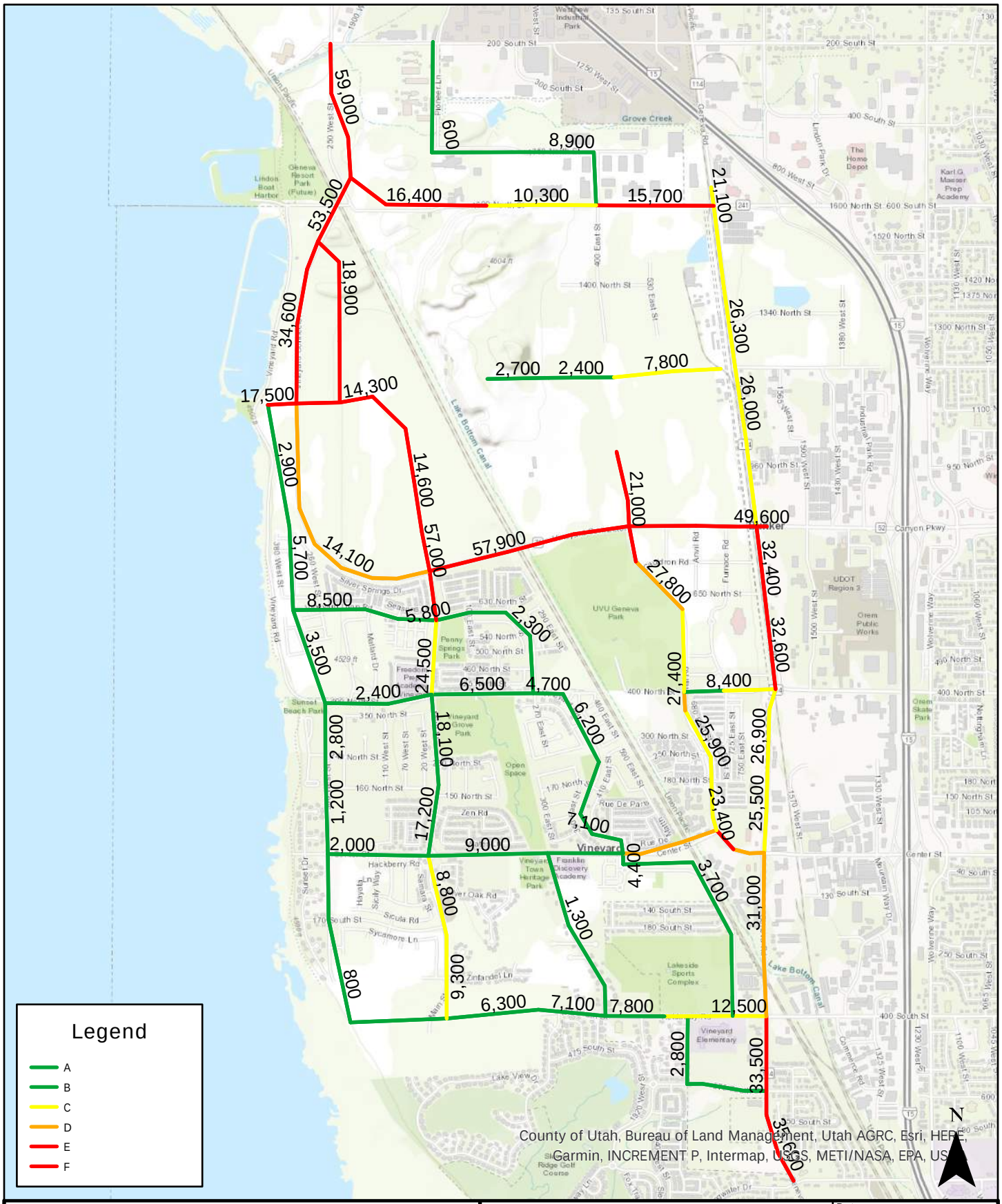
As Vineyard continues to develop, new roads will be constructed to connect developments to arterial streets. Additionally, improvements for future conditions were recommended for roadways that are anticipated to operate at a poor LOS. New roads and recommended improvements on city roadways are listed in Table 13. The recommended phase 3 roadway and intersections projects are shown in Figure 18. A map of the build future (2050) roadway network and intersection control is shown in Figure 19.

Multiple projects on UDOT roadways are recommended to increase network capacity. These include roadway widening projects on Vineyard Connector and intersection improvements at the Vineyard Connector / Geneva Road, 400 North / Geneva Road, and Center Street / Geneva Road intersections.

Recommended projects on Vineyard City roads and intersections include widening of 1600 North, widening of the Main Street / Vineyard Connector intersection, a new 400 North connection from Main Street to Mill Road including a bridge over the rail lines, increased capacity at the 400 North / Mill Road intersection, a roundabout at 620 East / 400 South, and widening on 400 South between Vineyard Road and Geneva Road.

Vineyard Connector Realignment

Based on preliminary traffic models, it was determined that the existing Vineyard Connector (800 North) alignment will be over-capacity at full buildout in the City. Therefore, a separate grade expressway/arterial is recommended as the new connection of the future Vineyard Connector Expressway to Geneva Road. This separate grade connection will divert pass-through traffic away from the heart of Vineyard City and improve conditions on the existing Vineyard Connector (800 North) alignment. The connection between the future Vineyard Connector Expressway to Geneva Road may be aligned at or just south of 1600 North. This will also create a true parallel route to I-15 rather than the indirect route of the current 800 North alignment. A conceptual view of the proposed alignment can be identified in Figure 19.



VINEYARD
STAY CONNECTED
TRANSPORTATION MASTER PLAN

Future (2050) No-Build LOS

Date 8/13/2025

Project UT23-2453

Figure 17

Table 13: Recommended Phase 3 Improvement Projects

#	Location	Type	Description	Jurisdiction
1	New Vineyard Connector	New	New expressway along north and east sides of City	UDOT
2	1600 North: West of Railroad Crossing	Widen	Widen to 3 lanes	Vineyard
3	Vineyard Connector: 1200 North to 1600 North	Widen	Widen to 7 lanes	UDOT
4	Vineyard Connector: Main St to 1200 North	Widen	Widen to 5 lanes	UDOT
5	Main St / Vineyard Connector Intersection	Intersection	Increase intersection capacity / Innovative intersection	UDOT
6	Vineyard Connector & 800 North / Geneva Rd	Intersection	Grade-separated intersection	UDOT
7	400 North: Main St to Mill Rd	New	Construct 400 North connection (at-grade or grade-separated)	Vineyard
8	400 North / Geneva Rd	Intersection	Increase intersection capacity	UDOT
9	Center Street / Geneva Rd	Intersection	Increase intersection capacity	UDOT
10	400 South: Vineyard Rd to Geneva Rd	Widen	Widen to 5 lanes, consider restricting SB LT movement from Vineyard Rd	Vineyard

BUILD LOS

With the proposed improvements, most Vineyard City roadways are anticipated to operate at LOS D or better, as shown in Figure 20. Future (2050) evening peak hour LOS results are shown in Table 14.

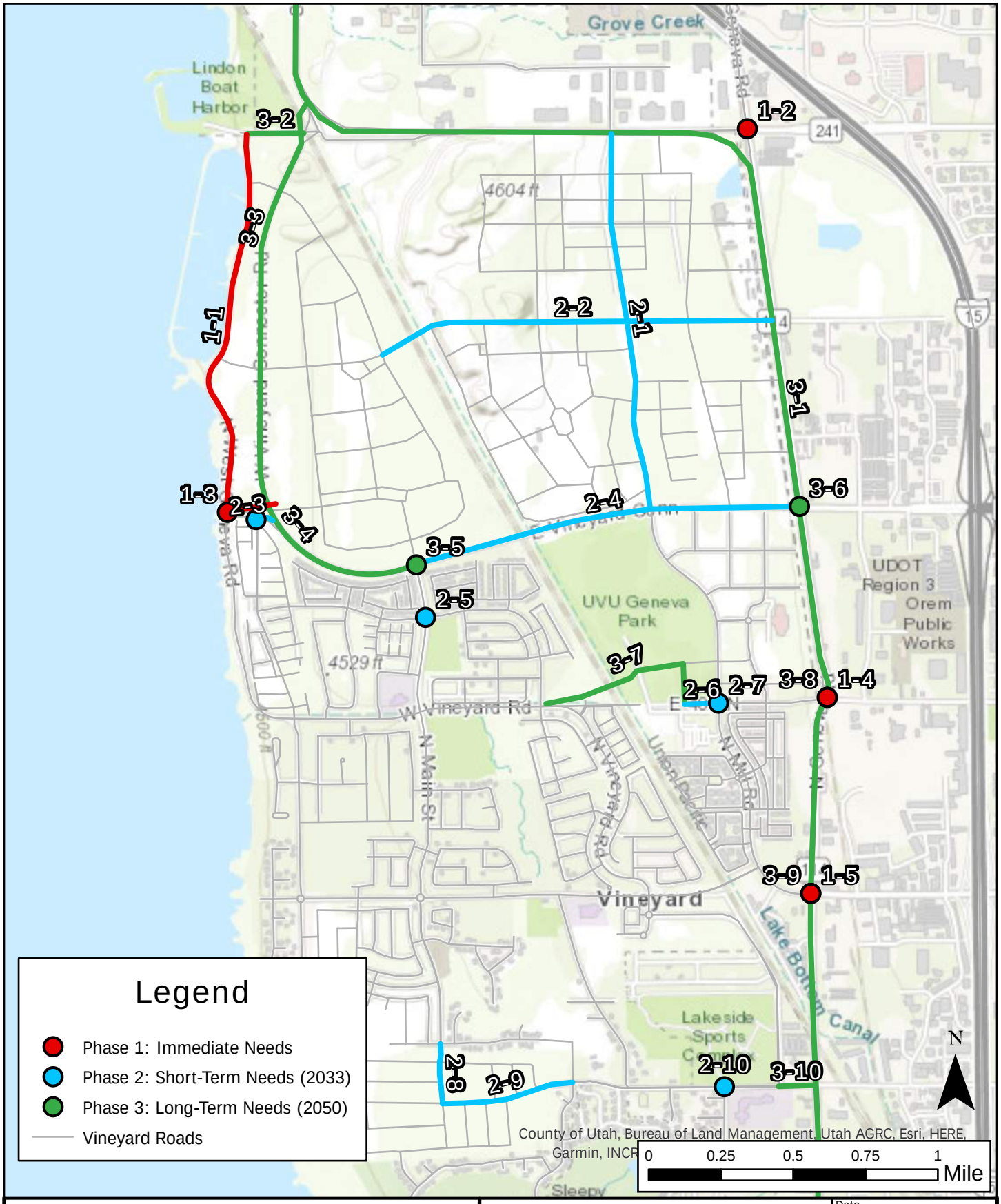
Table 14: Future (2050) Build Evening Peak Hour Level of Service

Intersection		Level of Service		
Description	Control	Movement[1]	Aver. Delay (Sec/Veh)	LOS[2]
400 North / Main Street	Signal	-	39.2	D
600 North / Main Street	Signal	-	12.2	B
Vineyard Road / Center Street	Signal	-	43.6	D
400 South / Geneva Road (SR-114)	Signal	-	37.7	D
Vineyard Road / 400 South	SB Stop	SBL	16.5	c

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

2. Uppercase LOS used for signalized, roundabout, and AWSC intersections. Lowercase LOS used for non-AWSC unsignalized intersections.

Source: Hales Engineering, February 2025



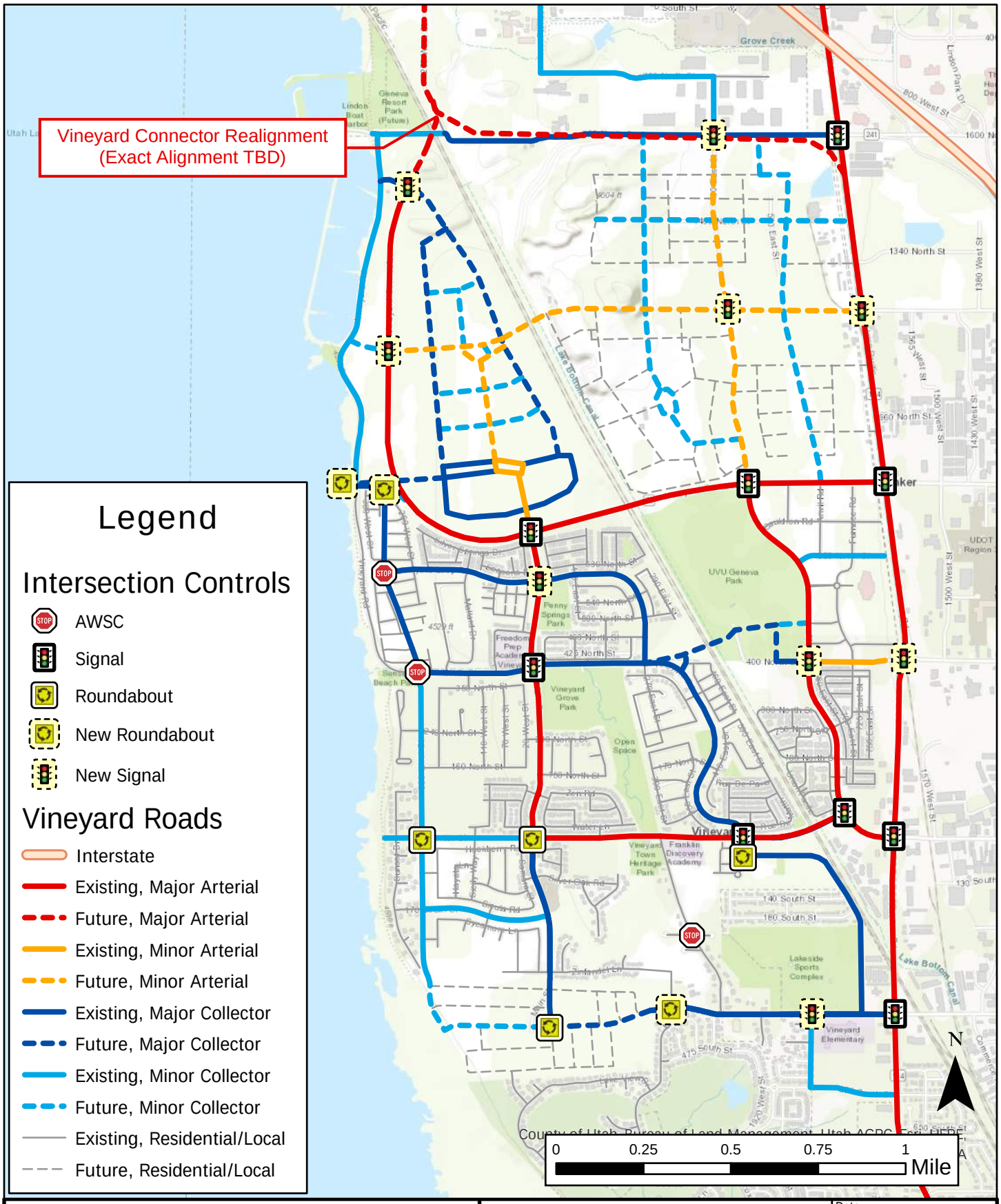
VINEYARD
STAY CONNECTED
TRANSPORTATION MASTER PLAN

Future (2050) Roadway Projects

Date 8/5/2025

Project UT23-2453

Figure 18



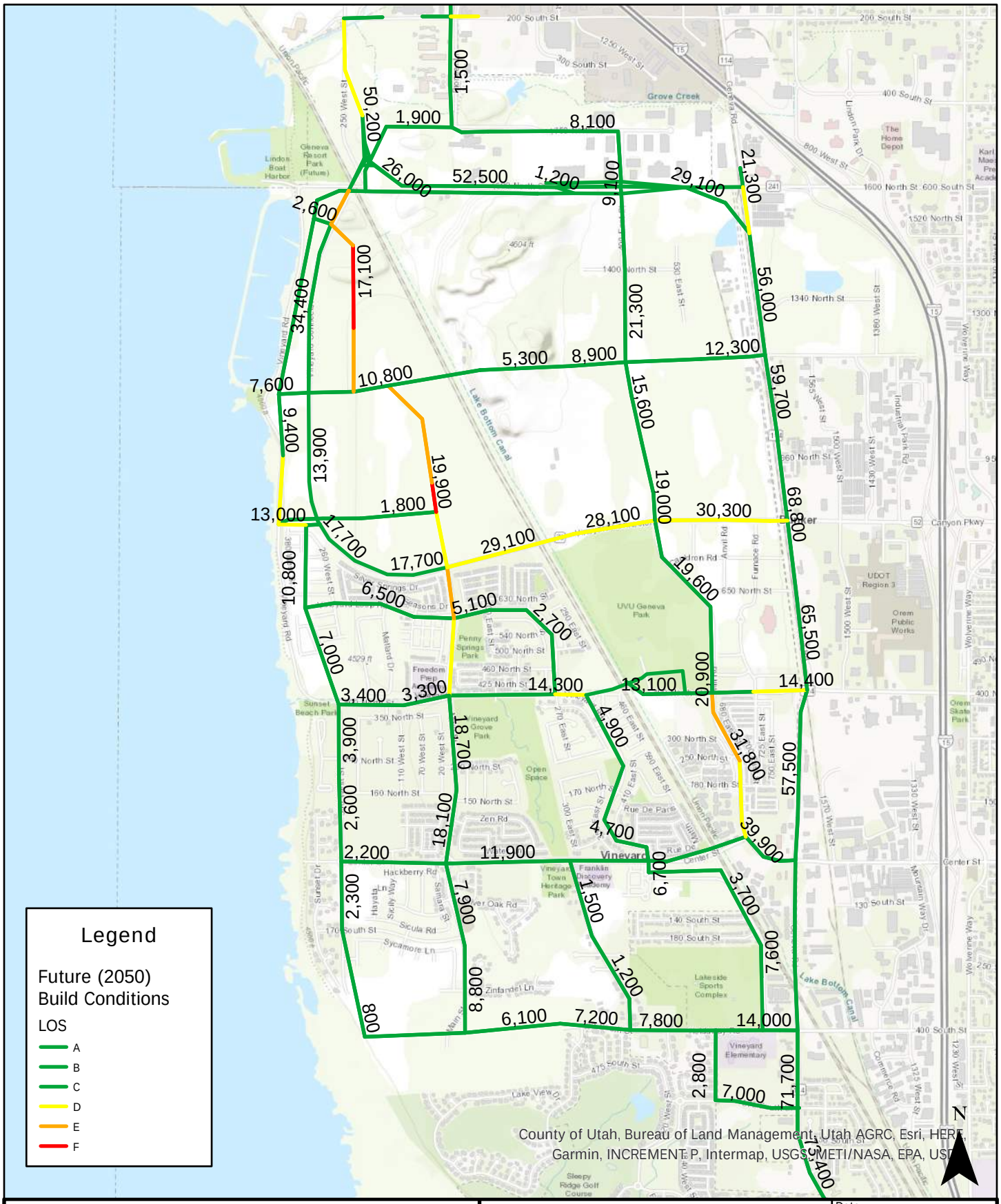
VINEYARD
STAY CONNECTED
TRANSPORTATION MASTER PLAN

Future (2050) Roadway Network

Date 6/17/2025

Project UT23-2453

Figure 19



VINEYARD
STAY CONNECTED
TRANSPORTATION MASTER PLAN

Future (2050) Build LOS

Date 8/13/2025

Project UT23-2453

Figure 20

PUBLIC TRANSIT & ACTIVE TRANSPORTATION

PURPOSE

A transportation system is composed of more than roadways. It also includes provisions for other modes of transportation including public transit, cycling, and walking. The purpose of this section is to discuss these modes and how Vineyard City can improve the infrastructure that facilitates these modes.

PUBLIC TRANSIT

Public transportation in Vineyard City is served by the Utah Transit Authority (UTA). Currently, public transportation within city limits includes bus and commuter rail service through UTA's Frontrunner system at the Vineyard Station. Figure 21 shows the existing and future transit routes in Vineyard.

The following are the existing transit facilities in Vineyard City:

- Bus – There is one existing UTA bus route that services Vineyard City, which is Route 834. Route 834 has headways of approximately 30 minutes and travels between Provo Central Station and the Vineyard Station via University Avenue, Orem Center Street, Vineyard Center Street, and Vineyard Main Street.
- UTA Frontrunner – The Vineyard Station, northeast of the Main Street & Vineyard Connector intersection provides UTA transit connectivity to the entire Wasatch Front from Provo to Ogden.

The following are proposed transit routes and systems for Vineyard:

- Light Rail (TRAX) – Proposed to follow along Geneva Road, then along 1200 North to the current rail line, then southward along the east side of the rail line towards Orem. This is anticipated to provide access to the greater Utah County transit network and to key destinations such as UVU. The first phase of this alignment could be a connection between the north UVU parcel in Vineyard to the main UVU campus in Orem.
- Bus Rapid Transit – One proposed connection between Orem / UVU to the Vineyard Station, and another proposed along 800 North to connect the Vineyard Station to transit routes along State Street (US-89) in Orem.
- Circulator – To reduce dependency on personal vehicles in the downtown area, a circulator could be considered to transport local downtown residents to various destinations including the Vineyard Station. This will require further study as the downtown develops.

ACTIVE TRANSPORTATION

Providing safe and convenient bicycle and pedestrian facilities in Vineyard City is critical to promoting active and multi-modal transportation. If citizens have easy access to these facilities, use of the bicycle and pedestrian modes of travel will increase. The City has a few existing routes to facilitate these modes. However, there are also some improvements that could be made to improve the system.

This section is a supplement to the parks and recreation element of the General Plan. The following are the classifications of bike facilities that are found or planned for in Vineyard City:

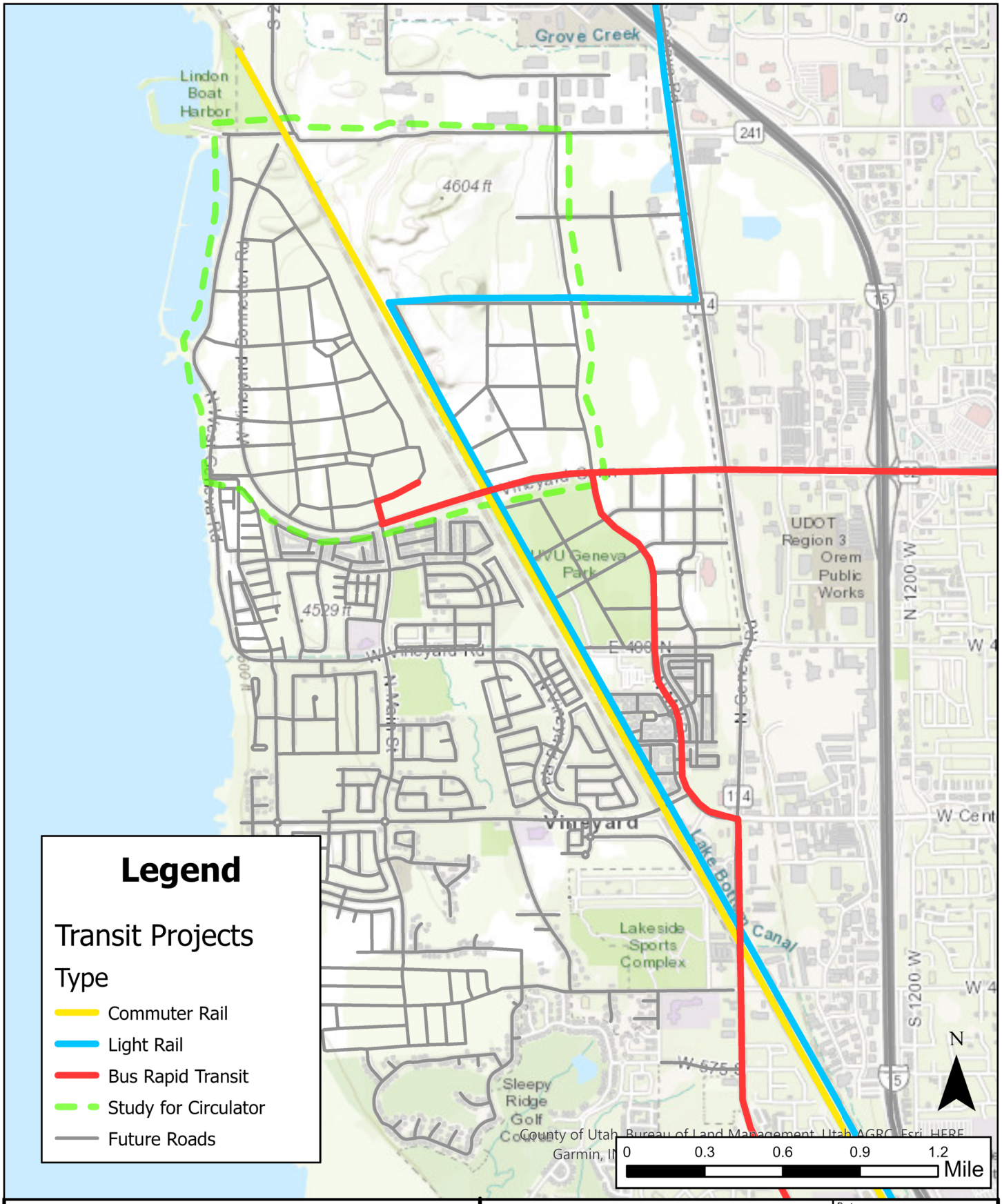
- Multi-Use Trail – A separate path designed for non-motorized traffic such as bicycles or pedestrians. Other names for these facilities include "bike paths" or "shared-use paths."
- Bike Lane – A facility that includes striped lanes meant for bicycle use within the paved roadway.
- Shared Roadway – Facilities designated by signs, striping, and/or directional markers where bicycles share the roadway with motorized traffic.

Vineyard City currently has a growing network of these bicycle facilities. Future bike facilities were identified based primarily on the City of Vineyard Active Transportation Plan (November 2022). Existing and proposed bike facilities are shown in Figure 22. The purpose of the proposed facilities is to connect existing facilities and to plan for facilities in developing areas.

The details of multiple active transportation implements can be found in the Active Transportation Plan document. Some proposed treatments throughout the City include the following:

1. Shared Roadway –A sharrow in the vehicle travel lane for shared use.
2. Conventional Bike Lane –a dedicated bike lane adjacent to vehicle traffic.
3. Buffered Bike Lane –a bike lane separated by a small buffer from vehicles.

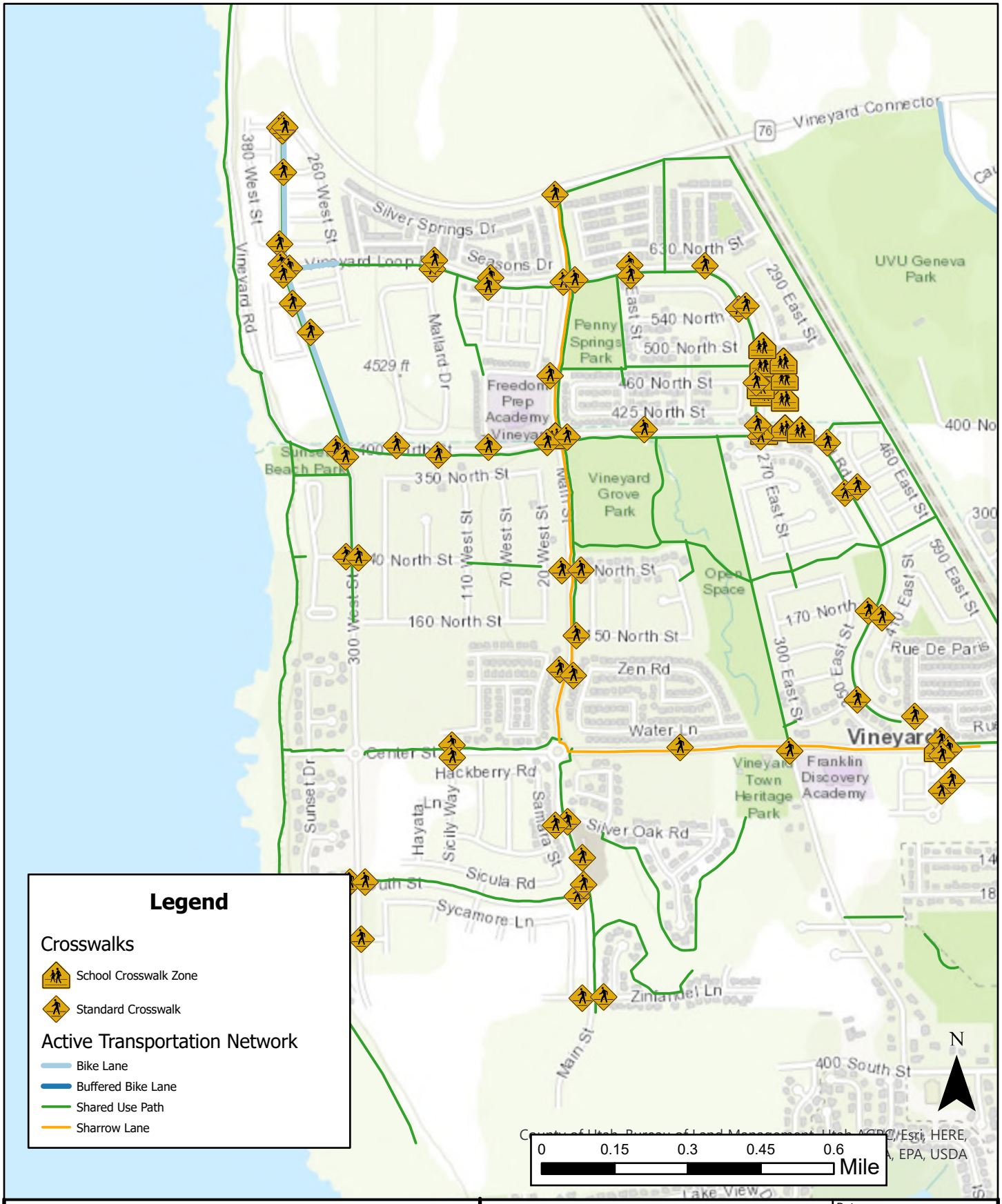
The location of parks is important when considering bike and pedestrian facilities and this was considered when proposing future facilities. Several parks currently exist in Vineyard City, scattered in a variety of places. More information on these parks is available at https://www.vineyardutah.gov/government/parks.php



VINEYARD
STAY CONNECTED
TRANSPORTATION MASTER PLAN

Future (2050) Transit

Date	6/6/2025
Project	UT23-2453
	Figure 21



VINEYARD
STAY CONNECTED
TRANSPORTATION MASTER PLAN

Future (2050) Active Transportation

Date 3/29/2025

Project UT23-2453

Figure 22

SAFETY

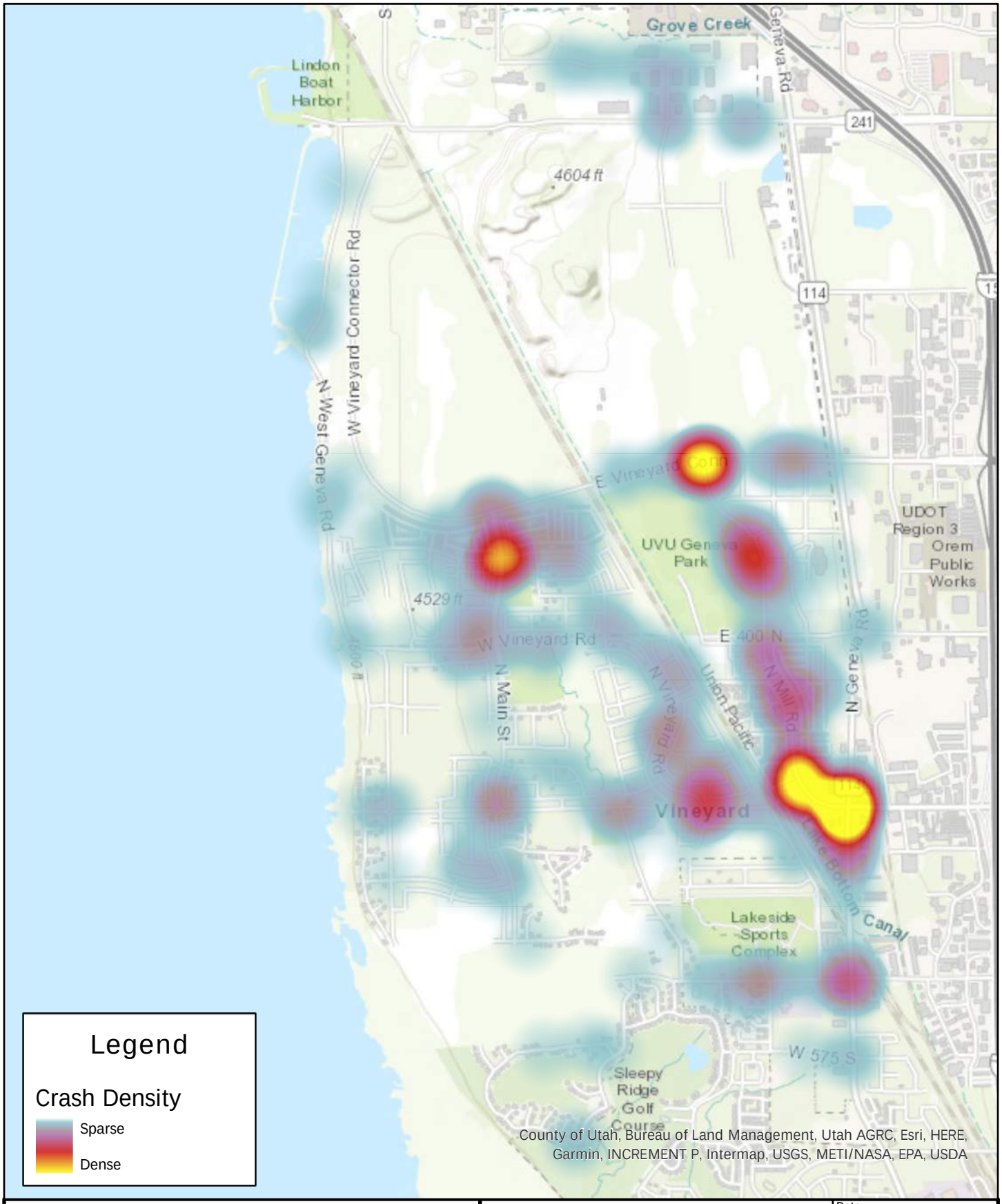
PURPOSE

The purpose of this chapter is to analyze the safety of the existing road network in Vineyard City and to recommend improvements. A few intersections have been identified by the City as areas of concern, which will be discussed in this chapter. In addition, potential traffic calming measures and access management strategies are presented.

SAFETY HOTSPOTS

This section addresses safety concerns at existing intersections in Vineyard City. Factors including crash history, sight distance, and intersection offset were examined to determine if any mitigations are needed to improve safety. Crash data are protected under 23 USC 409.

- 255 North / Mill Road
  - Angle collisions comprised approximately 15 percent of crashes at this location. 65 percent of crashes were intersection related. 30 percent of crashes involved roadway departures. Only one of the six reported crashes suspected minor injury. The remaining crashes were no injury/property damage only.
- 650 North / Mill Road
  - Both angle and sideswipe same direction collisions comprised approximately 25 percent of crashes at this location. All the crashes were intersection related. 40 percent of crashes involved roadway departures. Two of the eight reported crashes included possible injury. The remaining crashes were no injury/property damage only.
- 800 North / Mill Road
  - Angle collisions comprised approximately 15 percent of crashes at this location. All crashes were intersection related. 20 percent of crashes involved distracted driving. Five of the 30 reported crashes suspected minor injury and four reported possible injury. The remaining crashes were no injury/property damage only.
- 170 North / Vineyard Road
  - Angle collisions comprised approximately 60 percent of crashes at this location. 100 percent of crashes were intersection related. 30 percent of crashes involved distracted driving. Three of the seven crashes reported suspected minor injury, one reported possible injury, and one reported suspected serious injury. The remaining crashes were no injury/property damage only.
- Center Street / Main Street
  - Front to rear collisions comprised approximately 30 percent of crashes at this location. 85 percent of crashes were intersection related. 20 percent of crashes involved distracted driving. 30 percent of crashes were reported as sideswipe same direction. One of the six reported crashes was reported to be serious. The remaining crashes were no injury/property damage only.



VINEYARD
STAY CONNECTED
TRANSPORTATION MASTER PLAN

Crash Analysis Heat Map

Date 6/13/2025

Project UT23-2453

Figure 23

CONCLUSION

OVERVIEW

The purpose of this TMP for Vineyard City is to plan for the future multi-modal transportation needs of Vineyard City. The following tasks were completed as a part of this TMP:

- The land use and socioeconomic characteristics were reviewed and summarized.
- The functional classification of roadways was redefined.
- Data were collected to summarize the existing traffic volume conditions.
- Future volumes in 2050 conditions were projected using development predictions from Vineyard City and the travel demand model.
- A LOS analysis was performed to identify existing and future transportation needs.
- Improvements were recommended to support future growth.
- Locations for future signals were identified.
- Truck routes on existing and future roadways were identified.
- The public transit opportunities of the City were discussed.
- Recommendations were given regarding active transportation facilities.
- Several City transportation management strategies were outlined.

NEXT STEPS

It is recommended that the following steps be taken to implement the proposed improvements and recommendations of this study:

- Implement this TMP and pursue funding for roadway projects as needed.
- Require that the trip generation for all new developments be calculated to determine its impact on City roadways. With each new development that generates at least 100 peak hour trips, require that a traffic impact study be completed to analyze nearby intersections to determine needed improvements.
- Continue to communicate regularly with UDOT and UTA on current and future roadway and transit improvement needs within the City.
- Work with the State's Office of Outdoor Recreation, Bike Utah, and other agencies to apply for grant funding to increase the number of trails and active transportation/recreation options for Vineyard City residents. Install bicycle and pedestrian friendly facilities (bike racks, water stations, etc) at key locations for public access.
- Plan to address the safety hotspots with traffic calming devices as outlined above in the plan
- Work with UTA to extend public transportation options

APPENDIX A

Vineyard TAZ Data

TAZID	Actual Vineyard 2023							Vineyard 2033							Vineyard 2050						
	Residents			Employment				Residents			Employment				Residents			Employment			
	Households	Population	Household Size	Total	Retail	Industrial	Other	Households	Population	Household Size	Total	Retail	Industrial	Other	Households	Population	Household Size	Total	Retail	Industrial	Other
2245	0	0	0.00	2,314	230	1,182	902	0	0	0.00	2,382	236	1,213	933	0	0	2.99	2,476	245	1,261	970
2251	1	5	5.00	2,512	248	1,321	943	1	5	5.00	3,442	303	1,865	1,274	1	5	5.00	3,879	341	2,102	1,436
2252	0	0	0.00	5	0	0	5	379	1,156	3.05	223	17	0	206	1,137	3,411	3.00	669	50	0	619
2253	0	0	0.00	5	0	0	5	281	787	2.80	493	33	0	460	844	2,321	2.75	1,480	100	0	1,380
2254	0	0	0.00	30	1	1	28	2,005	4,311	2.15	919	100	0	819	6,015	12,632	2.10	2,758	300	0	2,458
2255	0	0	0.00	30	1	1	28	1,668	3,253	1.95	864	150	0	714	5,004	9,508	1.90	2,593	450	0	2,143
2256	0	0	0.00	98	0	58	40	0	0	0.00	665	2	237	426	0	0	2.94	3,407	10	1,214	2,183
2257	0	0	0.00	267	75	65	127	0	0	0.00	731	284	125	322	0	0	2.90	1,864	724	319	821
2259	0	0	0.00	283	7	80	196	0	0	0.00	1,465	14	326	1,125	0	0	2.99	3,129	30	696	2,403
2260	0	0	0.00	281	8	75	198	0	0	0.00	1,004	32	232	740	0	0	2.79	2,130	68	492	1,570
2262	569	1,776	3.12	238	0	0	238	689	2,106	3.06	96	0	0	96	860	2,586	3.01	71	0	0	71
2263	411	1,224	2.98	160	0	0	160	463	1,359	2.94	39	0	0	39	575	2,273	3.95	47	0	0	47
2264	0	0	0.00	610	1	9	600	0	0	0.00	776	5	14	757	0	0	0.00	1,220	8	22	1,190
2265	137	442	3.23	857	129	269	459	1,932	5,410	2.80	2,417	400	600	1,417	2,000	5,500	2.75	2,991	495	742	1,754
2267	278	906	3.26	12	0	0	12	355	1,131	3.19	130	0	0	130	372	1,167	3.14	33	0	0	33
2268	462	1,508	3.26	136	0	0	136	610	1,906	3.12	129	0	0	129	677	2,081	3.07	56	0	0	56
2269	1,104	3,377	3.06	67	0	0	67	1,104	3,182	2.88	85	0	0	85	1,104	3,127	2.83	91	0	0	91
2270	461	1,269	2.75	393	51	163	179	461	1,280	2.78	827	77	342	408	461	1,257	2.73	833	78	344	411
2272	244	794	3.25	127	0	0	127	393	1,241	3.16	133	0	0	133	453	1,364	3.01	34	0	0	34
2273	127	402	3.17	46	0	0	46	204	654	3.20	90	0	0	90	252	795	3.16	52	0	0	52
2274	181	621	3.43	85	0	17	68	735	2,449	3.33	293	0	57	236	778	2,279	2.93	117	0	23	94
2275	461	1,410	3.06	74	12	12	50	461	1,300	2.82	83	12	14	57	461	1,253	2.72	124	18	21	85
2277	178	616	3.46	32	0	0	32	390	1,272	3.26	18	0	0	18	410	1,298	3.16	22	0	0	22
2278	969	3,287	3.39	380	11	77	292	1,147	3,728	3.25	409	16	81	312	1,178	3,399	2.89	518	20	103	395
2870	0	0	0.00	0	0	0	0	0	0	0.00	0	0	0	0	0	0	0.00	0	0	0	0
TOTAL	**5,583**	**17,637**	**-**	**9,042**	**774**	**3,330**	**4,938**	**13,278**	**36,530**	**-**	**17,713**	**1,681**	**5,106**	**10,926**	**22,582**	**56,256**	**-**	**30,594**	**2,937**	**7,339**	**20,318**

APPENDIX B

Traffic Volume Data Collection

TrafficCounts

2364 North 1450 East
Lehi, UT 84043
801.636.0891

Intersection Turning Movement Summary

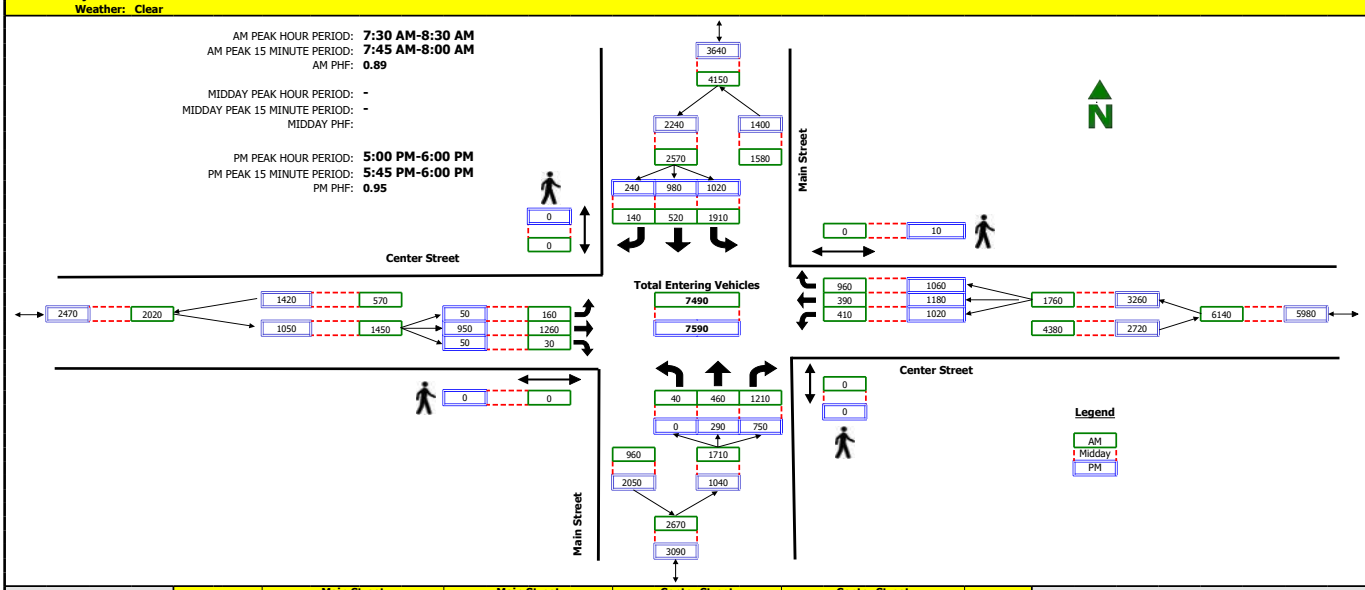
Intersection: Main Street / Center Street
North/South: Main Street
East/West: Center Street
Jurisdiction: Vineyard
Project Title: Vineyard TMP
Project No: UT23-2453
Weather: Clear

Date: 3-7-23, Tue
PM Peak to Daily Volumes Adjustment: 10.0%
Month of Year Adjustment: 100.0%
Adjustment Station #: 0
Growth Rate: 0.0%
Number of Years: 0

AM PEAK HOUR PERIOD: **7:30 AM-8:30 AM**
AM PEAK 15 MINUTE PERIOD: **7:45 AM-8:00 AM**
AM PHF: **0.89**

MIDDAY PEAK HOUR PERIOD: **-**
MIDDAY PEAK 15 MINUTE PERIOD: **-**
MIDDAY PHF:

PM PEAK HOUR PERIOD: **5:00 PM-6:00 PM**
PM PEAK 15 MINUTE PERIOD: **5:45 PM-6:00 PM**
PM PHF: **0.95**



RAW COUNT SUMMARIES	Main Street Northbound				Main Street Southbound				Center Street Eastbound				Center Street Westbound				TOTAL
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
AM PERIOD COUNTS																	
Period	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**	**J**	**K**	**L**	**M**	**N**	**O**	**P**	**TOTAL**
7:00 - 7:15	10	40	110	0	130	20	60	0	80	190	0	0	20	70	110	0	840
7:15 - 7:30	0	140	220	0	320	70	10	0	60	250	0	0	50	80	30	0	1230
7:30 - 7:45	20	110	270	0	310	100	60	0	60	280	10	0	60	60	180	0	1520
7:45 - 8:00	20	140	440	0	520	70	50	0	30	380	0	0	90	170	200	0	2110
8:00 - 8:15	0	130	310	0	480	130	20	0	50	280	20	0	160	70	380	0	2030
8:15 - 8:30	0	80	190	0	600	220	10	0	20	320	0	0	100	90	200	0	1830
8:30 - 8:45	0	120	260	0	260	120	40	0	30	270	0	0	70	120	160	0	1450
8:45 - 9:00	0	140	260	0	310	70	60	0	120	290	40	0	40	180	70	0	1580
MIDDAY PERIOD COUNTS																	
Period	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**	**J**	**K**	**L**	**M**	**N**	**O**	**P**	**TOTAL**
9:00 - 9:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 - 9:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 - 9:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 - 10:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 - 10:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 - 10:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 - 10:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 - 11:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 - 11:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 - 11:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 - 11:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 - 12:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 - 12:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 - 12:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 - 12:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 - 13:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:00 - 13:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:15 - 13:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:30 - 13:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:45 - 14:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:00 - 14:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:15 - 14:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:30 - 14:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:45 - 15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:00 - 15:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:15 - 15:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:30 - 15:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:45 - 16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM PERIOD COUNTS																	
Period	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**	**J**	**K**	**L**	**M**	**N**	**O**	**P**	**TOTAL**
16:00 - 16:15	0	120	130	0	210	100	60	0	10	230	10	0	300	220	380	0	1770
16:15 - 16:30	0	30	200	20	180	180	100	0	40	200	0	0	150	260	270	0	1610
16:30 - 16:45	0	100	220	0	220	100	80	0	50	270	0	0	140	220	190	0	1590
16:45 - 17:00	0	50	170	0	320	200	80	0	90	200	20	0	180	270	250	0	1830
17:00 - 17:15	0	90	160	0	280	170	90	0	10	310	0	0	170	260	320	10	1860
17:15 - 17:30	0	100	170	0	230	250	30	0	20	270	10	0	250	280	310	0	1920
17:30 - 17:45	0	60	200	0	230	220	80	0	0	170	0	0	310	360	180	0	1810
17:45 - 18:00	0	40	220	0	280	340	40	0	20	200	40	0	290	280	250	0	2000

TrafficCounts

2364 North 1450 East
Lehi, UT 84043
801.636.0891

Intersection Turning Movement Summary

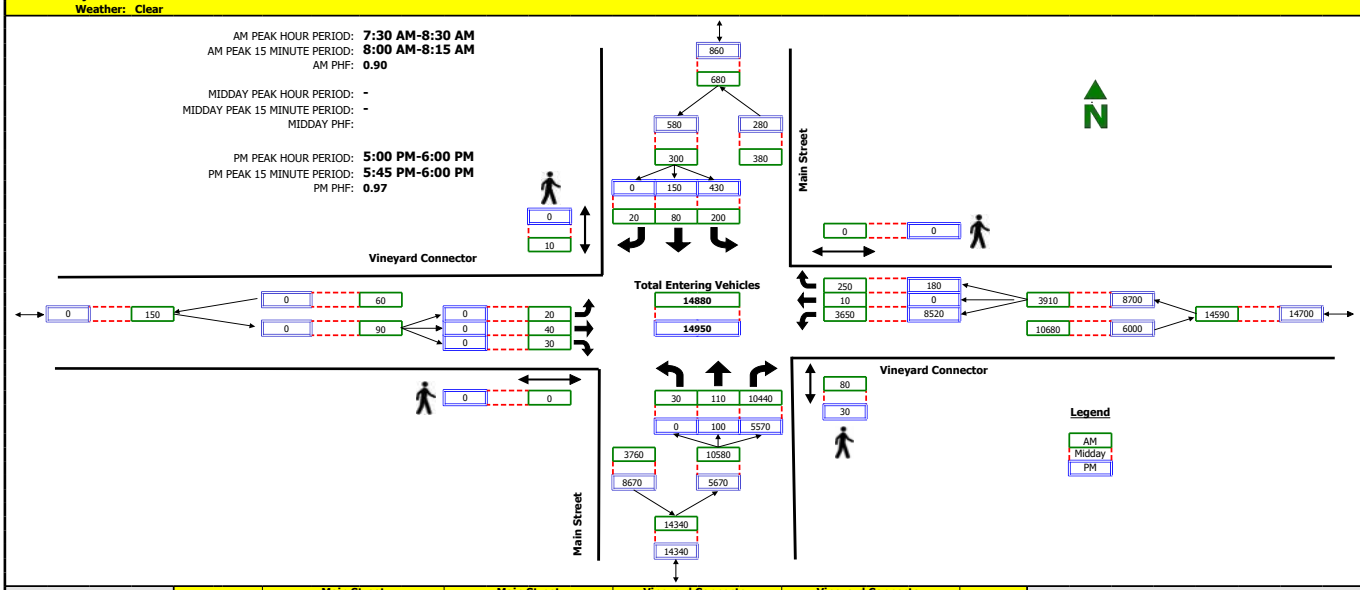
Intersection: Main Street / Vineyard Connector
North/South: Main Street
East/West: Vineyard Connector
Jurisdiction: Vineyard
Project Title: Vineyard TMP
Project No: UT23-2453
Weather: Clear

Date: 3-9-23, Thu
PM Peak to Daily Volumes Adjustment: 10.0%
Month of Year Adjustment: 100.0%
Adjustment Station #: 0
Growth Rate: 0.0%
Number of Years: 0

AM PEAK HOUR PERIOD: **7:30 AM-8:30 AM**
AM PEAK 15 MINUTE PERIOD: **8:00 AM-8:15 AM**
AM PHF: **0.90**

MIDDAY PEAK HOUR PERIOD: **-**
MIDDAY PEAK 15 MINUTE PERIOD: **-**
MIDDAY PHF:

PM PEAK HOUR PERIOD: **5:00 PM-6:00 PM**
PM PEAK 15 MINUTE PERIOD: **5:45 PM-6:00 PM**
PM PHF: **0.97**



RAW COUNT SUMMARIES	Main Street Northbound				Main Street Southbound				Vineyard Connector Eastbound				Vineyard Connector Westbound				TOTAL
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
AM PERIOD COUNTS																	
Period	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**	**J**	**K**	**L**	**M**	**N**	**O**	**P**	**TOTAL**
7:00 - 7:15	0	10	1020	0	90	50	10	0	0	30	0	0	430	40	90	0	1770
7:15 - 7:30	0	70	1560	10	40	20	10	0	20	0	0	0	490	30	160	10	2400
7:30 - 7:45	0	0	2710	10	50	10	0	0	10	0	0	0	820	0	20	0	3620
7:45 - 8:00	0	70	2520	30	60	40	10	10	0	0	20	0	980	0	140	0	3840
8:00 - 8:15	20	20	2920	20	60	10	10	0	0	30	0	0	1060	0	10	0	4140
8:15 - 8:30	10	20	2290	20	30	20	0	0	10	10	10	0	790	10	80	0	3280
8:30 - 8:45	0	10	2340	10	20	10	0	0	0	0	0	0	670	20	0	0	3070
8:45 - 9:00	0	20	2550	10	20	10	0	0	0	0	0	10	940	20	0	10	3560
MIDDAY PERIOD COUNTS																	
Period	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**	**J**	**K**	**L**	**M**	**N**	**O**	**P**	**TOTAL**
9:00 - 9:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 - 9:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 - 9:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 - 10:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 - 10:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 - 10:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 - 10:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 - 11:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 - 11:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 - 11:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 - 11:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 - 12:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 - 12:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 - 12:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 - 12:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 - 13:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:00 - 13:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:15 - 13:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:30 - 13:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:45 - 14:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:00 - 14:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:15 - 14:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:30 - 14:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:45 - 15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:00 - 15:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:15 - 15:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:30 - 15:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:45 - 16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM PERIOD COUNTS																	
Period	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**	**J**	**K**	**L**	**M**	**N**	**O**	**P**	**TOTAL**
16:00 - 16:15	0	20	1060	30	130	50	0	0	10	20	0	0	1610	0	20	0	2920
16:15 - 16:30	0	20	1140	10	20	50	0	0	0	30	0	0	1970	0	70	0	3300
16:30 - 16:45	0	10	1080	20	80	30	0	0	0	40	0	0	1890	0	20	10	3150
16:45 - 17:00	0	40	1640	0	40	40	0	0	0	0	0	0	1750	0	90	0	3600
17:00 - 17:15	0	20	1390	20	110	30	0	0	0	0	0	0	1960	0	50	0	3560
17:15 - 17:30	0	40	1310	0	140	20	0	0	0	0	0	0	2260	0	30	0	3800
17:30 - 17:45	0	10	1490	10	170	60	0	0	0	0	0	0	1950	0	70	0	3750
17:45 - 18:00	0	30	1380	0	10	40	0	0	0	0	0	0	2350	0	30	0	3840

TrafficCounts

2364 North 1450 East
Lehi, UT 84043
801.636.0891

Intersection Turning Movement Summary

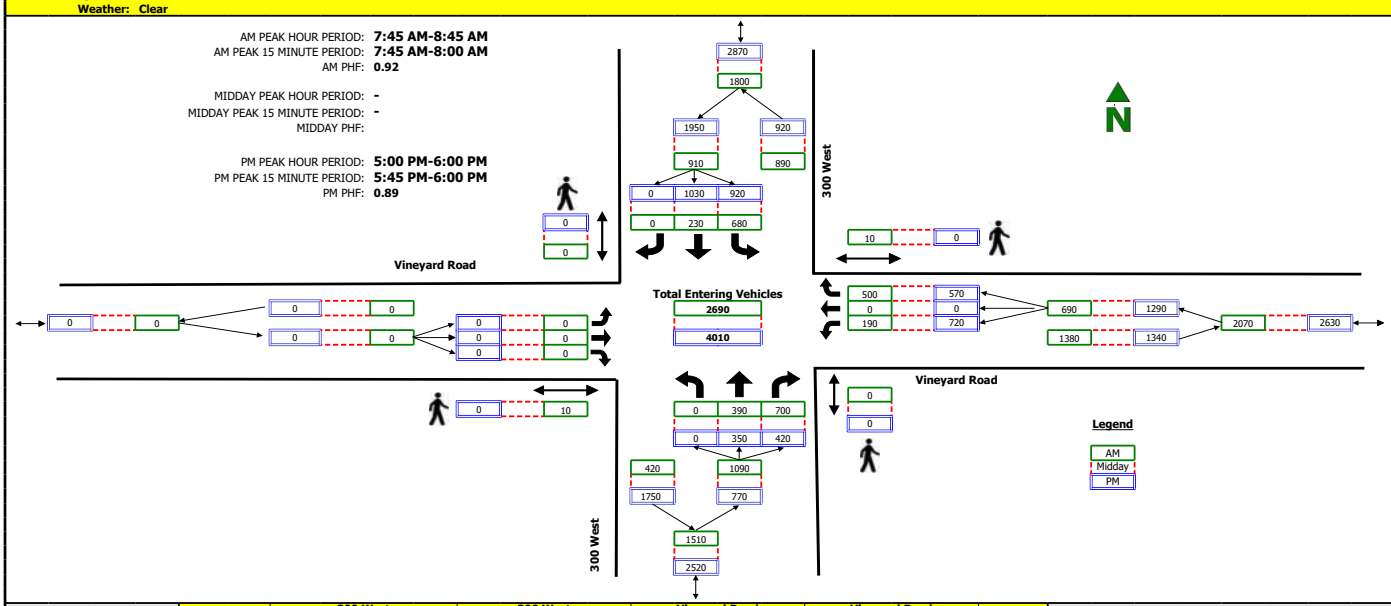
Intersection: 300 West / Vineyard Road
North/South: 300 West
East/West: Vineyard Road
Jurisdiction: Vineyard
Project Title: Vineyard TMP
Project No: UT23-2453
Weather: Clear

Date: 3-8-23, Wed
PM Peak to Daily Volumes Adjustment 10.0%
Month of Year Adjustment: 100.0%
Adjustment Station #: 0
Growth Rate: 0.0%
Number of Years: 0

AM PEAK HOUR PERIOD: **7:45 AM-8:45 AM**
AM PEAK 15 MINUTE PERIOD: **7:45 AM-8:00 AM**
AM PHF: **0.92**

MIDDAY PEAK HOUR PERIOD: **-**
MIDDAY PEAK 15 MINUTE PERIOD: **-**
MIDDAY PHF:

PM PEAK HOUR PERIOD: **5:00 PM-6:00 PM**
PM PEAK 15 MINUTE PERIOD: **5:45 PM-6:00 PM**
PM PHF: **0.89**



RAW COUNT SUMMARIES	300 West Northbound				300 West Southbound				Vineyard Road Eastbound				Vineyard Road Westbound				TOTAL
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
AM PERIOD COUNTS																	
Period	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**	**J**	**K**	**L**	**M**	**N**	**O**	**P**	**TOTAL**
7:00 - 7:15	0	50	60	0	100	30	0	0	0	0	0	0	30	0	50	0	320
7:15 - 7:30	0	30	160	0	120	30	0	0	0	0	0	10	30	0	20	0	390
7:30 - 7:45	0	60	190	0	160	80	0	0	0	0	0	10	50	0	70	0	610
7:45 - 8:00	0	100	200	0	200	50	0	0	0	0	0	10	40	0	140	0	730
8:00 - 8:15	0	90	140	0	130	70	0	0	0	0	0	0	90	0	100	0	620
8:15 - 8:30	0	110	200	0	160	60	0	0	0	0	0	0	40	0	140	10	710
8:30 - 8:45	0	90	160	0	190	50	0	0	0	0	0	0	20	0	120	0	630
8:45 - 9:00	0	110	140	0	220	60	0	0	0	0	0	0	80	0	100	0	710
MIDDAY PERIOD COUNTS																	
Period	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**	**J**	**K**	**L**	**M**	**N**	**O**	**P**	**TOTAL**
9:00 - 9:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 - 9:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 - 9:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 - 10:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 - 10:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 - 10:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 - 10:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 - 11:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 - 11:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 - 11:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 - 11:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 - 12:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 - 12:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 - 12:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 - 12:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 - 13:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:00 - 13:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:15 - 13:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:30 - 13:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:45 - 14:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:00 - 14:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:15 - 14:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:30 - 14:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:45 - 15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:00 - 15:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:15 - 15:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:30 - 15:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:45 - 16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM PERIOD COUNTS																	
Period	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**	**J**	**K**	**L**	**M**	**N**	**O**	**P**	**TOTAL**
16:00 - 16:15	0	60	70	0	140	140	0	0	0	10	0	0	70	0	170	0	660
16:15 - 16:30	0	80	50	10	140	90	0	0	0	0	0	0	120	0	150	10	630
16:30 - 16:45	0	30	130	0	250	170	0	0	0	0	0	0	170	0	180	0	930
16:45 - 17:00	0	110	70	10	150	200	0	0	0	0	0	0	90	0	160	0	780
17:00 - 17:15	0	50	40	0	240	270	0	0	0	0	0	0	180	0	70	0	850
17:15 - 17:30	0	80	80	0	290	290	0	0	0	0	0	0	190	0	140	0	1070
17:30 - 17:45	0	130	160	0	150	190	0	0	0	0	0	0	150	0	180	0	960
17:45 - 18:00	0	90	140	0	240	280	0	0	0	0	0	0	200	0	180	0	1130

TrafficCounts

2364 North 1450 East
Lehi, UT 84043
801.636.0891

Intersection Turning Movement Summary

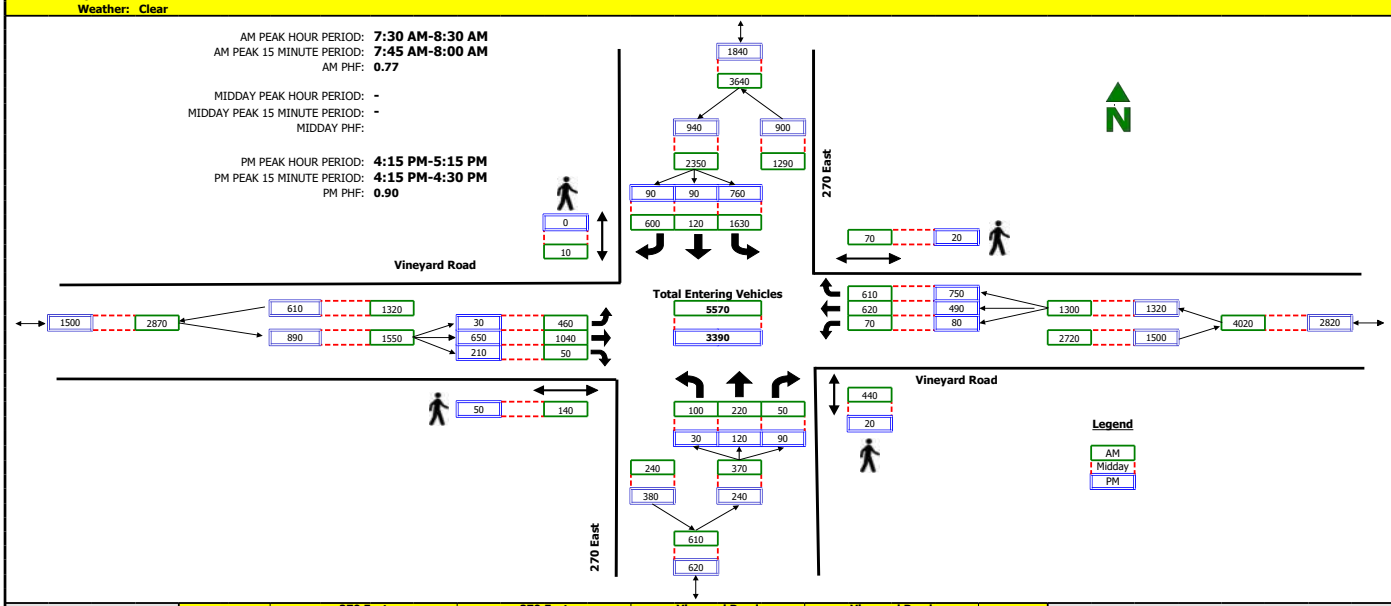
Intersection: 270 East / Vineyard Road
North/South: 270 East
East/West: Vineyard Road
Jurisdiction: Vineyard
Project Title: Vineyard TMP
Project No: UT23-2453
Weather: Clear

Date: 3-8-23, Wed
PM Peak to Daily Volumes Adjustment 10.0%
Month of Year Adjustment: 100.0%
Adjustment Station #: 0
Growth Rate: 0.0%
Number of Years: 0

AM PEAK HOUR PERIOD: **7:30 AM-8:30 AM**
AM PEAK 15 MINUTE PERIOD: **7:45 AM-8:00 AM**
AM PHF: **0.77**

MIDDAY PEAK HOUR PERIOD: **-**
MIDDAY PEAK 15 MINUTE PERIOD: **-**
MIDDAY PHF:

PM PEAK HOUR PERIOD: **4:15 PM-5:15 PM**
PM PEAK 15 MINUTE PERIOD: **4:15 PM-4:30 PM**
PM PHF: **0.90**



RAW COUNT SUMMARIES

Period	270 East Northbound Left	Thru	Right	Peds	270 East Southbound Left	Thru	Right	Peds	Vineyard Road Eastbound Left	Thru	Right	Peds	Vineyard Road Westbound Left	Thru	Right	Peds	TOTAL
AM PERIOD COUNTS																	
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	TOTAL
7:00 - 7:15	10	10	0	10	90	10	0	0	0	80	10	30	10	80	40	10	340
7:15 - 7:30	0	60	30	70	120	0	30	0	10	180	10	20	0	40	90	10	570
7:30 - 7:45	0	20	0	80	470	10	110	0	130	150	0	10	20	110	230	20	1250
7:45 - 8:00	50	80	10	300	420	20	220	0	220	390	20	120	20	140	210	40	1800
8:00 - 8:15	40	60	20	60	470	50	200	0	90	290	10	10	10	240	70	10	1550
8:15 - 8:30	10	60	20	0	270	40	70	10	20	210	20	0	20	130	100	0	970
8:30 - 8:45	0	30	10	20	230	0	10	0	20	80	10	10	10	110	80	0	590
8:45 - 9:00	0	20	70	10	200	20	30	10	30	90	10	0	10	130	90	10	700
MIDDAY PERIOD COUNTS																	
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	TOTAL
9:00 - 9:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 - 9:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 - 9:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 - 10:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 - 10:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 - 10:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 - 10:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 - 11:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 - 11:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 - 11:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 - 11:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 - 12:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 - 12:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 - 12:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 - 12:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 - 13:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:00 - 13:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:15 - 13:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:30 - 13:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:45 - 14:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:00 - 14:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:15 - 14:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:30 - 14:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:45 - 15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:00 - 15:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:15 - 15:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:30 - 15:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:45 - 16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM PERIOD COUNTS																	
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	TOTAL
16:00 - 16:15	10	20	0	0	170	20	30	0	20	200	50	0	30	140	120	0	810
16:15 - 16:30	30	50	30	20	190	10	60	0	10	140	80	40	40	110	190	0	940
16:30 - 16:45	0	30	20	0	220	40	0	0	20	170	40	10	20	130	150	10	840
16:45 - 17:00	0	20	20	0	160	20	10	0	0	130	50	0	0	110	160	10	680
17:00 - 17:15	0	20	20	0	190	20	20	0	0	210	40	0	20	140	250	0	930
17:15 - 17:30	10	10	20	0	210	40	0	0	0	160	20	0	20	100	270	0	860
17:30 - 17:45	10	50	0	0	120	20	10	0	10	170	30	10	20	120	200	10	760
17:45 - 18:00	50	50	10	10	90	30	10	0	20	170	40	10	10	110	130	0	720

TrafficCounts

2364 North 1450 East
Lehi, UT 84043
801.636.0891

Intersection Turning Movement Summary

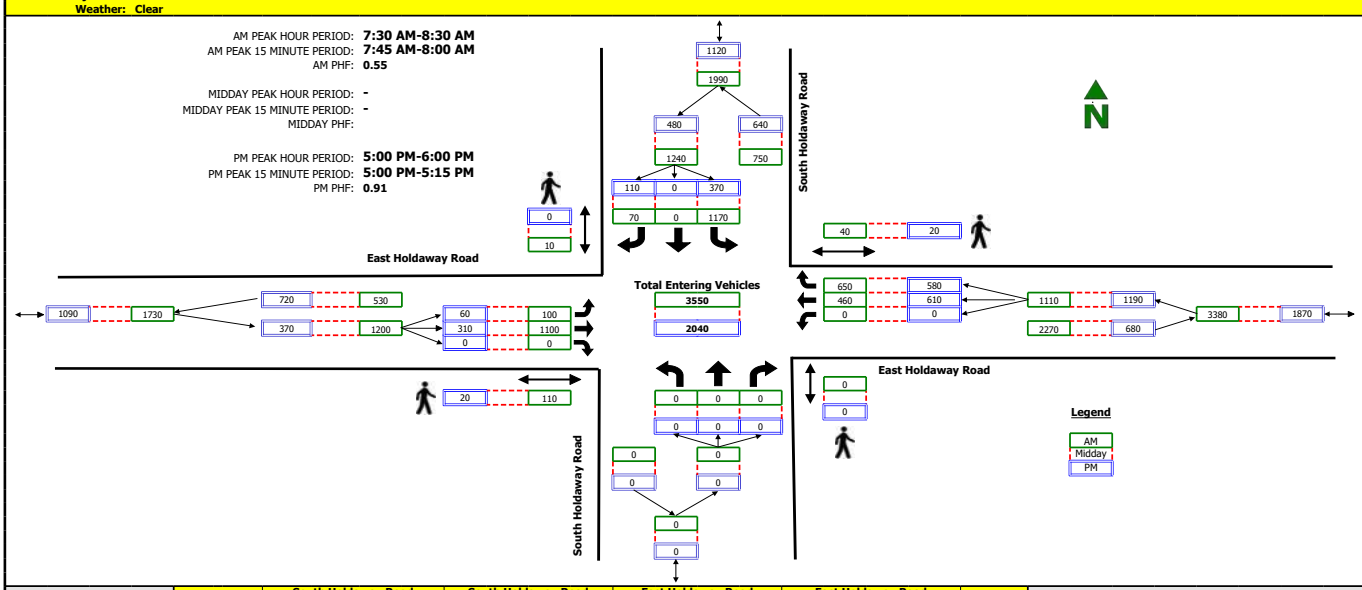
Intersection: South Holdaway Road / East Holdaway Road
North/South: South Holdaway Road
East/West: East Holdaway Road
Jurisdiction: Vineyard
Project Title: Vineyard TMP
Project No: UT23-2453
Weather: Clear

Date: 3-8-23, Wed
PM Peak to Daily Volumes Adjustment: 10.0%
Month of Year Adjustment: 100.0%
Adjustment Station #: 0
Growth Rate: 0.0%
Number of Years: 0

AM PEAK HOUR PERIOD: **7:30 AM-8:30 AM**
AM PEAK 15 MINUTE PERIOD: **7:45 AM-8:00 AM**
AM PHF: **0.55**

MIDDAY PEAK HOUR PERIOD: **-**
MIDDAY PEAK 15 MINUTE PERIOD: **-**
MIDDAY PHF:

PM PEAK HOUR PERIOD: **5:00 PM-6:00 PM**
PM PEAK 15 MINUTE PERIOD: **5:00 PM-5:15 PM**
PM PHF: **0.91**



RAW COUNT SUMMARIES	South Holdaway Road Northbound				South Holdaway Road Southbound				East Holdaway Road Eastbound				East Holdaway Road Westbound				TOTAL
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
AM PERIOD COUNTS																	
Period	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**	**J**	**K**	**L**	**M**	**N**	**O**	**P**	**TOTAL**
7:00 - 7:15	0	0	0	10	60	0	10	0	10	30	0	0	0	30	10	0	150
7:15 - 7:30	0	0	0	0	50	0	0	0	10	250	0	10	0	30	60	10	400
7:30 - 7:45	0	0	0	0	160	0	10	0	10	330	0	110	0	30	70	0	610
7:45 - 8:00	0	0	0	0	580	0	0	0	40	500	0	0	0	240	250	20	1610
8:00 - 8:15	0	0	0	0	200	0	40	10	50	180	0	0	0	80	200	10	750
8:15 - 8:30	0	0	0	0	230	0	20	0	0	90	0	0	0	110	130	10	580
8:30 - 8:45	0	0	0	0	40	0	0	0	0	120	0	0	0	50	80	0	290
8:45 - 9:00	0	0	0	0	130	0	40	10	20	100	0	10	0	40	90	10	420
MIDDAY PERIOD COUNTS																	
Period	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**	**J**	**K**	**L**	**M**	**N**	**O**	**P**	**TOTAL**
9:00 - 9:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 - 9:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 - 9:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 - 10:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 - 10:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 - 10:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 - 10:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 - 11:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 - 11:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 - 11:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 - 11:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 - 12:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 - 12:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 - 12:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 - 12:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 - 13:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:00 - 13:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:15 - 13:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:30 - 13:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:45 - 14:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:00 - 14:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:15 - 14:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:30 - 14:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:45 - 15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:00 - 15:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:15 - 15:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:30 - 15:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:45 - 16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM PERIOD COUNTS																	
Period	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**	**J**	**K**	**L**	**M**	**N**	**O**	**P**	**TOTAL**
16:00 - 16:15	0	0	0	0	60	0	20	0	0	80	0	0	0	140	100	0	400
16:15 - 16:30	0	0	0	0	60	0	10	0	20	70	0	20	0	70	200	0	430
16:30 - 16:45	0	0	0	0	40	0	20	0	20	110	0	0	0	150	110	10	450
16:45 - 17:00	0	0	0	0	110	0	40	0	20	50	0	0	0	90	60	0	370
17:00 - 17:15	0	0	0	0	140	0	30	0	10	100	0	0	0	110	170	10	560
17:15 - 17:30	0	0	0	0	50	0	0	0	10	80	0	0	0	220	140	10	500
17:30 - 17:45	0	0	0	0	70	0	20	0	30	80	0	20	0	200	150	0	550
17:45 - 18:00	0	0	0	0	110	0	60	0	10	50	0	0	0	80	120	0	430

TrafficCounts

2364 North 1450 East
Lehi, UT 84043
801.636.0891

Intersection Turning Movement Summary

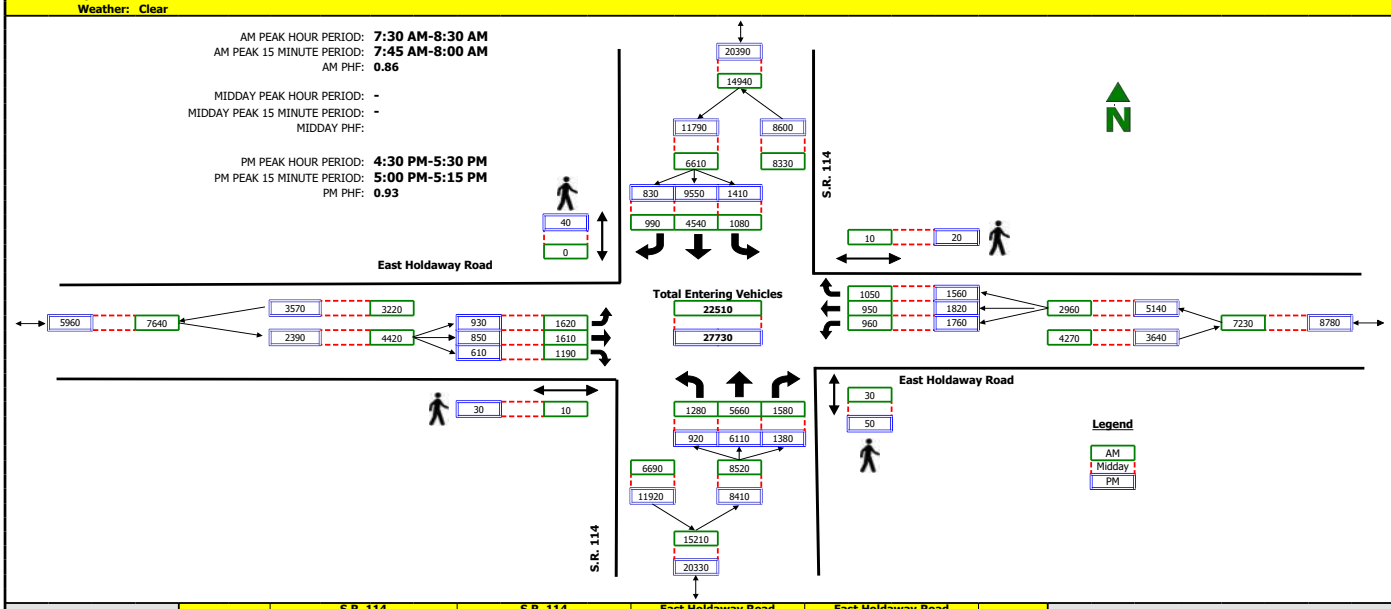
Intersection: S.R. 114 / East Holdaway Road
North/South: S.R. 114
East/West: East Holdaway Road
Jurisdiction: Vineyard
Project Title: Vineyard TMP
Project No: UT23-2453
Weather: Clear

Date: 3-8-23, Wed
PM Peak to Daily Volumes Adjustment 10.0%
Month of Year Adjustment: 100.0%
Adjustment Station #: 0
Growth Rate: 0.0%
Number of Years: 0

AM PEAK HOUR PERIOD: **7:30 AM-8:30 AM**
AM PEAK 15 MINUTE PERIOD: **7:45 AM-8:00 AM**
AM PHF: **0.86**

MIDDAY PEAK HOUR PERIOD: **-**
MIDDAY PEAK 15 MINUTE PERIOD: **-**
MIDDAY PHF:

PM PEAK HOUR PERIOD: **4:30 PM-5:30 PM**
PM PEAK 15 MINUTE PERIOD: **5:00 PM-5:15 PM**
PM PHF: **0.93**



RAW COUNT SUMMARIES	S.R. 114 Northbound				S.R. 114 Southbound				East Holdaway Road Eastbound				East Holdaway Road Westbound				TOTAL
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
AM PERIOD COUNTS																	
Period	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**	**J**	**K**	**L**	**M**	**N**	**O**	**P**	**TOTAL**
7:00 - 7:15	60	1060	220	0	210	700	130	0	130	80	80	0	180	20	100	0	2970
7:15 - 7:30	120	1080	300	0	190	820	100	0	270	170	110	0	220	80	210	0	3670
7:30 - 7:45	230	1350	360	10	300	930	290	0	330	430	160	0	220	130	210	10	4940
7:45 - 8:00	410	1490	470	0	320	1240	200	0	540	600	360	10	230	380	270	0	6510
8:00 - 8:15	440	1490	460	0	280	1240	270	0	470	330	420	0	190	230	210	0	6030
8:15 - 8:30	200	1330	290	20	180	1130	230	0	280	250	250	0	320	210	360	0	5030
8:30 - 8:45	110	1730	280	0	250	1000	180	0	150	130	170	10	170	130	270	0	4570
8:45 - 9:00	100	1560	470	0	240	1130	100	0	270	250	190	0	80	70	230	0	4690
MIDDAY PERIOD COUNTS																	
Period	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**	**J**	**K**	**L**	**M**	**N**	**O**	**P**	**TOTAL**
9:00 - 9:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 - 9:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 - 9:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 - 10:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 - 10:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 - 10:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 - 10:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 - 11:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 - 11:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 - 11:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 - 11:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 - 12:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 - 12:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 - 12:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 - 12:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 - 13:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:00 - 13:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:15 - 13:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:30 - 13:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:45 - 14:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:00 - 14:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:15 - 14:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:30 - 14:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:45 - 15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:00 - 15:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:15 - 15:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:30 - 15:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:45 - 16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM PERIOD COUNTS																	
Period	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**	**J**	**K**	**L**	**M**	**N**	**O**	**P**	**TOTAL**
16:00 - 16:15	310	1420	380	10	330	2100	270	0	140	250	170	0	310	270	390	0	6340
16:15 - 16:30	130	1300	300	10	330	1970	330	0	200	180	230	10	370	340	270	10	5950
16:30 - 16:45	200	1460	430	10	400	2260	290	20	180	250	100	10	280	150	300	0	6300
16:45 - 17:00	210	1680	210	30	260	2260	190	0	270	160	240	10	550	470	540	10	7040
17:00 - 17:15	240	1460	400	10	470	2770	200	10	190	200	110	0	480	540	420	10	7480
17:15 - 17:30	270	1510	340	0	280	2260	150	10	290	240	160	10	450	660	300	0	6910
17:30 - 17:45	180	1360	300	0	290	2060	160	0	200	130	140	0	430	350	480	10	6080
17:45 - 18:00	360	1130	290	10	160	2140	160	0	300	230	80	0	310	430	190	10	5780

TrafficCounts

2364 North 1450 East
Lehi, UT 84043
801.636.0891

Intersection Turning Movement Summary

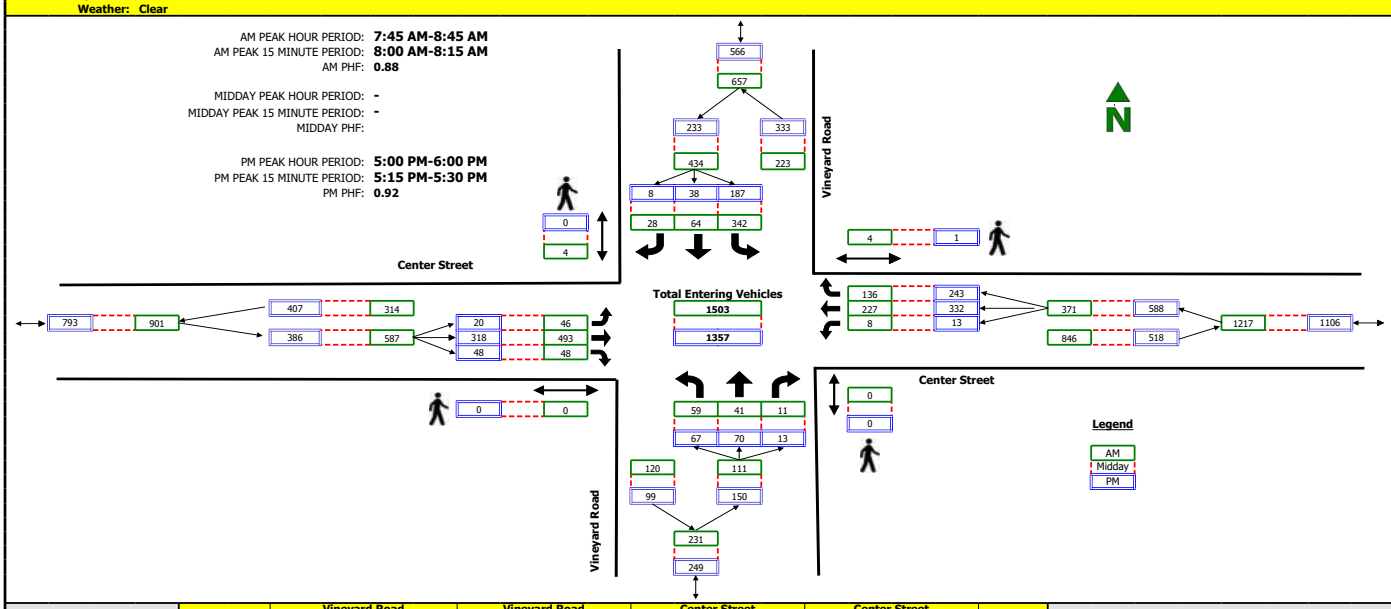
Intersection: Vineyard Road / Center Street
North/South: Vineyard Road
East/West: Center Street
Jurisdiction: Vineyard
Project Title: Vineyard TMP
Project No: UT23-2453
Weather: Clear

Date: 3-7-23, Tue
PM Peak to Daily Volumes Adjustment 100.0%
Month of Year Adjustment: 100.0%
Adjustment Station #: 0
Growth Rate: 0.0%
Number of Years: 0

AM PEAK HOUR PERIOD: **7:45 AM-8:45 AM**
AM PEAK 15 MINUTE PERIOD: **8:00 AM-8:15 AM**
AM PHF: **0.88**

MIDDAY PEAK HOUR PERIOD: **-**
MIDDAY PEAK 15 MINUTE PERIOD: **-**
MIDDAY PHF:

PM PEAK HOUR PERIOD: **5:00 PM-6:00 PM**
PM PEAK 15 MINUTE PERIOD: **5:15 PM-5:30 PM**
PM PHF: **0.92**



RAW COUNT SUMMARIES	Vineyard Road Northbound				Vineyard Road Southbound				Center Street Eastbound				Center Street Westbound				TOTAL
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
AM PERIOD COUNTS																	
Period	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**	**J**	**K**	**L**	**M**	**N**	**O**	**P**	**TOTAL**
7:00 - 7:15	3	3	0	0	39	5	3	0	0	42	5	0	1	19	17	0	137
7:15 - 7:30	2	4	2	0	41	3	2	0	4	66	12	0	1	20	22	0	179
7:30 - 7:45	10	8	3	0	88	12	6	0	4	77	16	0	4	33	37	0	298
7:45 - 8:00	10	4	1	0	84	19	11	0	23	113	11	0	1	38	55	0	370
8:00 - 8:15	23	15	6	0	124	29	3	0	5	105	11	0	2	63	39	0	425
8:15 - 8:30	18	13	0	0	65	9	6	3	10	142	11	0	3	72	23	3	372
8:30 - 8:45	8	9	4	0	69	7	8	1	8	133	15	0	2	54	19	1	336
8:45 - 9:00	11	2	4	0	62	10	6	0	5	93	13	0	0	48	28	1	282
MIDDAY PERIOD COUNTS																	
Period	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**	**J**	**K**	**L**	**M**	**N**	**O**	**P**	**TOTAL**
9:00 - 9:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 - 9:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 - 9:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 - 10:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 - 10:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 - 10:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 - 10:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 - 11:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 - 11:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 - 11:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 - 11:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 - 12:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 - 12:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 - 12:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 - 12:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 - 13:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:00 - 13:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:15 - 13:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:30 - 13:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:45 - 14:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:00 - 14:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:15 - 14:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:30 - 14:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:45 - 15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:00 - 15:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:15 - 15:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:30 - 15:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:45 - 16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM PERIOD COUNTS																	
Period	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**	**J**	**K**	**L**	**M**	**N**	**O**	**P**	**TOTAL**
16:00 - 16:15	22	14	6	0	36	7	5	1	8	82	7	0	6	96	43	0	332
16:15 - 16:30	12	16	4	0	45	14	4	3	8	65	8	0	7	64	52	3	299
16:30 - 16:45	15	11	7	0	56	10	0	0	10	92	11	0	3	58	57	1	330
16:45 - 17:00	17	10	4	0	50	8	8	0	2	73	6	0	7	61	60	1	306
17:00 - 17:15	13	13	3	0	46	12	1	0	0	86	8	0	3	85	63	1	333
17:15 - 17:30	18	24	4	0	64	12	1	0	9	95	15	0	3	74	48	0	367
17:30 - 17:45	17	19	4	0	38	5	1	0	9	71	13	0	5	88	75	0	345
17:45 - 18:00	19	14	2	0	39	9	5	0	2	66	12	0	2	85	57	0	312

TrafficCounts

2364 North 1450 East
Lehi, UT 84043
801.636.0891

Intersection Turning Movement Summary

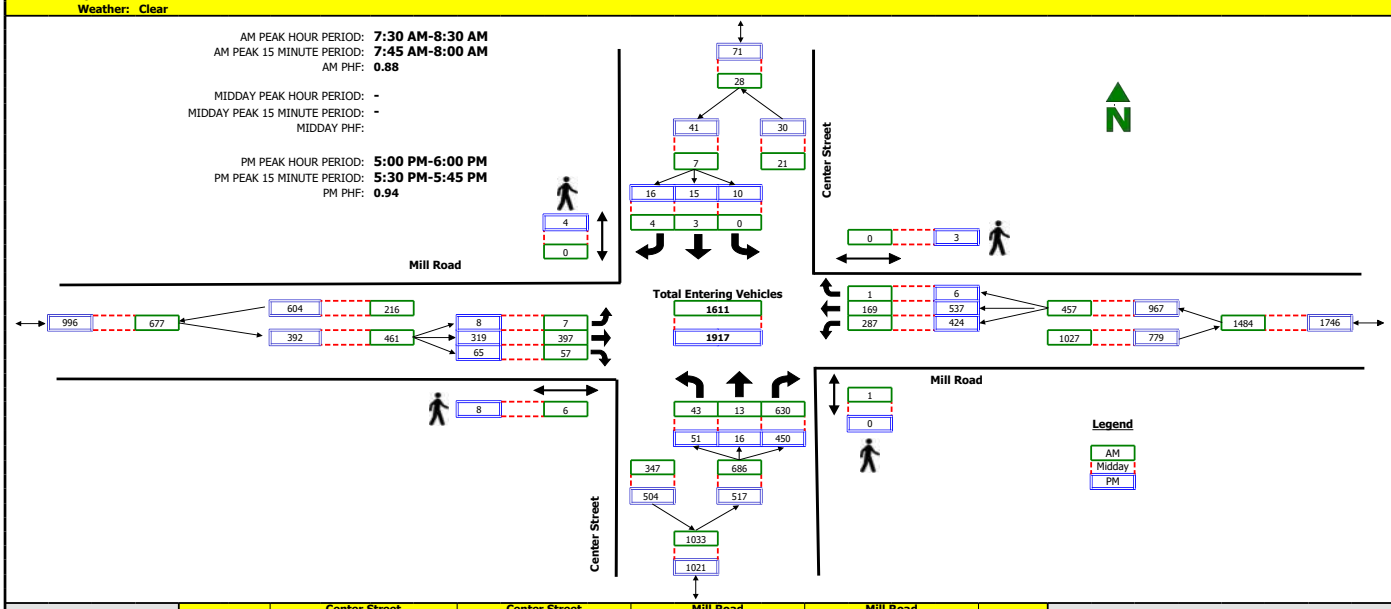
Intersection: Center Street / Mill Road
North/South: Center Street
East/West: Mill Road
Jurisdiction: Vineyard
Project Title: Vineyard Mill Road Plaza
Project No: 2182
Weather: Clear

Date: 3-30-22, Wed
PM to Daily Volumes Adjustment: 100.0%
Month of Year Adjustment: 100.0%
Adjustment Station #: 0
Growth Rate: 0.0%
Number of Years: 0

AM PEAK HOUR PERIOD: **7:30 AM-8:30 AM**
AM PEAK 15 MINUTE PERIOD: **7:45 AM-8:00 AM**
AM PHF: **0.88**

MIDDAY PEAK HOUR PERIOD: **-**
MIDDAY PEAK 15 MINUTE PERIOD: **-**
MIDDAY PHF:

PM PEAK HOUR PERIOD: **5:00 PM-6:00 PM**
PM PEAK 15 MINUTE PERIOD: **5:30 PM-5:45 PM**
PM PHF: **0.94**



RAW COUNT SUMMARIES	Center Street Northbound				Center Street Southbound				Mill Road Eastbound				Mill Road Westbound				TOTAL
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
AM PERIOD COUNTS																	
Period	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	TOTAL
7:00 - 7:15	1	2	72	1	0	0	0	0	1	60	3	0	26	16	0	0	181
7:15 - 7:30	3	5	105	0	0	1	1	0	2	61	9	0	42	21	1	0	251
7:30 - 7:45	8	3	152	1	0	1	1	0	4	108	11	3	50	32	1	0	371
7:45 - 8:00	14	3	179	0	0	0	1	0	0	117	17	0	65	61	0	0	457
8:00 - 8:15	15	4	163	0	0	1	0	0	2	75	15	2	95	42	0	0	412
8:15 - 8:30	6	3	136	0	0	1	2	0	1	97	14	1	77	34	0	0	371
8:30 - 8:45	8	3	136	0	0	1	1	0	3	71	14	0	47	32	0	0	316
8:45 - 9:00	9	3	139	1	0	0	0	1	0	91	13	0	61	41	0	0	357
MIDDAY PERIOD COUNTS																	
Period	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	TOTAL
9:00 - 9:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 - 9:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 - 9:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 - 10:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 - 10:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 - 10:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 - 10:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 - 11:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 - 11:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 - 11:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 - 11:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 - 12:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 - 12:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 - 12:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 - 12:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 - 13:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:00 - 13:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:15 - 13:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:30 - 13:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:45 - 14:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:00 - 14:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:15 - 14:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:30 - 14:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:45 - 15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:00 - 15:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:15 - 15:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:30 - 15:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:45 - 16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM PERIOD COUNTS																	
Period	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	TOTAL
16:00 - 16:15	4	3	91	4	0	2	3	0	1	46	13	2	87	93	0	1	343
16:15 - 16:30	8	1	101	0	2	3	3	2	0	70	18	3	112	97	2	1	417
16:30 - 16:45	7	1	118	1	0	1	0	0	0	73	15	3	64	66	2	1	347
16:45 - 17:00	12	3	124	2	3	0	0	4	3	89	19	2	81	111	3	2	448
17:00 - 17:15	8	9	95	0	5	7	8	2	2	80	15	5	93	129	3	1	454
17:15 - 17:30	13	1	116	0	2	4	3	2	3	67	17	3	113	141	0	2	480
17:30 - 17:45	14	1	116	0	2	3	3	0	0	90	14	0	127	142	0	0	512
17:45 - 18:00	16	5	123	0	1	1	2	0	3	82	19	0	91	125	3	0	471

TrafficCounts

2364 North 1450 East
Lehi, UT 84043
801.636.0891

Intersection Turning Movement Summary

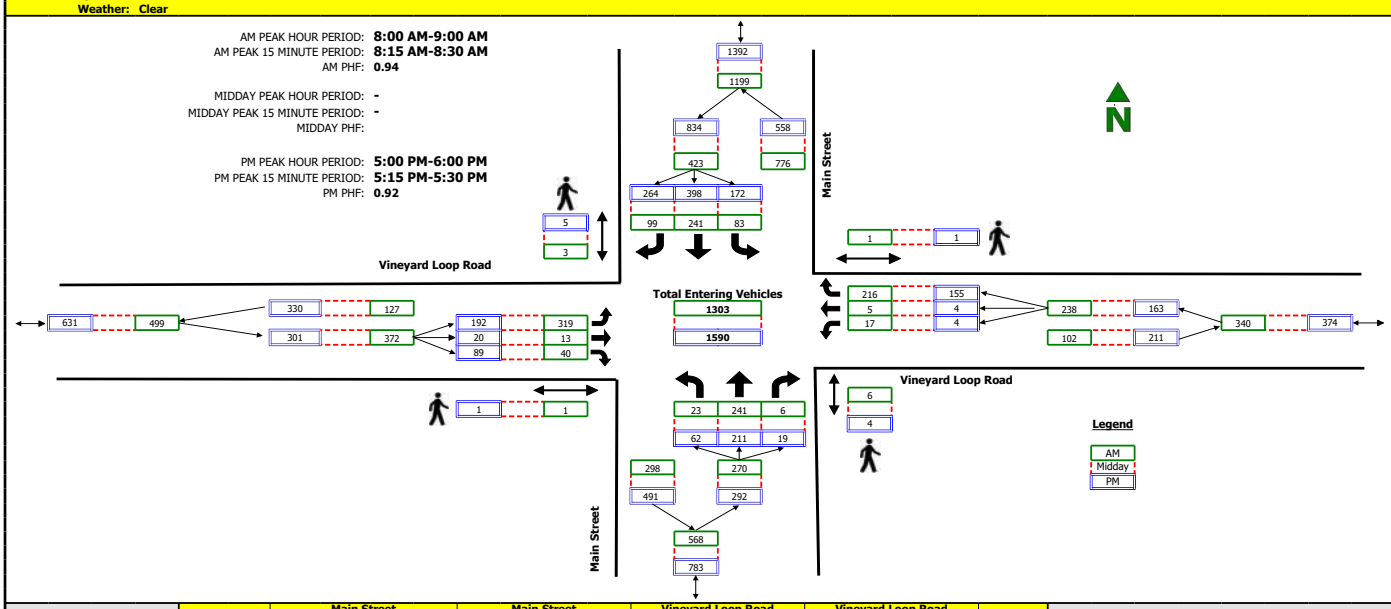
Intersection: Main Street / Vineyard Loop Road
North/South: Main Street
East/West: Vineyard Loop Road
Jurisdiction: Vineyard
Project Title: Vineyard Active Transportation Plan
Project No: UT21-1896
Weather: Clear

Date: 5-6-21, Thu
Day of Week Adjustment: 100.0%
Month of Year Adjustment: 100.0%
Adjustment Station #: 0
Growth Rate: 0.0%
Number of Years: 0

AM PEAK HOUR PERIOD: **8:00 AM-9:00 AM**
AM PEAK 15 MINUTE PERIOD: **8:15 AM-8:30 AM**
AM PHF: **0.94**

MIDDAY PEAK HOUR PERIOD: **-**
MIDDAY PEAK 15 MINUTE PERIOD: **-**
MIDDAY PHF:

PM PEAK HOUR PERIOD: **5:00 PM-6:00 PM**
PM PEAK 15 MINUTE PERIOD: **5:15 PM-5:30 PM**
PM PHF: **0.92**



RAW COUNT SUMMARIES	Main Street Northbound				Main Street Southbound				Vineyard Loop Road Eastbound				Vineyard Loop Road Westbound				TOTAL
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
AM PERIOD COUNTS																	
Period	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**	**J**	**K**	**L**	**M**	**N**	**O**	**P**	**TOTAL**
7:00 - 7:15	1	29	0	0	7	38	20	2	33	0	11	0	2	2	29	3	172
7:15 - 7:30	1	36	1	0	9	30	20	1	46	0	6	1	1	1	35	0	186
7:30 - 7:45	2	40	0	1	6	50	29	0	61	3	4	1	3	1	54	0	253
7:45 - 8:00	2	59	0	2	17	63	22	3	85	0	10	2	4	1	43	2	306
8:00 - 8:15	5	49	2	3	15	82	22	2	79	5	9	0	11	0	54	0	333
8:15 - 8:30	8	61	1	1	25	67	23	1	87	4	11	0	4	2	54	0	347
8:30 - 8:45	4	57	2	0	22	48	31	0	77	2	8	1	1	3	51	1	306
8:45 - 9:00	6	74	1	2	21	44	23	0	76	2	12	0	1	0	57	0	317
MIDDAY PERIOD COUNTS																	
Period	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**	**J**	**K**	**L**	**M**	**N**	**O**	**P**	**TOTAL**
9:00 - 9:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 - 9:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 - 9:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 - 10:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 - 10:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 - 10:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 - 10:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 - 11:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 - 11:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 - 11:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 - 11:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 - 12:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 - 12:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 - 12:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 - 12:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 - 13:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:00 - 13:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:15 - 13:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:30 - 13:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:45 - 14:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:00 - 14:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:15 - 14:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:30 - 14:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:45 - 15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:00 - 15:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:15 - 15:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:30 - 15:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:45 - 16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM PERIOD COUNTS																	
Period	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**	**J**	**K**	**L**	**M**	**N**	**O**	**P**	**TOTAL**
16:00 - 16:15	6	59	2	0	40	54	47	1	54	1	6	0	2	2	28	0	301
16:15 - 16:30	6	48	6	1	36	67	45	0	49	4	6	0	1	1	26	0	295
16:30 - 16:45	6	40	6	0	47	47	64	0	48	2	13	0	0	1	42	0	316
16:45 - 17:00	6	59	3	2	39	65	68	0	57	1	8	0	2	1	53	0	362
17:00 - 17:15	13	48	2	0	53	97	52	0	48	3	7	0	0	0	37	0	360
17:15 - 17:30	15	56	7	3	39	115	80	3	47	6	27	0	1	2	37	0	432
17:30 - 17:45	16	56	6	0	43	97	80	2	44	8	28	0	2	1	43	0	424
17:45 - 18:00	18	51	4	1	37	89	52	0	53	3	27	1	1	1	38	1	374

TrafficCounts

2364 North 1450 East
Lehi, UT 84043
801.636.0891

Intersection Turning Movement Summary

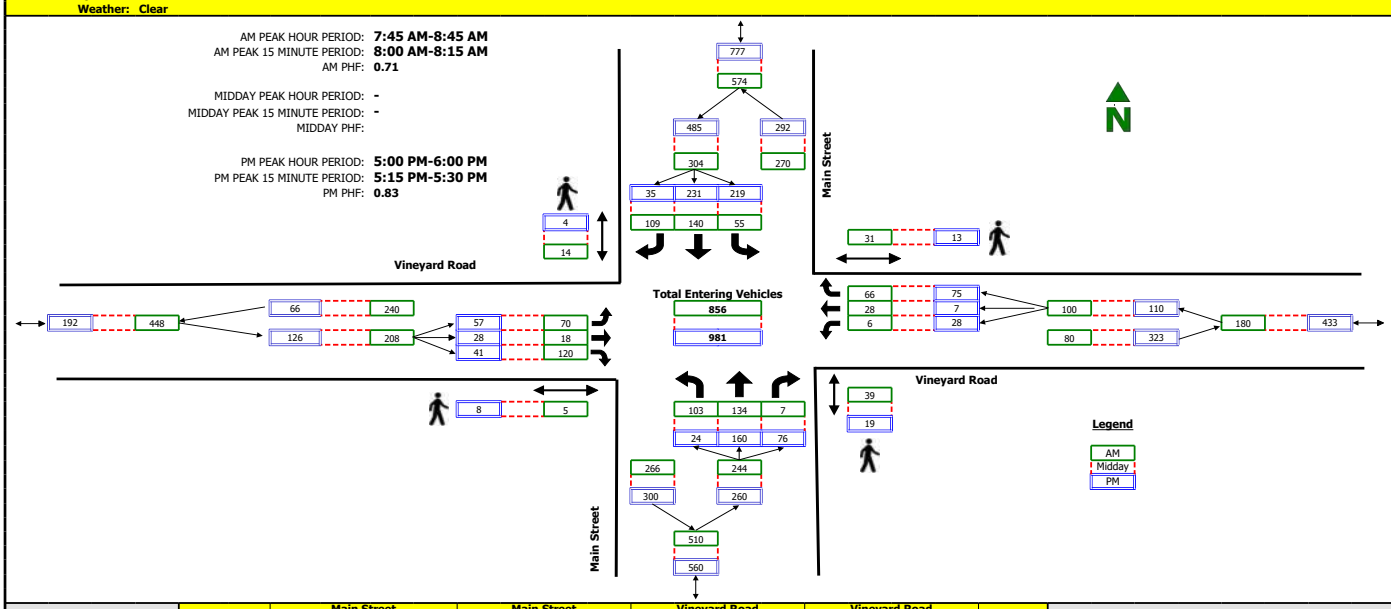
Intersection: Main Street / Vineyard Road
North/South: Main Street
East/West: Vineyard Road
Jurisdiction: Vineyard
Project Title: Vineyard Active Transportation Plan
Project No: UT21-1896
Weather: Clear

Date: 5-6-21, Thu
PM to Daily Volumes Adjustment: 100.0%
Month of Year Adjustment: 100.0%
Adjustment Station #: 0
Growth Rate: 0.0%
Number of Years: 0

AM PEAK HOUR PERIOD: **7:45 AM-8:45 AM**
AM PEAK 15 MINUTE PERIOD: **8:00 AM-8:15 AM**
AM PHF: **0.71**

MIDDAY PEAK HOUR PERIOD: **-**
MIDDAY PEAK 15 MINUTE PERIOD: **-**
MIDDAY PHF:

PM PEAK HOUR PERIOD: **5:00 PM-6:00 PM**
PM PEAK 15 MINUTE PERIOD: **5:15 PM-5:30 PM**
PM PHF: **0.83**



RAW COUNT SUMMARIES	Main Street Northbound				Main Street Southbound				Vineyard Road Eastbound				Vineyard Road Westbound				TOTAL
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
AM PERIOD COUNTS																	
Period	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	TOTAL
7:00 - 7:15	4	14	0	0	2	37	6	0	1	1	1	0	1	3	12	0	82
7:15 - 7:30	4	29	2	1	10	16	8	0	1	2	4	0	3	2	8	0	89
7:30 - 7:45	17	21	1	7	8	31	21	4	8	2	13	0	3	1	16	9	142
7:45 - 8:00	19	33	1	9	10	32	25	4	19	5	15	0	0	9	17	3	185
8:00 - 8:15	59	40	3	16	10	44	49	8	9	5	58	0	4	8	14	26	303
8:15 - 8:30	20	28	2	13	19	35	24	1	27	5	38	2	1	7	18	1	224
8:30 - 8:45	5	33	1	1	16	29	11	1	15	3	9	3	1	4	17	1	144
8:45 - 9:00	4	43	2	1	11	34	10	2	16	0	11	1	1	7	26	1	165
MIDDAY PERIOD COUNTS																	
Period	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	TOTAL
9:00 - 9:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 - 9:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 - 9:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 - 10:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 - 10:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 - 10:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 - 10:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 - 11:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 - 11:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 - 11:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 - 11:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 - 12:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 - 12:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 - 12:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 - 12:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 - 13:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:00 - 13:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:15 - 13:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:30 - 13:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:45 - 14:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:00 - 14:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:15 - 14:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:30 - 14:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:45 - 15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:00 - 15:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:15 - 15:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:30 - 15:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:45 - 16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM PERIOD COUNTS																	
Period	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	TOTAL
16:00 - 16:15	5	33	5	2	25	32	11	0	22	4	5	0	4	4	17	5	167
16:15 - 16:30	3	34	6	3	22	37	10	3	10	6	4	0	4	4	14	3	154
16:30 - 16:45	4	28	9	0	25	31	6	0	13	4	9	3	3	0	13	0	145
16:45 - 17:00	8	35	7	2	24	35	5	2	22	7	9	2	3	3	14	4	172
17:00 - 17:15	4	33	10	5	44	46	10	1	13	8	6	0	7	1	16	2	198
17:15 - 17:30	9	42	31	8	77	60	7	2	11	12	11	2	8	5	21	8	294
17:30 - 17:45	7	47	22	1	56	57	10	1	11	5	12	3	7	0	19	2	253
17:45 - 18:00	4	38	13	5	42	68	8	0	22	3	12	3	6	1	19	1	236

TrafficCounts

2364 North 1450 East
Lehi, UT 84043
801.636.0891

Intersection Turning Movement Summary

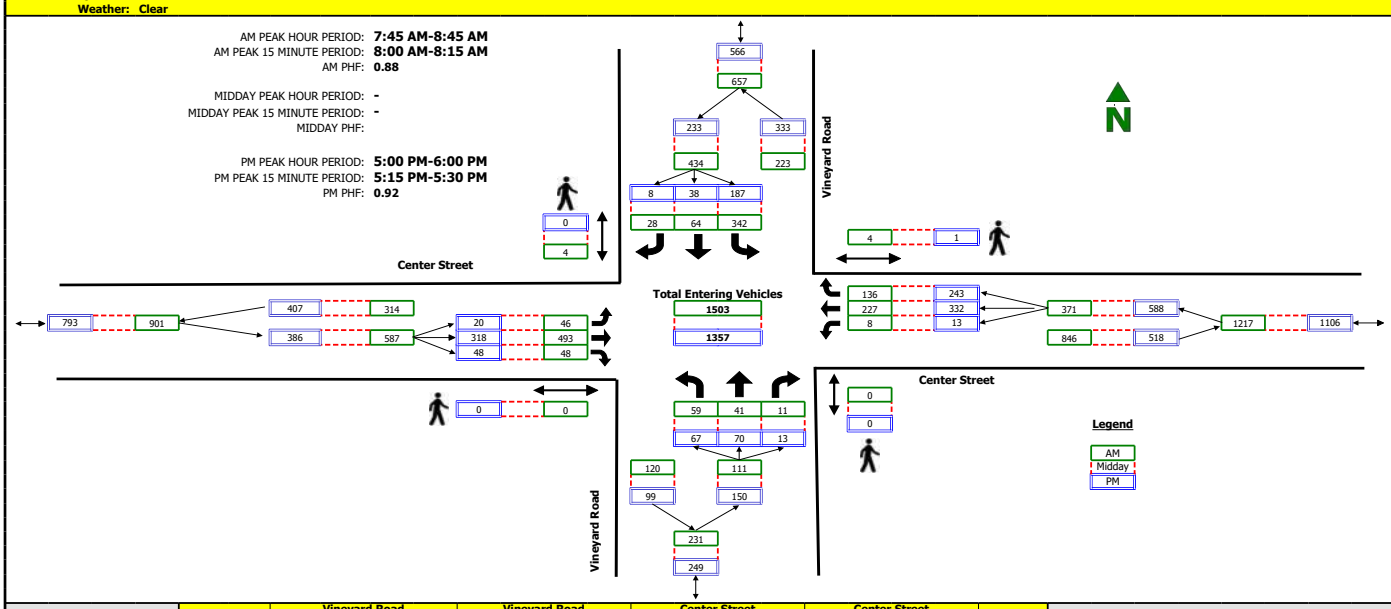
Intersection: Vineyard Road / Center Street
North/South: Vineyard Road
East/West: Center Street
Jurisdiction: Vineyard
Project Title: Vineyard TMP
Project No: UT23-2453
Weather: Clear

Date: 3-7-23, Tue
PM Peak to Daily Volumes Adjustment 100.0%
Month of Year Adjustment: 100.0%
Adjustment Station #: 0
Growth Rate: 0.0%
Number of Years: 0

AM PEAK HOUR PERIOD: **7:45 AM-8:45 AM**
AM PEAK 15 MINUTE PERIOD: **8:00 AM-8:15 AM**
AM PHF: **0.88**

MIDDAY PEAK HOUR PERIOD: **-**
MIDDAY PEAK 15 MINUTE PERIOD: **-**
MIDDAY PHF:

PM PEAK HOUR PERIOD: **5:00 PM-6:00 PM**
PM PEAK 15 MINUTE PERIOD: **5:15 PM-5:30 PM**
PM PHF: **0.92**



RAW COUNT SUMMARIES	Vineyard Road Northbound				Vineyard Road Southbound				Center Street Eastbound				Center Street Westbound				TOTAL
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
AM PERIOD COUNTS																	
Period	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**	**J**	**K**	**L**	**M**	**N**	**O**	**P**	**TOTAL**
7:00 - 7:15	3	3	0	0	39	5	3	0	0	42	5	0	1	19	17	0	137
7:15 - 7:30	2	4	2	0	41	3	2	0	4	66	12	0	1	20	22	0	179
7:30 - 7:45	10	8	3	0	88	12	6	0	4	77	16	0	4	33	37	0	298
7:45 - 8:00	10	4	1	0	84	19	11	0	23	113	11	0	1	38	55	0	370
8:00 - 8:15	23	15	6	0	124	29	3	0	5	105	11	0	2	63	39	0	425
8:15 - 8:30	18	13	0	0	65	9	6	3	10	142	11	0	3	72	23	3	372
8:30 - 8:45	8	9	4	0	69	7	8	1	8	133	15	0	2	54	19	1	336
8:45 - 9:00	11	2	4	0	62	10	6	0	5	93	13	0	0	48	28	1	282
MIDDAY PERIOD COUNTS																	
Period	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**	**J**	**K**	**L**	**M**	**N**	**O**	**P**	**TOTAL**
9:00 - 9:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 - 9:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 - 9:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 - 10:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 - 10:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 - 10:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 - 10:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 - 11:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 - 11:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 - 11:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 - 11:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 - 12:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 - 12:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 - 12:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 - 12:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 - 13:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:00 - 13:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:15 - 13:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:30 - 13:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:45 - 14:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:00 - 14:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:15 - 14:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:30 - 14:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:45 - 15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:00 - 15:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:15 - 15:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:30 - 15:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:45 - 16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM PERIOD COUNTS																	
Period	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**	**J**	**K**	**L**	**M**	**N**	**O**	**P**	**TOTAL**
16:00 - 16:15	22	14	6	0	36	7	5	1	8	82	7	0	6	96	43	0	332
16:15 - 16:30	12	16	4	0	45	14	4	3	8	65	8	0	7	64	52	3	299
16:30 - 16:45	15	11	7	0	56	10	0	0	10	92	11	0	3	58	57	1	330
16:45 - 17:00	17	10	4	0	50	8	8	0	2	73	6	0	7	61	60	1	306
17:00 - 17:15	13	13	3	0	46	12	1	0	0	86	8	0	3	85	63	1	333
17:15 - 17:30	18	24	4	0	64	12	1	0	9	95	15	0	3	74	48	0	367
17:30 - 17:45	17	19	4	0	38	5	1	0	9	71	13	0	5	88	75	0	345
17:45 - 18:00	19	14	2	0	39	9	5	0	2	66	12	0	2	85	57	0	312

TrafficCounts

2364 North 1450 East
Lehi, UT 84043
801.636.0891

Intersection Turning Movement Summary

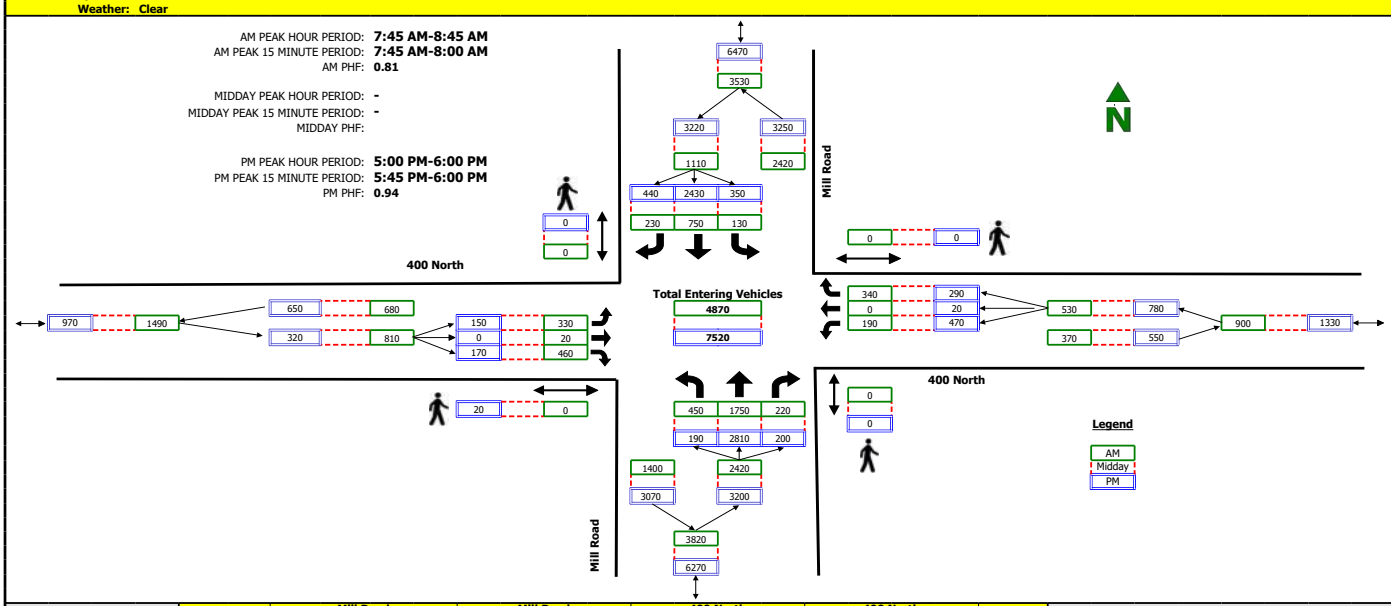
Intersection: Mill Road / 400 North
North/South: Mill Road
East/West: 400 North
Jurisdiction: Vineyard
Project Title: The Yard TIS
Project No: UT21-2032
Weather: Clear

Date: 10-12-21, Tue
PM to Daily Volumes Adjustment: 10.0%
Month of Year Adjustment: 100.0%
Adjustment Station #: 0
Growth Rate: 0.0%
Number of Years: 0

AM PEAK HOUR PERIOD: **7:45 AM-8:45 AM**
AM PEAK 15 MINUTE PERIOD: **7:45 AM-8:00 AM**
AM PHF: **0.81**

MIDDAY PEAK HOUR PERIOD: **-**
MIDDAY PEAK 15 MINUTE PERIOD: **-**
MIDDAY PHF:

PM PEAK HOUR PERIOD: **5:00 PM-6:00 PM**
PM PEAK 15 MINUTE PERIOD: **5:45 PM-6:00 PM**
PM PHF: **0.94**



RAW COUNT SUMMARIES	Mill Road Northbound				Mill Road Southbound				400 North Eastbound				400 North Westbound				TOTAL
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
AM PERIOD COUNTS																	
Period	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**	**J**	**K**	**L**	**M**	**N**	**O**	**P**	**TOTAL**
7:00 - 7:15	70	170	30	0	40	100	40	0	120	10	30	0	20	0	70	0	700
7:15 - 7:30	20	370	30	0	10	160	50	0	80	0	40	0	30	0	100	0	890
7:30 - 7:45	90	400	30	10	30	40	30	0	50	0	40	0	60	0	90	0	860
7:45 - 8:00	300	460	110	0	30	160	80	0	80	10	130	0	30	0	110	0	1500
8:00 - 8:15	70	410	80	0	40	190	60	0	150	0	140	0	20	0	40	0	1200
8:15 - 8:30	40	400	10	0	50	180	50	0	60	10	110	0	40	0	120	0	1070
8:30 - 8:45	40	480	20	0	10	220	40	0	40	0	80	0	100	0	70	0	1100
8:45 - 9:00	10	530	50	0	30	190	10	0	50	10	60	0	50	0	150	0	1140
MIDDAY PERIOD COUNTS																	
Period	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**	**J**	**K**	**L**	**M**	**N**	**O**	**P**	**TOTAL**
9:00 - 9:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 - 9:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 - 9:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 - 10:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 - 10:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 - 10:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 - 10:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 - 11:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 - 11:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 - 11:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 - 11:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 - 12:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 - 12:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 - 12:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 - 12:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 - 13:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:00 - 13:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:15 - 13:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:30 - 13:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:45 - 14:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:00 - 14:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:15 - 14:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:30 - 14:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:45 - 15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:00 - 15:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:15 - 15:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:30 - 15:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:45 - 16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM PERIOD COUNTS																	
Period	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**	**J**	**K**	**L**	**M**	**N**	**O**	**P**	**TOTAL**
16:00 - 16:15	20	400	50	0	70	540	80	0	30	0	60	0	70	0	50	10	1370
16:15 - 16:30	10	510	60	20	80	490	70	0	10	0	80	0	70	10	80	0	1470
16:30 - 16:45	120	460	40	0	50	530	120	0	50	0	10	0	90	0	30	0	1500
16:45 - 17:00	100	550	40	0	40	510	160	0	20	10	40	0	110	0	50	0	1630
17:00 - 17:15	70	570	20	0	130	510	130	0	60	0	60	0	160	0	80	0	1790
17:15 - 17:30	20	470	120	0	110	770	140	0	50	0	40	0	140	10	40	0	1910
17:30 - 17:45	60	800	20	0	50	540	80	0	20	0	30	0	80	0	130	0	1810
17:45 - 18:00	40	970	40	0	60	610	90	0	20	0	40	20	90	10	40	0	2010

TrafficCounts

2364 North 1450 East
Lehi, UT 84043
801.636.0891

Intersection Turning Movement Summary

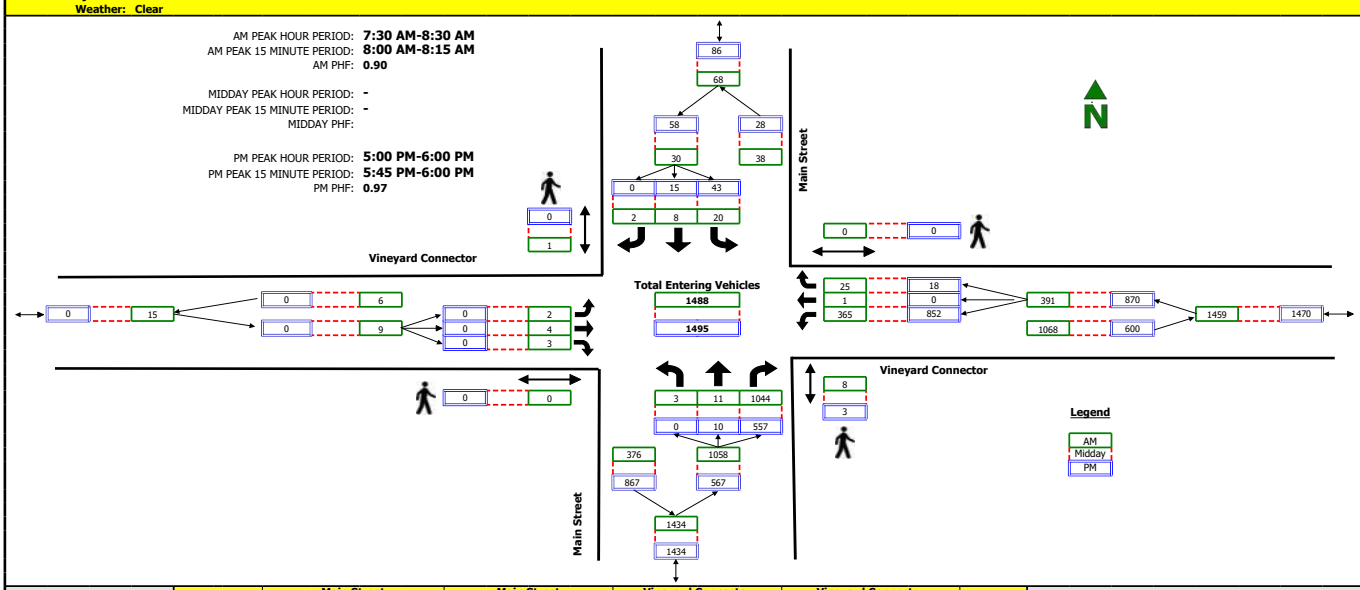
Intersection: Main Street / Vineyard Connector
North/South: Main Street
East/West: Vineyard Connector
Jurisdiction: Vineyard
Project Title: Vineyard TMP
Project No: UT23-2453
Weather: Clear

Date: 3-9-23, Thu
PM Peak to Daily Volumes Adjustment: 100.0%
Month of Year Adjustment: 100.0%
Adjustment Station #: 0
Growth Rate: 0.0%
Number of Years: 0

AM PEAK HOUR PERIOD: **7:30 AM-8:30 AM**
AM PEAK 15 MINUTE PERIOD: **8:00 AM-8:15 AM**
AM PHF: **0.90**

MIDDAY PEAK HOUR PERIOD: **-**
MIDDAY PEAK 15 MINUTE PERIOD: **-**
MIDDAY PHF:

PM PEAK HOUR PERIOD: **5:00 PM-6:00 PM**
PM PEAK 15 MINUTE PERIOD: **5:45 PM-6:00 PM**
PM PHF: **0.97**



RAW COUNT SUMMARIES	Main Street Northbound				Main Street Southbound				Vineyard Connector Eastbound				Vineyard Connector Westbound				TOTAL
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
AM PERIOD COUNTS																	
Period	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**	**J**	**K**	**L**	**M**	**N**	**O**	**P**	**TOTAL**
7:00 - 7:15	0	1	102	0	9	5	1	0	0	3	0	0	43	4	9	0	177
7:15 - 7:30	0	7	156	1	4	2	1	0	2	0	0	0	49	3	16	1	240
7:30 - 7:45	0	0	271	1	5	1	0	0	1	0	0	0	82	0	2	0	362
7:45 - 8:00	0	7	252	3	6	4	1	1	0	0	2	0	98	0	14	0	384
8:00 - 8:15	2	2	292	2	6	1	1	0	0	3	0	0	106	0	1	0	414
8:15 - 8:30	1	2	229	2	3	2	0	0	1	1	1	0	79	1	8	0	328
8:30 - 8:45	0	1	234	1	2	1	0	0	0	0	0	0	67	2	0	0	307
8:45 - 9:00	0	2	255	1	2	1	0	0	0	0	0	1	94	2	0	1	356
MIDDAY PERIOD COUNTS																	
Period	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**	**J**	**K**	**L**	**M**	**N**	**O**	**P**	**TOTAL**
9:00 - 9:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 - 9:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 - 9:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 - 10:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 - 10:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 - 10:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 - 10:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 - 11:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 - 11:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 - 11:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 - 11:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 - 12:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 - 12:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 - 12:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 - 12:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 - 13:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:00 - 13:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:15 - 13:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:30 - 13:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:45 - 14:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:00 - 14:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:15 - 14:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:30 - 14:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:45 - 15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:00 - 15:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:15 - 15:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:30 - 15:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:45 - 16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM PERIOD COUNTS																	
Period	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**	**J**	**K**	**L**	**M**	**N**	**O**	**P**	**TOTAL**
16:00 - 16:15	0	2	106	3	13	5	0	0	1	2	0	0	161	0	2	0	292
16:15 - 16:30	0	2	114	1	2	5	0	0	0	3	0	0	197	0	7	0	330
16:30 - 16:45	0	1	108	2	8	3	0	0	0	4	0	0	189	0	2	1	315
16:45 - 17:00	0	4	164	0	4	4	0	0	0	0	0	0	175	0	9	0	360
17:00 - 17:15	0	2	139	2	11	3	0	0	0	0	0	0	196	0	5	0	356
17:15 - 17:30	0	4	131	0	14	2	0	0	0	0	0	0	226	0	3	0	380
17:30 - 17:45	0	1	149	1	17	6	0	0	0	0	0	0	195	0	7	0	375
17:45 - 18:00	0	3	138	0	1	4	0	0	0	0	0	0	235	0	3	0	384

TrafficCounts

2364 North 1450 East
Lehi, UT 84043
801.636.0891

Intersection Turning Movement Summary

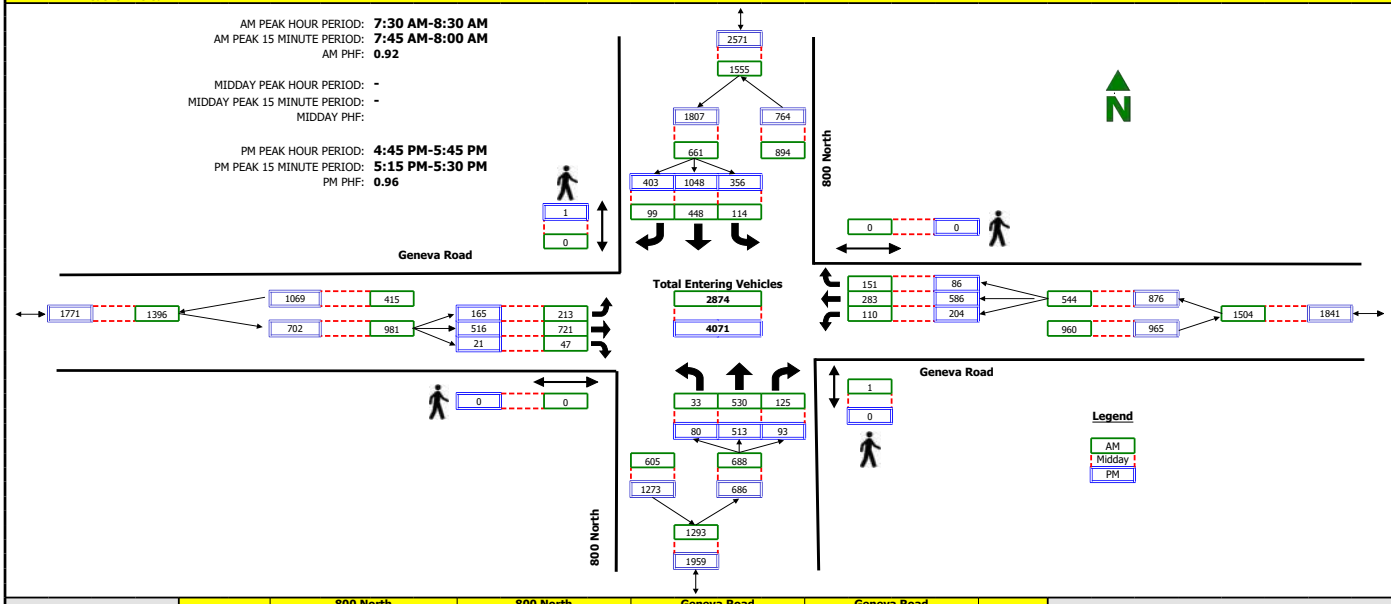
Intersection: 800 North / Geneva Road
North/South: 800 North
East/West: Geneva Road
Jurisdiction: Vineyard
Project Title: Vineyard Mill Road & 1600 North
Project No: 2157
Weather: Clear

Date: 3-17-22, Thu
Day of Week Adjustment: 100.0%
Month of Year Adjustment: 100.0%
Adjustment Station #: 0
Growth Rate: 0.0%
Number of Years: 0

AM PEAK HOUR PERIOD: **7:30 AM-8:30 AM**
AM PEAK 15 MINUTE PERIOD: **7:45 AM-8:00 AM**
AM PHF: **0.92**

MIDDAY PEAK HOUR PERIOD: **-**
MIDDAY PEAK 15 MINUTE PERIOD: **-**
MIDDAY PHF:

PM PEAK HOUR PERIOD: **4:45 PM-5:45 PM**
PM PEAK 15 MINUTE PERIOD: **5:15 PM-5:30 PM**
PM PHF: **0.96**



RAW COUNT SUMMARIES	800 North Northbound				800 North Southbound				Geneva Road Eastbound				Geneva Road Westbound				TOTAL
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
AM PERIOD COUNTS																	
Period	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**	**J**	**K**	**L**	**M**	**N**	**O**	**P**	**TOTAL**
7:00 - 7:15	4	102	19	0	15	69	16	0	31	114	3	0	12	25	12	0	422
7:15 - 7:30	1	95	24	0	24	65	21	2	29	125	4	0	12	59	29	0	488
7:30 - 7:45	11	131	32	1	26	109	22	0	53	172	12	0	28	60	40	0	696
7:45 - 8:00	8	162	34	0	27	108	27	0	49	198	12	0	24	76	53	0	778
8:00 - 8:15	9	117	26	0	30	114	20	0	65	165	8	0	31	71	30	0	686
8:15 - 8:30	5	120	33	0	31	117	30	0	46	186	15	0	27	76	28	0	714
8:30 - 8:45	2	125	32	0	38	94	21	0	58	175	12	0	18	45	33	0	653
8:45 - 9:00	7	150	43	1	41	119	24	2	75	184	13	0	25	55	36	0	772
MIDDAY PERIOD COUNTS																	
Period	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**	**J**	**K**	**L**	**M**	**N**	**O**	**P**	**TOTAL**
9:00 - 9:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 - 9:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 - 9:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 - 10:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 - 10:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 - 10:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 - 10:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 - 11:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 - 11:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 - 11:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 - 11:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 - 12:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 - 12:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 - 12:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 - 12:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 - 13:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:00 - 13:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:15 - 13:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:30 - 13:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:45 - 14:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:00 - 14:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:15 - 14:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:30 - 14:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:45 - 15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:00 - 15:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:15 - 15:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:30 - 15:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:45 - 16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM PERIOD COUNTS																	
Period	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**	**J**	**K**	**L**	**M**	**N**	**O**	**P**	**TOTAL**
16:00 - 16:15	13	141	27	0	70	173	41	2	46	126	3	0	24	161	20	1	845
16:15 - 16:30	9	123	34	0	61	191	66	0	42	108	9	0	28	131	22	1	824
16:30 - 16:45	11	99	26	0	88	207	72	0	48	132	2	0	29	129	22	0	865
16:45 - 17:00	12	131	29	0	103	262	91	0	34	110	5	0	39	138	18	0	972
17:00 - 17:15	21	108	28	0	87	242	85	0	56	137	6	0	51	133	30	0	984
17:15 - 17:30	22	164	24	0	88	272	129	0	37	100	6	0	49	151	22	0	1064
17:30 - 17:45	25	110	12	0	78	272	98	1	38	169	4	0	65	164	16	0	1051
17:45 - 18:00	18	125	20	0	67	205	118	0	49	113	7	0	48	145	23	1	938

TrafficCounts

2364 North 1450 East
Lehi, UT 84043
801.636.0891

Intersection Turning Movement Summary

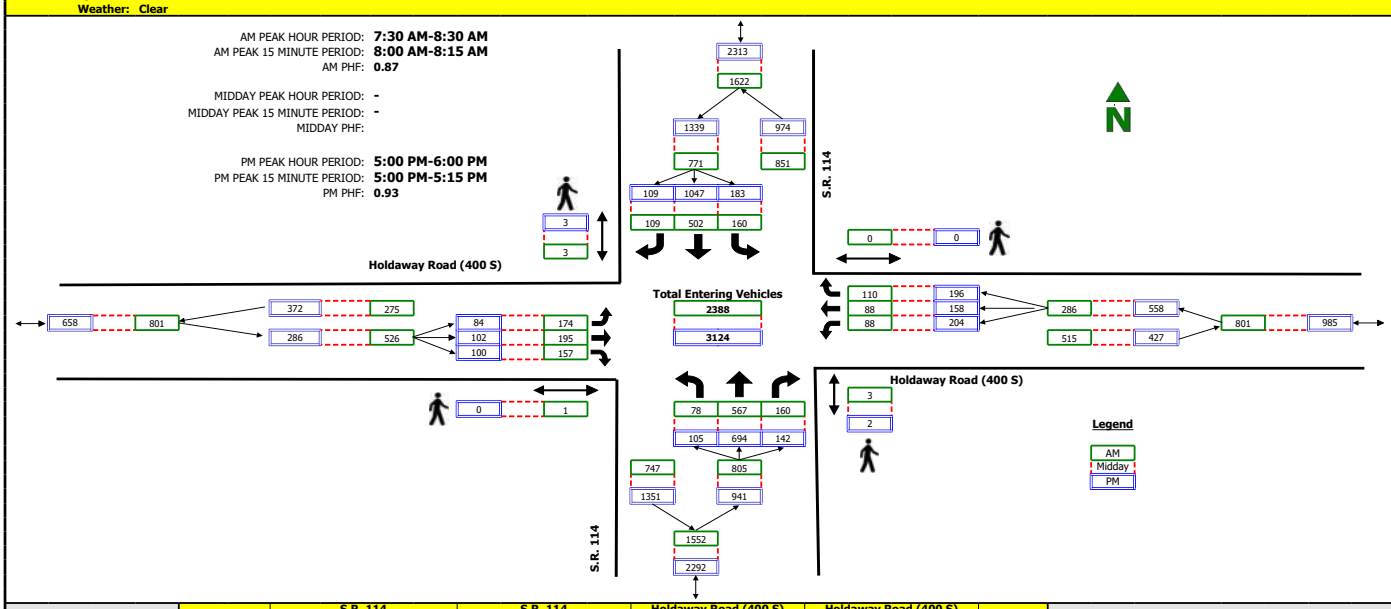
Intersection: S.R. 114 / Holdaway Road (400 S)
North/South: S.R. 114
East/West: Holdaway Road (400 S)
Jurisdiction: Vineyard
Project Title: Vineyard TMP
Project No: UT23-2453
Weather: Clear

Date: 3-28-23, Tue
Day of Week Adjustment: 100.0%
Month of Year Adjustment: 100.0%
Adjustment Station #: 0
Growth Rate: 0.0%
Number of Years: 0

AM PEAK HOUR PERIOD: **7:30 AM-8:30 AM**
AM PEAK 15 MINUTE PERIOD: **8:00 AM-8:15 AM**
AM PHF: **0.87**

MIDDAY PEAK HOUR PERIOD: **-**
MIDDAY PEAK 15 MINUTE PERIOD: **-**
MIDDAY PHF:

PM PEAK HOUR PERIOD: **5:00 PM-6:00 PM**
PM PEAK 15 MINUTE PERIOD: **5:00 PM-5:15 PM**
PM PHF: **0.93**



RAW COUNT SUMMARIES	S.R. 114 Northbound				S.R. 114 Southbound				Holdaway Road (400 S) Eastbound				Holdaway Road (400 S) Westbound				TOTAL
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
AM PERIOD COUNTS																	
Period	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	TOTAL
7:00 - 7:15	8	91	24	0	17	64	10	1	10	7	7	0	15	6	10	0	269
7:15 - 7:30	8	118	29	0	22	83	8	0	15	15	14	0	24	12	16	0	364
7:30 - 7:45	17	144	35	0	34	102	31	0	37	42	34	0	13	14	34	0	537
7:45 - 8:00	29	131	38	3	55	126	32	0	44	65	36	0	21	29	33	0	639
8:00 - 8:15	23	146	45	0	32	148	34	3	69	68	52	0	22	19	27	0	685
8:15 - 8:30	9	146	42	0	39	126	12	0	24	20	35	1	32	26	16	0	527
8:30 - 8:45	5	169	42	0	58	122	11	0	18	24	26	0	16	10	31	0	532
8:45 - 9:00	8	182	41	0	48	97	18	0	42	32	38	0	18	15	26	1	565
MIDDAY PERIOD COUNTS																	
Period	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	TOTAL
9:00 - 9:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 - 9:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 - 9:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 - 10:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 - 10:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 - 10:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 - 10:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 - 11:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 - 11:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 - 11:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 - 11:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 - 12:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 - 12:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 - 12:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 - 12:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 - 13:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:00 - 13:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:15 - 13:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:30 - 13:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:45 - 14:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:00 - 14:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:15 - 14:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:30 - 14:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:45 - 15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:00 - 15:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:15 - 15:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:30 - 15:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:45 - 16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM PERIOD COUNTS																	
Period	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	TOTAL
16:00 - 16:15	12	181	32	0	35	232	28	2	34	17	19	1	56	46	53	0	745
16:15 - 16:30	23	179	24	0	41	219	20	0	24	21	15	1	43	26	31	0	666
16:30 - 16:45	25	160	25	0	31	229	19	5	19	17	14	0	42	33	41	0	655
16:45 - 17:00	31	163	29	0	44	254	25	2	15	23	27	1	48	34	29	0	722
17:00 - 17:15	22	191	29	2	50	274	27	2	25	29	33	0	61	42	59	0	842
17:15 - 17:30	32	184	41	0	42	280	25	0	12	13	16	0	50	33	56	0	784
17:30 - 17:45	26	156	39	0	43	240	20	1	27	25	25	0	49	46	45	0	741
17:45 - 18:00	25	163	33	0	48	253	37	0	20	35	26	0	44	37	36	0	757

TrafficCounts

2364 North 1450 East
Lehi, UT 84043
801.636.0891

Intersection Turning Movement Summary

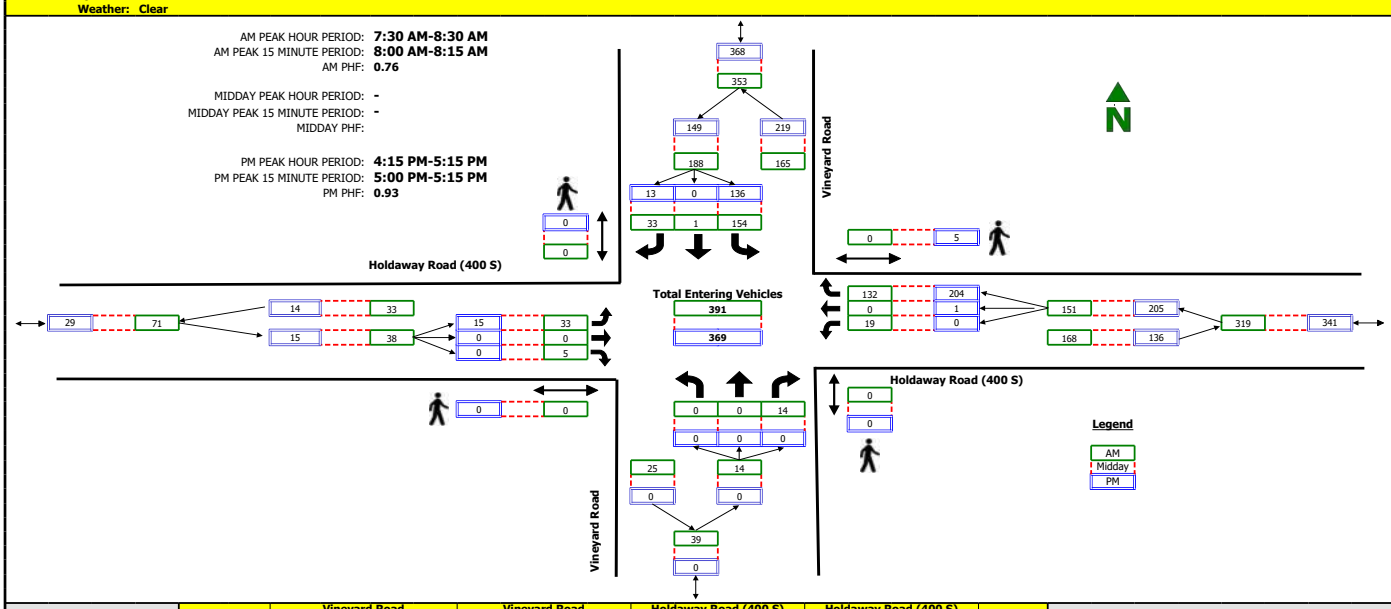
Intersection: Vineyard Road / Holdaway Road (400 S)
North/South: Vineyard Road
East/West: Holdaway Road (400 S)
Jurisdiction: Vineyard
Project Title: Vineyard TMP
Project No: UT23-2453
Weather: Clear

Date: 3-28-23, Tue
Day of Week Adjustment: 100.0%
Month of Year Adjustment: 100.0%
Adjustment Station #: 0
Growth Rate: 0.0%
Number of Years: 0

AM PEAK HOUR PERIOD: **7:30 AM-8:30 AM**
AM PEAK 15 MINUTE PERIOD: **8:00 AM-8:15 AM**
AM PHF: **0.76**

MIDDAY PEAK HOUR PERIOD: **-**
MIDDAY PEAK 15 MINUTE PERIOD: **-**
MIDDAY PHF:

PM PEAK HOUR PERIOD: **4:15 PM-5:15 PM**
PM PEAK 15 MINUTE PERIOD: **5:00 PM-5:15 PM**
PM PHF: **0.93**



RAW COUNT SUMMARIES	Vineyard Road Northbound				Vineyard Road Southbound				Holdaway Road (400 S) Eastbound				Holdaway Road (400 S) Westbound				TOTAL
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
AM PERIOD COUNTS																	
Period	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**	**J**	**K**	**L**	**M**	**N**	**O**	**P**	**TOTAL**
7:00 - 7:15	0	0	0	0	13	0	0	0	0	0	0	0	1	0	5	1	19
7:15 - 7:30	0	0	0	0	31	0	0	0	0	0	0	0	1	0	9	0	41
7:30 - 7:45	0	0	1	0	39	0	6	0	7	0	0	0	1	0	28	0	82
7:45 - 8:00	0	0	2	0	37	0	13	0	12	0	1	0	13	0	36	0	114
8:00 - 8:15	0	0	7	0	42	1	13	0	11	0	4	0	5	0	45	0	128
8:15 - 8:30	0	0	4	0	36	0	1	0	3	0	0	0	0	0	23	0	67
8:30 - 8:45	0	0	0	0	40	0	0	0	1	0	0	0	0	0	18	1	59
8:45 - 9:00	0	0	1	0	70	0	2	0	0	0	0	0	1	0	27	0	101
MIDDAY PERIOD COUNTS																	
Period	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**	**J**	**K**	**L**	**M**	**N**	**O**	**P**	**TOTAL**
9:00 - 9:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 - 9:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 - 9:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 - 10:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 - 10:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 - 10:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 - 10:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 - 11:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 - 11:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 - 11:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 - 11:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 - 12:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 - 12:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 - 12:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 - 12:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 - 13:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:00 - 13:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:15 - 13:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:30 - 13:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:45 - 14:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:00 - 14:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:15 - 14:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:30 - 14:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:45 - 15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:00 - 15:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:15 - 15:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:30 - 15:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:45 - 16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM PERIOD COUNTS																	
Period	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**	**J**	**K**	**L**	**M**	**N**	**O**	**P**	**TOTAL**
16:00 - 16:15	1	0	0	0	30	0	1	1	1	0	0	0	0	0	42	2	75
16:15 - 16:30	0	0	0	0	41	0	4	0	8	0	0	0	0	1	39	2	93
16:30 - 16:45	0	0	0	0	24	0	2	0	1	0	0	0	0	0	60	2	87
16:45 - 17:00	0	0	0	0	34	0	3	0	5	0	0	0	0	0	48	1	90
17:00 - 17:15	0	0	0	0	37	0	4	0	1	0	0	0	0	0	57	0	99
17:15 - 17:30	0	0	0	0	24	0	1	1	2	0	0	0	0	0	43	0	70
17:30 - 17:45	0	0	0	0	34	0	3	1	2	0	0	0	0	0	54	0	93
17:45 - 18:00	0	0	0	0	37	0	3	0	1	0	0	0	0	0	52	1	93

Daily Vehicle Volume Report

Study Date: Thursday, 03/02/2023
Unit ID:
Location: 1600 North Location

	Eastbound Volume	Westbound Volume	Total Volume
00:00 - 00:14	4	3	**7**
00:15 - 00:29	4	3	**7**
00:30 - 00:44	1	2	**3**
00:45 - 00:59	6	2	**8**
01:00 - 01:14	1	2	**3**
01:15 - 01:29	3	5	**8**
01:30 - 01:44	7	4	**11**
01:45 - 01:59	2	3	**5**
02:00 - 02:14	3	2	**5**
02:15 - 02:29	14	3	**17**
02:30 - 02:44	2	6	**8**
02:45 - 02:59	2	31	**33**
03:00 - 03:14	12	5	**17**
03:15 - 03:29	14	3	**17**
03:30 - 03:44	8	11	**19**
03:45 - 03:59	2	8	**10**
04:00 - 04:14	0	3	**3**
04:15 - 04:29	0	10	**10**
04:30 - 04:44	1	27	**28**
04:45 - 04:59	3	37	**40**
05:00 - 05:14	3	14	**17**
05:15 - 05:29	7	25	**32**
05:30 - 05:44	4	48	**52**
05:45 - 05:59	23	85	**108**
06:00 - 06:14	9	42	**51**
06:15 - 06:29	5	23	**28**
06:30 - 06:44	7	47	**54**
06:45 - 06:59	14	104	**118**
07:00 - 07:14	30	41	**71**
07:15 - 07:29	39	55	**94**
07:30 - 07:44	40	40	**80**
07:45 - 07:59	33	76	**109**
08:00 - 08:14	31	81	**112**
08:15 - 08:29	26	74	**100**
08:30 - 08:44	31	69	**100**
08:45 - 08:59	37	73	**110**
09:00 - 09:14	32	64	**96**
09:15 - 09:29	32	58	**90**
09:30 - 09:44	31	49	**80**
09:45 - 09:59	31	40	**71**
10:00 - 10:14	29	51	**80**
10:15 - 10:29	33	30	**63**
10:30 - 10:44	32	30	**62**
10:45 - 10:59	28	30	**58**
11:00 - 11:14	53	40	**93**
11:15 - 11:29	28	58	**86**
11:30 - 11:44	41	36	**77**
11:45 - 11:59	45	27	**72**
12:00 - 12:14	53	36	**89**
12:15 - 12:29	50	35	**85**
12:30 - 12:44	38	45	**83**
12:45 - 12:59	47	46	**93**

Daily Vehicle Volume Report

Study Date: Thursday, 03/02/2023
Unit ID:
Location: 1600 North Location

	Eastbound Volume	Westbound Volume	Total Volume
13:00 - 13:14	53	49	**102**
13:15 - 13:29	31	36	**67**
13:30 - 13:44	36	55	**91**
13:45 - 13:59	44	58	**102**
14:00 - 14:14	38	53	**91**
14:15 - 14:29	45	65	**110**
14:30 - 14:44	76	83	**159**
14:45 - 14:59	22	73	**95**
15:00 - 15:14	71	46	**117**
15:15 - 15:29	53	33	**86**
15:30 - 15:44	104	37	**141**
15:45 - 15:59	62	55	**117**
16:00 - 16:14	90	43	**133**
16:15 - 16:29	65	50	**115**
16:30 - 16:44	69	36	**105**
16:45 - 16:59	63	20	**83**
17:00 - 17:14	116	28	**144**
17:15 - 17:29	87	25	**112**
17:30 - 17:44	67	20	**87**
17:45 - 17:59	56	26	**82**
18:00 - 18:14	54	20	**74**
18:15 - 18:29	24	9	**33**
18:30 - 18:44	33	9	**42**
18:45 - 18:59	18	14	**32**
19:00 - 19:14	21	7	**28**
19:15 - 19:29	22	16	**38**
19:30 - 19:44	23	11	**34**
19:45 - 19:59	18	4	**22**
20:00 - 20:14	15	4	**19**
20:15 - 20:29	19	5	**24**
20:30 - 20:44	33	1	**34**
20:45 - 20:59	9	7	**16**
21:00 - 21:14	5	3	**8**
21:15 - 21:29	6	4	**10**
21:30 - 21:44	5	1	**6**
21:45 - 21:59	1	3	**4**
22:00 - 22:14	5	3	**8**
22:15 - 22:29	4	1	**5**
22:30 - 22:44	2	3	**5**
22:45 - 22:59	3	4	**7**
23:00 - 23:14	12	11	**23**
23:15 - 23:29	60	8	**68**
23:30 - 23:44	16	3	**19**
23:45 - 23:59	2	2	**4**
Totals	**2689**	**2786**	**5475**
AM Peak Time	**10:56 - 11:55**	**07:50 - 08:49**	**07:51 - 08:50**
AM Peak Volume	**169**	**305**	**429**
PM Peak Time	**16:51 - 17:50**	**14:03 - 15:02**	**15:28 - 16:27**
PM Peak Volume	**347**	**283**	**517**

Daily Vehicle Volume Report

Study Date: Thursday, 03/02/2023
Unit ID:
Location: 1600 North Location

Daily Eastbound Classes Report

Study Date: Thursday, 03/02/2023
Unit ID:
Location: 1600 North Location

	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	Total
00:00 - 00:14	0	4	0	0	0	0	0	0	0	0	0	0	0	**4**
00:15 - 00:29	0	4	0	0	0	0	0	0	0	0	0	0	0	**4**
00:30 - 00:44	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
00:45 - 00:59	0	4	0	0	2	0	0	0	0	0	0	0	0	**6**
01:00 - 01:14	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
01:15 - 01:29	0	3	0	0	0	0	0	0	0	0	0	0	0	**3**
01:30 - 01:44	0	7	0	0	0	0	0	0	0	0	0	0	0	**7**
01:45 - 01:59	0	1	0	0	0	0	0	0	0	0	1	0	0	**2**
02:00 - 02:14	0	2	0	0	0	0	0	0	0	0	1	0	0	**3**
02:15 - 02:29	0	13	1	0	0	0	0	0	0	0	0	0	0	**14**
02:30 - 02:44	0	1	0	0	0	0	0	0	0	0	1	0	0	**2**
02:45 - 02:59	0	2	0	0	0	0	0	0	0	0	0	0	0	**2**
03:00 - 03:14	0	11	1	0	0	0	0	0	0	0	0	0	0	**12**
03:15 - 03:29	0	12	1	0	0	0	0	1	0	0	0	0	0	**14**
03:30 - 03:44	0	6	1	0	1	0	0	0	0	0	0	0	0	**8**
03:45 - 03:59	0	2	0	0	0	0	0	0	0	0	0	0	0	**2**
04:00 - 04:14	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
04:15 - 04:29	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
04:30 - 04:44	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
04:45 - 04:59	0	3	0	0	0	0	0	0	0	0	0	0	0	**3**
05:00 - 05:14	0	2	0	0	0	0	0	0	0	0	1	0	0	**3**
05:15 - 05:29	0	3	1	1	2	0	0	0	0	0	0	0	0	**7**
05:30 - 05:44	0	4	0	0	0	0	0	0	0	0	0	0	0	**4**
05:45 - 05:59	0	22	0	0	1	0	0	0	0	0	0	0	0	**23**
06:00 - 06:14	0	5	0	0	2	1	0	1	0	0	0	0	0	**9**
06:15 - 06:29	0	2	2	0	1	0	0	0	0	0	0	0	0	**5**
06:30 - 06:44	0	5	0	0	2	0	0	0	0	0	0	0	0	**7**
06:45 - 06:59	4	7	1	0	0	0	0	2	0	0	0	0	0	**14**
07:00 - 07:14	2	19	2	0	5	2	0	0	0	0	0	0	0	**30**
07:15 - 07:29	0	23	7	1	5	0	0	0	0	1	0	1	1	**39**
07:30 - 07:44	3	16	3	2	11	0	2	0	0	1	0	0	2	**40**
07:45 - 07:59	0	13	3	0	14	1	0	1	1	0	0	0	0	**33**
08:00 - 08:14	0	8	4	0	19	0	0	0	0	0	0	0	0	**31**
08:15 - 08:29	0	7	2	1	14	0	0	0	0	0	0	0	2	**26**
08:30 - 08:44	0	9	6	0	11	0	0	2	0	0	0	0	3	**31**
08:45 - 08:59	0	5	6	4	17	0	0	2	1	0	0	1	1	**37**
09:00 - 09:14	0	10	6	2	11	0	0	1	0	0	0	0	2	**32**
09:15 - 09:29	0	6	4	1	17	0	0	0	2	0	0	1	1	**32**
09:30 - 09:44	0	10	3	2	13	0	0	3	0	0	0	0	0	**31**
09:45 - 09:59	0	13	3	2	10	0	0	1	0	1	0	0	1	**31**
10:00 - 10:14	0	12	3	1	8	2	1	1	0	0	0	1	0	**29**
10:15 - 10:29	0	12	8	2	5	0	0	3	1	0	0	0	2	**33**
10:30 - 10:44	0	13	4	2	8	1	0	2	1	1	0	0	0	**32**
10:45 - 10:59	0	10	5	1	9	1	0	2	0	0	0	0	0	**28**
11:00 - 11:14	0	29	9	0	11	0	0	2	0	0	0	1	1	**53**
11:15 - 11:29	0	11	4	0	9	0	1	3	0	0	0	0	0	**28**
11:30 - 11:44	0	16	4	3	13	1	0	3	1	0	0	0	0	**41**
11:45 - 11:59	0	27	5	0	9	0	0	1	1	1	0	0	1	**45**
12:00 - 12:14	0	30	7	1	13	0	0	1	0	0	0	0	1	**53**
12:15 - 12:29	7	22	4	1	13	0	0	1	0	0	0	1	1	**50**
12:30 - 12:44	0	21	5	1	5	0	0	4	1	0	0	0	1	**38**
12:45 - 12:59	1	28	4	2	10	1	0	0	1	0	0	0	0	**47**

Daily Eastbound Classes Report

Study Date: Thursday, 03/02/2023
Unit ID:
Location: 1600 North Location

	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	Total
13:00 - 13:14	0	30	4	0	15	0	0	1	1	1	0	0	1	**53**
13:15 - 13:29	1	13	8	1	2	1	0	2	1	1	0	1	0	**31**
13:30 - 13:44	2	17	2	2	9	1	0	2	0	0	1	0	0	**36**
13:45 - 13:59	1	19	2	3	12	1	1	2	0	1	0	1	1	**44**
14:00 - 14:14	0	18	6	2	8	1	0	1	2	0	0	0	0	**38**
14:15 - 14:29	0	26	9	0	9	0	0	1	0	0	0	0	0	**45**
14:30 - 14:44	4	52	6	0	10	2	0	1	0	1	0	0	0	**76**
14:45 - 14:59	3	11	4	0	3	0	0	0	0	0	0	0	1	**22**
15:00 - 15:14	0	50	8	1	8	1	0	2	0	0	0	0	1	**71**
15:15 - 15:29	1	32	3	0	14	3	0	0	0	0	0	0	0	**53**
15:30 - 15:44	0	83	8	2	8	0	0	3	0	0	0	0	0	**104**
15:45 - 15:59	0	45	4	1	11	0	0	1	0	0	0	0	0	**62**
16:00 - 16:14	0	71	8	0	8	2	0	1	0	0	0	0	0	**90**
16:15 - 16:29	2	39	10	1	12	0	0	1	0	0	0	0	0	**65**
16:30 - 16:44	0	46	6	1	12	2	0	2	0	0	0	0	0	**69**
16:45 - 16:59	0	42	11	0	10	0	0	0	0	0	0	0	0	**63**
17:00 - 17:14	1	86	12	0	16	0	0	0	1	0	0	0	0	**116**
17:15 - 17:29	0	52	14	1	19	0	0	0	1	0	0	0	0	**87**
17:30 - 17:44	0	48	7	0	11	0	0	1	0	0	0	0	0	**67**
17:45 - 17:59	0	37	6	1	12	0	0	0	0	0	0	0	0	**56**
18:00 - 18:14	0	37	8	0	7	0	0	2	0	0	0	0	0	**54**
18:15 - 18:29	0	17	2	0	4	0	0	0	1	0	0	0	0	**24**
18:30 - 18:44	0	22	8	0	3	0	0	0	0	0	0	0	0	**33**
18:45 - 18:59	0	10	6	0	1	0	0	0	0	0	1	0	0	**18**
19:00 - 19:14	0	16	1	0	3	0	0	1	0	0	0	0	0	**21**
19:15 - 19:29	0	16	3	0	3	0	0	0	0	0	0	0	0	**22**
19:30 - 19:44	0	14	5	0	2	1	0	1	0	0	0	0	0	**23**
19:45 - 19:59	0	11	5	1	1	0	0	0	0	0	0	0	0	**18**
20:00 - 20:14	0	9	2	1	1	0	0	2	0	0	0	0	0	**15**
20:15 - 20:29	0	14	2	0	3	0	0	0	0	0	0	0	0	**19**
20:30 - 20:44	0	28	3	0	1	0	0	0	0	0	0	1	0	**33**
20:45 - 20:59	0	9	0	0	0	0	0	0	0	0	0	0	0	**9**
21:00 - 21:14	0	4	0	0	0	0	0	1	0	0	0	0	0	**5**
21:15 - 21:29	0	5	0	0	0	0	0	0	0	0	1	0	0	**6**
21:30 - 21:44	0	2	0	0	2	0	0	0	0	0	1	0	0	**5**
21:45 - 21:59	0	0	0	0	1	0	0	0	0	0	0	0	0	**1**
22:00 - 22:14	0	1	2	0	2	0	0	0	0	0	0	0	0	**5**
22:15 - 22:29	0	0	0	1	1	0	0	1	0	0	1	0	0	**4**
22:30 - 22:44	0	1	0	0	1	0	0	0	0	0	0	0	0	**2**
22:45 - 22:59	0	3	0	0	0	0	0	0	0	0	0	0	0	**3**
23:00 - 23:14	0	10	1	0	1	0	0	0	0	0	0	0	0	**12**
23:15 - 23:29	0	57	2	0	0	0	0	1	0	0	0	0	0	**60**
23:30 - 23:44	0	15	1	0	0	0	0	0	0	0	0	0	0	**16**
23:45 - 23:59	0	2	0	0	0	0	0	0	0	0	0	0	0	**2**
Totals	**32**	**1618**	**308**	**49**	**517**	**25**	**5**	**67**	**17**	**9**	**9**	**9**	**24**	**2689**
Percent of Total	**1.2**	**60.2**	**11.5**	**1.8**	**19.2**	**0.9**	**0.2**	**2.5**	**0.6**	**0.3**	**0.3**	**0.3**	**0.9**	**100**
Percent of AM	**1.1**	**47.1**	**11.7**	**3.0**	**27.3**	**1.1**	**0.5**	**3.7**	**0.9**	**0.6**	**0.5**	**0.6**	**2.0**	**100**
Percent of PM	**1.2**	**66.1**	**11.3**	**1.3**	**15.5**	**0.9**	**0.1**	**2.0**	**0.5**	**0.2**	**0.3**	**0.2**	**0.4**	**100**

Daily Eastbound Classes Report

Study Date: Thursday, 03/02/2023
Unit ID:
Location: 1600 North Location

Truck Summary:

Total Trucks: 731 % Trucks: 27.2 AM % Trucks: 40.1 PM % Trucks: 21.3

Classification Scheme: FHWA (ID: 1)

#1	Motorcycles - 2 Axles	#6	Single Unit Truck - 3 Axles	#11	Multi-Unit - 5 Axles or Less
#2	Passenger Cars - 2 Axles	#7	Single Unit - 4 Axles	#12	Multi-Unit - 6 Axles
#3	Pickup Trucks, Vans - 2 Axles	#8	Single Unit - 4 Axles or Less	#13	Multi-Unit - 7 Axles or More
#4	Buses	#9	Double Unit - 5 Axles		
#5	Single Unit - 2 Axles, 6 Tires	#10	Double Unit - 6 Axles or More		

Daily Westbound Classes Report

Study Date: Thursday, 03/02/2023
Unit ID:
Location: 1600 North Location

	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	Total
00:00 - 00:14	0	2	0	0	1	0	0	0	0	0	0	0	0	**3**
00:15 - 00:29	0	1	2	0	0	0	0	0	0	0	0	0	0	**3**
00:30 - 00:44	0	1	0	0	1	0	0	0	0	0	0	0	0	**2**
00:45 - 00:59	0	0	0	0	1	0	0	0	1	0	0	0	0	**2**
01:00 - 01:14	0	1	0	0	1	0	0	0	0	0	0	0	0	**2**
01:15 - 01:29	0	3	0	0	0	0	0	1	0	0	1	0	0	**5**
01:30 - 01:44	0	3	0	1	0	0	0	0	0	0	0	0	0	**4**
01:45 - 01:59	0	1	0	0	0	0	0	1	0	0	1	0	0	**3**
02:00 - 02:14	0	2	0	0	0	0	0	0	0	0	0	0	0	**2**
02:15 - 02:29	0	2	0	0	0	0	0	0	0	0	1	0	0	**3**
02:30 - 02:44	0	6	0	0	0	0	0	0	0	0	0	0	0	**6**
02:45 - 02:59	0	28	3	0	0	0	0	0	0	0	0	0	0	**31**
03:00 - 03:14	0	4	1	0	0	0	0	0	0	0	0	0	0	**5**
03:15 - 03:29	0	2	0	0	1	0	0	0	0	0	0	0	0	**3**
03:30 - 03:44	0	10	1	0	0	0	0	0	0	0	0	0	0	**11**
03:45 - 03:59	0	7	0	0	1	0	0	0	0	0	0	0	0	**8**
04:00 - 04:14	0	3	0	0	0	0	0	0	0	0	0	0	0	**3**
04:15 - 04:29	0	8	1	0	1	0	0	0	0	0	0	0	0	**10**
04:30 - 04:44	0	24	2	0	0	0	0	0	0	0	1	0	0	**27**
04:45 - 04:59	0	36	1	0	0	0	0	0	0	0	0	0	0	**37**
05:00 - 05:14	0	10	4	0	0	0	0	0	0	0	0	0	0	**14**
05:15 - 05:29	0	25	0	0	0	0	0	0	0	0	0	0	0	**25**
05:30 - 05:44	0	43	5	0	0	0	0	0	0	0	0	0	0	**48**
05:45 - 05:59	0	72	7	0	6	0	0	0	0	0	0	0	0	**85**
06:00 - 06:14	0	32	4	0	5	1	0	0	0	0	0	0	0	**42**
06:15 - 06:29	0	16	0	0	7	0	0	0	0	0	0	0	0	**23**
06:30 - 06:44	0	30	8	0	9	0	0	0	0	0	0	0	0	**47**
06:45 - 06:59	1	73	13	2	15	0	0	0	0	0	0	0	0	**104**
07:00 - 07:14	0	26	5	2	6	0	0	2	0	0	0	0	0	**41**
07:15 - 07:29	1	34	6	1	12	0	0	1	0	0	0	0	0	**55**
07:30 - 07:44	0	28	6	0	4	1	0	1	0	0	0	0	0	**40**
07:45 - 07:59	0	56	10	1	8	0	0	1	0	0	0	0	0	**76**
08:00 - 08:14	0	57	8	2	10	0	0	3	1	0	0	0	0	**81**
08:15 - 08:29	0	50	8	1	13	0	0	1	0	1	0	0	0	**74**
08:30 - 08:44	0	46	5	1	11	1	0	3	1	0	0	0	1	**69**
08:45 - 08:59	0	46	7	1	17	0	0	1	1	0	0	0	0	**73**
09:00 - 09:14	0	45	4	0	14	0	1	0	0	0	0	0	0	**64**
09:15 - 09:29	1	35	7	2	13	0	0	0	0	0	0	0	0	**58**
09:30 - 09:44	1	31	4	1	11	0	0	0	1	0	0	0	0	**49**
09:45 - 09:59	0	23	3	3	8	0	0	1	2	0	0	0	0	**40**
10:00 - 10:14	0	23	11	1	9	0	0	3	3	0	0	0	1	**51**
10:15 - 10:29	0	18	2	0	7	0	0	1	1	1	0	0	0	**30**
10:30 - 10:44	0	10	4	2	9	0	0	2	2	1	0	0	0	**30**
10:45 - 10:59	0	17	2	1	8	0	0	0	2	0	0	0	0	**30**
11:00 - 11:14	0	25	4	1	7	0	0	3	0	0	0	0	0	**40**
11:15 - 11:29	1	31	6	3	12	1	0	2	1	1	0	0	0	**58**
11:30 - 11:44	0	20	3	2	11	0	0	0	0	0	0	0	0	**36**
11:45 - 11:59	0	17	2	1	5	0	0	0	1	0	0	1	0	**27**
12:00 - 12:14	0	26	2	1	6	0	0	1	0	0	0	0	0	**36**
12:15 - 12:29	0	17	2	4	9	0	0	2	0	1	0	0	0	**35**
12:30 - 12:44	0	17	5	1	16	0	0	5	0	0	0	0	1	**45**
12:45 - 12:59	1	28	5	1	10	0	0	0	0	1	0	0	0	**46**

Daily Westbound Classes Report

Study Date: Thursday, 03/02/2023
Unit ID:
Location: 1600 North Location

	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	Total
13:00 - 13:14	0	30	7	0	9	0	0	3	0	0	0	0	0	**49**
13:15 - 13:29	0	18	8	2	7	0	0	1	0	0	0	0	0	**36**
13:30 - 13:44	0	28	6	4	13	1	0	2	0	1	0	0	0	**55**
13:45 - 13:59	2	28	7	2	13	1	0	3	2	0	0	0	0	**58**
14:00 - 14:14	0	29	5	2	10	2	0	2	2	1	0	0	0	**53**
14:15 - 14:29	0	47	4	0	9	0	0	4	1	0	0	0	0	**65**
14:30 - 14:44	0	63	6	0	13	0	0	0	1	0	0	0	0	**83**
14:45 - 14:59	0	59	1	2	5	0	0	4	2	0	0	0	0	**73**
15:00 - 15:14	1	30	6	2	4	0	1	1	1	0	0	0	0	**46**
15:15 - 15:29	0	19	4	2	7	0	0	1	0	0	0	0	0	**33**
15:30 - 15:44	1	22	6	0	6	0	0	2	0	0	0	0	0	**37**
15:45 - 15:59	0	32	4	1	16	0	0	2	0	0	0	0	0	**55**
16:00 - 16:14	0	27	4	0	9	0	1	2	0	0	0	0	0	**43**
16:15 - 16:29	0	35	5	0	9	0	0	0	1	0	0	0	0	**50**
16:30 - 16:44	0	26	4	0	5	0	0	1	0	0	0	0	0	**36**
16:45 - 16:59	0	15	4	0	1	0	0	0	0	0	0	0	0	**20**
17:00 - 17:14	0	16	2	2	8	0	0	0	0	0	0	0	0	**28**
17:15 - 17:29	0	16	2	0	6	0	0	1	0	0	0	0	0	**25**
17:30 - 17:44	0	16	1	0	2	0	0	0	1	0	0	0	0	**20**
17:45 - 17:59	0	15	3	1	6	0	0	1	0	0	0	0	0	**26**
18:00 - 18:14	1	16	3	0	0	0	0	0	0	0	0	0	0	**20**
18:15 - 18:29	0	4	2	0	2	0	0	0	0	0	1	0	0	**9**
18:30 - 18:44	0	6	1	0	2	0	0	0	0	0	0	0	0	**9**
18:45 - 18:59	0	6	1	0	3	0	0	4	0	0	0	0	0	**14**
19:00 - 19:14	0	3	2	0	2	0	0	0	0	0	0	0	0	**7**
19:15 - 19:29	1	9	2	0	4	0	0	0	0	0	0	0	0	**16**
19:30 - 19:44	0	7	1	1	1	0	0	1	0	0	0	0	0	**11**
19:45 - 19:59	0	2	0	0	1	0	0	1	0	0	0	0	0	**4**
20:00 - 20:14	0	2	0	0	1	0	0	1	0	0	0	0	0	**4**
20:15 - 20:29	0	5	0	0	0	0	0	0	0	0	0	0	0	**5**
20:30 - 20:44	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
20:45 - 20:59	0	5	0	0	0	0	0	1	0	0	1	0	0	**7**
21:00 - 21:14	0	1	0	0	2	0	0	0	0	0	0	0	0	**3**
21:15 - 21:29	0	3	1	0	0	0	0	0	0	0	0	0	0	**4**
21:30 - 21:44	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
21:45 - 21:59	0	2	0	0	1	0	0	0	0	0	0	0	0	**3**
22:00 - 22:14	0	2	0	0	0	0	0	0	0	0	1	0	0	**3**
22:15 - 22:29	0	0	1	0	0	0	0	0	0	0	0	0	0	**1**
22:30 - 22:44	0	2	0	0	0	0	0	1	0	0	0	0	0	**3**
22:45 - 22:59	0	3	0	0	1	0	0	0	0	0	0	0	0	**4**
23:00 - 23:14	0	8	2	0	0	0	0	1	0	0	0	0	0	**11**
23:15 - 23:29	0	8	0	0	0	0	0	0	0	0	0	0	0	**8**
23:30 - 23:44	0	3	0	0	0	0	0	0	0	0	0	0	0	**3**
23:45 - 23:59	0	0	0	0	0	0	0	0	0	0	1	1	0	**2**
Totals	**12**	**1841**	**278**	**57**	**463**	**8**	**3**	**75**	**28**	**8**	**8**	**2**	**3**	**2786**
Percent of Total	**0.4**	**66.1**	**10.0**	**2.0**	**16.6**	**0.3**	**0.1**	**2.7**	**1.0**	**0.3**	**0.3**	**0.1**	**0.1**	**100**
Percent of AM	**0.3**	**68.5**	**10.1**	**1.8**	**15.4**	**0.3**	**0.1**	**1.7**	**1.1**	**0.3**	**0.3**	**0.1**	**0.1**	**100**
Percent of PM	**0.6**	**62.9**	**9.9**	**2.3**	**18.2**	**0.3**	**0.2**	**4.0**	**0.9**	**0.3**	**0.3**	**0.1**	**0.1**	**100**

Daily Westbound Classes Report

Study Date: Thursday, 03/02/2023
Unit ID:
Location: 1600 North Location

Truck Summary:

Total Trucks: 655 % Trucks: 23.5 AM % Trucks: 21.1 PM % Trucks: 26.7

Classification Scheme: FHWA (ID: 1)

#1	Motorcycles - 2 Axles	#6	Single Unit Truck - 3 Axles	#11	Multi-Unit - 5 Axles or Less
#2	Passenger Cars - 2 Axles	#7	Single Unit - 4 Axles	#12	Multi-Unit - 6 Axles
#3	Pickup Trucks, Vans - 2 Axles	#8	Single Unit - 4 Axles or Less	#13	Multi-Unit - 7 Axles or More
#4	Buses	#9	Double Unit - 5 Axles		
#5	Single Unit - 2 Axles, 6 Tires	#10	Double Unit - 6 Axles or More		

Daily Total Classes Report

Study Date: Thursday, 03/02/2023
Unit ID:
Location: 1600 North Location

	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	Total
00:00 - 00:14	0	6	0	0	1	0	0	0	0	0	0	0	0	**7**
00:15 - 00:29	0	5	2	0	0	0	0	0	0	0	0	0	0	**7**
00:30 - 00:44	0	2	0	0	1	0	0	0	0	0	0	0	0	**3**
00:45 - 00:59	0	4	0	0	3	0	0	0	1	0	0	0	0	**8**
01:00 - 01:14	0	2	0	0	1	0	0	0	0	0	0	0	0	**3**
01:15 - 01:29	0	6	0	0	0	0	0	1	0	0	1	0	0	**8**
01:30 - 01:44	0	10	0	1	0	0	0	0	0	0	0	0	0	**11**
01:45 - 01:59	0	2	0	0	0	0	0	1	0	0	2	0	0	**5**
02:00 - 02:14	0	4	0	0	0	0	0	0	0	0	1	0	0	**5**
02:15 - 02:29	0	15	1	0	0	0	0	0	0	0	1	0	0	**17**
02:30 - 02:44	0	7	0	0	0	0	0	0	0	0	1	0	0	**8**
02:45 - 02:59	0	30	3	0	0	0	0	0	0	0	0	0	0	**33**
03:00 - 03:14	0	15	2	0	0	0	0	0	0	0	0	0	0	**17**
03:15 - 03:29	0	14	1	0	1	0	0	1	0	0	0	0	0	**17**
03:30 - 03:44	0	16	2	0	1	0	0	0	0	0	0	0	0	**19**
03:45 - 03:59	0	9	0	0	1	0	0	0	0	0	0	0	0	**10**
04:00 - 04:14	0	3	0	0	0	0	0	0	0	0	0	0	0	**3**
04:15 - 04:29	0	8	1	0	1	0	0	0	0	0	0	0	0	**10**
04:30 - 04:44	0	25	2	0	0	0	0	0	0	0	1	0	0	**28**
04:45 - 04:59	0	39	1	0	0	0	0	0	0	0	0	0	0	**40**
05:00 - 05:14	0	12	4	0	0	0	0	0	0	0	1	0	0	**17**
05:15 - 05:29	0	28	1	1	2	0	0	0	0	0	0	0	0	**32**
05:30 - 05:44	0	47	5	0	0	0	0	0	0	0	0	0	0	**52**
05:45 - 05:59	0	94	7	0	7	0	0	0	0	0	0	0	0	**108**
06:00 - 06:14	0	37	4	0	7	2	0	1	0	0	0	0	0	**51**
06:15 - 06:29	0	18	2	0	8	0	0	0	0	0	0	0	0	**28**
06:30 - 06:44	0	35	8	0	11	0	0	0	0	0	0	0	0	**54**
06:45 - 06:59	5	80	14	2	15	0	0	2	0	0	0	0	0	**118**
07:00 - 07:14	2	45	7	2	11	2	0	2	0	0	0	0	0	**71**
07:15 - 07:29	1	57	13	2	17	0	0	1	0	1	0	1	1	**94**
07:30 - 07:44	3	44	9	2	15	1	2	1	0	1	0	0	2	**80**
07:45 - 07:59	0	69	13	1	22	1	0	2	1	0	0	0	0	**109**
08:00 - 08:14	0	65	12	2	29	0	0	3	1	0	0	0	0	**112**
08:15 - 08:29	0	57	10	2	27	0	0	1	0	1	0	0	2	**100**
08:30 - 08:44	0	55	11	1	22	1	0	5	1	0	0	0	4	**100**
08:45 - 08:59	0	51	13	5	34	0	0	3	2	0	0	1	1	**110**
09:00 - 09:14	0	55	10	2	25	0	1	1	0	0	0	0	2	**96**
09:15 - 09:29	1	41	11	3	30	0	0	0	2	0	0	1	1	**90**
09:30 - 09:44	1	41	7	3	24	0	0	3	1	0	0	0	0	**80**
09:45 - 09:59	0	36	6	5	18	0	0	2	2	1	0	0	1	**71**
10:00 - 10:14	0	35	14	2	17	2	1	4	3	0	0	1	1	**80**
10:15 - 10:29	0	30	10	2	12	0	0	4	2	1	0	0	2	**63**
10:30 - 10:44	0	23	8	4	17	1	0	4	3	2	0	0	0	**62**
10:45 - 10:59	0	27	7	2	17	1	0	2	2	0	0	0	0	**58**
11:00 - 11:14	0	54	13	1	18	0	0	5	0	0	0	1	1	**93**
11:15 - 11:29	1	42	10	3	21	1	1	5	1	1	0	0	0	**86**
11:30 - 11:44	0	36	7	5	24	1	0	3	1	0	0	0	0	**77**
11:45 - 11:59	0	44	7	1	14	0	0	1	2	1	0	1	1	**72**
12:00 - 12:14	0	56	9	2	19	0	0	2	0	0	0	0	1	**89**
12:15 - 12:29	7	39	6	5	22	0	0	3	0	1	0	1	1	**85**
12:30 - 12:44	0	38	10	2	21	0	0	9	1	0	0	0	2	**83**
12:45 - 12:59	2	56	9	3	20	1	0	0	1	1	0	0	0	**93**

Daily Total Classes Report

Study Date: Thursday, 03/02/2023

Unit ID:

Location: 1600 North Location

	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	Total
13:00 - 13:14	0	60	11	0	24	0	0	4	1	1	0	0	1	**102**
13:15 - 13:29	1	31	16	3	9	1	0	3	1	1	0	1	0	**67**
13:30 - 13:44	2	45	8	6	22	2	0	4	0	1	1	0	0	**91**
13:45 - 13:59	3	47	9	5	25	2	1	5	2	1	0	1	1	**102**
14:00 - 14:14	0	47	11	4	18	3	0	3	4	1	0	0	0	**91**
14:15 - 14:29	0	73	13	0	18	0	0	5	1	0	0	0	0	**110**
14:30 - 14:44	4	115	12	0	23	2	0	1	1	1	0	0	0	**159**
14:45 - 14:59	3	70	5	2	8	0	0	4	2	0	0	0	1	**95**
15:00 - 15:14	1	80	14	3	12	1	1	3	1	0	0	0	1	**117**
15:15 - 15:29	1	51	7	2	21	3	0	1	0	0	0	0	0	**86**
15:30 - 15:44	1	105	14	2	14	0	0	5	0	0	0	0	0	**141**
15:45 - 15:59	0	77	8	2	27	0	0	3	0	0	0	0	0	**117**
16:00 - 16:14	0	98	12	0	17	2	1	3	0	0	0	0	0	**133**
16:15 - 16:29	2	74	15	1	21	0	0	1	1	0	0	0	0	**115**
16:30 - 16:44	0	72	10	1	17	2	0	3	0	0	0	0	0	**105**
16:45 - 16:59	0	57	15	0	11	0	0	0	0	0	0	0	0	**83**
17:00 - 17:14	1	102	14	2	24	0	0	0	1	0	0	0	0	**144**
17:15 - 17:29	0	68	16	1	25	0	0	1	1	0	0	0	0	**112**
17:30 - 17:44	0	64	8	0	13	0	0	1	1	0	0	0	0	**87**
17:45 - 17:59	0	52	9	2	18	0	0	1	0	0	0	0	0	**82**
18:00 - 18:14	1	53	11	0	7	0	0	2	0	0	0	0	0	**74**
18:15 - 18:29	0	21	4	0	6	0	0	0	1	0	1	0	0	**33**
18:30 - 18:44	0	28	9	0	5	0	0	0	0	0	0	0	0	**42**
18:45 - 18:59	0	16	7	0	4	0	0	4	0	0	1	0	0	**32**
19:00 - 19:14	0	19	3	0	5	0	0	1	0	0	0	0	0	**28**
19:15 - 19:29	1	25	5	0	7	0	0	0	0	0	0	0	0	**38**
19:30 - 19:44	0	21	6	1	3	1	0	2	0	0	0	0	0	**34**
19:45 - 19:59	0	13	5	1	2	0	0	1	0	0	0	0	0	**22**
20:00 - 20:14	0	11	2	1	2	0	0	3	0	0	0	0	0	**19**
20:15 - 20:29	0	19	2	0	3	0	0	0	0	0	0	0	0	**24**
20:30 - 20:44	0	29	3	0	1	0	0	0	0	0	0	1	0	**34**
20:45 - 20:59	0	14	0	0	0	0	0	1	0	0	1	0	0	**16**
21:00 - 21:14	0	5	0	0	2	0	0	1	0	0	0	0	0	**8**
21:15 - 21:29	0	8	1	0	0	0	0	0	0	0	1	0	0	**10**
21:30 - 21:44	0	3	0	0	2	0	0	0	0	0	1	0	0	**6**
21:45 - 21:59	0	2	0	0	2	0	0	0	0	0	0	0	0	**4**
22:00 - 22:14	0	3	2	0	2	0	0	0	0	0	1	0	0	**8**
22:15 - 22:29	0	0	1	1	1	0	0	1	0	0	1	0	0	**5**
22:30 - 22:44	0	3	0	0	1	0	0	1	0	0	0	0	0	**5**
22:45 - 22:59	0	6	0	0	1	0	0	0	0	0	0	0	0	**7**
23:00 - 23:14	0	18	3	0	1	0	0	1	0	0	0	0	0	**23**
23:15 - 23:29	0	65	2	0	0	0	0	1	0	0	0	0	0	**68**
23:30 - 23:44	0	18	1	0	0	0	0	0	0	0	0	0	0	**19**
23:45 - 23:59	0	2	0	0	0	0	0	0	0	0	1	1	0	**4**
Totals	**44**	**3459**	**586**	**106**	**980**	**33**	**8**	**142**	**45**	**17**	**17**	**11**	**27**	**5475**
Percent of Total	**0.8**	**63.2**	**10.7**	**1.9**	**17.9**	**0.6**	**0.1**	**2.6**	**0.8**	**0.3**	**0.3**	**0.2**	**0.5**	**100**
Percent of AM	**0.6**	**61.1**	**10.6**	**2.2**	**19.6**	**0.5**	**0.2**	**2.4**	**1.0**	**0.4**	**0.3**	**0.2**	**0.8**	**100**
Percent of PM	**1.0**	**64.8**	**10.7**	**1.7**	**16.6**	**0.7**	**0.1**	**2.8**	**0.7**	**0.3**	**0.3**	**0.2**	**0.3**	**100**

Daily Total Classes Report

Study Date: Thursday, 03/02/2023
Unit ID:
Location: 1600 North Location

Truck Summary:

Total Trucks: 1386 % Trucks: 25.3 AM % Trucks: 27.7 PM % Trucks: 23.4

Classification Scheme: FHWA (ID: 1)

#1	Motorcycles - 2 Axles	#6	Single Unit Truck - 3 Axles	#11	Multi-Unit - 5 Axles or Less
#2	Passenger Cars - 2 Axles	#7	Single Unit - 4 Axles	#12	Multi-Unit - 6 Axles
#3	Pickup Trucks, Vans - 2 Axles	#8	Single Unit - 4 Axles or Less	#13	Multi-Unit - 7 Axles or More
#4	Buses	#9	Double Unit - 5 Axles		
#5	Single Unit - 2 Axles, 6 Tires	#10	Double Unit - 6 Axles or More		

Daily Eastbound Speeds (MPH)

Study Date: Thursday, 03/02/2023
Unit ID:
Location: 1600 North Location
Posted Speed: 25

	5-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-99	Total
00:00 - 00:14	0	0	1	0	1	2	0	0	0	0	0	0	0	0	0	**4**
00:15 - 00:29	0	0	0	1	0	0	2	1	0	0	0	0	0	0	0	**4**
00:30 - 00:44	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	**1**
00:45 - 00:59	0	0	0	0	0	3	2	1	0	0	0	0	0	0	0	**6**
01:00 - 01:14	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	**1**
01:15 - 01:29	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	**3**
01:30 - 01:44	0	0	3	1	1	1	1	0	0	0	0	0	0	0	0	**7**
01:45 - 01:59	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	**2**
02:00 - 02:14	0	0	0	0	0	1	0	2	0	0	0	0	0	0	0	**3**
02:15 - 02:29	0	0	0	1	3	3	4	2	1	0	0	0	0	0	0	**14**
02:30 - 02:44	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	**2**
02:45 - 02:59	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	**2**
03:00 - 03:14	0	0	6	1	1	2	2	0	0	0	0	0	0	0	0	**12**
03:15 - 03:29	0	0	8	5	0	1	0	0	0	0	0	0	0	0	0	**14**
03:30 - 03:44	0	0	4	0	2	1	1	0	0	0	0	0	0	0	0	**8**
03:45 - 03:59	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	**2**
04:00 - 04:14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
04:15 - 04:29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
04:30 - 04:44	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	**1**
04:45 - 04:59	0	0	0	0	2	0	1	0	0	0	0	0	0	0	0	**3**
05:00 - 05:14	0	0	0	1	2	0	0	0	0	0	0	0	0	0	0	**3**
05:15 - 05:29	0	0	0	1	1	3	2	0	0	0	0	0	0	0	0	**7**
05:30 - 05:44	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	**4**
05:45 - 05:59	0	0	0	0	6	12	4	1	0	0	0	0	0	0	0	**23**
06:00 - 06:14	0	0	0	2	4	1	2	0	0	0	0	0	0	0	0	**9**
06:15 - 06:29	0	1	0	0	2	0	0	2	0	0	0	0	0	0	0	**5**
06:30 - 06:44	0	0	0	0	0	5	1	1	0	0	0	0	0	0	0	**7**
06:45 - 06:59	1	0	1	0	3	4	1	0	1	0	0	0	0	0	0	**11**
07:00 - 07:14	0	0	1	4	10	7	4	2	0	0	0	0	0	0	0	**28**
07:15 - 07:29	0	0	2	6	10	11	8	2	0	0	0	0	0	0	0	**39**
07:30 - 07:44	0	1	0	15	6	13	3	1	1	0	0	0	0	0	0	**40**
07:45 - 07:59	0	0	0	5	11	11	2	3	1	0	0	0	0	0	0	**33**
08:00 - 08:14	0	0	0	4	5	17	4	0	0	0	0	0	1	0	0	**31**
08:15 - 08:29	0	1	2	3	10	5	5	0	0	0	0	0	0	0	0	**26**
08:30 - 08:44	0	0	1	9	4	11	5	1	0	0	0	0	0	0	0	**31**
08:45 - 08:59	0	0	1	7	8	14	6	0	1	0	0	0	0	0	0	**37**
09:00 - 09:14	0	1	1	2	15	6	5	1	0	0	0	1	0	0	0	**32**
09:15 - 09:29	0	2	1	4	13	7	3	1	0	1	0	0	0	0	0	**32**
09:30 - 09:44	0	0	2	3	6	12	6	2	0	0	0	0	0	0	0	**31**
09:45 - 09:59	0	0	4	2	13	8	4	0	0	0	0	0	0	0	0	**31**
10:00 - 10:14	0	0	2	5	7	5	2	5	3	0	0	0	0	0	0	**29**
10:15 - 10:29	0	1	2	5	12	9	3	1	0	0	0	0	0	0	0	**33**
10:30 - 10:44	0	0	3	5	7	11	4	2	0	0	0	0	0	0	0	**32**
10:45 - 10:59	0	0	2	3	7	8	5	3	0	0	0	0	0	0	0	**28**
11:00 - 11:14	1	1	0	3	14	18	9	6	0	0	1	0	0	0	0	**53**
11:15 - 11:29	0	0	2	0	10	6	8	1	1	0	0	0	0	0	0	**28**
11:30 - 11:44	0	1	2	1	16	8	9	3	1	0	0	0	0	0	0	**41**
11:45 - 11:59	0	3	3	4	10	12	8	4	0	1	0	0	0	0	0	**45**
12:00 - 12:14	0	0	1	5	12	18	13	2	1	0	1	0	0	0	0	**53**
12:15 - 12:29	4	1	0	6	16	13	3	2	2	0	0	0	0	0	0	**47**
12:30 - 12:44	0	0	2	5	8	14	6	3	0	0	0	0	0	0	0	**38**

Daily Eastbound Speeds (MPH)

Study Date: Thursday, 03/02/2023
Unit ID:
Location: 1600 North Location

Posted Speed: 25

	5-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-99	Total
12:45 - 12:59	0	1	0	2	17	16	8	3	0	0	0	0	0	0	0	**47**
13:00 - 13:14	0	1	3	15	14	15	4	0	1	0	0	0	0	0	0	**53**
13:15 - 13:29	0	2	0	4	9	4	6	4	0	1	0	0	0	0	0	**30**
13:30 - 13:44	0	0	0	5	11	14	5	1	0	0	0	0	0	0	0	**36**
13:45 - 13:59	1	0	1	5	16	9	9	1	1	0	0	0	0	0	0	**43**
14:00 - 14:14	0	2	2	7	5	11	8	2	1	0	0	0	0	0	0	**38**
14:15 - 14:29	0	0	0	7	12	15	8	3	0	0	0	0	0	0	0	**45**
14:30 - 14:44	6	10	6	13	13	15	8	4	0	0	0	0	0	0	0	**75**
14:45 - 14:59	4	1	1	0	6	7	1	0	0	0	0	0	0	0	0	**20**
15:00 - 15:14	0	0	4	13	22	19	10	3	0	0	0	0	0	0	0	**71**
15:15 - 15:29	0	1	4	3	8	19	13	4	0	0	0	0	0	0	0	**52**
15:30 - 15:44	0	5	15	23	34	20	6	1	0	0	0	0	0	0	0	**104**
15:45 - 15:59	0	0	0	4	17	28	9	2	1	0	0	0	0	0	1	**62**
16:00 - 16:14	12	6	6	21	20	20	4	1	0	0	0	0	0	0	0	**90**
16:15 - 16:29	2	0	2	5	17	26	12	1	0	0	0	0	0	0	0	**65**
16:30 - 16:44	14	5	12	8	9	7	9	5	0	0	0	0	0	0	0	**69**
16:45 - 16:59	4	2	5	20	13	15	4	0	0	0	0	0	0	0	0	**63**
17:00 - 17:14	2	5	23	27	40	15	3	0	1	0	0	0	0	0	0	**116**
17:15 - 17:29	0	5	7	10	37	23	5	0	0	0	0	0	0	0	0	**87**
17:30 - 17:44	0	0	0	3	17	21	20	5	1	0	0	0	0	0	0	**67**
17:45 - 17:59	0	0	0	2	10	14	22	8	0	0	0	0	0	0	0	**56**
18:00 - 18:14	0	0	0	2	12	23	17	0	0	0	0	0	0	0	0	**54**
18:15 - 18:29	0	0	2	1	7	5	4	5	0	0	0	0	0	0	0	**24**
18:30 - 18:44	0	0	0	0	7	13	9	3	0	0	1	0	0	0	0	**33**
18:45 - 18:59	0	0	0	2	2	12	1	0	0	1	0	0	0	0	0	**18**
19:00 - 19:14	0	0	1	1	10	2	4	3	0	0	0	0	0	0	0	**21**
19:15 - 19:29	0	0	0	1	7	10	1	2	1	0	0	0	0	0	0	**22**
19:30 - 19:44	0	0	0	2	3	6	10	1	1	0	0	0	0	0	0	**23**
19:45 - 19:59	0	0	0	2	5	5	3	3	0	0	0	0	0	0	0	**18**
20:00 - 20:14	0	0	0	2	1	7	2	3	0	0	0	0	0	0	0	**15**
20:15 - 20:29	0	0	0	0	4	8	4	3	0	0	0	0	0	0	0	**19**
20:30 - 20:44	0	0	0	5	8	11	6	1	2	0	0	0	0	0	0	**33**
20:45 - 20:59	0	0	0	0	4	3	2	0	0	0	0	0	0	0	0	**9**
21:00 - 21:14	0	0	1	0	1	1	1	0	1	0	0	0	0	0	0	**5**
21:15 - 21:29	0	0	0	0	0	3	2	1	0	0	0	0	0	0	0	**6**
21:30 - 21:44	0	0	0	0	2	2	1	0	0	0	0	0	0	0	0	**5**
21:45 - 21:59	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	**1**
22:00 - 22:14	0	0	0	1	1	1	2	0	0	0	0	0	0	0	0	**5**
22:15 - 22:29	0	0	0	1	3	0	0	0	0	0	0	0	0	0	0	**4**
22:30 - 22:44	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	**2**
22:45 - 22:59	0	0	0	0	0	2	1	0	0	0	0	0	0	0	0	**3**
23:00 - 23:14	0	0	0	0	5	3	3	0	0	1	0	0	0	0	0	**12**
23:15 - 23:29	0	0	2	6	25	17	7	3	0	0	0	0	0	0	0	**60**
23:30 - 23:44	0	0	0	1	4	6	3	2	0	0	0	0	0	0	0	**16**
23:45 - 23:59	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	**2**
Totals	**51**	**59**	**154**	**346**	**720**	**763**	**410**	**135**	**25**	**6**	**3**	**1**	**1**	**0**	**1**	**2675**
Percent of Total	**1.9**	**2.2**	**5.8**	**12.9**	**26.9**	**28.5**	**15.3**	**5.0**	**0.9**	**0.2**	**0.1**	**0.0**	**0.0**	**0.0**	**0.0**	**100**
Percent of AM	**0.2**	**1.4**	**6.4**	**12.6**	**27.0**	**29.1**	**15.4**	**5.8**	**1.3**	**0.2**	**0.1**	**0.1**	**0.1**	**0.0**	**0.0**	**100**
Percent of PM	**2.7**	**2.6**	**5.4**	**13.1**	**26.9**	**28.3**	**15.3**	**4.7**	**0.8**	**0.2**	**0.1**	**0.0**	**0.0**	**0.0**	**0.1**	**100**

Daily Eastbound Speeds (MPH)

Study Date: Thursday, 03/02/2023
Unit ID:
Location: 1600 North Location

Posted Speed: 25

Standard Deviation:	8.0 MPH	Ten Mile Pace:	30 to 39 MPH	85th Percentile:	42.2 MPH
Mean Speed:	34.6 MPH	Percent in Ten Mile Pace:	55.4%	15th Percentile:	27.0 MPH
Median Speed:	35.0 MPH			90th Percentile:	43.8 MPH
Modal Speed:	37.5 MPH			95th Percentile:	46.4 MPH

Daily Westbound Speeds (MPH)

Study Date: Thursday, 03/02/2023
Unit ID:
Location: 1600 North Location

Posted Speed: 25

	5-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-99	Total
00:00 - 00:14	0	0	0	0	2	1	0	0	0	0	0	0	0	0	0	**3**
00:15 - 00:29	0	0	0	0	1	1	0	1	0	0	0	0	0	0	0	**3**
00:30 - 00:44	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	**2**
00:45 - 00:59	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	**2**
01:00 - 01:14	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	**2**
01:15 - 01:29	0	0	0	0	1	3	0	1	0	0	0	0	0	0	0	**5**
01:30 - 01:44	0	0	0	0	2	1	0	1	0	0	0	0	0	0	0	**4**
01:45 - 01:59	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	**3**
02:00 - 02:14	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	**2**
02:15 - 02:29	0	0	0	0	0	1	2	0	0	0	0	0	0	0	0	**3**
02:30 - 02:44	0	0	0	0	4	1	1	0	0	0	0	0	0	0	0	**6**
02:45 - 02:59	0	0	0	2	9	2	15	2	1	0	0	0	0	0	0	**31**
03:00 - 03:14	0	0	0	1	0	2	1	1	0	0	0	0	0	0	0	**5**
03:15 - 03:29	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	**3**
03:30 - 03:44	0	0	0	1	2	1	4	1	1	1	0	0	0	0	0	**11**
03:45 - 03:59	0	0	0	0	3	2	1	0	2	0	0	0	0	0	0	**8**
04:00 - 04:14	0	0	0	0	2	1	0	0	0	0	0	0	0	0	0	**3**
04:15 - 04:29	0	0	0	2	1	4	3	0	0	0	0	0	0	0	0	**10**
04:30 - 04:44	0	0	0	3	6	9	8	1	0	0	0	0	0	0	0	**27**
04:45 - 04:59	0	0	1	1	13	11	10	1	0	0	0	0	0	0	0	**37**
05:00 - 05:14	0	0	0	3	2	3	3	3	0	0	0	0	0	0	0	**14**
05:15 - 05:29	0	0	1	7	5	9	3	0	0	0	0	0	0	0	0	**25**
05:30 - 05:44	0	0	2	5	7	22	11	0	1	0	0	0	0	0	0	**48**
05:45 - 05:59	0	0	5	10	23	31	15	0	1	0	0	0	0	0	0	**85**
06:00 - 06:14	0	1	1	2	12	9	12	1	3	1	0	0	0	0	0	**42**
06:15 - 06:29	0	0	0	0	5	9	9	0	0	0	0	0	0	0	0	**23**
06:30 - 06:44	0	0	0	1	18	12	12	4	0	0	0	0	0	0	0	**47**
06:45 - 06:59	0	0	1	10	37	33	16	7	0	0	0	0	0	0	0	**104**
07:00 - 07:14	0	0	0	6	9	8	10	7	0	0	1	0	0	0	0	**41**
07:15 - 07:29	0	0	0	6	10	25	11	3	0	0	0	0	0	0	0	**55**
07:30 - 07:44	0	0	0	1	5	16	14	4	0	0	0	0	0	0	0	**40**
07:45 - 07:59	0	0	0	0	16	39	18	1	2	0	0	0	0	0	0	**76**
08:00 - 08:14	0	0	0	6	26	34	12	2	1	0	0	0	0	0	0	**81**
08:15 - 08:29	0	0	0	2	18	29	19	5	0	0	1	0	0	0	0	**74**
08:30 - 08:44	0	1	1	3	17	30	14	3	0	0	0	0	0	0	0	**69**
08:45 - 08:59	0	0	2	10	20	27	11	2	0	1	0	0	0	0	0	**73**
09:00 - 09:14	0	0	0	3	14	29	16	1	1	0	0	0	0	0	0	**64**
09:15 - 09:29	1	1	1	12	7	20	11	1	3	0	0	0	1	0	0	**58**
09:30 - 09:44	0	0	0	2	15	21	6	4	1	0	0	0	0	0	0	**49**
09:45 - 09:59	0	0	0	2	13	15	7	1	2	0	0	0	0	0	0	**40**
10:00 - 10:14	0	0	0	7	9	23	10	0	1	0	0	0	0	0	1	**51**
10:15 - 10:29	0	0	1	6	9	5	3	6	0	0	0	0	0	0	0	**30**
10:30 - 10:44	1	1	2	3	11	6	5	1	0	0	0	0	0	0	0	**30**
10:45 - 10:59	0	0	2	1	7	10	9	1	0	0	0	0	0	0	0	**30**
11:00 - 11:14	0	0	0	6	12	14	6	0	2	0	0	0	0	0	0	**40**
11:15 - 11:29	0	1	3	7	22	13	10	1	1	0	0	0	0	0	0	**58**
11:30 - 11:44	0	0	0	6	6	9	12	3	0	0	0	0	0	0	0	**36**
11:45 - 11:59	0	0	0	3	6	12	6	0	0	0	0	0	0	0	0	**27**
12:00 - 12:14	0	0	1	2	5	19	8	1	0	0	0	0	0	0	0	**36**
12:15 - 12:29	0	0	0	8	10	9	5	2	0	1	0	0	0	0	0	**35**
12:30 - 12:44	0	0	0	10	14	9	9	3	0	0	0	0	0	0	0	**45**

Daily Westbound Speeds (MPH)

Study Date: Thursday, 03/02/2023
Unit ID:
Location: 1600 North Location

Posted Speed: 25

	5-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-99	Total
12:45 - 12:59	0	0	3	3	15	14	7	4	0	0	0	0	0	0	0	**46**
13:00 - 13:14	0	0	0	10	16	6	12	5	0	0	0	0	0	0	0	**49**
13:15 - 13:29	0	0	0	2	8	16	9	1	0	0	0	0	0	0	0	**36**
13:30 - 13:44	0	0	4	1	22	16	8	4	0	0	0	0	0	0	0	**55**
13:45 - 13:59	1	1	6	23	13	8	4	2	0	0	0	0	0	0	0	**58**
14:00 - 14:14	0	0	1	13	14	19	5	1	0	0	0	0	0	0	0	**53**
14:15 - 14:29	0	0	0	13	24	17	7	2	1	0	0	0	1	0	0	**65**
14:30 - 14:44	0	0	3	6	33	26	14	1	0	0	0	0	0	0	0	**83**
14:45 - 14:59	0	0	0	5	31	26	8	3	0	0	0	0	0	0	0	**73**
15:00 - 15:14	1	1	3	4	14	12	8	2	1	0	0	0	0	0	0	**46**
15:15 - 15:29	0	0	0	3	6	13	7	4	0	0	0	0	0	0	0	**33**
15:30 - 15:44	0	0	0	0	15	13	7	2	0	0	0	0	0	0	0	**37**
15:45 - 15:59	0	0	4	5	12	21	13	0	0	0	0	0	0	0	0	**55**
16:00 - 16:14	0	1	7	9	16	6	2	2	0	0	0	0	0	0	0	**43**
16:15 - 16:29	0	1	8	12	13	8	6	2	0	0	0	0	0	0	0	**50**
16:30 - 16:44	1	1	2	8	11	10	2	1	0	0	0	0	0	0	0	**36**
16:45 - 16:59	0	0	0	1	4	10	3	2	0	0	0	0	0	0	0	**20**
17:00 - 17:14	0	0	0	1	7	12	7	1	0	0	0	0	0	0	0	**28**
17:15 - 17:29	0	0	0	3	8	8	5	0	1	0	0	0	0	0	0	**25**
17:30 - 17:44	0	0	0	1	1	7	6	4	1	0	0	0	0	0	0	**20**
17:45 - 17:59	0	0	0	2	3	12	6	1	1	1	0	0	0	0	0	**26**
18:00 - 18:14	1	0	0	0	6	7	6	0	0	0	0	0	0	0	0	**20**
18:15 - 18:29	0	0	0	0	1	4	3	1	0	0	0	0	0	0	0	**9**
18:30 - 18:44	0	0	0	2	2	5	0	0	0	0	0	0	0	0	0	**9**
18:45 - 18:59	0	0	0	0	4	6	3	0	1	0	0	0	0	0	0	**14**
19:00 - 19:14	0	0	1	0	3	2	1	0	0	0	0	0	0	0	0	**7**
19:15 - 19:29	0	0	0	3	2	7	4	0	0	0	0	0	0	0	0	**16**
19:30 - 19:44	0	0	0	1	4	4	1	0	1	0	0	0	0	0	0	**11**
19:45 - 19:59	0	0	0	0	2	0	1	1	0	0	0	0	0	0	0	**4**
20:00 - 20:14	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	**4**
20:15 - 20:29	0	0	0	1	0	1	3	0	0	0	0	0	0	0	0	**5**
20:30 - 20:44	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	**1**
20:45 - 20:59	0	0	1	0	1	2	2	1	0	0	0	0	0	0	0	**7**
21:00 - 21:14	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	**3**
21:15 - 21:29	0	0	0	1	2	1	0	0	0	0	0	0	0	0	0	**4**
21:30 - 21:44	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	**1**
21:45 - 21:59	0	0	0	1	0	1	0	1	0	0	0	0	0	0	0	**3**
22:00 - 22:14	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	**3**
22:15 - 22:29	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	**1**
22:30 - 22:44	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	**3**
22:45 - 22:59	0	0	0	0	3	0	1	0	0	0	0	0	0	0	0	**4**
23:00 - 23:14	0	0	0	0	3	2	2	4	0	0	0	0	0	0	0	**11**
23:15 - 23:29	0	0	0	0	2	2	3	1	0	0	0	0	0	0	0	**8**
23:30 - 23:44	0	0	0	0	0	1	2	0	0	0	0	0	0	0	0	**3**
23:45 - 23:59	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	**2**
Totals	**7**	**10**	**67**	**298**	**765**	**926**	**542**	**130**	**31**	**5**	**2**	**0**	**2**	**0**	**1**	**2786**
Percent of Total	**0.3**	**0.4**	**2.4**	**10.7**	**27.5**	**33.2**	**19.5**	**4.7**	**1.1**	**0.2**	**0.1**	**0.0**	**0.1**	**0.0**	**0.0**	**100**
Percent of AM	**0.2**	**0.3**	**1.5**	**9.0**	**25.9**	**35.4**	**21.4**	**4.4**	**1.5**	**0.2**	**0.1**	**0.0**	**0.1**	**0.0**	**0.1**	**100**
Percent of PM	**0.3**	**0.4**	**3.6**	**12.9**	**29.5**	**30.4**	**16.9**	**5.0**	**0.6**	**0.2**	**0.0**	**0.0**	**0.1**	**0.0**	**0.0**	**100**

Daily Westbound Speeds (MPH)

Study Date: Thursday, 03/02/2023
Unit ID:
Location: 1600 North Location

Posted Speed: 25

Standard Deviation:	6.5 MPH	Ten Mile Pace:	30 to 39 MPH	85th Percentile:	42.7 MPH
Mean Speed:	36.3 MPH	Percent in Ten Mile Pace:	60.7%		
Median Speed:	36.3 MPH			15th Percentile:	30.2 MPH
Modal Speed:	37.5 MPH			90th Percentile:	44.0 MPH
				95th Percentile:	46.2 MPH

Daily Total Speeds (MPH)

Study Date: Thursday, 03/02/2023
Unit ID:
Location: 1600 North Location

Posted Speed: 25

	5-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-99	Total
00:00 - 00:14	0	0	1	0	3	3	0	0	0	0	0	0	0	0	0	**7**
00:15 - 00:29	0	0	0	1	1	1	2	2	0	0	0	0	0	0	0	**7**
00:30 - 00:44	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	**3**
00:45 - 00:59	1	0	0	0	0	3	3	1	0	0	0	0	0	0	0	**8**
01:00 - 01:14	0	0	0	2	1	0	0	0	0	0	0	0	0	0	0	**3**
01:15 - 01:29	0	0	0	0	1	4	1	2	0	0	0	0	0	0	0	**8**
01:30 - 01:44	0	0	3	1	3	2	1	1	0	0	0	0	0	0	0	**11**
01:45 - 01:59	0	0	0	1	1	2	1	0	0	0	0	0	0	0	0	**5**
02:00 - 02:14	0	0	0	0	1	1	0	2	1	0	0	0	0	0	0	**5**
02:15 - 02:29	0	0	0	1	3	4	6	2	1	0	0	0	0	0	0	**17**
02:30 - 02:44	0	0	0	1	5	1	1	0	0	0	0	0	0	0	0	**8**
02:45 - 02:59	0	0	0	2	10	3	15	2	1	0	0	0	0	0	0	**33**
03:00 - 03:14	0	0	6	2	1	4	3	1	0	0	0	0	0	0	0	**17**
03:15 - 03:29	0	0	8	5	0	4	0	0	0	0	0	0	0	0	0	**17**
03:30 - 03:44	0	0	4	1	4	2	5	1	1	1	0	0	0	0	0	**19**
03:45 - 03:59	0	0	0	0	3	2	2	0	3	0	0	0	0	0	0	**10**
04:00 - 04:14	0	0	0	0	2	1	0	0	0	0	0	0	0	0	0	**3**
04:15 - 04:29	0	0	0	2	1	4	3	0	0	0	0	0	0	0	0	**10**
04:30 - 04:44	0	0	0	3	6	10	8	1	0	0	0	0	0	0	0	**28**
04:45 - 04:59	0	0	1	1	15	11	11	1	0	0	0	0	0	0	0	**40**
05:00 - 05:14	0	0	0	4	4	3	3	3	0	0	0	0	0	0	0	**17**
05:15 - 05:29	0	0	1	8	6	12	5	0	0	0	0	0	0	0	0	**32**
05:30 - 05:44	0	0	2	6	8	23	12	0	1	0	0	0	0	0	0	**52**
05:45 - 05:59	0	0	5	10	29	43	19	1	1	0	0	0	0	0	0	**108**
06:00 - 06:14	0	1	1	4	16	10	14	1	3	1	0	0	0	0	0	**51**
06:15 - 06:29	0	1	0	0	7	9	9	2	0	0	0	0	0	0	0	**28**
06:30 - 06:44	0	0	0	1	18	17	13	5	0	0	0	0	0	0	0	**54**
06:45 - 06:59	1	0	2	10	40	37	17	7	1	0	0	0	0	0	0	**115**
07:00 - 07:14	0	0	1	10	19	15	14	9	0	0	1	0	0	0	0	**69**
07:15 - 07:29	0	0	2	12	20	36	19	5	0	0	0	0	0	0	0	**94**
07:30 - 07:44	0	1	0	16	11	29	17	5	1	0	0	0	0	0	0	**80**
07:45 - 07:59	0	0	0	5	27	50	20	4	3	0	0	0	0	0	0	**109**
08:00 - 08:14	0	0	0	10	31	51	16	2	1	0	0	0	1	0	0	**112**
08:15 - 08:29	0	1	2	5	28	34	24	5	0	0	1	0	0	0	0	**100**
08:30 - 08:44	0	1	2	12	21	41	19	4	0	0	0	0	0	0	0	**100**
08:45 - 08:59	0	0	3	17	28	41	17	2	1	1	0	0	0	0	0	**110**
09:00 - 09:14	0	1	1	5	29	35	21	2	1	0	0	1	0	0	0	**96**
09:15 - 09:29	1	3	2	16	20	27	14	2	3	1	0	0	1	0	0	**90**
09:30 - 09:44	0	0	2	5	21	33	12	6	1	0	0	0	0	0	0	**80**
09:45 - 09:59	0	0	4	4	26	23	11	1	2	0	0	0	0	0	0	**71**
10:00 - 10:14	0	0	2	12	16	28	12	5	4	0	0	0	0	0	1	**80**
10:15 - 10:29	0	1	3	11	21	14	6	7	0	0	0	0	0	0	0	**63**
10:30 - 10:44	1	1	5	8	18	17	9	3	0	0	0	0	0	0	0	**62**
10:45 - 10:59	0	0	4	4	14	18	14	4	0	0	0	0	0	0	0	**58**
11:00 - 11:14	1	1	0	9	26	32	15	6	2	0	1	0	0	0	0	**93**
11:15 - 11:29	0	1	5	7	32	19	18	2	2	0	0	0	0	0	0	**86**
11:30 - 11:44	0	1	2	7	22	17	21	6	1	0	0	0	0	0	0	**77**
11:45 - 11:59	0	3	3	7	16	24	14	4	0	1	0	0	0	0	0	**72**
12:00 - 12:14	0	0	2	7	17	37	21	3	1	0	1	0	0	0	0	**89**
12:15 - 12:29	4	1	0	14	26	22	8	4	2	1	0	0	0	0	0	**82**
12:30 - 12:44	0	0	2	15	22	23	15	6	0	0	0	0	0	0	0	**83**

Daily Total Speeds (MPH)

Study Date: Thursday, 03/02/2023
Unit ID:
Location: 1600 North Location

Posted Speed: 25

	5-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-99	Total
12:45 - 12:59	0	1	3	5	32	30	15	7	0	0	0	0	0	0	0	**93**
13:00 - 13:14	0	1	3	25	30	21	16	5	1	0	0	0	0	0	0	**102**
13:15 - 13:29	0	2	0	6	17	20	15	5	0	1	0	0	0	0	0	**66**
13:30 - 13:44	0	0	4	6	33	30	13	5	0	0	0	0	0	0	0	**91**
13:45 - 13:59	2	1	7	28	29	17	13	3	1	0	0	0	0	0	0	**101**
14:00 - 14:14	0	2	3	20	19	30	13	3	1	0	0	0	0	0	0	**91**
14:15 - 14:29	0	0	0	20	36	32	15	5	1	0	0	0	1	0	0	**110**
14:30 - 14:44	6	10	9	19	46	41	22	5	0	0	0	0	0	0	0	**158**
14:45 - 14:59	4	1	1	5	37	33	9	3	0	0	0	0	0	0	0	**93**
15:00 - 15:14	1	1	7	17	36	31	18	5	1	0	0	0	0	0	0	**117**
15:15 - 15:29	0	1	4	6	14	32	20	8	0	0	0	0	0	0	0	**85**
15:30 - 15:44	0	5	15	23	49	33	13	3	0	0	0	0	0	0	0	**141**
15:45 - 15:59	0	0	4	9	29	49	22	2	1	0	0	0	0	0	1	**117**
16:00 - 16:14	12	7	13	30	36	26	6	3	0	0	0	0	0	0	0	**133**
16:15 - 16:29	2	1	10	17	30	34	18	3	0	0	0	0	0	0	0	**115**
16:30 - 16:44	15	6	14	16	20	17	11	6	0	0	0	0	0	0	0	**105**
16:45 - 16:59	4	2	5	21	17	25	7	2	0	0	0	0	0	0	0	**83**
17:00 - 17:14	2	5	23	28	47	27	10	1	1	0	0	0	0	0	0	**144**
17:15 - 17:29	0	5	7	13	45	31	10	0	1	0	0	0	0	0	0	**112**
17:30 - 17:44	0	0	0	4	18	28	26	9	2	0	0	0	0	0	0	**87**
17:45 - 17:59	0	0	0	4	13	26	28	9	1	1	0	0	0	0	0	**82**
18:00 - 18:14	1	0	0	2	18	30	23	0	0	0	0	0	0	0	0	**74**
18:15 - 18:29	0	0	2	1	8	9	7	6	0	0	0	0	0	0	0	**33**
18:30 - 18:44	0	0	0	2	9	18	9	3	0	0	1	0	0	0	0	**42**
18:45 - 18:59	0	0	0	2	6	18	4	0	1	1	0	0	0	0	0	**32**
19:00 - 19:14	0	0	2	1	13	4	5	3	0	0	0	0	0	0	0	**28**
19:15 - 19:29	0	0	0	4	9	17	5	2	1	0	0	0	0	0	0	**38**
19:30 - 19:44	0	0	0	3	7	10	11	1	2	0	0	0	0	0	0	**34**
19:45 - 19:59	0	0	0	2	7	5	4	4	0	0	0	0	0	0	0	**22**
20:00 - 20:14	0	0	0	2	1	9	4	3	0	0	0	0	0	0	0	**19**
20:15 - 20:29	0	0	0	1	4	9	7	3	0	0	0	0	0	0	0	**24**
20:30 - 20:44	0	0	0	5	9	11	6	1	2	0	0	0	0	0	0	**34**
20:45 - 20:59	0	0	1	0	5	5	4	1	0	0	0	0	0	0	0	**16**
21:00 - 21:14	0	0	1	0	1	2	2	1	1	0	0	0	0	0	0	**8**
21:15 - 21:29	0	0	0	1	2	4	2	1	0	0	0	0	0	0	0	**10**
21:30 - 21:44	0	0	0	0	2	2	2	0	0	0	0	0	0	0	0	**6**
21:45 - 21:59	0	0	0	1	0	1	1	1	0	0	0	0	0	0	0	**4**
22:00 - 22:14	0	0	0	1	4	1	2	0	0	0	0	0	0	0	0	**8**
22:15 - 22:29	0	0	0	1	4	0	0	0	0	0	0	0	0	0	0	**5**
22:30 - 22:44	0	0	0	1	1	1	0	1	0	1	0	0	0	0	0	**5**
22:45 - 22:59	0	0	0	0	3	2	2	0	0	0	0	0	0	0	0	**7**
23:00 - 23:14	0	0	0	0	8	5	5	4	0	1	0	0	0	0	0	**23**
23:15 - 23:29	0	0	2	6	27	19	10	4	0	0	0	0	0	0	0	**68**
23:30 - 23:44	0	0	0	1	4	7	5	2	0	0	0	0	0	0	0	**19**
23:45 - 23:59	0	0	0	1	0	2	1	0	0	0	0	0	0	0	0	**4**
Totals	**58**	**69**	**221**	**644**	**1485**	**1689**	**952**	**265**	**56**	**11**	**5**	**1**	**3**	**0**	**2**	**5461**
Percent of Total	**1.1**	**1.3**	**4.0**	**11.8**	**27.2**	**30.9**	**17.4**	**4.9**	**1.0**	**0.2**	**0.1**	**0.0**	**0.1**	**0.0**	**0.0**	**100**
Percent of AM	**0.2**	**0.7**	**3.2**	**10.3**	**26.3**	**33.2**	**19.3**	**4.9**	**1.4**	**0.2**	**0.1**	**0.0**	**0.1**	**0.0**	**0.0**	**100**
Percent of PM	**1.7**	**1.7**	**4.7**	**13.0**	**27.9**	**29.1**	**15.9**	**4.8**	**0.7**	**0.2**	**0.1**	**0.0**	**0.0**	**0.0**	**0.0**	**100**

Daily Total Speeds (MPH)

Study Date: Thursday, 03/02/2023
Unit ID:
Location: 1600 North Location

Posted Speed: 25

Standard Deviation:	7.3 MPH	Ten Mile Pace:	30 to 39 MPH	85th Percentile:	42.5 MPH
Mean Speed:	35.4 MPH	Percent in Ten Mile Pace:	58.1%	15th Percentile:	28.7 MPH
Median Speed:	35.7 MPH			90th Percentile:	43.9 MPH
Modal Speed:	37.5 MPH			95th Percentile:	46.3 MPH

Daily Vehicle Volume Report

Study Date: Thursday, 03/02/2023
Unit ID:
Location: Center Street Location

	Eastbound Volume	Westbound Volume	Total Volume
00:00 - 00:14	4	12	**16**
00:15 - 00:29	12	2	**14**
00:30 - 00:44	3	6	**9**
00:45 - 00:59	6	4	**10**
01:00 - 01:14	6	4	**10**
01:15 - 01:29	2	4	**6**
01:30 - 01:44	0	2	**2**
01:45 - 01:59	1	0	**1**
02:00 - 02:14	3	2	**5**
02:15 - 02:29	1	5	**6**
02:30 - 02:44	4	1	**5**
02:45 - 02:59	1	1	**2**
03:00 - 03:14	0	2	**2**
03:15 - 03:29	0	1	**1**
03:30 - 03:44	1	1	**2**
03:45 - 03:59	2	0	**2**
04:00 - 04:14	4	0	**4**
04:15 - 04:29	3	0	**3**
04:30 - 04:44	2	1	**3**
04:45 - 04:59	7	1	**8**
05:00 - 05:14	10	2	**12**
05:15 - 05:29	12	2	**14**
05:30 - 05:44	14	2	**16**
05:45 - 05:59	26	2	**28**
06:00 - 06:14	16	6	**22**
06:15 - 06:29	16	5	**21**
06:30 - 06:44	34	6	**40**
06:45 - 06:59	49	12	**61**
07:00 - 07:14	52	13	**65**
07:15 - 07:29	80	17	**97**
07:30 - 07:44	128	30	**158**
07:45 - 07:59	147	53	**200**
08:00 - 08:14	114	58	**172**
08:15 - 08:29	99	33	**132**
08:30 - 08:44	76	34	**110**
08:45 - 08:59	92	26	**118**
09:00 - 09:14	87	21	**108**
09:15 - 09:29	66	40	**106**
09:30 - 09:44	90	27	**117**
09:45 - 09:59	72	25	**97**
10:00 - 10:14	47	39	**86**
10:15 - 10:29	44	32	**76**
10:30 - 10:44	44	38	**82**
10:45 - 10:59	62	45	**107**
11:00 - 11:14	49	41	**90**
11:15 - 11:29	60	34	**94**
11:30 - 11:44	70	47	**117**
11:45 - 11:59	59	42	**101**
12:00 - 12:14	48	54	**102**
12:15 - 12:29	45	41	**86**
12:30 - 12:44	38	42	**80**
12:45 - 12:59	45	41	**86**

Daily Vehicle Volume Report

Study Date: Thursday, 03/02/2023
Unit ID:
Location: Center Street Location

	Eastbound Volume	Westbound Volume	Total Volume
13:00 - 13:14	34	53	**87**
13:15 - 13:29	48	43	**91**
13:30 - 13:44	54	55	**109**
13:45 - 13:59	60	43	**103**
14:00 - 14:14	71	44	**115**
14:15 - 14:29	72	88	**160**
14:30 - 14:44	85	96	**181**
14:45 - 14:59	64	77	**141**
15:00 - 15:14	62	64	**126**
15:15 - 15:29	59	61	**120**
15:30 - 15:44	73	63	**136**
15:45 - 15:59	74	86	**160**
16:00 - 16:14	68	80	**148**
16:15 - 16:29	66	94	**160**
16:30 - 16:44	77	66	**143**
16:45 - 16:59	70	50	**120**
17:00 - 17:14	65	72	**137**
17:15 - 17:29	67	83	**150**
17:30 - 17:44	89	99	**188**
17:45 - 17:59	78	97	**175**
18:00 - 18:14	66	99	**165**
18:15 - 18:29	60	69	**129**
18:30 - 18:44	68	71	**139**
18:45 - 18:59	86	48	**134**
19:00 - 19:14	62	79	**141**
19:15 - 19:29	52	68	**120**
19:30 - 19:44	47	46	**93**
19:45 - 19:59	46	50	**96**
20:00 - 20:14	29	42	**71**
20:15 - 20:29	38	63	**101**
20:30 - 20:44	29	42	**71**
20:45 - 20:59	45	46	**91**
21:00 - 21:14	20	46	**66**
21:15 - 21:29	24	46	**70**
21:30 - 21:44	37	42	**79**
21:45 - 21:59	25	40	**65**
22:00 - 22:14	41	39	**80**
22:15 - 22:29	22	31	**53**
22:30 - 22:44	11	18	**29**
22:45 - 22:59	14	16	**30**
23:00 - 23:14	12	20	**32**
23:15 - 23:29	7	14	**21**
23:30 - 23:44	15	13	**28**
23:45 - 23:59	10	9	**19**
Totals	**4155**	**3430**	**7585**
AM Peak Time	**07:28 - 08:27**	**07:41 - 08:40**	**07:28 - 08:27**
AM Peak Volume	**493**	**189**	**665**
PM Peak Time	**17:06 - 18:05**	**17:15 - 18:14**	**17:20 - 18:19**
PM Peak Volume	**310**	**378**	**680**

Daily Vehicle Volume Report

Study Date: Thursday, 03/02/2023
Unit ID:
Location: Center Street Location

Daily Eastbound Classes Report

Study Date: Thursday, 03/02/2023

Unit ID:

Location: Center Street Location

	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	Total
00:00 - 00:14	0	4	0	0	0	0	0	0	0	0	0	0	0	**4**
00:15 - 00:29	0	12	0	0	0	0	0	0	0	0	0	0	0	**12**
00:30 - 00:44	0	3	0	0	0	0	0	0	0	0	0	0	0	**3**
00:45 - 00:59	0	5	0	0	1	0	0	0	0	0	0	0	0	**6**
01:00 - 01:14	0	6	0	0	0	0	0	0	0	0	0	0	0	**6**
01:15 - 01:29	0	2	0	0	0	0	0	0	0	0	0	0	0	**2**
01:30 - 01:44	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
01:45 - 01:59	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
02:00 - 02:14	0	2	0	0	1	0	0	0	0	0	0	0	0	**3**
02:15 - 02:29	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
02:30 - 02:44	0	4	0	0	0	0	0	0	0	0	0	0	0	**4**
02:45 - 02:59	0	0	1	0	0	0	0	0	0	0	0	0	0	**1**
03:00 - 03:14	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
03:15 - 03:29	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
03:30 - 03:44	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
03:45 - 03:59	0	2	0	0	0	0	0	0	0	0	0	0	0	**2**
04:00 - 04:14	0	3	0	0	1	0	0	0	0	0	0	0	0	**4**
04:15 - 04:29	0	2	0	0	1	0	0	0	0	0	0	0	0	**3**
04:30 - 04:44	0	2	0	0	0	0	0	0	0	0	0	0	0	**2**
04:45 - 04:59	0	4	2	0	1	0	0	0	0	0	0	0	0	**7**
05:00 - 05:14	0	9	1	0	0	0	0	0	0	0	0	0	0	**10**
05:15 - 05:29	0	9	3	0	0	0	0	0	0	0	0	0	0	**12**
05:30 - 05:44	0	13	0	0	1	0	0	0	0	0	0	0	0	**14**
05:45 - 05:59	0	20	3	0	3	0	0	0	0	0	0	0	0	**26**
06:00 - 06:14	0	13	1	0	2	0	0	0	0	0	0	0	0	**16**
06:15 - 06:29	0	11	1	1	3	0	0	0	0	0	0	0	0	**16**
06:30 - 06:44	0	25	1	0	8	0	0	0	0	0	0	0	0	**34**
06:45 - 06:59	0	39	4	2	4	0	0	0	0	0	0	0	0	**49**
07:00 - 07:14	0	39	3	1	8	0	0	1	0	0	0	0	0	**52**
07:15 - 07:29	0	71	5	1	3	0	0	0	0	0	0	0	0	**80**
07:30 - 07:44	0	110	5	0	13	0	0	0	0	0	0	0	0	**128**
07:45 - 07:59	0	117	11	5	13	1	0	0	0	0	0	0	0	**147**
08:00 - 08:14	0	96	10	0	8	0	0	0	0	0	0	0	0	**114**
08:15 - 08:29	0	80	4	2	12	1	0	0	0	0	0	0	0	**99**
08:30 - 08:44	0	61	8	0	6	0	0	1	0	0	0	0	0	**76**
08:45 - 08:59	0	77	4	1	10	0	0	0	0	0	0	0	0	**92**
09:00 - 09:14	0	73	7	0	7	0	0	0	0	0	0	0	0	**87**
09:15 - 09:29	0	44	7	1	14	0	0	0	0	0	0	0	0	**66**
09:30 - 09:44	0	74	9	0	7	0	0	0	0	0	0	0	0	**90**
09:45 - 09:59	0	60	5	1	6	0	0	0	0	0	0	0	0	**72**
10:00 - 10:14	0	38	3	0	6	0	0	0	0	0	0	0	0	**47**
10:15 - 10:29	0	35	3	1	5	0	0	0	0	0	0	0	0	**44**
10:30 - 10:44	0	32	4	1	6	0	0	1	0	0	0	0	0	**44**
10:45 - 10:59	0	50	5	2	5	0	0	0	0	0	0	0	0	**62**
11:00 - 11:14	0	42	5	0	2	0	0	0	0	0	0	0	0	**49**
11:15 - 11:29	0	46	4	1	7	1	0	1	0	0	0	0	0	**60**
11:30 - 11:44	0	58	5	0	7	0	0	0	0	0	0	0	0	**70**
11:45 - 11:59	0	44	10	0	4	1	0	0	0	0	0	0	0	**59**
12:00 - 12:14	0	33	6	1	8	0	0	0	0	0	0	0	0	**48**
12:15 - 12:29	0	33	6	2	4	0	0	0	0	0	0	0	0	**45**
12:30 - 12:44	0	36	1	0	1	0	0	0	0	0	0	0	0	**38**
12:45 - 12:59	1	39	1	1	2	0	0	1	0	0	0	0	0	**45**

Daily Eastbound Classes Report

Study Date: Thursday, 03/02/2023

Unit ID:

Location: Center Street Location

	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	Total
13:00 - 13:14	0	28	4	0	2	0	0	0	0	0	0	0	0	**34**
13:15 - 13:29	1	37	2	1	7	0	0	0	0	0	0	0	0	**48**
13:30 - 13:44	0	46	6	0	2	0	0	0	0	0	0	0	0	**54**
13:45 - 13:59	0	53	5	0	2	0	0	0	0	0	0	0	0	**60**
14:00 - 14:14	0	60	6	0	5	0	0	0	0	0	0	0	0	**71**
14:15 - 14:29	0	57	8	1	6	0	0	0	0	0	0	0	0	**72**
14:30 - 14:44	0	68	4	4	9	0	0	0	0	0	0	0	0	**85**
14:45 - 14:59	0	57	3	1	3	0	0	0	0	0	0	0	0	**64**
15:00 - 15:14	0	51	2	2	7	0	0	0	0	0	0	0	0	**62**
15:15 - 15:29	0	43	7	2	7	0	0	0	0	0	0	0	0	**59**
15:30 - 15:44	0	59	7	0	7	0	0	0	0	0	0	0	0	**73**
15:45 - 15:59	1	55	12	1	5	0	0	0	0	0	0	0	0	**74**
16:00 - 16:14	0	55	9	0	4	0	0	0	0	0	0	0	0	**68**
16:15 - 16:29	0	54	4	2	6	0	0	0	0	0	0	0	0	**66**
16:30 - 16:44	0	64	5	0	8	0	0	0	0	0	0	0	0	**77**
16:45 - 16:59	0	60	5	1	3	1	0	0	0	0	0	0	0	**70**
17:00 - 17:14	0	53	3	0	8	1	0	0	0	0	0	0	0	**65**
17:15 - 17:29	0	54	9	1	3	0	0	0	0	0	0	0	0	**67**
17:30 - 17:44	0	72	9	0	8	0	0	0	0	0	0	0	0	**89**
17:45 - 17:59	0	64	10	1	3	0	0	0	0	0	0	0	0	**78**
18:00 - 18:14	0	53	7	0	6	0	0	0	0	0	0	0	0	**66**
18:15 - 18:29	0	46	8	1	5	0	0	0	0	0	0	0	0	**60**
18:30 - 18:44	0	56	9	0	3	0	0	0	0	0	0	0	0	**68**
18:45 - 18:59	0	71	8	1	6	0	0	0	0	0	0	0	0	**86**
19:00 - 19:14	0	50	5	0	7	0	0	0	0	0	0	0	0	**62**
19:15 - 19:29	0	43	6	2	1	0	0	0	0	0	0	0	0	**52**
19:30 - 19:44	0	38	2	0	7	0	0	0	0	0	0	0	0	**47**
19:45 - 19:59	0	43	2	0	1	0	0	0	0	0	0	0	0	**46**
20:00 - 20:14	0	27	0	0	2	0	0	0	0	0	0	0	0	**29**
20:15 - 20:29	0	33	1	1	2	1	0	0	0	0	0	0	0	**38**
20:30 - 20:44	0	24	4	0	1	0	0	0	0	0	0	0	0	**29**
20:45 - 20:59	1	40	2	0	2	0	0	0	0	0	0	0	0	**45**
21:00 - 21:14	0	17	1	0	2	0	0	0	0	0	0	0	0	**20**
21:15 - 21:29	0	24	0	0	0	0	0	0	0	0	0	0	0	**24**
21:30 - 21:44	0	33	2	0	2	0	0	0	0	0	0	0	0	**37**
21:45 - 21:59	0	23	1	0	1	0	0	0	0	0	0	0	0	**25**
22:00 - 22:14	0	37	1	0	3	0	0	0	0	0	0	0	0	**41**
22:15 - 22:29	0	15	4	0	3	0	0	0	0	0	0	0	0	**22**
22:30 - 22:44	0	10	0	0	1	0	0	0	0	0	0	0	0	**11**
22:45 - 22:59	0	11	1	0	2	0	0	0	0	0	0	0	0	**14**
23:00 - 23:14	0	12	0	0	0	0	0	0	0	0	0	0	0	**12**
23:15 - 23:29	0	6	1	0	0	0	0	0	0	0	0	0	0	**7**
23:30 - 23:44	0	12	2	0	1	0	0	0	0	0	0	0	0	**15**
23:45 - 23:59	0	10	0	0	0	0	0	0	0	0	0	0	0	**10**
Totals	**4**	**3405**	**335**	**46**	**353**	**7**	**0**	**5**	**0**	**0**	**0**	**0**	**0**	**4155**
Percent of Total	**0.1**	**81.9**	**8.1**	**1.1**	**8.5**	**0.2**	**0.0**	**0.1**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**100**
Percent of AM	**0.0**	**81.0**	**7.5**	**1.1**	**9.8**	**0.2**	**0.0**	**0.2**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**100**
Percent of PM	**0.2**	**82.6**	**8.5**	**1.1**	**7.5**	**0.1**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**100**

Daily Eastbound Classes Report

Study Date: Thursday, 03/02/2023
Unit ID:
Location: Center Street Location

Truck Summary:

Total Trucks:	411	% Trucks:	9.9	AM % Trucks:	11.4	PM % Trucks:	8.7

Classification Scheme: FHWA (ID: 1)

#1	Motorcycles - 2 Axles	#6	Single Unit Truck - 3 Axles	#11	Multi-Unit - 5 Axles or Less
#2	Passenger Cars - 2 Axles	#7	Single Unit - 4 Axles	#12	Multi-Unit - 6 Axles
#3	Pickup Trucks, Vans - 2 Axles	#8	Single Unit - 4 Axles or Less	#13	Multi-Unit - 7 Axles or More
#4	Buses	#9	Double Unit - 5 Axles		
#5	Single Unit - 2 Axles, 6 Tires	#10	Double Unit - 6 Axles or More		

Daily Westbound Classes Report

Study Date: Thursday, 03/02/2023

Unit ID:

Location: Center Street Location

	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	Total
00:00 - 00:14	0	11	0	0	1	0	0	0	0	0	0	0	0	**12**
00:15 - 00:29	0	2	0	0	0	0	0	0	0	0	0	0	0	**2**
00:30 - 00:44	0	4	1	0	1	0	0	0	0	0	0	0	0	**6**
00:45 - 00:59	0	4	0	0	0	0	0	0	0	0	0	0	0	**4**
01:00 - 01:14	0	4	0	0	0	0	0	0	0	0	0	0	0	**4**
01:15 - 01:29	0	2	2	0	0	0	0	0	0	0	0	0	0	**4**
01:30 - 01:44	0	1	0	0	1	0	0	0	0	0	0	0	0	**2**
01:45 - 01:59	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
02:00 - 02:14	0	2	0	0	0	0	0	0	0	0	0	0	0	**2**
02:15 - 02:29	0	5	0	0	0	0	0	0	0	0	0	0	0	**5**
02:30 - 02:44	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
02:45 - 02:59	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
03:00 - 03:14	0	2	0	0	0	0	0	0	0	0	0	0	0	**2**
03:15 - 03:29	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
03:30 - 03:44	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
03:45 - 03:59	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
04:00 - 04:14	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
04:15 - 04:29	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
04:30 - 04:44	0	0	0	0	1	0	0	0	0	0	0	0	0	**1**
04:45 - 04:59	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
05:00 - 05:14	0	2	0	0	0	0	0	0	0	0	0	0	0	**2**
05:15 - 05:29	0	2	0	0	0	0	0	0	0	0	0	0	0	**2**
05:30 - 05:44	0	1	1	0	0	0	0	0	0	0	0	0	0	**2**
05:45 - 05:59	0	2	0	0	0	0	0	0	0	0	0	0	0	**2**
06:00 - 06:14	0	4	0	1	1	0	0	0	0	0	0	0	0	**6**
06:15 - 06:29	0	3	1	0	1	0	0	0	0	0	0	0	0	**5**
06:30 - 06:44	0	4	0	1	0	0	0	0	1	0	0	0	0	**6**
06:45 - 06:59	0	9	0	1	2	0	0	0	0	0	0	0	0	**12**
07:00 - 07:14	0	7	2	1	3	0	0	0	0	0	0	0	0	**13**
07:15 - 07:29	0	11	2	1	3	0	0	0	0	0	0	0	0	**17**
07:30 - 07:44	3	18	3	2	4	0	0	0	0	0	0	0	0	**30**
07:45 - 07:59	0	46	5	0	1	0	0	1	0	0	0	0	0	**53**
08:00 - 08:14	0	46	4	0	6	2	0	0	0	0	0	0	0	**58**
08:15 - 08:29	0	26	5	0	2	0	0	0	0	0	0	0	0	**33**
08:30 - 08:44	0	26	6	0	2	0	0	0	0	0	0	0	0	**34**
08:45 - 08:59	0	20	5	1	0	0	0	0	0	0	0	0	0	**26**
09:00 - 09:14	0	14	0	1	6	0	0	0	0	0	0	0	0	**21**
09:15 - 09:29	0	31	3	0	6	0	0	0	0	0	0	0	0	**40**
09:30 - 09:44	0	16	3	1	7	0	0	0	0	0	0	0	0	**27**
09:45 - 09:59	0	20	4	0	1	0	0	0	0	0	0	0	0	**25**
10:00 - 10:14	0	28	4	1	5	1	0	0	0	0	0	0	0	**39**
10:15 - 10:29	0	24	7	0	1	0	0	0	0	0	0	0	0	**32**
10:30 - 10:44	0	26	5	1	6	0	0	0	0	0	0	0	0	**38**
10:45 - 10:59	0	38	1	2	4	0	0	0	0	0	0	0	0	**45**
11:00 - 11:14	0	30	5	0	6	0	0	0	0	0	0	0	0	**41**
11:15 - 11:29	0	32	1	0	1	0	0	0	0	0	0	0	0	**34**
11:30 - 11:44	0	42	3	1	1	0	0	0	0	0	0	0	0	**47**
11:45 - 11:59	0	38	2	0	1	1	0	0	0	0	0	0	0	**42**
12:00 - 12:14	0	43	3	1	7	0	0	0	0	0	0	0	0	**54**
12:15 - 12:29	0	31	4	0	6	0	0	0	0	0	0	0	0	**41**
12:30 - 12:44	0	33	2	2	4	0	1	0	0	0	0	0	0	**42**
12:45 - 12:59	0	32	3	0	6	0	0	0	0	0	0	0	0	**41**

Daily Westbound Classes Report

Study Date: Thursday, 03/02/2023
Unit ID:
Location: Center Street Location

	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	Total
13:00 - 13:14	0	43	4	0	6	0	0	0	0	0	0	0	0	**53**
13:15 - 13:29	1	32	8	0	2	0	0	0	0	0	0	0	0	**43**
13:30 - 13:44	0	47	2	1	5	0	0	0	0	0	0	0	0	**55**
13:45 - 13:59	0	38	4	0	1	0	0	0	0	0	0	0	0	**43**
14:00 - 14:14	0	40	1	1	2	0	0	0	0	0	0	0	0	**44**
14:15 - 14:29	1	71	8	2	5	1	0	0	0	0	0	0	0	**88**
14:30 - 14:44	0	83	4	0	8	0	0	1	0	0	0	0	0	**96**
14:45 - 14:59	0	58	8	3	6	0	0	1	1	0	0	0	0	**77**
15:00 - 15:14	0	50	2	6	6	0	0	0	0	0	0	0	0	**64**
15:15 - 15:29	0	55	3	1	1	0	0	1	0	0	0	0	0	**61**
15:30 - 15:44	0	50	3	1	7	1	1	0	0	0	0	0	0	**63**
15:45 - 15:59	0	75	2	2	7	0	0	0	0	0	0	0	0	**86**
16:00 - 16:14	0	73	4	1	2	0	0	0	0	0	0	0	0	**80**
16:15 - 16:29	0	79	7	2	5	0	0	0	1	0	0	0	0	**94**
16:30 - 16:44	0	52	8	0	5	0	0	1	0	0	0	0	0	**66**
16:45 - 16:59	0	40	4	0	5	1	0	0	0	0	0	0	0	**50**
17:00 - 17:14	1	58	7	1	5	0	0	0	0	0	0	0	0	**72**
17:15 - 17:29	0	74	4	0	4	1	0	0	0	0	0	0	0	**83**
17:30 - 17:44	0	77	9	0	11	0	0	2	0	0	0	0	0	**99**
17:45 - 17:59	0	76	13	1	6	1	0	0	0	0	0	0	0	**97**
18:00 - 18:14	0	85	6	1	6	0	0	1	0	0	0	0	0	**99**
18:15 - 18:29	0	58	7	0	4	0	0	0	0	0	0	0	0	**69**
18:30 - 18:44	5	61	4	0	0	1	0	0	0	0	0	0	0	**71**
18:45 - 18:59	1	37	2	0	8	0	0	0	0	0	0	0	0	**48**
19:00 - 19:14	0	64	10	0	5	0	0	0	0	0	0	0	0	**79**
19:15 - 19:29	0	58	6	0	4	0	0	0	0	0	0	0	0	**68**
19:30 - 19:44	0	39	5	0	2	0	0	0	0	0	0	0	0	**46**
19:45 - 19:59	0	38	8	0	2	2	0	0	0	0	0	0	0	**50**
20:00 - 20:14	0	39	1	1	1	0	0	0	0	0	0	0	0	**42**
20:15 - 20:29	2	50	8	0	3	0	0	0	0	0	0	0	0	**63**
20:30 - 20:44	0	32	6	1	3	0	0	0	0	0	0	0	0	**42**
20:45 - 20:59	0	41	3	0	2	0	0	0	0	0	0	0	0	**46**
21:00 - 21:14	0	36	6	0	4	0	0	0	0	0	0	0	0	**46**
21:15 - 21:29	0	41	3	0	2	0	0	0	0	0	0	0	0	**46**
21:30 - 21:44	0	37	3	0	2	0	0	0	0	0	0	0	0	**42**
21:45 - 21:59	0	37	2	0	1	0	0	0	0	0	0	0	0	**40**
22:00 - 22:14	0	35	4	0	0	0	0	0	0	0	0	0	0	**39**
22:15 - 22:29	0	27	3	0	1	0	0	0	0	0	0	0	0	**31**
22:30 - 22:44	0	17	1	0	0	0	0	0	0	0	0	0	0	**18**
22:45 - 22:59	0	14	2	0	0	0	0	0	0	0	0	0	0	**16**
23:00 - 23:14	0	19	0	0	1	0	0	0	0	0	0	0	0	**20**
23:15 - 23:29	0	13	1	0	0	0	0	0	0	0	0	0	0	**14**
23:30 - 23:44	0	11	2	0	0	0	0	0	0	0	0	0	0	**13**
23:45 - 23:59	0	8	1	0	0	0	0	0	0	0	0	0	0	**9**
Totals	**14**	**2815**	**286**	**43**	**247**	**12**	**2**	**8**	**3**	**0**	**0**	**0**	**0**	**3430**
Percent of Total	**0.4**	**82.1**	**8.3**	**1.3**	**7.2**	**0.3**	**0.1**	**0.2**	**0.1**	**0.0**	**0.0**	**0.0**	**0.0**	**100**
Percent of AM	**0.4**	**77.8**	**9.6**	**1.9**	**9.5**	**0.5**	**0.0**	**0.1**	**0.1**	**0.0**	**0.0**	**0.0**	**0.0**	**100**
Percent of PM	**0.4**	**83.3**	**8.0**	**1.1**	**6.5**	**0.3**	**0.1**	**0.3**	**0.1**	**0.0**	**0.0**	**0.0**	**0.0**	**100**

Daily Westbound Classes Report

Study Date: Thursday, 03/02/2023
Unit ID:
Location: Center Street Location

Truck Summary:

Total Trucks: 315 % Trucks: 9.2 AM % Trucks: 12.2 PM % Trucks: 8.3

Classification Scheme: FHWA (ID: 1)

#1	Motorcycles - 2 Axles	#6	Single Unit Truck - 3 Axles	#11	Multi-Unit - 5 Axles or Less
#2	Passenger Cars - 2 Axles	#7	Single Unit - 4 Axles	#12	Multi-Unit - 6 Axles
#3	Pickup Trucks, Vans - 2 Axles	#8	Single Unit - 4 Axles or Less	#13	Multi-Unit - 7 Axles or More
#4	Buses	#9	Double Unit - 5 Axles		
#5	Single Unit - 2 Axles, 6 Tires	#10	Double Unit - 6 Axles or More		

Daily Total Classes Report

Study Date: Thursday, 03/02/2023
Unit ID:
Location: Center Street Location

	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	Total
00:00 - 00:14	0	15	0	0	1	0	0	0	0	0	0	0	0	**16**
00:15 - 00:29	0	14	0	0	0	0	0	0	0	0	0	0	0	**14**
00:30 - 00:44	0	7	1	0	1	0	0	0	0	0	0	0	0	**9**
00:45 - 00:59	0	9	0	0	1	0	0	0	0	0	0	0	0	**10**
01:00 - 01:14	0	10	0	0	0	0	0	0	0	0	0	0	0	**10**
01:15 - 01:29	0	4	2	0	0	0	0	0	0	0	0	0	0	**6**
01:30 - 01:44	0	1	0	0	1	0	0	0	0	0	0	0	0	**2**
01:45 - 01:59	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
02:00 - 02:14	0	4	0	0	1	0	0	0	0	0	0	0	0	**5**
02:15 - 02:29	0	6	0	0	0	0	0	0	0	0	0	0	0	**6**
02:30 - 02:44	0	5	0	0	0	0	0	0	0	0	0	0	0	**5**
02:45 - 02:59	0	1	1	0	0	0	0	0	0	0	0	0	0	**2**
03:00 - 03:14	0	2	0	0	0	0	0	0	0	0	0	0	0	**2**
03:15 - 03:29	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
03:30 - 03:44	0	2	0	0	0	0	0	0	0	0	0	0	0	**2**
03:45 - 03:59	0	2	0	0	0	0	0	0	0	0	0	0	0	**2**
04:00 - 04:14	0	3	0	0	1	0	0	0	0	0	0	0	0	**4**
04:15 - 04:29	0	2	0	0	1	0	0	0	0	0	0	0	0	**3**
04:30 - 04:44	0	2	0	0	1	0	0	0	0	0	0	0	0	**3**
04:45 - 04:59	0	5	2	0	1	0	0	0	0	0	0	0	0	**8**
05:00 - 05:14	0	11	1	0	0	0	0	0	0	0	0	0	0	**12**
05:15 - 05:29	0	11	3	0	0	0	0	0	0	0	0	0	0	**14**
05:30 - 05:44	0	14	1	0	1	0	0	0	0	0	0	0	0	**16**
05:45 - 05:59	0	22	3	0	3	0	0	0	0	0	0	0	0	**28**
06:00 - 06:14	0	17	1	1	3	0	0	0	0	0	0	0	0	**22**
06:15 - 06:29	0	14	2	1	4	0	0	0	0	0	0	0	0	**21**
06:30 - 06:44	0	29	1	1	8	0	0	0	1	0	0	0	0	**40**
06:45 - 06:59	0	48	4	3	6	0	0	0	0	0	0	0	0	**61**
07:00 - 07:14	0	46	5	2	11	0	0	1	0	0	0	0	0	**65**
07:15 - 07:29	0	82	7	2	6	0	0	0	0	0	0	0	0	**97**
07:30 - 07:44	3	128	8	2	17	0	0	0	0	0	0	0	0	**158**
07:45 - 07:59	0	163	16	5	14	1	0	1	0	0	0	0	0	**200**
08:00 - 08:14	0	142	14	0	14	2	0	0	0	0	0	0	0	**172**
08:15 - 08:29	0	106	9	2	14	1	0	0	0	0	0	0	0	**132**
08:30 - 08:44	0	87	14	0	8	0	0	1	0	0	0	0	0	**110**
08:45 - 08:59	0	97	9	2	10	0	0	0	0	0	0	0	0	**118**
09:00 - 09:14	0	87	7	1	13	0	0	0	0	0	0	0	0	**108**
09:15 - 09:29	0	75	10	1	20	0	0	0	0	0	0	0	0	**106**
09:30 - 09:44	0	90	12	1	14	0	0	0	0	0	0	0	0	**117**
09:45 - 09:59	0	80	9	1	7	0	0	0	0	0	0	0	0	**97**
10:00 - 10:14	0	66	7	1	11	1	0	0	0	0	0	0	0	**86**
10:15 - 10:29	0	59	10	1	6	0	0	0	0	0	0	0	0	**76**
10:30 - 10:44	0	58	9	2	12	0	0	1	0	0	0	0	0	**82**
10:45 - 10:59	0	88	6	4	9	0	0	0	0	0	0	0	0	**107**
11:00 - 11:14	0	72	10	0	8	0	0	0	0	0	0	0	0	**90**
11:15 - 11:29	0	78	5	1	8	1	0	1	0	0	0	0	0	**94**
11:30 - 11:44	0	100	8	1	8	0	0	0	0	0	0	0	0	**117**
11:45 - 11:59	0	82	12	0	5	2	0	0	0	0	0	0	0	**101**
12:00 - 12:14	0	76	9	2	15	0	0	0	0	0	0	0	0	**102**
12:15 - 12:29	0	64	10	2	10	0	0	0	0	0	0	0	0	**86**
12:30 - 12:44	0	69	3	2	5	0	1	0	0	0	0	0	0	**80**
12:45 - 12:59	1	71	4	1	8	0	0	1	0	0	0	0	0	**86**

Daily Total Classes Report

Study Date: Thursday, 03/02/2023
Unit ID:
Location: Center Street Location

	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	Total
13:00 - 13:14	0	71	8	0	8	0	0	0	0	0	0	0	0	**87**
13:15 - 13:29	2	69	10	1	9	0	0	0	0	0	0	0	0	**91**
13:30 - 13:44	0	93	8	1	7	0	0	0	0	0	0	0	0	**109**
13:45 - 13:59	0	91	9	0	3	0	0	0	0	0	0	0	0	**103**
14:00 - 14:14	0	100	7	1	7	0	0	0	0	0	0	0	0	**115**
14:15 - 14:29	1	128	16	3	11	1	0	0	0	0	0	0	0	**160**
14:30 - 14:44	0	151	8	4	17	0	0	1	0	0	0	0	0	**181**
14:45 - 14:59	0	115	11	4	9	0	0	1	1	0	0	0	0	**141**
15:00 - 15:14	0	101	4	8	13	0	0	0	0	0	0	0	0	**126**
15:15 - 15:29	0	98	10	3	8	0	0	1	0	0	0	0	0	**120**
15:30 - 15:44	0	109	10	1	14	1	1	0	0	0	0	0	0	**136**
15:45 - 15:59	1	130	14	3	12	0	0	0	0	0	0	0	0	**160**
16:00 - 16:14	0	128	13	1	6	0	0	0	0	0	0	0	0	**148**
16:15 - 16:29	0	133	11	4	11	0	0	0	1	0	0	0	0	**160**
16:30 - 16:44	0	116	13	0	13	0	0	1	0	0	0	0	0	**143**
16:45 - 16:59	0	100	9	1	8	2	0	0	0	0	0	0	0	**120**
17:00 - 17:14	1	111	10	1	13	1	0	0	0	0	0	0	0	**137**
17:15 - 17:29	0	128	13	1	7	1	0	0	0	0	0	0	0	**150**
17:30 - 17:44	0	149	18	0	19	0	0	2	0	0	0	0	0	**188**
17:45 - 17:59	0	140	23	2	9	1	0	0	0	0	0	0	0	**175**
18:00 - 18:14	0	138	13	1	12	0	0	1	0	0	0	0	0	**165**
18:15 - 18:29	0	104	15	1	9	0	0	0	0	0	0	0	0	**129**
18:30 - 18:44	5	117	13	0	3	1	0	0	0	0	0	0	0	**139**
18:45 - 18:59	1	108	10	1	14	0	0	0	0	0	0	0	0	**134**
19:00 - 19:14	0	114	15	0	12	0	0	0	0	0	0	0	0	**141**
19:15 - 19:29	0	101	12	2	5	0	0	0	0	0	0	0	0	**120**
19:30 - 19:44	0	77	7	0	9	0	0	0	0	0	0	0	0	**93**
19:45 - 19:59	0	81	10	0	3	2	0	0	0	0	0	0	0	**96**
20:00 - 20:14	0	66	1	1	3	0	0	0	0	0	0	0	0	**71**
20:15 - 20:29	2	83	9	1	5	1	0	0	0	0	0	0	0	**101**
20:30 - 20:44	0	56	10	1	4	0	0	0	0	0	0	0	0	**71**
20:45 - 20:59	1	81	5	0	4	0	0	0	0	0	0	0	0	**91**
21:00 - 21:14	0	53	7	0	6	0	0	0	0	0	0	0	0	**66**
21:15 - 21:29	0	65	3	0	2	0	0	0	0	0	0	0	0	**70**
21:30 - 21:44	0	70	5	0	4	0	0	0	0	0	0	0	0	**79**
21:45 - 21:59	0	60	3	0	2	0	0	0	0	0	0	0	0	**65**
22:00 - 22:14	0	72	5	0	3	0	0	0	0	0	0	0	0	**80**
22:15 - 22:29	0	42	7	0	4	0	0	0	0	0	0	0	0	**53**
22:30 - 22:44	0	27	1	0	1	0	0	0	0	0	0	0	0	**29**
22:45 - 22:59	0	25	3	0	2	0	0	0	0	0	0	0	0	**30**
23:00 - 23:14	0	31	0	0	1	0	0	0	0	0	0	0	0	**32**
23:15 - 23:29	0	19	2	0	0	0	0	0	0	0	0	0	0	**21**
23:30 - 23:44	0	23	4	0	1	0	0	0	0	0	0	0	0	**28**
23:45 - 23:59	0	18	1	0	0	0	0	0	0	0	0	0	0	**19**
Totals	**18**	**6220**	**621**	**89**	**600**	**19**	**2**	**13**	**3**	**0**	**0**	**0**	**0**	**7585**
Percent of Total	**0.2**	**82.0**	**8.2**	**1.2**	**7.9**	**0.3**	**0.0**	**0.2**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**100**
Percent of AM	**0.1**	**80.1**	**8.2**	**1.4**	**9.7**	**0.3**	**0.0**	**0.2**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**100**
Percent of PM	**0.3**	**83.0**	**8.2**	**1.1**	**7.0**	**0.2**	**0.0**	**0.2**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**100**

Daily Total Classes Report

Study Date: Thursday, 03/02/2023
Unit ID:
Location: Center Street Location

Truck Summary:

Total Trucks: 726 % Trucks: 9.6 AM % Trucks: 11.6 PM % Trucks: 8.5

Classification Scheme: FHWA (ID: 1)

#1	Motorcycles - 2 Axles	#6	Single Unit Truck - 3 Axles	#11	Multi-Unit - 5 Axles or Less
#2	Passenger Cars - 2 Axles	#7	Single Unit - 4 Axles	#12	Multi-Unit - 6 Axles
#3	Pickup Trucks, Vans - 2 Axles	#8	Single Unit - 4 Axles or Less	#13	Multi-Unit - 7 Axles or More
#4	Buses	#9	Double Unit - 5 Axles		
#5	Single Unit - 2 Axles, 6 Tires	#10	Double Unit - 6 Axles or More		

Daily Eastbound Speeds (MPH)

Study Date: Thursday, 03/02/2023

Unit ID:

Location: Center Street Location

Posted Speed: 35

	5-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-99	Total
00:00 - 00:14	0	0	0	0	0	3	1	0	0	0	0	0	0	0	0	**4**
00:15 - 00:29	0	0	0	0	2	6	4	0	0	0	0	0	0	0	0	**12**
00:30 - 00:44	0	0	0	0	0	2	1	0	0	0	0	0	0	0	0	**3**
00:45 - 00:59	0	0	0	0	2	1	3	0	0	0	0	0	0	0	0	**6**
01:00 - 01:14	0	0	0	0	3	1	1	1	0	0	0	0	0	0	0	**6**
01:15 - 01:29	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	**2**
01:30 - 01:44	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
01:45 - 01:59	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	**1**
02:00 - 02:14	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	**3**
02:15 - 02:29	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	**1**
02:30 - 02:44	0	0	0	0	0	3	0	0	1	0	0	0	0	0	0	**4**
02:45 - 02:59	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	**1**
03:00 - 03:14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
03:15 - 03:29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
03:30 - 03:44	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	**1**
03:45 - 03:59	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	**2**
04:00 - 04:14	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	**4**
04:15 - 04:29	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	**3**
04:30 - 04:44	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	**2**
04:45 - 04:59	0	0	0	0	1	3	3	0	0	0	0	0	0	0	0	**7**
05:00 - 05:14	0	0	0	1	3	2	3	1	0	0	0	0	0	0	0	**10**
05:15 - 05:29	0	0	0	2	4	3	3	0	0	0	0	0	0	0	0	**12**
05:30 - 05:44	0	0	0	1	4	8	0	1	0	0	0	0	0	0	0	**14**
05:45 - 05:59	0	0	0	2	3	12	8	1	0	0	0	0	0	0	0	**26**
06:00 - 06:14	0	0	0	0	2	10	3	1	0	0	0	0	0	0	0	**16**
06:15 - 06:29	0	0	0	0	3	8	5	0	0	0	0	0	0	0	0	**16**
06:30 - 06:44	0	0	0	2	5	12	14	1	0	0	0	0	0	0	0	**34**
06:45 - 06:59	0	0	1	0	9	19	13	5	2	0	0	0	0	0	0	**49**
07:00 - 07:14	0	0	0	1	13	22	11	5	0	0	0	0	0	0	0	**52**
07:15 - 07:29	0	0	0	2	19	41	12	6	0	0	0	0	0	0	0	**80**
07:30 - 07:44	0	0	0	0	24	69	25	9	0	1	0	0	0	0	0	**128**
07:45 - 07:59	0	1	0	3	18	78	44	3	0	0	0	0	0	0	0	**147**
08:00 - 08:14	0	0	0	0	16	64	29	5	0	0	0	0	0	0	0	**114**
08:15 - 08:29	0	0	0	2	10	56	28	3	0	0	0	0	0	0	0	**99**
08:30 - 08:44	0	0	0	0	8	43	21	4	0	0	0	0	0	0	0	**76**
08:45 - 08:59	0	0	0	1	9	41	34	5	2	0	0	0	0	0	0	**92**
09:00 - 09:14	0	0	0	0	1	41	40	5	0	0	0	0	0	0	0	**87**
09:15 - 09:29	0	0	0	1	6	28	25	6	0	0	0	0	0	0	0	**66**
09:30 - 09:44	0	0	0	0	3	36	37	10	4	0	0	0	0	0	0	**90**
09:45 - 09:59	0	0	0	0	5	20	38	8	1	0	0	0	0	0	0	**72**
10:00 - 10:14	0	0	0	0	4	20	17	6	0	0	0	0	0	0	0	**47**
10:15 - 10:29	0	0	0	0	4	15	21	4	0	0	0	0	0	0	0	**44**
10:30 - 10:44	0	0	0	0	7	23	11	3	0	0	0	0	0	0	0	**44**
10:45 - 10:59	0	0	0	2	3	25	26	5	1	0	0	0	0	0	0	**62**
11:00 - 11:14	0	0	0	0	2	20	22	2	2	1	0	0	0	0	0	**49**
11:15 - 11:29	0	0	0	1	6	26	23	4	0	0	0	0	0	0	0	**60**
11:30 - 11:44	0	0	0	0	8	31	25	5	1	0	0	0	0	0	0	**70**
11:45 - 11:59	0	0	0	0	7	23	20	7	1	1	0	0	0	0	0	**59**
12:00 - 12:14	0	0	0	0	1	18	18	10	1	0	0	0	0	0	0	**48**
12:15 - 12:29	0	0	0	1	5	21	10	7	1	0	0	0	0	0	0	**45**
12:30 - 12:44	0	0	0	0	1	17	14	6	0	0	0	0	0	0	0	**38**

Daily Eastbound Speeds (MPH)

Study Date: Thursday, 03/02/2023
Unit ID:
Location: Center Street Location

Posted Speed: 35

	5-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-99	Total
12:45 - 12:59	0	0	0	0	4	18	17	4	1	0	0	0	0	0	0	**44**
13:00 - 13:14	0	0	0	0	2	17	9	3	3	0	0	0	0	0	0	**34**
13:15 - 13:29	0	0	0	0	6	13	21	5	1	1	0	0	0	0	0	**47**
13:30 - 13:44	0	0	0	0	6	21	21	5	1	0	0	0	0	0	0	**54**
13:45 - 13:59	0	0	0	0	2	31	19	8	0	0	0	0	0	0	0	**60**
14:00 - 14:14	0	0	0	1	9	39	16	5	1	0	0	0	0	0	0	**71**
14:15 - 14:29	0	0	0	0	6	33	23	7	2	1	0	0	0	0	0	**72**
14:30 - 14:44	0	0	0	0	21	34	26	3	1	0	0	0	0	0	0	**85**
14:45 - 14:59	0	1	0	0	10	29	15	7	1	1	0	0	0	0	0	**64**
15:00 - 15:14	0	0	0	0	6	27	20	6	2	1	0	0	0	0	0	**62**
15:15 - 15:29	0	0	0	0	5	32	14	7	0	0	1	0	0	0	0	**59**
15:30 - 15:44	0	0	0	1	6	35	26	3	2	0	0	0	0	0	0	**73**
15:45 - 15:59	0	0	1	2	8	30	28	4	1	0	0	0	0	0	0	**74**
16:00 - 16:14	0	0	0	0	6	28	24	9	1	0	0	0	0	0	0	**68**
16:15 - 16:29	0	0	0	0	6	26	24	8	2	0	0	0	0	0	0	**66**
16:30 - 16:44	0	0	0	0	11	24	37	4	1	0	0	0	0	0	0	**77**
16:45 - 16:59	0	0	0	2	4	29	26	6	2	1	0	0	0	0	0	**70**
17:00 - 17:14	0	0	0	1	5	31	24	3	1	0	0	0	0	0	0	**65**
17:15 - 17:29	0	0	0	0	6	35	17	8	0	1	0	0	0	0	0	**67**
17:30 - 17:44	0	0	0	3	7	44	29	6	0	0	0	0	0	0	0	**89**
17:45 - 17:59	0	0	0	0	1	33	35	7	2	0	0	0	0	0	0	**78**
18:00 - 18:14	0	0	0	0	17	16	30	3	0	0	0	0	0	0	0	**66**
18:15 - 18:29	0	0	0	1	4	21	26	8	0	0	0	0	0	0	0	**60**
18:30 - 18:44	0	0	0	2	13	28	20	5	0	0	0	0	0	0	0	**68**
18:45 - 18:59	0	0	0	0	10	46	20	5	3	1	1	0	0	0	0	**86**
19:00 - 19:14	0	0	0	0	9	30	21	2	0	0	0	0	0	0	0	**62**
19:15 - 19:29	0	0	0	2	13	23	12	1	0	0	0	0	0	0	1	**52**
19:30 - 19:44	0	0	0	0	11	24	11	1	0	0	0	0	0	0	0	**47**
19:45 - 19:59	0	0	0	0	8	24	10	4	0	0	0	0	0	0	0	**46**
20:00 - 20:14	0	0	0	3	2	14	10	0	0	0	0	0	0	0	0	**29**
20:15 - 20:29	0	0	0	1	10	19	4	4	0	0	0	0	0	0	0	**38**
20:30 - 20:44	0	1	0	2	5	14	6	1	0	0	0	0	0	0	0	**29**
20:45 - 20:59	0	1	0	0	8	15	17	3	1	0	0	0	0	0	0	**45**
21:00 - 21:14	0	0	0	3	4	6	4	3	0	0	0	0	0	0	0	**20**
21:15 - 21:29	0	0	1	0	7	7	8	1	0	0	0	0	0	0	0	**24**
21:30 - 21:44	0	0	0	1	7	18	10	0	1	0	0	0	0	0	0	**37**
21:45 - 21:59	0	0	0	0	4	8	11	1	1	0	0	0	0	0	0	**25**
22:00 - 22:14	0	0	0	0	8	20	13	0	0	0	0	0	0	0	0	**41**
22:15 - 22:29	0	0	0	0	4	7	9	2	0	0	0	0	0	0	0	**22**
22:30 - 22:44	0	0	0	0	2	6	2	1	0	0	0	0	0	0	0	**11**
22:45 - 22:59	0	0	0	0	5	6	2	1	0	0	0	0	0	0	0	**14**
23:00 - 23:14	0	0	0	0	1	8	3	0	0	0	0	0	0	0	0	**12**
23:15 - 23:29	0	0	0	0	0	2	5	0	0	0	0	0	0	0	0	**7**
23:30 - 23:44	0	0	0	0	2	8	4	1	0	0	0	0	0	0	0	**15**
23:45 - 23:59	0	0	0	0	3	5	1	0	1	0	0	0	0	0	0	**10**
Totals	**0**	**4**	**4**	**47**	**519**	**1867**	**1344**	**306**	**49**	**10**	**2**	**0**	**0**	**0**	**1**	**4153**
Percent of Total	**0.0**	**0.1**	**0.1**	**1.1**	**12.5**	**45.0**	**32.4**	**7.4**	**1.2**	**0.2**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**100**
Percent of AM	**0.0**	**0.1**	**0.1**	**1.2**	**12.3**	**46.5**	**32.2**	**6.6**	**0.8**	**0.2**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**100**
Percent of PM	**0.0**	**0.1**	**0.1**	**1.1**	**12.7**	**43.8**	**32.5**	**7.9**	**1.4**	**0.3**	**0.1**	**0.0**	**0.0**	**0.0**	**0.0**	**100**

Daily Eastbound Speeds (MPH)

Study Date: Thursday, 03/02/2023
Unit ID:
Location: Center Street Location

Posted Speed: 35

Standard Deviation:	4.9 MPH	Ten Mile Pace:	35 to 44 MPH	85th Percentile:	44.0 MPH
Mean Speed:	39.3 MPH	Percent in Ten Mile Pace:	77.3%		
Median Speed:	39.0 MPH			15th Percentile:	35.1 MPH
Modal Speed:	37.5 MPH			90th Percentile:	44.8 MPH
				95th Percentile:	47.6 MPH

Daily Westbound Speeds (MPH)

Study Date: Thursday, 03/02/2023
Unit ID:
Location: Center Street Location

Posted Speed: 35

	5-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-99	Total
00:00 - 00:14	0	0	1	0	2	7	2	0	0	0	0	0	0	0	0	**12**
00:15 - 00:29	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	**2**
00:30 - 00:44	0	0	0	0	2	3	0	1	0	0	0	0	0	0	0	**6**
00:45 - 00:59	0	0	0	0	1	2	0	1	0	0	0	0	0	0	0	**4**
01:00 - 01:14	0	0	0	0	0	3	1	0	0	0	0	0	0	0	0	**4**
01:15 - 01:29	0	0	0	0	1	2	1	0	0	0	0	0	0	0	0	**4**
01:30 - 01:44	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	**2**
01:45 - 01:59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
02:00 - 02:14	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	**2**
02:15 - 02:29	0	0	0	0	1	3	1	0	0	0	0	0	0	0	0	**5**
02:30 - 02:44	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	**1**
02:45 - 02:59	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	**1**
03:00 - 03:14	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	**2**
03:15 - 03:29	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	**1**
03:30 - 03:44	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	**1**
03:45 - 03:59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
04:00 - 04:14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
04:15 - 04:29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
04:30 - 04:44	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	**1**
04:45 - 04:59	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	**1**
05:00 - 05:14	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	**2**
05:15 - 05:29	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	**2**
05:30 - 05:44	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	**2**
05:45 - 05:59	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	**2**
06:00 - 06:14	0	0	0	0	2	2	2	0	0	0	0	0	0	0	0	**6**
06:15 - 06:29	0	0	0	0	1	4	0	0	0	0	0	0	0	0	0	**5**
06:30 - 06:44	0	0	0	1	2	1	2	0	0	0	0	0	0	0	0	**6**
06:45 - 06:59	0	0	0	0	1	8	2	1	0	0	0	0	0	0	0	**12**
07:00 - 07:14	0	0	0	1	1	3	6	1	1	0	0	0	0	0	0	**13**
07:15 - 07:29	0	0	0	1	3	8	5	0	0	0	0	0	0	0	0	**17**
07:30 - 07:44	2	0	0	2	7	8	10	0	0	0	0	0	0	0	0	**29**
07:45 - 07:59	0	0	0	0	5	27	19	2	0	0	0	0	0	0	0	**53**
08:00 - 08:14	0	0	0	0	5	27	18	7	0	0	1	0	0	0	0	**58**
08:15 - 08:29	0	0	0	1	2	18	8	3	1	0	0	0	0	0	0	**33**
08:30 - 08:44	0	0	0	2	5	10	12	5	0	0	0	0	0	0	0	**34**
08:45 - 08:59	0	0	1	0	4	11	7	2	1	0	0	0	0	0	0	**26**
09:00 - 09:14	0	0	0	0	3	10	5	3	0	0	0	0	0	0	0	**21**
09:15 - 09:29	0	0	0	1	3	12	17	7	0	0	0	0	0	0	0	**40**
09:30 - 09:44	0	0	0	0	6	7	10	3	1	0	0	0	0	0	0	**27**
09:45 - 09:59	0	0	0	0	2	13	9	1	0	0	0	0	0	0	0	**25**
10:00 - 10:14	0	0	0	1	6	16	14	2	0	0	0	0	0	0	0	**39**
10:15 - 10:29	0	0	0	0	3	21	5	3	0	0	0	0	0	0	0	**32**
10:30 - 10:44	0	0	0	0	4	22	8	4	0	0	0	0	0	0	0	**38**
10:45 - 10:59	0	0	0	0	6	21	16	2	0	0	0	0	0	0	0	**45**
11:00 - 11:14	0	0	0	0	3	17	18	2	1	0	0	0	0	0	0	**41**
11:15 - 11:29	0	0	0	0	5	15	10	3	1	0	0	0	0	0	0	**34**
11:30 - 11:44	0	0	0	0	6	21	16	3	1	0	0	0	0	0	0	**47**
11:45 - 11:59	0	0	0	0	4	20	12	5	1	0	0	0	0	0	0	**42**
12:00 - 12:14	0	0	0	0	1	24	25	4	0	0	0	0	0	0	0	**54**
12:15 - 12:29	0	0	0	0	3	17	15	5	1	0	0	0	0	0	0	**41**
12:30 - 12:44	0	0	0	0	5	13	18	5	1	0	0	0	0	0	0	**42**

Daily Westbound Speeds (MPH)

Study Date: Thursday, 03/02/2023
Unit ID:
Location: Center Street Location

Posted Speed: 35

	5-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-99	Total
12:45 - 12:59	0	0	0	0	7	19	8	5	2	0	0	0	0	0	0	**41**
13:00 - 13:14	0	0	0	0	2	26	21	4	0	0	0	0	0	0	0	**53**
13:15 - 13:29	0	0	0	0	0	20	18	3	1	0	0	0	0	0	0	**42**
13:30 - 13:44	0	0	0	1	1	20	25	7	0	1	0	0	0	0	0	**55**
13:45 - 13:59	0	0	0	0	2	17	19	4	0	1	0	0	0	0	0	**43**
14:00 - 14:14	0	0	0	0	6	12	20	6	0	0	0	0	0	0	0	**44**
14:15 - 14:29	0	0	1	1	12	46	24	3	1	0	0	0	0	0	0	**88**
14:30 - 14:44	0	0	0	0	9	46	34	6	0	1	0	0	0	0	0	**96**
14:45 - 14:59	1	0	1	1	8	28	28	8	1	1	0	0	0	0	0	**77**
15:00 - 15:14	1	1	0	3	7	30	20	1	0	1	0	0	0	0	0	**64**
15:15 - 15:29	0	0	0	1	7	26	16	8	2	1	0	0	0	0	0	**61**
15:30 - 15:44	0	0	0	0	6	23	26	4	4	0	0	0	0	0	0	**63**
15:45 - 15:59	0	0	1	1	6	37	35	5	1	0	0	0	0	0	0	**86**
16:00 - 16:14	0	0	0	0	5	30	36	8	1	0	0	0	0	0	0	**80**
16:15 - 16:29	0	0	1	0	8	36	31	14	4	0	0	0	0	0	0	**94**
16:30 - 16:44	0	0	0	1	7	21	31	6	0	0	0	0	0	0	0	**66**
16:45 - 16:59	0	0	0	0	5	28	12	3	2	0	0	0	0	0	0	**50**
17:00 - 17:14	1	0	0	0	4	36	24	7	0	0	0	0	0	0	0	**72**
17:15 - 17:29	0	0	0	1	5	41	32	4	0	0	0	0	0	0	0	**83**
17:30 - 17:44	0	0	0	0	5	65	25	4	0	0	0	0	0	0	0	**99**
17:45 - 17:59	0	0	0	1	8	44	30	10	4	0	0	0	0	0	0	**97**
18:00 - 18:14	0	0	1	0	7	50	35	4	2	0	0	0	0	0	0	**99**
18:15 - 18:29	0	0	0	0	3	26	33	6	1	0	0	0	0	0	0	**69**
18:30 - 18:44	3	0	0	0	4	44	14	4	0	0	0	0	0	0	0	**69**
18:45 - 18:59	0	1	0	0	6	24	15	2	0	0	0	0	0	0	0	**48**
19:00 - 19:14	0	0	1	0	11	44	21	2	0	0	0	0	0	0	0	**79**
19:15 - 19:29	0	0	0	2	9	46	11	0	0	0	0	0	0	0	0	**68**
19:30 - 19:44	0	0	0	0	9	29	7	1	0	0	0	0	0	0	0	**46**
19:45 - 19:59	0	0	0	0	8	26	14	2	0	0	0	0	0	0	0	**50**
20:00 - 20:14	0	0	0	0	9	22	8	2	1	0	0	0	0	0	0	**42**
20:15 - 20:29	1	0	0	0	11	34	14	2	0	0	0	0	0	0	0	**62**
20:30 - 20:44	0	0	0	1	9	24	8	0	0	0	0	0	0	0	0	**42**
20:45 - 20:59	0	0	0	1	9	31	2	3	0	0	0	0	0	0	0	**46**
21:00 - 21:14	0	0	0	0	9	22	12	3	0	0	0	0	0	0	0	**46**
21:15 - 21:29	0	0	1	1	6	26	12	0	0	0	0	0	0	0	0	**46**
21:30 - 21:44	0	0	0	0	8	21	12	1	0	0	0	0	0	0	0	**42**
21:45 - 21:59	0	0	0	0	3	24	10	3	0	0	0	0	0	0	0	**40**
22:00 - 22:14	0	0	0	0	9	18	11	1	0	0	0	0	0	0	0	**39**
22:15 - 22:29	0	0	0	0	8	13	9	0	1	0	0	0	0	0	0	**31**
22:30 - 22:44	0	0	0	1	3	8	5	1	0	0	0	0	0	0	0	**18**
22:45 - 22:59	0	0	0	0	4	9	3	0	0	0	0	0	0	0	0	**16**
23:00 - 23:14	0	0	0	2	3	8	6	1	0	0	0	0	0	0	0	**20**
23:15 - 23:29	0	0	0	0	2	8	2	1	1	0	0	0	0	0	0	**14**
23:30 - 23:44	0	0	0	1	2	3	7	0	0	0	0	0	0	0	0	**13**
23:45 - 23:59	0	0	0	0	2	4	2	1	0	0	0	0	0	0	0	**9**
Totals	**9**	**2**	**9**	**30**	**384**	**1620**	**1087**	**237**	**39**	**7**	**1**	**0**	**0**	**0**	**0**	**3425**
Percent of Total	**0.3**	**0.1**	**0.3**	**0.9**	**11.2**	**47.3**	**31.7**	**6.9**	**1.1**	**0.2**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**100**
Percent of AM	**0.3**	**0.0**	**0.3**	**1.3**	**12.9**	**45.0**	**30.9**	**8.1**	**1.0**	**0.1**	**0.1**	**0.0**	**0.0**	**0.0**	**0.0**	**100**
Percent of PM	**0.3**	**0.1**	**0.3**	**0.8**	**10.7**	**48.0**	**32.0**	**6.6**	**1.2**	**0.2**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**100**

Daily Westbound Speeds (MPH)

Study Date: Thursday, 03/02/2023
Unit ID:
Location: Center Street Location

Posted Speed: 35

Standard Deviation:	4.9 MPH	Ten Mile Pace:	35 to 44 MPH	85th Percentile:	43.9 MPH
Mean Speed:	39.2 MPH	Percent in Ten Mile Pace:	79.0%		
Median Speed:	38.9 MPH			15th Percentile:	35.2 MPH
Modal Speed:	37.5 MPH			90th Percentile:	44.7 MPH
				95th Percentile:	47.4 MPH

Daily Total Speeds (MPH)

Study Date: Thursday, 03/02/2023
Unit ID:
Location: Center Street Location

Posted Speed: 35

	5-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-99	Total
00:00 - 00:14	0	0	1	0	2	10	3	0	0	0	0	0	0	0	0	**16**
00:15 - 00:29	0	0	0	0	2	7	5	0	0	0	0	0	0	0	0	**14**
00:30 - 00:44	0	0	0	0	2	5	1	1	0	0	0	0	0	0	0	**9**
00:45 - 00:59	0	0	0	0	3	3	3	1	0	0	0	0	0	0	0	**10**
01:00 - 01:14	0	0	0	0	3	4	2	1	0	0	0	0	0	0	0	**10**
01:15 - 01:29	0	0	1	0	1	3	1	0	0	0	0	0	0	0	0	**6**
01:30 - 01:44	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	**2**
01:45 - 01:59	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	**1**
02:00 - 02:14	0	0	0	0	3	1	0	0	0	1	0	0	0	0	0	**5**
02:15 - 02:29	0	0	0	0	1	3	2	0	0	0	0	0	0	0	0	**6**
02:30 - 02:44	0	0	0	0	1	3	0	0	1	0	0	0	0	0	0	**5**
02:45 - 02:59	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	**2**
03:00 - 03:14	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	**2**
03:15 - 03:29	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	**1**
03:30 - 03:44	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	**2**
03:45 - 03:59	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	**2**
04:00 - 04:14	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	**4**
04:15 - 04:29	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	**3**
04:30 - 04:44	0	0	0	0	0	2	1	0	0	0	0	0	0	0	0	**3**
04:45 - 04:59	0	0	0	0	1	4	3	0	0	0	0	0	0	0	0	**8**
05:00 - 05:14	0	0	0	1	5	2	3	1	0	0	0	0	0	0	0	**12**
05:15 - 05:29	0	0	0	2	4	4	4	0	0	0	0	0	0	0	0	**14**
05:30 - 05:44	0	0	0	1	4	10	0	1	0	0	0	0	0	0	0	**16**
05:45 - 05:59	0	0	0	2	3	14	8	1	0	0	0	0	0	0	0	**28**
06:00 - 06:14	0	0	0	0	4	12	5	1	0	0	0	0	0	0	0	**22**
06:15 - 06:29	0	0	0	0	4	12	5	0	0	0	0	0	0	0	0	**21**
06:30 - 06:44	0	0	0	3	7	13	16	1	0	0	0	0	0	0	0	**40**
06:45 - 06:59	0	0	1	0	10	27	15	6	2	0	0	0	0	0	0	**61**
07:00 - 07:14	0	0	0	2	14	25	17	6	1	0	0	0	0	0	0	**65**
07:15 - 07:29	0	0	0	3	22	49	17	6	0	0	0	0	0	0	0	**97**
07:30 - 07:44	2	0	0	2	31	77	35	9	0	1	0	0	0	0	0	**157**
07:45 - 07:59	0	1	0	3	23	105	63	5	0	0	0	0	0	0	0	**200**
08:00 - 08:14	0	0	0	0	21	91	47	12	0	0	1	0	0	0	0	**172**
08:15 - 08:29	0	0	0	3	12	74	36	6	1	0	0	0	0	0	0	**132**
08:30 - 08:44	0	0	0	2	13	53	33	9	0	0	0	0	0	0	0	**110**
08:45 - 08:59	0	0	1	1	13	52	41	7	3	0	0	0	0	0	0	**118**
09:00 - 09:14	0	0	0	0	4	51	45	8	0	0	0	0	0	0	0	**108**
09:15 - 09:29	0	0	0	2	9	40	42	13	0	0	0	0	0	0	0	**106**
09:30 - 09:44	0	0	0	0	9	43	47	13	5	0	0	0	0	0	0	**117**
09:45 - 09:59	0	0	0	0	7	33	47	9	1	0	0	0	0	0	0	**97**
10:00 - 10:14	0	0	0	1	10	36	31	8	0	0	0	0	0	0	0	**86**
10:15 - 10:29	0	0	0	0	7	36	26	7	0	0	0	0	0	0	0	**76**
10:30 - 10:44	0	0	0	0	11	45	19	7	0	0	0	0	0	0	0	**82**
10:45 - 10:59	0	0	0	2	9	46	42	7	1	0	0	0	0	0	0	**107**
11:00 - 11:14	0	0	0	0	5	37	40	4	3	1	0	0	0	0	0	**90**
11:15 - 11:29	0	0	0	1	11	41	33	7	1	0	0	0	0	0	0	**94**
11:30 - 11:44	0	0	0	0	14	52	41	8	2	0	0	0	0	0	0	**117**
11:45 - 11:59	0	0	0	0	11	43	32	12	2	1	0	0	0	0	0	**101**
12:00 - 12:14	0	0	0	0	2	42	43	14	1	0	0	0	0	0	0	**102**
12:15 - 12:29	0	0	0	1	8	38	25	12	2	0	0	0	0	0	0	**86**
12:30 - 12:44	0	0	0	0	6	30	32	11	1	0	0	0	0	0	0	**80**

Daily Total Speeds (MPH)

Study Date: Thursday, 03/02/2023
Unit ID:
Location: Center Street Location

Posted Speed: 35

	5-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-99	Total
12:45 - 12:59	0	0	0	0	11	37	25	9	3	0	0	0	0	0	0	**85**
13:00 - 13:14	0	0	0	0	4	43	30	7	3	0	0	0	0	0	0	**87**
13:15 - 13:29	0	0	0	0	6	33	39	8	2	1	0	0	0	0	0	**89**
13:30 - 13:44	0	0	0	1	7	41	46	12	1	1	0	0	0	0	0	**109**
13:45 - 13:59	0	0	0	0	4	48	38	12	0	1	0	0	0	0	0	**103**
14:00 - 14:14	0	0	0	1	15	51	36	11	1	0	0	0	0	0	0	**115**
14:15 - 14:29	0	0	1	1	18	79	47	10	3	1	0	0	0	0	0	**160**
14:30 - 14:44	0	0	0	0	30	80	60	9	1	1	0	0	0	0	0	**181**
14:45 - 14:59	1	1	1	1	18	57	43	15	2	2	0	0	0	0	0	**141**
15:00 - 15:14	1	1	0	3	13	57	40	7	2	2	0	0	0	0	0	**126**
15:15 - 15:29	0	0	0	1	12	58	30	15	2	1	1	0	0	0	0	**120**
15:30 - 15:44	0	0	0	1	12	58	52	7	6	0	0	0	0	0	0	**136**
15:45 - 15:59	0	0	2	3	14	67	63	9	2	0	0	0	0	0	0	**160**
16:00 - 16:14	0	0	0	0	11	58	60	17	2	0	0	0	0	0	0	**148**
16:15 - 16:29	0	0	1	0	14	62	55	22	6	0	0	0	0	0	0	**160**
16:30 - 16:44	0	0	0	1	18	45	68	10	1	0	0	0	0	0	0	**143**
16:45 - 16:59	0	0	0	2	9	57	38	9	4	1	0	0	0	0	0	**120**
17:00 - 17:14	1	0	0	1	9	67	48	10	1	0	0	0	0	0	0	**137**
17:15 - 17:29	0	0	0	1	11	76	49	12	0	1	0	0	0	0	0	**150**
17:30 - 17:44	0	0	0	3	12	109	54	10	0	0	0	0	0	0	0	**188**
17:45 - 17:59	0	0	0	1	9	77	65	17	6	0	0	0	0	0	0	**175**
18:00 - 18:14	0	0	1	0	24	66	65	7	2	0	0	0	0	0	0	**165**
18:15 - 18:29	0	0	0	1	7	47	59	14	1	0	0	0	0	0	0	**129**
18:30 - 18:44	3	0	0	2	17	72	34	9	0	0	0	0	0	0	0	**137**
18:45 - 18:59	0	1	0	0	16	70	35	7	3	1	1	0	0	0	0	**134**
19:00 - 19:14	0	0	1	0	20	74	42	4	0	0	0	0	0	0	0	**141**
19:15 - 19:29	0	0	0	4	22	69	23	1	0	0	0	0	0	0	1	**120**
19:30 - 19:44	0	0	0	0	20	53	18	2	0	0	0	0	0	0	0	**93**
19:45 - 19:59	0	0	0	0	16	50	24	6	0	0	0	0	0	0	0	**96**
20:00 - 20:14	0	0	0	3	11	36	18	2	1	0	0	0	0	0	0	**71**
20:15 - 20:29	1	0	0	1	21	53	18	6	0	0	0	0	0	0	0	**100**
20:30 - 20:44	0	1	0	3	14	38	14	1	0	0	0	0	0	0	0	**71**
20:45 - 20:59	0	1	0	1	17	46	19	6	1	0	0	0	0	0	0	**91**
21:00 - 21:14	0	0	0	3	13	28	16	6	0	0	0	0	0	0	0	**66**
21:15 - 21:29	0	0	2	1	13	33	20	1	0	0	0	0	0	0	0	**70**
21:30 - 21:44	0	0	0	1	15	39	22	1	1	0	0	0	0	0	0	**79**
21:45 - 21:59	0	0	0	0	7	32	21	4	1	0	0	0	0	0	0	**65**
22:00 - 22:14	0	0	0	0	17	38	24	1	0	0	0	0	0	0	0	**80**
22:15 - 22:29	0	0	0	0	12	20	18	2	1	0	0	0	0	0	0	**53**
22:30 - 22:44	0	0	0	1	5	14	7	2	0	0	0	0	0	0	0	**29**
22:45 - 22:59	0	0	0	0	9	15	5	1	0	0	0	0	0	0	0	**30**
23:00 - 23:14	0	0	0	2	4	16	9	1	0	0	0	0	0	0	0	**32**
23:15 - 23:29	0	0	0	0	2	10	7	1	1	0	0	0	0	0	0	**21**
23:30 - 23:44	0	0	0	1	4	11	11	1	0	0	0	0	0	0	0	**28**
23:45 - 23:59	0	0	0	0	5	9	3	1	1	0	0	0	0	0	0	**19**
Totals	**9**	**6**	**13**	**77**	**903**	**3487**	**2431**	**543**	**88**	**17**	**3**	**0**	**0**	**0**	**1**	**7578**
Percent of Total	**0.1**	**0.1**	**0.2**	**1.0**	**11.9**	**46.0**	**32.1**	**7.2**	**1.2**	**0.2**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**100**
Percent of AM	**0.1**	**0.0**	**0.2**	**1.2**	**12.5**	**46.1**	**31.8**	**7.1**	**0.9**	**0.2**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**100**
Percent of PM	**0.1**	**0.1**	**0.2**	**0.9**	**11.6**	**46.0**	**32.2**	**7.2**	**1.3**	**0.3**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**100**

Daily Total Speeds (MPH)

Study Date: Thursday, 03/02/2023
Unit ID:
Location: Center Street Location

Posted Speed: 35

Standard Deviation:	4.9 MPH	Ten Mile Pace:	35 to 44 MPH	85th Percentile:	44.0 MPH
Mean Speed:	39.3 MPH	Percent in Ten Mile Pace:	78.1%		
Median Speed:	39.0 MPH			15th Percentile:	35.2 MPH
Modal Speed:	37.5 MPH			90th Percentile:	44.8 MPH
				95th Percentile:	47.5 MPH

Daily Vehicle Volume Report

Study Date: Thursday, 03/02/2023
Unit ID:
Location: Main Street Location NB

	Northbound Volume
00:00 - 00:14	8
00:15 - 00:29	0
00:30 - 00:44	6
00:45 - 00:59	2
01:00 - 01:14	1
01:15 - 01:29	4
01:30 - 01:44	2
01:45 - 01:59	2
02:00 - 02:14	1
02:15 - 02:29	4
02:30 - 02:44	2
02:45 - 02:59	3
03:00 - 03:14	1
03:15 - 03:29	0
03:30 - 03:44	0
03:45 - 03:59	3
04:00 - 04:14	1
04:15 - 04:29	2
04:30 - 04:44	6
04:45 - 04:59	8
05:00 - 05:14	9
05:15 - 05:29	8
05:30 - 05:44	13
05:45 - 05:59	21
06:00 - 06:14	20
06:15 - 06:29	17
06:30 - 06:44	23
06:45 - 06:59	27
07:00 - 07:14	32
07:15 - 07:29	58
07:30 - 07:44	65
07:45 - 07:59	63
08:00 - 08:14	82
08:15 - 08:29	90
08:30 - 08:44	72
08:45 - 08:59	81
09:00 - 09:14	43
09:15 - 09:29	35
09:30 - 09:44	40
09:45 - 09:59	38
10:00 - 10:14	35
10:15 - 10:29	40
10:30 - 10:44	34
10:45 - 10:59	37
11:00 - 11:14	26
11:15 - 11:29	50
11:30 - 11:44	46
11:45 - 11:59	38
12:00 - 12:14	30
12:15 - 12:29	36
12:30 - 12:44	26
12:45 - 12:59	30

Daily Vehicle Volume Report

Study Date: Thursday, 03/02/2023
Unit ID:
Location: Main Street Location NB

	Northbound Volume
13:00 - 13:14	33
13:15 - 13:29	27
13:30 - 13:44	28
13:45 - 13:59	32
14:00 - 14:14	32
14:15 - 14:29	47
14:30 - 14:44	66
14:45 - 14:59	53
15:00 - 15:14	48
15:15 - 15:29	45
15:30 - 15:44	44
15:45 - 15:59	52
16:00 - 16:14	61
16:15 - 16:29	46
16:30 - 16:44	42
16:45 - 16:59	45
17:00 - 17:14	45
17:15 - 17:29	63
17:30 - 17:44	65
17:45 - 17:59	60
18:00 - 18:14	43
18:15 - 18:29	45
18:30 - 18:44	44
18:45 - 18:59	60
19:00 - 19:14	43
19:15 - 19:29	43
19:30 - 19:44	32
19:45 - 19:59	30
20:00 - 20:14	32
20:15 - 20:29	34
20:30 - 20:44	33
20:45 - 20:59	23
21:00 - 21:14	20
21:15 - 21:29	30
21:30 - 21:44	21
21:45 - 21:59	25
22:00 - 22:14	19
22:15 - 22:29	13
22:30 - 22:44	13
22:45 - 22:59	11
23:00 - 23:14	11
23:15 - 23:29	6
23:30 - 23:44	11
23:45 - 23:59	5
Totals	**2902**
AM Peak Time	**07:53 - 08:52**
AM Peak Volume	**327**
PM Peak Time	**17:10 - 18:09**
PM Peak Volume	**240**

Daily Vehicle Volume Report

Study Date: Thursday, 03/02/2023
Unit ID:
Location: Main Street Location NB

Daily Northbound Classes Report

Study Date: Thursday, 03/02/2023

Unit ID:

Location: Main Street Location NB

	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	Total
00:00 - 00:14	0	7	0	0	1	0	0	0	0	0	0	0	0	**8**
00:15 - 00:29	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
00:30 - 00:44	0	6	0	0	0	0	0	0	0	0	0	0	0	**6**
00:45 - 00:59	0	2	0	0	0	0	0	0	0	0	0	0	0	**2**
01:00 - 01:14	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
01:15 - 01:29	0	4	0	0	0	0	0	0	0	0	0	0	0	**4**
01:30 - 01:44	0	1	0	0	1	0	0	0	0	0	0	0	0	**2**
01:45 - 01:59	0	1	1	0	0	0	0	0	0	0	0	0	0	**2**
02:00 - 02:14	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
02:15 - 02:29	0	3	0	0	1	0	0	0	0	0	0	0	0	**4**
02:30 - 02:44	0	2	0	0	0	0	0	0	0	0	0	0	0	**2**
02:45 - 02:59	0	3	0	0	0	0	0	0	0	0	0	0	0	**3**
03:00 - 03:14	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
03:15 - 03:29	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
03:30 - 03:44	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
03:45 - 03:59	0	2	0	0	1	0	0	0	0	0	0	0	0	**3**
04:00 - 04:14	0	0	0	0	1	0	0	0	0	0	0	0	0	**1**
04:15 - 04:29	0	1	1	0	0	0	0	0	0	0	0	0	0	**2**
04:30 - 04:44	0	6	0	0	0	0	0	0	0	0	0	0	0	**6**
04:45 - 04:59	0	6	2	0	0	0	0	0	0	0	0	0	0	**8**
05:00 - 05:14	0	5	1	0	3	0	0	0	0	0	0	0	0	**9**
05:15 - 05:29	0	6	1	0	1	0	0	0	0	0	0	0	0	**8**
05:30 - 05:44	0	10	2	0	1	0	0	0	0	0	0	0	0	**13**
05:45 - 05:59	0	19	1	0	1	0	0	0	0	0	0	0	0	**21**
06:00 - 06:14	0	14	2	1	2	1	0	0	0	0	0	0	0	**20**
06:15 - 06:29	0	12	2	0	3	0	0	0	0	0	0	0	0	**17**
06:30 - 06:44	0	15	2	1	5	0	0	0	0	0	0	0	0	**23**
06:45 - 06:59	0	23	1	1	2	0	0	0	0	0	0	0	0	**27**
07:00 - 07:14	0	27	2	1	1	0	0	0	1	0	0	0	0	**32**
07:15 - 07:29	0	53	4	0	1	0	0	0	0	0	0	0	0	**58**
07:30 - 07:44	0	57	2	0	6	0	0	0	0	0	0	0	0	**65**
07:45 - 07:59	0	47	5	4	7	0	0	0	0	0	0	0	0	**63**
08:00 - 08:14	1	65	9	0	5	2	0	0	0	0	0	0	0	**82**
08:15 - 08:29	0	70	12	1	6	0	0	1	0	0	0	0	0	**90**
08:30 - 08:44	0	58	6	0	7	1	0	0	0	0	0	0	0	**72**
08:45 - 08:59	0	65	7	1	8	0	0	0	0	0	0	0	0	**81**
09:00 - 09:14	0	31	6	0	6	0	0	0	0	0	0	0	0	**43**
09:15 - 09:29	0	28	4	1	2	0	0	0	0	0	0	0	0	**35**
09:30 - 09:44	0	31	5	1	3	0	0	0	0	0	0	0	0	**40**
09:45 - 09:59	0	30	2	1	5	0	0	0	0	0	0	0	0	**38**
10:00 - 10:14	0	26	4	1	4	0	0	0	0	0	0	0	0	**35**
10:15 - 10:29	0	35	3	1	0	1	0	0	0	0	0	0	0	**40**
10:30 - 10:44	0	28	3	1	1	0	0	0	1	0	0	0	0	**34**
10:45 - 10:59	0	30	5	0	1	1	0	0	0	0	0	0	0	**37**
11:00 - 11:14	0	20	4	1	1	0	0	0	0	0	0	0	0	**26**
11:15 - 11:29	0	43	4	0	3	0	0	0	0	0	0	0	0	**50**
11:30 - 11:44	0	37	5	0	4	0	0	0	0	0	0	0	0	**46**
11:45 - 11:59	0	25	8	1	4	0	0	0	0	0	0	0	0	**38**
12:00 - 12:14	0	22	4	1	3	0	0	0	0	0	0	0	0	**30**
12:15 - 12:29	0	29	2	0	4	1	0	0	0	0	0	0	0	**36**
12:30 - 12:44	0	18	3	1	4	0	0	0	0	0	0	0	0	**26**
12:45 - 12:59	0	21	3	1	5	0	0	0	0	0	0	0	0	**30**

Daily Northbound Classes Report

Study Date: Thursday, 03/02/2023

Unit ID:

Location: Main Street Location NB

	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	Total
13:00 - 13:14	0	21	6	0	6	0	0	0	0	0	0	0	0	**33**
13:15 - 13:29	0	21	2	1	2	1	0	0	0	0	0	0	0	**27**
13:30 - 13:44	0	19	4	1	3	0	0	1	0	0	0	0	0	**28**
13:45 - 13:59	0	26	1	0	5	0	0	0	0	0	0	0	0	**32**
14:00 - 14:14	0	25	2	1	2	1	0	1	0	0	0	0	0	**32**
14:15 - 14:29	1	41	3	0	2	0	0	0	0	0	0	0	0	**47**
14:30 - 14:44	0	57	5	0	4	0	0	0	0	0	0	0	0	**66**
14:45 - 14:59	0	42	6	1	3	0	0	0	1	0	0	0	0	**53**
15:00 - 15:14	1	35	3	3	6	0	0	0	0	0	0	0	0	**48**
15:15 - 15:29	0	35	4	1	5	0	0	0	0	0	0	0	0	**45**
15:30 - 15:44	0	36	2	0	6	0	0	0	0	0	0	0	0	**44**
15:45 - 15:59	0	42	4	2	4	0	0	0	0	0	0	0	0	**52**
16:00 - 16:14	0	45	11	2	3	0	0	0	0	0	0	0	0	**61**
16:15 - 16:29	0	40	3	0	3	0	0	0	0	0	0	0	0	**46**
16:30 - 16:44	0	33	4	1	3	1	0	0	0	0	0	0	0	**42**
16:45 - 16:59	0	37	5	1	2	0	0	0	0	0	0	0	0	**45**
17:00 - 17:14	0	36	4	1	3	0	0	1	0	0	0	0	0	**45**
17:15 - 17:29	0	50	7	0	6	0	0	0	0	0	0	0	0	**63**
17:30 - 17:44	0	54	6	0	5	0	0	0	0	0	0	0	0	**65**
17:45 - 17:59	1	47	8	1	3	0	0	0	0	0	0	0	0	**60**
18:00 - 18:14	0	36	5	0	2	0	0	0	0	0	0	0	0	**43**
18:15 - 18:29	0	37	6	1	1	0	0	0	0	0	0	0	0	**45**
18:30 - 18:44	0	36	7	1	0	0	0	0	0	0	0	0	0	**44**
18:45 - 18:59	0	49	8	0	2	1	0	0	0	0	0	0	0	**60**
19:00 - 19:14	1	33	5	0	4	0	0	0	0	0	0	0	0	**43**
19:15 - 19:29	0	33	6	1	3	0	0	0	0	0	0	0	0	**43**
19:30 - 19:44	0	28	1	1	2	0	0	0	0	0	0	0	0	**32**
19:45 - 19:59	0	28	1	0	1	0	0	0	0	0	0	0	0	**30**
20:00 - 20:14	0	30	1	1	0	0	0	0	0	0	0	0	0	**32**
20:15 - 20:29	0	29	5	0	0	0	0	0	0	0	0	0	0	**34**
20:30 - 20:44	0	30	2	1	0	0	0	0	0	0	0	0	0	**33**
20:45 - 20:59	0	17	2	0	4	0	0	0	0	0	0	0	0	**23**
21:00 - 21:14	0	15	5	0	0	0	0	0	0	0	0	0	0	**20**
21:15 - 21:29	0	24	5	0	1	0	0	0	0	0	0	0	0	**30**
21:30 - 21:44	0	20	1	0	0	0	0	0	0	0	0	0	0	**21**
21:45 - 21:59	0	24	1	0	0	0	0	0	0	0	0	0	0	**25**
22:00 - 22:14	0	15	4	0	0	0	0	0	0	0	0	0	0	**19**
22:15 - 22:29	0	13	0	0	0	0	0	0	0	0	0	0	0	**13**
22:30 - 22:44	0	12	1	0	0	0	0	0	0	0	0	0	0	**13**
22:45 - 22:59	0	8	2	0	1	0	0	0	0	0	0	0	0	**11**
23:00 - 23:14	0	9	1	0	1	0	0	0	0	0	0	0	0	**11**
23:15 - 23:29	0	6	0	0	0	0	0	0	0	0	0	0	0	**6**
23:30 - 23:44	0	11	0	0	0	0	0	0	0	0	0	0	0	**11**
23:45 - 23:59	0	4	1	0	0	0	0	0	0	0	0	0	0	**5**
Totals	**5**	**2336**	**288**	**43**	**212**	**11**	**0**	**4**	**3**	**0**	**0**	**0**	**0**	**2902**
Percent of Total	**0.2**	**80.5**	**9.9**	**1.5**	**7.3**	**0.4**	**0.0**	**0.1**	**0.1**	**0.0**	**0.0**	**0.0**	**0.0**	**100**
Percent of AM	**0.1**	**79.8**	**9.7**	**1.5**	**8.2**	**0.5**	**0.0**	**0.1**	**0.2**	**0.0**	**0.0**	**0.0**	**0.0**	**100**
Percent of PM	**0.2**	**81.0**	**10.1**	**1.5**	**6.7**	**0.3**	**0.0**	**0.2**	**0.1**	**0.0**	**0.0**	**0.0**	**0.0**	**100**

Daily Northbound Classes Report

Study Date: Thursday, 03/02/2023
Unit ID:
Location: Main Street Location NB

Truck Summary:

Total Trucks: 273 % Trucks: 9.4 AM % Trucks: 10.4 PM % Trucks: 8.7

Classification Scheme: FHWA (ID: 1)

#1	Motorcycles - 2 Axles	#6	Single Unit Truck - 3 Axles	#11	Multi-Unit - 5 Axles or Less
#2	Passenger Cars - 2 Axles	#7	Single Unit - 4 Axles	#12	Multi-Unit - 6 Axles
#3	Pickup Trucks, Vans - 2 Axles	#8	Single Unit - 4 Axles or Less	#13	Multi-Unit - 7 Axles or More
#4	Buses	#9	Double Unit - 5 Axles		
#5	Single Unit - 2 Axles, 6 Tires	#10	Double Unit - 6 Axles or More		

Daily Northbound Speeds (MPH)

Study Date: Thursday, 03/02/2023

Unit ID:

Location: Main Street Location NB

Posted Speed: 35

	5-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-99	Total
00:00 - 00:14	0	0	0	0	6	1	1	0	0	0	0	0	0	0	0	**8**
00:15 - 00:29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
00:30 - 00:44	0	0	0	0	2	2	2	0	0	0	0	0	0	0	0	**6**
00:45 - 00:59	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	**2**
01:00 - 01:14	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	**1**
01:15 - 01:29	0	0	0	0	1	1	2	0	0	0	0	0	0	0	0	**4**
01:30 - 01:44	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	**2**
01:45 - 01:59	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	**2**
02:00 - 02:14	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	**1**
02:15 - 02:29	0	0	0	0	1	3	0	0	0	0	0	0	0	0	0	**4**
02:30 - 02:44	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	**2**
02:45 - 02:59	0	0	0	1	2	0	0	0	0	0	0	0	0	0	0	**3**
03:00 - 03:14	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	**1**
03:15 - 03:29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
03:30 - 03:44	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
03:45 - 03:59	0	0	0	0	1	0	2	0	0	0	0	0	0	0	0	**3**
04:00 - 04:14	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	**1**
04:15 - 04:29	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	**2**
04:30 - 04:44	0	0	0	0	1	2	2	0	1	0	0	0	0	0	0	**6**
04:45 - 04:59	0	0	0	0	2	4	1	1	0	0	0	0	0	0	0	**8**
05:00 - 05:14	0	0	0	0	1	5	3	0	0	0	0	0	0	0	0	**9**
05:15 - 05:29	0	0	0	0	0	2	6	0	0	0	0	0	0	0	0	**8**
05:30 - 05:44	0	0	0	0	4	2	7	0	0	0	0	0	0	0	0	**13**
05:45 - 05:59	0	0	0	0	6	12	3	0	0	0	0	0	0	0	0	**21**
06:00 - 06:14	0	0	0	0	4	11	5	0	0	0	0	0	0	0	0	**20**
06:15 - 06:29	0	0	0	0	2	10	5	0	0	0	0	0	0	0	0	**17**
06:30 - 06:44	0	0	0	1	4	10	7	1	0	0	0	0	0	0	0	**23**
06:45 - 06:59	0	0	0	0	6	17	2	2	0	0	0	0	0	0	0	**27**
07:00 - 07:14	0	0	1	2	7	15	6	1	0	0	0	0	0	0	0	**32**
07:15 - 07:29	0	0	1	0	8	29	14	5	1	0	0	0	0	0	0	**58**
07:30 - 07:44	0	0	0	1	16	37	7	3	0	1	0	0	0	0	0	**65**
07:45 - 07:59	0	0	0	3	19	32	8	1	0	0	0	0	0	0	0	**63**
08:00 - 08:14	2	0	0	4	29	33	13	1	0	0	0	0	0	0	0	**82**
08:15 - 08:29	0	0	1	1	23	42	20	3	0	0	0	0	0	0	0	**90**
08:30 - 08:44	0	0	0	2	19	32	14	4	1	0	0	0	0	0	0	**72**
08:45 - 08:59	0	0	1	0	7	39	30	3	0	1	0	0	0	0	0	**81**
09:00 - 09:14	0	0	0	0	6	23	13	1	0	0	0	0	0	0	0	**43**
09:15 - 09:29	0	0	0	0	8	17	9	1	0	0	0	0	0	0	0	**35**
09:30 - 09:44	0	0	0	0	4	19	15	1	1	0	0	0	0	0	0	**40**
09:45 - 09:59	0	0	0	0	3	18	12	5	0	0	0	0	0	0	0	**38**
10:00 - 10:14	1	0	0	0	3	14	12	5	0	0	0	0	0	0	0	**35**
10:15 - 10:29	0	0	0	2	2	21	9	5	1	0	0	0	0	0	0	**40**
10:30 - 10:44	0	0	0	1	7	13	11	2	0	0	0	0	0	0	0	**34**
10:45 - 10:59	0	0	0	3	8	15	8	3	0	0	0	0	0	0	0	**37**
11:00 - 11:14	0	0	0	0	6	12	8	0	0	0	0	0	0	0	0	**26**
11:15 - 11:29	0	0	0	0	12	27	10	1	0	0	0	0	0	0	0	**50**
11:30 - 11:44	0	0	0	1	6	24	11	2	2	0	0	0	0	0	0	**46**
11:45 - 11:59	0	0	0	1	3	22	11	1	0	0	0	0	0	0	0	**38**
12:00 - 12:14	0	0	0	0	8	11	9	2	0	0	0	0	0	0	0	**30**
12:15 - 12:29	0	0	1	1	4	13	14	3	0	0	0	0	0	0	0	**36**
12:30 - 12:44	0	0	0	1	2	13	7	3	0	0	0	0	0	0	0	**26**

Daily Northbound Speeds (MPH)

Study Date: Thursday, 03/02/2023
Unit ID:
Location: Main Street Location NB

Posted Speed: 35

	5-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-99	Total
12:45 - 12:59	0	0	0	0	4	17	5	4	0	0	0	0	0	0	0	**30**
13:00 - 13:14	0	0	0	1	5	17	8	2	0	0	0	0	0	0	0	**33**
13:15 - 13:29	0	0	0	1	6	10	8	1	1	0	0	0	0	0	0	**27**
13:30 - 13:44	0	0	0	0	5	13	8	2	0	0	0	0	0	0	0	**28**
13:45 - 13:59	0	0	0	0	8	16	6	1	1	0	0	0	0	0	0	**32**
14:00 - 14:14	0	0	1	0	8	14	9	0	0	0	0	0	0	0	0	**32**
14:15 - 14:29	0	0	0	1	20	20	5	1	0	0	0	0	0	0	0	**47**
14:30 - 14:44	0	0	0	0	18	35	12	0	1	0	0	0	0	0	0	**66**
14:45 - 14:59	0	0	0	1	6	27	19	0	0	0	0	0	0	0	0	**53**
15:00 - 15:14	0	0	0	3	19	13	13	0	0	0	0	0	0	0	0	**48**
15:15 - 15:29	0	0	0	1	10	26	7	1	0	0	0	0	0	0	0	**45**
15:30 - 15:44	0	0	0	0	10	21	13	0	0	0	0	0	0	0	0	**44**
15:45 - 15:59	0	0	0	0	6	29	15	2	0	0	0	0	0	0	0	**52**
16:00 - 16:14	0	0	0	0	4	34	19	4	0	0	0	0	0	0	0	**61**
16:15 - 16:29	0	0	0	0	7	18	19	1	0	1	0	0	0	0	0	**46**
16:30 - 16:44	0	0	0	0	6	17	16	3	0	0	0	0	0	0	0	**42**
16:45 - 16:59	0	0	0	0	9	24	9	2	1	0	0	0	0	0	0	**45**
17:00 - 17:14	0	0	0	0	10	23	8	3	1	0	0	0	0	0	0	**45**
17:15 - 17:29	0	0	0	2	11	30	20	0	0	0	0	0	0	0	0	**63**
17:30 - 17:44	0	0	0	2	17	32	13	1	0	0	0	0	0	0	0	**65**
17:45 - 17:59	0	0	0	3	14	23	16	4	0	0	0	0	0	0	0	**60**
18:00 - 18:14	0	0	0	2	9	21	10	1	0	0	0	0	0	0	0	**43**
18:15 - 18:29	0	0	0	2	11	23	6	3	0	0	0	0	0	0	0	**45**
18:30 - 18:44	0	0	1	1	5	28	9	0	0	0	0	0	0	0	0	**44**
18:45 - 18:59	0	0	0	3	11	32	13	1	0	0	0	0	0	0	0	**60**
19:00 - 19:14	0	0	0	5	13	22	1	1	0	0	0	1	0	0	0	**43**
19:15 - 19:29	0	0	2	3	12	20	6	0	0	0	0	0	0	0	0	**43**
19:30 - 19:44	0	0	0	2	13	13	4	0	0	0	0	0	0	0	0	**32**
19:45 - 19:59	0	0	0	0	8	17	3	2	0	0	0	0	0	0	0	**30**
20:00 - 20:14	0	0	0	0	8	19	5	0	0	0	0	0	0	0	0	**32**
20:15 - 20:29	0	0	1	4	7	17	5	0	0	0	0	0	0	0	0	**34**
20:30 - 20:44	0	0	0	6	16	8	2	0	1	0	0	0	0	0	0	**33**
20:45 - 20:59	0	0	0	4	9	8	2	0	0	0	0	0	0	0	0	**23**
21:00 - 21:14	0	0	0	6	4	6	3	1	0	0	0	0	0	0	0	**20**
21:15 - 21:29	0	0	0	2	9	14	5	0	0	0	0	0	0	0	0	**30**
21:30 - 21:44	0	0	0	2	7	10	2	0	0	0	0	0	0	0	0	**21**
21:45 - 21:59	0	0	0	0	6	7	9	3	0	0	0	0	0	0	0	**25**
22:00 - 22:14	0	0	0	1	9	3	4	1	1	0	0	0	0	0	0	**19**
22:15 - 22:29	0	0	0	2	5	3	3	0	0	0	0	0	0	0	0	**13**
22:30 - 22:44	0	0	1	1	4	6	1	0	0	0	0	0	0	0	0	**13**
22:45 - 22:59	0	0	0	0	3	5	3	0	0	0	0	0	0	0	0	**11**
23:00 - 23:14	0	0	0	1	2	5	3	0	0	0	0	0	0	0	0	**11**
23:15 - 23:29	0	0	0	0	4	1	1	0	0	0	0	0	0	0	0	**6**
23:30 - 23:44	0	0	0	0	2	7	2	0	0	0	0	0	0	0	0	**11**
23:45 - 23:59	0	0	0	0	2	2	0	1	0	0	0	0	0	0	0	**5**
Totals	**3**	**0**	**12**	**89**	**639**	**1365**	**669**	**107**	**14**	**3**	**0**	**1**	**0**	**0**	**0**	**2902**
Percent of Total	**0.1**	**0.0**	**0.4**	**3.1**	**22.0**	**47.0**	**23.1**	**3.7**	**0.5**	**0.1**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**100**
Percent of AM	**0.3**	**0.0**	**0.4**	**2.1**	**20.3**	**47.7**	**24.1**	**4.4**	**0.6**	**0.2**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**100**
Percent of PM	**0.0**	**0.0**	**0.4**	**3.8**	**23.3**	**46.6**	**22.3**	**3.2**	**0.4**	**0.1**	**0.0**	**0.1**	**0.0**	**0.0**	**0.0**	**100**

Daily Northbound Speeds (MPH)

Study Date: Thursday, 03/02/2023
Unit ID:
Location: Main Street Location NB

Posted Speed: 35

Standard Deviation:	4.9 MPH	Ten Mile Pace:	35 to 44 MPH	85th Percentile:	42.7 MPH
Mean Speed:	37.6 MPH	Percent in Ten Mile Pace:	70.1%		
Median Speed:	37.6 MPH			15th Percentile:	32.6 MPH
Modal Speed:	37.5 MPH			90th Percentile:	43.8 MPH
				95th Percentile:	44.8 MPH

Daily Vehicle Volume Report

Study Date: Thursday, 03/02/2023
Unit ID:
Location: Main Street Location SB

	Southbound Volume
00:00 - 00:14	8
00:15 - 00:29	5
00:30 - 00:44	4
00:45 - 00:59	1
01:00 - 01:14	4
01:15 - 01:29	2
01:30 - 01:44	1
01:45 - 01:59	0
02:00 - 02:14	3
02:15 - 02:29	0
02:30 - 02:44	4
02:45 - 02:59	1
03:00 - 03:14	0
03:15 - 03:29	0
03:30 - 03:44	0
03:45 - 03:59	0
04:00 - 04:14	0
04:15 - 04:29	0
04:30 - 04:44	0
04:45 - 04:59	4
05:00 - 05:14	1
05:15 - 05:29	4
05:30 - 05:44	4
05:45 - 05:59	7
06:00 - 06:14	3
06:15 - 06:29	8
06:30 - 06:44	8
06:45 - 06:59	18
07:00 - 07:14	25
07:15 - 07:29	23
07:30 - 07:44	46
07:45 - 07:59	68
08:00 - 08:14	91
08:15 - 08:29	49
08:30 - 08:44	29
08:45 - 08:59	43
09:00 - 09:14	33
09:15 - 09:29	28
09:30 - 09:44	36
09:45 - 09:59	40
10:00 - 10:14	33
10:15 - 10:29	25
10:30 - 10:44	29
10:45 - 10:59	43
11:00 - 11:14	32
11:15 - 11:29	46
11:30 - 11:44	63
11:45 - 11:59	44
12:00 - 12:14	39
12:15 - 12:29	45
12:30 - 12:44	33
12:45 - 12:59	30

Daily Vehicle Volume Report

Study Date: Thursday, 03/02/2023
Unit ID:
Location: Main Street Location SB

	Southbound Volume
13:00 - 13:14	19
13:15 - 13:29	39
13:30 - 13:44	27
13:45 - 13:59	60
14:00 - 14:14	58
14:15 - 14:29	79
14:30 - 14:44	63
14:45 - 14:59	48
15:00 - 15:14	69
15:15 - 15:29	50
15:30 - 15:44	50
15:45 - 15:59	54
16:00 - 16:14	54
16:15 - 16:29	56
16:30 - 16:44	74
16:45 - 16:59	72
17:00 - 17:14	81
17:15 - 17:29	80
17:30 - 17:44	78
17:45 - 17:59	79
18:00 - 18:14	65
18:15 - 18:29	72
18:30 - 18:44	62
18:45 - 18:59	64
19:00 - 19:14	56
19:15 - 19:29	69
19:30 - 19:44	59
19:45 - 19:59	52
20:00 - 20:14	51
20:15 - 20:29	51
20:30 - 20:44	55
20:45 - 20:59	34
21:00 - 21:14	32
21:15 - 21:29	32
21:30 - 21:44	37
21:45 - 21:59	31
22:00 - 22:14	36
22:15 - 22:29	22
22:30 - 22:44	29
22:45 - 22:59	19
23:00 - 23:14	10
23:15 - 23:29	17
23:30 - 23:44	10
23:45 - 23:59	14
Totals	**3232**
AM Peak Time	**07:36 - 08:35**
AM Peak Volume	**257**
PM Peak Time	**16:56 - 17:55**
PM Peak Volume	**320**

Daily Vehicle Volume Report

Study Date: Thursday, 03/02/2023
Unit ID:
Location: Main Street Location SB

Daily Southbound Classes Report

Study Date: Thursday, 03/02/2023

Unit ID:

Location: Main Street Location SB

	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	Total
00:00 - 00:14	0	7	0	0	1	0	0	0	0	0	0	0	0	**8**
00:15 - 00:29	0	5	0	0	0	0	0	0	0	0	0	0	0	**5**
00:30 - 00:44	0	4	0	0	0	0	0	0	0	0	0	0	0	**4**
00:45 - 00:59	0	0	0	0	1	0	0	0	0	0	0	0	0	**1**
01:00 - 01:14	0	4	0	0	0	0	0	0	0	0	0	0	0	**4**
01:15 - 01:29	0	2	0	0	0	0	0	0	0	0	0	0	0	**2**
01:30 - 01:44	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
01:45 - 01:59	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
02:00 - 02:14	0	2	0	0	1	0	0	0	0	0	0	0	0	**3**
02:15 - 02:29	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
02:30 - 02:44	0	3	0	0	1	0	0	0	0	0	0	0	0	**4**
02:45 - 02:59	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
03:00 - 03:14	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
03:15 - 03:29	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
03:30 - 03:44	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
03:45 - 03:59	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
04:00 - 04:14	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
04:15 - 04:29	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
04:30 - 04:44	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
04:45 - 04:59	0	4	0	0	0	0	0	0	0	0	0	0	0	**4**
05:00 - 05:14	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
05:15 - 05:29	0	3	1	0	0	0	0	0	0	0	0	0	0	**4**
05:30 - 05:44	0	3	0	0	1	0	0	0	0	0	0	0	0	**4**
05:45 - 05:59	0	7	0	0	0	0	0	0	0	0	0	0	0	**7**
06:00 - 06:14	0	3	0	0	0	0	0	0	0	0	0	0	0	**3**
06:15 - 06:29	0	6	0	1	1	0	0	0	0	0	0	0	0	**8**
06:30 - 06:44	0	7	0	1	0	0	0	0	0	0	0	0	0	**8**
06:45 - 06:59	0	12	3	1	2	0	0	0	0	0	0	0	0	**18**
07:00 - 07:14	0	23	0	1	1	0	0	0	0	0	0	0	0	**25**
07:15 - 07:29	0	19	0	1	3	0	0	0	0	0	0	0	0	**23**
07:30 - 07:44	0	39	3	1	3	0	0	0	0	0	0	0	0	**46**
07:45 - 07:59	0	56	6	0	6	0	0	0	0	0	0	0	0	**68**
08:00 - 08:14	0	80	4	0	7	0	0	0	0	0	0	0	0	**91**
08:15 - 08:29	0	40	5	1	3	0	0	0	0	0	0	0	0	**49**
08:30 - 08:44	0	21	3	1	4	0	0	0	0	0	0	0	0	**29**
08:45 - 08:59	0	34	2	0	7	0	0	0	0	0	0	0	0	**43**
09:00 - 09:14	0	27	3	0	2	0	0	0	1	0	0	0	0	**33**
09:15 - 09:29	0	20	1	1	5	0	1	0	0	0	0	0	0	**28**
09:30 - 09:44	0	30	2	0	4	0	0	0	0	0	0	0	0	**36**
09:45 - 09:59	0	24	9	1	5	0	0	0	1	0	0	0	0	**40**
10:00 - 10:14	0	20	7	1	5	0	0	0	0	0	0	0	0	**33**
10:15 - 10:29	0	18	4	2	1	0	0	0	0	0	0	0	0	**25**
10:30 - 10:44	0	18	6	0	5	0	0	0	0	0	0	0	0	**29**
10:45 - 10:59	1	23	6	1	11	0	0	1	0	0	0	0	0	**43**
11:00 - 11:14	1	24	2	1	4	0	0	0	0	0	0	0	0	**32**
11:15 - 11:29	0	40	5	0	1	0	0	0	0	0	0	0	0	**46**
11:30 - 11:44	0	46	11	0	6	0	0	0	0	0	0	0	0	**63**
11:45 - 11:59	2	35	5	1	1	0	0	0	0	0	0	0	0	**44**
12:00 - 12:14	0	30	3	1	4	1	0	0	0	0	0	0	0	**39**
12:15 - 12:29	0	37	2	1	5	0	0	0	0	0	0	0	0	**45**
12:30 - 12:44	0	26	4	1	2	0	0	0	0	0	0	0	0	**33**
12:45 - 12:59	0	19	3	0	6	2	0	0	0	0	0	0	0	**30**

Daily Southbound Classes Report

Study Date: Thursday, 03/02/2023
Unit ID:
Location: Main Street Location SB

	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	Total
13:00 - 13:14	0	14	1	0	4	0	0	0	0	0	0	0	0	**19**
13:15 - 13:29	0	28	6	1	4	0	0	0	0	0	0	0	0	**39**
13:30 - 13:44	0	17	5	1	4	0	0	0	0	0	0	0	0	**27**
13:45 - 13:59	1	47	3	1	7	0	0	0	1	0	0	0	0	**60**
14:00 - 14:14	0	46	2	1	6	2	0	1	0	0	0	0	0	**58**
14:15 - 14:29	1	61	7	1	8	1	0	0	0	0	0	0	0	**79**
14:30 - 14:44	4	44	6	0	9	0	0	0	0	0	0	0	0	**63**
14:45 - 14:59	6	33	4	1	4	0	0	0	0	0	0	0	0	**48**
15:00 - 15:14	11	46	6	1	5	0	0	0	0	0	0	0	0	**69**
15:15 - 15:29	10	35	2	0	3	0	0	0	0	0	0	0	0	**50**
15:30 - 15:44	4	35	4	0	5	1	1	0	0	0	0	0	0	**50**
15:45 - 15:59	6	32	4	0	11	1	0	0	0	0	0	0	0	**54**
16:00 - 16:14	2	44	3	1	4	0	0	0	0	0	0	0	0	**54**
16:15 - 16:29	4	44	3	0	4	0	0	1	0	0	0	0	0	**56**
16:30 - 16:44	5	56	8	0	5	0	0	0	0	0	0	0	0	**74**
16:45 - 16:59	0	56	3	0	13	0	0	0	0	0	0	0	0	**72**
17:00 - 17:14	0	67	6	1	7	0	0	0	0	0	0	0	0	**81**
17:15 - 17:29	0	70	5	0	5	0	0	0	0	0	0	0	0	**80**
17:30 - 17:44	0	66	7	1	4	0	0	0	0	0	0	0	0	**78**
17:45 - 17:59	0	64	7	0	8	0	0	0	0	0	0	0	0	**79**
18:00 - 18:14	1	51	4	0	8	0	0	0	0	0	0	1	0	**65**
18:15 - 18:29	0	56	9	1	6	0	0	0	0	0	0	0	0	**72**
18:30 - 18:44	0	52	4	1	5	0	0	0	0	0	0	0	0	**62**
18:45 - 18:59	0	50	7	0	7	0	0	0	0	0	0	0	0	**64**
19:00 - 19:14	0	48	2	1	5	0	0	0	0	0	0	0	0	**56**
19:15 - 19:29	0	53	6	0	9	0	1	0	0	0	0	0	0	**69**
19:30 - 19:44	0	48	5	0	6	0	0	0	0	0	0	0	0	**59**
19:45 - 19:59	0	42	4	1	5	0	0	0	0	0	0	0	0	**52**
20:00 - 20:14	0	43	5	0	2	1	0	0	0	0	0	0	0	**51**
20:15 - 20:29	0	39	8	1	3	0	0	0	0	0	0	0	0	**51**
20:30 - 20:44	0	45	6	0	4	0	0	0	0	0	0	0	0	**55**
20:45 - 20:59	0	28	4	0	2	0	0	0	0	0	0	0	0	**34**
21:00 - 21:14	0	28	1	0	3	0	0	0	0	0	0	0	0	**32**
21:15 - 21:29	0	29	1	0	2	0	0	0	0	0	0	0	0	**32**
21:30 - 21:44	0	29	3	0	5	0	0	0	0	0	0	0	0	**37**
21:45 - 21:59	0	26	3	0	2	0	0	0	0	0	0	0	0	**31**
22:00 - 22:14	0	30	2	0	4	0	0	0	0	0	0	0	0	**36**
22:15 - 22:29	0	17	2	0	3	0	0	0	0	0	0	0	0	**22**
22:30 - 22:44	0	24	4	0	1	0	0	0	0	0	0	0	0	**29**
22:45 - 22:59	0	18	0	0	1	0	0	0	0	0	0	0	0	**19**
23:00 - 23:14	0	8	2	0	0	0	0	0	0	0	0	0	0	**10**
23:15 - 23:29	0	16	1	0	0	0	0	0	0	0	0	0	0	**17**
23:30 - 23:44	0	7	1	0	2	0	0	0	0	0	0	0	0	**10**
23:45 - 23:59	0	12	1	0	1	0	0	0	0	0	0	0	0	**14**
Totals	**59**	**2528**	**277**	**34**	**315**	**9**	**3**	**3**	**3**	**0**	**0**	**1**	**0**	**3232**
Percent of Total	**1.8**	**78.2**	**8.6**	**1.1**	**9.7**	**0.3**	**0.1**	**0.1**	**0.1**	**0.0**	**0.0**	**0.0**	**0.0**	**100**
Percent of AM	**0.4**	**77.7**	**9.6**	**1.7**	**10.0**	**0.0**	**0.1**	**0.1**	**0.2**	**0.0**	**0.0**	**0.0**	**0.0**	**100**
Percent of PM	**2.4**	**78.4**	**8.2**	**0.8**	**9.6**	**0.4**	**0.1**	**0.1**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**100**

Daily Southbound Classes Report

Study Date: Thursday, 03/02/2023
Unit ID:
Location: Main Street Location SB

Truck Summary:

Total Trucks: 368 % Trucks: 11.4 AM % Trucks: 12.2 PM % Trucks: 11.1

Classification Scheme: FHWA (ID: 1)

#1	Motorcycles - 2 Axles	#6	Single Unit Truck - 3 Axles	#11	Multi-Unit - 5 Axles or Less
#2	Passenger Cars - 2 Axles	#7	Single Unit - 4 Axles	#12	Multi-Unit - 6 Axles
#3	Pickup Trucks, Vans - 2 Axles	#8	Single Unit - 4 Axles or Less	#13	Multi-Unit - 7 Axles or More
#4	Buses	#9	Double Unit - 5 Axles		
#5	Single Unit - 2 Axles, 6 Tires	#10	Double Unit - 6 Axles or More		

Daily Southbound Speeds (MPH)

Study Date: Thursday, 03/02/2023

Unit ID:

Location: Main Street Location SB

Posted Speed: 35

	5-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-99	Total
00:00 - 00:14	0	0	0	0	4	0	4	0	0	0	0	0	0	0	0	**8**
00:15 - 00:29	0	0	0	0	2	1	1	1	0	0	0	0	0	0	0	**5**
00:30 - 00:44	0	0	0	0	1	2	1	0	0	0	0	0	0	0	0	**4**
00:45 - 00:59	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
01:00 - 01:14	0	0	0	2	1	1	0	0	0	0	0	0	0	0	0	**4**
01:15 - 01:29	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	**2**
01:30 - 01:44	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	**1**
01:45 - 01:59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
02:00 - 02:14	0	0	0	2	1	0	0	0	0	0	0	0	0	0	0	**3**
02:15 - 02:29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
02:30 - 02:44	0	0	0	0	1	3	0	0	0	0	0	0	0	0	0	**4**
02:45 - 02:59	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	**1**
03:00 - 03:14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
03:15 - 03:29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
03:30 - 03:44	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
03:45 - 03:59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
04:00 - 04:14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
04:15 - 04:29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
04:30 - 04:44	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
04:45 - 04:59	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	**4**
05:00 - 05:14	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	**1**
05:15 - 05:29	0	0	0	0	0	3	1	0	0	0	0	0	0	0	0	**4**
05:30 - 05:44	0	0	0	0	1	2	1	0	0	0	0	0	0	0	0	**4**
05:45 - 05:59	0	0	0	1	2	2	2	0	0	0	0	0	0	0	0	**7**
06:00 - 06:14	0	0	0	0	1	0	1	1	0	0	0	0	0	0	0	**3**
06:15 - 06:29	0	0	0	1	2	2	2	1	0	0	0	0	0	0	0	**8**
06:30 - 06:44	0	0	0	1	3	4	0	0	0	0	0	0	0	0	0	**8**
06:45 - 06:59	0	0	0	1	2	6	8	1	0	0	0	0	0	0	0	**18**
07:00 - 07:14	0	0	0	1	12	9	1	2	0	0	0	0	0	0	0	**25**
07:15 - 07:29	0	0	0	1	8	10	4	0	0	0	0	0	0	0	0	**23**
07:30 - 07:44	0	0	0	2	18	16	10	0	0	0	0	0	0	0	0	**46**
07:45 - 07:59	0	0	0	4	24	31	7	2	0	0	0	0	0	0	0	**68**
08:00 - 08:14	0	0	0	2	30	44	12	3	0	0	0	0	0	0	0	**91**
08:15 - 08:29	0	0	0	4	8	25	12	0	0	0	0	0	0	0	0	**49**
08:30 - 08:44	0	0	0	2	2	17	7	1	0	0	0	0	0	0	0	**29**
08:45 - 08:59	0	0	0	1	7	20	14	1	0	0	0	0	0	0	0	**43**
09:00 - 09:14	0	0	0	0	9	15	7	2	0	0	0	0	0	0	0	**33**
09:15 - 09:29	0	0	0	4	4	15	4	1	0	0	0	0	0	0	0	**28**
09:30 - 09:44	0	0	0	0	9	18	6	3	0	0	0	0	0	0	0	**36**
09:45 - 09:59	0	0	0	2	10	19	6	3	0	0	0	0	0	0	0	**40**
10:00 - 10:14	0	0	0	0	0	17	13	3	0	0	0	0	0	0	0	**33**
10:15 - 10:29	0	0	0	0	3	10	11	1	0	0	0	0	0	0	0	**25**
10:30 - 10:44	0	0	0	2	3	12	10	2	0	0	0	0	0	0	0	**29**
10:45 - 10:59	0	0	1	1	9	20	10	1	1	0	0	0	0	0	0	**43**
11:00 - 11:14	0	0	0	1	8	17	5	1	0	0	0	0	0	0	0	**32**
11:15 - 11:29	0	0	0	0	11	20	15	0	0	0	0	0	0	0	0	**46**
11:30 - 11:44	0	0	0	2	11	28	20	2	0	0	0	0	0	0	0	**63**
11:45 - 11:59	0	0	0	0	12	18	10	3	1	0	0	0	0	0	0	**44**
12:00 - 12:14	0	0	0	1	6	20	9	3	0	0	0	0	0	0	0	**39**
12:15 - 12:29	0	0	0	0	2	21	18	1	2	0	0	1	0	0	0	**45**
12:30 - 12:44	0	0	0	0	4	14	13	2	0	0	0	0	0	0	0	**33**

Daily Southbound Speeds (MPH)

Study Date: Thursday, 03/02/2023
Unit ID:
Location: Main Street Location SB

Posted Speed: 35

	5-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-99	Total
12:45 - 12:59	0	0	0	0	5	12	11	2	0	0	0	0	0	0	0	**30**
13:00 - 13:14	0	0	0	0	4	10	5	0	0	0	0	0	0	0	0	**19**
13:15 - 13:29	0	0	0	0	4	21	11	3	0	0	0	0	0	0	0	**39**
13:30 - 13:44	0	0	1	1	4	12	8	1	0	0	0	0	0	0	0	**27**
13:45 - 13:59	0	0	0	0	13	27	19	1	0	0	0	0	0	0	0	**60**
14:00 - 14:14	0	0	0	4	9	30	13	2	0	0	0	0	0	0	0	**58**
14:15 - 14:29	0	0	0	2	21	39	16	1	0	0	0	0	0	0	0	**79**
14:30 - 14:44	0	0	0	1	15	31	13	2	1	0	0	0	0	0	0	**63**
14:45 - 14:59	0	0	0	2	7	21	17	1	0	0	0	0	0	0	0	**48**
15:00 - 15:14	0	0	1	2	11	36	13	6	0	0	0	0	0	0	0	**69**
15:15 - 15:29	0	0	1	0	8	22	17	1	1	0	0	0	0	0	0	**50**
15:30 - 15:44	0	0	0	0	4	25	19	2	0	0	0	0	0	0	0	**50**
15:45 - 15:59	0	0	0	1	6	25	18	4	0	0	0	0	0	0	0	**54**
16:00 - 16:14	0	0	0	1	6	22	20	3	1	0	0	0	0	0	0	**53**
16:15 - 16:29	0	0	0	1	4	25	22	3	1	0	0	0	0	0	0	**56**
16:30 - 16:44	0	0	0	2	7	38	23	4	0	0	0	0	0	0	0	**74**
16:45 - 16:59	0	0	0	0	15	32	22	3	0	0	0	0	0	0	0	**72**
17:00 - 17:14	0	0	0	1	6	41	24	7	1	1	0	0	0	0	0	**81**
17:15 - 17:29	0	0	0	2	9	24	34	11	0	0	0	0	0	0	0	**80**
17:30 - 17:44	0	0	0	0	12	36	27	3	0	0	0	0	0	0	0	**78**
17:45 - 17:59	0	0	0	1	13	34	29	1	1	0	0	0	0	0	0	**79**
18:00 - 18:14	0	0	1	1	5	31	20	6	1	0	0	0	0	0	0	**65**
18:15 - 18:29	0	0	0	0	6	34	29	3	0	0	0	0	0	0	0	**72**
18:30 - 18:44	0	0	1	4	8	27	20	2	0	0	0	0	0	0	0	**62**
18:45 - 18:59	0	0	1	1	8	39	13	1	1	0	0	0	0	0	0	**64**
19:00 - 19:14	0	0	0	1	16	28	11	0	0	0	0	0	0	0	0	**56**
19:15 - 19:29	0	0	0	0	11	36	19	1	1	1	0	0	0	0	0	**69**
19:30 - 19:44	0	1	1	3	9	34	10	1	0	0	0	0	0	0	0	**59**
19:45 - 19:59	0	0	1	2	7	30	10	1	1	0	0	0	0	0	0	**52**
20:00 - 20:14	0	0	0	1	19	21	10	0	0	0	0	0	0	0	0	**51**
20:15 - 20:29	0	0	0	1	11	26	12	1	0	0	0	0	0	0	0	**51**
20:30 - 20:44	0	0	0	2	10	35	7	1	0	0	0	0	0	0	0	**55**
20:45 - 20:59	0	0	0	1	4	21	6	2	0	0	0	0	0	0	0	**34**
21:00 - 21:14	0	0	0	1	7	15	7	2	0	0	0	0	0	0	0	**32**
21:15 - 21:29	0	0	0	3	7	13	9	0	0	0	0	0	0	0	0	**32**
21:30 - 21:44	0	0	0	0	8	19	10	0	0	0	0	0	0	0	0	**37**
21:45 - 21:59	0	0	0	2	5	13	11	0	0	0	0	0	0	0	0	**31**
22:00 - 22:14	0	0	0	4	3	20	8	1	0	0	0	0	0	0	0	**36**
22:15 - 22:29	0	0	0	1	4	12	5	0	0	0	0	0	0	0	0	**22**
22:30 - 22:44	0	0	0	2	5	16	5	1	0	0	0	0	0	0	0	**29**
22:45 - 22:59	0	0	0	1	1	12	4	1	0	0	0	0	0	0	0	**19**
23:00 - 23:14	0	0	0	1	3	3	3	0	0	0	0	0	0	0	0	**10**
23:15 - 23:29	0	0	0	0	6	6	5	0	0	0	0	0	0	0	0	**17**
23:30 - 23:44	0	0	0	1	4	3	2	0	0	0	0	0	0	0	0	**10**
23:45 - 23:59	0	1	1	8	1	1	2	0	0	0	0	0	0	0	0	**14**
Totals	**0**	**2**	**10**	**101**	**585**	**1525**	**865**	**126**	**14**	**2**	**0**	**1**	**0**	**0**	**0**	**3231**
Percent of Total	**0.0**	**0.1**	**0.3**	**3.1**	**18.1**	**47.2**	**26.8**	**3.9**	**0.4**	**0.1**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**100**
Percent of AM	**0.0**	**0.0**	**0.1**	**4.1**	**24.2**	**45.0**	**22.5**	**3.8**	**0.2**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**100**
Percent of PM	**0.0**	**0.1**	**0.4**	**2.7**	**15.7**	**48.1**	**28.5**	**3.9**	**0.5**	**0.1**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**100**

Daily Southbound Speeds (MPH)

Study Date: Thursday, 03/02/2023
Unit ID:
Location: Main Street Location SB

Posted Speed: 35

Standard Deviation:	4.7 MPH	Ten Mile Pace:	35 to 44 MPH	85th Percentile:	43.0 MPH
Mean Speed:	38.0 MPH	Percent in Ten Mile Pace:	74.0%		
Median Speed:	38.0 MPH			15th Percentile:	33.2 MPH
Modal Speed:	37.5 MPH			90th Percentile:	44.0 MPH
				95th Percentile:	44.9 MPH

Daily Vehicle Volume Report

Study Date: Thursday, 03/02/2023
Unit ID:
Location: Mill Road Location NB

	Northbound Volume
00:00 - 00:14	6
00:15 - 00:29	8
00:30 - 00:44	5
00:45 - 00:59	4
01:00 - 01:14	3
01:15 - 01:29	6
01:30 - 01:44	11
01:45 - 01:59	1
02:00 - 02:14	3
02:15 - 02:29	0
02:30 - 02:44	2
02:45 - 02:59	4
03:00 - 03:14	0
03:15 - 03:29	1
03:30 - 03:44	3
03:45 - 03:59	4
04:00 - 04:14	1
04:15 - 04:29	2
04:30 - 04:44	5
04:45 - 04:59	4
05:00 - 05:14	4
05:15 - 05:29	9
05:30 - 05:44	10
05:45 - 05:59	19
06:00 - 06:14	13
06:15 - 06:29	12
06:30 - 06:44	13
06:45 - 06:59	32
07:00 - 07:14	28
07:15 - 07:29	26
07:30 - 07:44	47
07:45 - 07:59	66
08:00 - 08:14	63
08:15 - 08:29	55
08:30 - 08:44	44
08:45 - 08:59	58
09:00 - 09:14	54
09:15 - 09:29	49
09:30 - 09:44	42
09:45 - 09:59	45
10:00 - 10:14	57
10:15 - 10:29	46
10:30 - 10:44	41
10:45 - 10:59	58
11:00 - 11:14	66
11:15 - 11:29	62
11:30 - 11:44	57
11:45 - 11:59	69
12:00 - 12:14	58
12:15 - 12:29	75
12:30 - 12:44	64
12:45 - 12:59	72

Daily Vehicle Volume Report

Study Date: Thursday, 03/02/2023
Unit ID:
Location: Mill Road Location NB

	Northbound Volume
13:00 - 13:14	58
13:15 - 13:29	68
13:30 - 13:44	47
13:45 - 13:59	58
14:00 - 14:14	64
14:15 - 14:29	63
14:30 - 14:44	74
14:45 - 14:59	71
15:00 - 15:14	76
15:15 - 15:29	69
15:30 - 15:44	73
15:45 - 15:59	85
16:00 - 16:14	63
16:15 - 16:29	53
16:30 - 16:44	68
16:45 - 16:59	67
17:00 - 17:14	80
17:15 - 17:29	75
17:30 - 17:44	105
17:45 - 17:59	106
18:00 - 18:14	108
18:15 - 18:29	91
18:30 - 18:44	91
18:45 - 18:59	115
19:00 - 19:14	98
19:15 - 19:29	86
19:30 - 19:44	73
19:45 - 19:59	72
20:00 - 20:14	72
20:15 - 20:29	60
20:30 - 20:44	62
20:45 - 20:59	46
21:00 - 21:14	40
21:15 - 21:29	43
21:30 - 21:44	35
21:45 - 21:59	44
22:00 - 22:14	45
22:15 - 22:29	26
22:30 - 22:44	18
22:45 - 22:59	13
23:00 - 23:14	16
23:15 - 23:29	16
23:30 - 23:44	10
23:45 - 23:59	11
Totals	**4201**
AM Peak Time	**10:55 - 11:54**
AM Peak Volume	**260**
PM Peak Time	**18:04 - 19:03**
PM Peak Volume	**418**

Daily Vehicle Volume Report

Study Date: Thursday, 03/02/2023
Unit ID:
Location: Mill Road Location NB

Daily Northbound Classes Report

Study Date: Thursday, 03/02/2023

Unit ID:

Location: Mill Road Location NB

	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	Total
00:00 - 00:14	0	5	1	0	0	0	0	0	0	0	0	0	0	**6**
00:15 - 00:29	0	7	1	0	0	0	0	0	0	0	0	0	0	**8**
00:30 - 00:44	0	5	0	0	0	0	0	0	0	0	0	0	0	**5**
00:45 - 00:59	0	4	0	0	0	0	0	0	0	0	0	0	0	**4**
01:00 - 01:14	0	3	0	0	0	0	0	0	0	0	0	0	0	**3**
01:15 - 01:29	0	6	0	0	0	0	0	0	0	0	0	0	0	**6**
01:30 - 01:44	0	10	0	0	1	0	0	0	0	0	0	0	0	**11**
01:45 - 01:59	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
02:00 - 02:14	0	2	0	0	1	0	0	0	0	0	0	0	0	**3**
02:15 - 02:29	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
02:30 - 02:44	0	2	0	0	0	0	0	0	0	0	0	0	0	**2**
02:45 - 02:59	0	4	0	0	0	0	0	0	0	0	0	0	0	**4**
03:00 - 03:14	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
03:15 - 03:29	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
03:30 - 03:44	0	3	0	0	0	0	0	0	0	0	0	0	0	**3**
03:45 - 03:59	0	4	0	0	0	0	0	0	0	0	0	0	0	**4**
04:00 - 04:14	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
04:15 - 04:29	0	2	0	0	0	0	0	0	0	0	0	0	0	**2**
04:30 - 04:44	0	5	0	0	0	0	0	0	0	0	0	0	0	**5**
04:45 - 04:59	0	4	0	0	0	0	0	0	0	0	0	0	0	**4**
05:00 - 05:14	0	4	0	0	0	0	0	0	0	0	0	0	0	**4**
05:15 - 05:29	0	8	0	0	1	0	0	0	0	0	0	0	0	**9**
05:30 - 05:44	0	9	1	0	0	0	0	0	0	0	0	0	0	**10**
05:45 - 05:59	0	16	2	0	1	0	0	0	0	0	0	0	0	**19**
06:00 - 06:14	0	12	1	0	0	0	0	0	0	0	0	0	0	**13**
06:15 - 06:29	0	11	1	0	0	0	0	0	0	0	0	0	0	**12**
06:30 - 06:44	0	12	1	0	0	0	0	0	0	0	0	0	0	**13**
06:45 - 06:59	1	28	0	0	3	0	0	0	0	0	0	0	0	**32**
07:00 - 07:14	0	26	0	0	2	0	0	0	0	0	0	0	0	**28**
07:15 - 07:29	0	20	3	1	2	0	0	0	0	0	0	0	0	**26**
07:30 - 07:44	0	41	3	0	3	0	0	0	0	0	0	0	0	**47**
07:45 - 07:59	0	58	5	0	3	0	0	0	0	0	0	0	0	**66**
08:00 - 08:14	0	56	3	0	4	0	0	0	0	0	0	0	0	**63**
08:15 - 08:29	0	48	1	0	5	0	0	0	0	1	0	0	0	**55**
08:30 - 08:44	0	33	6	1	4	0	0	0	0	0	0	0	0	**44**
08:45 - 08:59	0	53	1	0	4	0	0	0	0	0	0	0	0	**58**
09:00 - 09:14	0	45	2	0	7	0	0	0	0	0	0	0	0	**54**
09:15 - 09:29	0	42	3	0	2	0	0	0	0	0	0	0	2	**49**
09:30 - 09:44	0	37	2	0	3	0	0	0	0	0	0	0	0	**42**
09:45 - 09:59	0	37	4	1	3	0	0	0	0	0	0	0	0	**45**
10:00 - 10:14	1	49	2	0	4	0	0	0	1	0	0	0	0	**57**
10:15 - 10:29	0	41	2	0	2	0	0	0	0	0	0	0	1	**46**
10:30 - 10:44	0	35	3	1	2	0	0	0	0	0	0	0	0	**41**
10:45 - 10:59	1	43	9	0	5	0	0	0	0	0	0	0	0	**58**
11:00 - 11:14	0	52	6	0	5	1	0	0	0	0	0	0	2	**66**
11:15 - 11:29	0	57	3	0	2	0	0	0	0	0	0	0	0	**62**
11:30 - 11:44	0	44	7	0	5	0	0	1	0	0	0	0	0	**57**
11:45 - 11:59	0	51	6	0	10	0	0	0	0	0	0	0	2	**69**
12:00 - 12:14	0	46	5	0	6	1	0	0	0	0	0	0	0	**58**
12:15 - 12:29	1	64	5	0	4	0	1	0	0	0	0	0	0	**75**
12:30 - 12:44	1	49	8	0	6	0	0	0	0	0	0	0	0	**64**
12:45 - 12:59	0	63	4	0	2	1	0	0	0	0	0	0	2	**72**

Daily Northbound Classes Report

Study Date: Thursday, 03/02/2023
Unit ID:
Location: Mill Road Location NB

	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	Total
13:00 - 13:14	1	49	5	0	3	0	0	0	0	0	0	0	0	**58**
13:15 - 13:29	0	59	3	0	4	0	0	2	0	0	0	0	0	**68**
13:30 - 13:44	0	42	2	0	2	1	0	0	0	0	0	0	0	**47**
13:45 - 13:59	0	47	5	0	5	0	0	0	0	0	0	0	1	**58**
14:00 - 14:14	0	53	3	0	6	1	0	0	0	0	0	0	1	**64**
14:15 - 14:29	0	54	3	0	5	1	0	0	0	0	0	0	0	**63**
14:30 - 14:44	0	63	3	0	8	0	0	0	0	0	0	0	0	**74**
14:45 - 14:59	0	51	6	1	11	0	0	0	0	0	0	0	2	**71**
15:00 - 15:14	0	65	4	2	4	1	0	0	0	0	0	0	0	**76**
15:15 - 15:29	0	62	4	0	2	1	0	0	0	0	0	0	0	**69**
15:30 - 15:44	0	64	5	0	3	0	0	0	0	0	0	0	1	**73**
15:45 - 15:59	0	75	3	1	5	1	0	0	0	0	0	0	0	**85**
16:00 - 16:14	0	59	3	0	1	0	0	0	0	0	0	0	0	**63**
16:15 - 16:29	0	46	2	1	4	0	0	0	0	0	0	0	0	**53**
16:30 - 16:44	0	65	2	0	1	0	0	0	0	0	0	0	0	**68**
16:45 - 16:59	0	58	7	0	2	0	0	0	0	0	0	0	0	**67**
17:00 - 17:14	0	71	6	0	3	0	0	0	0	0	0	0	0	**80**
17:15 - 17:29	0	62	5	1	7	0	0	0	0	0	0	0	0	**75**
17:30 - 17:44	0	94	6	0	4	1	0	0	0	0	0	0	0	**105**
17:45 - 17:59	0	102	4	0	0	0	0	0	0	0	0	0	0	**106**
18:00 - 18:14	0	98	3	0	7	0	0	0	0	0	0	0	0	**108**
18:15 - 18:29	0	78	1	0	11	1	0	0	0	0	0	0	0	**91**
18:30 - 18:44	0	78	8	0	5	0	0	0	0	0	0	0	0	**91**
18:45 - 18:59	0	103	8	0	4	0	0	0	0	0	0	0	0	**115**
19:00 - 19:14	0	82	6	0	9	1	0	0	0	0	0	0	0	**98**
19:15 - 19:29	0	77	5	0	4	0	0	0	0	0	0	0	0	**86**
19:30 - 19:44	0	63	7	0	3	0	0	0	0	0	0	0	0	**73**
19:45 - 19:59	2	65	2	0	3	0	0	0	0	0	0	0	0	**72**
20:00 - 20:14	0	64	4	0	4	0	0	0	0	0	0	0	0	**72**
20:15 - 20:29	0	53	4	0	3	0	0	0	0	0	0	0	0	**60**
20:30 - 20:44	0	56	6	0	0	0	0	0	0	0	0	0	0	**62**
20:45 - 20:59	0	41	4	0	1	0	0	0	0	0	0	0	0	**46**
21:00 - 21:14	0	35	2	0	2	0	0	1	0	0	0	0	0	**40**
21:15 - 21:29	0	34	3	0	4	0	0	2	0	0	0	0	0	**43**
21:30 - 21:44	0	32	1	0	1	1	0	0	0	0	0	0	0	**35**
21:45 - 21:59	0	42	1	0	1	0	0	0	0	0	0	0	0	**44**
22:00 - 22:14	0	36	3	0	6	0	0	0	0	0	0	0	0	**45**
22:15 - 22:29	0	24	2	0	0	0	0	0	0	0	0	0	0	**26**
22:30 - 22:44	0	11	5	0	2	0	0	0	0	0	0	0	0	**18**
22:45 - 22:59	0	12	1	0	0	0	0	0	0	0	0	0	0	**13**
23:00 - 23:14	0	15	0	0	1	0	0	0	0	0	0	0	0	**16**
23:15 - 23:29	0	16	0	0	0	0	0	0	0	0	0	0	0	**16**
23:30 - 23:44	0	8	2	0	0	0	0	0	0	0	0	0	0	**10**
23:45 - 23:59	0	10	1	0	0	0	0	0	0	0	0	0	0	**11**
Totals	**8**	**3633**	**261**	**10**	**253**	**13**	**1**	**6**	**1**	**1**	**0**	**0**	**14**	**4201**
Percent of Total	**0.2**	**86.5**	**6.2**	**0.2**	**6.0**	**0.3**	**0.0**	**0.1**	**0.0**	**0.0**	**0.0**	**0.0**	**0.3**	**100**
Percent of AM	**0.2**	**85.1**	**6.5**	**0.3**	**6.9**	**0.1**	**0.0**	**0.1**	**0.1**	**0.1**	**0.0**	**0.0**	**0.6**	**100**
Percent of PM	**0.2**	**87.0**	**6.1**	**0.2**	**5.7**	**0.4**	**0.0**	**0.2**	**0.0**	**0.0**	**0.0**	**0.0**	**0.2**	**100**

Daily Northbound Classes Report

Study Date: Thursday, 03/02/2023
Unit ID:
Location: Mill Road Location NB

Truck Summary:

Total Trucks:	299	% Trucks:	7.1	AM % Trucks:	8.1	PM % Trucks:	6.7

Classification Scheme: FHWA (ID: 1)

#1	Motorcycles - 2 Axles	#6	Single Unit Truck - 3 Axles	#11	Multi-Unit - 5 Axles or Less
#2	Passenger Cars - 2 Axles	#7	Single Unit - 4 Axles	#12	Multi-Unit - 6 Axles
#3	Pickup Trucks, Vans - 2 Axles	#8	Single Unit - 4 Axles or Less	#13	Multi-Unit - 7 Axles or More
#4	Buses	#9	Double Unit - 5 Axles		
#5	Single Unit - 2 Axles, 6 Tires	#10	Double Unit - 6 Axles or More		

Daily Northbound Speeds (MPH)

Study Date: Thursday, 03/02/2023

Unit ID:

Location: Mill Road Location NB

Posted Speed: 35

	5-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-99	Total
00:00 - 00:14	0	0	0	0	2	1	2	1	0	0	0	0	0	0	0	**6**
00:15 - 00:29	0	0	0	0	4	1	2	1	0	0	0	0	0	0	0	**8**
00:30 - 00:44	0	0	0	1	1	3	0	0	0	0	0	0	0	0	0	**5**
00:45 - 00:59	0	0	0	1	3	0	0	0	0	0	0	0	0	0	0	**4**
01:00 - 01:14	0	0	0	0	2	1	0	0	0	0	0	0	0	0	0	**3**
01:15 - 01:29	0	0	0	0	1	2	2	1	0	0	0	0	0	0	0	**6**
01:30 - 01:44	0	1	0	1	5	4	0	0	0	0	0	0	0	0	0	**11**
01:45 - 01:59	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	**1**
02:00 - 02:14	0	0	0	0	0	1	2	0	0	0	0	0	0	0	0	**3**
02:15 - 02:29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
02:30 - 02:44	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	**2**
02:45 - 02:59	0	0	0	0	1	2	0	1	0	0	0	0	0	0	0	**4**
03:00 - 03:14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
03:15 - 03:29	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	**1**
03:30 - 03:44	0	0	0	0	2	0	1	0	0	0	0	0	0	0	0	**3**
03:45 - 03:59	0	0	0	1	0	2	1	0	0	0	0	0	0	0	0	**4**
04:00 - 04:14	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	**1**
04:15 - 04:29	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	**2**
04:30 - 04:44	0	0	1	1	1	1	0	1	0	0	0	0	0	0	0	**5**
04:45 - 04:59	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	**4**
05:00 - 05:14	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	**4**
05:15 - 05:29	0	0	0	1	1	5	1	1	0	0	0	0	0	0	0	**9**
05:30 - 05:44	0	0	0	5	3	1	1	0	0	0	0	0	0	0	0	**10**
05:45 - 05:59	0	0	0	2	8	4	4	1	0	0	0	0	0	0	0	**19**
06:00 - 06:14	0	0	0	1	5	5	2	0	0	0	0	0	0	0	0	**13**
06:15 - 06:29	0	0	0	1	2	4	3	2	0	0	0	0	0	0	0	**12**
06:30 - 06:44	0	0	0	1	5	3	3	1	0	0	0	0	0	0	0	**13**
06:45 - 06:59	0	0	0	4	9	9	8	2	0	0	0	0	0	0	0	**32**
07:00 - 07:14	0	0	0	2	10	8	8	0	0	0	0	0	0	0	0	**28**
07:15 - 07:29	0	0	0	1	8	13	4	0	0	0	0	0	0	0	0	**26**
07:30 - 07:44	0	0	0	2	12	16	10	7	0	0	0	0	0	0	0	**47**
07:45 - 07:59	0	0	0	1	10	21	28	4	2	0	0	0	0	0	0	**66**
08:00 - 08:14	0	0	1	2	10	31	13	6	0	0	0	0	0	0	0	**63**
08:15 - 08:29	0	0	0	1	9	17	21	7	0	0	0	0	0	0	0	**55**
08:30 - 08:44	1	0	0	1	9	16	12	4	1	0	0	0	0	0	0	**44**
08:45 - 08:59	0	0	0	0	5	30	18	4	0	1	0	0	0	0	0	**58**
09:00 - 09:14	0	0	0	1	2	23	22	6	0	0	0	0	0	0	0	**54**
09:15 - 09:29	0	0	0	1	9	18	18	2	1	0	0	0	0	0	0	**49**
09:30 - 09:44	0	0	0	0	6	21	12	3	0	0	0	0	0	0	0	**42**
09:45 - 09:59	0	0	0	1	8	19	13	3	1	0	0	0	0	0	0	**45**
10:00 - 10:14	0	0	0	1	10	23	19	4	0	0	0	0	0	0	0	**57**
10:15 - 10:29	0	0	0	1	12	23	6	4	0	0	0	0	0	0	0	**46**
10:30 - 10:44	0	0	0	1	7	18	14	1	0	0	0	0	0	0	0	**41**
10:45 - 10:59	0	0	0	1	14	23	15	4	1	0	0	0	0	0	0	**58**
11:00 - 11:14	0	0	1	0	11	30	17	6	0	1	0	0	0	0	0	**66**
11:15 - 11:29	0	0	1	0	6	26	22	5	1	1	0	0	0	0	0	**62**
11:30 - 11:44	0	0	0	0	12	28	14	3	0	0	0	0	0	0	0	**57**
11:45 - 11:59	0	0	0	5	6	32	23	1	2	0	0	0	0	0	0	**69**
12:00 - 12:14	0	0	0	0	4	32	19	3	0	0	0	0	0	0	0	**58**
12:15 - 12:29	0	0	0	2	10	32	28	2	1	0	0	0	0	0	0	**75**
12:30 - 12:44	0	0	0	7	6	28	20	3	0	0	0	0	0	0	0	**64**

Daily Northbound Speeds (MPH)

Study Date: Thursday, 03/02/2023
Unit ID:
Location: Mill Road Location NB

Posted Speed: 35

	5-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-99	Total
12:45 - 12:59	0	0	0	1	10	36	20	5	0	0	0	0	0	0	0	**72**
13:00 - 13:14	0	0	0	0	10	29	18	1	0	0	0	0	0	0	0	**58**
13:15 - 13:29	0	0	0	4	10	34	19	1	0	0	0	0	0	0	0	**68**
13:30 - 13:44	0	0	0	2	10	23	12	0	0	0	0	0	0	0	0	**47**
13:45 - 13:59	0	0	0	0	5	27	23	2	1	0	0	0	0	0	0	**58**
14:00 - 14:14	0	0	0	2	11	27	17	7	0	0	0	0	0	0	0	**64**
14:15 - 14:29	0	0	0	4	5	25	23	6	0	0	0	0	0	0	0	**63**
14:30 - 14:44	0	0	0	4	12	32	25	1	0	0	0	0	0	0	0	**74**
14:45 - 14:59	0	0	0	2	16	36	16	1	0	0	0	0	0	0	0	**71**
15:00 - 15:14	0	0	0	3	14	33	20	5	1	0	0	0	0	0	0	**76**
15:15 - 15:29	0	0	0	2	6	35	22	4	0	0	0	0	0	0	0	**69**
15:30 - 15:44	0	0	0	2	13	32	24	2	0	0	0	0	0	0	0	**73**
15:45 - 15:59	0	0	1	0	10	42	27	5	0	0	0	0	0	0	0	**85**
16:00 - 16:14	0	0	0	2	9	26	21	4	0	0	1	0	0	0	0	**63**
16:15 - 16:29	0	1	0	0	7	22	18	4	1	0	0	0	0	0	0	**53**
16:30 - 16:44	0	0	0	2	17	21	26	2	0	0	0	0	0	0	0	**68**
16:45 - 16:59	0	0	0	0	10	33	18	6	0	0	0	0	0	0	0	**67**
17:00 - 17:14	0	0	0	2	8	50	18	2	0	0	0	0	0	0	0	**80**
17:15 - 17:29	0	0	0	2	20	34	13	6	0	0	0	0	0	0	0	**75**
17:30 - 17:44	0	0	1	1	19	54	24	5	1	0	0	0	0	0	0	**105**
17:45 - 17:59	0	0	0	2	15	45	39	5	0	0	0	0	0	0	0	**106**
18:00 - 18:14	0	0	0	5	19	58	19	5	0	2	0	0	0	0	0	**108**
18:15 - 18:29	0	0	0	1	27	48	13	2	0	0	0	0	0	0	0	**91**
18:30 - 18:44	0	0	0	1	19	51	20	0	0	0	0	0	0	0	0	**91**
18:45 - 18:59	0	0	0	1	19	59	31	4	1	0	0	0	0	0	0	**115**
19:00 - 19:14	0	0	0	5	20	44	26	3	0	0	0	0	0	0	0	**98**
19:15 - 19:29	0	0	0	2	18	43	19	2	2	0	0	0	0	0	0	**86**
19:30 - 19:44	0	0	0	3	15	42	12	1	0	0	0	0	0	0	0	**73**
19:45 - 19:59	0	0	0	0	19	30	21	2	0	0	0	0	0	0	0	**72**
20:00 - 20:14	0	0	1	3	18	30	18	2	0	0	0	0	0	0	0	**72**
20:15 - 20:29	0	0	0	1	19	28	11	1	0	0	0	0	0	0	0	**60**
20:30 - 20:44	0	0	0	1	17	33	9	2	0	0	0	0	0	0	0	**62**
20:45 - 20:59	0	0	0	2	14	14	12	4	0	0	0	0	0	0	0	**46**
21:00 - 21:14	0	0	0	2	16	18	3	1	0	0	0	0	0	0	0	**40**
21:15 - 21:29	0	0	0	3	14	16	10	0	0	0	0	0	0	0	0	**43**
21:30 - 21:44	0	0	0	1	9	15	9	1	0	0	0	0	0	0	0	**35**
21:45 - 21:59	0	0	0	0	5	32	6	1	0	0	0	0	0	0	0	**44**
22:00 - 22:14	0	0	1	3	13	14	11	3	0	0	0	0	0	0	0	**45**
22:15 - 22:29	0	0	0	0	7	14	3	2	0	0	0	0	0	0	0	**26**
22:30 - 22:44	0	0	0	3	4	7	4	0	0	0	0	0	0	0	0	**18**
22:45 - 22:59	0	0	0	1	2	6	3	1	0	0	0	0	0	0	0	**13**
23:00 - 23:14	0	0	0	2	1	8	5	0	0	0	0	0	0	0	0	**16**
23:15 - 23:29	0	0	1	1	5	6	3	0	0	0	0	0	0	0	0	**16**
23:30 - 23:44	0	0	0	1	4	1	3	1	0	0	0	0	0	0	0	**10**
23:45 - 23:59	0	0	0	1	2	7	1	0	0	0	0	0	0	0	0	**11**
Totals	**1**	**2**	**9**	**135**	**799**	**1900**	**1125**	**206**	**18**	**5**	**1**	**0**	**0**	**0**	**0**	**4201**
Percent of Total	**0.0**	**0.0**	**0.2**	**3.2**	**19.0**	**45.2**	**26.8**	**4.9**	**0.4**	**0.1**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**100**
Percent of AM	**0.1**	**0.1**	**0.3**	**3.8**	**19.4**	**40.1**	**28.2**	**7.1**	**0.8**	**0.2**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**100**
Percent of PM	**0.0**	**0.0**	**0.2**	**3.0**	**18.9**	**47.3**	**26.2**	**4.0**	**0.3**	**0.1**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**100**

Daily Northbound Speeds (MPH)

Study Date: Thursday, 03/02/2023
Unit ID:
Location: Mill Road Location NB

Posted Speed: 35

Standard Deviation:	4.9 MPH	Ten Mile Pace:	35 to 44 MPH	85th Percentile:	43.2 MPH
Mean Speed:	38.1 MPH	Percent in Ten Mile Pace:	72.0%		
Median Speed:	38.0 MPH			15th Percentile:	33.0 MPH
Modal Speed:	37.5 MPH			90th Percentile:	44.2 MPH
				95th Percentile:	45.5 MPH

Daily Vehicle Volume Report

Study Date: Thursday, 03/02/2023
Unit ID:
Location: Mill Road Location SB

	Southbound Volume
00:00 - 00:14	13
00:15 - 00:29	13
00:30 - 00:44	11
00:45 - 00:59	6
01:00 - 01:14	4
01:15 - 01:29	8
01:30 - 01:44	4
01:45 - 01:59	0
02:00 - 02:14	2
02:15 - 02:29	2
02:30 - 02:44	4
02:45 - 02:59	1
03:00 - 03:14	3
03:15 - 03:29	6
03:30 - 03:44	2
03:45 - 03:59	2
04:00 - 04:14	3
04:15 - 04:29	3
04:30 - 04:44	5
04:45 - 04:59	4
05:00 - 05:14	6
05:15 - 05:29	4
05:30 - 05:44	11
05:45 - 05:59	11
06:00 - 06:14	10
06:15 - 06:29	13
06:30 - 06:44	20
06:45 - 06:59	20
07:00 - 07:14	22
07:15 - 07:29	20
07:30 - 07:44	34
07:45 - 07:59	38
08:00 - 08:14	39
08:15 - 08:29	36
08:30 - 08:44	33
08:45 - 08:59	37
09:00 - 09:14	41
09:15 - 09:29	30
09:30 - 09:44	34
09:45 - 09:59	38
10:00 - 10:14	48
10:15 - 10:29	35
10:30 - 10:44	37
10:45 - 10:59	54
11:00 - 11:14	47
11:15 - 11:29	55
11:30 - 11:44	48
11:45 - 11:59	55
12:00 - 12:14	66
12:15 - 12:29	77
12:30 - 12:44	60
12:45 - 12:59	72

Daily Vehicle Volume Report

Study Date: Thursday, 03/02/2023
Unit ID:
Location: Mill Road Location SB

	Southbound Volume
13:00 - 13:14	57
13:15 - 13:29	50
13:30 - 13:44	61
13:45 - 13:59	55
14:00 - 14:14	57
14:15 - 14:29	65
14:30 - 14:44	84
14:45 - 14:59	61
15:00 - 15:14	66
15:15 - 15:29	75
15:30 - 15:44	85
15:45 - 15:59	74
16:00 - 16:14	70
16:15 - 16:29	98
16:30 - 16:44	72
16:45 - 16:59	77
17:00 - 17:14	82
17:15 - 17:29	77
17:30 - 17:44	99
17:45 - 17:59	79
18:00 - 18:14	83
18:15 - 18:29	65
18:30 - 18:44	70
18:45 - 18:59	83
19:00 - 19:14	82
19:15 - 19:29	81
19:30 - 19:44	87
19:45 - 19:59	74
20:00 - 20:14	66
20:15 - 20:29	69
20:30 - 20:44	70
20:45 - 20:59	92
21:00 - 21:14	72
21:15 - 21:29	85
21:30 - 21:44	64
21:45 - 21:59	47
22:00 - 22:14	42
22:15 - 22:29	47
22:30 - 22:44	25
22:45 - 22:59	37
23:00 - 23:14	24
23:15 - 23:29	23
23:30 - 23:44	27
23:45 - 23:59	18
Totals	**4124**
AM Peak Time	**10:41 - 11:40**
AM Peak Volume	**212**
PM Peak Time	**17:10 - 18:09**
PM Peak Volume	**351**

Daily Vehicle Volume Report

Study Date: Thursday, 03/02/2023
Unit ID:
Location: Mill Road Location SB

Daily Southbound Classes Report

Study Date: Thursday, 03/02/2023
Unit ID:
Location: Mill Road Location SB

	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	Total
00:00 - 00:14	0	10	1	0	2	0	0	0	0	0	0	0	0	**13**
00:15 - 00:29	0	12	0	0	1	0	0	0	0	0	0	0	0	**13**
00:30 - 00:44	0	10	0	0	1	0	0	0	0	0	0	0	0	**11**
00:45 - 00:59	0	6	0	0	0	0	0	0	0	0	0	0	0	**6**
01:00 - 01:14	0	4	0	0	0	0	0	0	0	0	0	0	0	**4**
01:15 - 01:29	0	8	0	0	0	0	0	0	0	0	0	0	0	**8**
01:30 - 01:44	0	4	0	0	0	0	0	0	0	0	0	0	0	**4**
01:45 - 01:59	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
02:00 - 02:14	0	1	1	0	0	0	0	0	0	0	0	0	0	**2**
02:15 - 02:29	0	1	0	0	1	0	0	0	0	0	0	0	0	**2**
02:30 - 02:44	0	3	1	0	0	0	0	0	0	0	0	0	0	**4**
02:45 - 02:59	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
03:00 - 03:14	0	2	1	0	0	0	0	0	0	0	0	0	0	**3**
03:15 - 03:29	0	6	0	0	0	0	0	0	0	0	0	0	0	**6**
03:30 - 03:44	0	2	0	0	0	0	0	0	0	0	0	0	0	**2**
03:45 - 03:59	0	0	1	0	0	1	0	0	0	0	0	0	0	**2**
04:00 - 04:14	0	2	0	0	0	1	0	0	0	0	0	0	0	**3**
04:15 - 04:29	0	2	1	0	0	0	0	0	0	0	0	0	0	**3**
04:30 - 04:44	0	5	0	0	0	0	0	0	0	0	0	0	0	**5**
04:45 - 04:59	0	4	0	0	0	0	0	0	0	0	0	0	0	**4**
05:00 - 05:14	0	6	0	0	0	0	0	0	0	0	0	0	0	**6**
05:15 - 05:29	0	2	1	0	1	0	0	0	0	0	0	0	0	**4**
05:30 - 05:44	0	11	0	0	0	0	0	0	0	0	0	0	0	**11**
05:45 - 05:59	0	8	2	0	1	0	0	0	0	0	0	0	0	**11**
06:00 - 06:14	0	6	0	0	4	0	0	0	0	0	0	0	0	**10**
06:15 - 06:29	0	12	1	0	0	0	0	0	0	0	0	0	0	**13**
06:30 - 06:44	0	17	1	0	1	1	0	0	0	0	0	0	0	**20**
06:45 - 06:59	0	16	4	0	0	0	0	0	0	0	0	0	0	**20**
07:00 - 07:14	0	17	2	2	1	0	0	0	0	0	0	0	0	**22**
07:15 - 07:29	0	18	2	0	0	0	0	0	0	0	0	0	0	**20**
07:30 - 07:44	0	28	1	3	2	0	0	0	0	0	0	0	0	**34**
07:45 - 07:59	0	33	2	0	2	0	0	0	1	0	0	0	0	**38**
08:00 - 08:14	0	36	1	1	1	0	0	0	0	0	0	0	0	**39**
08:15 - 08:29	0	31	3	0	2	0	0	0	0	0	0	0	0	**36**
08:30 - 08:44	0	28	3	0	1	0	0	1	0	0	0	0	0	**33**
08:45 - 08:59	0	32	2	0	2	0	0	0	0	1	0	0	0	**37**
09:00 - 09:14	0	34	2	1	4	0	0	0	0	0	0	0	0	**41**
09:15 - 09:29	0	27	1	0	2	0	0	0	0	0	0	0	0	**30**
09:30 - 09:44	0	30	2	0	2	0	0	0	0	0	0	0	0	**34**
09:45 - 09:59	0	33	1	0	2	0	0	0	0	2	0	0	0	**38**
10:00 - 10:14	0	42	1	1	3	1	0	0	0	0	0	0	0	**48**
10:15 - 10:29	0	31	1	0	3	0	0	0	0	0	0	0	0	**35**
10:30 - 10:44	0	34	1	0	1	0	0	0	0	0	0	0	1	**37**
10:45 - 10:59	0	43	2	0	7	0	0	1	0	1	0	0	0	**54**
11:00 - 11:14	0	38	3	0	6	0	0	0	0	0	0	0	0	**47**
11:15 - 11:29	0	49	2	0	3	1	0	0	0	0	0	0	0	**55**
11:30 - 11:44	0	37	6	0	2	0	0	1	0	2	0	0	0	**48**
11:45 - 11:59	0	38	7	1	9	0	0	0	0	0	0	0	0	**55**
12:00 - 12:14	0	51	9	2	4	0	0	0	0	0	0	0	0	**66**
12:15 - 12:29	0	62	7	0	5	0	0	1	0	2	0	0	0	**77**
12:30 - 12:44	0	50	6	0	4	0	0	0	0	0	0	0	0	**60**
12:45 - 12:59	1	62	6	0	3	0	0	0	0	0	0	0	0	**72**

Daily Southbound Classes Report

Study Date: Thursday, 03/02/2023
Unit ID:
Location: Mill Road Location SB

	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	Total
13:00 - 13:14	0	49	5	0	3	0	0	0	0	0	0	0	0	**57**
13:15 - 13:29	0	42	1	0	5	0	0	0	0	1	0	0	1	**50**
13:30 - 13:44	0	54	1	0	6	0	0	0	0	0	0	0	0	**61**
13:45 - 13:59	0	47	3	0	4	0	1	0	0	0	0	0	0	**55**
14:00 - 14:14	0	46	5	0	4	1	0	1	0	0	0	0	0	**57**
14:15 - 14:29	0	56	1	0	6	0	0	0	0	2	0	0	0	**65**
14:30 - 14:44	0	71	4	1	7	1	0	0	0	0	0	0	0	**84**
14:45 - 14:59	1	49	3	0	8	0	0	0	0	0	0	0	0	**61**
15:00 - 15:14	0	55	5	2	4	0	0	0	0	0	0	0	0	**66**
15:15 - 15:29	0	61	7	0	4	1	0	0	1	1	0	0	0	**75**
15:30 - 15:44	0	75	5	0	4	1	0	0	0	0	0	0	0	**85**
15:45 - 15:59	0	65	3	0	5	0	0	1	0	0	0	0	0	**74**
16:00 - 16:14	0	56	5	1	6	0	0	0	0	2	0	0	0	**70**
16:15 - 16:29	0	90	4	0	4	0	0	0	0	0	0	0	0	**98**
16:30 - 16:44	0	63	2	0	6	1	0	0	0	0	0	0	0	**72**
16:45 - 16:59	0	70	5	0	2	0	0	0	0	0	0	0	0	**77**
17:00 - 17:14	0	73	4	0	5	0	0	0	0	0	0	0	0	**82**
17:15 - 17:29	0	69	7	0	1	0	0	0	0	0	0	0	0	**77**
17:30 - 17:44	0	87	5	0	6	1	0	0	0	0	0	0	0	**99**
17:45 - 17:59	0	69	3	0	7	0	0	0	0	0	0	0	0	**79**
18:00 - 18:14	0	73	6	0	3	0	0	1	0	0	0	0	0	**83**
18:15 - 18:29	0	54	4	0	7	0	0	0	0	0	0	0	0	**65**
18:30 - 18:44	0	61	4	0	4	1	0	0	0	0	0	0	0	**70**
18:45 - 18:59	0	70	6	0	7	0	0	0	0	0	0	0	0	**83**
19:00 - 19:14	0	72	4	0	5	1	0	0	0	0	0	0	0	**82**
19:15 - 19:29	0	74	3	0	4	0	0	0	0	0	0	0	0	**81**
19:30 - 19:44	0	80	4	0	3	0	0	0	0	0	0	0	0	**87**
19:45 - 19:59	0	70	2	0	2	0	0	0	0	0	0	0	0	**74**
20:00 - 20:14	0	57	1	1	6	1	0	0	0	0	0	0	0	**66**
20:15 - 20:29	0	59	5	0	4	1	0	0	0	0	0	0	0	**69**
20:30 - 20:44	0	63	3	1	3	0	0	0	0	0	0	0	0	**70**
20:45 - 20:59	0	78	10	0	3	1	0	0	0	0	0	0	0	**92**
21:00 - 21:14	0	61	8	0	3	0	0	0	0	0	0	0	0	**72**
21:15 - 21:29	0	75	4	0	6	0	0	0	0	0	0	0	0	**85**
21:30 - 21:44	0	56	3	0	5	0	0	0	0	0	0	0	0	**64**
21:45 - 21:59	0	41	6	0	0	0	0	0	0	0	0	0	0	**47**
22:00 - 22:14	0	34	5	0	3	0	0	0	0	0	0	0	0	**42**
22:15 - 22:29	0	39	3	0	4	1	0	0	0	0	0	0	0	**47**
22:30 - 22:44	0	21	2	0	2	0	0	0	0	0	0	0	0	**25**
22:45 - 22:59	0	32	4	0	1	0	0	0	0	0	0	0	0	**37**
23:00 - 23:14	0	21	3	0	0	0	0	0	0	0	0	0	0	**24**
23:15 - 23:29	0	21	2	0	0	0	0	0	0	0	0	0	0	**23**
23:30 - 23:44	0	23	2	0	2	0	0	0	0	0	0	0	0	**27**
23:45 - 23:59	0	17	0	0	1	0	0	0	0	0	0	0	0	**18**
Totals	**2**	**3544**	**260**	**17**	**258**	**17**	**1**	**7**	**2**	**14**	**0**	**0**	**2**	**4124**
Percent of Total	**0.0**	**85.9**	**6.3**	**0.4**	**6.3**	**0.4**	**0.0**	**0.2**	**0.0**	**0.3**	**0.0**	**0.0**	**0.0**	**100**
Percent of AM	**0.0**	**84.4**	**6.2**	**0.9**	**6.9**	**0.5**	**0.0**	**0.3**	**0.1**	**0.6**	**0.0**	**0.0**	**0.1**	**100**
Percent of PM	**0.1**	**86.4**	**6.3**	**0.3**	**6.1**	**0.4**	**0.0**	**0.1**	**0.0**	**0.3**	**0.0**	**0.0**	**0.0**	**100**

Daily Southbound Classes Report

Study Date: Thursday, 03/02/2023
Unit ID:
Location: Mill Road Location SB

Truck Summary:

Total Trucks: 318 % Trucks: 7.7 AM % Trucks: 9.5 PM % Trucks: 7.2

Classification Scheme: FHWA (ID: 1)

#1	Motorcycles - 2 Axles	#6	Single Unit Truck - 3 Axles	#11	Multi-Unit - 5 Axles or Less
#2	Passenger Cars - 2 Axles	#7	Single Unit - 4 Axles	#12	Multi-Unit - 6 Axles
#3	Pickup Trucks, Vans - 2 Axles	#8	Single Unit - 4 Axles or Less	#13	Multi-Unit - 7 Axles or More
#4	Buses	#9	Double Unit - 5 Axles		
#5	Single Unit - 2 Axles, 6 Tires	#10	Double Unit - 6 Axles or More		

Daily Southbound Speeds (MPH)

Study Date: Thursday, 03/02/2023

Unit ID:

Location: Mill Road Location SB

Posted Speed: 35

	5-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-99	Total
00:00 - 00:14	0	0	0	1	3	7	2	0	0	0	0	0	0	0	0	**13**
00:15 - 00:29	0	0	0	1	4	6	0	2	0	0	0	0	0	0	0	**13**
00:30 - 00:44	0	0	0	3	1	7	0	0	0	0	0	0	0	0	0	**11**
00:45 - 00:59	0	0	1	0	0	4	1	0	0	0	0	0	0	0	0	**6**
01:00 - 01:14	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	**4**
01:15 - 01:29	0	0	1	0	3	2	2	0	0	0	0	0	0	0	0	**8**
01:30 - 01:44	0	1	0	1	1	1	0	0	0	0	0	0	0	0	0	**4**
01:45 - 01:59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
02:00 - 02:14	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	**2**
02:15 - 02:29	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	**2**
02:30 - 02:44	0	0	0	0	1	1	2	0	0	0	0	0	0	0	0	**4**
02:45 - 02:59	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	**1**
03:00 - 03:14	0	0	0	1	2	0	0	0	0	0	0	0	0	0	0	**3**
03:15 - 03:29	0	1	0	0	1	3	1	0	0	0	0	0	0	0	0	**6**
03:30 - 03:44	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	**2**
03:45 - 03:59	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	**2**
04:00 - 04:14	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	**3**
04:15 - 04:29	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	**3**
04:30 - 04:44	0	0	0	1	3	0	1	0	0	0	0	0	0	0	0	**5**
04:45 - 04:59	0	0	0	0	3	0	1	0	0	0	0	0	0	0	0	**4**
05:00 - 05:14	0	0	1	2	2	0	0	0	1	0	0	0	0	0	0	**6**
05:15 - 05:29	0	0	0	0	2	1	0	0	1	0	0	0	0	0	0	**4**
05:30 - 05:44	0	0	1	1	3	3	3	0	0	0	0	0	0	0	0	**11**
05:45 - 05:59	0	0	1	3	5	1	0	1	0	0	0	0	0	0	0	**11**
06:00 - 06:14	0	0	0	2	3	4	1	0	0	0	0	0	0	0	0	**10**
06:15 - 06:29	0	0	1	4	4	2	1	1	0	0	0	0	0	0	0	**13**
06:30 - 06:44	0	0	0	8	7	4	1	0	0	0	0	0	0	0	0	**20**
06:45 - 06:59	0	0	1	2	6	9	2	0	0	0	0	0	0	0	0	**20**
07:00 - 07:14	0	1	0	5	9	6	1	0	0	0	0	0	0	0	0	**22**
07:15 - 07:29	0	0	1	8	3	6	1	1	0	0	0	0	0	0	0	**20**
07:30 - 07:44	0	0	1	3	15	10	4	1	0	0	0	0	0	0	0	**34**
07:45 - 07:59	0	0	0	3	14	10	9	1	1	0	0	0	0	0	0	**38**
08:00 - 08:14	0	0	0	1	9	17	9	3	0	0	0	0	0	0	0	**39**
08:15 - 08:29	0	0	1	3	11	16	5	0	0	0	0	0	0	0	0	**36**
08:30 - 08:44	1	0	2	8	6	7	6	2	1	0	0	0	0	0	0	**33**
08:45 - 08:59	0	0	0	2	11	16	8	0	0	0	0	0	0	0	0	**37**
09:00 - 09:14	0	0	0	0	7	19	13	2	0	0	0	0	0	0	0	**41**
09:15 - 09:29	0	0	0	1	10	7	11	1	0	0	0	0	0	0	0	**30**
09:30 - 09:44	0	0	0	2	9	16	6	1	0	0	0	0	0	0	0	**34**
09:45 - 09:59	0	0	0	7	8	12	9	2	0	0	0	0	0	0	0	**38**
10:00 - 10:14	0	0	0	2	15	17	12	2	0	0	0	0	0	0	0	**48**
10:15 - 10:29	0	0	0	3	8	9	11	2	1	1	0	0	0	0	0	**35**
10:30 - 10:44	0	0	0	0	11	15	10	1	0	0	0	0	0	0	0	**37**
10:45 - 10:59	0	0	0	1	11	24	15	3	0	0	0	0	0	0	0	**54**
11:00 - 11:14	0	0	1	4	10	14	12	6	0	0	0	0	0	0	0	**47**
11:15 - 11:29	0	0	0	2	8	21	21	3	0	0	0	0	0	0	0	**55**
11:30 - 11:44	0	1	0	2	16	24	5	0	0	0	0	0	0	0	0	**48**
11:45 - 11:59	0	1	0	1	8	28	13	4	0	0	0	0	0	0	0	**55**
12:00 - 12:14	0	0	1	3	13	33	13	3	0	0	0	0	0	0	0	**66**
12:15 - 12:29	0	0	0	5	14	38	13	6	1	0	0	0	0	0	0	**77**
12:30 - 12:44	0	0	0	4	15	25	14	2	0	0	0	0	0	0	0	**60**

Daily Southbound Speeds (MPH)

Study Date: Thursday, 03/02/2023
Unit ID:
Location: Mill Road Location SB

Posted Speed: 35

	5-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-99	Total
12:45 - 12:59	0	0	0	0	10	33	23	6	0	0	0	0	0	0	0	**72**
13:00 - 13:14	0	0	0	0	13	26	16	2	0	0	0	0	0	0	0	**57**
13:15 - 13:29	0	1	0	2	13	24	9	1	0	0	0	0	0	0	0	**50**
13:30 - 13:44	0	0	0	5	11	18	25	1	1	0	0	0	0	0	0	**61**
13:45 - 13:59	0	0	0	2	9	26	15	3	0	0	0	0	0	0	0	**55**
14:00 - 14:14	0	0	1	1	12	17	24	2	0	0	0	0	0	0	0	**57**
14:15 - 14:29	0	0	1	0	17	29	14	4	0	0	0	0	0	0	0	**65**
14:30 - 14:44	1	0	1	2	12	41	24	3	0	0	0	0	0	0	0	**84**
14:45 - 14:59	0	0	2	4	14	22	14	4	1	0	0	0	0	0	0	**61**
15:00 - 15:14	0	0	0	3	13	28	20	1	0	1	0	0	0	0	0	**66**
15:15 - 15:29	0	0	1	4	14	31	16	7	2	0	0	0	0	0	0	**75**
15:30 - 15:44	0	1	0	3	17	33	27	3	1	0	0	0	0	0	0	**85**
15:45 - 15:59	0	0	2	5	17	29	18	2	1	0	0	0	0	0	0	**74**
16:00 - 16:14	0	0	0	2	14	24	26	4	0	0	0	0	0	0	0	**70**
16:15 - 16:29	0	0	0	3	14	45	29	7	0	0	0	0	0	0	0	**98**
16:30 - 16:44	0	0	1	1	11	37	17	3	1	1	0	0	0	0	0	**72**
16:45 - 16:59	0	0	0	1	14	34	24	3	1	0	0	0	0	0	0	**77**
17:00 - 17:14	0	0	0	3	14	30	29	5	1	0	0	0	0	0	0	**82**
17:15 - 17:29	0	0	1	5	18	33	18	2	0	0	0	0	0	0	0	**77**
17:30 - 17:44	0	0	3	6	18	39	26	7	0	0	0	0	0	0	0	**99**
17:45 - 17:59	0	0	0	2	11	37	25	3	1	0	0	0	0	0	0	**79**
18:00 - 18:14	0	0	0	3	21	30	23	6	0	0	0	0	0	0	0	**83**
18:15 - 18:29	0	0	0	4	11	24	20	5	1	0	0	0	0	0	0	**65**
18:30 - 18:44	0	0	0	6	18	24	18	3	1	0	0	0	0	0	0	**70**
18:45 - 18:59	0	0	0	5	28	32	15	3	0	0	0	0	0	0	0	**83**
19:00 - 19:14	0	0	1	5	21	37	17	1	0	0	0	0	0	0	0	**82**
19:15 - 19:29	0	0	0	1	20	37	20	3	0	0	0	0	0	0	0	**81**
19:30 - 19:44	0	0	0	2	21	43	15	5	1	0	0	0	0	0	0	**87**
19:45 - 19:59	0	0	0	3	18	36	14	3	0	0	0	0	0	0	0	**74**
20:00 - 20:14	0	0	0	8	21	27	9	1	0	0	0	0	0	0	0	**66**
20:15 - 20:29	0	1	0	10	13	31	13	0	1	0	0	0	0	0	0	**69**
20:30 - 20:44	0	1	1	2	16	32	14	3	0	0	1	0	0	0	0	**70**
20:45 - 20:59	1	0	0	5	32	37	17	0	0	0	0	0	0	0	0	**92**
21:00 - 21:14	0	0	0	2	18	35	15	0	1	0	0	0	0	1	0	**72**
21:15 - 21:29	0	0	0	1	16	51	13	4	0	0	0	0	0	0	0	**85**
21:30 - 21:44	0	0	0	2	23	27	9	2	0	0	0	1	0	0	0	**64**
21:45 - 21:59	0	0	0	3	13	21	6	4	0	0	0	0	0	0	0	**47**
22:00 - 22:14	0	0	0	3	12	12	14	1	0	0	0	0	0	0	0	**42**
22:15 - 22:29	0	0	0	1	11	23	11	0	1	0	0	0	0	0	0	**47**
22:30 - 22:44	0	0	0	3	7	9	5	1	0	0	0	0	0	0	0	**25**
22:45 - 22:59	0	1	1	3	9	15	8	0	0	0	0	0	0	0	0	**37**
23:00 - 23:14	0	0	2	2	9	6	4	1	0	0	0	0	0	0	0	**24**
23:15 - 23:29	0	1	1	3	5	10	2	1	0	0	0	0	0	0	0	**23**
23:30 - 23:44	0	0	0	2	4	10	11	0	0	0	0	0	0	0	0	**27**
23:45 - 23:59	0	0	1	2	6	6	3	0	0	0	0	0	0	0	0	**18**
Totals	**3**	**11**	**34**	**237**	**958**	**1707**	**976**	**170**	**22**	**3**	**1**	**1**	**0**	**1**	**0**	**4124**
Percent of Total	**0.1**	**0.3**	**0.8**	**5.7**	**23.2**	**41.4**	**23.7**	**4.1**	**0.5**	**0.1**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**100**
Percent of AM	**0.1**	**0.5**	**1.3**	**9.3**	**26.4**	**37.0**	**20.7**	**4.0**	**0.5**	**0.1**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**100**
Percent of PM	**0.1**	**0.2**	**0.7**	**4.7**	**22.2**	**42.7**	**24.6**	**4.2**	**0.5**	**0.1**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**100**

Daily Southbound Speeds (MPH)

Study Date: Thursday, 03/02/2023
Unit ID:
Location: Mill Road Location SB

Posted Speed: 35

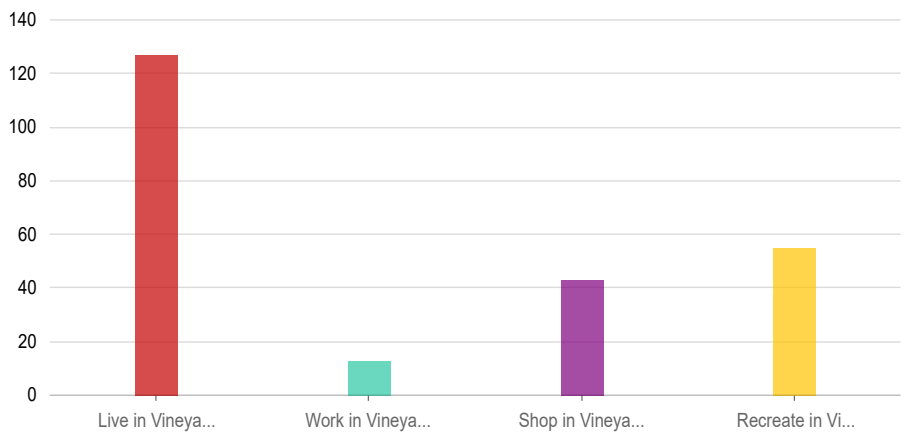
Standard Deviation:	5.4 MPH	Ten Mile Pace:	35 to 44 MPH	85th Percentile:	42.8 MPH
Mean Speed:	37.3 MPH	Percent in Ten Mile Pace:	65.1%		
Median Speed:	37.4 MPH			15th Percentile:	31.7 MPH
Modal Speed:	37.5 MPH			90th Percentile:	43.9 MPH
				95th Percentile:	45.0 MPH

APPENDIX C

Public Survey Results

Vineyard Transportation Master Plan - Public Input Survey

1) Which of the following describes you?

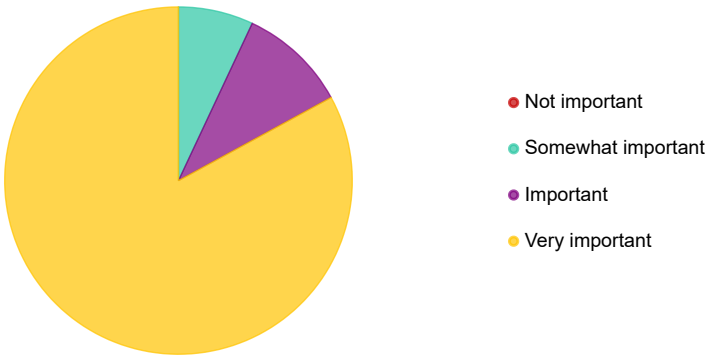


Answers	Count	Percentage
Live in Vineyard	127	97.69%
Work in Vineyard	13	10%
Shop in Vineyard	43	33.08%
Recreate in Vineyard	55	42.31%

Answered: 129 Skipped: 1

2) How important are the following transportation modes to your current personal travel in Vineyard?

Roadway (personal vehicle)

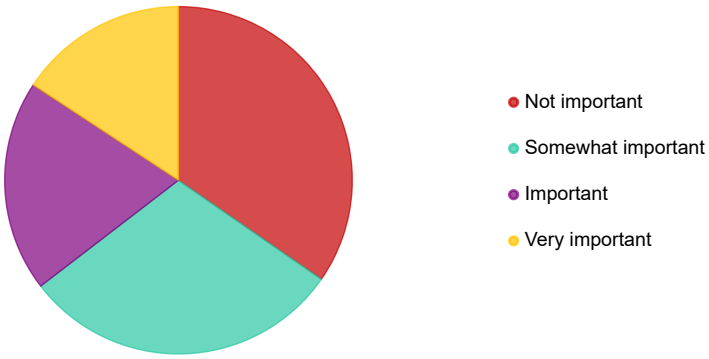


Answers	Count	Percentage
Not important	0	0%
Somewhat important	9	6.92%
Important	13	10%

Very important	107	82.31%

Answered: 129 Skipped: 1

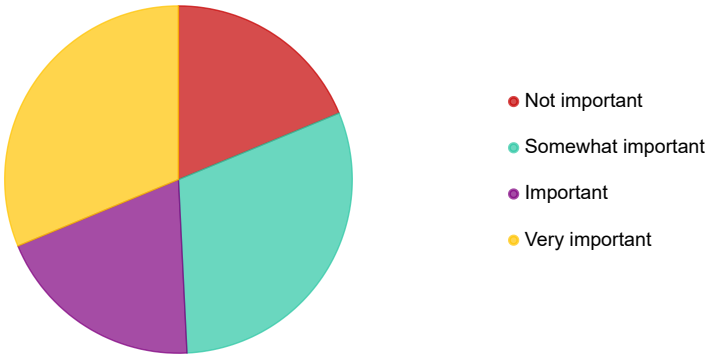
Transit



Answers	Count	Percentage
Not important	44	33.85%
Somewhat important	38	29.23%
Important	25	19.23%
Very important	20	15.38%

Answered: 127 Skipped: 3

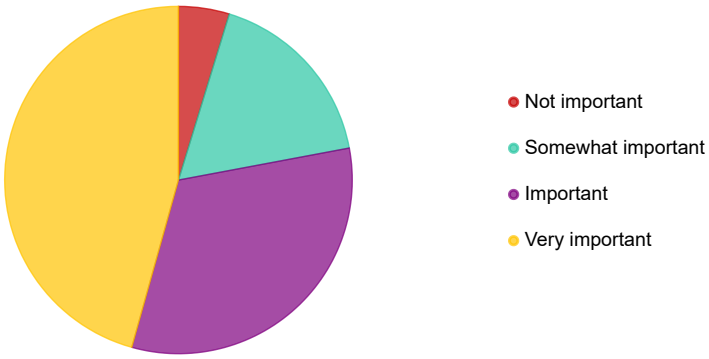
Bicycle



Answers	Count	Percentage
Not important	24	18.46%
Somewhat important	39	30%
Important	25	19.23%
Very important	40	30.77%

Answered: 128 Skipped: 2

Walking

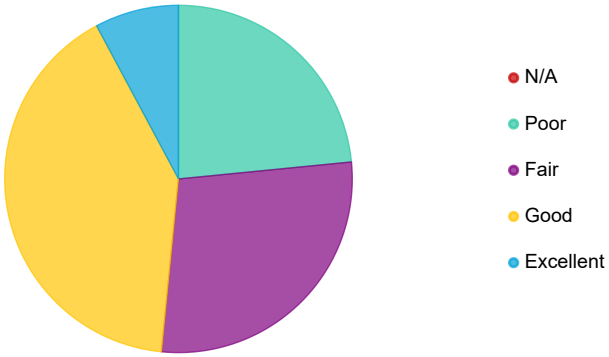


Answers	Count	Percentage
Not important	6	4.62%
Somewhat important	22	16.92%
Important	41	31.54%
Very important	58	44.62%

Answered: 127 Skipped: 3

3) How would you describe your recent experience with the following modes of transportation within Vineyard City?

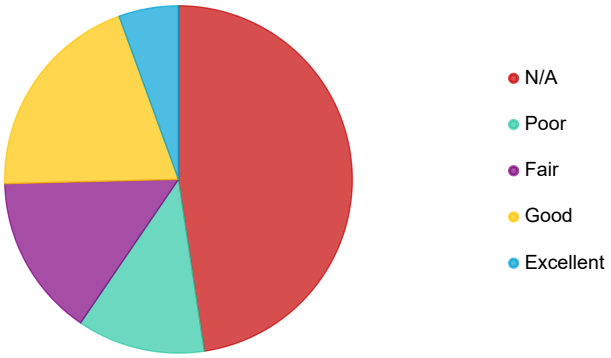
Roadway (personal vehicle)



Answers	Count	Percentage
N/A	0	0%
Poor	30	23.08%
Fair	36	27.69%
Good	52	40%
Excellent	10	7.69%

Answered: 128 Skipped: 2

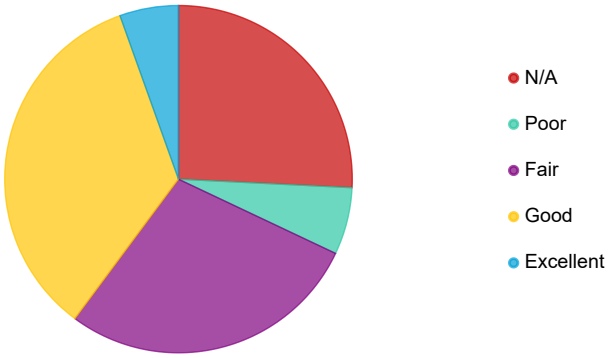
Transit



Answers	Count	Percentage
N/A	60	46.15%
Poor	15	11.54%
Fair	19	14.62%
Good	25	19.23%
Excellent	7	5.38%

Answered: 126 Skipped: 4

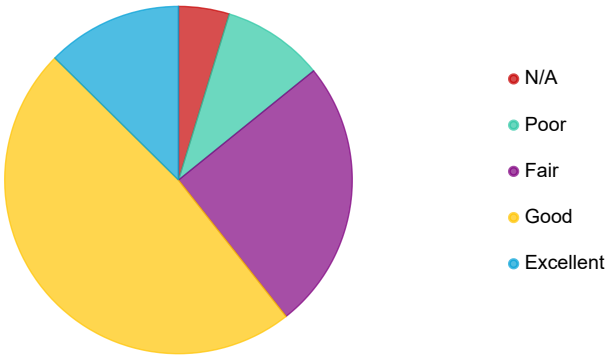
Bicycle



Answers	Count	Percentage
N/A	33	25.38%
Poor	8	6.15%
Fair	36	27.69%
Good	44	33.85%
Excellent	7	5.38%

Answered: 128 Skipped: 2

Walking

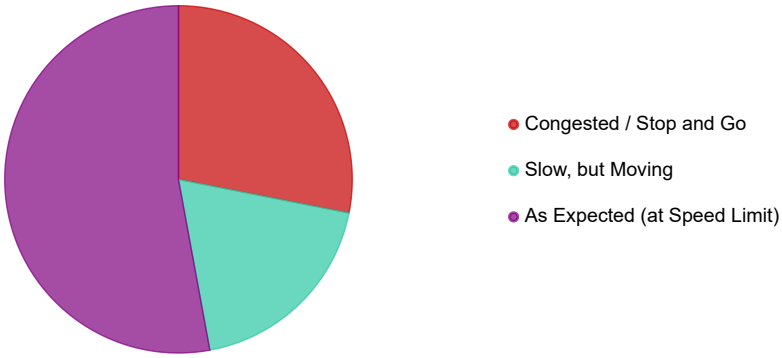


Answers	Count	Percentage
N/A	6	4.62%
Poor	12	9.23%
Fair	32	24.62%
Good	61	46.92%
Excellent	16	12.31%

Answered: 127 Skipped: 3

4) How would you describe your recent travel during the MORNING peak hours (7-9 AM) on the following City roads?

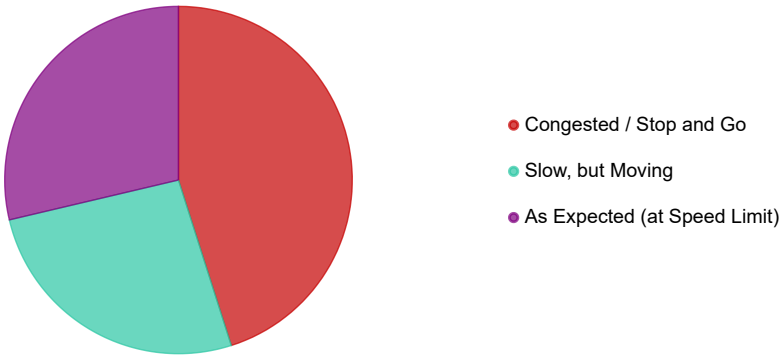
4a) Main Street:



Answers	Count	Percentage
Congested / Stop and Go	34	26.15%
Slow, but Moving	23	17.69%
As Expected (at Speed Limit)	64	49.23%

Answered: 121 Skipped: 9

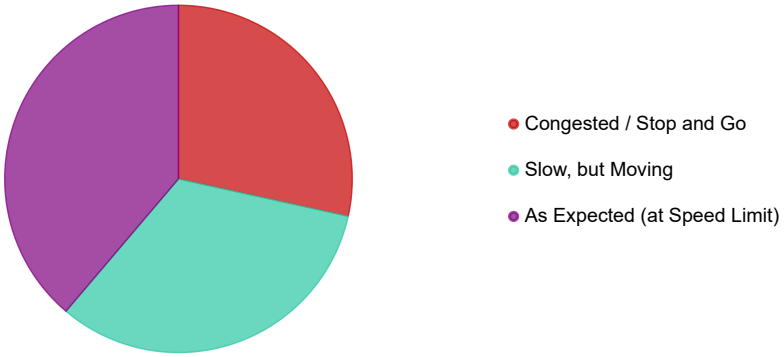
4b) Center Street:



Answers	Count	Percentage
Congested / Stop and Go	55	42.31%
Slow, but Moving	32	24.62%
As Expected (at Speed Limit)	35	26.92%

Answered: 122 Skipped: 8

4c) Mill Road:

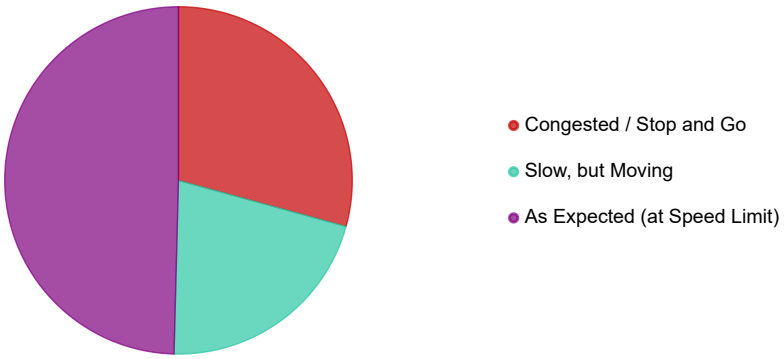


Answers	Count	Percentage
Congested / Stop and Go	33	25.38%
Slow, but Moving	38	29.23%
As Expected (at Speed Limit)	45	34.62%

Answered: 116 Skipped: 14

5) How would you describe your recent travel during the EVENING peak hours (4-6 PM) on the following City roads?

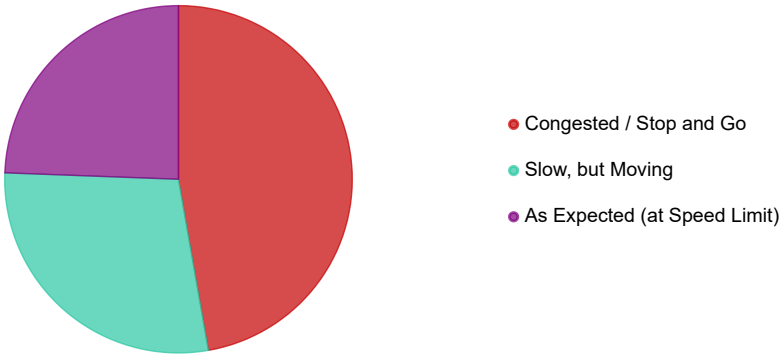
5a) Main Street:



Answers	Count	Percentage
Congested / Stop and Go	36	27.69%
Slow, but Moving	26	20%
As Expected (at Speed Limit)	61	46.92%

Answered: 123 Skipped: 7

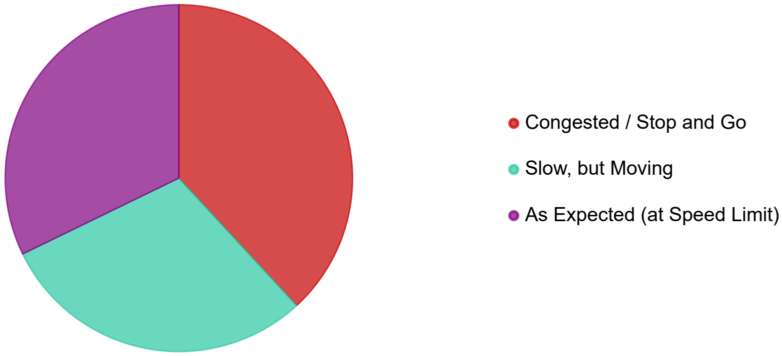
5b) Center Street:



Answers	Count	Percentage
Congested / Stop and Go	60	46.15%
Slow, but Moving	36	27.69%
As Expected (at Speed Limit)	31	23.85%

Answered: 127 Skipped: 3

5c) Mill Road:

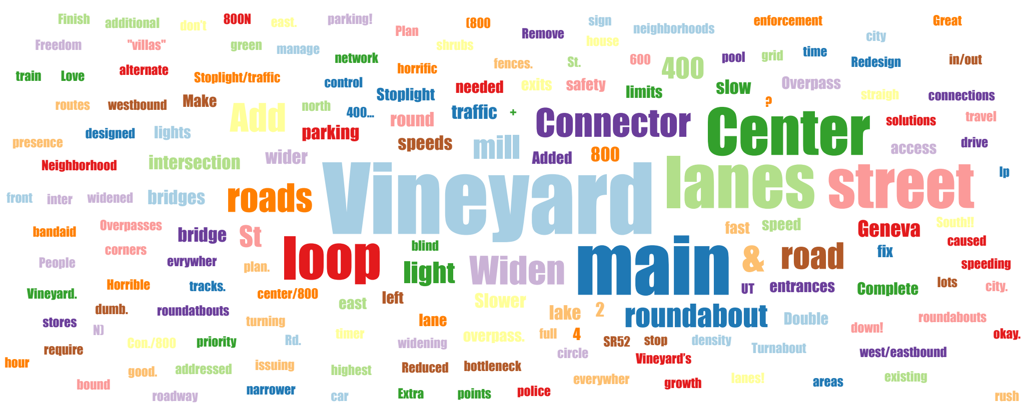


Answers	Count	Percentage
Congested / Stop and Go	45	34.62%
Slow, but Moving	35	26.92%
As Expected (at Speed Limit)	38	29.23%

Answered: 118 Skipped: 12

6) How would you improve the following transportation modes/systems in Vineyard?

6a) Roadway / Personal Vehicle Use



Response	Count
With solutions already in the plan.	1
Wider roads center/800 by widening the overpass	1
Wider Center Street bridge, slower speeds evrywher	1
Widen vineyard connector, take away light timer	1
Widen Vineyard connector road	1
Widen SR52 and Widen the Center Street Overpass	1
Widen roads, less density added	1
Widen Center Street overpass.	1
Widen both the bridges across the tracks.	1

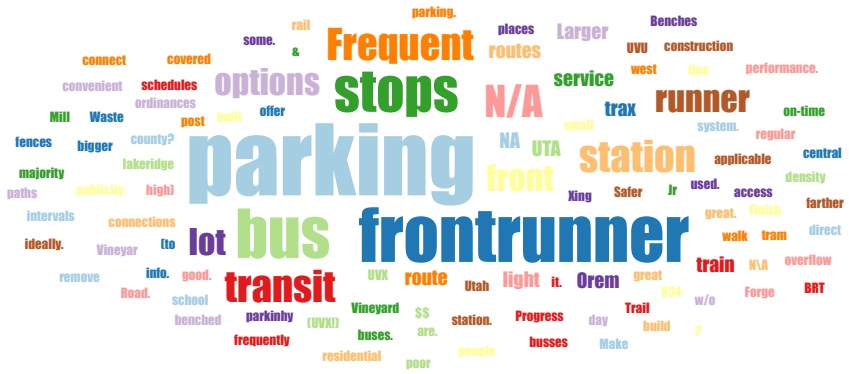
Widen 800 north, center St	1
Widen 800 N + Center Overpasses	1
We need more lanes across all the bridges	1
Vineyard's connector turning left is horrific	1
Vineyard connector has to be widened	1
Use of roundatbouts rather than lights	1
Two straigh westbound on Center street bridge	1
Turnabout on main St and vineyard loop	1
Traffic control at Vineyard Loop Rd and Main St.	1
There are some blind corners caused by fences.	1
Stoplight/traffic circle by pool house	1
Stoplight at Main Street and vineyard loop road	1
Stoplight at Main and Mill Road intersection	1
Speed limits should be slower overall	1
Sometimes a bottleneck at Center from Mill Rd.	1
Slower speeds and better designed roads for safety	1
Slow traffic, more grid network	1
Slow the roads down! Neighborhood speeds everywher	1
Roundabout at vineyard connector and main street	1
Roundabout at Main Street and Vineyard Loop	1
roundabout at Main st & vineyard loop rd needed	1
roundabout at main & vineyard loop rd, more lanes	1
Round about Mill and Vineyard loop Horrible inter	1
Remove all shrubs	1
Reduced speed limits in neighborhoods	1
Redesign so safety is highest priority	1
Plan for growth instead of issuing a bandaid	1
People drive too fast	1
One lane on Center & Vineyard Con./800 N is dumb.	1
Need to help manage traffic at Main and 600 N	1
Need light at Main Street and Vineyard Loop Road	1
More time for a green light for center st at mill	1
More than 2 roads in and out of Vineyard.	1
More roundabouts	1

More roads going in and out of Vineyard	1
More police presence and parking enforcement	1
More parking! 2 west/eastbound lanes!	1
more parking lots	1
More parking at lake front areas	1
More lanes on existing roads and access points	1
More lanes of travel, alternate routes	1
More lanes needed on Vineyard Connector (800 N)	1
More Lanes & bridges to get in and out of vineyard	1
More lanes	1
More entrances, exits lanes in and out of vineyard	1
More entrances from Geneva that are 2 lanes	1
more and wider connections to the east.	1
More access in/out of the city, 400 N to Geneva	1
Make lanes narrower on Center, Mill & Main	1
Make a double left at Vineyard Connector and Main	1
Main and Vineyard loop rd needs addressed	1
Love a roundabout at Main St and Vineyard Loop	1
light getting out of "villas" to main street	1
Light at Vineyard loop and Main	1
It's okay.	1
It's good.	1
Great right now with with the new light at Freedom	1
get some stores that don’t require a car to get to	1
fix the intersection at Main Street & vineyard lp	1
Finish the roads that are under constructions	1
Extra lane going east bound on Center Street.	1
Enforcing speeding more	1
Double lanes on Vineyard Connector Rd	1
Create a road on 400 n into Vineyard	1
Connector/Geneva Rd & Center St Overpass/Mill Rd	1
Connector slow during rush hour, fast otherwise	1
Connect 400 N street from east to west	1
complete roadway 400 N from Geneva Rd to UT Lake	1

Complete Main Street to 400 South!!	1
Center street, mill road intersection	1
Center street bridge to mill road is congested	1
Center street	1
Address stop sign on 400… roundabout?	1
additional roads across train tracks & more lanes	1
Added lanes , lights around school intersections	1
Add round about in instead of 4 way stops	1
Add more lanes to the Center Street overpass.	1
Add more lanes in and out of the city. Loop rd fix	1
Add more lanes	1
Add lanes and add more streets in and out	1
Add a roundabout on vineyard loop and main	1
Add a roundabout on main and vineyard loop	1
Add a round about on main street & Vineyard loop	1
800N & Center more lanes. Less condos	1
400 n road through from Geneva to the lake	1
4 full lanes on 800 plus turn lanes to main	1
?	1
More exits roads. Last weekend was a nightmare.	1

Answered: 97 Skipped: 33

6b) Transit



Response	Count
N/A	5
Nothing	2

NA	2
Will there be Trax in Utah county?	1
UTA to offer UVX service within Vineyard	1
Transit options are very good.	1
Trail connections, walk to transit w/o light Xing	1
The parking lot at Frontrunner is too small	1
Safer school bus stops (to lakeridge Jr high)	1
Progress is great.	1
post parking ordinances	1
parking at frontrunner station	1
Not used.	1
Not sure	1
Not built well enough yet	1
Not applicable	1
None	1
Nobody I know uses the transit system. Waste of $$	1
Needs more frequent stops & more regular schedules	1
N\A	1
More transit options, especially from west Vineyar	1
More train parkinhy	1
More publicity of where the routes go and when	1
more parking for Frontrunner	1
MORE PARKING at train station	1
More parking at the Frontrunner station.	1
More parking at Frontrunner station	1
More parking at frontrunner	1
More parking	1
More options at more frequent intervals	1
More options	1
More info. Not sure where the bus stops are.	1
More frequent stops	1
More frequent buses. Route to Forge	1
more busses, would be great to have tram some day	1
More access to transit for people farther away	1

Make the parking lot bigger for front runner	1
Less density	1
Larger parking since majority is used as overflow	1
Larger parking lot for Front Runner	1
I don't use it.	1
Have UTA build covered and benched stops	1
Have some. Get a trax line ideally.	1
Have a direct bus route to Orem central Station	1
Get more bus routes (UVX!) on Mill Road.	1
Frontrunner more frequently	1
front runner lot is used for residential parking.	1
Frequent stops at convenient places	1
Finish construction, remove fences	1
Bus 834 has a poor on-time performance.	1
BRT or light rail should connect to front runner	1
Better paths to frontrunner	1
Better bus service	1
Benches at bus stops	1
?	1
bus to UVU or the Orem frontrunner station	1

Answered: 62 Skipped: 68

6c) Bicycle Lanes and Paths

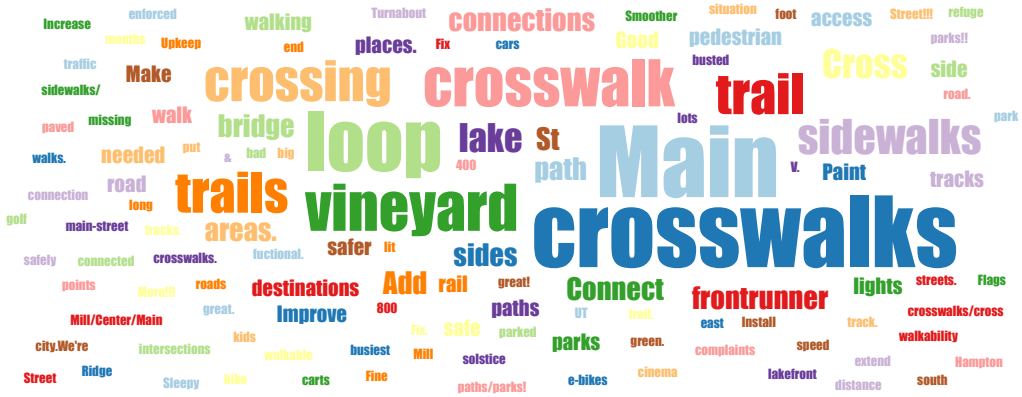
Response	Count
Widen roads	1
We're on track!	1

We could use a few more cross walks.	1
Very good. Could use more/safer paths eastward	1
Vertical separation between cars and bikes	1
they need to connect	1
These are great!	1
These are good.	1
the bike paths are good, except when crossing	1
Take out park strips to repurpose as bike lanes	1
Smoother, less bumpy paths	1
Separate paths and a barrier to separate the road	1
Separate from roads by physical barriers	1
Separate from road but allow speed for commuting	1
Separate bike lines	1
Segregated bike trails.	1
Seems okay for now	1
Safe connections to other cities north and east!!!	1
repave path by lake	1
Protected bike lanes with physical separation	1
Pretty much non existent and feel people speed	1
Preserving all the nature paths is important	1
Paint more crosswalks at intersections.	1
Paint is not infrastructure! Bike PATHs needed	1
Nothing	1
Not enough paths on east side	1
Needs to be safer and go places. Mill road esp.	1
Need some driver education. More signage maybe.	1
Need protected bike/hike path on Holdaway	1
Need more bike lanes	1
NA	1
N/A	1
Mostly fine	1
More!!	1
More dedicated, protected bike infrastructure	1
More bike paths!	1

More bike lanes	1
More and longer. More bicycle lanes	1
More	1
Maybe a map that could be looked up?	1
Make more dedicated bike paths	1
Long, mostly straight bike paths away from traffic	1
Keep up the good work. Alter paths around hills	1
I don't own a bike	1
Good! But maybe too much focus on those.	1
Garbage	1
Finish loop at the marina to saratoga springs	1
Fine as is	1
Extend lake path in both directions.	1
Don't use	1
Don’t care for these	1
dedicated bike lanes, not shared with cars	1
Crosswalk at intersection main/vineyard	1
Crossing at Main and Millpond	1
Create a bike/ walking path on 800 N	1
continue with any new development	1
Connections to vineyard connector from the preserv	1
Connect to Lindon trail. Fix train path	1
bike lanes on the roads that are marked	1
Bike lanes need to connect business w/ residential	1
Bike lane separate from sidewalk	1
Better painting, i.e. like City of San Luis Obispo	1
Better maintenance on sidewalk by lake	1
Add lots more. Add protected bike lanes on big rds	1
800N should have a bike lane, cleaned from dirt.	1
?	1

Answered: 66 Skipped: 64

6d) Sidewalks, Trails, and Crosswalks



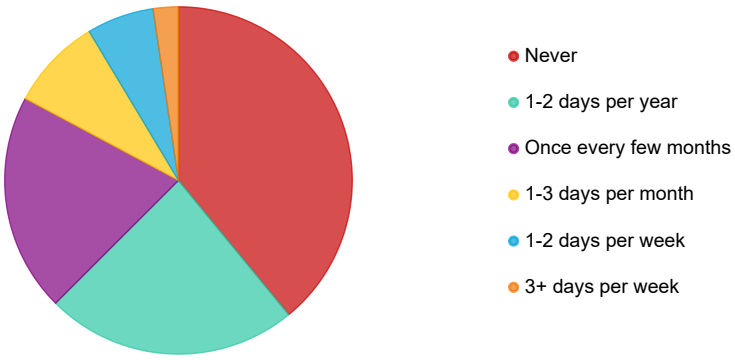
Response	Count
See above	2
We're on track.	1
Upkeep around lake	1
Turnabout on main St and vineyard loop	1
Trail along tracks is busted in places. Fix.	1
These are great!	1
The sidewalks, etc seem to be very fuctional.	1
Some cars parked across sidewalks	1
Smoother path on the lake trail	1
Sidewalks should be next to the road.	1
Sidewalks on both sides of streets.	1
sidewalks are good except when crossing big roads	1
Safer pedestrian crossing by main parks!!	1
Paint crosswalks. Bridge at 400 N over tracks.	1
Paint crosswalks green. Trails are great.	1
Ok	1
Nothing	1
Not enough trails on east side	1
Not bad but missing crosswalks	1
No complaints	1
Needs to be safer and go places.	1
need to connect	1
Need crosswalks/cross lights on Main Street!!!	1
Need a lit crosswalk at main and vineyard loop n	1

Need a cross walk at vineyard loop & main-street	1
More!!!	1
More trails	1
More of them, speed on all needs to be enforced	1
More crosswalks and connections to destinations	1
More crosswalks	1
More cross walks.	1
More connections needed across rail road	1
More connections and more destinations	1
More connected sidewalks/ paved paths	1
Mill/Center/Main crossing safe enough for kids	1
Make where trails come to an end have crosswalks	1
Make a connection in solstice to rail side trail.	1
Install traffic lights at busiest intersections	1
Increase crosswalks and trail access points	1
Improve walkability from FrontRunner to the cinema	1
Improve access to Frontrunner from Mill Rd	1
I wish we could cross safely at Main and V. Loop	1
Good,but no need to be a walkable city.We're in UT	1
Get e-bikes and golf carts off paths/parks!	1
Fix the walking situation to frontrunner	1
Fine as is	1
extend lakefront bike path south to Sleepy Ridge	1
Crosswalks with refuge areas. Flags at crosswalks	1
Crosswalks on both sides of intersections.	1
Crosswalk or bridge between Parkside and Hampton	1
Crosswalk needed at Main Street/vineyard loop rd	1
Crosswalk at main and vineyard loop	1
Crosswalk at 540/560 N crossing Vineyard loop road	1
Crosswalk across Main Street at vineyard loop	1
Crossing at Main and Millpond	1
Cross walk at Main st/Vineyard loop rd	1
Create a walking path on 800 N	1
Continue to put them in the developing areas.	1

Connect lake trail to other long distance trails	1
Connect lake shore trail through clegg farms	1
better use empty lots for trails and parks	1
Better trail maint. Last coating is horrible.	1
Better shoveling in winter months	1
Almost Excellent. Need more/safer paths eastward	1
add more crosswalks to Main St and Center St	1
Add foot bridge over tracks behind windsor	1
Add a crosswalk on all sides of vineyard loop/main	1
A few more crosswalks to parks would help	1
Need safe pedestrian crossing at the park areas.	1

Answered: 70 Skipped: 60

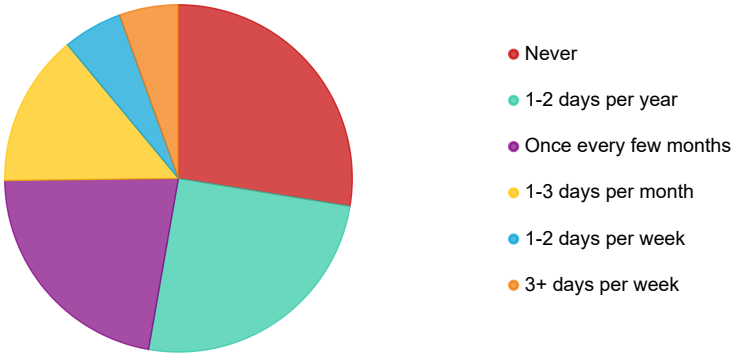
7) How often do you currently ride transit?



Answers	Count	Percentage
Never	50	38.46%
1-2 days per year	30	23.08%
Once every few months	26	20%
1-3 days per month	11	8.46%
1-2 days per week	8	6.15%
3+ days per week	3	2.31%

Answered: 128 Skipped: 2

8) How often would you ride transit if you lived within a 10-minute walk of the…

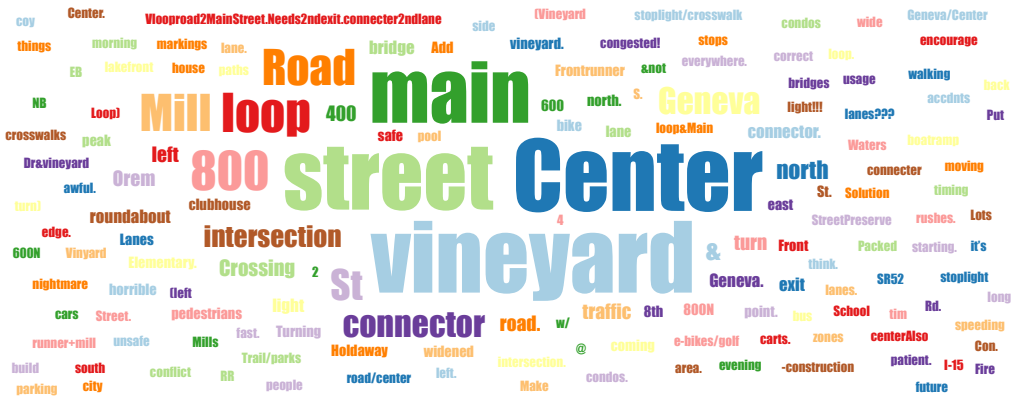


Answers	Count	Percentage
Never	35	26.92%
1-2 days per year	32	24.62%
Once every few months	28	21.54%
1-3 days per month	18	13.85%
1-2 days per week	7	5.38%
3+ days per week	7	5.38%

Answered: 127 Skipped: 3

9) What location in the City are you concerned with that has heavy traffic congestion or a safety issue?

- **Describe:**



Response	Count
Main Street and Vineyard loop road	2
Vlooproad2MainStreet.Needs2ndexit.connecter2ndlane	1
Vinyard connector and Center Street at Geneva Rd	1
Vineyard loop&Main StreetPreserve Dr&vineyard loop	1
Vineyard loop road and main street intersection.	1
vineyard loop at main st needs a light!!!	1

Vineyard loop and Mill I think. Just S of 800N	1
Vineyard loop & main is so awful. Packed &not safe	1
Vineyard connector road turn into Waters edge.	1
Vineyard Connector Rd	1
Vineyard connector needs to be widened more lanes.	1
Vineyard Connector at Geneva. Solution starting.	1
Vineyard connector and Main Street (left turn)	1
Vineyard connector and Holdaway road	1
Vineyard connecter turning left. Two turn lanes???	1
Turning left onto center street from mill	1
Trail/parks w/ e-bikes/golf carts. 400 S. Center	1
Traffic is a nightmare everywhere.	1
This is so congested!	1
There's no paths or crosswalks on the East side	1
The mill road/center street intersection	1
The light timing near vineyard elementary.	1
The intersection of Main St and Vineyard Loop Rd	1
The intersection of Main and 600N (Vineyard Loop)	1
The intersection by the pool house	1
The intersection by the clubhouse and condos.	1
The bridges	1
That one street into lakefront area. Mill road too	1
stoplight/crosswalk at main and vineyard loop road	1
SR52 during morning and evening rushes.	1
School zones	1
roundabout needs better markings for correct usage	1
Rd near boatramp -construction causes bike accdnts	1
Need a stoplight by the condos & clubhouse & main	1
Mills road needs more lanes	1
Mill Road from Geneva Road to Center Street.	1
Mill road	1
Mill and centerAlso vineyard connector and Geneva	1
Make a 2 lane left at Main and Vineyard Connector.	1
Main Street at 600 North. Traffic moving too fast.	1

Main Street and vineyard loop road.	1
Main street and Vineyard Loop Rd	1
Main Street & Vineyard Loop road.	1
Main St and Vineyard Loop Rd needs a roundabout	1
Main St and vineyard loop	1
Main and Vineyard Rd., Center St and Mill Rd	1
Main and vineyard loop.	1
Main and 800, main and Center	1
Lots are unsafe, mill in particular for walking	1
Left turn EB from Vineyard Loop Rd to NB Main	1
Lanes are too wide and encourage too much speeding	1
Intersection of Vineyard Loop Rd and Main	1
I think things are okay if people are patient.	1
Getting back into Vineyard on 800 N or Center.	1
Geneva/Center Street	1
Geneva Rd and Vineyard Connector	1
future conflict between cars and pedestrians	1
front runner+mill road, south of that needs light	1
Front runner parking stops traffic for too long	1
From the Frontrunner station to the cinema	1
Fire whoever decided to add a bus route.	1
Feels like traffic starts outside of Vnyrd in Orem	1
Families crossing main street from Hampton to park	1
exit to main street from "villas"	1
Every exit point. 400 S, Center and Vineyard Con.	1
Eastbound on Vineyard Connector.	1
Don’t be coy, it’s the center street RR crossing	1
Difficult to walk from Megaplex to Frontrunner	1
crosswalk at this location	1
Crossing Main St @ Millpond or making left turn	1
Crossing center street to gammon park.	1
Change light main/400 to yield during non-peak tim	1
Cernter street and 8th north into Orem.	1
Center street to the bridge	1

Center Street overpass and Vineyard Connector Road	1
Center street needs to be widened where it merges	1
Center street intersection with Geneva	1
Center Street and the 800 North coming vineyard	1
Center Street and Mill Road and 800 North	1
Center street and mill road	1
Center street and Geneva	1
Center street and around Franklin Elementary.	1
center street and 8th	1
Center street 800 N	1
Center St. Main St. off Vineyard connector.	1
Center St and Mill, Mill and Geneva.	1
Center St and Geneva	1
Center St & Mill Rd, dangerous turns to businesses	1
Center in Orem from I-15 to Geneva	1
Center bridge, mill and Geneva. Holdaway road.	1
Center bridge always has speeders, in bike lane.	1
Center and Mill, 800 N downhill from Orem	1
By the Center Street overpass. Major choke point.	1
Both of the overpassesW2	1
Anything coming into the city is horrible	1
ALL connections from east of Geneva to Vineyard.	1
Add a roundabout at Vineyard Loop & Main	1
800North	1
800N	1
800 north. Crossing at main and 800 n is not safe	1
800 North, Center St	1
800 north into vineyard. Center street and geneva	1
800 north and Center Street	1
800 N/vineyard connector Orem center street	1
800 N, Center Street, 400 S	1
800 N, Center St, Mill Rd, 600 N and Main St	1
800 N needs to be build to a 4 lane road.	1
800 N exit to vineyard & main st/vineyard loop rd	1

800 n and Main. Put in a round about.	1
800 N and Center St are horrible at peak times.	1
400 North/Mill Road intersection for pedestrians	1
Center street from Geneva to freeway during peak	1

Answered: 113 Skipped: 17

10) What other input related to the City's multimodal transportation system would you like to…

Response	Count
Widen Center and Vineyard connector. bus transit straight to UVU or to the Orem station/sky bridge.	1
When will UTA On Demand expand to Vineyard?	1
What about junior high and high school bldgs?	1
We're not CA. Please stop trying to make us be. Julie should resign. That'd be the biggest help.	1
We need more ways in and out of Vineyard. It's a hazard to have limited options.	1
Walkable path from Edgewater townhomes to the train.	1
Vineyard connector can get significantly backed up both ways depending on the time of day	1
Vineyard City has no idea how to plan a city.	1
Very excited for the walkable downtown. We should also make the suburbs as walkable as we can	1
This isn't Vineyard-specific, but encourage people to get off their phones while driving.	1
There are only two real entrances to vineyard with a lot of people needing to come and one lane road	1
The new light on Main st is great! More parking is needed at Grove Park.	1
Take a bucket of paint and make this a two lane left turn at Vineyard Connector and Main	1
Spend more time improving roads and infrastructure and less time approving high density housing.	1
Some residents will NEVER be bicycle users e.g. the elderly, disabled.	1
So far I think Vineyard is doing a great job anticipating traffic growth. Keep it up.	1
Sidewalks are unfinished/ Connecting all sidewalks and paths to the train station	1
Should of had more lanes on center street bridge and 800 North	1

Safety of humans (not speed/moving cars) needs to be #1 priority.	1
Roundabout on vineyard loop rd and main	1
Round a bout, crosswalk	1
promote safety by providing discounted or free helmets, also a bike exchange program as kids outgrow	1
Plow bike path by frontrunner tracks earlier in the day in winter. Physical barriers for bike lanes	1
Please have clear crosswalks for pedestrians, especially children.	1
Perhaps a longer green arrow turning off mill rd to main street. Gets really backed up around 5 pm	1
Parking is always a mess-make builders provide enough parking spaces when they build housing.	1
Parking in Waters Edge is a big problem.	1
Overall just sucks and we have so much space to make it better	1
Need to have more parking for residents. People are not going to give up their vehicles.	1
Need more bus stops, routes, frequency. To be a walking city we need jobs in vineyard.	1
Need another option in/out of Vineyard like 400n. 1600n too much out of the way	1
Need a bus from the homes area to the Forge/shopping area. Frequently, if possible	1
N/A	1
More roads and lanes into and out of city	1
more options needed to leave or enter the city by car. 800n closing last weekend was a good example	1
More options for roads into Vineyard	1
More access to electric bikes, bikes, and scooter rentals throughout vineyard	1
More access in/out of the city. Low capacity to exit the city, worse if one of the routes is down.	1
Maybe grocery or necessities that would help us not have to travel to Orem for it	1
Make 800 North bike and pedestrian friendly to go to restaurants and Megaplex.	1
Invest more in bike infrastructure	1
Interior trails are not enough. Trails that connect north, south, and east make commuting possible.	1
Improve walkability from the Frontrunner station to the cinema especially during early/late hours.	1
I'd like a segregated bike trail to connect from city hall to the grocery store and to top golf	1
I, & other cyclers, have had falls on the rd near boat tramp just passed train x due to destroyed rd	1
I would walk/bike if there was anything within 100 miles but we live in a god-forsaken car depentent	1
I want more options than taking a car everywhere. This survey seems biased and car-centered.	1
I think the city has done a great job with bike/walking paths. 800 N and Center need to be watched.	1
I know the plan is to extend 800 N to 1600 N. It would be nice to go all the way to 2000 N.	1
Holdaway road is so slow at 20. Move back to 25 pleas. 800 N by the train, center and Geneva arebad	1
Have cops monitoring speeds and those who skip the red light at "no turn" locations.	1
Fix north vineyard road It's awfully bumpy	1

Enforce speed limits and better timing on traffic lights, both installed and future	1
Eliminate the bus. What a waste of money and what a safety issue for residents.	1
Easier access to front runner from bike and bus.	1
Crosswalks on main streets are needed!	1
Crossing2Groveparkisdangerous.This main parkisusedforeverything.Acrosswalklight/paintwouldhelpalot!	1
Cramming too many in this area. Stop building high density. Bring in grocery to alleviate traffic.	1
Covered bike parking by the train station. It's too far to walk.	1
Consider raised pedestrian crossings that act as a speedbump to cars for pedestrian comfort / safety	1
Connect 1600N to Vineyard Road. Connect 400N with a road crossing. Add lane on Vineyard Connector.	1
Can we please get another way to drive across the train tracks?	1
Big thank you for removing the old stop light system by franklin school and putting in an new 1	1
An additional access point across railroad tracks by way of 400 North	1

Answered: 64 Skipped: 66

APPENDIX D

LOS and Queueing Results

SimTraffic LOS Report

Project: Vineyard Transportation Master Plan
Analysis Period: *Future (2033) No Build*
Time Period: *Evening Peak Hour* **Project #:** *UT23-2453*

Intersection: Main Street & 400 North
Type: Signalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	29	28	97	16.8	*B*
	T	398	393	99	18.0	*B*
	R	52	50	97	6.6	*A*
	Subtotal	479	471	98	16.7	*B*
SB	L	467	407	87	17.9	*B*
	T	658	588	89	8.3	*A*
	R	92	82	89	3.4	*A*
	Subtotal	1,217	1,077	88	11.6	*B*
EB	L	133	128	96	30.0	*C*
	T	34	33	96	19.5	*B*
	R	52	53	102	6.6	*A*
	Subtotal	219	214	98	22.6	*C*
WB	L	34	34	99	31.6	*C*
	T	12	11	96	24.9	*C*
	R	150	155	103	6.5	*A*
	Subtotal	196	200	102	11.8	*B*
Total		2,111	1,962	93	14.1	*B*

Intersection: Vineyard Road & Center Street
Type: Signalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	107	110	103	20.9	*C*
	T	96	99	103	22.6	*C*
	R	224	218	98	13.7	*B*
	Subtotal	427	427	100	17.6	*B*
SB	L	203	200	99	76.0	*E*
	T	53	53	100	32.3	*C*
	R	11	11	102	21.1	*C*
	Subtotal	267	264	99	64.9	*E*
EB	L	26	26	98	37.0	*D*
	T	442	440	100	14.9	*B*
	R	80	89	111	2.7	*A*
	Subtotal	548	555	101	14.0	*B*
WB	L	224	229	102	86.8	*F*
	T	458	475	104	37.5	*D*
	R	272	275	101	25.1	*C*
	Subtotal	954	979	103	45.5	*D*
Total		2,194	2,225	101	34.9	*C*

SimTraffic LOS Report

Project: Vineyard Transportation Master Plan
Analysis Period: *Future (2033) No Build*
Time Period: *Evening Peak Hour* **Project #:** *UT23-2453*

Intersection: Geneva Road & 400 South
Type: Signalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	169	171	101	65.6	*E*
	T	1,009	1,028	102	27.4	*C*
	R	216	208	96	7.2	*A*
	Subtotal	1,394	1,407	101	29.1	*C*
SB	L	216	218	101	60.5	*E*
	T	1,521	1,496	98	42.8	*D*
	R	132	135	102	14.2	*B*
	Subtotal	1,869	1,849	99	42.8	*D*
EB	L	95	97	102	51.0	*D*
	T	122	113	93	53.0	*D*
	R	153	161	105	35.0	*C*
	Subtotal	370	371	100	44.7	*D*
WB	L	322	303	94	184.6	*F*
	T	196	182	93	81.2	*F*
	R	233	224	96	41.2	*D*
	Subtotal	751	709	94	112.8	*F*
Total		4,384	4,336	99	50.5	*D*

Intersection: Vineyard Road & 400 South
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	5	4	80	7.4	*A*
	R	5	6	120	4.4	*A*
	Subtotal	10	10	100	5.6	*A*
SB	***L***	***200***	***202***	***101***	***14.4***	***B***
	R	16	16	102	3.7	*A*
	Subtotal	216	218	101	13.6	*B*
EB	L	22	23	107	8.6	*A*
	T	164	163	99	1.3	*A*
	R	5	7	140	1.7	*A*
	Subtotal	191	193	101	2.2	*A*
WB	L	5	4	80	4.5	*A*
	T	180	180	100	4.9	*A*
	R	312	303	97	3.0	*A*
	Subtotal	497	487	98	3.7	*A*
Total		913	908	99	5.8	*A*

HALES ENGINEERING
innovative transportation solutions

SimTraffic LOS Report

Project: **Vineyard Transportation Master Plan**
Analysis Period: ***Future (2033) No Build***
Time Period: ***Evening Peak Hour*** **Project #:** ***UT23-2453***

Intersection: **Main Street & 600 North**
Type: **Unsignalized**

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	80	76	95	24.1	*C*
	T	575	569	99	3.2	*A*
	R	26	29	109	2.8	*A*
	Subtotal	681	674	99	5.5	*A*
SB	L	208	188	90	12.2	*B*
	T	1,012	921	91	2.5	*A*
	R	325	280	86	2.9	*A*
	Subtotal	1,545	1,389	90	3.9	*A*
EB	***L***	***245***	***128***	***52***	***1072.5***	***F***
	T	22	12	56	816.4	*F*
	R	107	54	51	800.7	*F*
	Subtotal	374	194	52	981.0	*F*
WB	L	5	5	100	43.9	*E*
	T	5	5	100	90.3	*F*
	R	181	182	100	18.0	*C*
	Subtotal	191	192	101	20.6	*C*
Total		2,792	2,449	88	113.8	*F*

SimTraffic LOS Report

Project: Vineyard 300 West & Vineyard Collector TS
Analysis Period: *Future (2033) Build*
Time Period: *Evening Peak Hour* **Project #:** *UT23-2453*

Intersection: 300 West & Vineyard Connector
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	***L***	***141***	***145***	***103***	***5.5***	***A***
	R	115	115	100	3.8	*A*
	Subtotal	256	260	102	4.7	*A*
EB	T	210	205	98	0.5	*A*
	R	364	366	101	0.8	*A*
	Subtotal	574	571	99	0.7	*A*
Total		830	831	100	2.0	*A*

Intersection: Main Street & Vineyard Connector
Type: Signalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	55	53	97	35.0	*C*
	T	106	109	103	44.9	*D*
	R	625	636	102	22.5	*C*
	Subtotal	786	798	102	26.4	*C*
SB	L	700	419	60	454.7	*F*
	T	145	81	56	336.4	*F*
	R	10	5	50	323.4	*F*
	Subtotal	855	505	59	434.4	*F*
EB	L	10	9	90	89.2	*F*
	T	486	468	96	47.4	*D*
	R	80	80	100	10.3	*B*
	Subtotal	576	557	97	42.7	*D*
WB	L	1,225	866	71	318.7	*F*
	T	290	205	71	53.7	*D*
	R	515	367	71	38.4	*D*
	Subtotal	2,030	1,438	71	209.4	*F*
Total		4,248	3,298	78	179.6	*F*

SimTraffic LOS Report

Project: Vineyard Transportation Master Plan
Analysis Period: *Future (2033) 600 N Signal*
Time Period: *Evening Peak Hour* **Project #:** *UT23-2453*

Intersection: Main Street & 600 North
Type: Signalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	96	101	105	31.7	*C*
	T	544	561	103	9.8	*A*
	R	42	41	97	4.4	*A*
	Subtotal	682	703	103	12.6	*B*
SB	L	208	206	99	14.1	*B*
	T	799	793	99	4.4	*A*
	R	282	264	94	3.0	*A*
	Subtotal	1,289	1,263	98	5.7	*A*
EB	L	213	211	99	61.0	*E*
	T	11	9	84	43.8	*D*
	R	128	130	102	10.9	*B*
	Subtotal	352	350	99	41.9	*D*
WB	L	11	10	93	53.1	*D*
	T	5	4	80	51.0	*D*
	R	176	180	103	8.2	*A*
	Subtotal	192	194	101	11.4	*B*
Total		2,513	2,510	100	13.3	*B*

SimTraffic LOS Report

Project: Vineyard Transportation Master Plan
Analysis Period: *Future (2050) No Build*
Time Period: *Evening Peak Hour* **Project #:** *UT23-2453*

Intersection: Main Street & 400 North
Type: Signalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	34	38	110	47.5	*D*
	T	802	812	101	39.4	*D*
	R	69	70	101	15.0	*B*
	Subtotal	905	920	102	37.9	*D*
SB	L	646	579	90	60.5	*E*
	T	1,307	1,176	90	18.8	*B*
	R	98	85	87	9.8	*A*
	Subtotal	2,051	1,840	90	31.5	*C*
EB	L	139	138	99	39.9	*D*
	T	34	33	96	29.4	*C*
	R	52	52	100	15.3	*B*
	Subtotal	225	223	99	32.6	*C*
WB	L	40	35	87	37.8	*D*
	T	17	18	104	38.2	*D*
	R	219	224	102	11.8	*B*
	Subtotal	276	277	100	16.8	*B*
Total		3,458	3,260	94	32.1	*C*

Intersection: Vineyard Road & Center Street
Type: Signalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	128	128	100	22.1	*C*
	T	133	134	101	23.1	*C*
	R	224	224	100	15.6	*B*
	Subtotal	485	486	100	19.4	*B*
SB	L	203	205	101	182.5	*F*
	T	53	54	102	90.6	*F*
	R	11	11	102	70.1	*E*
	Subtotal	267	270	101	159.5	*F*
EB	L	32	31	96	38.7	*D*
	T	448	443	99	16.7	*B*
	R	85	90	106	2.6	*A*
	Subtotal	565	564	100	15.7	*B*
WB	L	229	228	99	88.4	*F*
	T	468	467	100	37.0	*D*
	R	277	287	104	24.1	*C*
	Subtotal	974	982	101	45.2	*D*
Total		2,291	2,302	100	46.4	*D*

SimTraffic LOS Report

Project: Vineyard Transportation Master Plan
Analysis Period: *Future (2050) No Build*
Time Period: *Evening Peak Hour* **Project #:** *UT23-2453*

Intersection: Geneva Road & 400 South
Type: Signalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	200	202	101	101.4	*F*
	T	1,114	1,097	98	41.7	*D*
	R	258	260	101	12.2	*B*
	Subtotal	1,572	1,559	99	44.5	*D*
SB	L	254	226	89	134.7	*F*
	T	1,674	1,534	92	118.4	*F*
	R	158	146	92	68.5	*E*
	Subtotal	2,086	1,906	91	116.5	*F*
EB	L	127	130	103	62.9	*E*
	T	196	198	101	45.7	*D*
	R	196	198	101	41.2	*D*
	Subtotal	519	526	101	48.3	*D*
WB	L	364	288	79	317.7	*F*
	T	254	205	81	143.1	*F*
	R	269	224	83	99.1	*F*
	Subtotal	887	717	81	199.5	*F*
Total		5,064	4,708	93	99.0	*F*

Intersection: Vineyard Road & 400 South
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	11	10	93	17.3	*C*
	R	11	10	93	9.2	*A*
	Subtotal	22	20	91	13.3	*B*
SB	***L***	***206***	***203***	***98***	***41.6***	***E***
	R	22	22	102	6.5	*A*
	Subtotal	228	225	99	38.2	*E*
EB	L	26	27	102	14.8	*B*
	T	301	315	105	4.1	*A*
	R	11	13	121	2.5	*A*
	Subtotal	338	355	105	4.9	*A*
WB	L	11	10	93	6.0	*A*
	T	349	322	92	4.7	*A*
	R	269	238	88	3.0	*A*
	Subtotal	629	570	91	4.0	*A*
Total		1,216	1,170	96	11.1	*B*

SimTraffic LOS Report

Project: Vineyard Transportation Master Plan
Analysis Period: *Future (2050) No Build*
Time Period: *Evening Peak Hour* **Project #:** *UT23-2453*

Intersection: Main Street & 600 North
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	96	102	106	101.5	*F*
	T	1,021	1,031	101	5.8	*A*
	R	42	40	95	4.9	*A*
	Subtotal	1,159	1,173	101	14.1	*B*
SB	L	314	302	96	23.5	*C*
	T	1,768	1,678	95	4.1	*A*
	R	378	368	97	3.3	*A*
	Subtotal	2,460	2,348	95	6.5	*A*
EB	***L***	***272***	***4***	***1***	***3425.3***	***F***
	T	22	1	5	3349.0	*F*
	R	128	2	2	3404.2	*F*
	Subtotal	422	7	2	3408.4	*F*
WB	L	11	7	65	1459.1	*F*
	T	5	2	40	1671.4	*F*
	R	277	253	91	66.3	*F*
	Subtotal	293	262	89	115.8	*F*
Total		4,334	3,790	87	99.9	*F*

SimTraffic LOS Report

Project: Vineyard Transportation Master Plan
Analysis Period: *Future (2050) Build*
Time Period: *Evening Peak Hour* **Project #:** *UT23-2453*

Intersection: Main Street & 400 North
Type: Signalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	34	34	99	35.6	*D*
	T	802	790	99	65.6	*E*
	R	69	68	99	34.1	*C*
	Subtotal	905	892	99	62.1	*E*
SB	L	646	603	93	59.7	*E*
	T	1,310	1,203	92	16.1	*B*
	R	98	89	91	7.7	*A*
	Subtotal	2,054	1,895	92	29.6	*C*
EB	L	139	138	99	55.6	*E*
	T	34	35	101	53.8	*D*
	R	52	55	106	27.3	*C*
	Subtotal	225	228	101	48.5	*D*
WB	L	40	41	102	53.1	*D*
	T	17	18	104	61.6	*E*
	R	219	219	100	14.6	*B*
	Subtotal	276	278	101	23.3	*C*
Total		3,460	3,293	95	39.2	*D*

Intersection: Vineyard Road & Center Street
Type: Signalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	128	125	98	22.6	*C*
	T	133	133	100	22.6	*C*
	R	224	223	100	15.5	*B*
	Subtotal	485	481	99	19.3	*B*
SB	L	203	194	96	144.2	*F*
	T	53	53	100	66.0	*E*
	R	11	11	102	58.1	*E*
	Subtotal	267	258	97	124.5	*F*
EB	L	32	30	93	43.0	*D*
	T	448	458	102	16.8	*B*
	R	85	86	101	2.5	*A*
	Subtotal	565	574	102	16.0	*B*
WB	L	229	220	96	96.5	*F*
	T	468	462	99	39.9	*D*
	R	277	270	97	28.1	*C*
	Subtotal	974	952	98	49.6	*D*
Total		2,291	2,265	99	43.6	*D*

SimTraffic LOS Report

Project: Vineyard Transportation Master Plan
Analysis Period: *Future (2050) Build*
Time Period: *Evening Peak Hour* **Project #:** *UT23-2453*

Intersection: Geneva Road & 400 South
Type: Signalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	200	192	96	52.9	*D*
	T	1,114	1,123	101	35.1	*D*
	R	258	263	102	10.8	*B*
	Subtotal	1,572	1,578	100	33.2	*C*
SB	L	254	251	99	50.8	*D*
	T	1,674	1,683	101	37.2	*D*
	R	158	147	93	6.9	*A*
	Subtotal	2,086	2,081	100	36.7	*D*
EB	L	127	123	97	41.9	*D*
	T	196	186	95	41.4	*D*
	R	196	198	101	15.5	*B*
	Subtotal	519	507	98	31.4	*C*
WB	L	364	362	99	81.3	*F*
	T	254	252	99	49.4	*D*
	R	269	272	101	12.4	*B*
	Subtotal	887	886	100	51.1	*D*
Total		5,064	5,052	100	37.7	*D*

Intersection: Vineyard Road & 400 South
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	11	11	102	10.6	*B*
	R	11	11	102	5.0	*A*
	Subtotal	22	22	100	7.8	*A*
SB	***L***	***206***	***203***	***98***	***16.5***	***C***
	R	22	23	107	4.5	*A*
	Subtotal	228	226	99	15.3	*C*
EB	L	26	25	94	7.2	*A*
	T	301	294	98	1.2	*A*
	R	11	10	93	0.8	*A*
	Subtotal	338	329	97	1.6	*A*
WB	L	11	11	102	3.9	*A*
	T	349	336	96	1.4	*A*
	R	269	262	97	2.0	*A*
	Subtotal	629	609	97	1.7	*A*
Total		1,216	1,186	98	4.4	*A*

HALES ENGINEERING
innovative transportation solutions

SimTraffic LOS Report

Project: Vineyard Transportation Master Plan
Analysis Period: *Future (2050) Build*
Time Period: *Evening Peak Hour* **Project #:** *UT23-2453*

Intersection: Main Street & 600 North
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	***L***	***96***	***97***	***101***	***40.6***	***E***
	T	1,021	1,008	99	5.8	*A*
	R	42	44	104	5.5	*A*
	Subtotal	1,159	1,149	99	8.7	*A*
SB	L	314	282	90	16.2	*C*
	T	1,768	1,603	91	2.9	*A*
	R	378	341	90	3.1	*A*
	Subtotal	2,460	2,226	90	4.6	*A*
EB	R	149	151	101	30.6	*D*
	Subtotal	149	151	101	30.6	*D*
WB	R	277	282	102	20.8	*C*
	Subtotal	277	282	102	20.8	*C*
Total		4,046	3,808	94	8.1	*A*

HALES ENGINEERING
innovative transportation solutions

SimTraffic LOS Report

Project: Vineyard - TMP Signal Timing Analysis
Analysis Period: *Future (2050) 600 N Signal*
Time Period: *Evening Peak Hour* **Project #:** *UT23-2453*

Intersection: Main Street & 600 North
Type: Signalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	90	89	99	27.2	*C*
	T	836	838	100	6.6	*A*
	R	40	40	100	4.9	*A*
	Subtotal	966	967	100	8.4	*A*
SB	L	195	170	87	14.1	*B*
	T	808	739	91	5.4	*A*
	R	265	234	88	3.3	*A*
	Subtotal	1,268	1,143	90	6.3	*A*
EB	L	200	192	96	63.0	*E*
	T	10	10	98	53.2	*D*
	R	120	116	96	12.1	*B*
	Subtotal	330	318	96	44.1	*D*
WB	L	10	11	107	50.6	*D*
	T	5	6	120	45.7	*D*
	R	165	163	99	8.5	*A*
	Subtotal	180	180	100	12.3	*B*
Total		2,744	2,608	95	12.2	*B*

SimTraffic Queueing Report

Project: Vineyard Transportation Master Plan

Analysis: Future (2033) No Build

Time Period: Evening Peak Hour

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

HALES ENGINEERING
innovative transportation solutions

Project #: UT23-2453

Intersection	NB					SB				EB				WB			
	L	LTR	R	T	TR	L	R	T	TR	L	LTR	R	T	L	R	T	TR
01: Main Street & 400 North	50		50	150		225	50	250		125		50	75	75	100	50	
02: Vineyard Road & Center Street	125				200	225			325	75		50	200	250	250	825	
03: Geneva Road & 400 South	275		100	400		425	325	800		150		175	200	375	225	875	
04: Vineyard Road & 400 South		50				125			50		75						
05: Main Street & 600 North	100					125		75		675		200	2,050		125	50	

SimTraffic Queueing Report

Project: Vineyard 300 West & Vineyard Collector TS

Analysis: Future (2033) Build

Time Period: Evening Peak Hour

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

HALES ENGINEERING
innovative transportation solutions

Project #: UT23-2453

Intersection	NB			SB		EB			WB		
	L	R	T	L	TR	L	R	T	L	R	T
01: 300 West & Vineyard Connector	75	50									
02: Main Street & Vineyard Connector	100	400	200	800	800	75	75	250	825	200	2,100

SimTraffic Queueing Report

Project: Vineyard Transportation Master Plan

Analysis: Future (2033) 600 N Signal

Time Period: Evening Peak Hour

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

HALES ENGINEERING
innovative transportation solutions

Project #: UT23-2453

Intersection	NB			SB			EB			WB		
	L	R	T	L	R	T	L	R	T	L	R	T
01: Main Street & 600 North	125	50	175	150	50	125	300	100		50	100	

SimTraffic Queueing Report

Project: Vineyard Transportation Master Plan

Analysis: Future (2050) No Build

Time Period: Evening Peak Hour

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

HALES ENGINEERING
innovative transportation solutions

Project #: UT23-2453

Intersection	NB					SB				EB				WB			
	L	LTR	R	T	TR	L	R	T	TR	L	LTR	R	T	L	R	T	TR
01: Main Street & 400 North	150		175	375		250	125	850		125		75	75	75	125	50	
02: Vineyard Road & Center Street	150				225	250			600	75		50	225	250	250	800	
03: Geneva Road & 400 South	400		250	600		550	700	1,200		225		225	325	375	250	1,075	
04: Vineyard Road & 400 South		50				200			125		150						50
05: Main Street & 600 North	200			225		200		200		625		50	1,700	225	225	450	

SimTraffic Queueing Report

Project: Vineyard Transportation Master Plan

Analysis: Future (2050) Build

Time Period: Evening Peak Hour

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

HALES ENGINEERING
innovative transportation solutions

Project #: UT23-2453

Intersection	NB					SB				EB					WB		
	L	LTR	R	T	TR	L	R	T	TR	L	LTR	R	T	TR	L	R	T
01: Main Street & 400 North	225		225	550		550	150	875		200				125	75	150	75
02: Vineyard Road & Center Street	150				250	250			525	100		50	250		250	250	825
03: Geneva Road & 400 South	275		125	375		375	75	500		150		125	200		325	225	475
04: Vineyard Road & 400 South		50				125			50		75						
05: Main Street & 600 North	125		50	75		175		100				150				200	

SimTraffic Queueing Report

Project: Vineyard - TMP Signal Timing Analysis

Analysis: Future (2050) 600 N Signal

Time Period: Evening Peak Hour

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

HALES ENGINEERING
innovative transportation solutions

Project #: UT23-2453

Intersection	NB			SB			EB			WB		
	L	R	T	L	R	T	L	R	T	L	R	T
01: Main Street & 600 North	100	50	200	125	50	125	200	100	200	50	100	

VINEYARD

Traffic Calming Guidelines

June 2025

VINEYARD
STAY CONNECTED

HALES ENGINEERING
innovative transportation solutions

TABLE OF CONTENTS

Introduction **1**
Background 1
Process 1
Identification **2**
Purpose 2
Traffic Calming Measure Options 2
Road Eligibility 2
Request **3**
Purpose 3
Request For Traffic Calming 3
Analysis 3
Review **4**
Purpose 4
Review Traffic Calming Request 4
Traffic Calming Engineering Study 4
Minimum Threshold Requirements 4
Approval **5**
Purpose 5
Project Approval 5
Project Prioritization 5
Traffic Calming Measures **6**
Purpose 6
Non-Physical / Roadside Measures 6
Physical Measures 7

Appendix A: Request for Traffic Study Form

Appendix B: Project Evaluation & Prioritization Worksheet

INTRODUCTION

BACKGROUND

In Traffic Calming, State of the Practice (August 1999), prepared by ITE for the FHWA, traffic calming is defined as:

> *"…the combination of mainly physical measures that reduce the negative effects of motor vehicle use, alter driver behavior and improve conditions for non-motorized street users."*

The author continues,

> *"The immediate purpose of traffic calming is to reduce the speed and volume of traffic to acceptable levels ("acceptable" for the functional class of a street and the nature of bordering activity)."*

Traffic calming measures can improve safety and enhance the functionality of adjacent land uses.

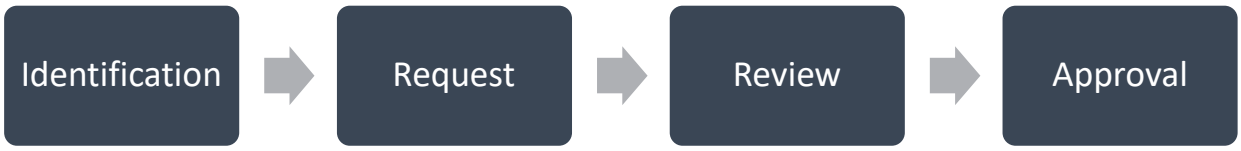
The two main reasons that traffic calming measures are implemented in communities are to **reduce vehicle speeds on the roadway** and to **minimize cut-through traffic**. Reduced speeds and volumes on roadways can improve the safety and quality of life of adjacent land users. However, traffic calming measures should only be implemented where the potential negative effects can be avoided.

One possible negative effect of traffic calming is that the issue may simply be pushed to another location. For example, if a significant number of vehicles are discouraged from using a neighborhood street as a cut-through route, it is possible that another nearby street will experience an increase in volume.

Care should also be taken to ensure that any traffic calming measures that are implemented do not create additional safety hazards, do not impede emergency response vehicles, and do not create maintenance issues. For this reason, traffic calming measures are not implemented on designated emergency response routes and are not constructed in such a way that would impede the functionality of an emergency response vehicle.

PROCESS

The process for implementing traffic calming measures in Vineyard City is as follows:



This document will outline each step in the process from the identification of a need for traffic calming to the implementation of traffic calming measures.

IDENTIFICATION

PURPOSE

The purpose of this section is to outline the minimum criteria for a street or intersection to be considered when identifying traffic calming treatments.

TRAFFIC CALMING MEASURE OPTIONS

Traffic calming measures can be categorized by non-physical / roadside measures and physical measures. Non-physical / roadside measures include changes that are minor changes that do not impact the horizontal or vertical space in the traveled way. Physical measures are infrastructure changes that modify the traveled way either horizontally or vertically. The traffic calming measure options available in Vineyard City are listed in Table 1.

Table 1: Traffic Calming Measures

Non-Physical / Roadside Measures	Physical Measures
Speed Enforcement Driver Feedback Signs Lane Striping Signage Speed Legends Side Treatments Landscaping	Traffic Circle Roundabout Lateral Shift Landscaped Median Island Road Diet Road Narrowing Raised Crosswalk Bulb-outs / Neckdowns Chokers

ROAD ELIGIBILITY

Certain roadways in Vineyard are maintained by other entities such as UDOT, Utah County, or private entities. Vineyard City can only implement traffic calming measures on roadways that are owned and maintained by the City.

Traffic calming measures can be considered for any City roadway that is classified as a local, collector, or arterial road in the Vineyard City Transportation Master Plan (2024). However, in some cases, only the non-physical / roadside measures should be considered for arterial roads.

REQUEST

PURPOSE

The purpose of this section is to outline the process by which residents and stakeholders can request that a street be studied for the implementation of traffic calming measures.

REQUEST FOR TRAFFIC CALMING

Any resident of Vineyard City may request that traffic calming be studied for the street where they live. This should be done by filling out a "Request for Traffic Study" form, which can be found in Appendix B. On this form, the requestor will list their name and contact information, the perceived traffic issue, and the specific location. This form can also be used to report other observed traffic issues including sight distance, pedestrian/bike safety, and excessive volume.

As part of this application, the requestor will also submit the names and signatures of at least five additional residents directly affected by the perceived traffic issue who are in support of studying the subject location for traffic calming. This application, along with the required signatures, shall be submitted to the Vineyard City Public Works department via email or through the City's "Report a Concern" option on the City website (www.vineyardutah.org).

ANALYSIS

Once a traffic calming request has been submitted, City staff will review the application and determine the next steps. The review of this application may include:

- Contacting the requestor and/or neighbors to learn more about their concerns
- Conducting a field visit at the location
- Collecting speed, average daily traffic, and/or turning movement count data
- Reviewing historical crash data

Using the information provided and the collected data, the City engineer will determine the actual nature of the perceived traffic problem (i.e., speeding, cut through traffic, etc.), determine if the site is an acceptable candidate for traffic calming, and outline the next steps, if any.

REVIEW

PURPOSE

The purpose of this section is to outline the evaluation and approval process for traffic calming requests.

REVIEW TRAFFIC CALMING REQUEST

Upon receipt of a completed Request for Traffic Calming application, City staff will review the application to ensure the following:

- The requestor has provided their name and contact information
- The application includes signatures from at least five additional residents (one per household) in support of traffic calming at this location
- The perceived traffic problem has been clearly stated
- The location of the perceived traffic problem has been clearly defined

Based on the review of the application, City staff may request more information from the requestor, reject the application, or approve the application. The Sheriff's office will be involved in the review of applications in addition to City staff.

TRAFFIC CALMING ENGINEERING STUDY

Traffic calming measures should only be implemented after the perceived traffic problem is verified by an engineering study. The methods and results of the engineering study should be summarized in a memo or report and submitted to the City traffic engineer. The memo or report should include recommended traffic calming measures to mitigate the observed traffic issues.

MINIMUM THRESHOLD REQUIREMENTS

As part of the engineering study, the project should be scored using the Vineyard City Traffic Calming Evaluation & Project Prioritization worksheet found in Appendix C of this document. To be considered for traffic calming treatments, a minimum score of 50 points is required.

APPROVAL

PURPOSE

The Purpose of this section is to outline the process for implementing traffic calming measures in Vineyard City.

PROJECT APPROVAL

Once the traffic calming request has been evaluated, the perceived traffic problem confirmed by an engineering study, and reviewed by the City engineer, a proposal for the installation of traffic calming measures will be presented to the City council for approval. This proposal should include a clear explanation of the prevailing traffic issue, the specific traffic calming measure(s) proposed, as well as an estimate for design and construction costs.

PROJECT PRIORITIZATION

Once the traffic calming proposal has been approved by the City council, the project should be prioritized along with other traffic calming projects using the point system outlined in the Vineyard City Traffic Calming Evaluation & Project Prioritization worksheet (see Appendix C). This point system will account for traffic volumes, crash history, speeds, and proximity to pedestrian generators (i.e., schools, parks, etc.) Projects requiring funding will be prioritized in the next fiscal year budget and only those projects with sufficiently high rankings (a minimum of 50 points) will be implemented.

TRAFFIC CALMING MEASURES

PURPOSE

The purpose of this section is to outline the specific traffic calming measures that could be considered in Vineyard City. These are the most common measures used around the country. Other measures not listed here could be considered within a traffic study and in consultation with City staff.

NON-PHYSICAL / ROADSIDE MEASURES

Non-physical / roadside traffic calming measures are those where no physical construction or modification to the roadway and traveled way. These measures are often less costly and are often considered before other traffic calming measures because they are easy to implement and remove if deemed ineffective.

SPEED ENFORCEMENT

Targeted speed enforcement by local law enforcement agencies can have a significant impact on the prevailing speed in certain locations. Enforcement efforts can be targeted at specific locations at certain times of the day to encourage drivers to comply with the posted speed limit.

DRIVER FEEDBACK SIGNS

Driver feedback signs can help drivers be more aware of their speed in relation to the posted speed limit. Driver feedback signs can be permanently mounted, installed temporarily, or mounted on a trailer. In each case the current speed of the approaching vehicles is detected and shown on a digital display, along with the posted speed limit on a static display.

LANE STRIPING

Lane striping not only delineates the lane of travel, but can create a narrow feel on the roadway without narrowing the paved surface. The perceived narrowing can encourage some drivers to reduce speeds. Lane striping can also be used to create bicycle lanes, parking spaces, or delineate other uses.

SIGNAGE

The placement of signage such as speed limit signs or signs dictating various restrictions can be used for traffic calming purposes. Restriction-type signs can include signs prohibiting trucks, turning movements, through movements, or others. Signage may also include wayfinding signage or City roadway gateway features specific to Vineyard City.

Speed Legends

Speed legends consist of letters and numbers painted on the roadway surface, usually in conjunction with roadside mounted signs, indicating the posted speed limit. These legends help call better attention to speed limits and speed limit changes than a standalone speed limit sign.

Side Treatments

Side treatments include improvements such as curb/gutter, sidewalk, and trails that provide safe pedestrian walking areas and tend to reduce vehicle speeds.

Landscaping

Landscaping includes park strips and other landscaped areas to the side of the roadway. These areas may include trees and other plants that constrain the driver's view horizontally, resulting in slower travel speeds.

Physical Measures

Physical measures consist of both horizontal and narrowing measures within the traveled way. These include objects or design elements that force vehicles to deviate from their straight line of travel causing them to reduce speeds as they within a more constrained space.

Traffic Circle

Traffic circles are raised islands, usually circular in shape, that are constructed in the center of an intersection. The presence of these features requires that vehicles slow down to navigate around the traffic circle.

Roundabout

A roundabout is like a traffic circle in that it features a circular center island. However, roundabouts are generally much larger and have raised islands on the approaches to divert traffic in the direction of the travel in the roundabout. Vehicles approaching a roundabout yield to traffic already in the roundabout. Due to the large footprint required to construct a roundabout, this traffic calming measure is generally unfeasible in neighborhoods which are already built out.

Lateral Shift

A lateral shift requires traffic to shift to one side. This can be done with striping, curb/gutter, or a combination of both. The lanes only shift once and usually occur near an intersection approach. Appropriate tapers should be designed with these shifts per standards from the American Association of State Highway and Transportation Officials (AASHTO)

Landscaped Median Island

A landscaped median island includes a raised median area in the middle of the roadway. The median island can include vegetation as desired, though consideration to the maintenance of plants should be given as well. These median islands are effective in slowing vehicles, especially if side treatments are provided to the roadside.

Road Diet

A road diet consists of converting an existing roadway to a smaller cross-section and narrowing the overall paved vehicle traveled way. This typically includes removing one travel lane on either side for roadways with two or more lanes per direction. A traffic study should consider vehicle traffic volumes to ensure that vehicle level of service will be at an acceptable level after the road diet is implemented. By doing a road diet, there are more opportunities for pedestrian and bike facilities such as bike lanes, cycle tracks, and trails.

Road Narrowing

Road narrowing involves narrowing the overall roadway traveled width and/or narrowing individual travel lanes. This can be accomplished with striping at a minor level and physical constraints at a major level. Travel lanes could be striped to a width as narrow as 10 feet when traffic calming is justified. A traffic study reviewing this option should consider overall traffic and heavy vehicle volumes that use the roadway, as heavier trucks require wider areas to maneuver.

Bulb-outs / Neckdowns

Bulb-outs / neckdowns are curb extensions at intersection approaches. These curb extensions narrow the lane at the approach, shorten the curb radius, and result in lower speeds. Bulb-outs / Neckdowns also shorten crossing time and distance for pedestrians.

CHOKERS

Chokers are curb extensions that occur midblock, as opposed to neckdowns which occur at intersections. Chokers create a narrowed traveled way, resulting in lower speeds. These typically occur at crosswalks and give pedestrians better visibility to vehicles and vice versa.

RAISED CROSSWALK

A raised crosswalk provides a safe pedestrian crossing location with better visibility. With the pedestrians walking path not changing vertically, it prioritizes the pedestrian and causes vehicles to slow down to navigate the raised median. The implementation of raised crosswalks should consider emergency vehicle access and snowplows to ensure that these large vehicles can navigate the designed raised crosswalk. Typically, these raised crosswalks should be considered only for local and collector roads.

Appendix A

Request for Traffic Study Form

VINEYARD CITY REQUEST FOR TRAFFIC STUDY

REQUESTOR INFORMATION

Requestor Name: _____

Street Address: _____

Phone Number: _____

Email Address: _____

TRAFFIC ISSUE

- ☐ Excessive Speed
- ☐ Sight Distance
- ☐ Other (explain): _____
- ☐ Excessive Volume
- ☐ Pedestrian/Bicycle Safety

Description of traffic issue (provide specifics with regards to time of day, day of the week, and location):

_____

_____

_____

_____

_____

_____

_____

_____

SUPPORTING SIGNATURES

At least five (5) supporting signatures must be from residents living on or directly adjacent to the reported traffic issue, and in support of Vineyard City studying the location for traffic calming. One signature per household, must be 18 years of age or older.

#	Name	Address	Signature
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

APPENDIX B

Project Evaluation & Prioritization Worksheet

VINEYARD CITY PROJECT EVALUATION & PRIORITIZATION

85TH PERCENTILE SPEED

PTS

Points will be assigned based on the difference between the 85th percentile speed and the posted speed limit.

Differential is less than 5 mph	0 points
Differential is greater than 5 mph, but less than or equal to 10 mph	5 points
Differential is greater than 10 mph, but less than or equal to 15 mph	10 points
Differential is greater than 15 mph	15 points

CRASH HISTORY

PTS

Points will be assigned based on the number of crashes reported in the last 3 years.

Less than 5 reported crashes	0 points
5-10 reported crashes	10 points
11 or more reported crashes	20 points

PEDESTRIAN FACILITIES

PTS

Points will be assigned based on presence of pedestrian facilities (sidewalks or trails) adjacent to the roadway.

Pedestrian facilities are present, in good repair*, and continuous on both sides of the roadway	0 points
Pedestrian facilities are present and in good repair* on only one side of the roadway	10 points
Pedestrian facilities are not present, in poor repair*, or not continuous on either side of the roadway	20 points

*A pedestrian facility will be considered in "good repair" if the walking surface is relatively flat and free of any obstacles or features that may discourage pedestrian use.

TRAFFIC VOLUME

PTS

Points will be assigned for the average daily traffic (ADT) in vehicles per day (vpd) as follows:

ADT is less than 1,000 vpd	0 points
ADT is greater than or equal to 1,000 vpd but less than 5,000 vpd	5 points
ADT is greater than or equal to 5,000 vpd but less than 10,000 vpd	10 points
ADT is greater than or equal to 10,000 vpd but less than 15,000 vpd	15 points
ADT is greater than or equal to 15,000 vpd	20 Points

Points will be assigned for the ADT of the roadway as follows.

Peak hour volume is less than or equal to 10% of ADT	0 points
Peak hour volume is greater than 10% of ADT	5 points

PEDESTRIAN GENERATOR

PTS

Points will be assigned based on presence of the following pedestrian generators:

No pedestrian generators	0 points
High School	5 points
Middle School, Jr. High, library, or Rec Center/Community Center	10 points
Elementary School or Public Park	20 points

TOTAL POINTS

PTS

*A project must score a minimum of 50 points to be considered for traffic calming treatments.

Traffic Impact Study Guidelines

Updated: June 2025

Introduction

This document outlines the trip generation study (TGS) and traffic impact study (TIS) requirements for Vineyard City. The purpose of this document is to guide City staff and traffic consultants in knowing how to scope traffic studies for new development within the City. The guidelines in this document were based on Utah Department of Transportation (UDOT) and Institute of Transportation Engineers (ITE) guidelines.

Application Submittal and Review

Prior to submitting a site plan or subdivision application to Vineyard City, the applicant should meet with the City's Development Review Committee where they will provide information about the nature and location of the development. Required information will include but may not be limited to:

- Location of development
- Land use type (e.g. single-family or multi-family housing, office, retail, mixed-use, etc.)
- Land use intensity (e.g. unit count, square footage)
- Proposed access points

Based on the information submitted by the applicant, City staff will decide which level of traffic study is required and the boundaries of the study area. Prior to the traffic study beginning, the applicant should contact City Staff to identify the scope of the traffic study. Additional items required for this study will be identified by Vineyard City staff which could include a request for ADT counts, speed data collection / evaluation, intersection sight distance review, traffic control review, etc.

Trip Generation

A trip represents a vehicle entering or exiting a project site. Trip generation is determined using the ITE *Trip Generation* manual, which contains trip rates for land uses based on actual counts of trips at various study sites around the United States. The latest *Trip Generation* manual should be used to calculate new trips for a development (currently 11th Edition, 2021). After calculating the trip generation, all trip counts should be rounded up to a whole number.

The ITE *Trip Generation* data provides an average trip rate per an independent variable (e.g. units, square feet) that can be used. If there are several data points for a land use, ITE also provides a fitted curve equation, which is either a linear or logarithmic equation that may provide a more accurate estimate of new trips for a development. The fitted curve equation is reported with a coefficient of determination (R^2) value, which is a value between 0 and 1 that indicates how well the equation fits the data points, with "1" representing a great fit. If the data provided by ITE is not good, the traffic engineer may need to collect local trip data.

The following are various considerations that should be made when determining whether to use the fitted curve equation, the average rate, or local trip data for traffic studies (see ITE *Trip Generation* Handbook, Chapter 4 for more details):

Use the fitted curve equation when:

- A matching ITE land use has at least 20 data points
- OR the R^2 value is at least 0.75

Use the average rate when:

- A matching ITE land use has at least three (and preferably six) data points and the fitted curve equation is not appropriate
- AND the standard deviation is less than 55 percent of the average rate value

Use local trip data when:

- The development land use is unique and does not match any ITE land uses
- OR a matching ITE land use has less than three (and preferably six) data points
- OR if neither the average rate line nor fitted curve fall within the data cluster
- OR the size of development is outside the range of land use sizes in the ITE data

In addition to the above considerations, the engineer should also visually observe where a development fits along the trip generation average rate line or fitted curve to see that the line/curve falls within the cluster of data points of that particular development size. For example, if the fitted curve is deemed appropriate based on data points or the R^2 value but the average rate line fits the data cluster better for that development size, the average rate may be a better option, or vice versa.

Certain developments may experience a reduced new trip generation number due to the nature of the project. The following are the trip reductions that should be considered in trip generation and traffic impact studies based on standard ITE methodologies:

- Pass-by trips: Trips made to a development on the way to an existing destination
- Multi-modal: Trips made via non-vehicle modes such as transit, walking, and biking
- Mixed-use internal capture: Trips made within the development itself due to a mix of uses

For commercial and office space, the City requires that square footage be used as the independent variable to calculate trips, as opposed to using number of employees or other variables. This will help ensure a conservative calculation of trips for a development that will be valid even if the tenant changes in the future.

If an applicant believes they will generate less trips than the average similar land use, a professional traffic operations engineer (PTOE) can complete a local trip generation study based on trip counts and square footages of at least two similar sites along the Wasatch Front.

Traffic Study Levels

Small developments may not need a full TIS but may still be required to submit a TGS prior to City approval. A TGS includes a description of the project and a calculation of the anticipated trip generation. In addition to the elements of a TGS, a TIS includes level of service (LOS) analyses for study intersections for the current year and potentially future years and recommendations to mitigate poor levels of service. For Vineyard City, the acceptable LOS threshold varies by road functional classification in location in the City, as outlined in Table 1.

Table 1: Vineyard City Acceptable LOS Thresholds

Location	Local Road	Collector	Arterial
Downtown	C	E	E
Other City Area	B	C	D

A development that is anticipated to generate at least 25 new peak hour trips requires a TIS. A development that generates less than 25 new peak hour trips only requires a TGS. General thresholds of 25 peak hour trips for various common land uses are provided in Table 2.

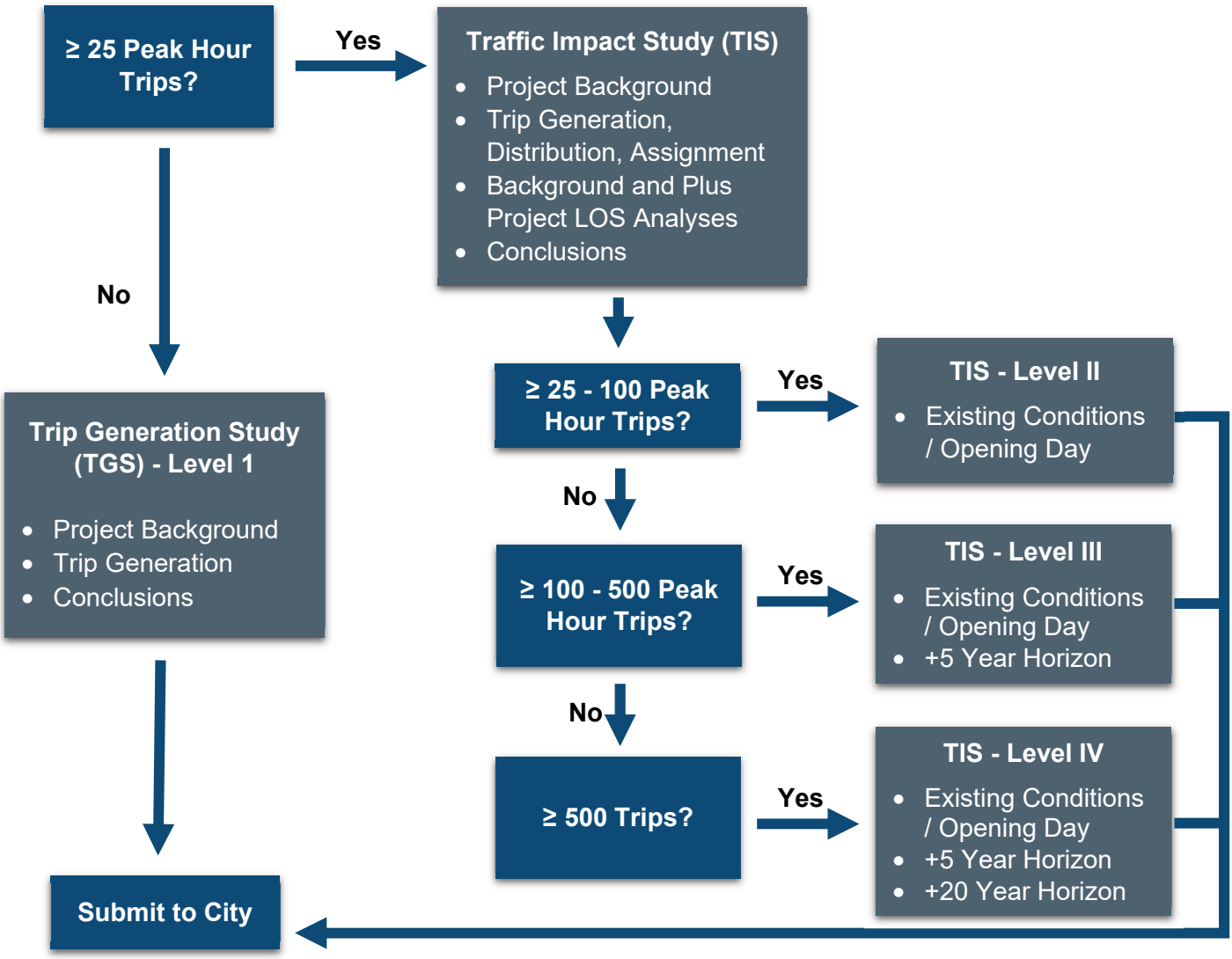
Table 2: General 25 Peak Hour Trip Thresholds

Land Use	ITE Code(s)	≥ 25 Peak Hour Trips
Light Industrial / Manufacturing	110, 140	50,000 sq. ft. GFA
Warehousing	150	150,000 sq. ft. GFA
Mini-Warehouse (Self-Storage)	151	150 storage units
Single-Family Detached Housing	210	25 dwelling units
Single-Family Attached Housing (Townhomes)	215	40 dwelling units
Multifamily: Condo/Apartment	220	50 dwelling units
Mobile Home Park	240	50 dwelling units
Assisted Living	254	100 beds
Hotel	310	*Any Size*
General Office	710	15,000 sq. ft. GFA
Medical / Dentist Office	720	7,000 sq. ft. GFA
Shopping Center	820	5,000 sq. ft. GLA
Bank	911 - 912	*Any Size*
Restaurant	930 - 935	*Any Size*
Gas Station / Convenience Store	944 - 945	*Any Size*

If a TIS is required, City staff will select the level of TIS to be completed based on the anticipated trip generation. At the smallest TIS level (level II), only an analysis of the current or opening year with and without the project is required. At the highest TIS level (level IV), future analyses up to 20 years out with and without the project are also required. A summary of each traffic study level, with its associated peak hour trip thresholds and horizon years, is shown in Table 3. A flowchart to help determine the traffic study level is also shown in Figure 1.

Table 3: Study Horizon Years by Level

Study Level		New Peak Hour Trips	TIS Horizon Year(s)
TGS	I	< 25	N/A
TIS	II	≥ 25 - 100	Current / Opening Year
	III	≥ 100 - 500	Current / Opening Year, + 5 years
	IV	≥ 500	Current / Opening Year, + 5 years, + 20 years



Study Area

The study area to be analyzed in a TIS also depends on the size of the development. Large developments may impact intersections miles away while small developments may have minimal impacts on adjacent roadways. The **minimum** required study areas for each TIS level are provided in Table 4. City staff may request additional intersections as needed.

In general, each TIS will include an analysis of the project accesses and nearby major intersections. Major intersections are defined as signalized or unsignalized intersections of two public roadways that are anticipated to be used by project traffic. This does not include minor intersections or other accesses or private roadways near the project, unless requested by the Vineyard City. However, if a minor intersection is an existing access to the site or located across from an existing or proposed project access, it should be included in the analysis.

Table 4: TIS Study Areas by Level

Study Level	Study Area
II	Project Accesses & Closest Major Intersections
III	Project Accesses & Major Intersections within ¼ Mile
IV	Project Accesses & Major Intersections within ½ Mile

Report Elements

The following sections outline the elements that should be included in the TGS and TIS reports:

TGS Elements

Each TGS report will be required to contain at minimum the following elements:

- Project Background:
  - Identify the project site location, development type, and site access drives
- Trip Generation:
  - Calculate trip generation for the development according to ITE standards
- Conclusions:
  - State the key findings and recommendations of the TGS in a concise manner

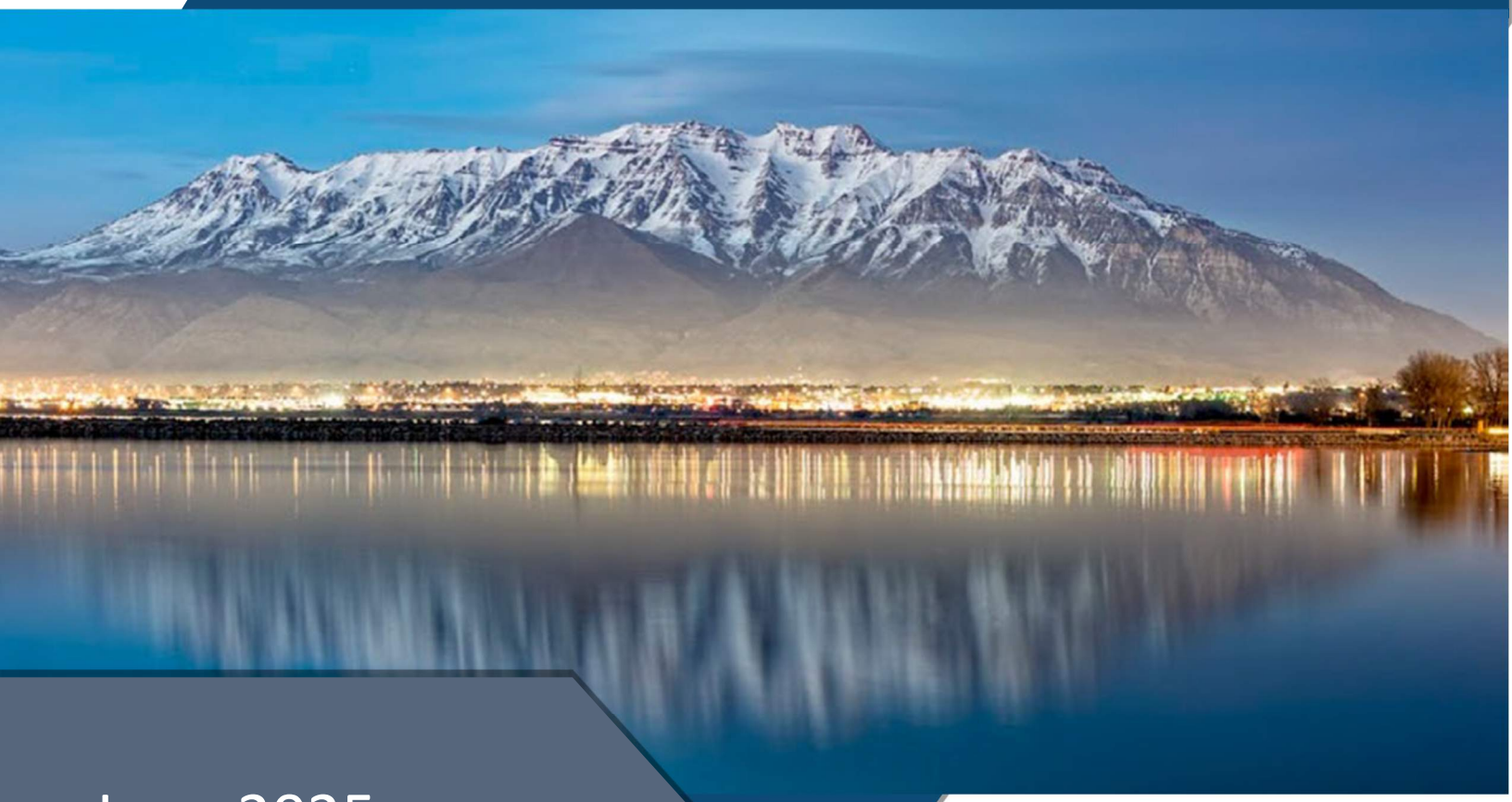
TIS Elements

Each TIS report will be required to contain at minimum the following elements:

- Traffic studies should be completed by a licensed professional engineer (PE) with a Professional Traffic Operation Engineer (PTOE) certificate
- The study should be stamp and signed by the PE / PTOE engineer
- Executive Summary:
  - Include a concise summary at the beginning of the report with the key assumptions, findings, and recommendations of the TIS

- Study Area:
  - Identify the existing nearby roadways and intersections including roadway classifications, intersection control, and speed limits
- Data Collection:
  - Collect at minimum peak hour turning movement counts at the study intersections and potentially daily volumes if requested by staff
  - Normally collect morning (7-9 AM) and evening (4-6 PM) peak hour counts unless the study area and/or development will have different peak hours (e.g. schools)
- Analysis Period:
  - Identify the study peak hour based on existing counts and the proposed trip generation; at minimum, the highest peak hour should be analyzed
  - City staff may request that multiple peak hours be analyzed
- Project Background:
  - Identify project site location, development type, project phasing, site access drives and nearby intersections to be affected by the development
- Access and Auxiliary Lanes:
  - Identify the location and configuration of each access drive to the site and the need to add auxiliary lanes (deceleration and acceleration turn lanes)
- Trip Generation:
  - Calculate trip generation according to ITE standards and apply reductions when applicable
- Trip Distribution and Assignment:
  - Document the distribution and assignment of project trips for each horizon year
- Capacity Analysis:
  - Calculate delay, LOS, and queuing results for all study intersections in the study area for existing background (without project) conditions, existing plus project conditions, future background conditions, and future plus project conditions (if required by the study level)
  - Complete this analysis using Synchro/SimTraffic, Vistro, or VISSIM software
  - Report LOS and 95th percentile queueing at study intersections per HCM criteria
- Proposed Mitigations:
  - Identify proposed mitigations to roadway and intersection characteristics in the study area based on the LOS and queueing results
  - Clearly show whether these mitigations are caused by background or site-generated traffic
- Exhibits:
  - Include figures showing peak hour turning movement volumes used in the analysis for each scenario, including trip assignment volumes
  - Include figures or reports that show the assumed lane configurations
  - Include tables or figures that show the LOS at each intersection for each scenario
- Appendices:
  - Include raw traffic count data
  - Include capacity analysis and queueing reports for each scenario
  - Include a site or concept plan of the development if available

VINEYARD
Access Management Manual



June 2025

VINEYARD
STAY CONNECTED

HALES ENGINEERING
innovative transportation solutions

EXECUTIVE SUMMARY

As traffic volumes and congestion continue to grow on city roads, it is important for Vineyard City engineers, planners, and decision makers to implement and enforce sound transportation policies to maximize the capital investments in transportation infrastructure. Well-managed (access-controlled) corridors can last years beyond a less restrictive access-controlled corridor as well as provide safety and economic benefits. Access management can help preserve the capital improvement dollars spent on infrastructure by preserving the capacity and prolonging the need for roadway widening projects with a well-crafted and managed plan for the various roadway cross-sections.

The purpose of this Vineyard City Access Management Manual is to provide access management recommendations to City staff and City decision makers so that appropriate and beneficial access control can be implemented throughout the city thus providing operational, safety, and economic benefits to Vineyard City. This manual has been prepared to serve as a supplementary volume to the Vineyard City Transportation Master Plan so that each document can be updated independently, as needed to keep up with the changing environment.

CONTENTS

Chapter II of this manual provides a literature review of access management principles and techniques by drawing on past research at the international, national, and state levels. Operational, safety, and economic benefits of access management are included within this review.

Chapter III provides a state-of-the-practice review of access management requirements including the Utah Department of Transportation (UDOT) access management program.

Chapter IV presents the recommended access management requirements for several access related design criteria including their location, spacing, and design characteristics. On-street parking and intersection lighting are also discussed.

Chapter V outlines the appeals process for variances to the access management standards.

TABLE OF CONTENTS

EXECUTIVE SUMMARY ..... **i**
Contents i
Table of Contents ..... **ii**
List of Figures ..... **iii**
List of Tables ..... **iv**
Introduction **1**
Background 1
Components of an Effective Access Management Plan 1
Access Management Principles **3**
Introduction 3
Access Versus Mobility 3
Functional Classification 4
Access Management Concepts 5
Benefits of Access Management 16
Access Management State-of-the-Practice **18**
Introduction 18
Utah Department of Transportation (UDOT) 18
Access Management Standards **21**
Introduction 21
Access Provisions 21
Intersection and Access Spacing 22
Corner Clearance Requirements 23
Cross Access (Shared Access) Requirements 23
Intersection Alignment / Offsets 23
On-Street Parking 24
Access Characteristics 24
Intersection Sight Distance 27
Variance Process **35**

Appendix A: Vineyard City: TMP Future Roadway Network

LIST OF FIGURES

Figure 1: Access and mobility relative to functional classification 3
Figure 2: Arterial Typical Cross-Sections 6
Figure 3: Collector Typical Cross-Sections 7
Figure 4: Local Street Typical Cross-Section 8
Figure 5: Offset intersection scenarios 11
Figure 6: Vehicle making an illegal left turn into a RIRO 12
Figure 7: Vehicle making a left turn out of a RIRO 12
Figure 8: Raised island enforces RIRO 13
Figure 9: Channelized island and delineators enforce RIRO 13
Figure 10: Smooth vertical curve transition 14
Figure 11: Example of good access throat length 15
Figure 12: Typical intersection lighting 16
Figure 14: Sight distance obscured by landscaping features 28
Figure 15: Sight distance obscured by curvature and structure 28
Figure 16: Intersection sight triangles for stop control 31
Figure 17: Intersection sight triangles for yield control 32
Figure 18: Intersection sight triangle for a major street left turn 34

LIST OF TABLES

Table 1: Intersection and Street Lighting Requirements 16
Table 2: UDOT State Highway Access Management Standards 19
Table 3: UDOT Access Width Guidance 19
Table 4: UDOT Access Radii (Urban Areas) 20
Table 5: UDOT Access Driveway Angles 20
Table 6: Access Provisions 21
Table 7: Vineyard Access Management Standards 22
Table 8: Vineyard Access Width Standards 22
Table 9: Vineyard Access Driveway Angles 23
Table 10: Minimum Access Offset Requirements 24
Table 12: Curb Return Radii 25
Table 13: City Street Curb Radii 25
Table 14: Change in Driveway Vertical Profile 26
Table 15: Recommended Driveway Throat Length (feet) 26
Table 16: Minimum Setback of a Gate on a Private Access from an Adjacent Street 27
Table 17: Intersection Sight Distance – Left-turn from Minor Road 30
Table 18: Intersection Sight Distance – Right-turn and Crossing Maneuvers from Minor Road 30
Table 19: Intersection Sight Distance – Crossing Maneuvers from Yield Control 32
Table 20: Intersection Sight Distance – Left- and Right-Turn Maneuver from Yield Control 32
Table 21: Intersection Sight Distance – Uncontrolled Intersection (feet) 33
Table 22: Intersection Sight Distance – Left Turns from Major Street 33

INTRODUCTION

BACKGROUND

As traffic volumes and congestion continue to grow on Vineyard City roads, it is important for city engineers, planners, and decision makers to implement and enforce sound transportation policies to maximize the capital investments in transportation infrastructure. A well-managed and access-controlled corridor can last years beyond a less restrictive corridor as well as provide safety and economic benefits. Access management can help preserve the capital improvement dollars spent on infrastructure by preserving the capacity and prolonging the need for roadway widening projects with a well-crafted and managed plan for the various roadway cross-sections.

> Access Management:
>
> "The coordinated planning, regulation, and design of access between roadways and land development."
>
> TRB Access Management Manual, 2014

The purpose of this Vineyard City Access Management Manual is to provide access management standards and recommendations to staff and decision makers so that appropriate access control can be implemented throughout the roadway network to provide operational, safety, and economic benefits to Vineyard City. This manual has been prepared to serve as a supplementary volume to the Vineyard City Transportation Master Plan (TMP).

COMPONENTS OF AN EFFECTIVE ACCESS MANAGEMENT PLAN

According to the National Cooperative Research Program (NCHRP) Report 548, A Guidebook for Including Access Management in Transportation Planning (2005), seven key components of an effective access management plan are as follows:

1. Developing and applying an access classification system that assigns access management standards to roadways in accordance with their level of importance to mobility. This classification parallels the roadway functional classification.
2. Planning, designing, and maintaining road systems based on their access classification.
3. Defining the level of access permitted to each classification (e.g., full, limited turns, traffic control type, etc.).
4. Establishing criteria for the spacing of signalized and non-signalized intersections as well as corner clearance and intersection distances from interchanges.

5. Applying agreed upon engineering standards that include appropriate geometric design criteria and traffic engineering measures for each type of access.
6. Establishing policies, regulations, and permitting procedures to implement the listed components.
7. Ensuring coordination with and supportive actions by local jurisdictions exercising their land use planning authority as well as their development permitting and reviewing authority.

This manual addresses the first five items listed above. Beyond reviewing the current UDOT access management requirements, this document does not seek to coordinate with adjacent jurisdictions regarding access management. It is recommended that this type of coordination be done as part of the master planning process that is updated from time to time by Vineyard City and other adjacent cities.

Included in Appendix A is the most recent DRAFT of the Vineyard City Transportation Master Plan Map.

ACCESS MANAGEMENT PRINCIPLES

INTRODUCTION

This chapter discusses several access management principles including access versus mobility, functional classification, access management techniques, and benefits of access management. The purpose of this chapter is to provide sufficient background regarding access management so that the reader can understand the importance of access management principles and techniques.

ACCESS VERSUS MOBILITY

The need for access management stems from the conflicting functions of any given roadway. All roads must provide some level of mobility, which means the ability to travel through a corridor, and some level of access, which means the ability to access some land use at either end of the trip. Generally speaking, the more mobility a road has, the less direct access can be provided to adjacent land uses. Alternatively, the more direct access that is provided to adjacent land use, the less mobility a given road will have.

Extreme examples of this principle are freeways and residential streets. A freeway typically has excellent mobility (high speeds and longer trips are possible) provided that demand does not exceed capacity. However, access is limited to grade separated interchanges and slip ramps only. Direct access to adjacent land use via driveways is prohibited. Conversely, a residential street has very little mobility (speeds are low and it is difficult to make longer trips). However, full access is provided to every adjacent property.

As is shown in Figure 1, arterial streets should have higher levels of mobility with lower levels of access, while local streets should have high levels of access. Collector streets have more of a balance between access and mobility providing more access than an arterial, but at the cost of having lower traveling speeds.

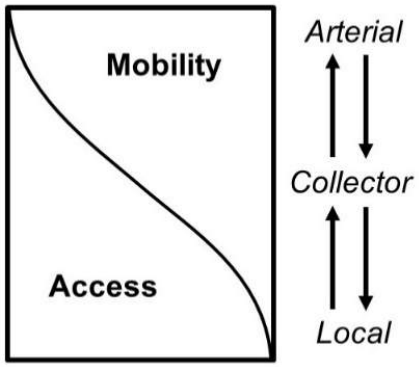


Figure 1: Access and mobility relative to functional classification

FUNCTIONAL CLASSIFICATION

Roads are broken down into a hierarchal system and given a functional classification. This is done in order to determine the purpose of a given street as well as the appropriate access classification. The higher a street classification the more mobility it provides with limited access, whereas a lower street classification has less mobility, but more access. Currently, Vineyard City has classified its roads into four classifications of public roads. Public roads include Major Arterial, Minor Arterial, Major Collector, Minor Collector, and Local Roads. These classifications are discussed in greater detail in the following sections:

ARTERIAL STREETS

Arterials are designed to have greater mobility and connect traffic between population centers and regional attractions. Because of their increased mobility, arterials typically have higher speeds and a high degree of access control. Most access to major arterials should be provided at signalized intersections and some unsignalized public streets. Private access driveways should be discouraged wherever possible. Typical cross-sections for arterial streets are shown in Figure 2.

The City's major arterials have a minimum right-of-way of 108 feet. Speed limits typically range from 30 mph to 45 mph. A major arterial street typically has two travel lanes per direction and a center two-way left-turn lane (TWLTL). The TWLTL can be replaced with a center landscaped median where left-turn movements do not need to be accommodated for access management.

The City's minor arterials have a minimum right-of-way width of 73 feet with speeds ranging from 25 mph to 35 mph. A minor arterial street typically has one travel lane in each direction separated by a center TWLTL. Little direct access is provided on minor arterials, and higher speeds allow for good mobility on these arterial streets, with slightly more access and slower speeds on minor arterials.

COLLECTOR STREETS

A collector street provides a more balanced approach towards mobility and access and provides connections between local streets and arterial streets. Collectors are often used for moderate length trips within a community. Collectors typically have two- or three-lane cross sections with parking, bike lanes, or shoulders on either side. Commercial access and local street access to collector streets is common, however, residential driveway access should be limited where possible on collectors that have higher volumes of traffic and higher speeds. Speed limits on collectors typically range from 25 to 30 mph. Typical cross-sections for collector streets are shown in Figure 3.

A major collector typically has a minimum right-of-way width of 88 feet with one travel lane in each direction, a TWLTL, sidewalks, and park strips. Some direct access is provided to adjacent properties, but reasonable speeds can also be obtained. A minor collector typically has a minimum right-of-way of 63 feet with one travel lane in each direction, no center TWLTL, sidewalks, and park strips.

LOCAL STREETS

A local street can provide full access to all adjacent land use, and usually provides little mobility. Because of this, trips on local streets are typically short and usually are between one land use and the nearest collector street. Local streets are typically wide enough for two-way travel, and many have space for on-street parking on either both, or one side of the street. The majority of local streets are residential roads which have speed limits of 25 mph. Figure 4 shows a typical cross-section of a local street with a minimum right-of-way of 58 feet.

ACCESS MANAGEMENT CONCEPTS

The following subsections briefly discuss several access management concepts and techniques currently being utilized in Utah and around the country.

TRAFFIC SIGNAL SPACING

Traffic signals should be spaced evenly and generally no closer than 1/2 mile apart. Closely or irregularly spaced signalized intersections have shown to increase delay and crash rates as good coordination is not possible. Queuing from one signalized intersection can also interfere with another closely spaced intersection. While 1/2 mile spacing has been shown to be optimal, shorter spacing (as close as 1/4 mile) may be acceptable where the demand warrants signals that close.

UNSIGNALIZED STREET AND ACCESS SPACING

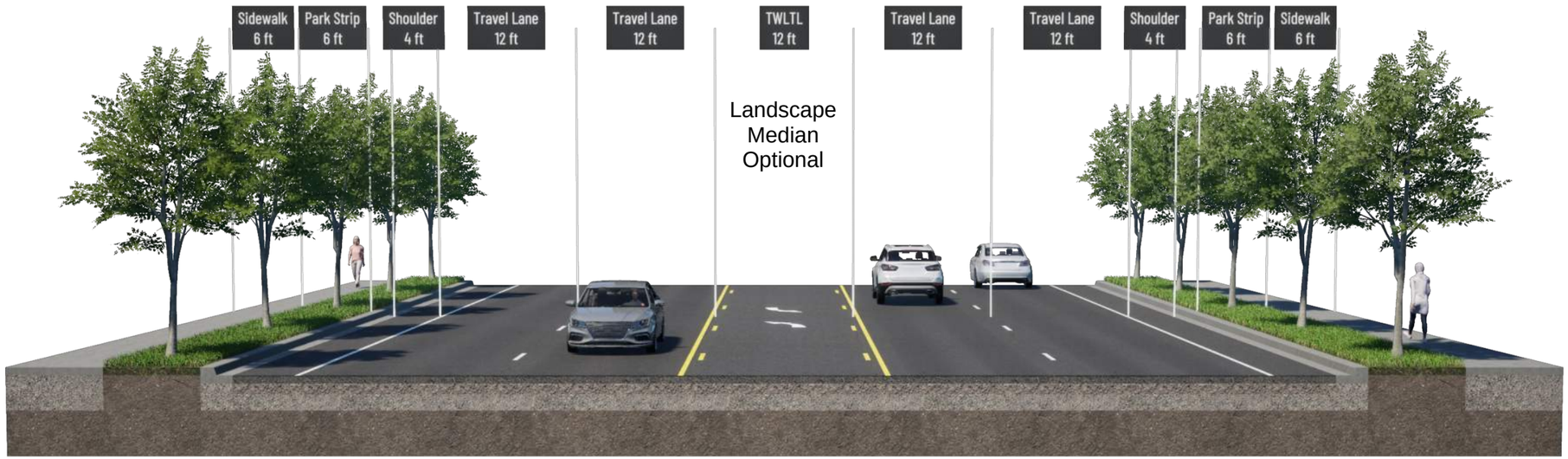
Unsignalized street spacing refers to the distance between two unsignalized intersections which can include public streets or private accesses to City roads. Research has shown that increasing the frequency of accesses (also referred to as access density) can increase the crash rate of a corridor as more conflict points are added. Average speeds can also be lowered as the additional accesses create “friction” from multiple vehicles entering and exiting the traffic stream at multiple locations.

CORNER CLEARANCE CRITERIA

The TRB Access Management Manual defines corner clearance as the distance from a public or private street to the nearest driveway (TRB 2017). The American Association of State Highway and Transportation Officials (AASHTO), *A Policy on Geometric Design of Highways and Streets*, also known as the “Green Book,” further states that driveways should not be placed within the functional area of an intersection which includes the queue storage distance, maneuver distance, and perception-reaction distance as these areas are critical areas for the safe and efficient operations of an intersection. Inadequate corner clearance can cause driveway blockages as well as decrease the overall safety of an intersection.

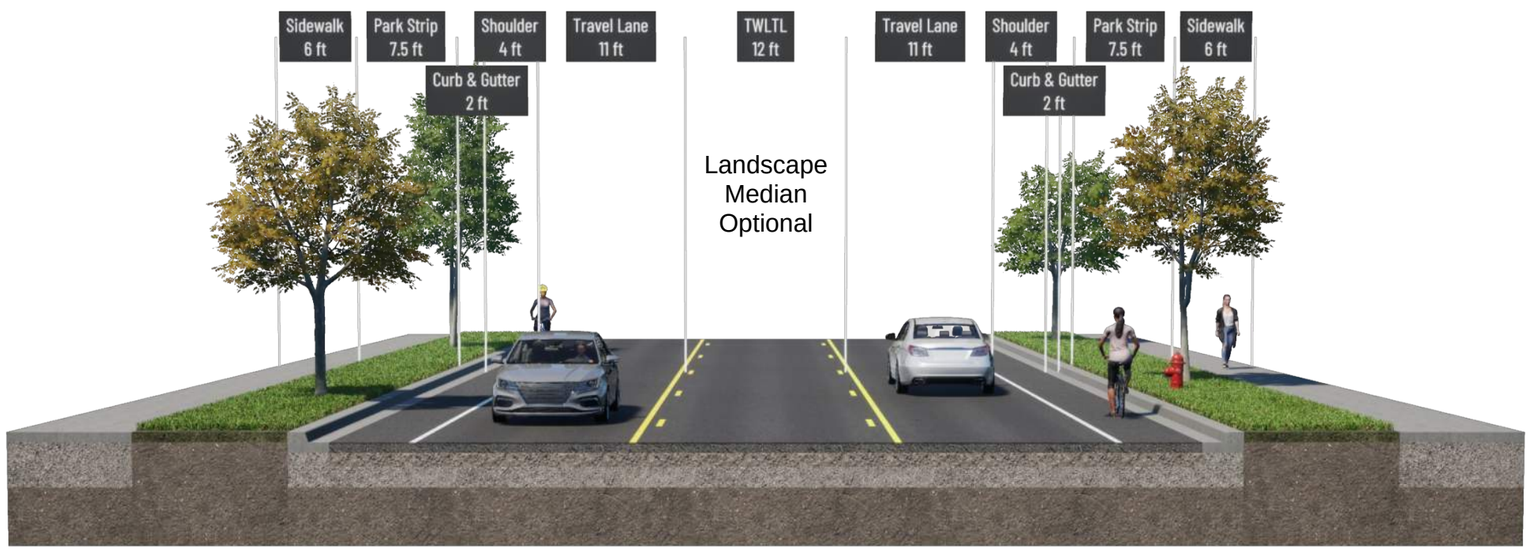
Major Arterial (5 Lanes)

Major Arterial (5 Lanes)
96+' *ROW*



Minor Arterial (3 Lanes)

Minor Arterial (3 Lanes)
73' *ROW*



VINEYARD
STAY CONNECTED

HALES ENGINEERING
innovative transportation solutions

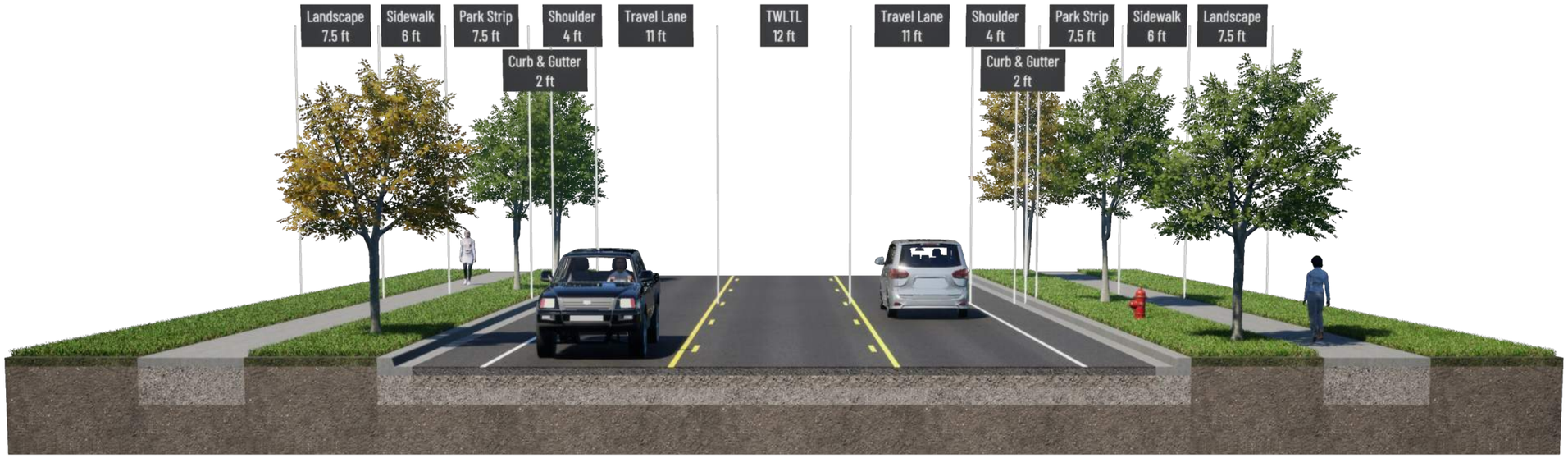
Arterial Cross Sections

Vineyard TMP

DATE	01/17/2025
PROJECT	UT23-2453
	Figure 2

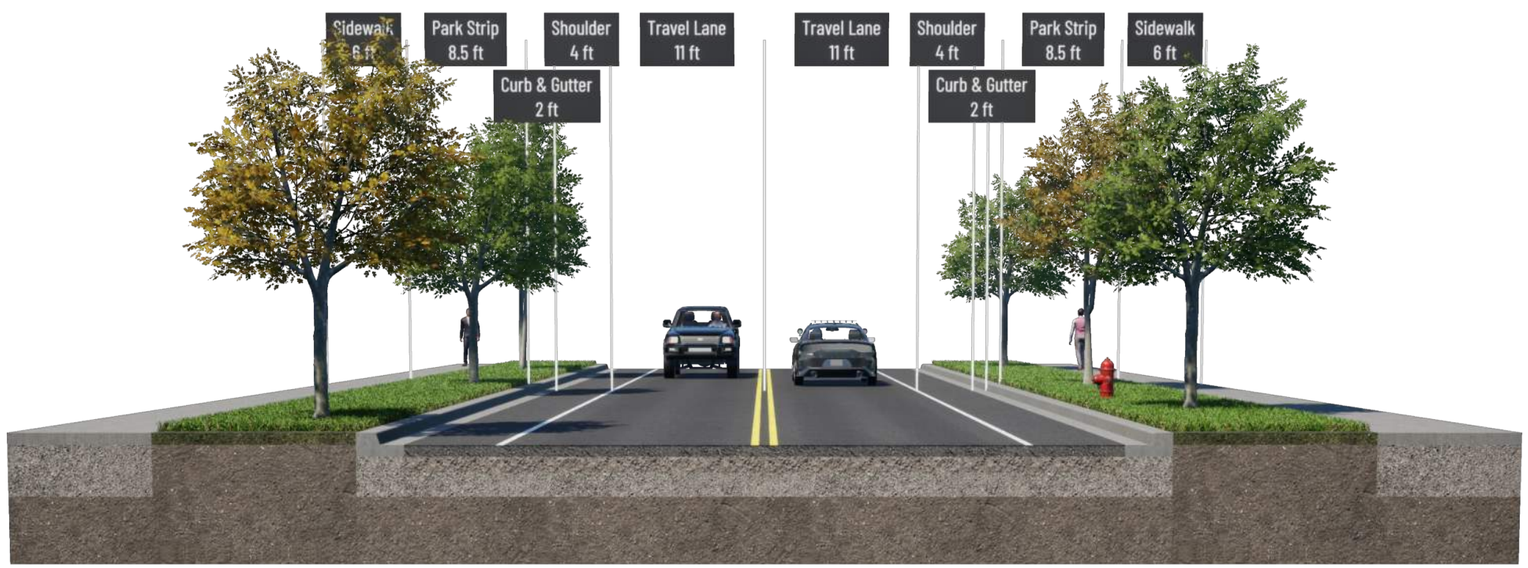
Major Collector (3 Lanes)

Major Collector (3 Lanes)
88' ROW



Minor Collector (2 Lanes)

Minor Collector (2 Lanes)
63' ROW



VINEYARD
STAY CONNECTED

HALES ENGINEERING
innovative transportation solutions

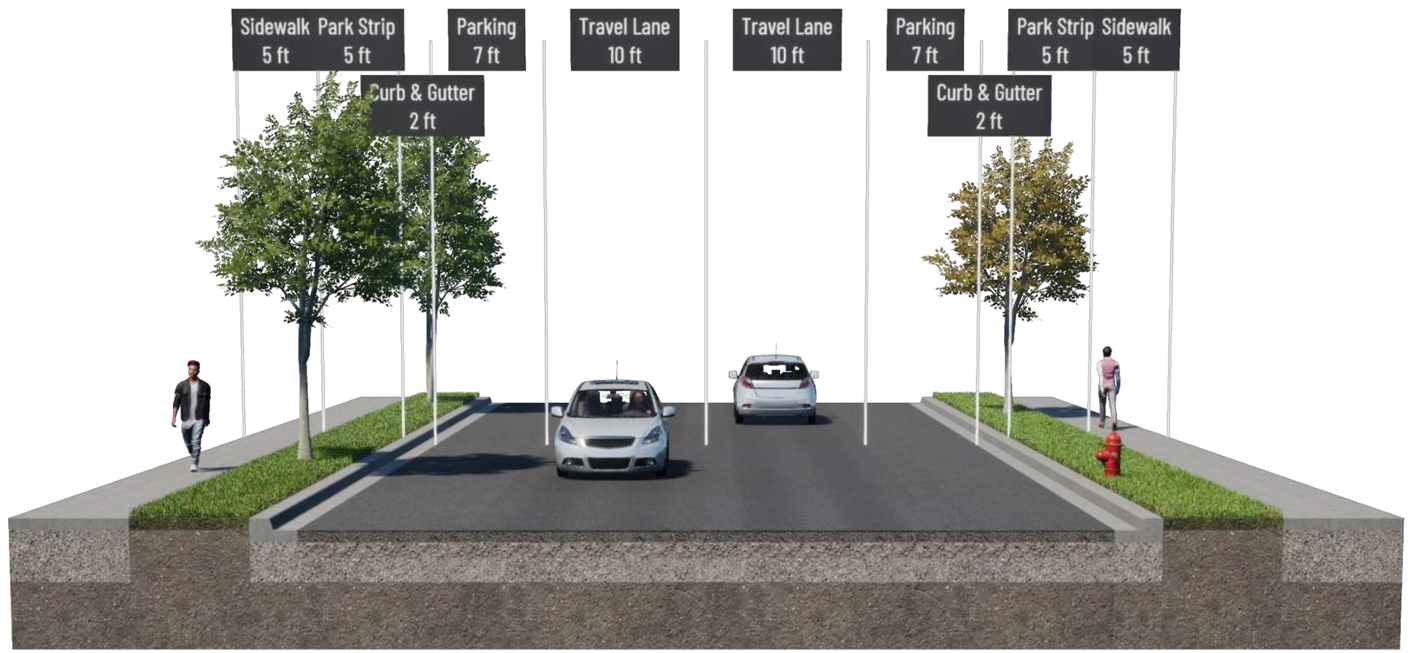
Collector Cross Sections

Vineyard TMP

DATE	01/17/2025
PROJECT	UT23-2453
	Figure 3

Local (2 Lanes)

Local (2 Lanes)
58' *ROW*



VINEYARD
STAY CONNECTED

HALES ENGINEERING
innovative transportation solutions

Local Cross Section

Vineyard TMP

DATE	01/17/2025
PROJECT	UT23-2453
	Figure 4

MEDIAN TREATMENTS

The two most common types of medians include TWLTL areas and raised island medians. TWLTLs are safer and more efficient than no median at all; especially in commercial areas because they provide space for left-turning vehicles to exit the through traffic stream and wait for on-coming gaps to complete the left-turn movement. However, national research has shown that raised medians are even more effective in promoting safety because they provide a physical barrier to opposing directions of travel and help consolidate accesses and left-turn movements to predetermined locations. Raised medians are very effective for commercial corridors with high access density and locations with poor corner clearances and are often used as a retrofit access management technique instead of trying to remove existing accesses.

TURN LANES

Providing left-turn lanes is recommended because it removes traffic waiting for gaps out of the main traffic stream. A TWLTL or raised median accomplishes this objective on the main road. Left-turn lanes are also recommended on the minor street approaches or driveways, especially when the streets or driveways oppose another street or driveway. Opposing left-turn lanes help improve sight distance for the opposite left-turn movement, thus improving the safety of the intersection.

Exclusive right-turn lanes are also a form of access management, especially along busy corridors where there are a lot of right-turning vehicles. Because right-turn movements are usually completed at low speeds (approximately 10 mph), an exclusive right-turn lane provides refuge while the vehicle decelerates to make the right turn. At signalized intersections where right-turn-on-red movements are permitted, an exclusive right-turn lane decreases the delay for right-turning vehicles.

U-TURNS AS ALTERNATIVES TO DIRECT LEFT TURNS

U-turns as alternative to direct left turns are usually operated in conjunction with raised medians. As mid-block access is limited to right-in/right-out (RIRO) access only, left-turn ingress and egress movements must often make U-turns at other locations. These U-turns can be accommodated by having mid-block median opening with U-turns permitted, or by allowing U-turns at the next signalized intersection. When raised medians are present, some accommodation must be made for U-turns. Research has shown that U-turns as alternatives to direct left turns are safer than allowing direct left turns. Roundabouts can be an effective and safe way to make a U-turn movement, as long as it does not cause operation issues.

ACCESS SEPARATION FROM FREEWAY INTERCHANGES

Freeway interchanges have very high traffic volumes and often closely spaced signalized intersections. Research has shown that limiting access in close proximity to an interchange can reduce the need for complex signal timings, heavy weaving maneuvers, and queuing problems. Establishing good intersection spacing adjacent to freeway interchanges is crucial even if the interchange area is not very developed.

FRONTAGE/BACKAGE ROADS

Frontage roads are an effective access management alternative because they can provide increased access to property adjacent to a principal arterial or freeway with periodic access to the principal arterial at well-spaced locations. Frontage roads act like a collector street but allow good visibility to the adjacent corridor. Frontage roads are often referred to as backage roads when they are placed behind adjacent buildings, thus providing even better visibility to the corridor.

ROUNDABOUTS

Roundabouts are a form of access management because they can provide efficient and safe access to side streets as an alternative to signalized or stop-controlled intersections. While not necessarily the best solution for all intersections, roundabouts are especially effective where approach volumes are fairly balanced and where a signal or all-way stop-control would cause excessive delay most of the day. Safety benefits of roundabouts are well documented in the literature as crashes at roundabouts are much less severe than crashes at signalized intersections because they are usually rear-end or side-swipe collisions and not right-angle or head-on collisions as is often the case at signalized intersections. Additionally, crashes at roundabouts typically occur at lower speeds, thus reducing the overall severity.

SHARED (CROSS) ACCESS

In commercial corridors, an effective measure to consolidate access and limit access points on an arterial road is by providing shared access or cross access. Shared access is usually accomplished by straddling an access for two separate properties on the property line. This decreases the number of access points to the main road which improves operations and safety as discussed above as well as pedestrian safety as the number of sidewalk crossings are limited. Development and maintenance costs may also be reduced.

Cross access usually is accomplished by connecting the parking lots of two adjacent properties so that vehicles can cross between the two properties without using the public street. Cross access can be provided so that fewer accesses can be utilized for several adjacent properties, or, even if the number of accesses is not reduced, cross access can limit the number of trips on the adjacent roadway if vehicles are accessing multiple land uses. For example, trips could be reduced when an office building has cross access with a fast-food restaurant, or when a big-box retail establishment has cross access with a bank.

ACCESS ALIGNMENT/OFFSET

Good access alignment and appropriate offsets are a form of access management. According to the AASHTO Green Book, “To reduce costs and crash frequencies, intersecting roads should meet at, or nearly at, right angles, unless roundabouts are utilized. Roads intersecting at acute angles need extensive turning roadway areas and tend to limit visibility. Acute-angle intersections also increase the exposure time for the vehicles crossing the main traffic flow.” (AASHTO 2018, pg. 9-31). In addition, acute-angle

intersections are particularly difficult for elderly drivers because of the lack of flexibility in the neck of an elderly driver to check for gaps more than 90 degrees to the left or right. The AASHTO Green Book states that providing an angle of at least 75 degrees provides most of the benefits of a 90-degree intersection angle (AASHTO 2018, pg. 9-33).

Whenever possible, driveways or side streets should be aligned directly opposite from driveways or streets on the opposite side of the main road. This can increase safety as sight distance is better for opposing left turns and as it can eliminate overlapping left turns on the main road. If intersection offset must occur, it should be designed such that a vehicle waiting to turn left into one access does not occupy the same space as a vehicle waiting to turn left into the other access. Figure 5 illustrates the recommended and non-recommended types of offset.

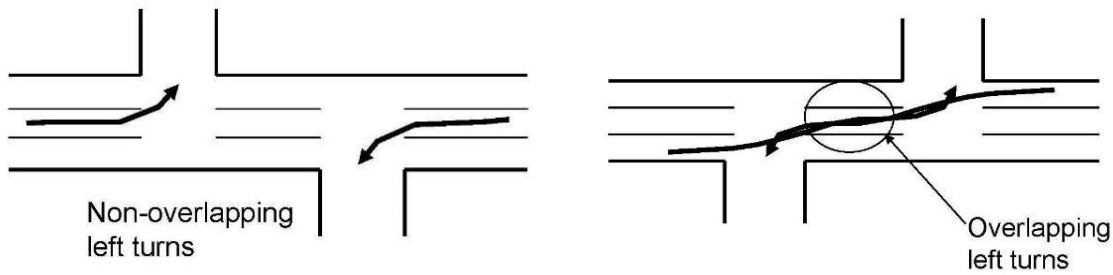


Figure 5: Offset intersection scenarios

Accesses should also be avoided near tight horizontal or vertical curves as appropriate sight distance may be difficult to obtain.

ACCESS CONTROL

Certain movements of an access can be limited or controlled to reduce conflicts thereby increasing safety and reducing delay. The most common is to designate an access as a RIRO access. A RIRO access allows only right-turn ingress and right-turn egress movements. Left turns in or out as well as crossing movements (if applicable) are not permitted. A similar, but less restrictive type of access is a three-quarter access, of which two configurations are possible. A three-quarter access can allow right ingress, right egress, and either left ingress or left egress movements, thereby eliminating only one of the four movement types (thus the name “three-quarter access”).

The effectiveness of a RIRO or three-quarter access is dependent upon the physical controls put into place for these types of accesses. Compliance is low when adequate signing and raised curbs are not present. The most effective way to enforce a limited access driveway is by use of a raised median. A raised median makes left turns physically impossible, and a directional median opening can allow either the left-ingress or left-egress movements when desired. Simply placing signs or even installing a “pork-chop” island may not prevent many drivers from making illegal turns, thus significantly reducing their effectiveness as

access management techniques. Figure 6 shows a vehicle turning left into a RIRO access. Figure 7 shows a vehicle making a left turn out of a RIRO access. Figure 8 and Figure 9 show two RIRO accesses that are operating more effectively because of medians enforcing the desired access management.

Figure 6: Vehicle making an illegal left turn into a RIRO

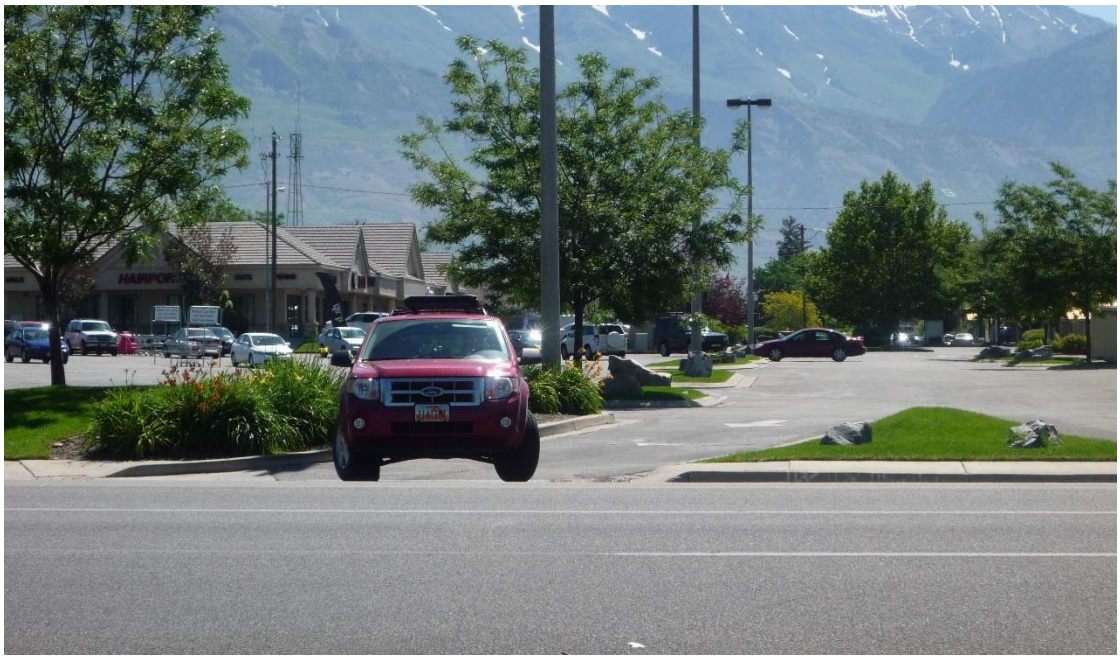


Figure 7: Vehicle making a left turn out of a RIRO

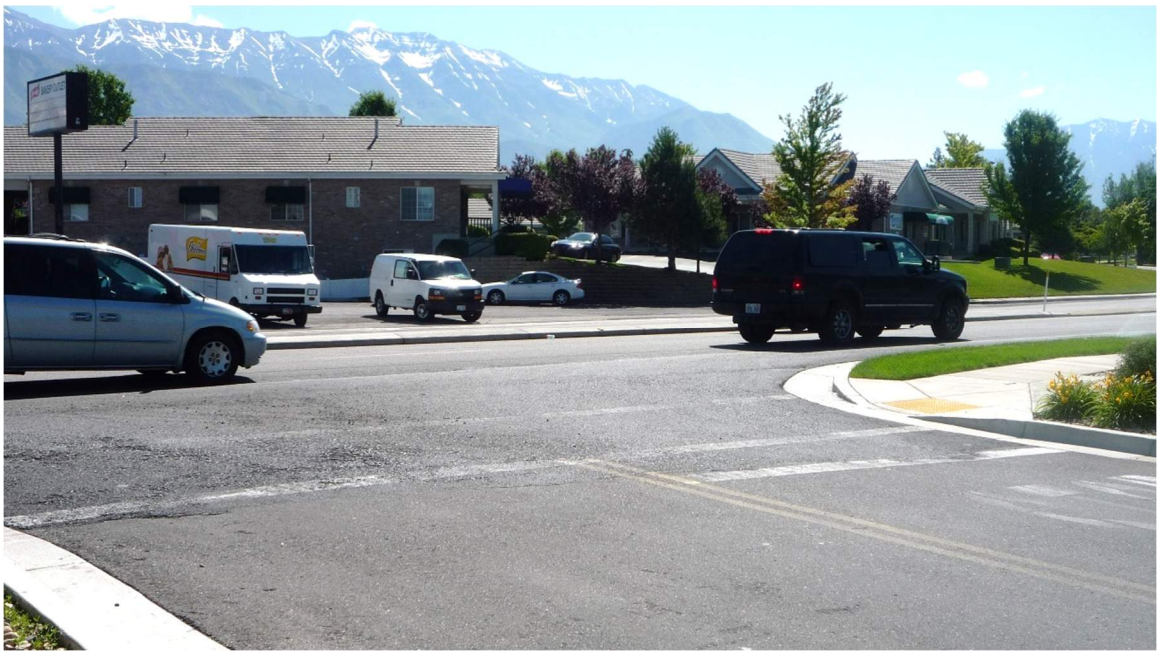


Figure 8: Raised island enforces RIRO

Figure 9: Channelized island and delineators enforce RIRO

ACCESS CHARACTERISTICS

Appropriate design of accesses to a roadway is a critical component of access management. Poorly designed accesses can create safety and operational hazards along a corridor to both through traffic and

turning traffic. The main design features of an access are the curve radii and the width of the access. Many factors influence the design including the design vehicle, design speed, traffic volume utilizing the access, and pedestrian presence.

The design vehicle used to create an access can affect the width and corner radius, especially if a driveway is designed for large trucks. A smaller corner radius can cause vehicles entering an access to cross the centerline of the access road; therefore, when heavy volumes are present, smaller radii require wider driveways. The opposite is also true because with a large enough radius, even a large vehicle will not need to cross the center line of the driveway. However, large radii increase the distance for a pedestrian to cross the access, therefore in areas with high pedestrian presence, a smaller radius may be ideal.

The type of curb opening can also affect traffic operations. The three main types of curb openings include curb returns, dropped curbs, and dustpan curbs. However, dropped curb and dustpan designs usually require much larger driveway widths as their effective radii are relatively small.

The vertical profile of an access is important because when abrupt transitions occur between the cross-slope of the roadway and the slope of the driveway, the front or rear end of a vehicle can scrape the road when a vehicle enters or exits the driveway. This causes drivers to make turns into or out of driveways at angles larger than 90 degrees which in turn can cause safety hazards, especially if the driveway is well utilized. Care should be taken to avoid an abrupt change in slopes so that the driveway can be utilized as intended without damaging vehicles. Figure 10 shows an appropriate vertical curve provided for smooth transition on this sloped access driveway.

Figure 10: Smooth vertical curve transition

The throat length of an access can also be a critical design element of an access that can impact safety and operations both on and off of the site. The driveway throat length refers to the distance of the driveway between the street and the first on-site parking area or intersection encountered. Insufficient throat length can create queuing both on- and off-site. The throat length must be long enough to handle queuing of vehicles attempting to exit the site as well as for queuing occurring as vehicles enter the site and wait for parking spots or make movements within the parking lot. Figure 11 shows an example of appropriate throat length for a driveway into a large development.

Figure 11: Example of good access throat length

INTERSECTION LIGHTING

Lighting can improve the safety and efficiency of intersections. The AASHTO Green Book (2018) recommends that lighting be present in suburban, urban, and urban core contexts "where there are concentrations of pedestrians and roadside intersectional interferences…" (pg. 3-188). Beyond traffic safety and operational benefits, street and intersection lighting can also benefit crime prevention and other community needs and should therefore be coordinated with the city agency responsible for these programs.

Intersection lighting is especially recommended when the intersection has channelized movements, large turning radii, wide cross sections, and high pedestrian volumes. Figure 12 shows typical intersection lighting.

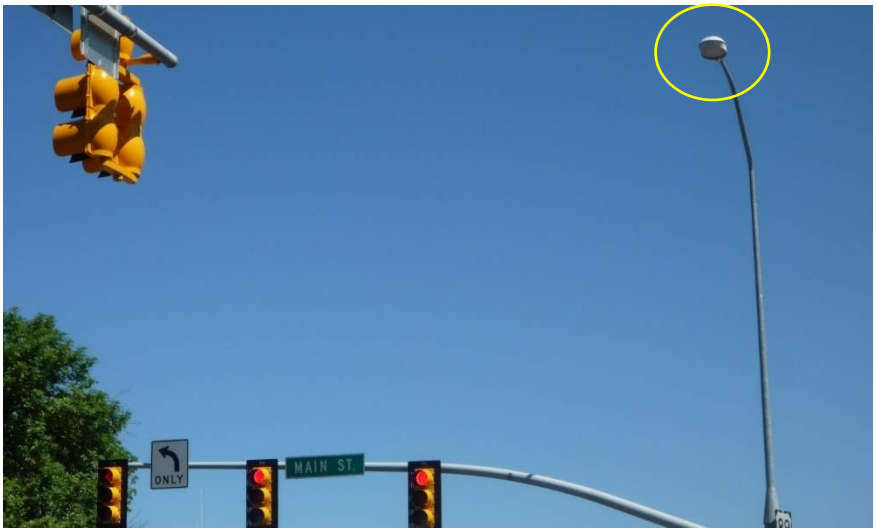


Figure 12: Typical intersection lighting

Three cities were surveyed to determine their intersection and street lighting requirements are. These requirements are summarized in Table 1 below.

Table 1: Intersection and Street Lighting Requirements

Jurisdiction	Intersection Lighting Required	Spacing Required		
		Residential Streets	Collector Street	Arterial Streets
Lehi, Utah	Yes	400' Staggered	400' Staggered	400' Staggered
Provo, Utah	Yes	Mid-Block	Per IES Guidelines[1]	Per IES Guidelines[1]
South Jordan, Utah	Yes	200'-250' Staggered	300'-350' Staggered	300'-350' Staggered

1. Illuminating Engineers Society

BENEFITS OF ACCESS MANAGEMENT

The three primary benefits of access management include operational benefits, safety benefits, and economic benefits. These three are discussed in the following sections in greater detail.

OPERATIONAL BENEFITS

Good access management can result in travel times and delays being reduced and road capacity being increased. Often this can result in a road functioning at appropriate levels of service despite increased

traffic growth. This in turn can save money for the agency responsible for the road as capacity enhancing projects such as road widening can be pushed later into the future.

SAFETY BENEFITS

Because left-turn maneuvers are typically associated with the more severe types of crashes, minimizing these conflicts through access management can improve the overall safety of a corridor. Both the quantity and severity of crashes has been shown to be reduced through implementation of access management. Sometimes less-severe crashes such as rear-end crashes increase with certain types of access management; however, the benefits of reducing right-angle crashes far outweigh the cost of additional minor crashes.

Adequate access spacing in busy urban corridors also helps reduce the decisions and workload normally required as drivers pass driveways and other intersections. This allows drivers to be more vigilant to other conditions thus improving the overall safety of the corridor.

ECONOMIC BENEFITS

A large concern of business owners and developers is that reducing direct access of businesses to major roads will hurt sales because access management techniques will make access to businesses more inconvenient, thus reducing the number of customers that will patronize the businesses. In fact, the Federal Highway Administration (FHWA) found that the opposite was true. In a study released in 2006 (Safe Access is Good for Business), the FHWA reported that before and after studies in several states showed that “the vast majority of businesses do as well or better after the access management projects are completed” because the overall travel time to access the businesses are reduced due to reductions in delay. This in turn actually makes patronizing the establishments more convenient and can increase the market area as travel times are reduced. Developments that are difficult to enter and exit due to poor access management and congestion become less attractive to customers.

ACCESS MANAGEMENT STATE-OF-THE-PRACTICE

INTRODUCTION

This chapter discusses the current state-of-the-practice for access management related standards including the current policies of Utah Department of Transportation (UDOT) and several other cities in Utah.

UTAH DEPARTMENT OF TRANSPORTATION (UDOT)

UDOT began a formal access management program in 2003 with Administrative Rule R930-6, *Accommodation of Utilities and the Control and Protection of State Highway Rights of Way*. Chapter 7 of this rule outlines the access management plan for all UDOT-owned roads. Several topics are coved by this program including:

- Access management classifications (Category 1 through 9)
- Access spacing requirements for each classification including signal spacing, street spacing, access spacing, and spacing from crossroads to freeway interchanges.
- Access design standards and specifications
- Turn lane requirements
- Permitting and variance processes

UDOT ACCESS LOCATION AND DESIGN STANDARDS

Table 2 shows the access spacing requirements for UDOT roads. UDOT's access spacing requirements serve as a good starting point for Vineyard access spacing requirements, especially for Vineyard's higher classification roadways. However, UDOT's requirements do not cover lower classified roads such as residential streets and collector streets.

Table 3 shows recommended minimum and maximum access widths for driveways on UDOT facilities based on land use type. Table 4 shows the recommended minimum and maximum radii for urban accesses on UDOT facilities. Table 5 shows the desirable and minimum approach angles of access to UDOT facilities, that is, the maximum allowable skew of an access.

Table 2: UDOT State Highway Access Management Standards

Category		Minimum Signal Spacing (ft)	Minimum Street Spacing (ft)	Minimum Access Spacing (ft)	Minimum Interchange to Crossroad Access Spacing (ft)		
					To 1st RIRO[1]	To 1st RIRO Intersection[2]	From Last RIRO[3]
1	Freeway/Interstate	Not Allowed			Not Applicable		
2	System Priority-Rural	5,280	1,000	1,320	1,320	1,320	1,320
3	System Priority-Urban	2,640	No Unsignalized Access Permitted		1,320	1,320	1,320
4	Regional-Rural	2,640	660	500	660	1,320	500
5	Regional Priority-Urban	2,640	660	350	660	1,320	500
6	Regional-Urban	1,320	350	200	500	1,320	500
7	Community-Rural	1,320	300	150	Not Applicable		
8	Community-Urban	1,320	300	150			
9	Other	1,320	300	150			
10	Freeway One-way Frontage Road	1,320	660	Not Allowed			

1. The distance from interchange off-ramp gore area (point of widening) to the first RIRO driveway intersection.
2. The distance from the interchange off-ramp gore area (point of widening) to the first major intersection.
3. The distance from the last RIRO driveway intersection to the interchange off-ramp gore area (point of widening).

Source: UDOT R930-6-7, Table 1 (2019)

Table 3: UDOT Access Width Guidance

Land Use	Direction Use	Minimum Access Width (ft)	Maximum Access Width (ft)
Commercial or Industrial	Two-way	25	50
	One-way	16	30
Residential	Two-way or one-way	16	30
Farmland	Two-way or one-way	16	32

1. If two one-way approaches are adjacent and separated by a non-traversable median between 4 and 25 feet wide, the access is treated as one access.

Source: UDOT R930-6-7.4 (2019)

Table 4: UDOT Access Radii (Urban Areas)

Land Use	Location	Minimum Radius (ft)	Maximum Radius (ft)
Commercial, Industrial, Agricultural	Urban	30	60
	Rural	20	60
Residential	Urban	10	15
	Rural	20	30

1. Examine the vehicle profile utilizing the subject access and design appropriate radii.

Source: UDOT R930-6-7.4 (2019)

Table 5: UDOT Access Driveway Angles

Direction Use	Desirable (degrees)	Minimum (degrees)
Two-way	90	80
One-way (right-in or right-out)	90	60

Source: UDOT R930-6-7.4 (2019)

ACCESS MANAGEMENT STANDARDS

INTRODUCTION

The following sections discuss access management standards for Vineyard City. These are based on national and local research, as well as the current state-of-the-practice by other jurisdictions as previously discussed.

ACCESS PROVISIONS

This section discusses the types of accesses that should be permitted on the various types of roadways within the City. The roadway network and land use are interconnected. Therefore, allowing certain types of land use and accesses adjacent to certain types of roadways will lead to maximizing the life and traffic operations of the roadway. Table 6 shows recommended allowable accesses for each roadway classification.

Table 6: Access Provisions

Street Classification	Commercial Access	Multi-Family Residential Access	Residential Access	Public Street Access
Arterial	Yes[1]	No[3]	No	Yes
Collector	Yes	Yes	Yes[4,5]	Yes
Local Street	No[2]	Yes	Yes	Yes

1. Preferably, commercial access to an arterial should be consolidated for several parcels and gained using a traffic signal or a public street. Where direct access is given to an arterial, if possible, the access should be a RIRO access.
2. Exceptions to this recommendation would be for small commercial developments or for secondary access to a commercial development.
3. Very large multi-family developments may have private accesses that resemble public streets in form and function, and therefore would be an exception to this recommendation.
4. Direct access and frontage of residential properties to a minor collector may result in less-than-desirable livability for residents and should be avoided where practical.
5. Direct access and frontage of residential properties to a major collector may result in less-than-desirable livability for residents and should be avoided where practical; however, if base residential zoning allows access, then a traffic impact study showing acceptable operations and safety can be mitigated, then an engineering review will determine the applicability of this standard.

The standards listed in Table 6 may not always be feasible depending on whether or not other access exists for a given parcel of land. The feasibility of these recommendations is also highly dependent upon land use and transportation planning by Vineyard City.

INTERSECTION AND ACCESS SPACING

Standards for minimum signalized, public street and private access spacing have been compiled and are shown in Table 7. Guidance for access widths and angles are summarized in Table 8, and Table 9, respectively.

Table 7: Vineyard Access Management Standards

Functional Classification	Signal Spacing[1] (ft)	Street Spacing[1] (ft)	Access Spacing[1] (ft)		
			Full	3/4[2]	RIRO[3]
Major Arterial	2,640	1,320	1,320	990	660
Minor Arterial	1,320	660	660	330	330
Major Collector	1,320	330	330		
Minor Collector	1,320	330	150		
Local	N/A	150	35		

1. Includes intersecting streets and driveways. Signal and access spacing may be adjusted by the City Engineer based on traffic warrants as found in the latest Manual on Uniform Traffic Control Devices (MUTCD) and engineering judgement.
2. Restricts left-turns and through movements from the minor approach OR left-turns from the major approach
3. Limits access to right turns into and out of the minor approach only

Table 8: Vineyard Access Width Standards

Land Use	Desired Access Width (ft)	Maximum Access Width (ft) [3]
Private Residences	Match width of driveway	30[1]
Residential Development	12 feet for each entry/exit lane	30
Commercial Development	14 feet for the entry lane & 12 feet for each exit lane	30[2]
Industrial Development	16 feet for the entry lane & 12 feet for each exit lane	40

1. For residential lots with a width less than 60 feet, the driveway width may not exceed fifty percent (50%) of the lot width.
2. Subject to the approval of the City Engineer, the maximum width may be increased to 40 feet in the C-1 General Commercial District based on traffic needs. Other Commercial Districts may be allowed a maximum width driveway of 40 feet, based on a Traffic Impact Analysis and subject to approval of the City Engineer.
3. Maximum width shall be measured at the right-of-way line.

Table 9: Vineyard Access Driveway Angles

Land Use	Direction Use	Driveway Angles	
		Desirable (degrees)	Minimum (degrees)
Commercial or Industrial	Two-way	90	75
	One-way (right-in or right-out)		60
Residential or Farm Land	Two-way or one-way		75

1. If two one-way approaches are adjacent and separated by a non-traversable median between 4 and 25 feet wide, the access is treated as one access.

CORNER CLEARANCE REQUIREMENTS

The corner clearance requirements are the same as the minimum access spacing requirements as were shown previously in Table 7. In general, minimum corner clearance can be shorter on the downstream leg of the minor street at an intersection, especially if the access is a RIRO access. This distance can be as low as 120 feet. For all other corner clearance distances, the values in Table 7 for minimum access spacing apply.

CROSS ACCESS (SHARED ACCESS) REQUIREMENTS

Access to private property from the public transportation network cannot be prohibited. However, when parcels have small frontages, especially along arterials and collectors, it is highly recommended that a cross access and/or shared access be utilized where practical. Where adjoining parcels have the same ownership, Vineyard City should require the use of cross or shared access in order to maintain the recommended access spacing requirements as previously discussed. When adjacent parcels do not have common ownership, incentives should be provided to promote shared and cross access.

INTERSECTION ALIGNMENT / OFFSETS

Where possible, accesses on opposite sides of the street should be lined up directly across from each other. Sometimes this is not possible due to site restrictions or property lines. If accesses cannot be lined up across from one another, the preferable offset is so that left turns entering each respective access do not overlap, as was discussed previously in this document and shown in Figure 5. Table 10 shows the minimum offset for intersections on opposite sides of the street when the potential for overlap does occur. However, a traffic impact study could determine that a larger offset is required depending on the level of queuing that could occur at the intersections.

Table 10: Minimum Access Offset Requirements

Street Classification	Minimum Offset (feet)[1]
Minor Arterial[2]	300
Collector	180

1. These values are a minimum requirement and are subject to change based on the results of a traffic impact study. Offset requirements are not applicable in the case of RIRO accesses such as when a raised median is present.
2. Access should only be provided to arterial streets when reasonable alternative access does not exist.

ON-STREET PARKING

Permitting on-street parking can be a tool to make a corridor more pedestrian friendly as parked vehicles provide a buffer between through traffic and pedestrians on the sidewalks. Vehicles parking and un-parking along a roadway may cause side friction that can result in through traffic being slowed down or impeded. To determine whether or not a road should have permitted on-street parking depends primarily on what the function of the roadway is. As was discussed previously, the purpose of most arterial type roads is to provide mobility, not access, whereas the purpose of a local street is to provide access and not mobility. However, another important factor is adjacent land use.

A roadway in a core business area, even if classified as an arterial, can benefit from having on-street parking, where a lower classified road, such as a minor collector within an industrial area, may not need on-street parking, therefore the cost to build and maintain this type of road will be less expensive by prohibiting on-street parking. Finally, the available cross-section width should also be considered when determining whether on-street parking should be permitted. A minimum of 7 feet of cross-section width should be provided for on-street parking on one side or 14 feet when parking is desired on both sides of the road. Typically, the gutter pan can be used for additional width for parking beyond the 7 feet of pavement.

As shown previously in Figure 2 through 4, the typical cross-sections only provide for on-street parking on local roads by default. However, if the City and/or development groups desire on-street parking along a corridor based on the land use context, on-street parking may be accommodated within the right-of-way by reducing the size of the park strip and widening the shoulder. This will also bring the sidewalk closer to the on-street parking, making it easier for users to get in and out of parked vehicles.

ACCESS CHARACTERISTICS

Standards for access characteristics discussed in this section include driveway width, curb return radii, vertical profile of driveway, driveway throat length, and minimum separation of gate on private access from public street.

All recommendations in this section assume the following:

- The design vehicle for residential and commercial accesses is a passenger car
- The design vehicle for industrial accesses is a WB-50

Although some larger vehicles such as delivery vehicles do need access to commercial areas, these types of trips do not typically occur during the peak hours of the day. The entire access (ingress and egress side) can therefore be used by a larger vehicle during off-peak times. This is more efficient than utilizing more area to make larger radii and access widths and is also more ideal for pedestrians. Access driveways that will be heavily utilized by trucks and buses during peak periods should be designed to the industrial recommendations. Table 11 shows curb radii for various intersection types depending on the functional classification of the adjacent roadway.

Table 11: Curb Return Radii

Access Type	Curb Return Radii in Feet		
	Arterial	Collector	Local
Residential (SFDU) 1 dwelling unit	n/a	n/a	n/a
Multi-Family (less than 3 units)	n/a	n/a	n/a
Multi Family (more than 3 units)	20	20	25
Commercial (1 exit lane)	20	20	25
Commercial (2 exit lanes)	20	n/a	n/a
Industrial	45	45	n/a

Source: *AASHTO Green Book* (2018)

Table 12 shows the required curb radius measured from top back of curb (TBC) for the various street intersections within Vineyard City. Deviation from these standards requires approval in writing from the City Engineer.

Table 12: City Street Curb Radii

Minor Street Classification	Curb Radii (ft) by Major Street Classification			
	Local	Collector	Minor Arterial	Major Arterial
Local	15	15	15	25
Collector	n/a	25	30	30
Minor Arterial	n/a	n/a	30	30
Major Arterial	n/a	n/a	n/a	40

Source: *AASHTO Green Book* (2018)

Table 13 contains maximum change in grade between the cross-slope of the roadway and the slope of the driveway. The maximum change in grade reported is the algebraic difference in slope. For example, if a negative 2 percent cross-slope connects to a positive 2 percent driveway slope, the algebraic change in grade is 4 percent. Likewise, if the cross-slope is negative 2 percent and the driveway slope is negative 6 percent, the algebraic change in grade is also 4 percent. Table 13 also shows the maximum change in grade with vertical curves provided.

Table 13: Change in Driveway Vertical Profile

Access Type	Maximum Change in Grade – No Vertical Curve Required[1]			Maximum Change In Grade – Vertical Curve Required		
	Arterial	Collector	Local	Arterial	Collector	Local
Residential (SFDU)	n/a	8%	10%	n/a	10%	12%
Multi-family (3 or less units)	n/a	8%	10%	n/a	10%	12%
Multi-family (4 or more units)	4%	8%	10%	5%	10%	12%
Commercial (1 exit lane)	4%	8%	10%	6%	10%	12%
Commercial (2 exit lanes)	4%	n/a	n/a	5%	n/a	n/a
Industrial	4%	-	n/a	5%	-	n/a

1. Rounding by taking care to avoid abrupt changes in grade.

Source: Transportation and Land Development (ITE, 2002)

Table 14 shows the recommended driveway throat lengths for various access types and based on what type of conflict is closest to the adjacent road. When an internal intersection is the first conflict encountered when entering a driveway, a shorter throat is typically needed then for a site where the driver will encounter parking spots after entering the access.

Table 14: Recommended Driveway Throat Length (feet)

Access Type	First conflict within the site is:	
	Parking	Internal Intersection
Residential (SFDU)	n/a	n/a
Multi-Family (3 or less units)	n/a	n/a
Multi Family (4 or more units)	75	30
Commercial (1 exit lane)	75	30
Commercial (2 exit lanes)[1]	75	50
Industrial	75	75

1. For signalized accesses with three egress lanes, throat length should be at least 200 feet long. For signalized accesses with four egress lanes, throat length should be at least 300 feet long. These lengths should also be verified by a traffic study.

Source: *Transportation and Land Development* (ITE, 2002)

Table 15 shows the minimum separation of a gate on a private access from the edge of traveled way for various design vehicles. If a sidewalk, trail, and/or bike lane exist, the edge of traveled way should be considered as the closest edge of traveled way for any of these modes of transportation (e.g. setback should be measured from the gate to the edge of sidewalk if present). This separation is necessary so that a vehicle can park in front of the gate while it is still closed without the rear of the vehicle obstructing the flow of traffic. Where the possibility of queuing exists, such as at a gated residential community, a traffic study should be completed to determine the 95th percentile queue length during the peak hour.

Table 15: Minimum Setback of a Gate on a Private Access from an Adjacent Street

Design Vehicle	Minimum Distance (feet)[1]
Passenger Car	25
Single Unit Truck	35
Bus	50
Recreational Vehicle	35
Recreational Vehicle Pulling a Trailer	60
WB-40	50
WB-62	75
WB-67	80

1. If multiple vehicles are expected to queue up at the gate, a traffic study should be completed to determine the required distance.

Source: AASHTO Green Book (2018)

INTERSECTION SIGHT DISTANCE

Appropriate intersection sight distance (ISD) should be provided for at each access and intersection based on the type of control (signal, stop sign, yield sign, roundabout, etc.), the design speed of the roadways, the design vehicle, the permitted movements at the intersection, and the cross-sectional width of the road to be traversed. Pedestrian usage can also be a factor in required intersection sight distances. The AASHTO *A Policy on Geometric Design of Highways and Streets* ("Green Book") provides standards for calculating the appropriate intersection sight distances. Figure 13 and Figure 14 show examples of poor intersection sight distance because of bushes, trees, and other structures.

This section discusses recommended intersection sight distance for several intersection types based on AASHTO Green Book (2018) recommendations. These recommendations are made for various intersection control scenarios as well as functional classifications of the intersecting roads. Additionally, sight distances to accommodate trucks have also been calculated. Scenarios discussed in the following sections include intersection sight distance for stop-controlled, yield-controlled, and uncontrolled

intersections. Sight distance requirements for a left turn from the major street onto a minor street are also given. A licensed professional engineer should calculate all intersection sight distances.

Figure 13: Sight distance obscured by landscaping features

Figure 14: Sight distance obscured by curvature and structure

For all of the scenarios, the following assumptions have been made:

- Design Speeds:
  - Access: 15 mph
  - Local: 30 mph
  - Minor Collector: 35 mph
  - Major Collector: 40 mph
  - Minor Arterial: 45 mph
  - Major Arterial: 50 mph
- Intersections are flat (all slopes are assumed 3 percent or less)
- All roads are assumed to be 2-lane facilities. Adjustments may be needed for wider roads depending on the ISD case.

All calculations are based on *AASHTO Green Book* (2018) assumptions. Because the grade of the major or minor street does affect sight distance, the values presented in the sections below should be adjusted when grades are more than 3 percent. These adjustments should be made on an individual case-by-case basis by consulting the *AASHTO Green Book*. Additionally, alternative design speeds or cross sections will also require adjustments to these sight distances.

Once intersection sight distances have been determined for a given intersection, a "clear sight triangle" can be formed which should remain clear of anything that will obstruct the driver from seeing other vehicles within the intersection sight distance. The *AASHTO Green Book* states that the height of a driver's eye in a passenger vehicle is approximately 3.5 feet. The height corresponding to the driver of a combination or single unit truck is approximately 7.6 feet. Therefore, objects should not be placed in the clear sight triangle between 3.5 and 7.6 feet in height.

Objects such as buildings, fences, and parked cars are examples of objects that will block the intersection sight distance. Landscaping features such as shrubbery and decorative rocks are acceptable as long as they are less than 3.5 feet high. Trees are acceptable as long as the trunk is located outside of the clear sight triangle and the lowest branches are at least 7.6 feet tall. The *AASHTO, Roadside Design Guide,* provides additional guidance and should be consulted for concurrence or variance.

STOP-CONTROLLED INTERSECTIONS

AASHTO defines three different cases for stop-controlled intersections:

- Case B1: Left turns from the minor road
- Case B2: Right turns from the major road
- Case B3: Crossing the major road from a minor-road approach

Intersection sight distances for stop-controlled intersections include both full-movement and RIRO intersections. Cases B1 and B3 apply to full-movement intersections and Case B2 applies to RIRO intersections.

Sight distances for each case are unique based on the design speed of the major road. When drawing the sight triangle for stop-controlled intersections, the vertex (decision point) of the sight triangle on the minor street leg should be located 14.5 feet behind the edge of the major-road traveled way. The edge of traveled way is defined as the outside striping of the closest major-road lane or the edge of pavement if there is not striping.

Table 16 shows the sight distance required for left-turn movements from the minor road (Case B1). Table 17 shows the sight distance required for right-turn movements from the minor road (Case B2) and crossing maneuvers from the minor road (Case B3). The value shown in the table is how far to the left and/or right for which the stopped vehicle should have a clear sight triangle from the decision point. Figure 15 illustrates these distances and the sight triangle.

Table 16: ISD Case B1 – Left-turn from Minor Road

Design Vehicle	ISD (ft) Major Street Design Speed		
	30 mph	40 mph	50 mph
Passenger Car	335	445	555
Single Unit Truck	420	560	700
Combination Truck	510	680	850
Source: *AASHTO Green Book* (2018) Case B1 (pp. 9-43 to 9-47)			

Table 17: ISD Cases B2 and B3 – Right-turn and Crossing Maneuvers from Minor Road

Design Vehicle	ISD (ft) Major Street Design Speed		
	30 mph	40 mph	50 mph
Passenger Car	290	385	480
Single Unit Truck	375	500	625
Combination Truck	465	620	775
Source: *AASHTO Green Book* (2018) Cases B2 and B3 (pp. 9-47 to 9-50)			

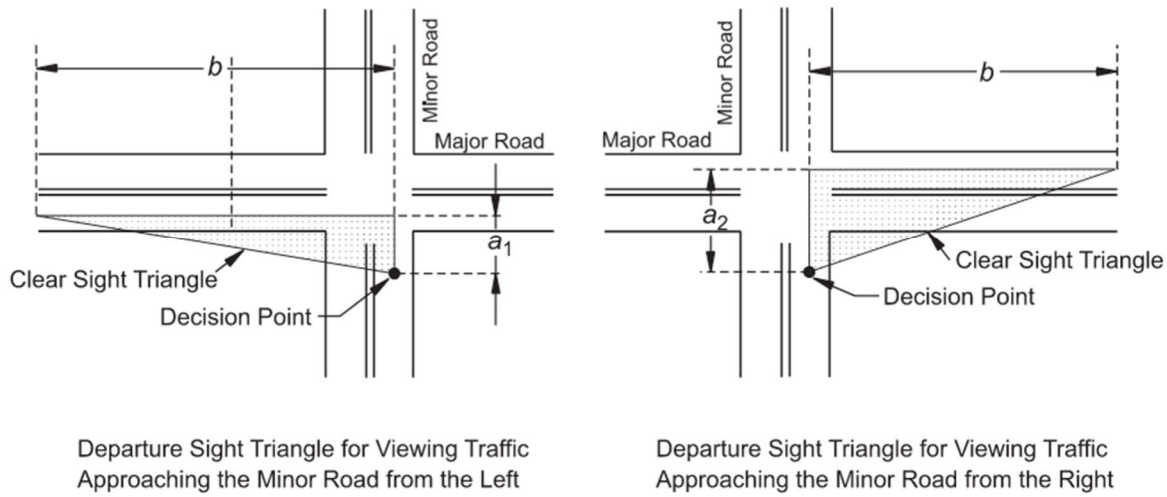


Figure 15: Intersection sight triangles for stop control

YIELD-CONTROLLED INTERSECTIONS

Intersection sight distance for yield-controlled intersections include two cases:

- Case C1: Crossing maneuver from the minor road
- Case C2: Left- and right-turn maneuvers from the minor road.

In both scenarios, the major street does not stop. For four-leg intersections, Cases C1 and C2 both need to be evaluated since crossing maneuvers are possible. For three-leg intersections, only Case C2 needs to be evaluated.

Table 18 shows the sight distance required for Case C1. Table 19 shows the sight distance required for Case C2. Figure 16 illustrates these distances and the sight triangles. As shown, the length of the sight triangles listed in the tables are measured to the center of the lane.

Sight distance values are only shown for passenger cars as it is assumed that roads with significant truck traffic will not be yield-controlled intersections. Also, it was assumed that the major streets do not have classifications higher than minor collector, as these types of high classification streets should at least have stop control on the minor street. If conditions are different than the assumptions stated, unique sight distance values should be calculated based on the AASHTO Green Book (2018). If an intersection location does not meet the required ISD for cases C1 and C2, stop control is required.

Table 18: ISD Case C1 – Crossing Maneuvers from Yield Control

Minor Street Design Speed	ISD (ft) by Major Street Design Speed		
	30 mph	40 mph	50 mph
20-50 mph	290	385	480
Source: *AASHTO Green Book* (2018) Case C1 (pp. 9-51 to 9-54)			

Table 19: ISD Case C2 – Left- and Right-Turn Maneuver from Yield Control

Design Vehicle	ISD (ft) by Major Street Design Speed		
	30 mph	40 mph	50 mph
Passenger Car	355	475	590
Single Unit Truck	445	590	735
Combination Truck	530	710	885
Source: *AASHTO Green Book* (2018) Case C2 (pp. 9-53 to 9-55)			

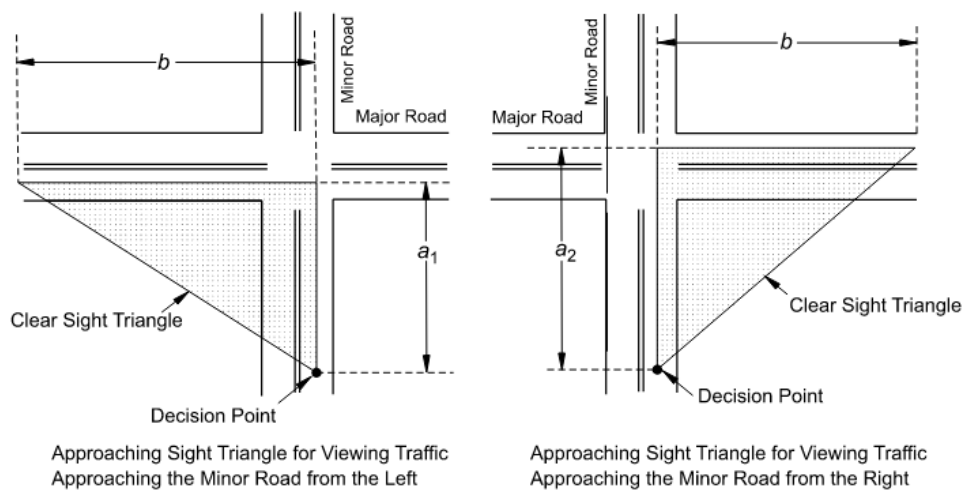


Figure 16: Intersection sight triangles for yield control

UNCONTROLLED INTERSECTIONS

Uncontrolled intersection sight distances are for those intersections where neither the minor nor the major street has any control. These streets are typically very low volume roads primarily in residential subdivisions. An uncontrolled intersection is defined as Case A by AASHTO. Table 20 shows the sight distance required at uncontrolled intersections. Only access roads and local streets were shown as any other higher classification road should have some intersection control. The distance shown in the table

corresponds to the leg of the sight distance triangle for the respective type of road. Figure 16 above illustrates the sight distance triangle for this type of intersection. Sight distance values were only calculated for passenger cars as it is assumed that roads with significant truck traffic will not be yield-controlled intersections. If an intersection location does not meet the required ISD listed in Table 20, stop or yield control should be considered.

Table 20: ISD Case A – Uncontrolled Intersection (feet)

Length of Approach Leg by Major Street Design Speed		
30 mph	40 mph	50 mph
140	195	245
Source: AASHTO Green Book (2018) Case A (pp. 9-40 to 9-41)		

LEFT TURNS FROM THE MAJOR ROAD

Intersection sight distance for left turns from the major road include any left turn movement where the driver must yield to oncoming traffic (through and right-turning vehicles) before turning left onto the minor street. This is defined as Case F by AASHTO. Table 21 shows the values for the sight distance triangles based as a function of design vehicle. Figure 17 illustrates the sight distance triangles for this type of movement.

Table 21: ISD Case F – Left Turns from Major Street

Design Vehicle	ISD (ft) by Major Street Design Speed*		
	30 mph	40 mph	50 mph
Passenger Car	245	325	405
Single Unit Truck	290	385	480
Combination Truck	335	445	555

Source: AASHTO Green Book (2018) Case F (pp. 9-56 to 9-58)

**These values assume one opposing through lane. Adjustments are necessary if more than one opposing through lane or opposing right-turn lane with a shared receiving lane exist.*

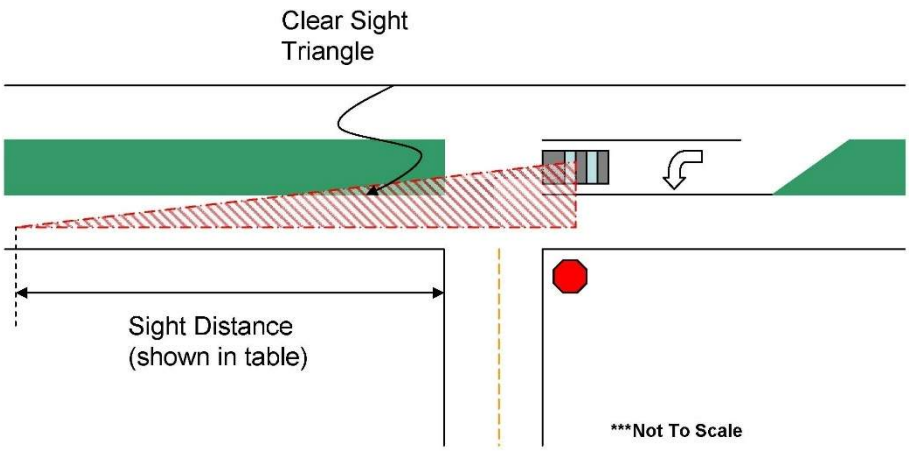


Figure 17: Intersection sight triangle for a major street left turn

VARIANCE PROCESS

An access variance grants permission to depart from the standards and requirements of the Vineyard City access management manual.

Applicants seeking a variance from the Vineyard City access management manual will submit the written request as an attachment to the formal project submittal and application. A subsequent request for a variance may be allowed in accordance with the completeness check review procedure as a supplement to a previously submitted application if Vineyard City determines that it is in the public interest to do so. The City Public Works Director or Engineer will review all requests for variance. If a variance request affects a federal aid roadway (both state highway and local roads) UDOT may need to be consulted as well.

The request for variance will specify in writing why the variance is appropriate and necessary and should be completed and stamped by a licensed professional traffic engineer. Included in the request, documentation of conditions with and without the variance with the documentation showing that the applicant has considered all practical and reasonable mitigation alternatives. The variance request results from the application of the standard or requirement of this access management manual suffered directly and solely by the applicant and is not self-created or self-imposed such as by the applicant acting with or without knowledge of the applicable standard or requirement. A variance will not be granted for procedural requirements.

The applicant is responsible for showing that the variance request meets minimum acceptable engineering, operation, and safety standards, the variance is not detrimental to the public health, welfare and safety, and the variance is reasonably necessary for the convenience and welfare of the public.

The City Public Works Director or Engineer will consider the following factors in determining that the granting of a variance will not negatively impact the current and proposed operation of the roadway:

1. The applicant has considered all other feasible alternatives to provide reasonable access to the land use or development and can demonstrate that better alternatives in terms of roadway operations are not feasible or do not exist.
2. The applicant has considered access through a shared use or cross access driveway or access point with an adjacent land use and such a shared use access or cross access is not feasible. A letter from the adjacent land owner stating that cross access or shared access is not feasible shall be provided.
3. The applicant is providing on-site or off-site traffic improvements that might offset the negative impacts of granting an access that does not meet standards.
4. The applicant has considered and demonstrated trip reduction strategies that allow the access to properly function without creating a negative impact to the roadway.

5. The applicant has provided traffic engineering or other studies to determine that the access will not degrade the efficient flow of traffic on the roadway in terms of safety, capacity, travel speed and other functional features of the roadway.

The review and final action of whether to approve or disapprove the variance will be completed within twenty (20) working days of the date of acceptance of the request for variance application.

Include the documentation of reasons for approving/denying the variance in the project files and records. State in terms and conditions of the approved permit and variance that the permittee may be required to improve, modify, eliminate, or correct the condition responsible for the variance when it is evident that the justification for the variance is no longer valid.

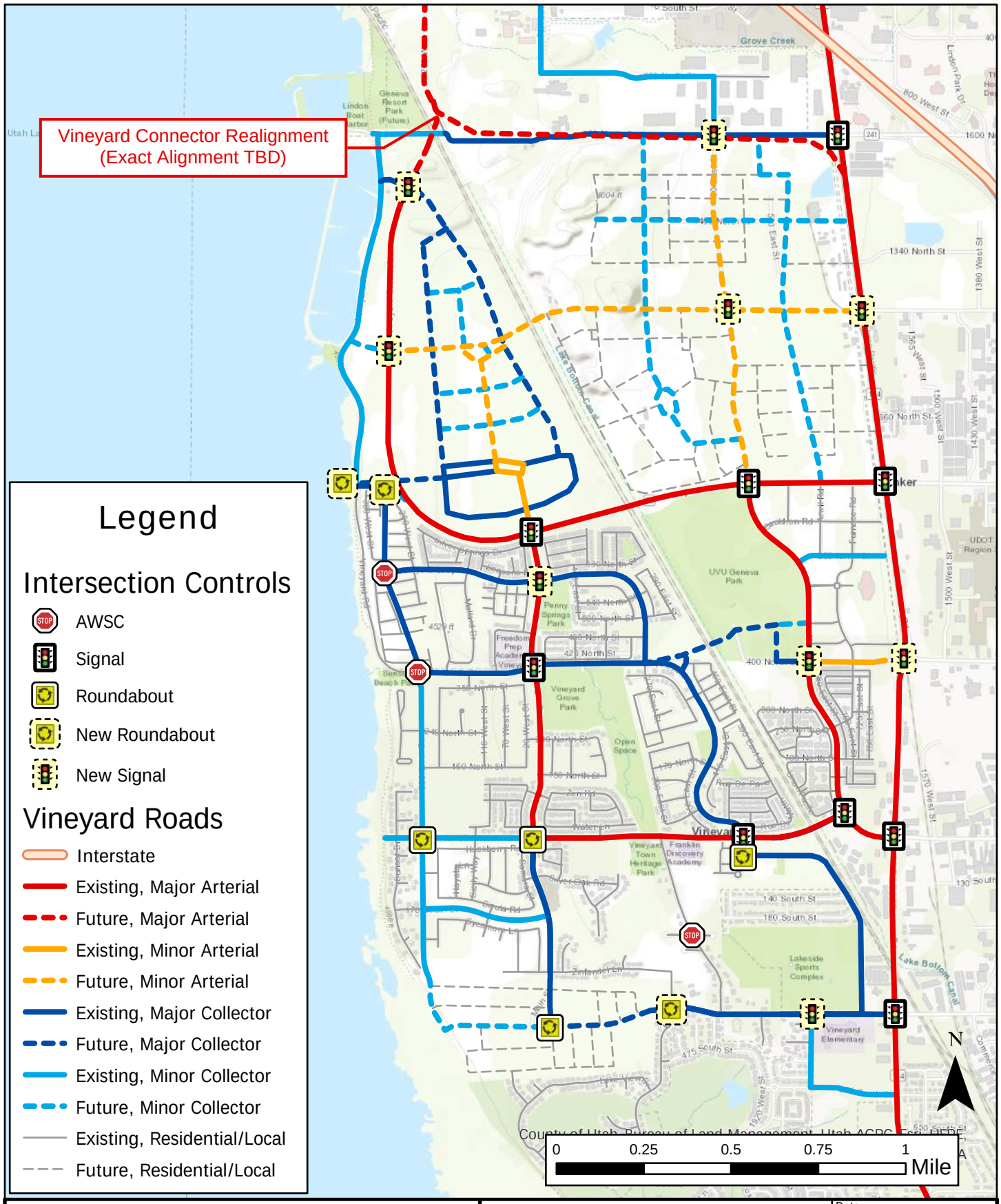
The permit may stipulate conditions and terms for the expiration of the permit when the necessity for the variance no longer exists, allowing direct access to a roadway when the access proposal cannot meet the standards of this access management manual, or when the property would otherwise be without reasonable alternative access if a variance were approved.

If a variance is denied, the applicant may initiate an appeal to the City Administrator, only after complete review and determination of the access permit application.

Appendix A

Vineyard City TMP

Future Roadway Network



VINEYARD
STAY CONNECTED
TRANSPORTATION MASTER PLAN

Future (2050) Roadway Network

Date 6/17/2025

Project UT23-2453

Appendix A

VINEYARD PLANNING COMMISSION STAFF REPORT

Meeting Date: September 3, 2025
Agenda Item: PLAN25-0015 Conditional Use permit 191 W Sycamore Ln. - Preschool
Department: Community Development
Presenter: Anthony Fletcher

Background/Discussion:
Sycamore Lane Learning Innovations, LLC, a preschool currently licensed and operating in Vineyard, is requesting approval of a Conditional Use Permit (CUP) to allow up to 10 students per session. Under the City Code, preschools are permitted to operate with up to 7 students per session without a CUP. In anticipation of future growth, the owner is seeking this approval now to provide the flexibility to expand operations when needed. This is a new business that has recently received City licensing to operate under the current code allowance. Additional details about the business are provided below:

Business Description:
1. Virtual space: Education Services
a. Self-Advocacy training (Secondary Ed - College Ed)
b. Executive functioning skills training (K-12 + College students)
c. Family consultation (K-12 + College students)
d. Special education advocacy (K-12 students)
e. Education on neurodivergence (ADD, Autism, Sensory Integration, etc.)

* No clients will visit the physical space

2. Physical space: Preschool
1. Hours of operation: Monday & Wednesdays 9:30-11:30 am & 12:30-2:30 pm
2. Number of children: Seven per session*
3. Class schedule (see included table)
4. One field trip per month

* Pursuing a conditional use permit to increase enrollment to up to 10 students per session.

Fiscal Impact:

Recommendation:
Staff recommends approval of the conditional use permit

Sample Motion:
"I move to approve the conditional use permit as presented and discussed."

Attachments:

1. Pre-school Operational Information
2. PreSchool Site Plan

Project description - Business Plan - Hyte
Business name: Sycamore Lane Learning Innovations, LLC
Tax Id Number: in process (Contacted accountant on June 12. Application is in process. Tax ID pending)

Business Description:

1. Virtual space: Education Services
    a. Self-Advocacy training (Secondary Ed - College Ed)
    b. Executive functioning skills training (K-12 + College students)
    c. Family consultation (K-12 + College students)
    d. Special education advocacy (K-12 students)
    e. Education on neurodivergence (ADD, Autism, Sensory Integration, etc.)

    * No clients will visit the physical space

2. Physical space: Preschool
    1. Hours of operation: Monday & Wednesdays 9:30-11:30 am & 12:30-2:30 pm
    2. Number of children: Seven per session*
    3. Class schedule (see included table)
    4. One field trip per month

    * Pursuing a conditional use permit to increase enrollment to up to 10 students per session

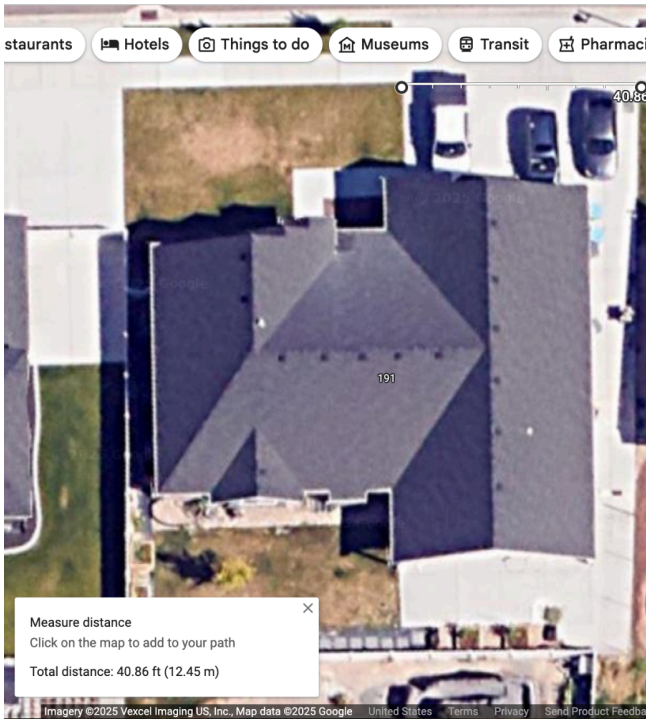
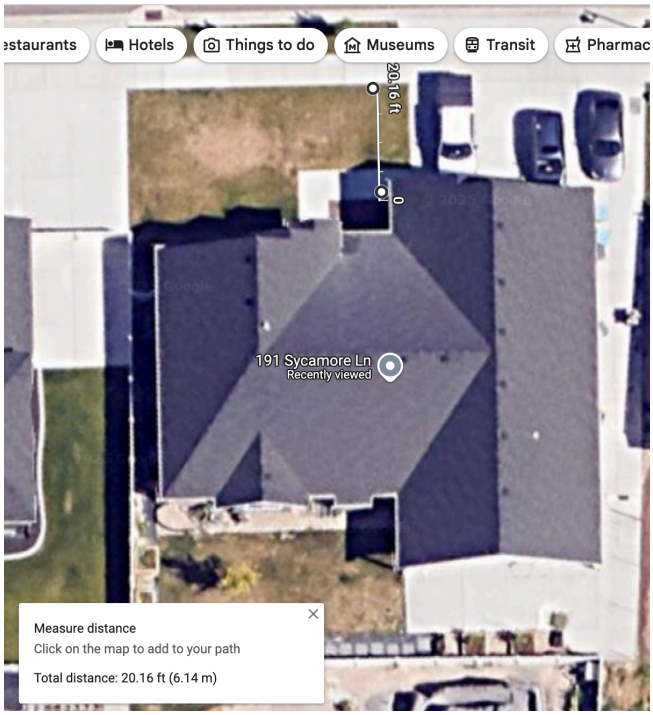
Daily Schedule

9:30-9:35 12:30-12:35	Arrival	Walk in, put belongings in cubby space, write name or draw in the sign-in book.
9:35-9:45 12:35-12:45	Activity tubs	Choose a tub with a hands-on activity, bring to table, do the activity. Materials: pegs, puzzles, lacing cards, manipulatives (small blocks, counters), stickers, sensory materials (fabric, sandpaper, foil), fasteners (zippers, snaps, buttons), folder activities
9:45-9:55 12:45-12:55	Movement and Music	Dancing and singing
9:55-10:05 12:55-1:05	Circle time	Welcome song, letter, number, shape, color, theme of the week
10:05-10:45 1:05-1:45	Centers	Choice time for exploration, discovery, socializing, and play: Choice areas: dramatic play, blocks, vehicles, books
	Small group lesson	Individual or small group check-ins with the teacher
10:45-10:50 1:45-1:50	Clean up	Put away materials
10:50-11:00 1:50-2:00	Snack	Eat snacks
11:00-11:15 2:00-2:15	Art/Science/Writing	Activities rotate through art, science, and writing and match the week's theme
11:15-11:25 2:15-2:25	Story	Book read aloud
11:25-11:30 2:25-2:30	Goodbye	Talk about the day and sing a goodbye song
11:30 2:30	Pick up	

Site Plan - Business Plan - Hyte
Business name: Sycamore Lane Learning Innovations, LLC
Tax Id Number: in process (Contacted accountant on June 12. Application is in process. Tax ID pending)

Preschool Site Plan

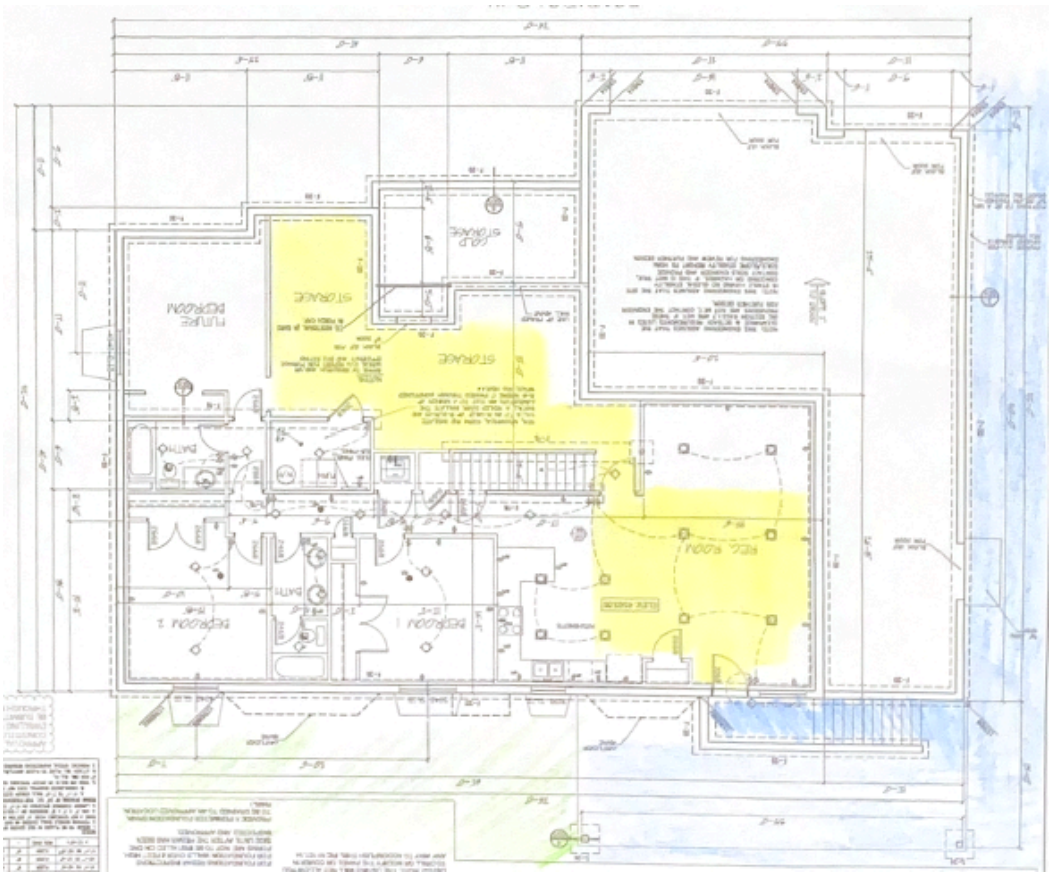
1. Dimensions of the driveway: 40.86 ft x 20 ft (see screenshot from google maps)
2. Outdoor play area: **The preschool is 2 hours in length, and the daily schedule does not include outdoor play. On good weather days, the teacher and students may be on the back lawn during pick-up at the end of the day. Otherwise, there is not a plan for students to play outside.** Backyard lawn is 43 ft x 18.5 ft. Backyard uncovered concrete area is 40.5 ft x 12.5 ft. Backyard covered patio area is 15 ft x 33 ft. Front yard covered patio is 17 ft 8 in x 7 ft. (Front covered patio is also in the pick-up plan).

Driveway dimensions:	
	

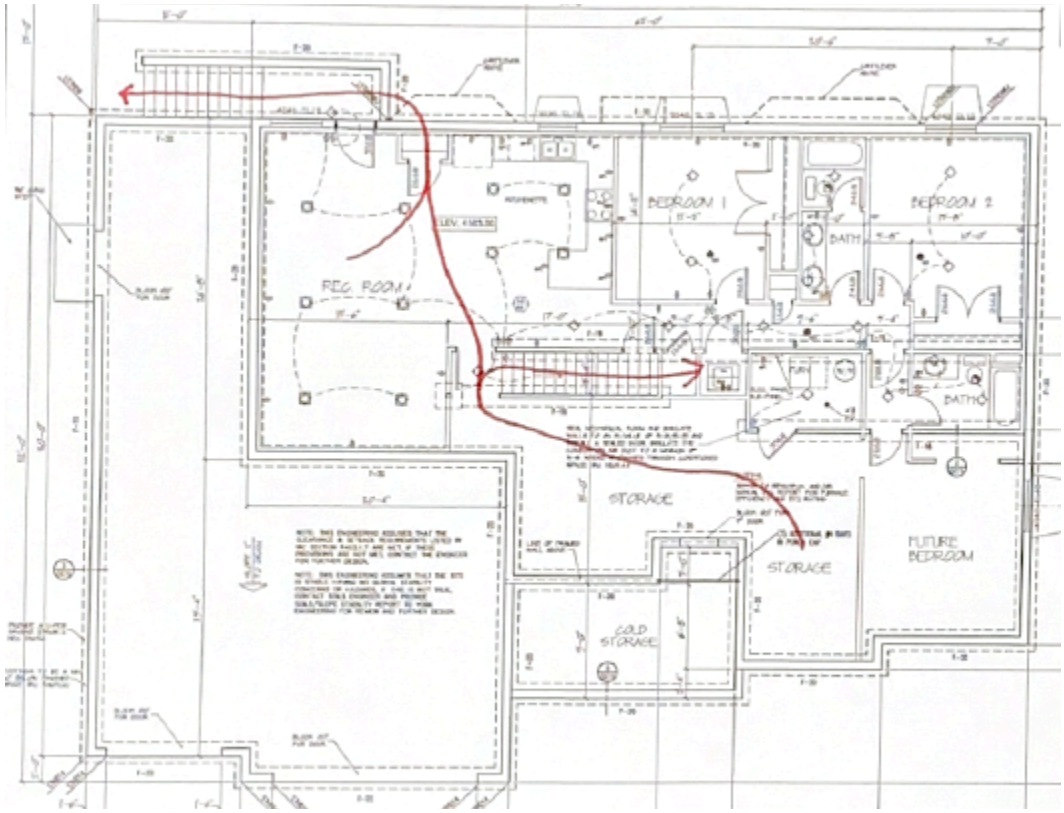
Preschool floor plan

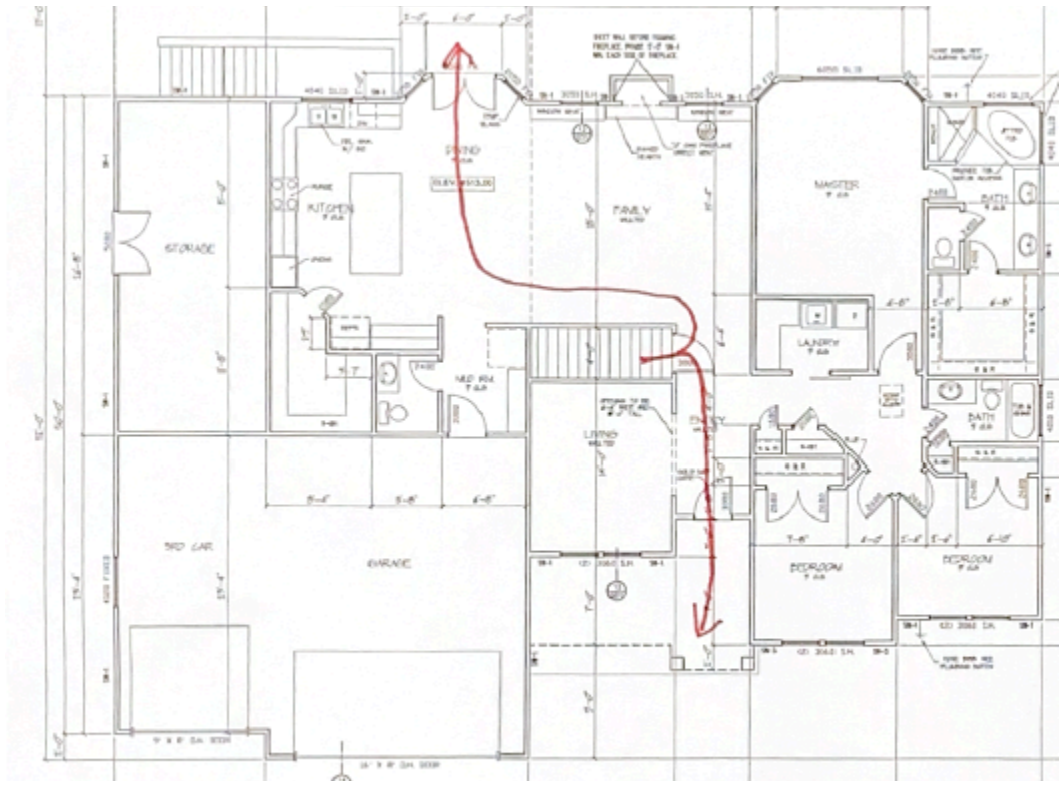
1. Total square footage of the home (including garage): 6365 sq ft
2. Square footage of the preschool or daycare area and location in the home
    a. Square footage of the preschool or daycare area: 697 sq ft
    b. Location in the home: basement large entry area, through the hall that goes past the inside stairs, large room. See the document: Indoor preschool space indicated in yellow.
3. Exits
    a. On a typical day, students will enter and exit through the basement door out to the back of the house.
    b. In case of emergency: Students can exit using the same outside stairs or they can exit up the inside stairs to the first floor and out the front or back door. If stairwell is blocked, students can exit through a basement window.

Site Use:
Yellow = Indoor areas for preschool activities
Blue = Outdoor Concrete - walkway, patio, stairs
Green = Grass
* Parents and children walk on concrete along the side of house and down the stairs into the preschool area

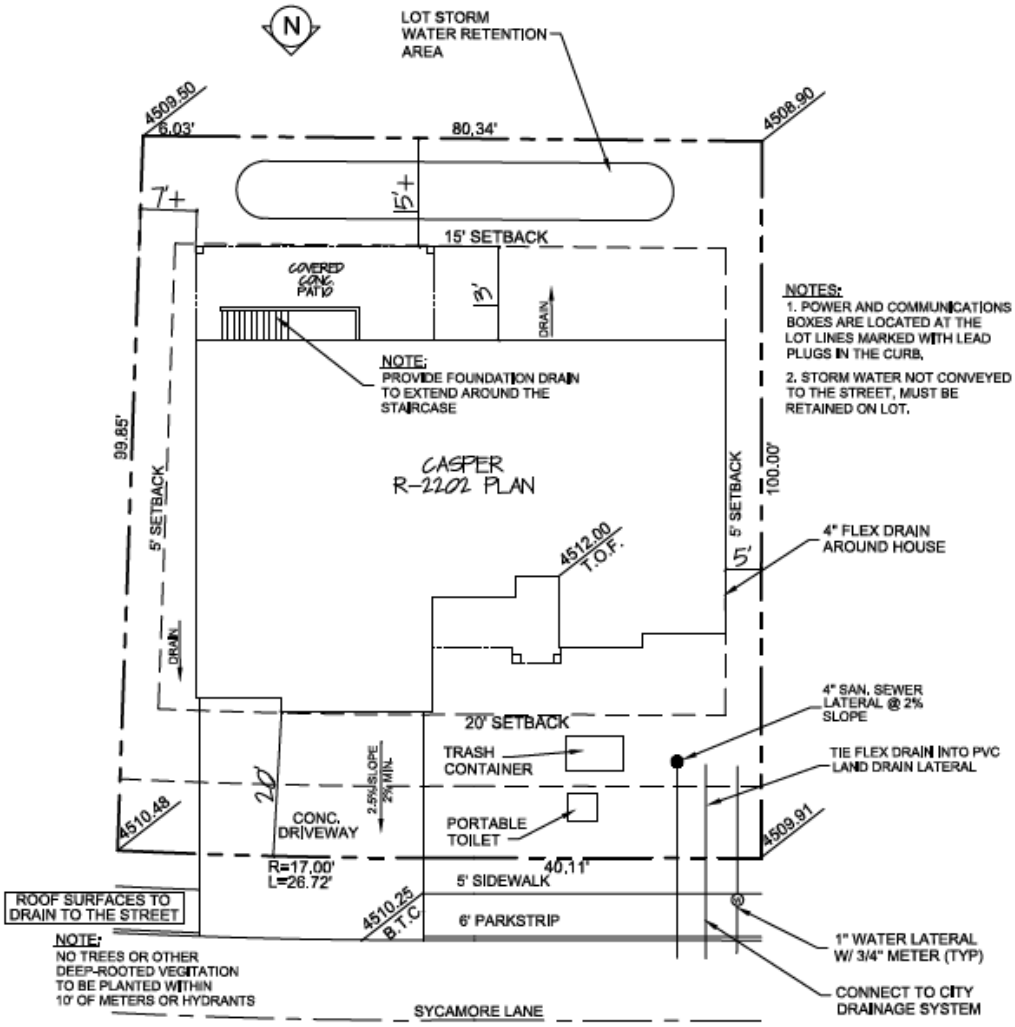
	Front Yard Driveway	
West side of home		East side of home
	Back Lawn Partially Covered Patio	

Emergency Evacuation Plan





Plot Plan



PLOT PLAN SCALE 1'=20'-0"

LOT 7218 THE SYCAMORES
191 W SYCAMORE LANE
VINEYARD, UTAH

Vineyard APPROVED 07/22/2020 Building Department

VINEYARD PLANNING COMMISSION STAFF REPORT

Meeting Date: September 3, 2025
Agenda Item: Station Area Plan (SAP)
Department: Community Development
Presenter: Anthony Fletcher

Background/Discussion:

Background

In 2022, the Utah State Legislature adopted **HB 462**, which requires all cities with a fixed-guideway transit station (such as a FrontRunner stop) to prepare a **Station Area Plan (SAP)**. An SAP must establish a vision for development within a half-mile of the station and include strategies to:

- Increase housing availability and affordability, including moderate-income housing.
- Promote sustainable environmental conditions.
- Enhance access to jobs, education, recreation, and commerce.
- Improve transportation choices and connections.

Vineyard's SAP covers approximately **430 acres around the Vineyard FrontRunner Station**, much of which is part of the former Geneva Steel site. The plan integrates land use, transportation, and open space concepts to guide redevelopment of this area in coordination with regional partners.

Current Status

Consultants, in partnership with City staff and Mountainland Association of Governments (MAG), have prepared a draft SAP. The draft reflects Vineyard's local priorities while meeting State and MPO requirements for certification.

Tonight's **Planning Commission work session** is intended to:

- Provide an overview of the draft plan.
- Gather Commissioner/ public input on land use, zoning, transportation, and open space concepts.

- Identify any concerns or refinements before proceeding to City Council review.

Next Steps

- **Planning Commission Work Session (September 3):** Input and discussion.
- **City Council Work Session – September 10:** Review draft plan.
- **Planning Commission Work Session 2:** September 17 - Acceptance by PC and recommendation for acceptance to the City Council
- **City Council Business Item – September 24:** Consider approval of draft plan for submittal.
- **MAG Certification:** MAG will review and certify the SAP for compliance with State law.
- **Final Adoption:** Following MAG certification, the City will hold a **public hearing** and consider formal adoption of the SAP.

Fiscal Impact:

Recommendation:
This item is presented for **discussion and feedback only**. Staff requests that the Planning Commission provide comments and direction to help refine the draft Station Area Plan prior to City Council review.

Sample Motion:
No motion required

Attachments:
1. PC Draft Vineyard Station Area Plan Report 2.3.0

Draft Print
08/28/2025 4:58:49 PM

VINEYARD
STAY CONNECTED

MAG
Expert Resources. Enriching Lives.

VINEYARD FRONTRUNNER STATION AREA PLAN

City of Vineyard, Utah

August 2025

SASAKI

Draft Print
08/28/2025 4:58:49 PM

Acknowledgment

This Station Area Plan report is envisioned as a dynamic document that will continue to evolve in response to changing conditions and circumstances. As such, it is anticipated that over the life of the Station Area Plan herein will be refined, waived, or amended to incorporate new conditions, special opportunities, and/or circumstances.

This plan will guide future work for this area and will identify specific steps for implementation in the first five years of the project. The plan will provide a coordinated vision for transportation, land uses, and open space for the approximate 430 acre site, and will provide a final report to be presented to the SAP Policy Committee, the planning commission, and the city council for approval.

ACKNOWLEDGMENTS

CLIENT TEAM

Mountainland Association of Governments
City of Vineyard

CONTRIBUTING STAKEHOLDERS

Flagborough, LLC
Huntsman Cancer Institute
MS Properties of Vineyard
Utah Valley University

CONSULTING TEAM

Sasaki
Fehr & Peers
Zion Public Finance

Draft Print
08/28/2025 4:58:49 PM

TABLE OF CONTENTS

01 INTRODUCTION
Executive Summary
Process
Statements of Consistency

02 CONTEXT
Market Review
Existing Conditions
Site Analysis

03 STATION AREA PLAN VISION
Public Outreach
City of Vineyard Objectives
Development & Design Principles

04 FRAMEWORK PLAN
Concept Plan
Multimodal Transportation Plan
Open Space Plan
Land Use Plan
Neighborhoods & Nodes
Utility Infrastructure Plan

05 IMPLEMENTATION
5-Year Action Plan

Draft Print
08/28/2025 4:58:49 PM

01

Introduction

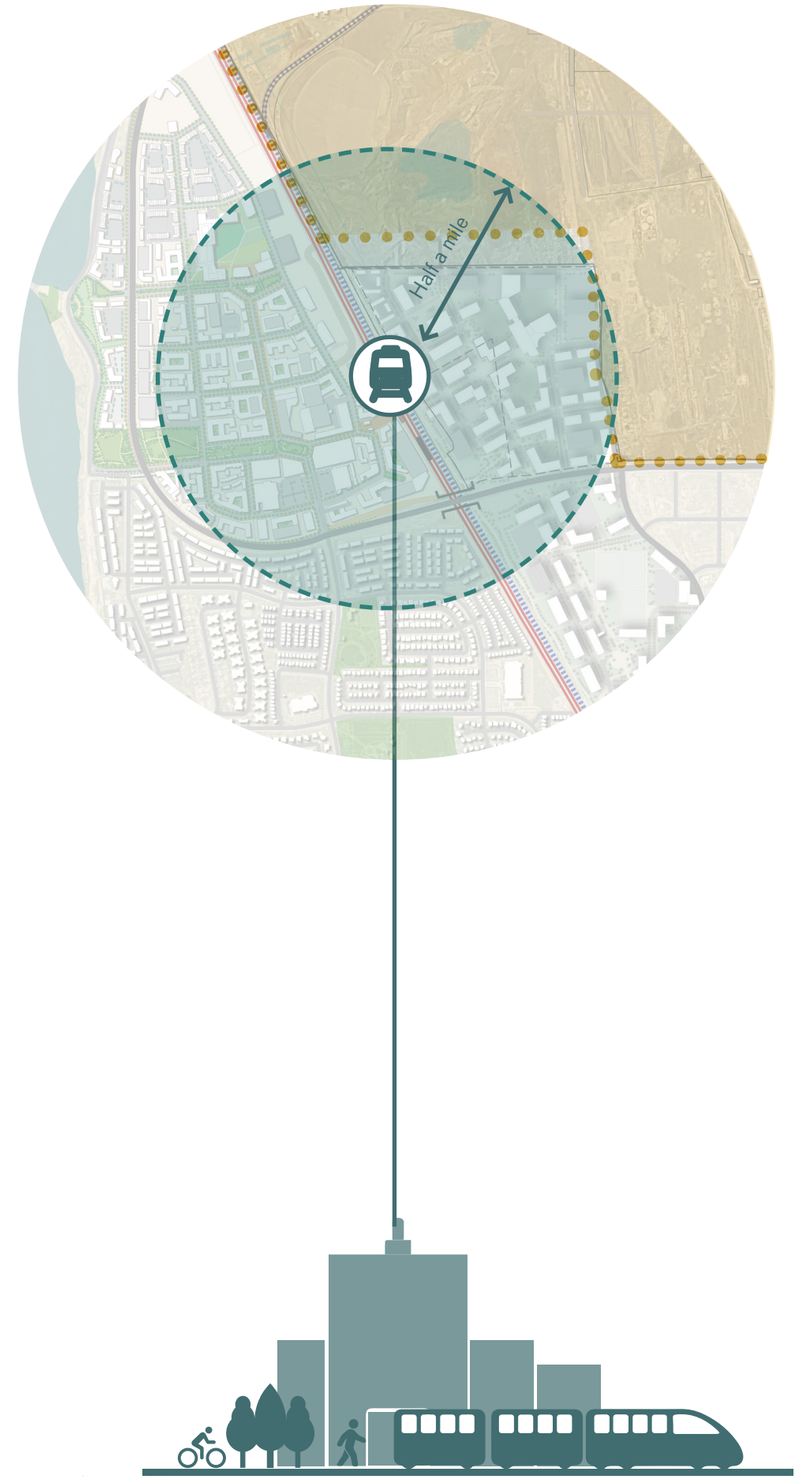
Draft Print
08/28/2025 4:58:49 PM

Executive Summary

The Vineyard Station Area Plan is more than a response to state requirements–it is a locally driven vision for how our city will grow around the FrontRunner station in a way that serves our residents, supports local businesses, and enhances regional connections. While the Plan follows the guidelines set by HB 462 and Mountainland Association of Governments (MAG), it has been shaped by Vineyard's unique priorities, character, and community input.

The SAP was developed through a coordinated effort between Vineyard City and MAG, with funding support to ensure the process reflected both technical expertise and local values. At its core, this Plan outlines how Vineyard will manage growth in the 430-acre area surrounding our station–bringing together land use, transportation, housing, open space, and economic development into one cohesive strategy.

A Station Area Plan is defined as a guiding document that sets a vision and action steps for development within a half-mile of a fixed transit station or a quarter-mile of a bus platform. For Vineyard, this means creating a walkable, connected, and welcoming district that grows with intention. As one of Utah's fastest-growing cities, Vineyard recognizes the opportunity to turn this station area into a thriving center of activity.



Draft Print
08/28/2025 4:58:49 PM

Executive Summary

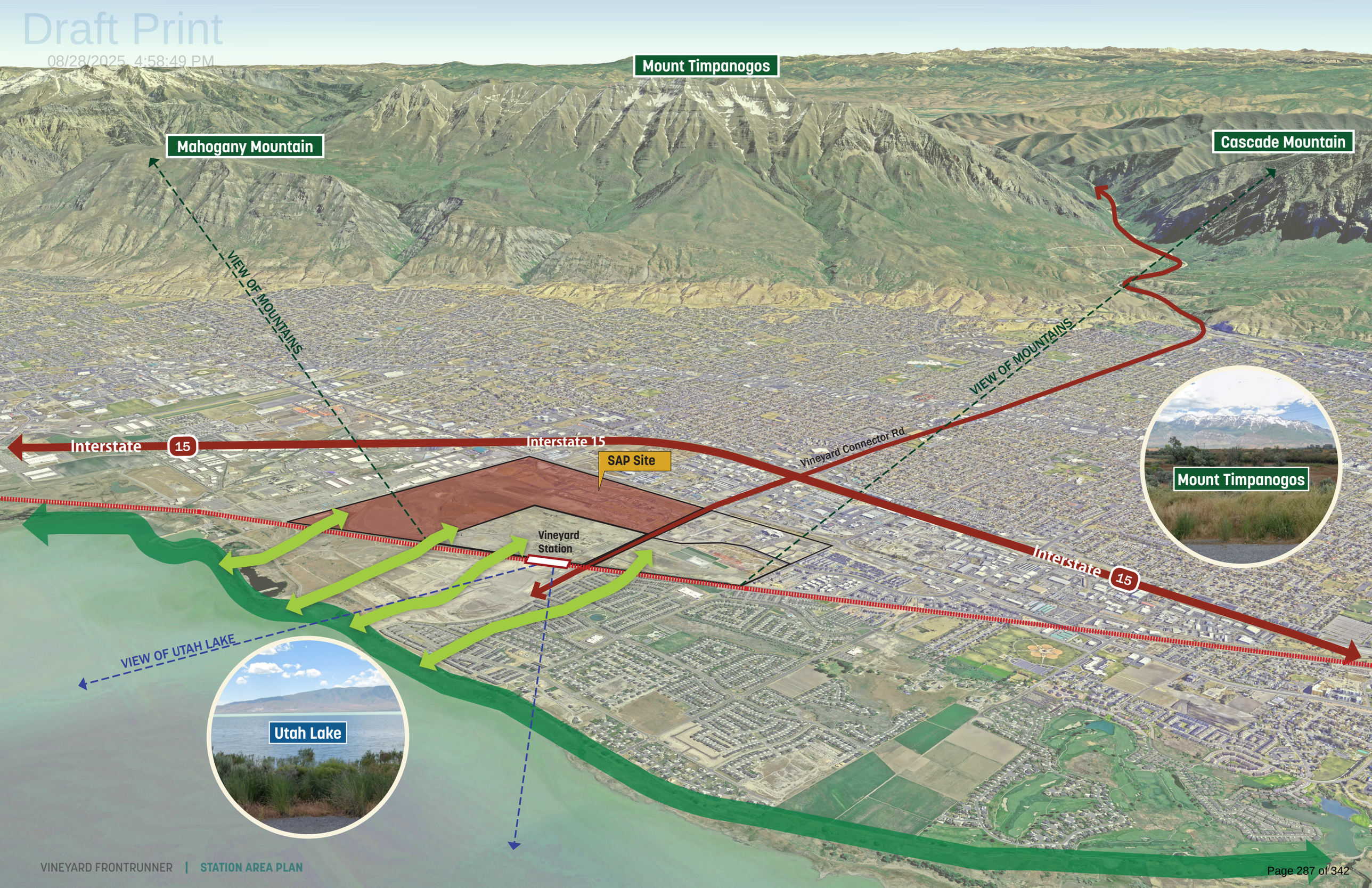
This Plan builds on the direction set in Vineyard's General Plan and Active Transportation Plan and incorporates specific steps to be taken in the first five years of implementation. It emphasizes housing variety–including options for moderate-income families–expanded mobility choices, preserved open space, and access to jobs and services.

Most importantly, this Plan reflects Vineyard's ownership of its future. It's a roadmap built for and by Vineyard–with local voices, local context, and local goals at its foundation.

We invite residents, property owners, developers, and regional partners to see this Plan as a shared commitment: to grow thoughtfully, protect what makes Vineyard special, and ensure that our station area benefits everyone who lives, works, or visits here.

Note: Utah City and Utah Valley University (UVU) Plans in this image indicate future development on these properties.

Draft Print
08/28/2025, 4:58:49 PM



Draft Print
08/28/2025 4:58:49 PM

Process

The Station Area Planning process involved close collaboration between the City of Vineyard, project stakeholders, and the consultant team. With many recent and emerging plans for lands immediately around the Station Area, the planning process required close coordination and responsiveness to the momentum of planning and development just outside the site boundaries.

Vineyard FrontRunner Station Area Plan Process

Draft Print

Statements of Consistency

The Vineyard Station Area Plan (SAP) reflects and builds upon the goals outlined in Vineyard's General Plan, adopted in 2019. As required by Utah's House Bill 462 (2022), this plan addresses how Vineyard will grow around the FrontRunner station, with a focus on housing, transportation, land use, and access to opportunity.
More importantly, the SAP stays true to the community's vision for a well-connected, livable city. It takes the values we've already established–like providing a variety of housing options, making it easier to get around without a car, and protecting open space–and applies them to one of the most important areas of future growth in Vineyard.

Here's how the SAP aligns with the General Plan:

Land Use: The SAP promotes a mix of uses–housing, office, retail, parks–that support a walkable, people-friendly environment. This directly supports the General Plan's goals for thoughtful, well-designed neighborhoods and vibrant commercial areas.

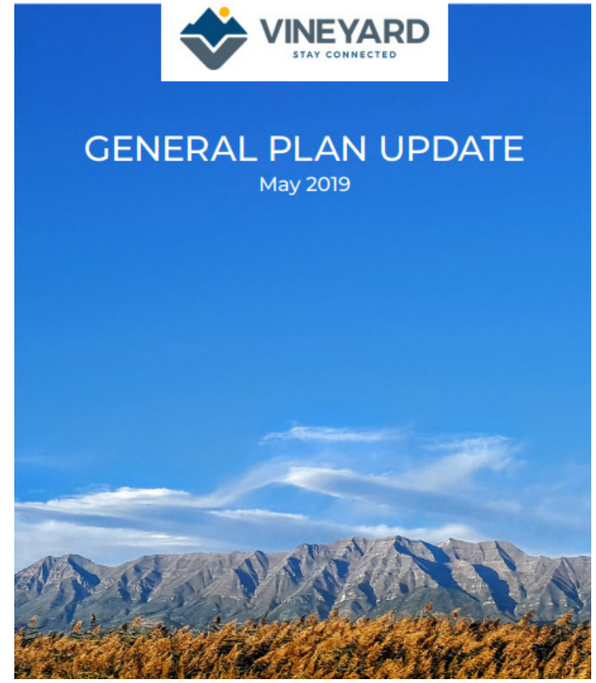
Transportation: The plan lays out a connected street network, safe walking and biking routes, and better links to the FrontRunner station. These improvements reflect Vineyard's ongoing efforts to give residents more choices in how they move around town.

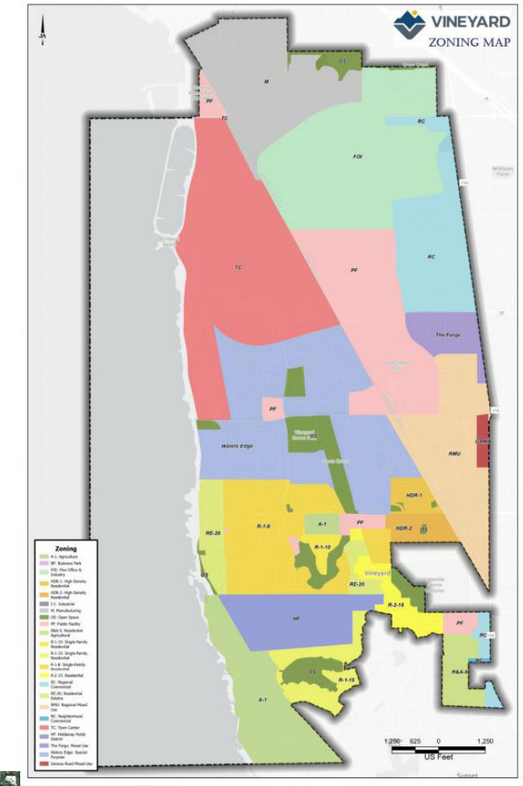
Open Space: The SAP includes new parks, trails, and a greenway system that ties into the city's broader trail network and supports access to Utah Lake. These features reflect Vineyard's commitment to outdoor recreation and natural beauty.

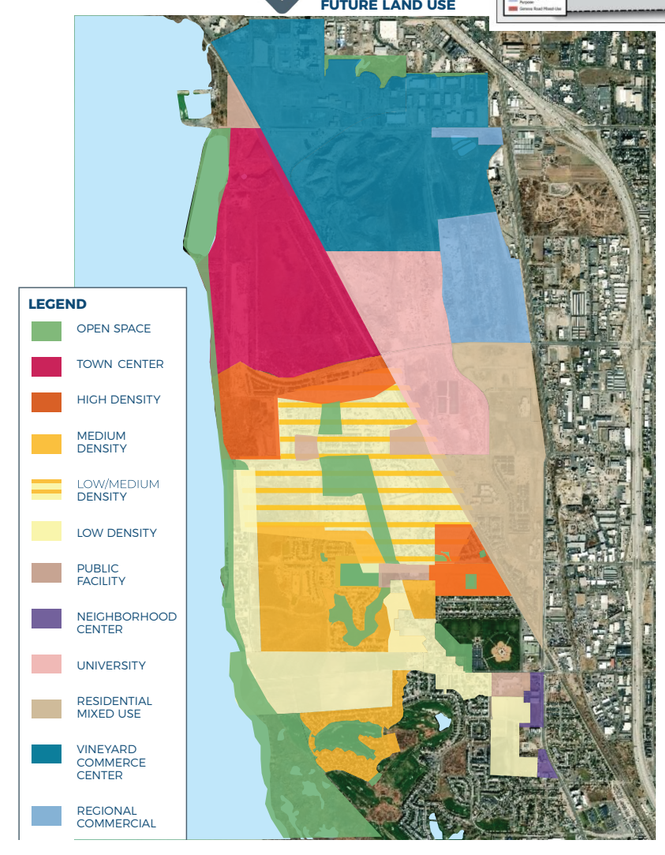
Housing: The plan supports a mix of housing types–including moderate-income and multifamily housing–within reach of jobs, schools, and transit. This approach supports the City's broader housing goals and helps meet state requirements.

Economic Development: With space for office, innovation, and light industrial uses, the SAP helps position Vineyard to attract new businesses and strengthen its tax base, while also supporting nearby institutions like UVU.

The Station Area Plan takes the foundation laid in the General Plan and turns it into a practical vision for one of Vineyard's most promising areas. It's a forward-looking but locally grounded plan that reflects the city's values and prepares Vineyard for smart, sustainable growth.







Draft Print
08/28/2025 4:58:49 PM

02

Existing Context

Understanding Growth

This Station Area Plan is one of many efforts that has the opportunity to steer development in Vineyard and within the region at a time when growth rates and projections are very high for both. Vineyard, Utah County and Utah are all growing quickly and projections are for each to continue growing for a while longer. Vineyard and the lands covered by this Station Area Plan will see increased demand as this growth continues to reshape life in the state.

Transportation

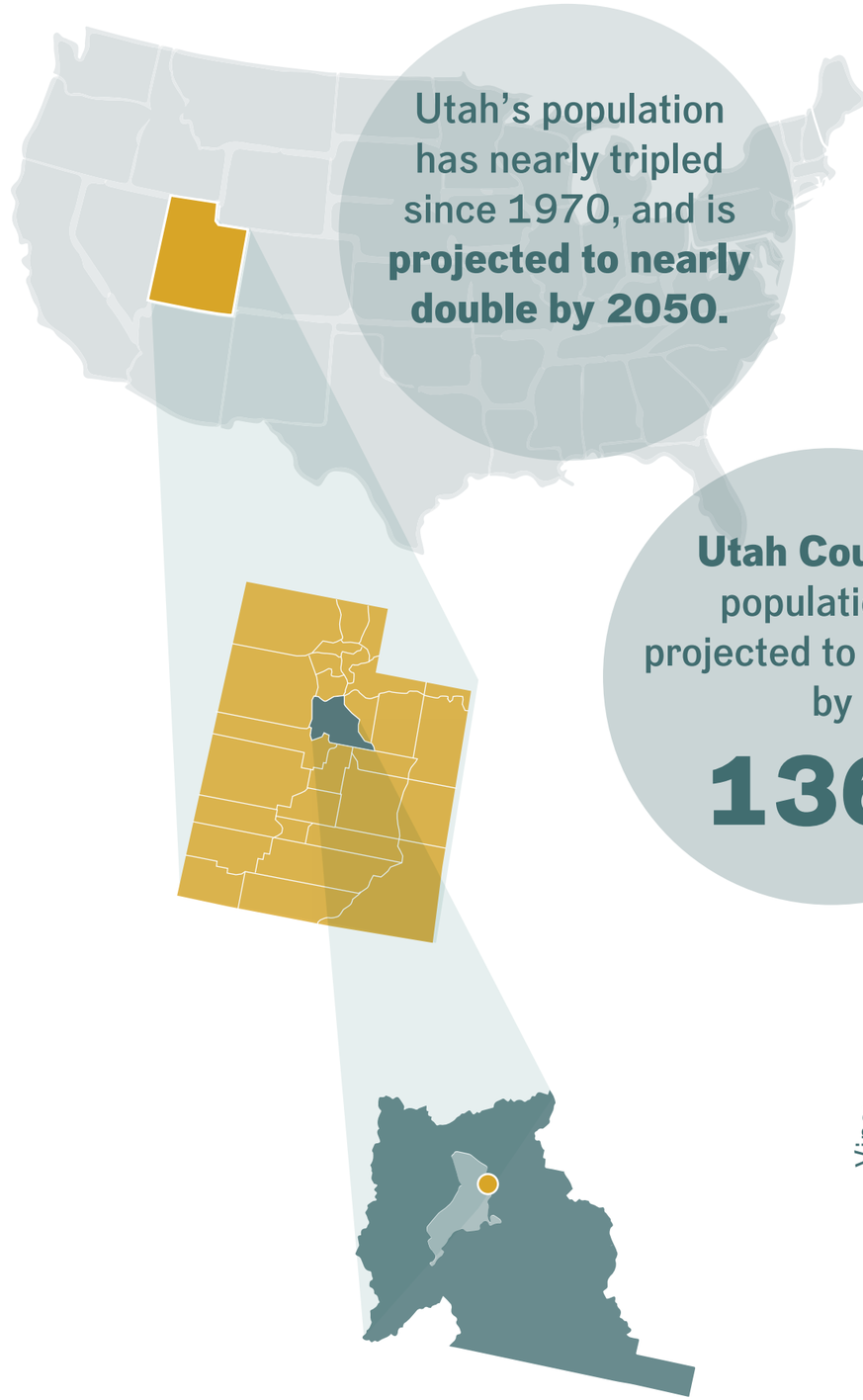
The creation of the FrontRunner rail line enhances opportunities in the Wasatch Front communities by introducing an alternative means of transportation between Salt Lake, Ogden, and Provo. As the communities here continue to grow, it can help alleviate traffic congestion along I-15, reduce air pollution, support local businesses, and provides convenient transit options for commuters, students, and residents.

Economic Development

Vineyard and its surrounding communities are home to many small and large businesses that provide careers and contribute to local communities. As the region's neighborhoods continue to grow, planning and investment in civic infrastructure can help grow the local economy and introduce new local jobs as well.

Housing Opportunities

Residential growth in Vineyard and its neighboring communities has been significant in recent years and the city is continuing to growth rapidly. The largest single project, Utah City, is located immediately west of these Station Area Plan lands and will introduce thousands of new units of housing to the community.



Draft Print
08/28/2025 4:58:49 PM

Draft Print
08/28/2025 4:58:49 PM

Vineyard Socio-economics

Vineyard is expected to nearly double its population by 2030. This represents average population growth of approximately 1,420 persons per year. With an average household size of 3 persons, this presents the need for about 456 housing units per year.

In general, the population of Vineyard is younger, with smaller household sizes, than the rest of the County. Average incomes are slightly higher than in Utah County but represent only 80 percent of the average incomes in Lehi.

PROJECTED POPULATION GROWTH

	Vineyard	Utah County
2022 (Historical)	12,663	666,021
2030	24,017	861,852
2040	33,870	1,080,082
2050	36,265	1,297,515

Sources: MAG 2030-2050 Population Projections (2019); US Census Bureau ACS 5-year Data (2022)

DEMOGRAPHIC CHARACTERISTICS

	Vineyard	Lehi	American Fork	Utah County
Median Age	**24.5**	**26.6**	**28.0**	**25.2**
Median HH Income	$94,018	$117,243	$90,490	$91,263
Average HH Size	3.11	3.62	3.27	3.46
Owner-occupied only	3.43	3.72	3.48	3.78
Renter-occupied only	2.85	2.90	2.77	3.05
Education (population age 25+)				
High school graduate or higher	96.6%	97.2%	94.3%	95.3%
Bachelor's degree or higher	44.0%	48.4%	40.9%	42.8%
Graduate or professional degree	12.9%	14.8%	11.7%	13.0%

Source: US Census Bureau ACS 5-year Data (2022)

The full market study completed as part of this Station Area Planning process can be found in the appendix of this document.

Draft Print
08/28/2025 4:58:50 PM

Market Review

Utah County is one of the most rapidly growing areas in the country. Employment growth is strong, fueled by an educated population and a strong workforce coming from two major universities in the area, as well as other educational institutions. The northern part of the County, along I-15, is referred to as Silicon Slopes and attracts worldwide companies such as Texas Instruments and Adobe. A young and rapidly-growing population, along with world-class recreational opportunities, makes Utah County one of the most desirable business locations in the country.

OPPORTUNITIES

RESIDENTIAL

Most of the multi-family residential development at the site will be for 4-story complexes with densities of up to 50 units per acre. If rents continue to rise in the area, and we have seen significant rent increases over the past few years, then wrap construction with 60-80 units per acre may be feasible in some locations.

OFFICE

Office development is still in the recovery stages in Utah County with new construction activity at a 5-year low. Office development on the site could be geared to UVU expansion space or possible startup companies from the many entrepreneurial businesses generated by programs at UVU and BYU.

INDUSTRIAL / FLEX OFFICE

Industrial/flex office is a promising use for the areas of the site near the tailings in the NW corner, as well as nearer to Geneva Road. While industrial/flex office densities can vary considerably, a rule of thumb that reflects an average of industrial development is for a floor area ratio of 38 percent. There is strong competition for industrial space from the central and southern part of the County where land is less expensive and therefore these areas are seeing significant growth

RETAIL

Retail is greatly needed in Vineyard which sees large amounts of sales leakage to surrounding areas such as Orem and American Fork. Retail would need to be located in the areas with the highest traffic counts and visibility such as along the Vineyard Connector or any other major connections into the Town Center.

MAJOR FINDINGS OF THE MARKET REVIEW

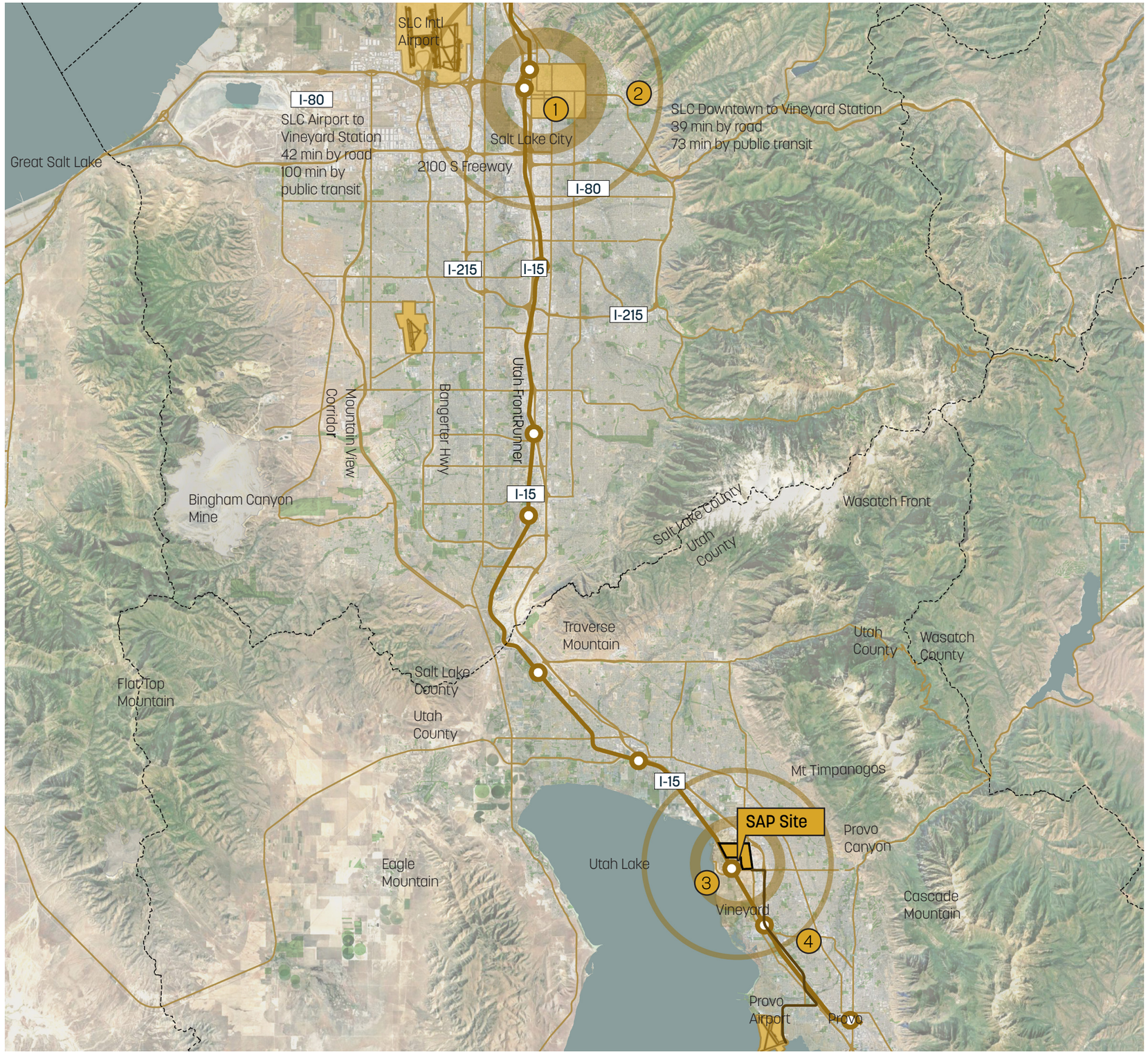
- Utah County is one of the fastest growing areas in the county
- Vineyard is projected to grow by approximately 1,420 persons per year between 2022 and 2030, presenting the need for close to 450 new housing units per year
- Incomes are good; slightly higher than the County but only 80 percent of those in neighboring Lehi
- Vineyard has a significantly higher percentage of rental units (54.4%) when compared to Utah County (31.3%).
- Over 53 percent of households in Vineyard spend more than 30 percent of their household income on rent, compared to 30 percent in Lehi where rents are similar and incomes are higher
- Median home prices in Vineyard ($481,800) are 88 percent of median home prices in Utah County ($548,100).
- Since 2017, Vineyard has increased its share of households making less than 80 percent of Area Mean Income (AMI), suggesting that there is more attainable housing in Vineyard
- Industrial comprised thirty-eight percent of commercial permits in Utah County, while industrial comprised nearly fifty-four percent of commercial permits in Vineyard.
- Retail permits have been slow in Vineyard, representing only 0.9 percent or permitted valuation, yet population growth represents 9.1 percent; 590,000 sf of retail are planned for the Town Center Housing and Transit Reinvestment Zone (HTRZ) area.
- The office market is in a state of uncertainty at the present time but has seen significant growth along the Silicon Slopes corridor in Lehi. The HTRZ Town Center area has plans for 2.6 million square feet of office space.

The full market study completed as part of this Station Area Planning process can be found in the appendix of this document.

Draft Print
08/28/2025 4:58:50 PM

Urban Context

Vineyard and the Station Area Plan lands are located within the Wasatch Front, along the banks of Utah Lake, approximately five miles north of downtown Provo and thirty miles southeast of downtown Salt Lake City. The communities are connected by the new FrontRunner passenger rail line.

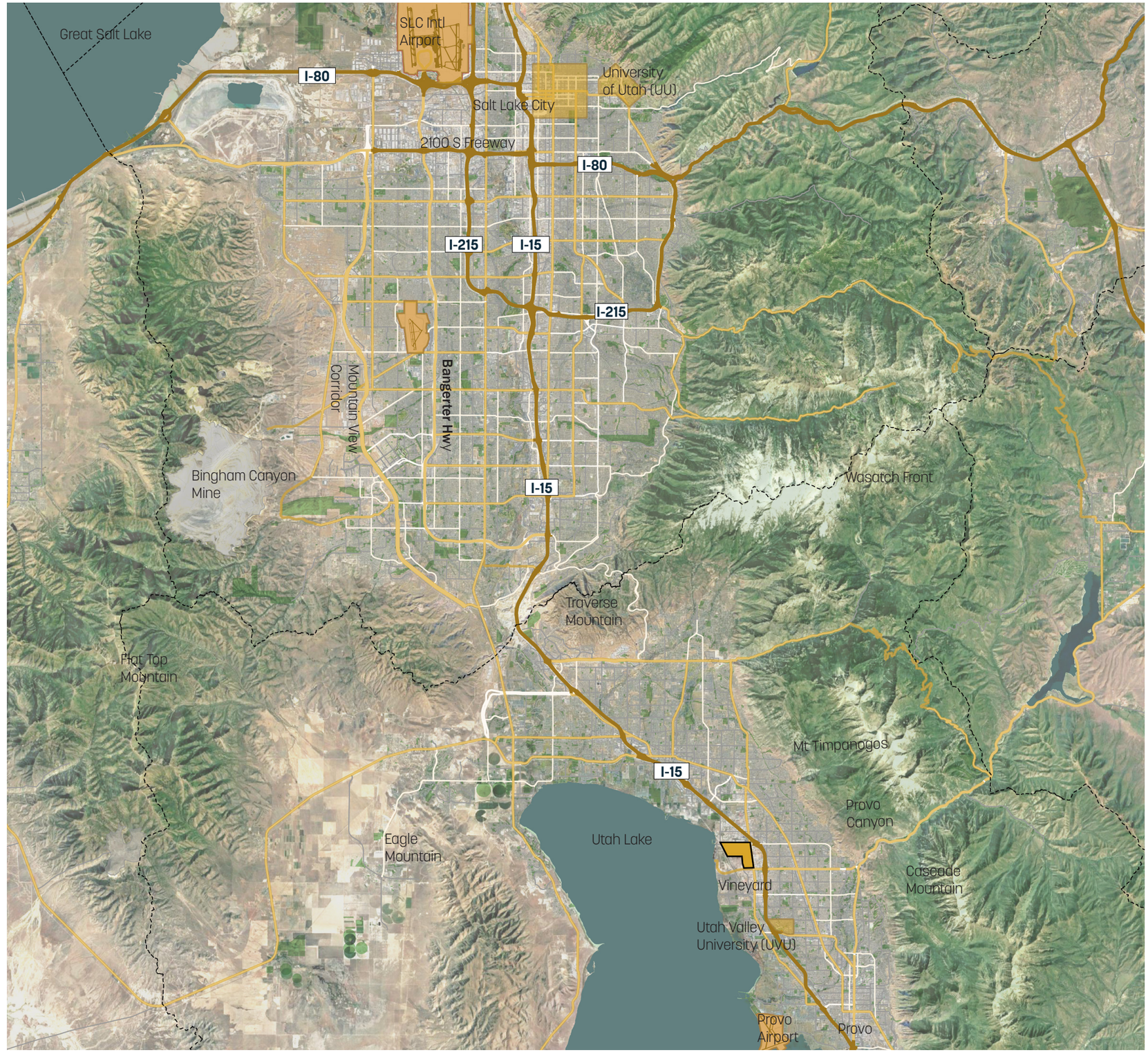


1 Salt Lake City Downtown
2 University of Utah / Huntsman Cancer Institute
3 Vineyard Station (Utah FrontRunner)
4 Utah Valley University
Commuter Rail (Utah FrontRunner)
Important Destinations
Vineyard Station Area Plan (SAP) Site

Draft Print
08/28/2025 4:58:50 PM

Regional Corridors

Vineyard and the Station Area Plan lands are connected to the larger region by several major regional corridors, with Interstate 15 serving as the major regional connector. These highways provide Vineyard and the Station Area plan lands with easy access to major regional destinations , like the airports in Salt Lake City and Provo and several regional universities, including the University of Utah and Utah Valley University.

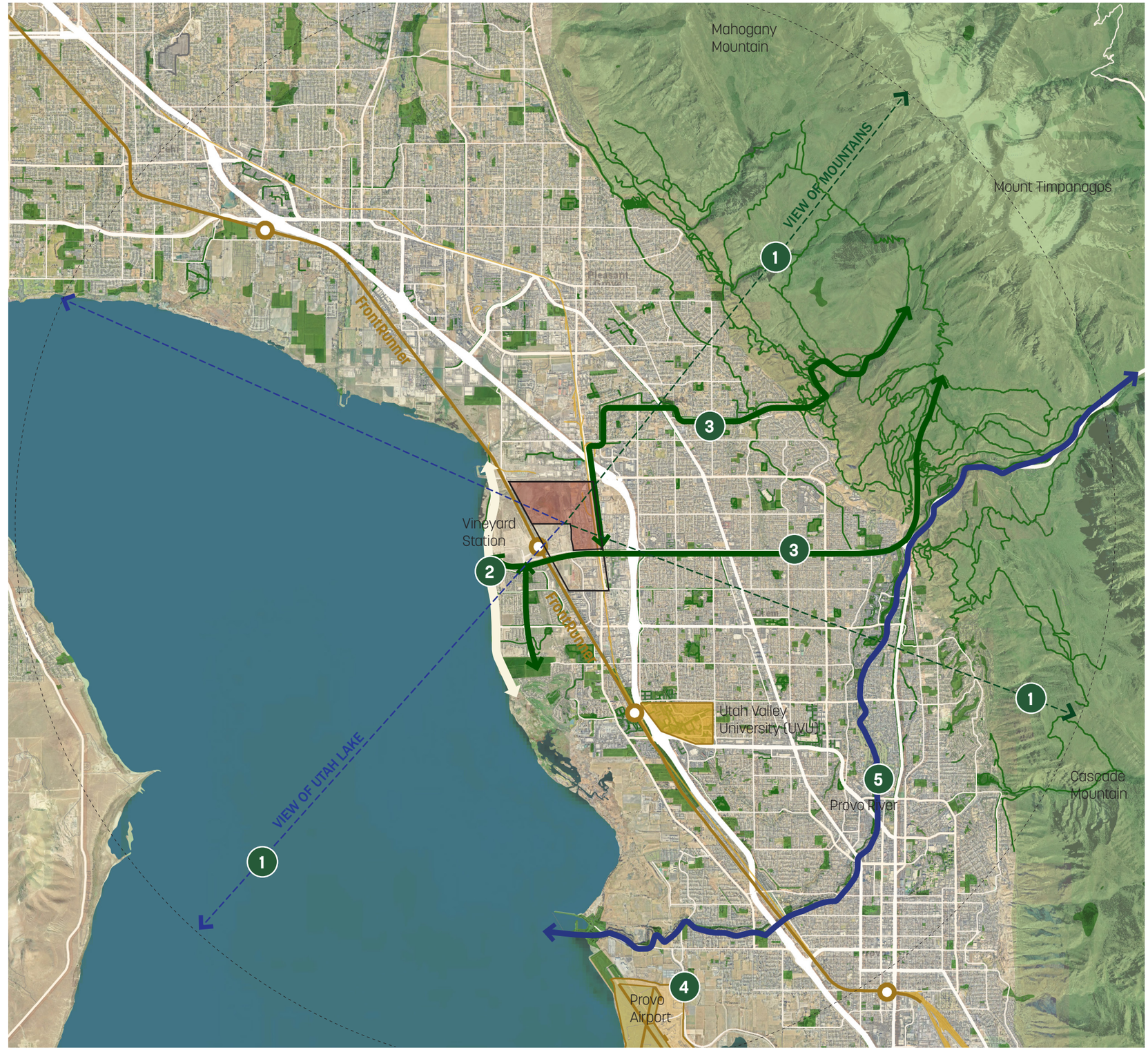


- Regional Corridors
- Arterial Roads
- Important Destinations
- Vineyard Station Area Plan (SAP) Site

Draft Print
08/28/2025 4:58:50 PM

Site Context Features

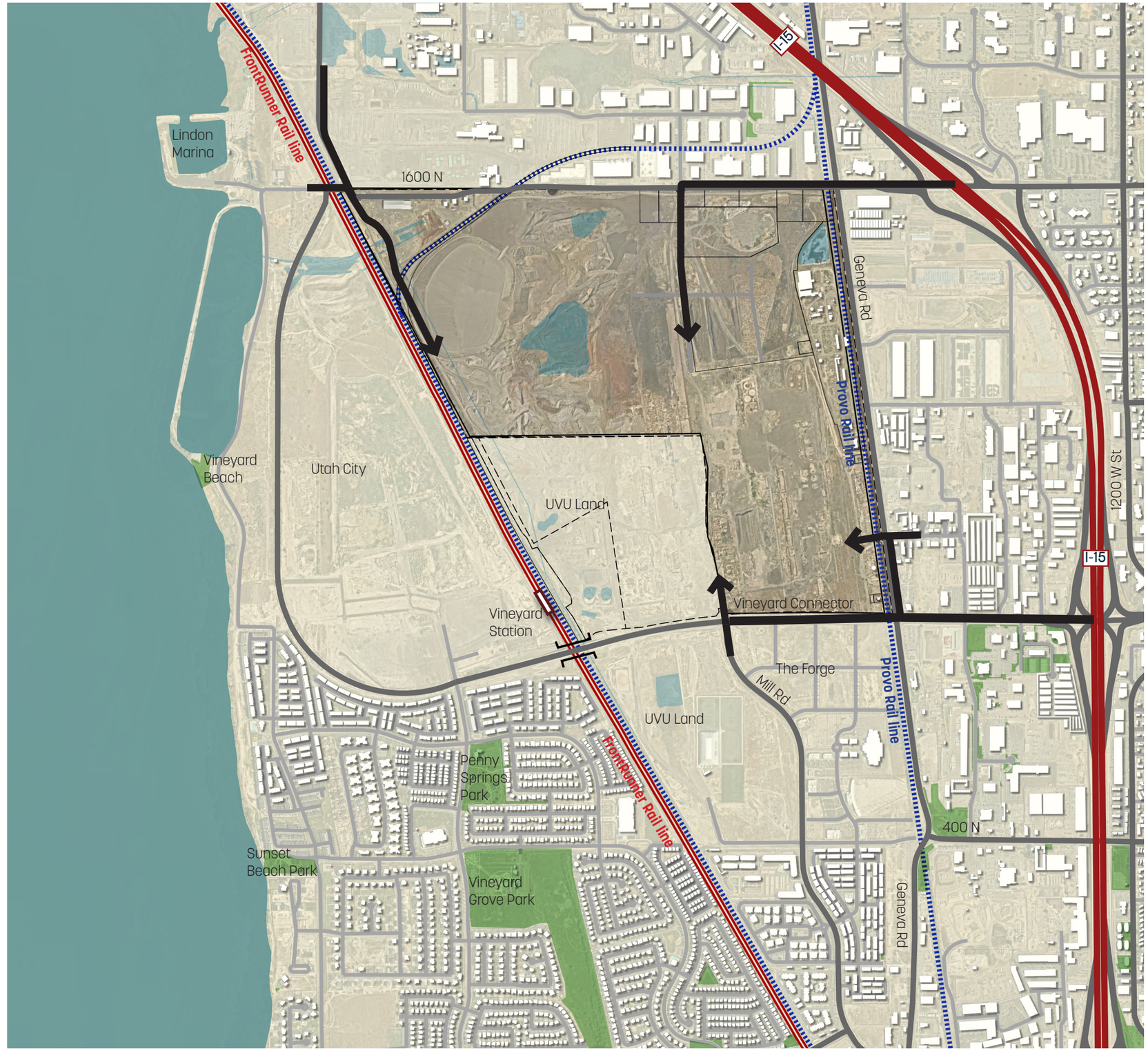
1. Scenic views of the Wasatch Mountain Range and Utah Lake.
2. Direct access to the Utah Lakefront via Vineyard Connector Road.
3. Trail and pathway connections from the site to Mt. Timpanogos, linking neighborhood parks and recreation areas.
4. Provo Airport is only a 15-minute drive from the site.
5. The Provo River flows from Deer Creek Reservoir to Utah Lake, creating a natural landscape system that ties together open spaces in Orem and Vineyard.



Draft Print
08/28/2025 4:58:50 PM

Site

The site area for this Station Area Plan comprises 430 acres and is bounded by 1600 N to the north, Geneva Road to the east, Vineyard Connector to the south, and the FrontRunner rail line to the west. Vehicular access to the site is possible at four gateways, including an entry at the south aligned with Mill Road, an entry to the east aligned with 960 N, an entry to the north aligned with 400 E, and an entry from the northwest aligned with W 2000.



Site Access
Highway
Arterial Roads
Utah FrontRunner
Provo Industrial Rail

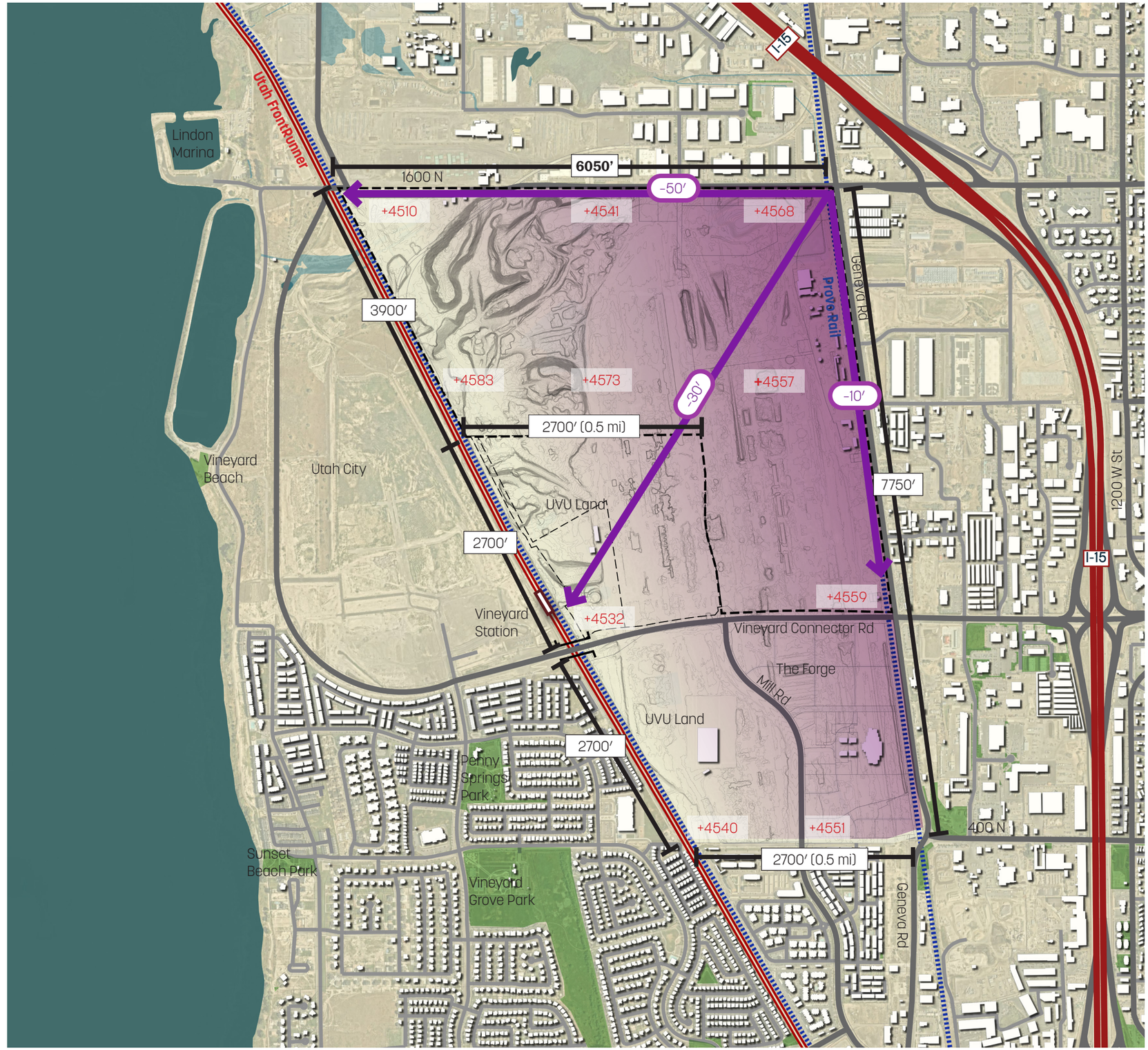
0 1/2 1 mi

N

Draft Print
08/28/2025 4:58:50 PM

Site Topography

The site's topography is characterized by a relatively gentle slope from generally higher lands in the northeast corner and along the eastern edge to low points along the western edge toward the lake. Exceptions to this general slope are found in the western-central area of the site, where there are several of the site's highest elevations.



0 1/2 1 mi

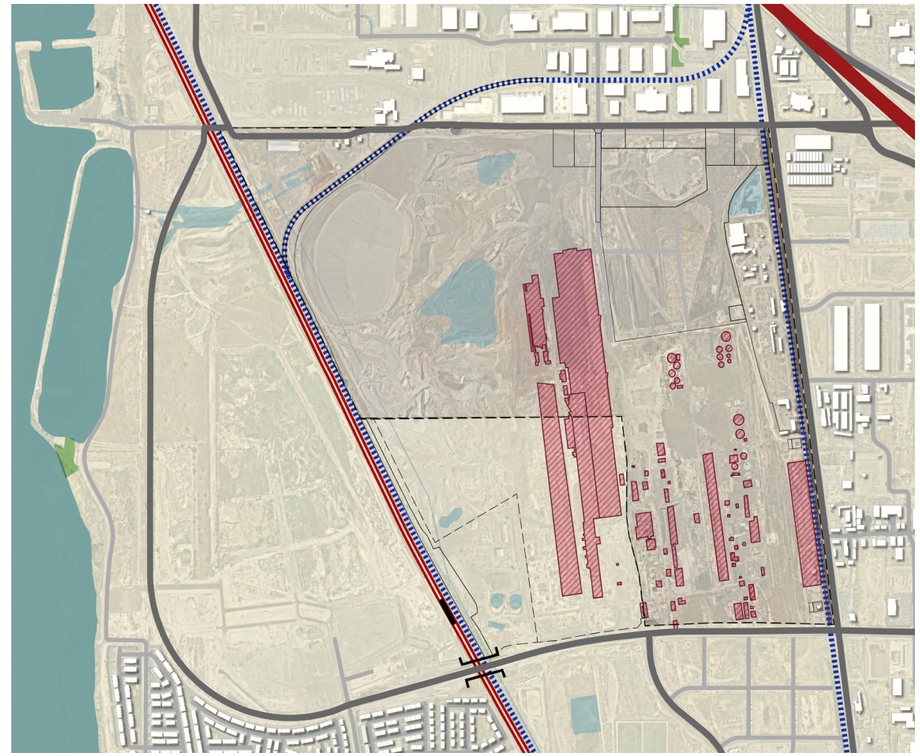
N

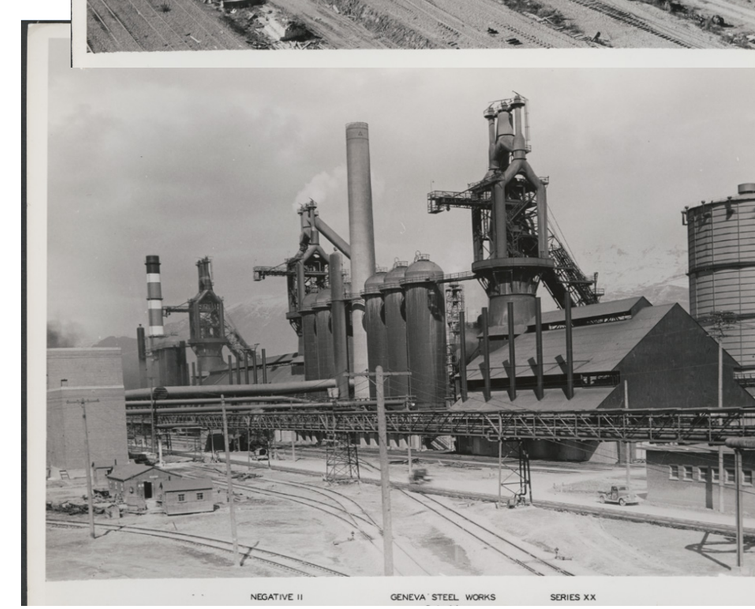
Draft Print
08/28/2025 4:58:50 PM

Demolished Buildings & Foundations

The Station Area Plan (SAP) lands, together with the area south of 800 North, were once part of the former Geneva Steel mill in Vineyard. While most industrial facilities have been removed, remnants such as building foundations and large concrete floors remain. The site also contained an extensive rail yard that supported steel operations.

Today, the 430-acre SAP area is undergoing ongoing remediation and restoration to clear these remaining structures. This process will continue over the coming years, preparing the land for redevelopment and transforming it from a former industrial site into a new community hub.



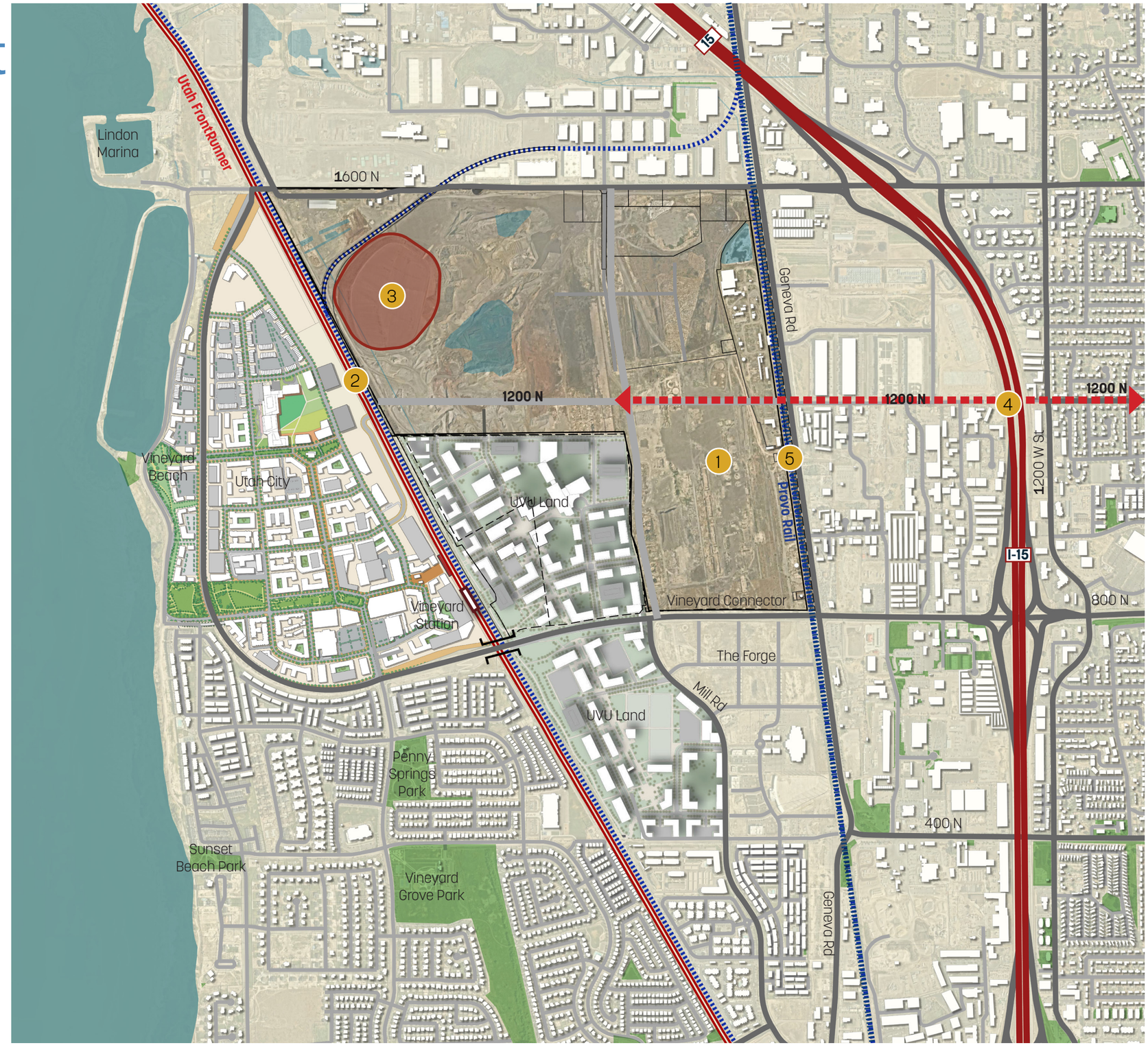


Draft Print
08/28/2025 4:58:50 PM

Constraints

Planning for the future of these lands requires an evaluation of the potential constraints that may negatively impact efforts to implement infrastructure improvements and redevelop the land.

1. Land remediation of steel mill property - Residential uses may be permitted on the former steel mill property only in areas that meet the conditions of the environmental permit.
2. FrontRunner rail line as barrier in accessing the Utah Lake beach shore.
3. The Corrective Action Management Unit (CAMU) in the northwest portion of the site limits future land use options. Due to environmental and regulatory constraints, this area may only be appropriate for low-impact or light recreational uses
4. 1200N requires an underpass to Interstate-15, in order to connect the site with areas east of the Interstate-15.
5. Provo Industrial Rail along eastern edge of the site is a barrier for access from Geneva Rd, until the rail is re-routed through East Lake Industrial Park.



0 1/2 1 mi

N

Draft Print
08/28/2025 4:58:50 PM

Opportunities

The Station Area Plan lands are rich with opportunities given the growth of the area, the momentum of its neighboring properties, and its great connections to local and regional roads and rail.

1. Vineyard Station (FrontRunner) is a key public transit stop along the Wasatch Front, located between the line's northern terminus in Ogden and its southern terminus in Provo, providing convenient access to central hubs like Salt Lake City."
2. 5-min circles show the potential for SAP land to have a highly walkable district.
3. Connections to Vineyard Town Center via linear parks across the commuter rail line.
4. Potential extension of 1200 N and Mill Road to connect with Vineyard Town Center
5. Proposed rail re-routing (UDOT) will create access along Geneva Rd with removal of the Provo industrial rail line.
6. The Corrective Action Management Unit (CAMU) in the northwest area presents a future redevelopment opportunity. Upcoming planning efforts will explore potential adaptive reuse of this site.

0 1/2 1 mi

N

Draft Print
08/28/2025 4:58:50 PM

03

Station Area Plan Vision

Draft Print
08/28/2025 4:58:50 PM

City of Vineyard Objectives

The City of Vineyard adopted a General Plan in July 2019. This plan articulates several goals related to growth and the future of the community. These goals, as outlined here, served as the foundation for the planning of the Vineyard Station Area Plan.

TRANSPORTATION

To promote the development of an efficient multi-modal transportation system that meets the needs of Vineyard's current and future residents while increasing safety and sustainability, decreasing auto-dependency, balancing mobility and accessibility and integrating into existing infrastructure.

City of Vineyard Goals

1. Provide multiple connections between neighborhood, city-wide and regional systems that safely and effectively move people through, into and out of the city while mitigating traffic congestion.
2. Reduce auto dependency in Vineyard to improve air quality, reduce traffic congestion and enhance the quality of life.
3. Maintain and enhance Vineyard's environmental standards as the City's transportation system grows.
4. Provide a diverse range of transportation options–including light rail, commuter rail, and bus service–while prioritizing active transportation through safe, connected bicycle paths/ trails, and pedestrian routes.
5. Adopt a Complete Streets Policy to ensure safe access for all users, including pedestrians, bicyclists, vehicles, and transit riders of all abilities.

PUBLIC & OPEN SPACE

To provide high quality, maintainable, diversified parks, recreation and open spaces that engage all ages to support the needs of a growing healthy Vineyard community.

City of Vineyard Goals

Open Space:

- OS1. Protect existing wetlands and open spaces utilizing sustainable green infrastructure.
- OS2. Support the formation and development of the Walkara Way Conservation Area.
- OS3. Increase the amount of publicly accessed open spaces provided throughout Vineyard.

Parks:

- P1. Provide an appropriate number and size of parks and open space for all Vineyard residents and visitors.
- P2. Ensure all residents have access to well- maintained, clean and safe open space, parks and recreational facilities.
- P3. Provide a range of recreation amenity types that appeal to all Vineyard residents and visitors.

Trails:

- T1. Enhance, improve and connect existing bicycle and pedestrian trail network throughout the city and to the regional trail network.
- T2. Prepare a comprehensive Bicycle Master Plan to strategically plan for the future of cycling in Vineyard and the region.

Lakefront:

- L1. Ensure the Lakefront is an active, celebrated, and engaging place that residents and visitors enjoy by improving and developing sections of the shoreline and making needed improvements to adjacent lands.

Draft Print
08/28/2025 4:58:50 PM

City of Vineyard Objectives

FUTURE LAND USES

To promote responsible growth, through well-planned neighborhoods that honor natural surroundings and strategically fit our close- knit and diverse community spirit, to continue to improve Vineyard's quality of life.

City of Vineyard Goals

1. Enhance Vineyard's identity as a community with a high standard of living, a diverse economy, and rich mixture of housing and recreation opportunities.
2. Participate in larger scale, regional planning to coordinate land uses and to maintain regional networks.
3. Develop a central business area that is easily accessible to all residents and visitors to serve as Vineyard's downtown.
4. Encourage a pattern of growth that reflects the City's ability to efficiently provide necessary services and anticipates the resource needs of future generations.
5. Provide an adequate supply of public and private parking options in Vineyard.

MODERATE INCOME HOUSING

To ensure the availability of a range of housing options, including moderate income housing, to meet the needs of the population that desires to live in Vineyard.

City of Vineyard Goals

1. Provide opportunities for moderate income households to purchase attainable housing to support the economic vitality of the community.
2. Encourage and promote affordable housing developments by incentivizing developers to build this type of housing.
3. Provide the framework for the successful integration of a mix of housing types in the community's various neighborhoods.

ECONOMIC DEVELOPMENT

To support an economic program that attracts new businesses and target industries, increases municipal revenue streams, creates long-term fiscal health, and supports the economic vitality and wellbeing of residents and businesses.

City of Vineyard Goals

1. Create an effective and proactive business recruitment program that directs resources toward targeted businesses and industries.
2. Establish criteria and methodology for reviewing, evaluating and updating City incentives to attract new businesses.
3. Maintain and improve the long-term economic strength of the community with a business retention program.
4. Ensure the City's long-term fiscal health by taking measures to establish a larger tax base of both property and sales tax revenues.
5. Establish zoning that encourages strategic, accessible and centralized economic centers that will integrate appropriately into the community.
6. Activate Vineyard's natural resources, including the lakefront and Utah Lake, to improve the tourism sector of the economy and attract new businesses.
7. Focus future development and investment efforts on implementing the Town Center and Forge Special Zoning Districts while maintaining the intent of these districts to create distinctive walkable village centers.
8. Unify and brand the Eastlake Industrial District as one cohesive business park district.
9. Leverage Utah Valley University's technology assets and human resources to promote economic development in Vineyard.

Draft Print
08/28/2025 4:58:50 PM

Public Outreach

The Vineyard Station Area Plan was shaped by input from a wide range of local stakeholders and community members through both in-person and virtual engagement.

In June 2023, the planning team hosted a booth at the well-attended Vineyard Days community event. Team members from Sasaki and the City of Vineyard spoke with dozens of residents and families, gathering feedback on key topics that helped guide the plan.

In addition, a virtual workshop presentation was created for the City to share during online meetings.

Throughout the planning process, the team held regular discussions with key stakeholders–including elected officials, City staff, nearby property owners, developers, and representatives from Utah Valley University, the Huntsman Cancer Institute, and surrounding jurisdictions.

Community Open House

Vineyard Days Event
June 2023

- 75+ Attendees
- 60 Comments
- 4 Public input points
- comment cards

Community Virtual Workshop Presentation

Vineyard Station Area Plan
Presentation

- Presentation developed for use by the City
- Live-input Question with Menti integration
- Potential for hundreds of participants

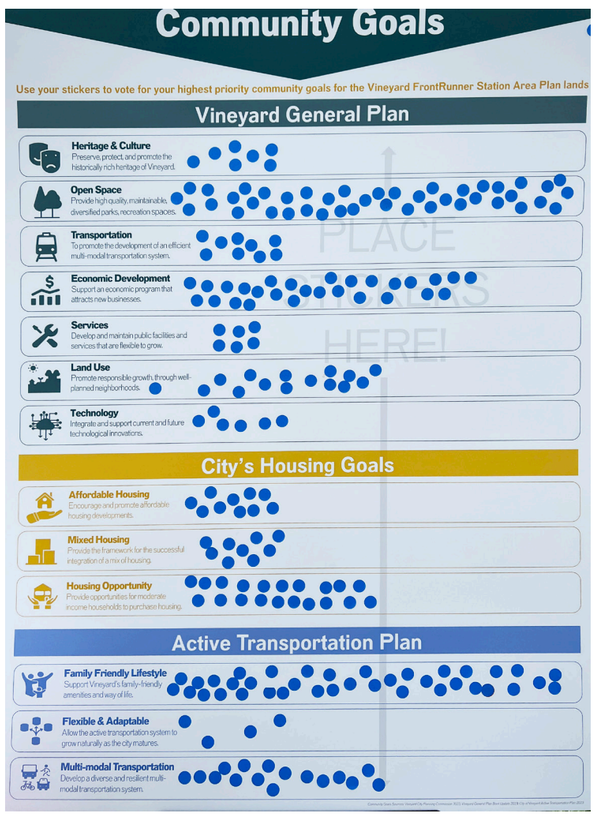
Draft Print
08/28/2025 4:58:50 PM

The Sasaki team and representatives from the City of Vineyard interacted with dozens of community members of all ages at the City's Vineyard Days event in June 2023.

Draft Print
08/28/2025 4:58:50 PM

Community Goals

At the June 2023 Vineyard Days event, the planning team invited residents to share their vision for the future of their growing community. Participants used blue stickers to vote on the 2019 Vineyard General Plan goals they felt were most important for the Vineyard Station Area Plan area. The photo below shows the completed activity with the sticker votes, and the chart to the right summarizes the results.



Priority Goals for Vineyard Station Area Plan Lands

GENERAL

Open Space Provide high quality, maintainable, diversified parks, recreation spaces.	43
Economic Development Support an economic program that attracts new businesses.	28
Land Use Promote responsible growth, through well-planned neighborhoods.	15
Transportation Promote the development of an efficient multi-modal transportation system.	9
Heritage & Culture Preserve, protect, and promote the historically rich heritage of Vineyard.	7
Services Develop and maintain public facilities and services that are flexible to grow.	6
Technology Integrate and support current and future technological innovations.	6

HOUSING

Housing Opportunity Provide opportunities for moderate income households to purchase housing.	20
Affordable Housing Encourage and promote affordable housing developments.	10
Mixed Housing Provide the framework for the successful integration of a mix of housing.	9

TRANSPORTATION GOALS

Family Friendly Lifestyle Support Vineyard's family-friendly amenities and way of life.	38
Multi-modal Transportation Develop a diverse and resilient multi-modal transportation system.	16
Flexible & Adaptable Allow the active transportation system to grow naturally as the city matures.	4

Draft Print
08/28/2025 4:58:50 PM

Future Uses

At the June 2023 Vineyard Days event, the planning team asked residents what types of uses or destinations would draw them to the Vineyard Station Area Plan area in the future. Participants used yellow stickers to vote, as shown in the photo of the completed activity below. The chart to the right provides a summary of the results.

What uses would bring you here?

I want to work/make/shop here.

Retail/Food & Beverage	72
Office	8
Industry	1

I want to live (or have the option to live) here.

Low-rise Housing	33
Multifamily Housing	9
High-rise Multifamily Housing	8

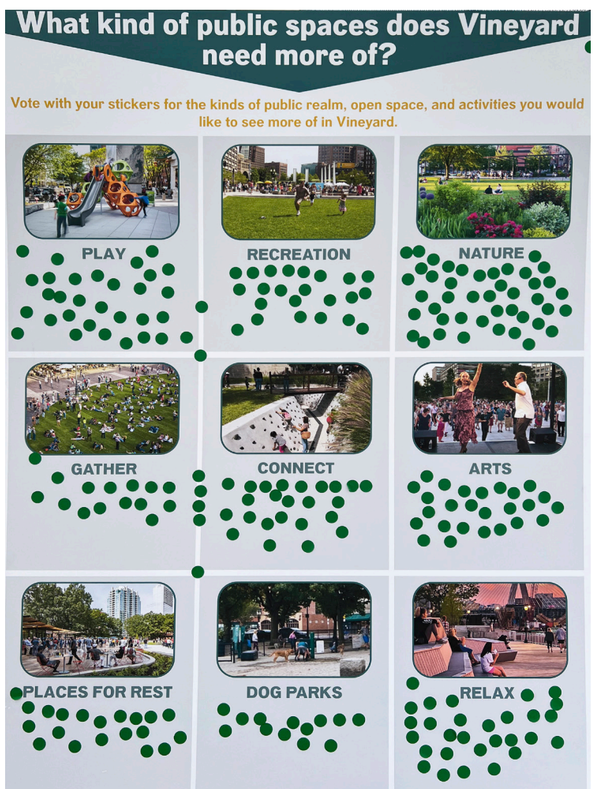
I want to work/make/shop here.

Parks & Nature	56
Entertainment	32
Community, Culture, Arts & Events	20

Draft Print
08/28/2025 4:58:50 PM

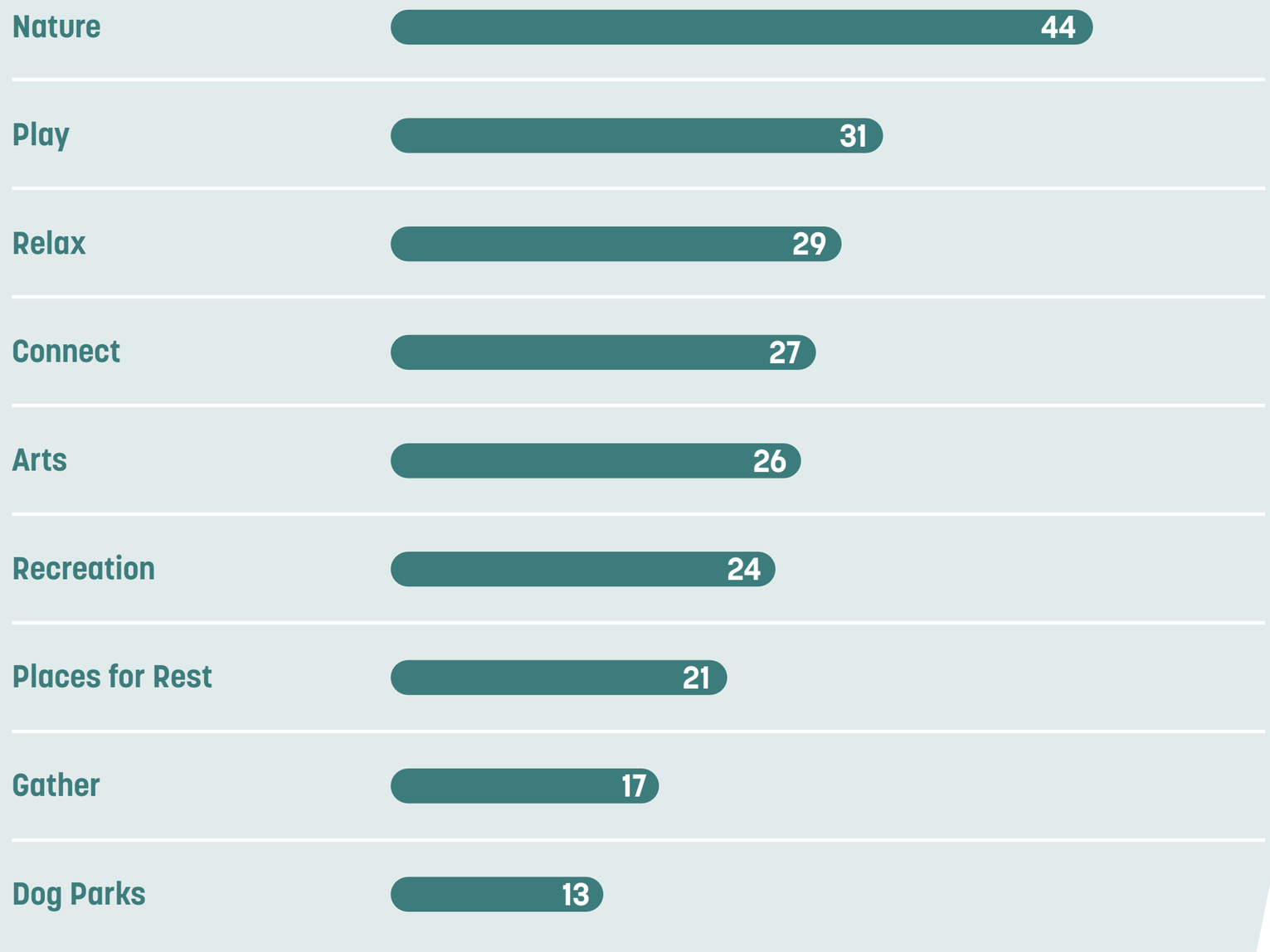
Public Spaces

At the June 2023 Vineyard Days event, the planning team asked residents questions about their the kind of uses that would bring them to the Vineyard Station Area Plan lands in the future. Their votes are depicted with yellow stickers on the photograph of the completed activity below and are tallied in the chart to the right.



What kind of public spaces does Vineyard need more of?

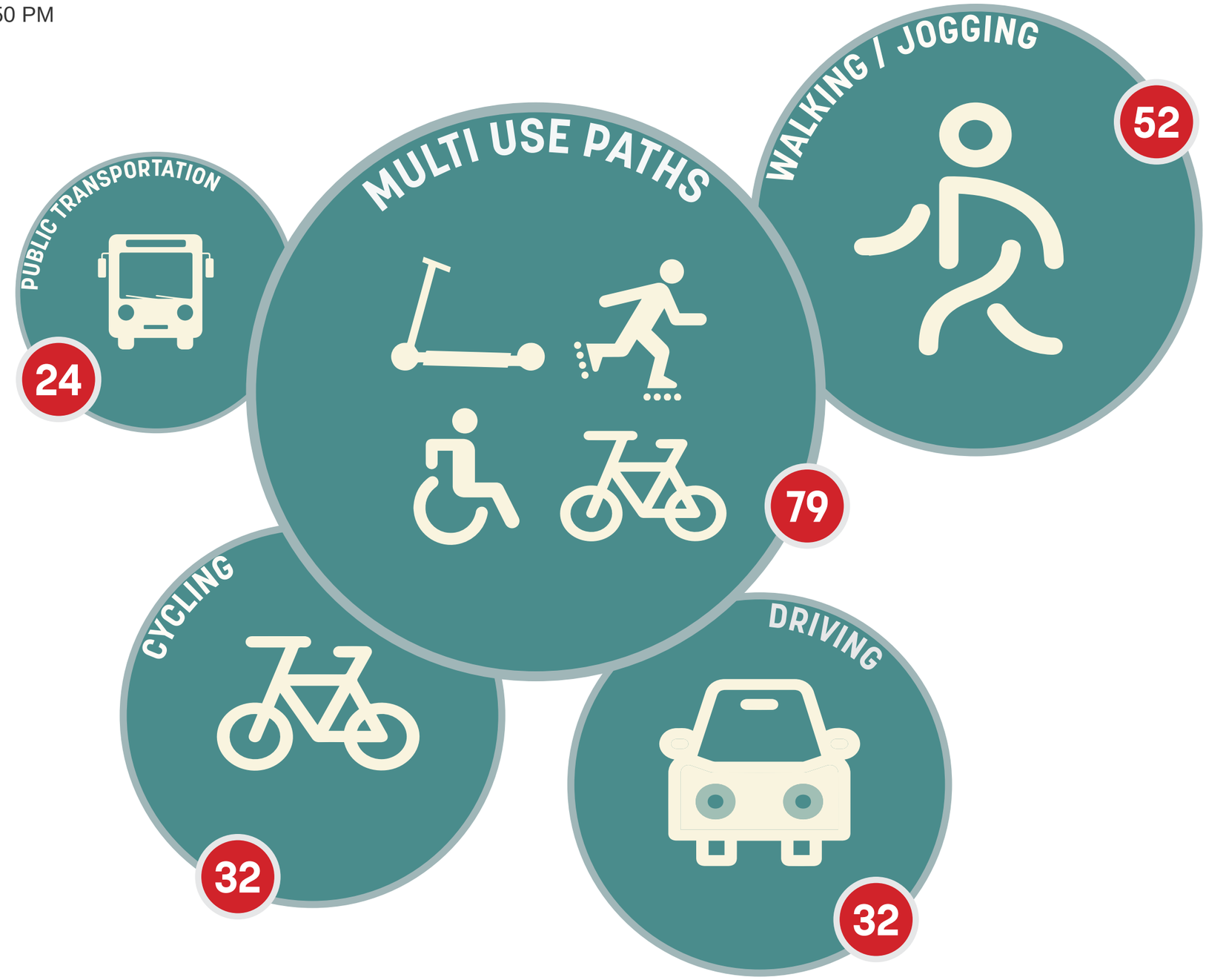
Public realm, open space, and activities you would like to see more of:



What We Heard

Draft Print
08/28/2025 4:58:50 PM

At the June 2023 Vineyard Days event, the planning team asked residents questions about their preferences to moving to, through, and from the Station Area Plan lands in the future. Their votes are depicted with red stickers on the photograph of the completed activity below and are represented scaled by popularity to the right.



Draft Print
08/28/2025 4:58:50 PM

Development Principles

The following principles emerged from the planning team's engagement with City leaders and staff, project stakeholders, community members, and established local objectives.

Supporting Growth

Vineyard as a crossroad across the region providing connections to regional networks across Utah county

Job Growth

Vineyard as a crossroad across the region providing connections to regional networks across Utah county

Transportation

Vineyard as a crossroad across the region providing connections to regional networks across Utah county

Housing & Recreation

Vineyard as a crossroad across the region providing connections to regional networks across Utah county

Draft Print
08/28/2025 4:58:51 PM

Design Principles

Design Principles for the Vineyard Station Area plan serve to connect local goals and priorities, site-specific features and opportunities, and best practices in planning and urban design to inform a future redevelopment and public realm configuration within the 430-acre area.

Design Principles provide a basic framework for parks and greenways, neighborhoods and urban centers, and key connective corridors.

Parks and Greenways

This framework creates two park spaces with linear east west mixed-use corridors. This framework creates a loop of greenways connecting a series of open spaces together.

Neighborhood Centers

Neighborhood centers create nodes of density and activity, where active ground floor uses meet major street corridors and greenways.

Mill Road Corridor

This framework centers Mill Road as a commercial Main Street. Mill Road is designated to serve multi-modal transit and primary pedestrian corridor.

Draft Print
08/28/2025 4:58:51 PM

04

Framework Plan

Disclaimer:
All illustrations in this document are conceptual and intended to show one possible approach to land use. They are not final, binding, or regulatory, and may change as planning and development progress.

Contextual Influences

The framework plan for the Vineyard FrontRunner Station Area Plan is influenced by much of what is happening around it. The Utah City development to the west of the FrontRunner train line will soon bring thousands of new residents and daytime employees to the area, along with regionally attractive institutions and retail destinations.

Immediately southwest of the Station Area Plan lands, Utah Valley University (UVU) controls an area that is planned for expanded university programs, including facilities for academic, housing, student life, and institutional partners. Directly south of the Station Area lands, The Forge at Geneva is taking shape, including several blocks of medium density multifamily residential development and associated uses.

To the north and east of the Station Area Plan lands, across 1600N and Geneva Road, large swaths of low density commercial and industrial lands operate with easy access to I-15 and the area's rail infrastructure.

In considering the potential future of the Station Area Plan's 430 acres, the near and long-term future of its neighbors will have a major impact on what takes shape here and the quality of the place that emerges. Responding to these contextual influences requires a site framework that organizes future development in a way that connects to urban development to the west and south of the site while positioning future commercial and industrial uses on site to the north and east. This distribution and growth strategy will help ensure comfortable transitions between uses well into the future.

Draft Print
08/28/2025 4:58:51 PM

Note: Utah City and Utah Valley University (UVU) Plans in this image indicate future development on these properties.

0 1/4 mi 1/2 mi N

Draft Print
08/28/2025 4:58:51 PM

Concept Vision and Framework Plan

The conceptual plan for the Vineyard FrontRunner Station Area envisions a mixed-use district that is well connected to surrounding neighborhoods through extensions of key roadways. The plan builds on the area's existing context and responds to adjacent land uses.

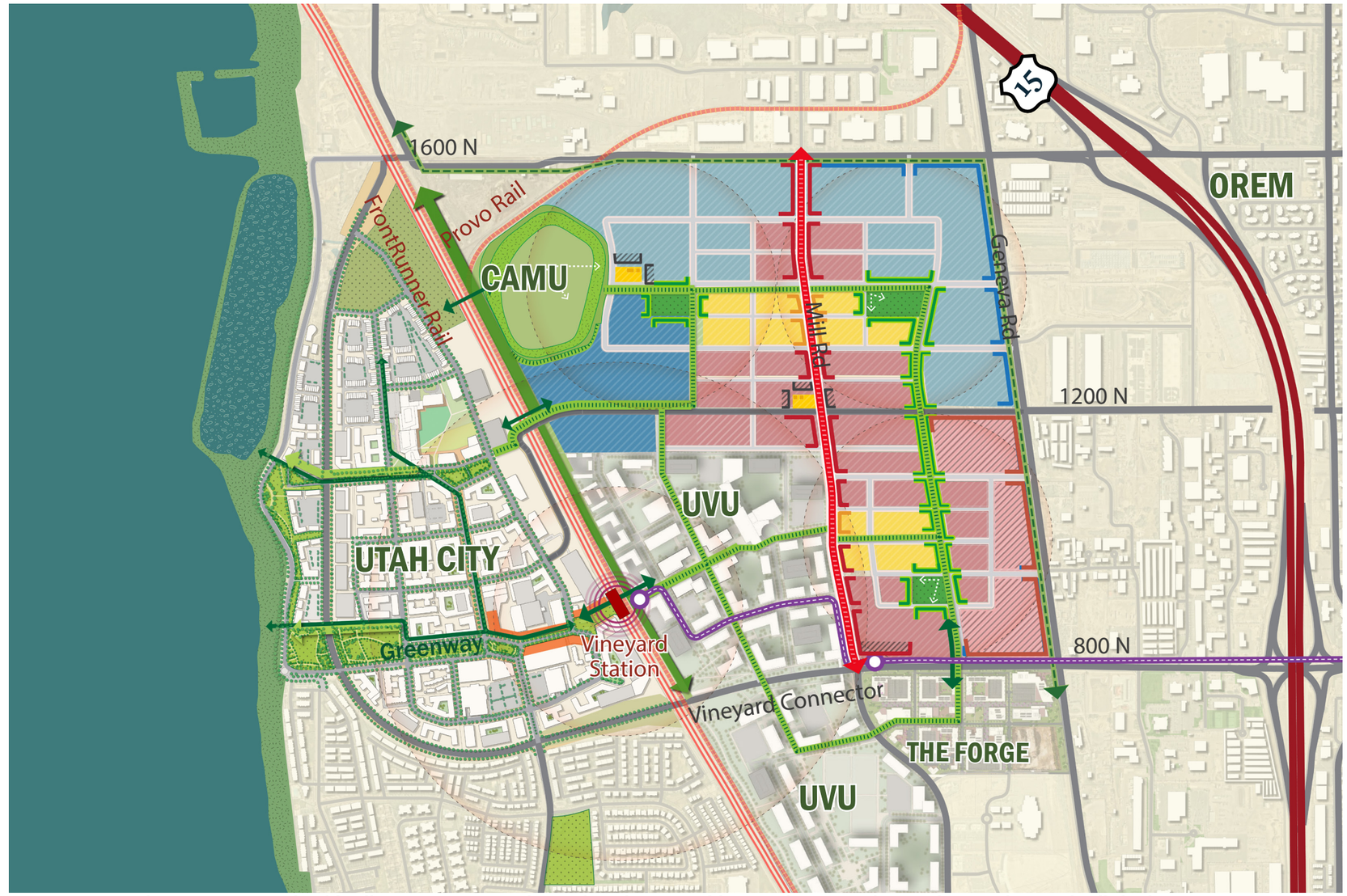
The primary street network is defined by two major extensions: 1200 North, which runs east to west across the site and connects over the FrontRunner tracks into Utah City; and Mill Road, which extends north from 800 North through the site to 1600 North. These two roads intersect at the center of the planning area.

A Regional Commercial Node is envisioned at the intersection of Vineyard Connector and Geneva Road that provides high visibility and convenient access to I-15. Additional, retail/mixed-use nodes are also envisioned integrated into each quadrant, but the exact locations and sizes will be determined at the time of more detailed site planning. The greatest quantity of mixed-use should occur proximate to the Vineyard Station.

The area is further structured around a network of parks and green corridors that connect through the site and link to surrounding areas.

The land use strategy focuses higher-density and pedestrian-oriented development closest to the Vineyard Station to create an active, vibrant core. Lower-density uses, such as industrial and large-scale commercial development, are planned for the northern and eastern parts of the site. These edge areas are intended to align with similar adjacent uses.

Residential uses are permitted throughout the site; however, their exact locations will be determined during detailed site planning in coordination with environmental suitability. The alignment of streets, the size and type of open spaces, and the placement of specific land uses remain flexible and will be refined as planning progresses.



This map is conceptual and for illustrative purposes only. Land use, layouts, and features shown are subject to change and are not legally binding.

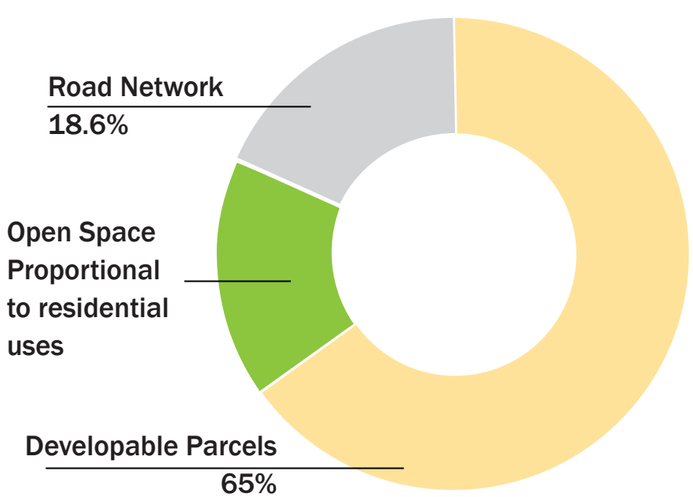
0 1/4 mi 1/2 mi N

- Retail
- Residential
- Mixed Use Commercial
- Regional Commercial
- Flex Office/Light Industrial
- Innovation Campus

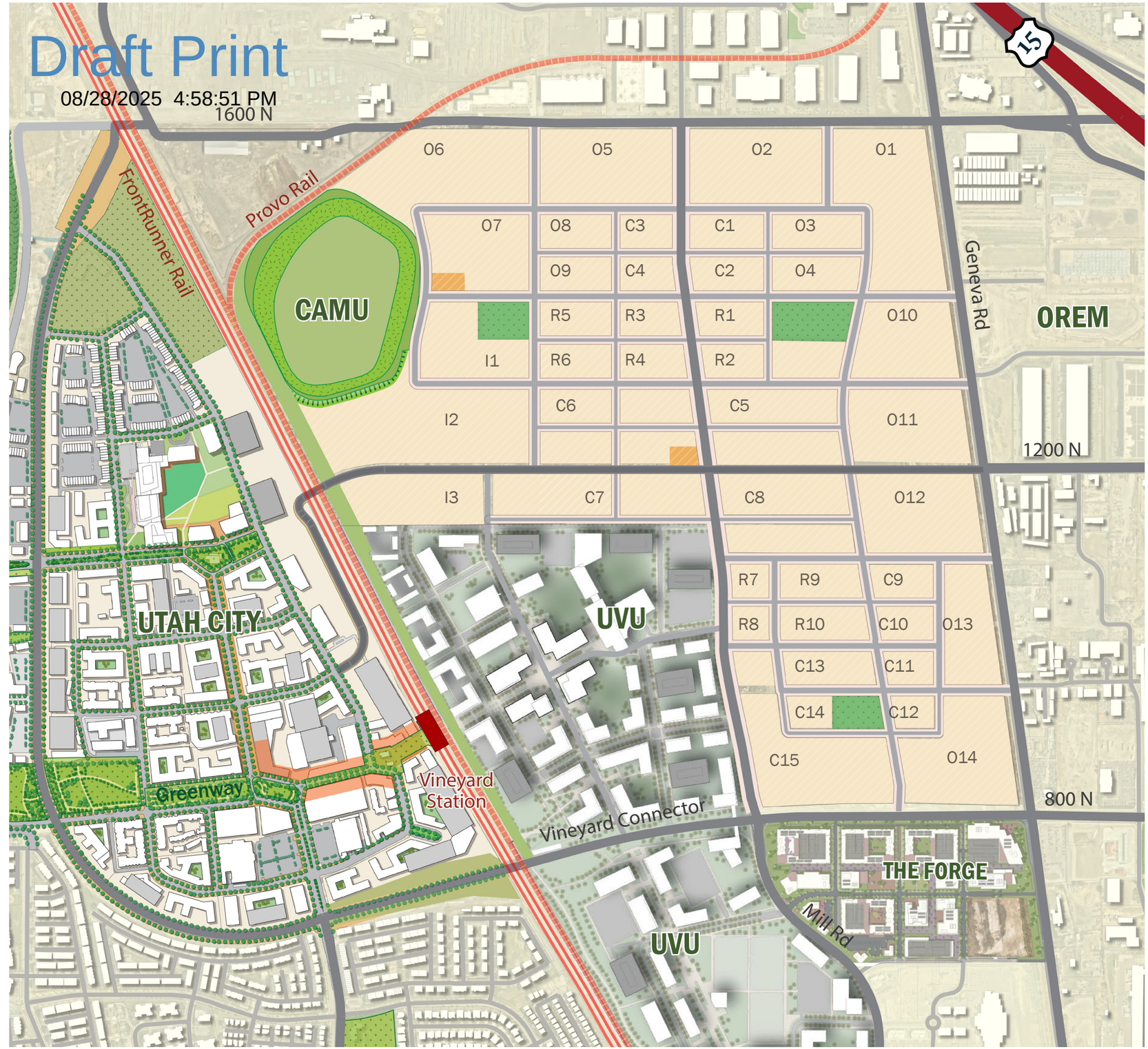
Parcel Plan

The development framework plan for the Vineyard FrontRunner Station Area Plan lands sits within the structure defined by the primary circulation and park/open spaces networks. Fixed conditions, such as the CAMU site, the path of the rail lines that cross through or abut the area, and the long-term plans for development on adjacent sites will influence the experience, quality, and accessibility of the future places within the Station Area Plan lands.

Generally, larger development sites that can accommodate regional commercial development, light industrial uses, or corporate campuses are located at the periphery of the site, responding to the infrastructure assets and neighboring sites featuring similar developments. Smaller scale, urban, and mixed use sites are located along the area's major crossroads and within the center of the site.



0 1/4 mi 1/2 mi N



This map is conceptual and for illustrative purposes only. Land use, layouts, and features shown are subject to change and are not legally binding.

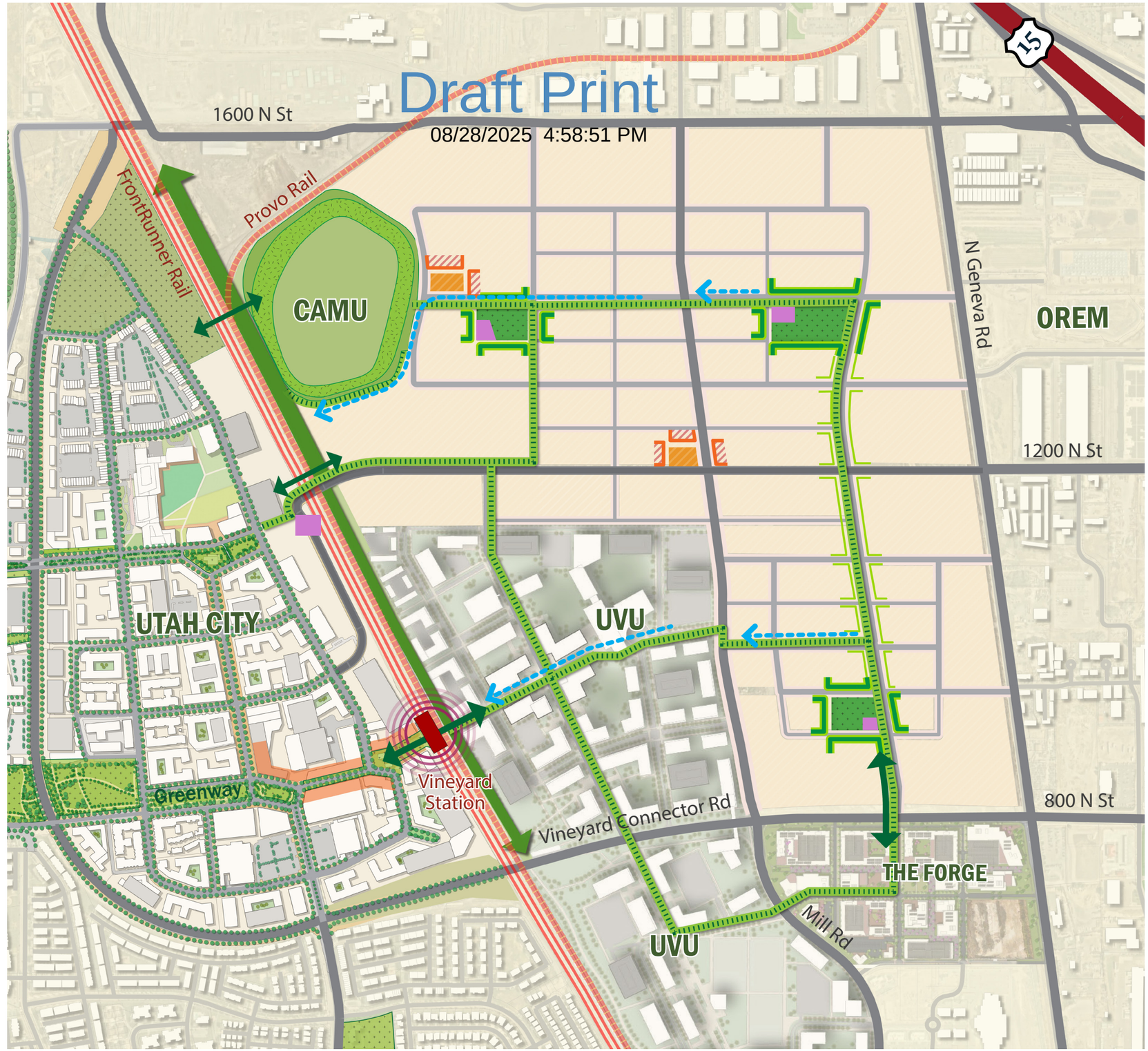
Open Space Network

The planned open space network consists of park spaces, public plazas, and open space corridors that traverse the site and provide green connections within the area and out to its neighbors. The framework allows for a diversity of open and recreation spaces to emerge at key locations within the site. The CAMU, which comprises a contaminated site that has been capped, is reserved as a naturalized open space, creating opportunities for recreation and premium frontages along its edges. Smaller parks and plaza spaces are strategically sited at key intersections to provide easy access to emerging urban development.

The entirety of the site is served by green pedestrian connector corridors that reach from site edge to site edge, from north to south and east to west. These 20-foot wide corridors are intended to accommodate a diverse range of uses, including multi-use paths, formal recreation (e.g., fields, courts, equipment) and passive open spaces for casual recreation and moments of repose.

- District Park
- Retail Plazas
- Park Amenities
- Recreation Fields
- Stormwater Flow
- Pedestrian Connector

0 1/4 mi 1/2 mi N

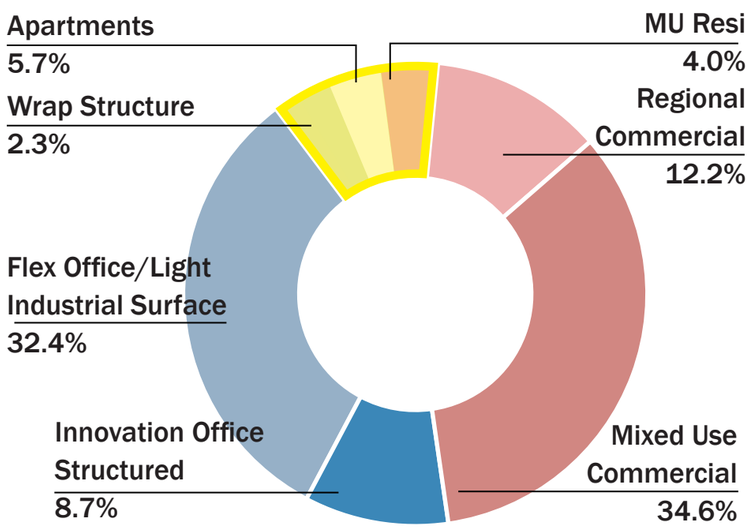


This map is conceptual and for illustrative purposes only. Land use, layouts, and features shown are subject to change and are not legally binding.

Draft Print
08/28/2025 4:58:51 PM

Land Use Concept Plan

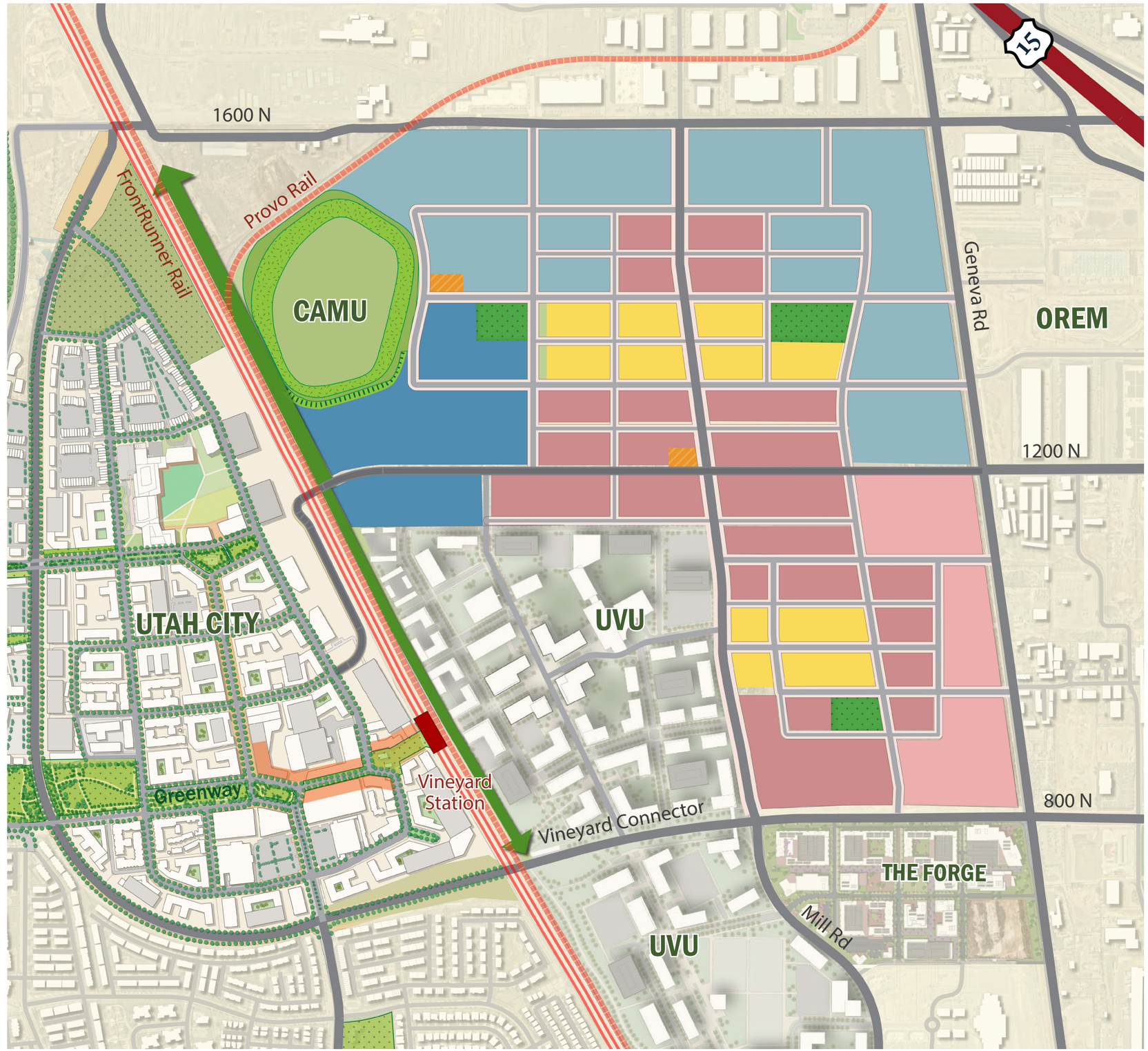
The vision for the future of the Station Area Plan lands is for a mixed-use community centered on employment. Given the site's context and past as a place of heavy industry, contamination issues still impact potential future uses, including the potential for ground floor residential uses. In consideration of those realities, along with the many residential projects underway and planned for the immediate area, the vision for the Station Area Plan lands centers on commercial uses, with nearly 90% of the total site area designated for this kind of development.



- Retail
- Residential
- Mixed Use Commercial
- Regional Commercial
- Flex Office/Light Industrial
- Innovation Campus

0 1/4 mi 1/2 mi

N



This map is conceptual and for illustrative purposes only. Land use, layouts, and features shown are subject to change and are not legally binding.

Development Matrix

Using the framework and land use concept plans as a foundation, the planning team calculated the potential development yield for the 430-acre Station Area Plan area. The conceptual buildout includes a balanced mix of land uses–residential, office (including innovation and flexible formats), healthcare, retail, and food and beverage–with the development yield summarized by category in the table to the right.

Altogether, the Station Area Plan envisions approximately 6.4 million gross square feet of built space. Based on Vineyard's zoning requirements for commercial development, this would be supported by an estimated 6,600 off-street parking spaces, distributed across the district in a way that supports access, walkability, and a well-integrated public realm

Use Type	Acres	Density (FAR)	Density (DU/acre)	Unit Size (gross)	GFA	Res Units
Residential	**33**				**1,881,000**	**1,060**
Housing (multifamily - four over one)	20	N/A	40	1,800	1,440,000	800
Housing (garden apartments)	13	N/A	20	1,600	416,000	260
Retail (ground floor)	N/A	N/A	N/A	N/A	25,000	N/A
Commercial - Regional	**33.5**				**291,852**	
Large format retail	33.5	0.2	N/A	N/A	291,852	N/A
Commercial - Mixed-use	**95**				**2,424,680**	**600**
Retail (ground floor)	N/A	N/A	N/A	N/A	125,000	N/A
Housing (multifamily - four over one)	15	N/A	40	1,800	1,080,000	600
Office	80	0.35	N/A	N/A	1,219,680	N/A
Innovation Campus	**28**				**413,820**	
Office	25	0.35	N/A	N/A	381,150	N/A
Amenity	3	0.25	N/A	N/A	32,670	N/A
Flex Office/Light Industrial	**89**				**1,472,328**	
Office	10	0.25	N/A	N/A	108,900	N/A
Light Industrial	77	0.4	N/A	N/A	1,341,648	N/A
Amenity	2	0.25	N/A	N/A	21,780	N/A
Parks & Open Space	48					
Total					**6,483,680**	**1,660**

Draft Print
08/28/2025 4:58:51 PM

Draft Print
08/28/2025 4:58:51 PM

Phasing Plan

As Vineyard continues to grow rapidly, this plan is designed to support flexible, phased development. Property owners may begin implementing projects on any site, as long as they align with the overall land use vision and framework outlined in the plan.

A key step in unlocking development throughout the area will be constructing major infrastructure–specifically, extending Mill Road to the north and 1200 North to the west. These extensions will improve access and make it possible to develop interior parts of the site, including areas planned for higher activity and key public spaces along Mill Road.

While the plan allows for a variety of development types over time, it recommends that certain high-visibility sites–especially those along Mill Road and 1200 North–be prioritized for phases that include ground-floor retail, public plazas, parks, and green corridors. Reserving these locations for later phases ensures they are built out in a way that supports vibrant, walkable public spaces and long-term community benefit.

Active Ground Floor Edges

- Plazas
- Residential
- Mixed Use Commercial
- Regional Commercial
- Flex Office/Light Industrial

0 1/4 mi 1/2 mi N

This map is conceptual and for illustrative purposes only. Land use, layouts, and features shown are subject to change and are not legally binding.

Apartment Homes

The vision for the Station Area Plan includes a mix of land uses, with higher-density, urban-style development focused in the center of the site and along key corridors like Mill Road and 1200 North. A key component of this vision is multifamily housing, including mid-rise apartments and condominiums.

These buildings offer much-needed housing options for individuals and families, providing convenient access to nearby parks, jobs, retail, and public transit. To support an active and welcoming streetscape, residential developments should feature ground floors with transparent, publicly visible uses such as lobbies, fitness centers, or shared amenities. In designated "active zones"–including Mill Road, the central portion of 1200 North, and areas adjacent to major parks and plazas–ground floors should prioritize retail and other street-activating uses.

Parking for residents will be provided within each development site, ensuring that new housing supports both walkability and functionality without detracting from the pedestrian experience.

Draft Print
08/28/2025 4:58:51 PM

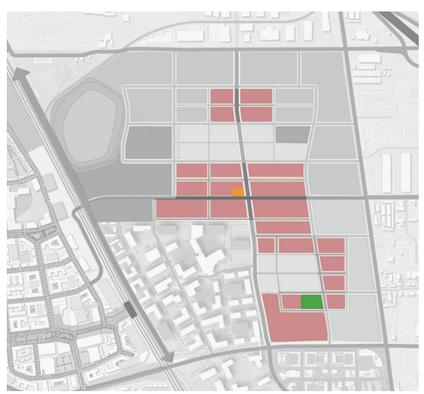
Draft Print
08/28/2025 4:58:51 PM

Commercial Mixed Use

The areas designated as Commercial Mixed-Use within the Station Area Plan are intended to be the most vibrant and active parts of the district. These zones are prioritized for ground-floor activation and should feature a dynamic mix of retail, dining, entertainment, services, and publicly accessible spaces within private developments.

To support a lively pedestrian environment, streets in these areas should be designed for slower vehicle speeds and prioritize safety, comfort, and accessibility for people walking and biking. The public realm should include flexible and inviting spaces–such as plazas, wide sidewalks, and shaded seating areas–that encourage gathering, lingering, and spill-out activity from nearby shops, restaurants, and vendors.

These commercial mixed-use areas will serve as key destinations within the district, supporting a walkable, community-oriented atmosphere.

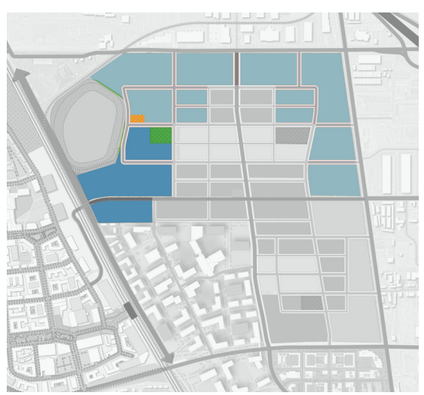


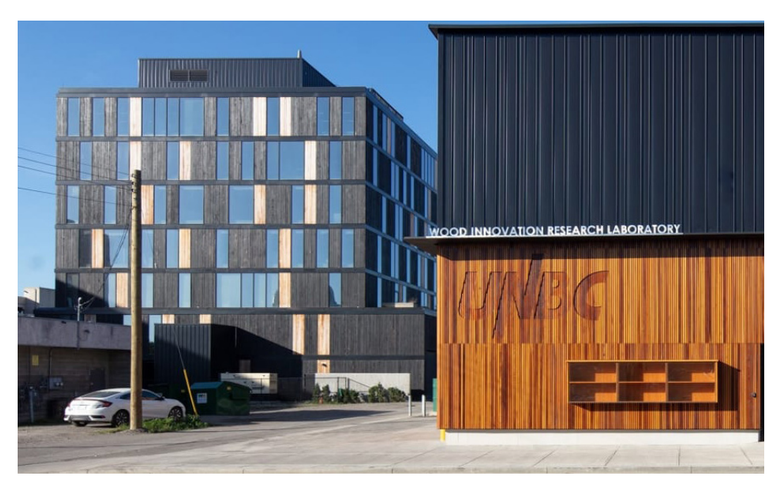
Draft Print
08/28/2025 4:58:51 PM

Innovation & Office Uses

The areas designated for Innovation and Office uses in the framework plan are intended to accommodate a range of employment types, including professional offices, medical facilities, creative industries, and other job-generating uses. Concentrating employment in these areas will bring a high density of workers to the district, helping to support nearby Commercial Mixed-Use zones with steady demand for retail, dining, entertainment, and amenities.

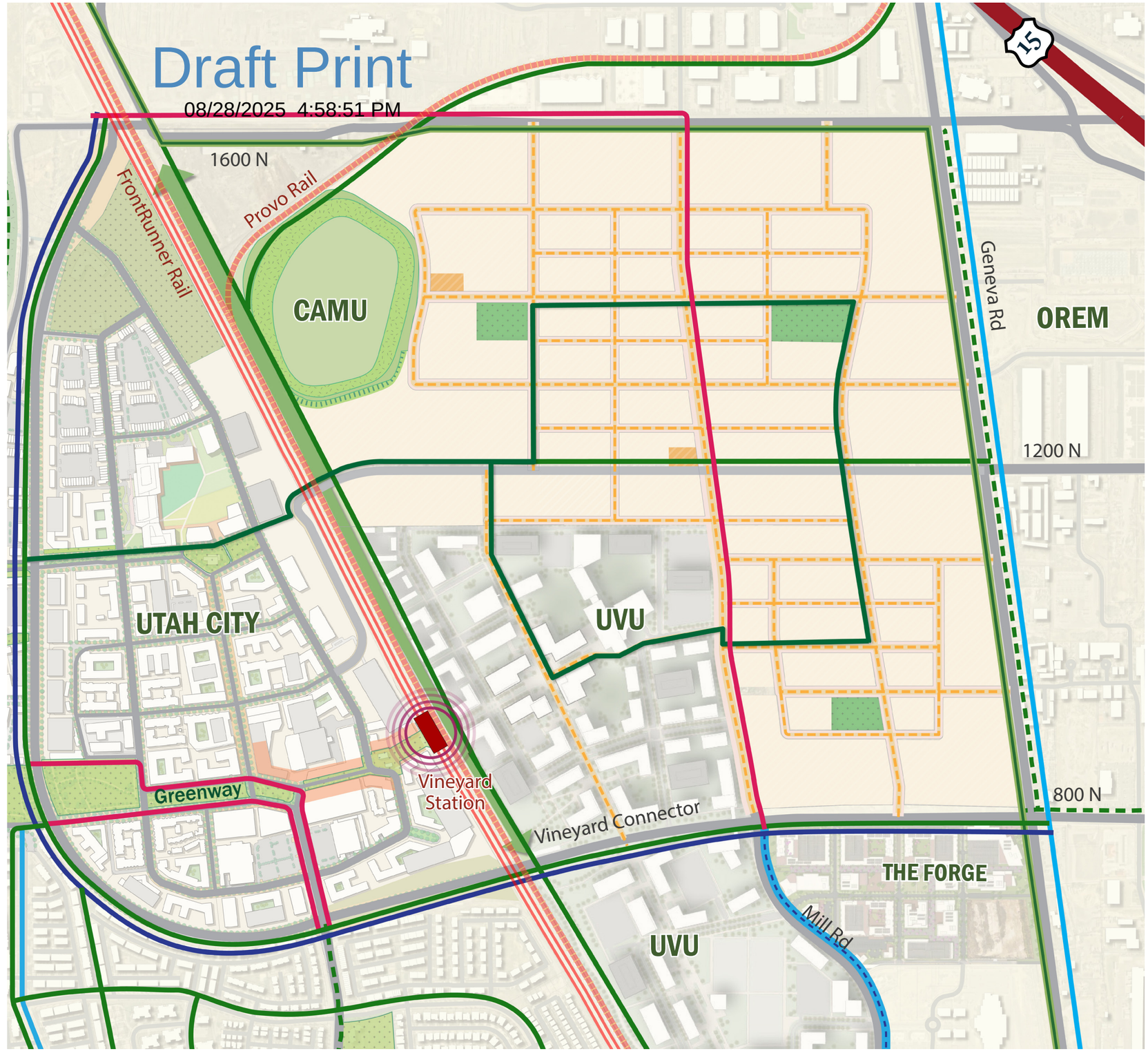
This synergy between employment and surrounding amenities contributes to a vibrant, balanced environment—one that supports employee well-being, encourages innovation, and fosters a dynamic, thriving workplace culture.





Active Transportation

The vision for the Station Area Plan lands includes a robust urban network of streets, pedestrian and mutli-use paths, bicycle infrastructure, and new and enhanced transit connections. The area is intended to make walking and biking to nearby destinations and transit hubs a safe, comfortable, and enjoyable experience for residents, students, and workers in the area. The network of routes on site creates new connections to the Vineyard FrontRunner station and to growth areas, such as Utah City to the west and the UVU satellite campus and Forge development to the south.



- Enhanced Pedestrian Connections
- Proposed Bike Lane
- Bike Lane
- Proposed Buffered Bike Lane
- Shared Use Path
- Proposed Shared Use Path
- Proposed Separated Bike Path

0 1/4 mi 1/2 mi N

This map is conceptual and for illustrative purposes only. Land use, layouts, and features shown are subject to change and are not legally binding.

Anticipated Demand

Using the framework plan and conceptual program build-out table to project demand resulting from implementation of this plan vision, the planning team calculated the following. The plan to the right depicts the anticipated level of service for each major street at full build-out.

The full traffic report from Fehr & Peers is included in the appendix.

00000 NEW ANTICIPATED DAILY **VEHICLE** TRIPS AT FULL BUILD-OUT

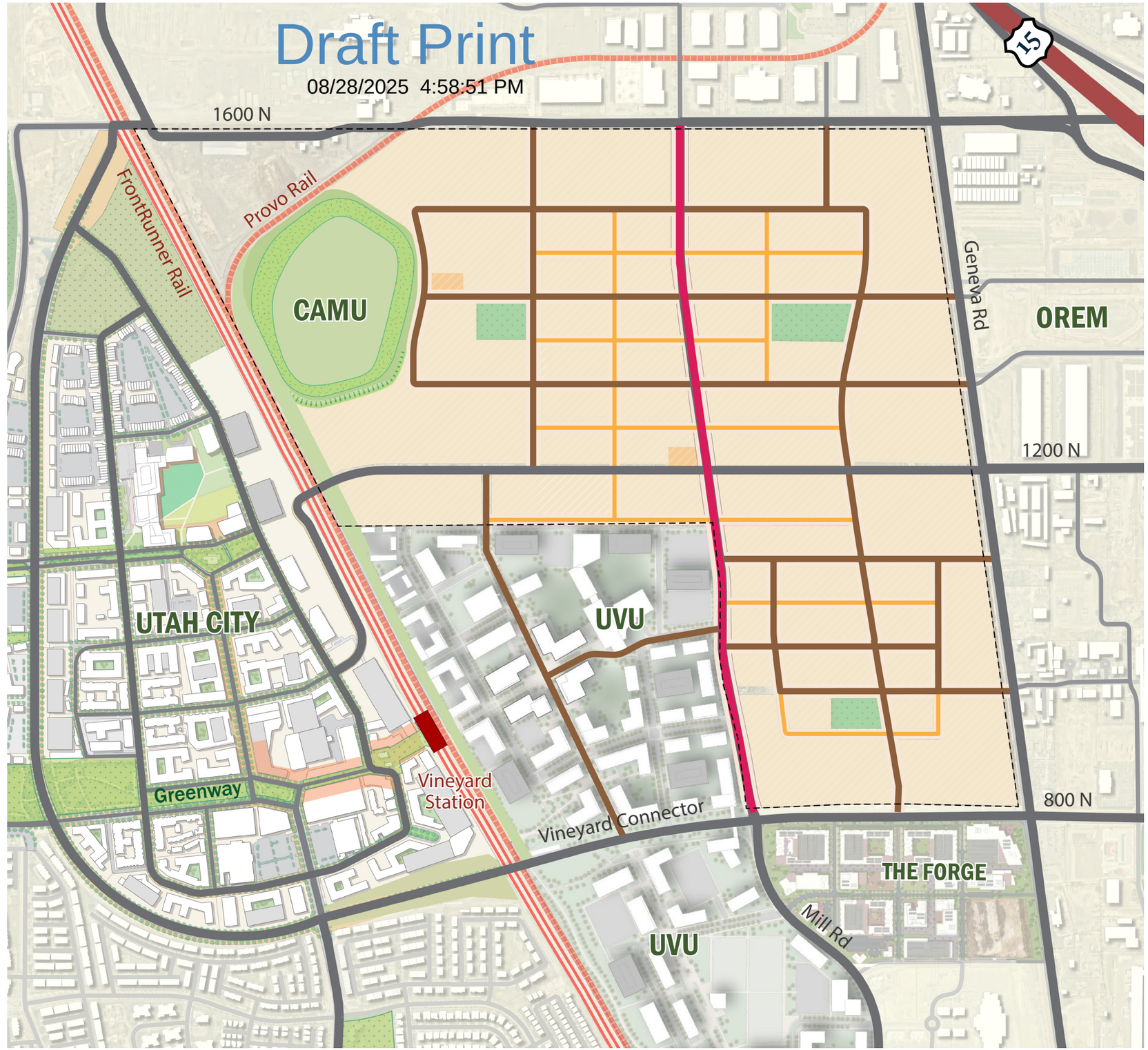
00000 NEW ANTICIPATED DAILY **TRANSIT** TRIPS AT FULL BUILD-OUT

00000 NEW ANTICIPATED DAILY **BICYCLE** TRIPS AT FULL BUILD-OUT

00000 ANTICIPATED **PARKING DEMAND** AT FULL BUILD-OUT

- Provo Rail
- Existing Highway 15
- Existing Arterial Roads
- Mill Road
- Proposed Secondary Roads
- Proposed Local Roads

0 1/4 mi 1/2 mi N



This map is conceptual and for illustrative purposes only. Land use, layouts, and features shown are subject to change and are not legally binding.

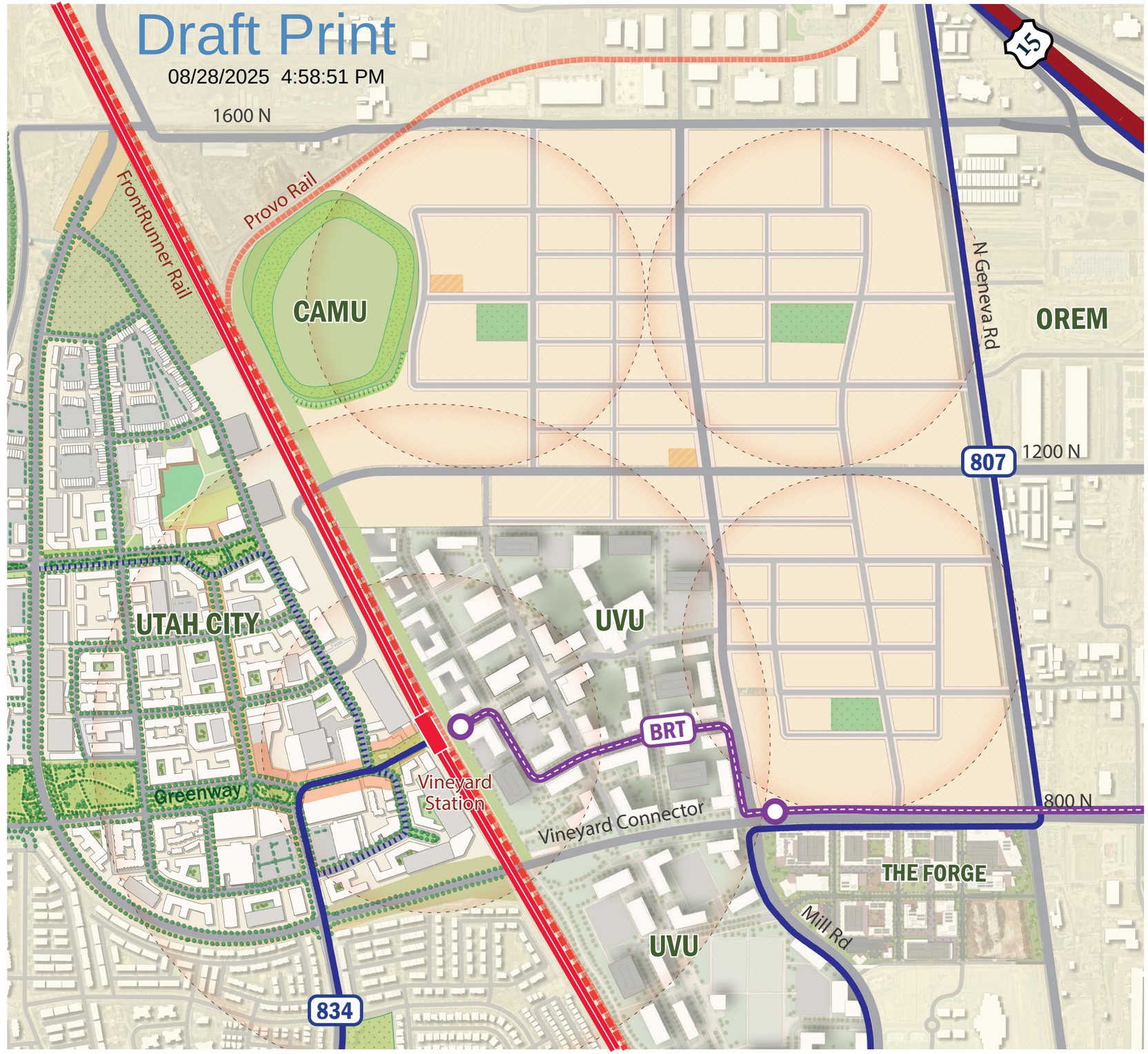
Transit Network

The Station Area Plan encompasses approximately 430 acres, nearly all of which fall within a one-mile radius of the Vineyard FrontRunner commuter rail station. This station provides regional rail access via the FrontRunner line. While the Provo Rail Line and a second regional rail line run along the western and eastern edges of the site, respectively, neither currently includes a station stop near the area.

In addition to rail, the site is currently served–and planned for expanded service–by regional "rubber-tire" bus transit. Existing Utah Transit Authority (UTA) bus routes operate along Geneva Road, 800 North, and Mill Road, which form the eastern and southern edges of the Station Area. Future transit improvements include a proposed Bus Rapid Transit (BRT) line along 800 North, connecting to the Vineyard FrontRunner station, and a new local Vineyard Center bus route to serve the Utah City development west of the Station Area.

- Utah Transit Regular Bus (30 minutes)
- Proposed Vineyard Center Bus Route
- BRT
- Provo Rail
- Regional Rail
- FrontRunner Commuter Rail

0 1/4 mi 1/2 mi N



This map is conceptual and for illustrative purposes only. Land use, layouts, and features shown are subject to change and are not legally binding.

Street Network

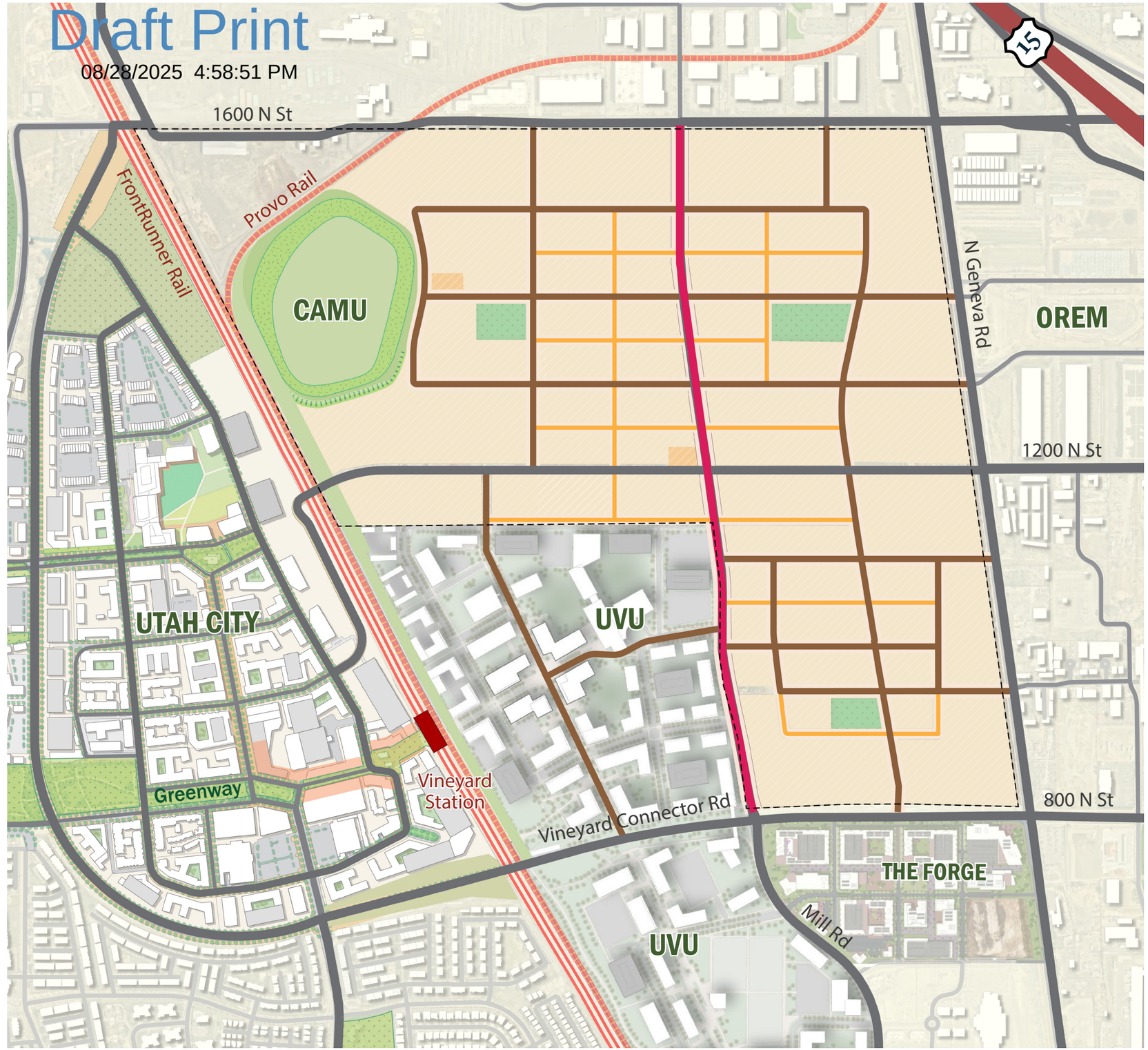
The framework plan for the Station Area outlines a dense, urban street network spanning the site's 430 acres. The area is bordered by major arterial roads–1600 North to the north, Geneva Road to the east, and 800 North to the south. Currently, 1200 North terminates at Geneva Road on the eastern edge of the site. However, both this plan and other adjacent development plans propose extending 1200 North westward through the Station Area, across the FrontRunner rail line, and into the developing Utah City neighborhood, eventually connecting with the Vineyard Connector.

Mill Road is the second primary roadway within the framework, with plans to extend it northward through the site to intersect with 1600 North. In addition to these main corridors, the plan establishes the expected spacing and alignment of secondary and local streets based on the character and intensity of the land uses envisioned in each subarea.

Beyond the primary access points at 1200 North and Mill Road, the framework identifies up to seven additional potential access points along 1600 North, Geneva Road, and 800 North. Some of these intersections may be restricted to right-in/right-out access, depending on future traffic operations and design constraints.

- Provo Rail
- Existing Highway 15
- Existing Arterial Roads
- Mill Road
- Proposed Secondary Roads
- Proposed Local Roads

0 1/4 mi 1/2 mi N



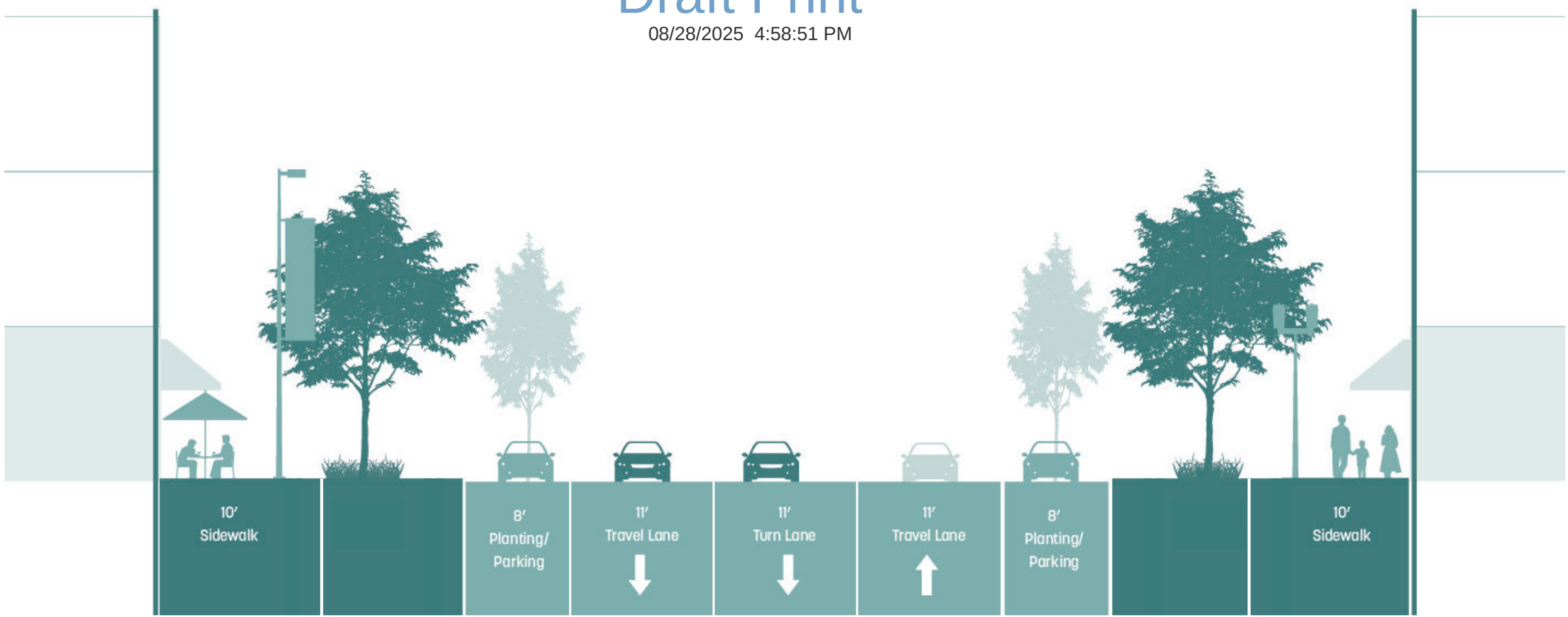
This map is conceptual and for illustrative purposes only. Land use, layouts, and features shown are subject to change and are not legally binding.

Mill Road (97' ROW)

The extension of Mill Road northward into the site is meant to serve as the new district's "Main Street", connecting a dense collection of mixed-use developments with active ground floors and comfortable pedestrian environments along and within the street. The section below depicts the proposed organization of Mill Road and the recommended dimensions for each component, including the sidewalk, planting zone, parking lanes, and travel lanes.

As a street that encourages active ground floors, the sidewalks are large to accommodate high levels of foot traffic and allow for spill-out activity from retailers and dining. Parking is provided on both sides of the street to enable easy transient parking for customers. Dedicated bicycle lanes are recommended and included in sections for other streets within the proposed Station Area Plan mobility network, where traffic levels are expected to be lower.

Draft Print
08/28/2025 4:58:51 PM

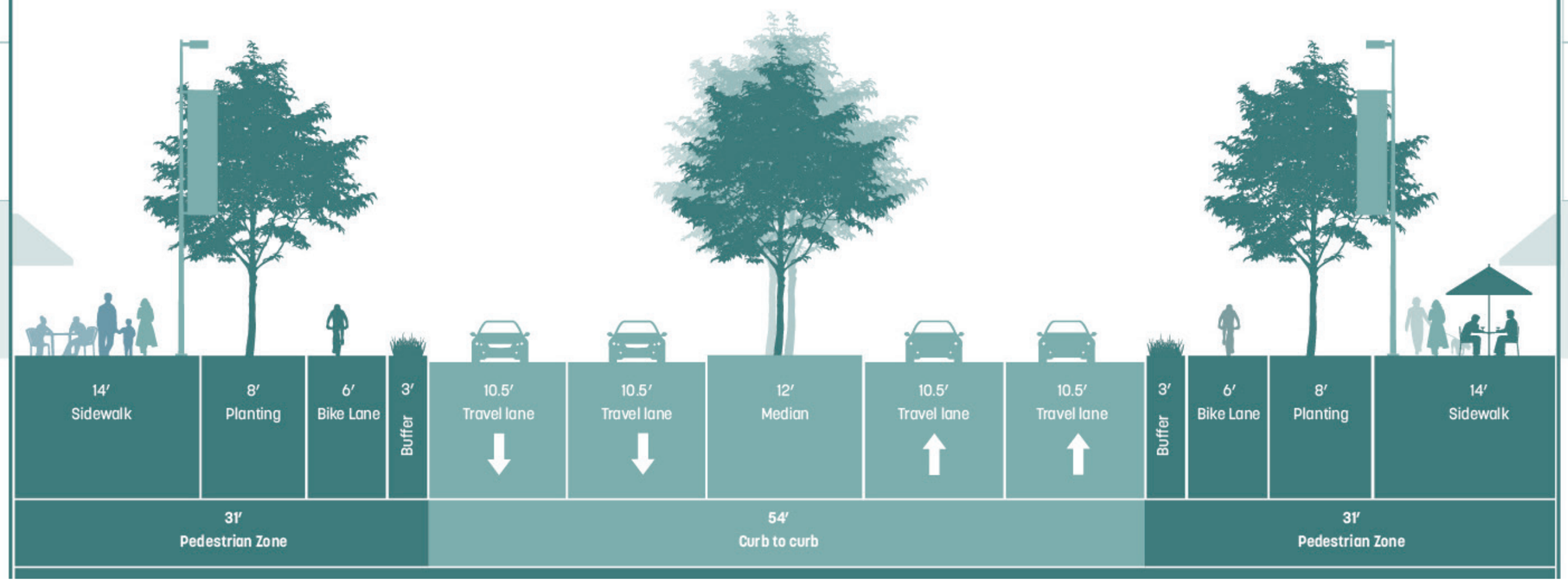


This map is conceptual and for illustrative purposes only. Land use, layouts, and features shown are subject to change and are not legally binding. Frontages are flexible and will be determined at the time of detailed site planning.

1200 N Street (116' ROW)

The extension of 1200 N westward into the Vineyard Station Area Plans creates the second primary connection to and through the site. The proposed section for this extension maintains the 116-foot right-of-way dimension of 1200 N east of the site. This proposed section includes two travel lanes in either direction with a twelve foot median separating the directions of traffic. Flanking the drive lanes on both sides are comfortable pedestrian, planting, and bike zones. This zone includes 31 feet on both sides, with a 14-foot sidewalk and spill-out zone for retail and food and beverage establishments, an eight-foot planting zone, a six-foot bike lane, and a three-foot planted buffer zone between the bike lane and the drive lane. This wide and comfortable urban streetscape provides a supportive environment for multi-modal mobility and walkability on this key connection through the district, to the Vineyard FrontRunner station, and over the rail corridor to Utah City.

Draft Print
08/28/2025 4:58:51 PM

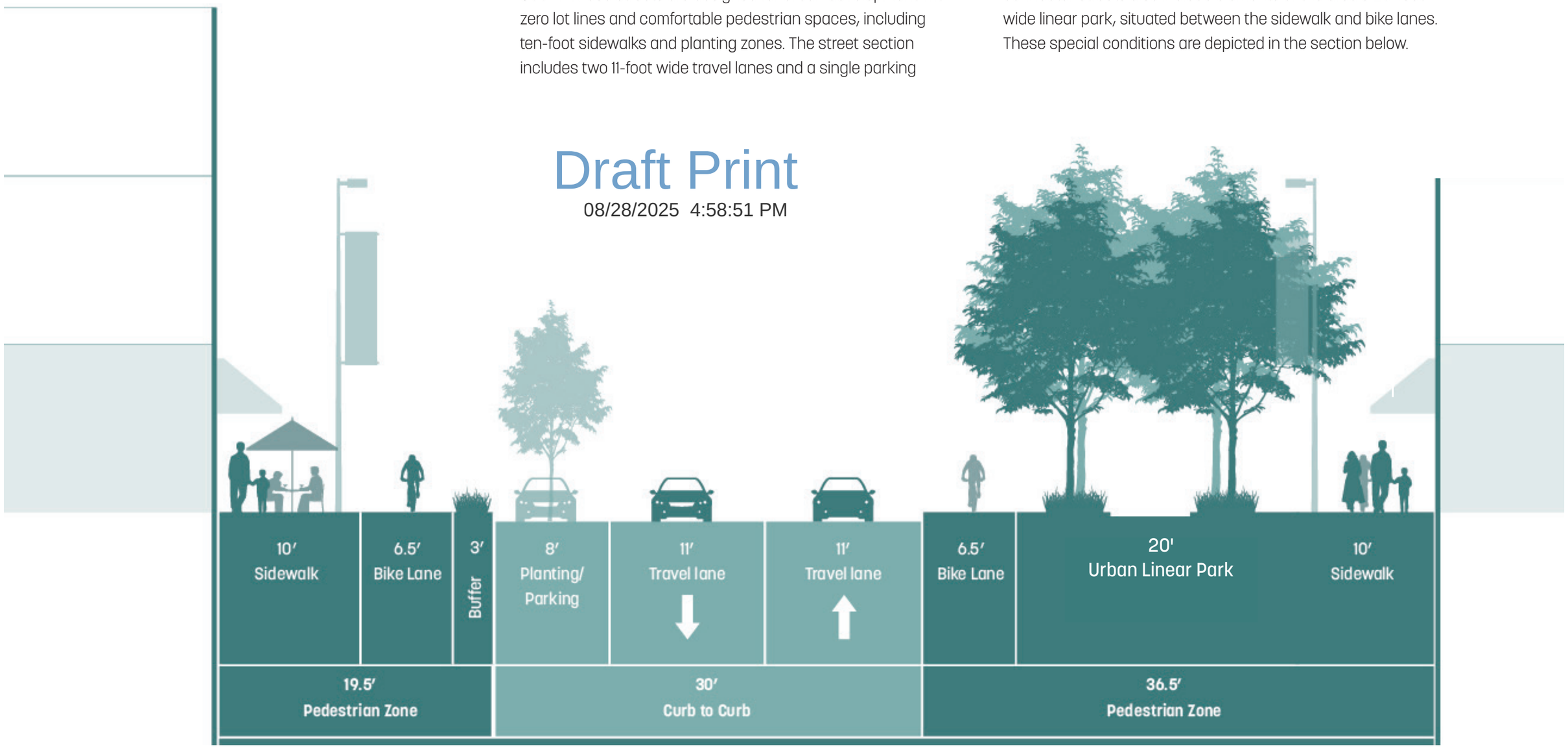


This map is conceptual and for illustrative purposes only. Land use, layouts, and features shown are subject to change and are not legally binding. Frontages are flexible and will be determined at the time of detailed site planning.

Connector Street (86' ROW)

The connector street type is a secondary street typology within the Station Area Plan lands. These streets connect to the primary arterials within the district, as well as several of the area's perimeter roads, including 1600 N, Geneva Road, and 800 N. These streets are designed for urban development with zero lot lines and comfortable pedestrian spaces, including ten-foot sidewalks and planting zones. The street section includes two 11-foot wide travel lanes and a single parking lane. Along some collector streets sections within the Station Area Plan lands, six and a half foot bike lanes are sited outside the sidewalk and planting zones, providing bi-directional separated bike access throughout the area. Select segments of connector streets also include elements of the area's 20-foot wide linear park, situated between the sidewalk and bike lanes. These special conditions are depicted in the section below.

Draft Print
08/28/2025 4:58:51 PM

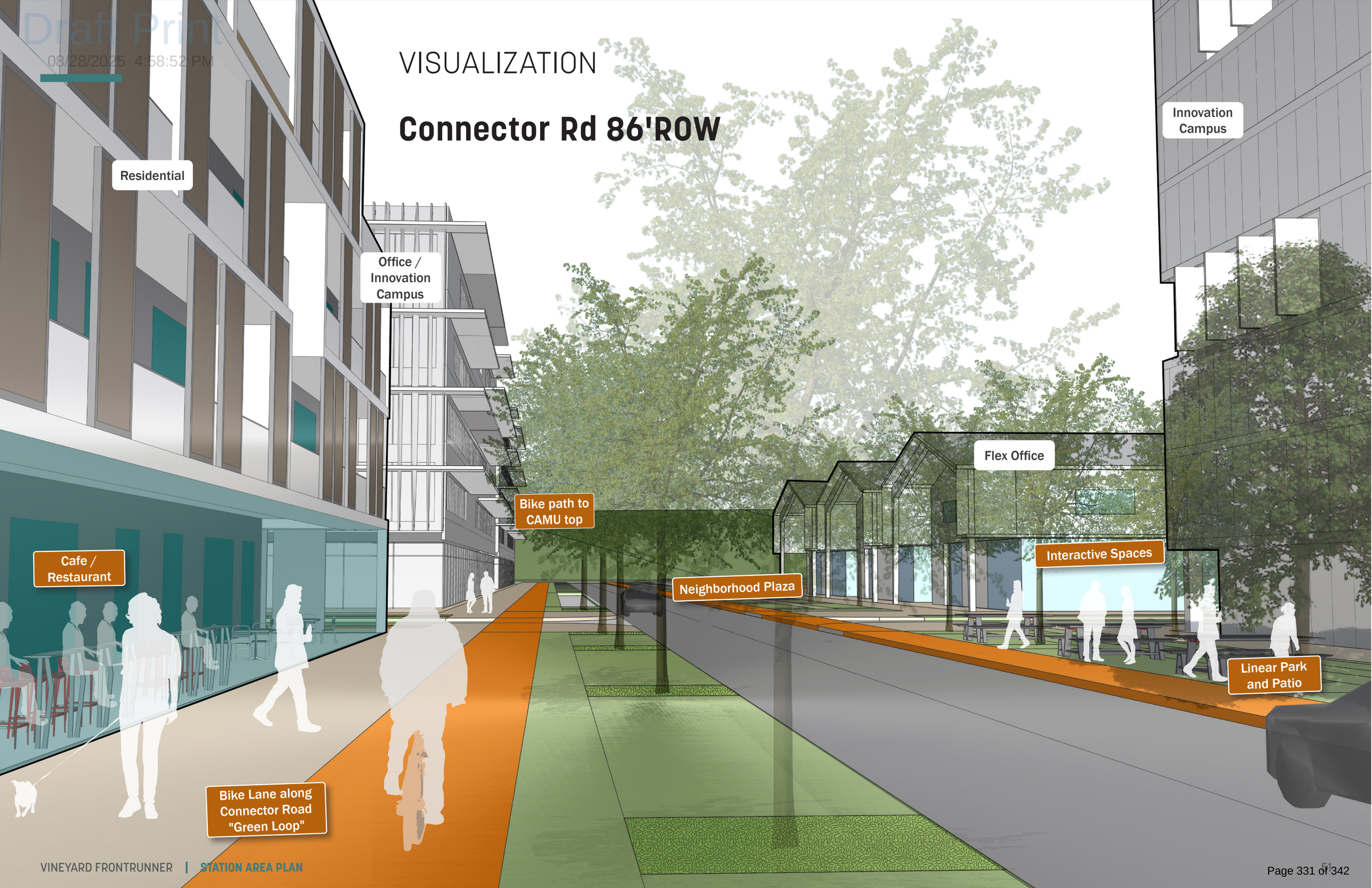


This map is conceptual and for illustrative purposes only. Land use, layouts, and features shown are subject to change and are not legally binding. Frontages are flexible and will be determined at the time of detailed site planning.

Draft Print
08/28/2025 4:58:52 PM

VISUALIZATION

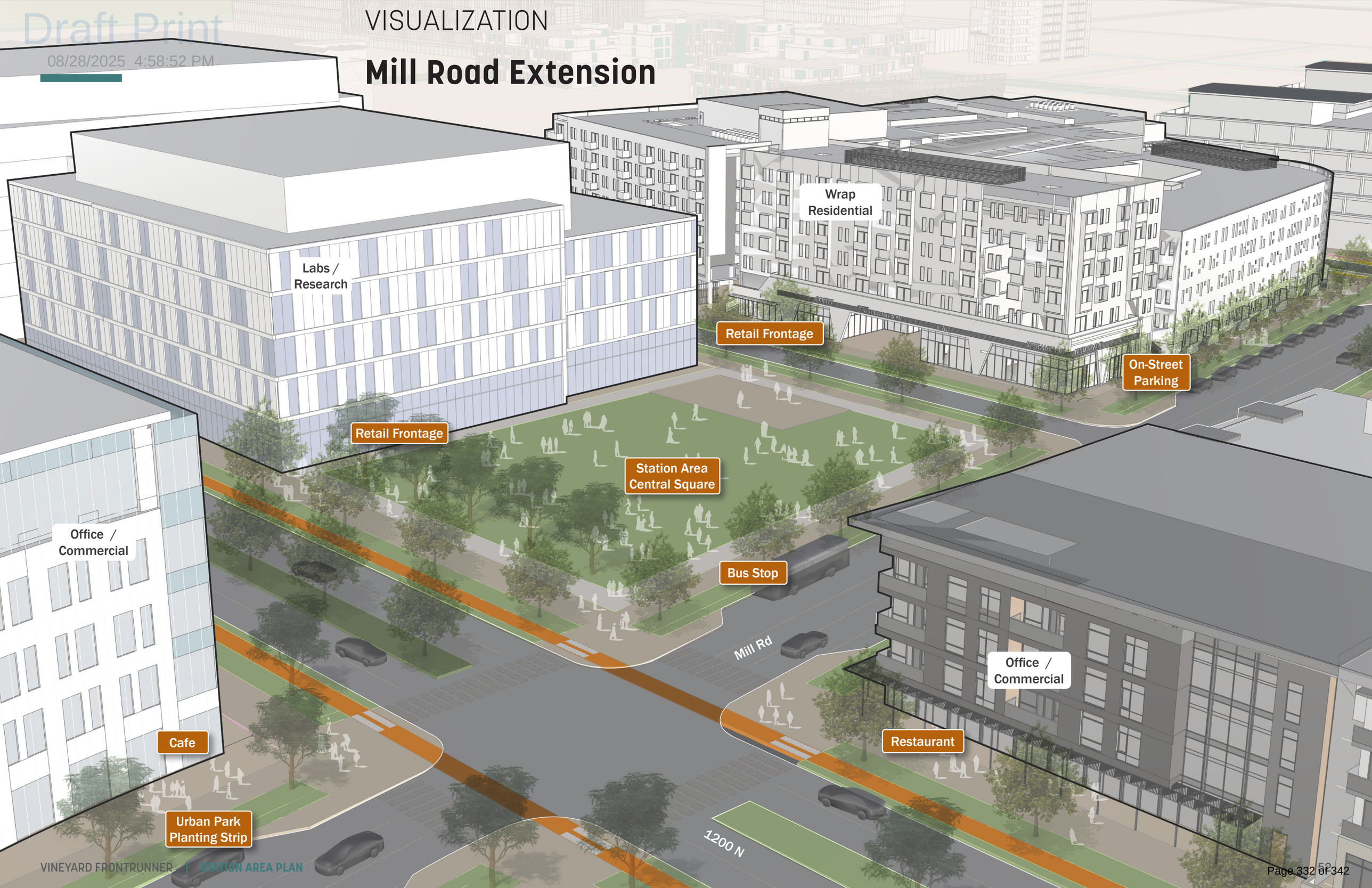
Connector Rd 86'ROW



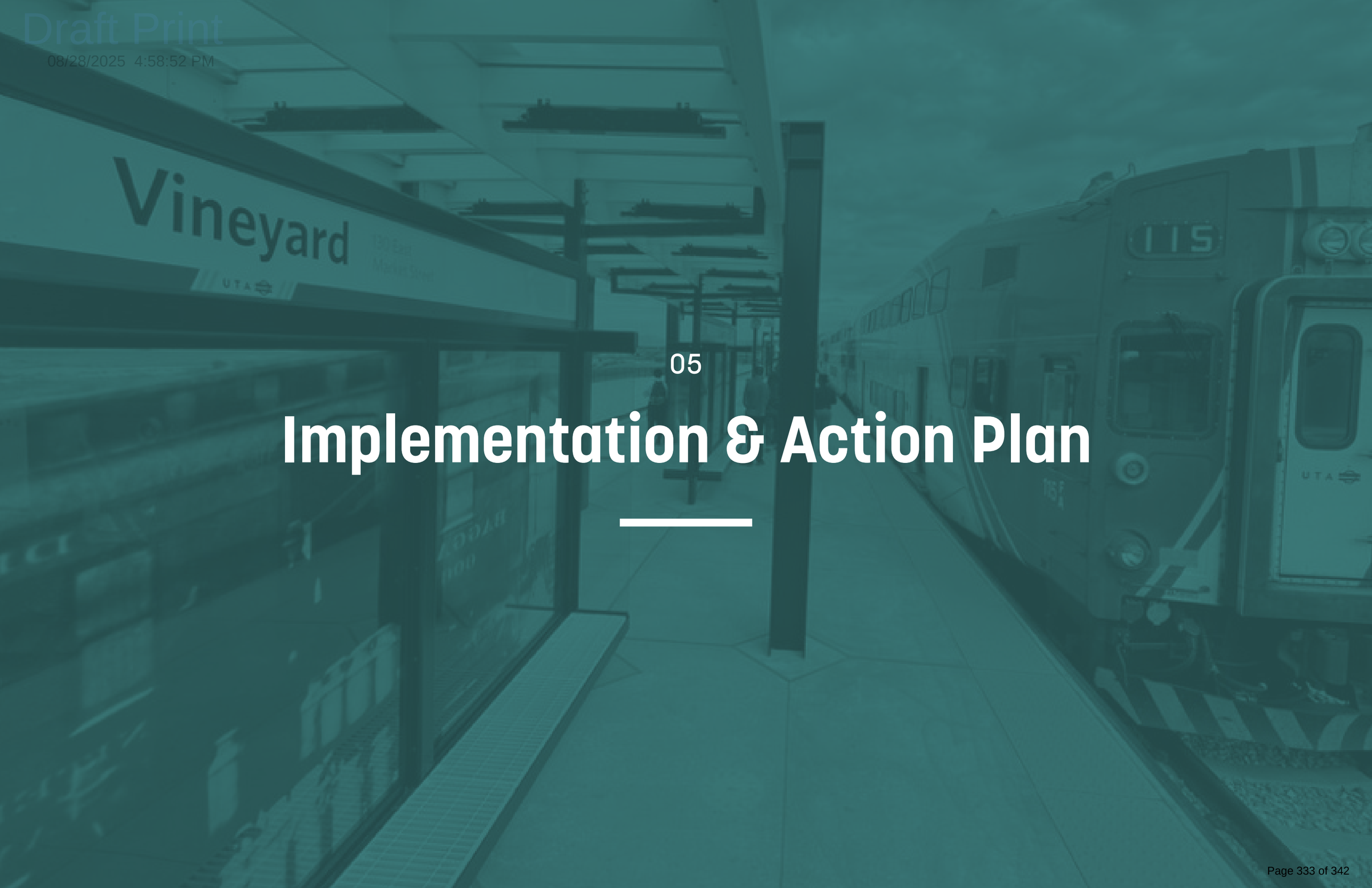
Draft Print
08/28/2025 4:58:52 PM

VISUALIZATION

Mill Road Extension



Draft Print
08/28/2025 4:58:52 PM



05

Implementation & Action Plan

5-Year Action Plan

The actions outlined in this plan are designed to support the implementation of the vision for the Vineyard Station Area. They focus primarily on the immediate and near term–roughly the next five years–and emphasize steps that local officials and their partners can take to help guide private development within the area. Each action includes recommended responsible parties and identifies potential funding sources to support implementation.

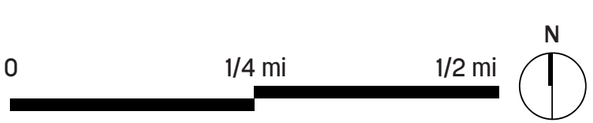
Draft Print
08/28/2025 4:58:52 PM

Recommended Action	Responsible Party(ies)	Potential Funding Sources
Establish Right-of-Way Overlays Establish right-of-way overlays on proposed 1200 N extension and Mill Road extensions through the Station Area Plan lands.	Vineyard City Community Development Department, Planning Commission, and City Council.	No dedicated funding required.
Update Zoning Update zoning to include districts that enable the mix of uses and proposed densities outlined in the Station Area Plan land use plan. Use street sections to guide required improvements to the public realm and the development of streets within private lands. Use plan visualizations to inform design standards within updated zoning.	Vineyard City Community Development Department, Planning Commission, and City Council.	No dedicated funding required.
Coordinate Infrastructure Planning Work with neighboring property owners to align planned infrastructure and elements of the public realm outside the Station Area Plan, including streets, walkways, greenways, and utilities with the planned alignments of these elements within the Station Area Plan lands.	Flagborough Development (i.e., Utah City developers), Utah Valley University, Martin Snow Properties and other adjacent owners	No dedicated funding required.
Coordinate Broad Plan Adoption Coordinate with property owners within the Station Area Plan lands to adopt the Vineyard FrontRunner Station Area Plan, including major infrastructure routes, planned land uses, planned development densities and typologies, and the area-wide open space network.	Vineyard City Community Development Department, Flagborough Development, Martin Snow Properties and other property owners	No dedicated funding required.
Prioritize City Infrastructure Projects Coordinate City departments to revisit and prioritize planned infrastructure projects around the Station Area Plan lands. Identify points of connection to the Station Area Plan lands and commence planning for trunk line extensions into the property along arterial roads.	Vineyard City Engineering Department, Public Works Department, local utilities, and property owners.	Federal and state grants, utility district, development impact fees

5-Year Action Plan

Draft Print
08/28/2025 4:58:52 PM

Recommended Action	Responsible Party(ies)	Potential Funding Sources
Establish Design Standards Using the recommendations of this plan as a starting place, establish design standards and/or guidelines for adoption within or alongside the City zoning code to inform and control future development within the Station Area Plan lands and fulfill the urban design objectives of this vision.	Vineyard City Community Development, Engineering and Public Works Departments.	No dedicated funding required.
Coordinate Housing Policy Explore opportunities to ensure the inclusion of affordable housing in those areas of the Station Area Plan lands that permit housing.	Vineyard City	No dedicated funding required.
Continue, Support, and Monitor Remediation Efforts Work with private landowners within the Station Area and applicable governmental jurisdictions to continue environmental remediation efforts on site and prepare the land for redevelopment in alignment with the vision outlined in this plan.	Vineyard City and property owners	Private funds, federal and state funds and grants



Draft Print
08/28/2025 4:58:52 PM

Proposed Zoning Plan

Today, most of the Station Area is zoned FOI (Flex Office/Industrial) and RC (Regional Commercial), with a very small portion in the northwest corner designated M (Manufacturing). These designations reflect the site's industrial legacy and favor large commercial or employment uses. While appropriate for the former steel mill property, they do not align with the City's goal of creating a walkable, mixed-use, transit-oriented district.

The Station Area Plan recommends transitioning the site to a combination of Flex Commercial and Mixed-Use Commercial districts. These updated zoning categories are designed to:

1. Encourage a balanced mix of housing, shops, offices, and civic spaces.
2. Support flexible development options that can adapt to market needs and environmental conditions as cleanup progresses.
3. Promote walkability and transit access through an urban street grid and active ground-floor uses.

By moving away from heavy commercial and industrial zoning, Vineyard will unlock opportunities for a more diverse economy, new housing choices, and a vibrant public realm. The flexibility of the proposed zoning means development can adjust over time while still contributing to the overall vision. This makes it possible for the area to evolve parcel by parcel as land becomes ready for reuse, without sacrificing long-term goals.

The proposed zoning is forward-looking. It sets the foundation for a Station Area that is people-friendly, adaptable, and attractive for investment–helping Vineyard turn a former industrial site into a connected community hub.

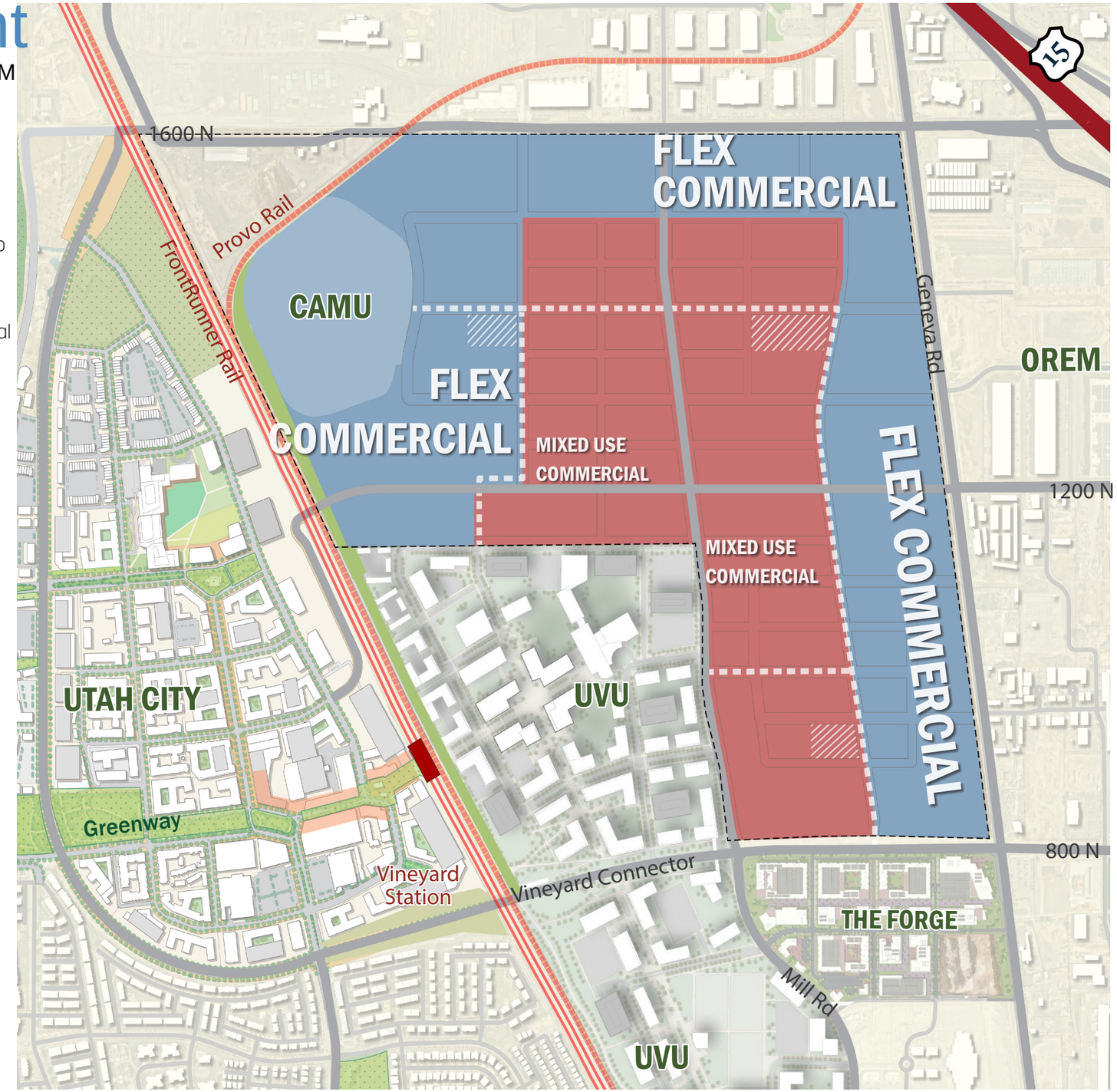
Zoning Districts

- VSA-MXD
- VSA-FLEX

Park Overlay Zone

- District Park
- Pedestrian Connector

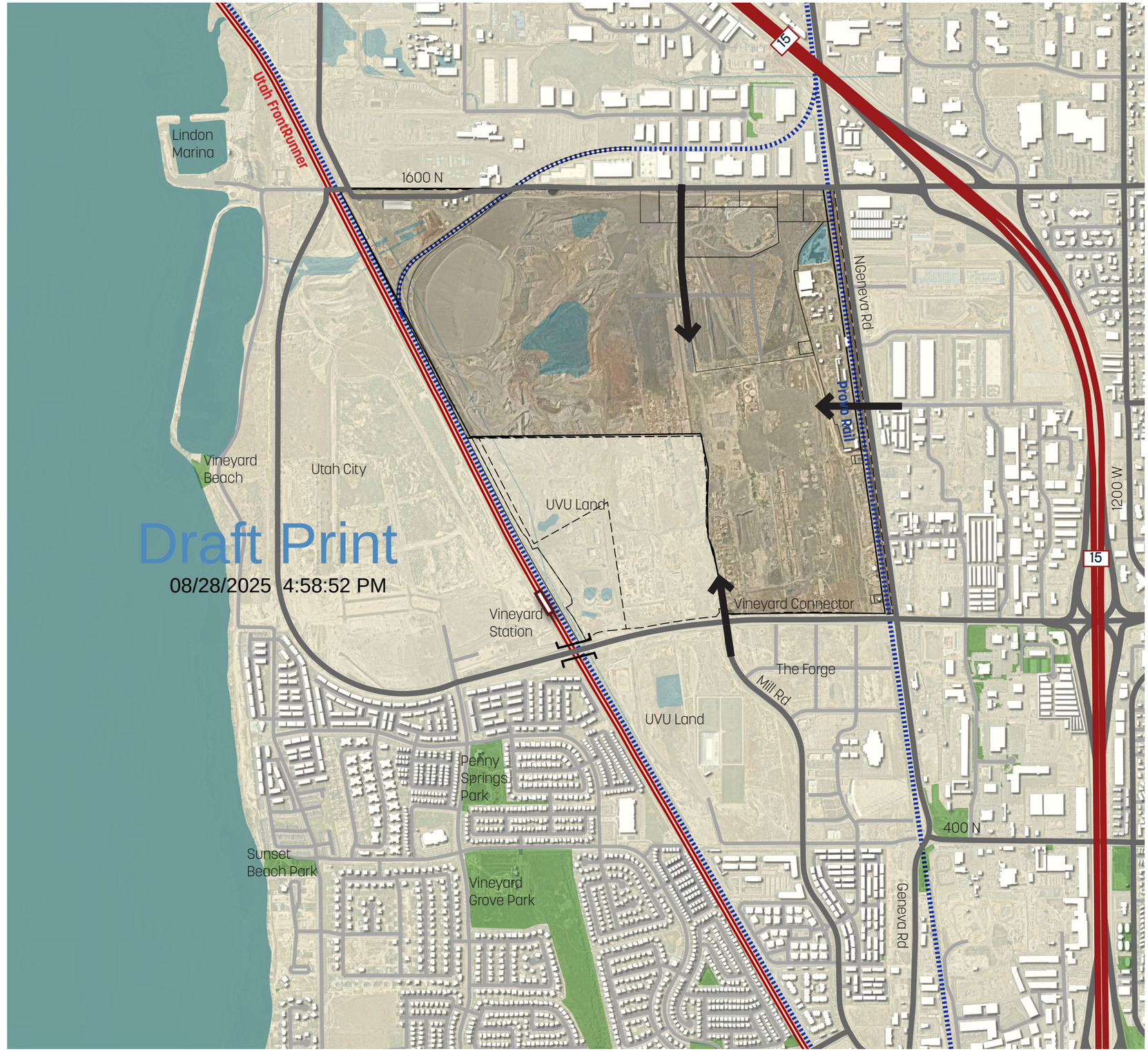
0 1/4 mi 1/2 mi N



This map is conceptual and for illustrative purposes only. Land use, layouts, and features shown are subject to change and are not legally binding.

Utility Infrastructure

Utility infrastructure servicing future development at the Station Area Plan site is expected to connect to perimeter roads and existing utility lines via the major connections of the 1200 N Street extension and Mill Road.



0 1/4 mi 1/2 mi N

Draft Print
08/28/2025 4:58:52 PM

Acknowledgment

This Station Area Plan report is envisioned as a dynamic document that will continue to evolve in response to changing conditions and circumstances. As such, it is anticipated that over the life of the Station Area Plan herein will be refined, waived, or amended to incorporate new conditions, special opportunities, and/or circumstances.

This plan will guide future work for this area and will identify specific steps for implementation in the first five years of the project. The plan will provide a coordinated vision for transportation, land uses, and open space for the approximate 430 acre site, and will provide a final report to be presented to the SAP Policy Committee, the planning commission, and the city council for approval.

VINEYARD STAY CONNECTED

MAG

SASAKI

ZIONS PUBLIC FINANCE

FEHR PEERS

VINEYARD PLANNING COMMISSION STAFF REPORT

Meeting Date: September 3, 2025
Agenda Item: Vineyard Regional Trail Enhancement Project
Department: Public Works
Presenter: Naseem Ghandour

Background/Discussion:
Vineyard City is working with the Mountland Association of Governments (MAG), the Utah Department of Transportation (UDOT), and Orem City on the Vineyard Regional Trail Enhancements Project (Project).

The Project adds a new signalized intersection at 400 South & 620 East (Holdaway Rd.) and constructs a regional trail segment with a HAWK pedestrian crossing on Center Street to improve safety, connectivity, and multimodal access. The total Project budget is $1,784,000, of which $850,000 is already secured; the balance is proposed for MAG funding.

The Project strengthens Vineyard's regional trail network and provides safer crossings on Center Street while accommodating growth near existing and planned activity centers.

Key scope elements:
- New intersection at 400 S & 620 E (Holdaway Rd.) with traffic signal infrastructure.
- New trail segment along the corridor.
- HAWK (High-Intensity Activated Crosswalk) crossing on Center Street for trail users.

City submitted a request to place the project on MAG's June 23, 2025 TAC and July 10, 2025 Regional Planning Committee agendas for funding consideration; total cost $1,784,000 with $850,000 already secured.
Project Description & Concept
Location: 400 S at 620 E (Holdaway Rd.) and Center Street trail crossing.

Major components (concept level):
- Traffic & Safety: intersection controls and signal equipment at 400 S & 620 E; HAWK beacon at Center Street; pavement markings and signing.
- Trail & Roadway Work: new multi-use path connection, curb/gutter, ADA ramps, sidewalk, limited roadway reconstruction, drainage features, microsurfacing where applicable.
- Structures/Landscape: minor retaining wall work; topsoil, sod, trees/shrubs; irrigation.
- Utilities: water reuse line relocation and minor structure adjustments.

Policy & Plan Alignment
- General Plan & Active Transportation Goals: advances safe pedestrian/bicycle connectivity across major corridors and links neighborhood trails to regional systems.
- Safety Objectives: provides protected pedestrian treatment (HAWK) at a high-demand crossing and improves vehicular/pedestrian operations at 400 S & 620 E.
- Regional Coordination: project is coordinated with MAG programming and aligns with

regional mobility and recreation priorities.

Estimated Budget & Funding

Item	Amount
Total Project Cost (Current)	**$1,784,000**
Secured Funding (grants)	**$850,000**
City Match	**$95,200**
Additional Funding (grants)	**$50,000**

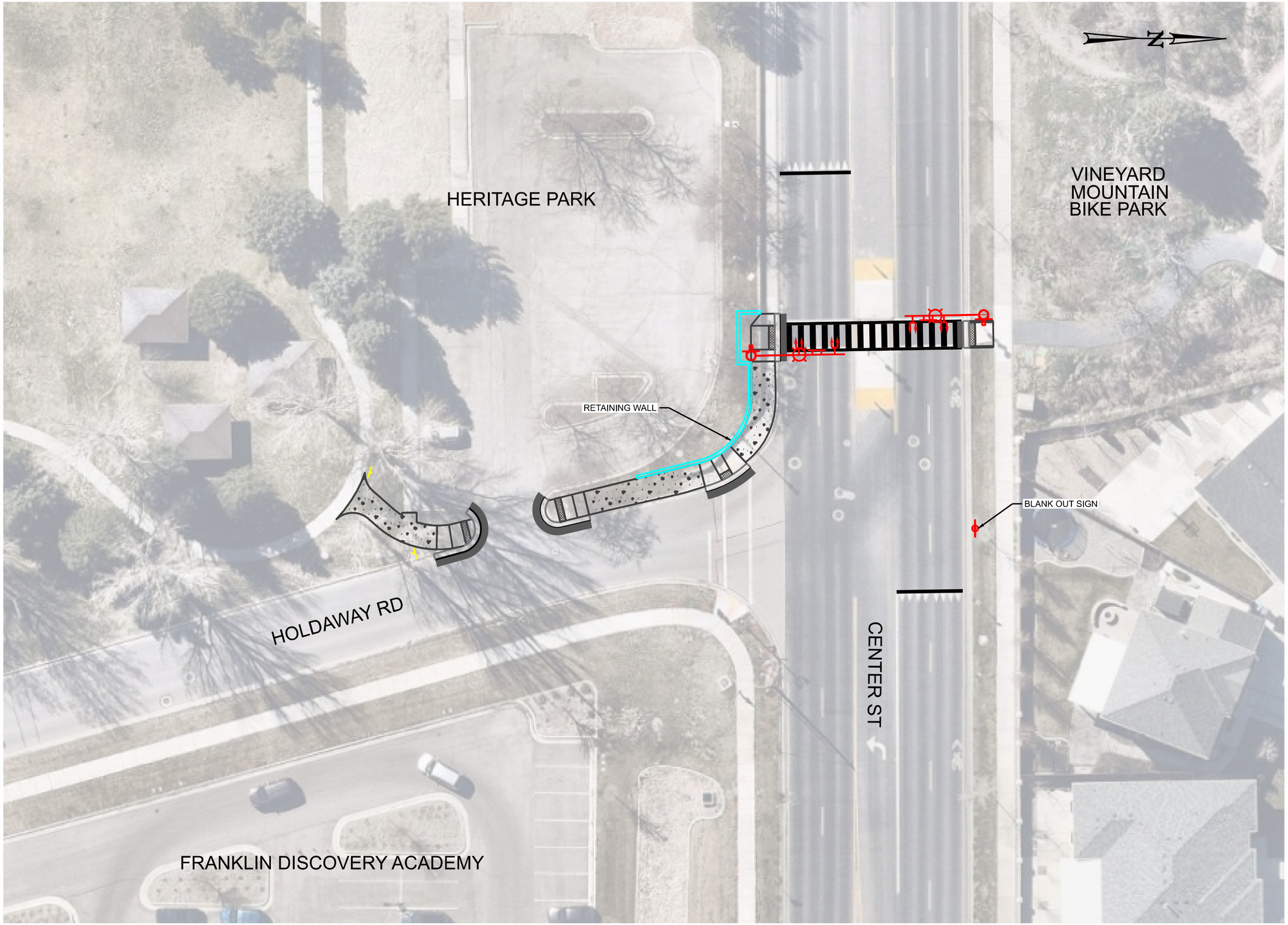
Schedule (Conceptual)
- Design/coordination: Current – September 2025.
- Construction (assumed): 2026 (subject to funding and final approvals).

Fiscal Impact:
$95,200, Approved in Current FY25 Budget

Recommendation:
None

Sample Motion:
None

Attachments:
1. CONCEPT - CENTER STREET
2. CONCEPT - 620 E

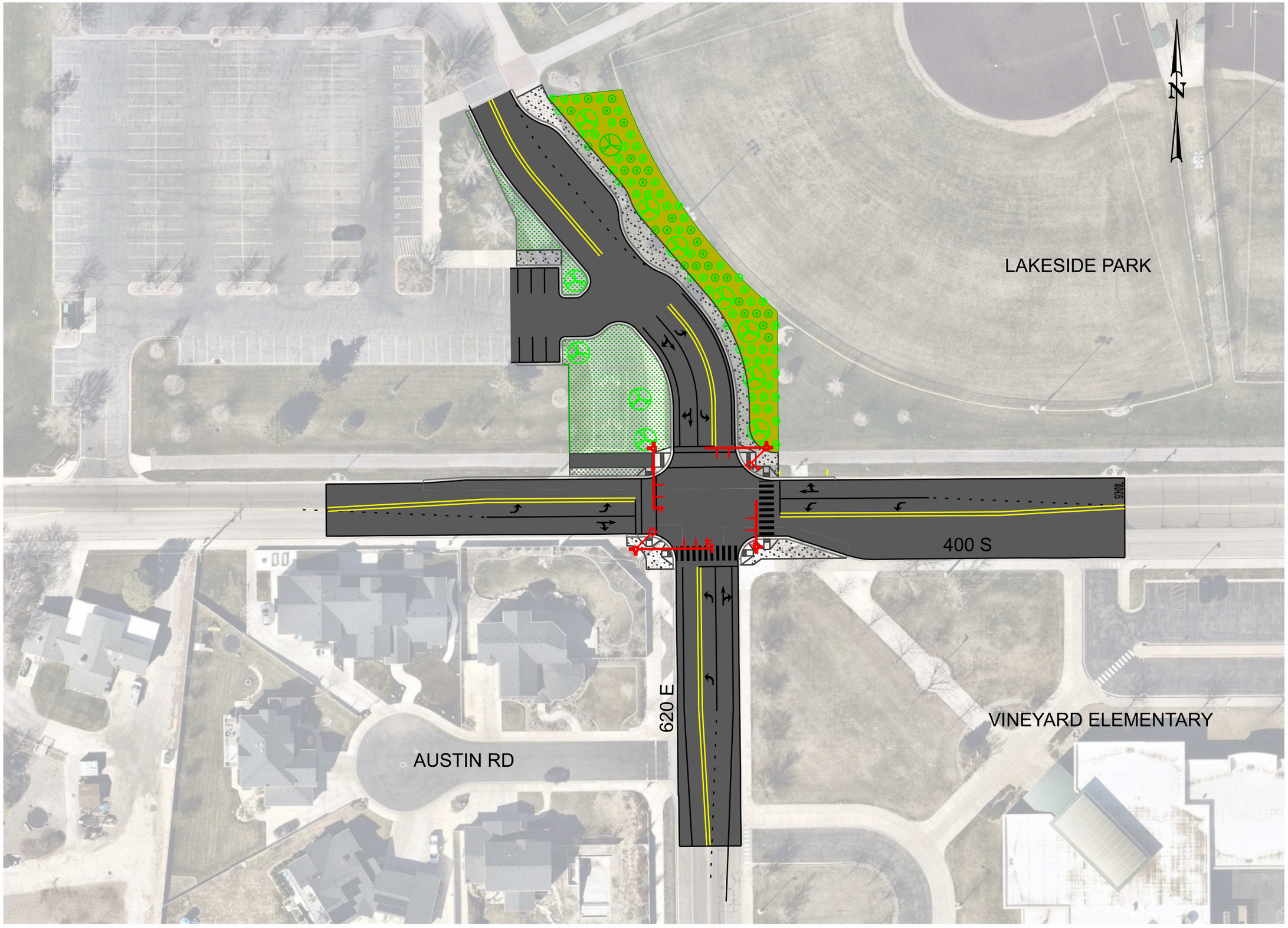


CONSOR NORTH AMERICA INC.
38 E Scenic Pointe Dr
Draper, Utah 84020
Tel. 801-495-4240

consor

PROJECT	VINEYARD REGIONAL TRAIL ENHANCEMENTS
PROJECT NUMBER	F-R399(425) PIN 20351

SHEET NO.



CONSOR NORTH AMERICA INC.
38 E Scenic Pointe Dr
Draper, Utah 84020
Tel. 801-495-4240

consor

VINEYARD REGIONAL TRAIL
ENHANCEMENTS

PROJECT NUMBER F-R399(425) PIN 20351

PROJECT

SHEET NO.

$$dgn$$ $$files$$